

Supplemental Information for:

Genes possessing the most frequent DNA DSBs are highly associated with development and cancers, and essentially overlap with the rDNA-contacting genes

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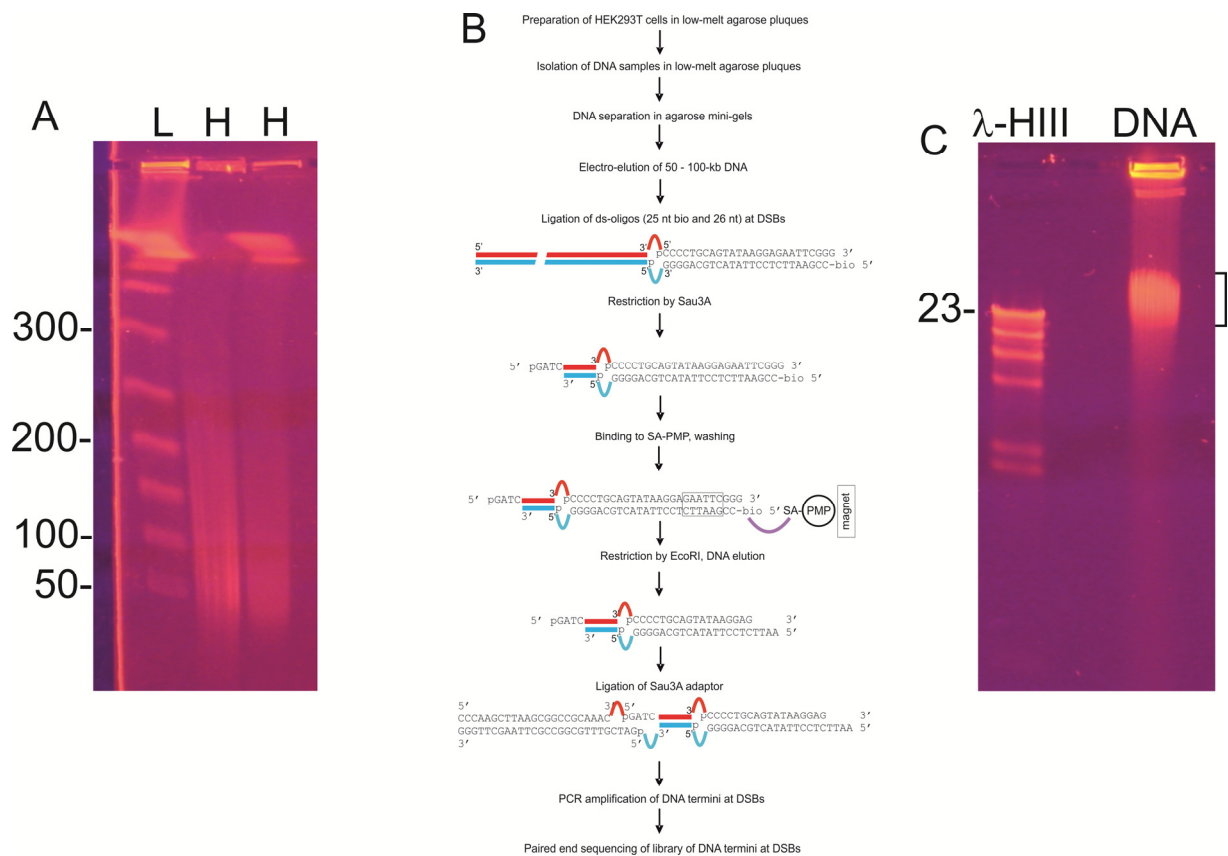


Figure S1. Separation of DNA isolated in agarose plugs and preparation of library of DNA termini at DSBs. (A) Pulsed-field gel separation of DNA samples from HEK293T cells (H). λ -ladder (L) was used as the size marker. The values on the left show the length of DNA fragments in kb. (B) The steps of the procedure used for preparation of the library of DNA fragments with DSBs. (C) Isolation of DNA fragments by separation of DNA-agarose plugs in mini-gel. The value to the left indicates the 23 kb DNA fragment in the λ -HindIII size marker (λ -HIII). The bracket on the right indicates the region that was used for electro-elution.

1772 rDNA-contacting genes possessing frequent DSBs

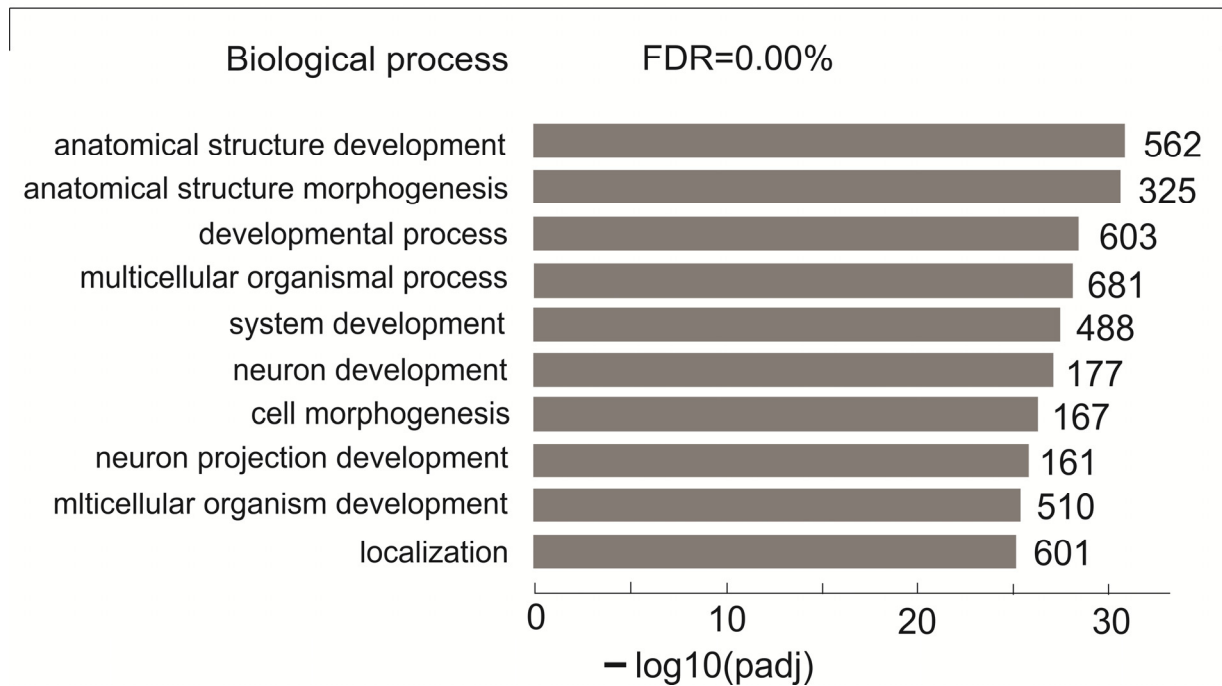


Figure S2. The characterization of 1772 rDNA-contacting genes frequently targeted by DSBs in HEK293T cells. Related to the Venn diagram in Figure 1C. The top ten Gene Ontology (GO) biological process associations of the genes. The values to the right of the bars show the number of genes associated with a process. The complete list of the corresponding genes is shown in Table S4.

Tables S1–S8

Table S1. GO associations with Biological Processes (GO Profiler) of the top 4920 genes possessing frequent DSDs. Related to Figure 1A.

GO.ID	Description	padj	Genes
GO:0050794	regulation of cellular process	9.84154956 8240879e-54	<p>CD247,POLDIP3,CLRN1,DNAH11,RIC8B,ENPP1,PRDX2,ADAMTS16,LDB2,GPC5,NRXN1,ASPH,B4GALNT2,PRMT3,GP6,PRKCI,SLCO3A1,MAP4K4,PDE4D,PDCL,DNMT1,S1PR2,HLX,TMBIM4,SLC9A1,PDE7B,C6ORF89,NEGR1,PBX3,ADCY8,MED13L,LMBR1,TRPS1,CBFB,PDE8A,PDE4DIP,ZNF823,CLASP2,SEMA3A,IL31RA,GRID2,TAS1R2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CHERP,MED26,DOCK1,WWCI,CLDN18,C12ORF49,CTDSPL2,FBXL2,RYR1,NRG3,ASH1L,NOS1AP,LATS2,NOX5,ANP32A,ASTN2,EPB41,SEMA3D,PHACTR1,DPP6,PTH2R,NREP,SCAF8,TIAM2,STOX2,FHOD3,KSR2,MAPRE2,NLGN4X,PTGIS,PRKAG2,WWC3,TJPI,GRM8,UNC5C,NUDT6,HPSE2,OR5P2,OR5P3,CLCN1,PRLR,MVP,PAGR1,ADCY7,HIVEP3,FTO,NPAS3,UTRN,RGS7BP,KALRN,PITPNC1,DCAF12,NTRK3,CBL,ARNT,ATRN1,PLEKHG4B,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,LRRFIP2,FLT3,RAD51B,STAT5B,TOX,ENPP2,KCNQ5,GRM5,PLCE1,LHFPL4,SAMHD1,ZNF566,FER,CASK,MARVELD3,MAPK4,MAP2K5,KITLG,KCNIP4,MAPK10,PTPRR,SPNS2,LRP2,PIK3CD,ZNF536,SP3,DEPDC5,HGDF,PRCC,ANK2,EIF4G3,SAAL1,OLFM1,SH2D1A,EZR,IKZF2,MEGF10,NRXN3,ROBO1,MALRD1,TOM1L1,TNFAIP8L1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,MECOM,TAC1,TENM1,CAMKMT,RYR3,LMNA,NUCB1,GOT1,NMT2,INPP4B,TRAF6,ESRP1,ROBO2,ITPKB,CTNNA3,DNAJA3,OXR1,SLC24A2,VAV2,GRK5,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,CDC6,PSMB7,TSC22D3,CNIH2,SRGAP3,MCC,TSSK1B,PCDH17,KND1,ZC4H2,KIF26B,CCDC22,DSCAM,STK38L,SRGAP2B,CDAN1,GMD5,SAMD12,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,GF11B,PDE1A,PARD6G,PTPRK,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,ERC1,HMGN3,NRIP1,RGS6,DGKI,ANKS1B,THRB,STXBP4,PDE4A,ERC2,GABRA3,EFCAB7,ITGB3BP,LAMA2,GFR2,MAST4,IL17RB,TCIRG1,DACH1,PTPN11,ZNF569,KCNS3,NETO2,HERC4,MGAT5,CCT2,CACNB2,DOCK10,ORC2,CYTH3,HDAC6,GOLGA4,SERTAD2,DDI1,MYT1,ADORA1,GPRASP1,ADAMTS3,EPHA1,IKBK,EIF18B,PEX14,ERBB4,GBE1,ADRA1D,SORCS1,MRE11A,GBF1,LIMK1,ZNF609,TLK1,BRD8,ATP8A2,KAT6B,ABR,HIF3A,SNIP1,CUL4B,KLHL6,ESR1,KCNJ16,NPHP3,GRAM7,MIER1,PCBP3,PMEPA1,MAML3,DPP10,PTPRO,CDON,NTRK2,TNRC6A,FRMD4A,STX18,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,RGS22,ZNF471,FNTA,HOKK3,PDGFB,CACNA1B,RIMS1,TNIK,CCND3,CDH8,USP46,TOB2,MID1,ZNF19,ZNF23,BRMS1,CHFR,ZNF605,SCML4,BPI,STK39,DAP3,HNF4G,INSR,FMN2,RERE,PRKARIA,ASB5,AFAP1,FUBP1,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,JMJD1C,CAB39,USP34,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1,LITAF,FBXW11,ESRRB,MYO1,MAP3K4,ZDHHC13,PTPRD,RNF144A,BASP1,EGLN3,RBM20,SLC4A10,TBR1,CATSPER2,SAMD4,BDNF,TFAP2A,AMIGO1,CDK14,FANCA,KCNMA1,PEG3,ZIM2,CHRM3,TGIF2,TGIF2-C20ORF24,FUT8,OR2T3,NPRL3,PHACTR4,MEIS1,TENM4,GRIK4,VRTN,KCNRG,TIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4,EDARADD,IL5RA,ENTPD5,SHC4,ECT2,TMC2,ZNF148,MTA3,SNX6,TFDP2,CHML,VAMP7,LAMC1,PPM1L,ARHGAP42,CST2,PTCD3,PTPRU,RFTN1,ERN2,CDC45,LSP1,CID,AP3S1,NPLOC4,AFF3,SGCD,DENND5A,DMD,CENPF,ATG10,LRRN2,SLC30A9,TOX3,PD55A,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,GPR171,MED12L,SATB2,PAFAH1B2,RIT2,HIRA,TANC2,JPH2,DRG2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,ADAMTS9,NF1,SMG7,PLCB1,DST,MGMT,LMTK2,ARID4B,SNCB,PPP4R2,FAT3,RTN4,AFF2,RXFP1,DPEP1,CHRD1,DGKH,APOD,RTN4R,BCR,PPP1R12B,RWD3,BRPF1,SHISA9,CHI3L1,TTN,NDRG4,ICA1,BMP2K,PAQR3,IFI30,PIK3R2,CACNA1E,RANBP9,KLHL21,NTN1,EGFLAM,DCTN1,NOMO3,NRG1,ARHGAP10,SH2D3C,CDK19,SLC43A2,UBP1,BDKRB1,BDKRB2,DOCK8,BID,FRY,MAP2K1,KCNIP1,MDFI,FNIP1,RAPGEF6,STIM1,VAX2,NALCN,RALGPS2,MYH9,FRMPD4,MAD1L1,LRFN5,DAGLA,TMBIM6,VGLL4,PPP2CB,CNTN4,PPP3R1,HDAC5,CSRNP3,RBM5,NTNG1,VSTM1,ZNF692,OR6N2,NFIA,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,INPP4A,ITIH2,CDKL2,ROR2,DCN,ZDHHC3,SLC39A14,SCFD1,CATSPER3,PCBD2,HNRNPLL,DOCK2,CDH13,CREBRF,TRDMT1,SOX13,FHIT,WDR70,PTPRT,AUNIP,UST,COPS5,CSPP1,PPP1R42,FGF14,EXOC4,IPO5,ARHGAP32,MAD2L2,TFLE6,RAB27A,RGS8,CAPRIN2,CCNYL1,ZNF418,NLN,NCKAP1,PHF20L1,DEFA1B,DEFA3,CD99,RAB3C,PDF,TERF2,PTGER2,RALGPS1,SLX1B,ZNF286A,GOLPH3L,FOXN3,RCC2,BOC,ANO6,ARL3,CERKL,NEUROD1,GNAQ,KIF2A,FBXO9,ICK,TMEM117,RAD51D,RFFL,RANBP1,CCBE1,DENND1A,HERC5,USP22,ZDHHC15,JAK2,YTHDC2,FAM168A,TRAPPC9,FBXW7,LINC00473,KCNB2,OAZ2,SYN3,SKAP1,SMC3,CLSTN2,UIMC1,SYT1,ITCH,MLIP,CROCC,NPSR1,ZFYVE28,BBS12,LZTS1,BCL11B,SMG1,SCN4A,RBFOX1,TMC1,PKNOX1,DTHD1,CLDN1,HUNK,MLLT3,TSHZ2,ATP9A,ARAP2,SLC9A7,CDC42BPB,PLS1,TEX11,DOCK9,SH2D6,TCF7,PDE2A,SEPT7,KLF15,TBX15,ANXA4,LAMTOR3,MAGI1,KCNC4,CYFIP2,WNT11,ARHGAP23,IFT80,TRIM59,APBB1P,FIG4,MTA1,KREMEN1,NRG4,KLF8,CLPB,NOX4,LCOR,SIPA1L3,RPRD1B,MKLN</p>

			<p> 1,CACNA1H,SLAH1,QKI,IL1RAPL1,CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,BANP,PLCXD3,SGK1,SPSB4,NUP93,MMP28,TRIM65,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,KEL,BTRC,DUS2,NFATC3,JPB3,CRADD,DLGAP1,F2RL1,BCAS3,C9ORF47,GRIK3,CDYL2,RPGRIP1L,DNAJB2,CELSR1,SLIT3,AAK1,CC2D1B,ZFYVE9,SLIT2,ASB15,COLGALT1,TP73,GABRR3,CADPS2,ITIH4,GABRB1,SYT13,HHAT,GPR176,HP,HPR,CORO1C,SAP18,RRAS2,CTNND2,ZBTB22,C12ORF4,OR9A4,ILF2,DISC1,BLID,KCNJ3,CEP135,KANK1,CACNA1D,ZFAND2A,PTPDC1,CACNA2D3,LAMC2,CLN6,MTDH,ANK1,CLMN,TTBK2,FANK1,XPR1,MYT1L,KDM4B,CHRM1,RAB11FIP4,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,BNC2,ZNF398,CLOCK,ITSN2,TCF12,ZNF675,SMOC1,PLCB4,ETV6,NELL1,SUCO,KCNH1,TFAP2D,BMPER,TIMP2,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,SND1,DAPP1,ADAM12,DUSP22,GPR52,NAIP,HNRNPC,TRRAP,ANKFN1,HOMER2,SLC17A7,DOCK3,SBNO2,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,FBXL17,RASA4,RASA4B,ARHGEF28,SMYD3,STXBP5,KCNH7,KANK4,KCTD10,IL1RAPL2,IQ-CJ-SCHIP1,SH3RF3,LOXL3,RHPN2,MAST2,FANCI,SVIL,GLP2R,ADCY2,CAPN3,SLC16A1,LUM,VMP1,SMURF2,EPHA4,RORA,HIVEP2,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,OR51B2,OR51B4,OR51I1,UBQLN3,GNG4,NFYB,MAGEA4,MAG,KLF12,CAMK4,GATAD2B,PIP5KL1,UFLI,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,FCGR2A,FCGR2B,FCGR3A,FCGR3B,ARHGAP22,SMARCC1,KLF17,CDHR2,IGF1R,PPARG,NGRN,AXIN1,GARNL3,PRKAR1B,OTUB1,DLG5,IL18R1,IL1RL1,ADD2,CIPC,MTF1,MSR1,CELF2,CBX5,P2RY10,TRPM1,ANKRD17,CYBB,XK,CASKIN1,APOL3,SCAMP5,BRIP1,ANXA13,ANKRD26,ECM2,LRPPRC,SRBBF2,KCNJ12,RYR2,CDK11A,KCNA6,FBLIM1,CDK11B,DRAXIN,LEPR,LEPROT,FGF1,NIN,PROS1,RGS10,NPAT,NR4A3,FOXK2,NOL3,DCT,PRKAR2A,RIOK2,ESCO1,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,PER2,KIR2DL1,KIR2DL4,KIR3DL2,AJUBA,CACNA1C,CPNE6,GLG1,ZNF626,ZNF737,SCN3B,CHEK2,SUPT3H,PHLDB1,UBQLN4,PRDM16,MYO1E,ASB8,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,CSPG4,GRM1,BRMSIL,RIMS4,DCC,ZBTB8A,ZBTB8B,ARHGAP31,P2RY14,ANKFY1,CTDP1,BAZ1B,OBSCN,RGL1,NF2,FLT4,MEF2B,SGMS1,BICC1,HDAC4,PAX2,PHF5A,TNS3,SECISBP2L,SPTBN1,TPTE,ELN,TRABD2B,SFRP1,MED13,ST8SLA1,PPP6R2,ZNF395,FOXO3,DGKB,TRHDE,ARL13B,CNTN6,NFIB,MUC12,SP4,ARHGAP29,ZCCHC17,IFT122,BCL2L13,DNM3,SSH1,CELF5,SYNCRIP,SMAD3,RNFT2,CUX2,ITPR1,PTPRM,WWP2,ARNT2,SBNO1,ACKR2,KRBOXI,ZNF662,ZNF777,SIMC1,WIP1,EBF3,MTBP,RNF168,CASZ1,ABI2,C10ORF90,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,IFNARI,DCP1B,ORI4K1,MIER3,NEDD4,NRP2,ARHGEF18,VANGL1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,HOXD4,KPNB1,NAV3,SLC4A4,ZNF114,TAB1,SLC6A1,KT12,TXNDC12,NFATC1,RAB6C,PRGTG,CDC73,APP,SSBP3,GSX2,PDGFRA,BET1L,SLK,FCRL4,ADD3,RBM8A,CCN12,DIP2B,NOXI,ARIH1,YAP1,HEG1,AMFR,RAB11FIP5,SESN1,CDK3,TEN1,FSTL4,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D19,BORA,IBTK,NVL,JAK1,ANGPTL4,LRP5,MTCP1,MUC20,POLR3G,PTPRG,ISLR2,SLC9B2,ZNF787,GNG2,SOX2,SETD2,ZDHHC6,GPC6,KIF24,CHST11,TEAD1,PRICKLE1,RCAN1,ZNF653,SPTBN4,GRIA3,VASH2,ZNF521,DRD1,TMEM14A,GLRA2,ARID3A,ZNF761,CHUK,ERLIN1,FRS2,PALB2,SFMBT1,VILL,MMP2,ZNF584,SERGEF,TPH1,ESR2,SYNE2,S100A12,DCUN1D3,CPNE9,KDM6A,PRKD1,STAT1,CELF6,PARP6,ST18,DGKG,ETV5,RHOXF2B,RND3,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,LRRC2,TASP1,SHANK2,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,FXYD2,FXYD6,SEMA6D,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,GRAMD4,TMEM237,KCNG4,RAF1,CELF4,RASGRF2,ZNF766,ACOX2,CARD16,CASP1,PTPN1,ADAMTS12,SRRM4,BMPR2,USP33,DPYSL2,VBP1,CAMK1D,BMPRI4,ZKSCAN1,PABPC4,TSPAN12,NLGN1,BTBD10,COL16A1,CTNNA2,IKZF4,PIK3R3,CDK12,TA8,CAND2,SPAG9,MORC2,DENND4A,RAB11A,CRMP1,EVC,PDE11A,EFG5,MYB,FGF2,ZNF71,LRRC4C,POU6F2,BACH1,GRIK1,OR6C70,MXD3,PPM1F,TICRR,ADCY5,GLI4,ZFP41,NEDD9,AGBL4,BEND5,PEAK1,SEMA4D,NFX1,CDC27,DOK6,RORC,MCTP1,ELP3,PLXNA2,PTAFR,ADCYAP1R1,SP140,SP140L,SETD1A,RHOXF2,YME1L1,ABCA13,JARID2,RILPL1,ANKDD1A,DDX58,DKK2,SORCS2,RAB11FIP3,BRDT,PHC2,ITGA11,PI4KA,RARB,SPEN,PIK3C2B,PRKCG,SIN3B,VIPR1,NCOA1,SPOCK1,AREL1,BLOC1S5,EEF1E1,EEF1E1-BLOC1S5,TXNDC5,GRIA2,EHMT1,GAS8,LMO7,AP2M1,CHRD,DVL3,ECE2,EIF2B5,EIF4G1,EPHB3,PTPRE,RBX1,TCF20,ANAPC5,ARHGAP39,ATF3,LIN28B,ATP6V0B,SHOC2,SRSF5,CKS1B,PAWR,EBF2,AGO3,DEPTOR,DLEC1,PKN3,FBXL20,MAML2,TSG101,DES1,CCDC3,VCL,LAMB1,TERF2IP,CLIC4,MYO9A,CRYM,IDE,WDR59,KCNQ1,RFX2,WNT3,RCE1,ZNF322,RHOJ,P4HB,CCL14,CCL15,CCL15-CCL14,SUFU,TG,MAGEA11,NLGN3,PTPN13,SCUBE2,PAFAH1B1,KIF3A,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,FAM13A,CNTFR,COL4A3,TRPA1,DDAH1,NMUR2,ZNF354C,HIP1,AKAP6,RASAL1,TCEA3,PADI6,ZNF704,BTBD9,NR2C1,TRPC5,UBA2,IRS4,GLI2,NEO1,TNKS,SCUBE1,WBP2NL,ERCC1,RUFY3,TNRC6B,GLIS3,GPR39,WDTCT1,ZNF664,STON2,MGLL,DAB2,THEMIS,BLM,PKHD1,USH2A,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DZIP1,SMG5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,ABCB1,OR5H2,OR5H6,OR5K4,RSP02,COMMD6,GUCY1A2,CSF3R,KCNQ2,DOCK11,GMEB1,PELI1,PPP2R5C,CFDP1,IQGAP1,MAP3K7,APOLD1,DDX47,TAS2R41,ZNF423,SP1,OR56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,STAU1,CLASP1,DSC </p>
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		<p>2,TEAD4,FASTKD5,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,MBOAT1,TPCNI,GP M6B,ADIRF,CLIC5,XDH,AHNAK,LTBP1,OVOL2,SNX5,NFATC2,RBBP6,OR6C74,PR KG1,PAX7,RGS7,BNC1,ATP2B4,NSF,PACRG,PACSI1,SPTBN5,ACTL6B,ASXL3,PA K3,SSH2,TET1,CAMTA1,CCPG1,DYX1C1,P2RX6,ASGR2,ATAD1,ADNP,GPR161,MA PKAPK2,ARID4A,MAP1B,CDC42BP4,COL4A6,MPHOSPH9,SCARB1,MARK1,CDK6 ,ATP6V0A2,PHF2,KCNAB2,CELF1,P2RY8,RNF34,TFRC,UVRAG,EPHA5,SORCS3,W WOX,GABRG3,MEF2A,SYT12,CR1L,ADCY9,CACNA1A,DCAF6,DCUN1D5,DROSH A,FNBP1,GFRAL,GPC3,SGIP1,STOM,XRN1,ADRBK1,SATB1,TBC1D5,PSMB2,ZNF2 07,EYA1,GATAD2A,PTGER3,SCOC,BRINP1,DIS3L2,GNB3,SHPK,TRPV1,RBM12B,T SPAN6,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,CLEC16A,GHR,MNAT1,FLRT2,FGD1 ,SNX9,ACTR2,L3MBTL4,ELAVL4,LGI4,HDAC1,INVS,RECQL5,C2,SMOC2,TRIM24, ADIPOR2,PLCG2,ROCK1,EPSS8,NID1,SCMH1,C1QTNF1,PAXIP1,ZNF713,EGR2,HI PK3,RNF10,RYBP,GAPVD1,CAPN10,GPR35,CUL2,AP3B1,PTPN2,INSRR,NTRK1,K PNA6,TRIM44,ZFAND1,MAP1A,PKN2,PPP1R9A,TMIGD1,SLC39A10,EIF3A,ANK3, DNMBP,UNC13A,EPHB1,PDE6A,EPHA10,PTPN9,AXIN2,SARM1,EPCAM,PARD3,R CAN2,ZNF425,GNL3L,MUC1,PTPN14,TRIM46,TUB,SH3GL3,JAG2,KCND3,BCOR, CACNG8,AP3D1,ZNF41,CARM1,VWF,AP2B1,NETO1,ZNF383,ANXA8L1,ADAM19,A RHGAP44,SNX33,PIFO,CD84,HTR1D,LPA,ZNF616,ZNF836,SMARCA2,ARHGEF3,C UX1,RAD51C,SP11,DGKK,DNMT3B,EPHA7,CHRN4,FOX2,MCU,RANBP10,PTPR A,CTNNA1,LIMA1,AIFM2,FBXW4,PSPC1,GLIS1,SFMBT2,TRDN,ATG14,EIF3H,GAB RA6,LY86,STAC,BCAR3,JAZF1,STK38,TRPC6,ABC7,ACOT8,RBPM5,RENBP,CHU RC1,CREB5,FCHSD2,MAP3K13,OTUD3,RAB15,RAPGEF3,PDXP,SH3BP1,MST1,ER CC3,PTK7,SMYD1,SNCA,BMPR1B,CACNG2,CD53,GRM4,MAG12,PRIM2,USP42,PN PT1,USP50,ZEB2,DHRS4,CABLES1,FOXJ3,SYT9,HEY2,RC3H1,CHMP3,EIF3E,CNG A3,RNF19B,WNT7B,PTPRS,ZMYND11,KMT2D,PRKAG1,CDKL1,CREM,PSMF1,RA B5B,KMT2C,CAST,TRIP12,DFFA,SPPL2A,ADTRP,ABCA12,GN7,PLD1,RASA1,MA CC1,MITF,SRSF6,OPRD1,CABIN1,HIPK1,NUGGC,PKP2,RPTOR,RTN4RL1,NFIX,B TK,SIGLEC9,TBC1D16,XPO4,ZNRF3,KCTD13,MLLT1,SLC4A8,TROVE2,CBF42T2,I GF1,MLXIP,PLA2G4E,STX8,ATF7IP,CTNBNB1,HTT,DYSL3,MAPK1,PTEN,ARHG EF17,MIB1,SPRED2,BMP7,SCN8A,ATXN2,MXI1,PIK3C3,PUM1,RASA2,SOX5,CIR1, PCBP2,PRCP,RAB30,ZNF780A,ZNF780B,LRKK2,ATP6V1A,MLYCD,OSGIN1,GNA1 4,TMEM59,ZRANB1,EBAG9,SPAG5,UNC119,ZBTB20,CHMP5,CNIH3,RAPH1,RFC3, BAG6,LILRB4,MORC3,IFT81,TMCO1,TMEM108,ITGAM,ARHGAP25,IL11RA,NSG2, PKD2,ZNF652,EFNA5,SHANK3,KCTD1,STMN4,RIPPLY1,RCOR3,TADA2A,DAZL,B TBD11,RGS9,PDGFC,SERPINA3,SERPINA4,SERPINA5,AMOTL1,FAM13B,NCOA3, PK1B,MTMR3,ZNF146,ZNF565,PPP2R3C,TBCD,WNT7A,ZBED6,BRWD3,NLRP1,RP S6KC1,UACA,LPGAT1,MAP4,CRTC3,DNAJC1,GPR141,ARNTL2,ELOVL5,PLCL2,K AT6A,MTIF2,GPR21,RABEP1,TTC28,RHOT1,SIK3,ZKSCAN7,ZNF197,ZNF660,BMP 6,TAF15,MYCBP2,NFE2L1,ANO1,GPI,IL17RD,SH3RF2,SOS1,TSHR,WDR43,ZNF30, EXT1,N4BP1,PDCD1LG2,ATRX,DPH6,PRICKLE2,GABRR2,IKZF1,PRMT2,RAPGEF 2,ASCC1,KCNC2,SMO,VRK3,RALY,ENPP3,BLOC1S3,MARK4,PRKAR2B,STXBP5L, CPT1A,PSEN2,TCF4,TNFRSF11B,PAG1,SYT17,SOX30,DNAJC6,TFE3,UBR5,GRB14 ,GRIN1,JADE1,KCTD8,ARRDC4,RHOA,SPRTN,WSB2,OR4M1,OR4N2,SYNGAP1,VI PR2,GRIN3A,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,FAM19A4,CUL3,SH3KBP1,TF EC,HSPD1,ITPR2,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,PRR16,DNAJC3, GNG12,RDX,STAT6,ACTA2,SYN1,MLF1,EEF2K,FAM49B,IWS1,PPP1R16A,PTPRB,R BBP8,NECAB2,CDK13,STK32B,CD27,DUSP26,ITGBL1,MCTP2,SCN9A,BOK,RNF14 4B,SULF1,ZNF362,KRT8,NACC2,RNF43,SUPT4H1,TNFRSF8,ZNF354A,AGT,HDFG RP3,METTL16,CCNJL,POLH,PRKAA2,SYT7,ADAR,BLOC1S6,CUL9,FBN2,PITPNM 2,STAT2,ZMPSTE24,BRINP3,HRH4,NDRG2,PTK2,TPPP2,LAT2,PEX5L,SNX3,PDE4 B,RIMS2,PBX1,TCP11,TEC,EXOSC3,FBXO10,SHB,VEPH1,CDC14A,GAP43,MAP3K 5,CPE,SEC16B,TCFL5,CREBBP,IQGAP2,PRKD3,UTP20,APCDD1L,DLX1,FMOD,I NSL6,PCSK6,CEP70,GTTF2IRD2,NCF1,SLC29A1,TAOK2,UGT1A1,UGT1A10,UGT1A 4,UGT1A8,PYGO2,SHC1,ZNF813,ARHGAP15,CD160,ECE1,KCNJ15,LBX2,PARP10, RNFT1,RPS6KB1,STC2,YLPM1,DPRX,GPR173,GUCY2F,PRG3,SCEL,SERPINB1,S ETDB2,ANKS1A,ITGAL,ALOX5,CPLX2,DNAJB6,SP7,CD44,FGD3,LARP4,ADAM8,S LC5A3,CLDN4,PACSI2,RPS6KA5,ZNF484,BCL2L14,CDS1,ZNF93,CSNK1A1,GRID 1,HUS1,PRDM2,CXCL17,FCRL6,FGD4,NOS1,ZNF44,GCKR,MED15,PLEKHA1,PLV AP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,TCF25,ZFAND6,DRAM1,ZNF 282,MARK3,SPEF1,EPHB2,SLC1A1,WLS,EDRF1,SIGMAR1,TMEFF2,XCR1,BCO2,C LPTM1,IL18,DTNA,LRRC52,MFSD8,UBE2K,GPSM2,DNAJC7,HCAR1,HCAR2,HCA R3,DIS3,DLCL1,PPARA,PPP1R10,ARID5B,CALCRL,MCOLN1,EPB41L4B,SLC25A33, SMARCAL1,PHLPP1,MAGI3,CPEB4,GPSM3,MOB3B,NOTCH4,SYTL4,ZMYND8,ZN F366,CRX,FBN1,PAX6,PRKCZ,ZC3H4V1,FAM20C,ADORA2A,GRIN2B,PPP1CC,RA BGEF1,CCNG2,CPEB1,PHLDB2,PLCXD2,TYK2,OTUD7B,DENND4B,NIPBL,TMIG D2,YEATS4,CNRIP1,COL28A1,PHF20,ZNF143,ASPN,ANGPT1,BRF1,CADPS,TBLIX ,EYA3,FHL2,FRMPD1,LRKK1,MBTD1,OSBPL8,ATF6,ZBTB5,ZNF708,IGF2BP3,EPB 41L2,GCNT2,ETS1,PPP1CA,TBC1D10C,VWC2,ARHGAP21,GR1A4,MAP2,MTF2,RB MS3,CCL22,STPG1,BTN3A2,TAGLN3,FBXO31,ATG3,CDK5RAP1,CNTN1,NCOR2,P RKCQ,BRAF,CSRNP1,DIAPH1,HDAC2,HTR2C,IMPACT,ATP8A1,PHKG2,SRCAP,C APN6,POU3F3,NOTO,PPP1R14A,SPINT2,TNR,MBNL3,UBE2E2,ZKSCAN5,HIGD2A ,CD300A,ELF2,IRAK1BP1,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,ARHGEF6,MAOA, RPL23,SH3BP4,RFC5,ATXN1,CAMSAP3,DCDC1,SP100,ZNF347,ZNF415,OPN1LW,</p>
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			<p>ANXA2,TRIM29,KCND2,PARN,ATP6V0A1,PIGU,RAB27B,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,NUP214,SRGAP2,ADCY1,MADD,NUMB,RBM42,SQLE,SYK,CNOT1,RBM39,WWTR1,ARHGAP19,GRIK2,UTF2H5,SCN1A,SLIT1,ASB1,FRMD5,NFXL1,CITR,MYRIP,RADIL,ZBTB38,BRCA2,HRK,RAP1GAP2,ATF7,CACNG3,DVL2,MORC1,MTRF1,NEB,YBX1,ANKRD13A,GRIPI,PTPRJ,SLC10A1,TAF1,EIF4E3,TICAM1,TANK,THAP3,GPM6A,UCN2,ITGAE,TAC3,PLEKHB2,CADM1,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,INPP5A,NRF1,SRPK2,ANKRD13C,PLEKHM1,SASH1,ASAP1,NCOA2,ADAMTS7,RALGAP1,GBP5,SULT2B1,WDR18,BMP1,CGNL1,EEFSEC,FCHO1,QRICH1,VAV3,ZP3,CHD6,DLGAP2,KCNQ3,RNF2,ZNF554,MOB3A,CAV2,GNAI2,SH2D3A,SKA2,AKTIP,COL4A5,MYEF2,INPP5F,NUAK2,AXL,REPS2,TNFSF9,TRIM37,WIF1,CD109,DENND4C,MET,SESTD1,TBC1D10A,ZNF461,CAMK2D,CCR3,KCNJ6,RAD9B,TIMELESS,UCHL5,ANKRD6,BRD9,MALT1,SERPINE3,SETD3,TRA2B,SPTAN1,EHD2,KDM2B,MLXIPL,SEMA3C,THEM4,CCT3,NEDD4L,PHB,PTPRC,EDA,GPR89A,ZNF555,CTCF,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,SYNDIG1,TSPAN5,ADCY10,NCAM1,TRAF3IP2,ATF6B,CREB1,RASSF8,RGMB,SGTB,SHISA6,TNXB,TRAP1,CLNK,EBF4,EDNRA,GNGT1,PRAP1,STXBP6,ZNF511,BMP4,ABLIM3,CASP12,CPNE1</p>
GO:0048856	anatomical structure development	1.8234538370754043e-44	<p>CLRN1,DNAH11,RCN1,ENPP1,PRDX2,ADAMTS16,LDB2,NRXN1,ASPH,PRMT3,GS,S,RDH13,PRKCI,MOV10L1,TACC2,MAP4K4,PDE4D,DNMT1,S1PR2,HLX,LLPH,SLC9A1,NEGR1,PBX3,SPAG16,LMBR1,TRPS1,CBFB,CLASP2,SEMA3A,IL31R1A,LSAMP,GRID2,RPS6K42,PRDM12,TENM3,CHERP,DOCK1,CLDN18,RYR1,NRG3,ASH1L,NOX5,IQCG,ASTN2,EPB41,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,STOX2,THOD3,NLGN4X,PTGIS,DCHS2,TJP1,UNC5C,ZSWIM6,PRLR,HIVEP3,FTO,UTRN,KALRN,SPRR2D,NTRK3,CBL,ARNT,ATRNL1,VWDE,SEMA5A,FLT3,RAD51B,STAT5B,TOX,ENPP2,ATP2B2,GRM5,PLCE1,LHFPL4,SAMHD1,FER,MAP2K5,SPATA5,KITLG,PTPRR,SPNS2,NDUFV2,LRP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,PAK1,MEG,F10,NRXN3,XRCC4,ROBO1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,MECOM,TACC1,TENM1,KIF5C,LMNA,KIAA1217,TRAF6,ESRP1,ROBO2,NFASC,ITPKB,DNAJA3,AV2,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,GAS7,PSMB7,TSSK1B,PCDH17,KNDC1,ZC4H2,KIF26B,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,TTL5,GFI1B,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,A,BCC8,CDH10,NRIP1,THRB,XIRP2,IMPG2,LAMA2,GFRA2,TCIRG1,DACH1,PTPN11,RBM19,DOCK10,HDAC6,GOLGA4,MYT1,ADORA1,ADAMTS3,EPHA1,IKBKB,ERBB4,CDH12,DYPY19L2,LIMK1,ZNF609,ATP8A2,ACTG2,HIF3A,CUL4B,KLHL6,LARGE,CECR2,ESR1,MYO18B,NPHP3,GRM7,ANKRD11,PTPRO,CDON,NTRK2,DNAI2,E,P300,CELA1,MEGF9,DYM,TENM2,RNF220,HOKK3,PDGFB,RIMS1,TNIK,SNX2,KI,RREL3,CDH8,CSGALNACT1,TOB2,MID1,HNF4G,INSR,FMN2,RERE,PRKARIA,ATP8B1,UNC5D,H2AFY2,PLLP,LAMA3,TCF7L2,PIP4K2A,CDH4,PAK1,FBXW11,ESRRB,MAP3K4,PTPRD,CNTN5,BASP1,RBM20,SLC4A10,TBRI,CATSPER2,STRC,BDNF,TFAP2A,ATRN,AMIGO1,FANCA,CHRM3,TGIF2,POMGNT2,FUT8,NPRL3,FMNL2,P,HACTR4,MEIS1,TENM4,LHFPL2,TRIM13,LCK,MDM4,ECT2,ZNF148,MYO3B,TFDP2,NAV2,LAMC1,PTPRU,MB,AFF3,SGCD,DENND5A,DMD,CENPF,CRISPLD2,KAT7,WDR7,SLC8A1,GSN,RBM4,PRPS2,GPR171,SATB2,PAFAH1B2,RT2,HIRA,MACROD2,TANC2,JPH2,CASS4,FYN,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4,AFF2,RXFP1,MAL2,CHRD1,APOD,B4GALT6,RTN4R,PLEKHM3,BCR,CHI3L1,CCDC141,TTN,NDRG4,BMP2K,PAQR3,ANKH,ADAMTSL1,TLL1,NTN1,EGFLAM,DCTN1,SLC4A5,NRG1,UBP1,STRBP,FRY,MAP2K1,MDF1,FNIP1,STIM1,VAX2,MYH9,MAD1L1,LRFN5,DAGLA,PLEKHA5,VGLL4,CNTN4,HDAC5,NTNG1,PCSK2,NAV1,NFIA,TMEM30A,SYNE1,CMKLR1,SBF2,ROR2,DCN,SLC39A14,P,RPSAP2,LIN7A,SCFD1,CATSPER3,DOCK2,CDH13,PLXDC1,SOX13,ACSBG1,UST,F,GF14,DMC1,PCDHB16,EXOC4,MAD2L2,TLE6,CAPRN2,NLN,NCKAP1,TERF2,FOXN3,RCC2,BOC,ANO6,ARL3,NEUROD1,KIF2A,ACTL8,COL12A1,CCBE1,USP22,ZDHHC15,JAK2,MYPN,YTHDC2,TRAPPC9,FBXW7,CLSTN2,SYT1,ITCH,LZTS1,BCL11B,RBFOX1,TMC1,LRIG3,PKNOX1,CLDN1,HUNK,MLLT3,PNPLA1,PLS1,TEX11,TCF7,PDE2A,MSI2,SEPT7,KLF15,TBX15,ANXA4,CYFIP2,WNT11,PALMD,IFT80,FIG4,KREMEN1,IMMP2L,NRG4,ASTN1,NOX4,SIPAIL3,MKLN1,CACNA1H,SIAH1,OKI,IL1RAPL1,CCDC62,CAMK2B,ADAM23,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,SGK1,PCSK5,PDLIM4,MYO3A,ZHX2,KEL,BTRC,NFATC3,F2RL1,BCAS3,C9ORF47,C2ORF49,RPGRIPL,CELSR1,SLIT3,SDK2,SLIT2,TP73,MUSTN1,GABRB1,CDH23,CORO1C,CTNND2,DISC1,KANK1,LRRIC10,LAMC2,MTDH,CLMN,TTBK2,MYT1L,OPCML,CHRM1,SMAD6,RXFP2,BNC2,CLOCK,ITSN2,TCF12,ZNF675,SMOC1,E,TV6,SYNJ2,NELL1,KCNH1,PRR14,TFAP2D,BMPER,BCL3,DCLK1,ANKRD54,PARVA,ADAM12,NAIP,STRIP1,SLC17A7,SBNO2,LINGO2,YTHDF1,FGF10,CNTNAP2,FBXL17,ARHGEF28,SMYD3,ENAH,GREB1L,IL1RAPL2,PPL,LOXL3,SVIL,CAPN3,VMP1,SMURF2,EPHA4,RORA,PRKCA,AUTS2,CNR1,TNFSF11,PPP3CA,NSUN2,MAG,CAMK4,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,FCGR2B,ARHGAP22,SMARCC1,CDHR2,IGF1R,PPARG,NGRN,AXIN1,DLG5,IL18R1,BFSP1,ADD2,MTF1,CPQ,ANKRD17,CYBB,OTC,XK,BRIP1,PFAS,RYR2,FBLIM1,DRAXIN,LEPR,FGF1,NIN,NPAT,NR4A3,DCT,MYOCD,PER2,AJUBA,CACNA1C,CPNE6,GLG1,SCN3B,PHLDB1,KRT6B,MYO1E,CSMD1,HCK,CAPN2,CSPG4,DCC,CTDP1,MMP16,OBSCN,NF2,FLT4,MEF2B,BICC1,HDAC4,PAX2,ELN,SPG11,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,IFT122,DDX10,DNM3,SSH1,SMAD3,CUX2,ITPR1,PTPRM,ARNT2,ACKR2,NHLS,RNF168,EMG1,CASZ1,ABI2,PSAP,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,VANG1,BTBD3,PREX1,CRTAC1,HOXD3,HOXD4,NAV3,TAB1,NFATC1,PRTG,CDC73,APP,SSBP3,GS</p>

			<p>X2,PDGFRA,CEP85L,DIP2B,NOX1,YAPI,HEG1,FSTL4,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D19,ALPL,JAK1,ANGPTL4,PEMT,LRP5,PTPRG,BDH2,ISLR2,SLC9B2,SOX2,SETD2,ZDHHC6,PLAC1,GPC6,TTC39C,ADAMTS2,CHST11,TEAD1,PRICKLE1,RCAN1,ELAVL3,SPTBN4,VASH2,ZNF521,PAQR5,DRD1,CHUK,FRS2,PALB2,SFMBT1,MMP2,TPH1,SYNE2,CPNE9,KDM6A,PRKD1,STAT1,PARP6,DGKG,SYBU,RND3,SLC6A3,HNF4A,SHANK2,STRA6,VPS4A,EREG,ABLIM1,MYOF,MYH15,DSCAML1,SEMA6D,RBFOX3,ATF2,POU2F2,TCF3,RAF1,CELF4,ADAMTS12,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,BMPR1A,AP1B1,PABPC4,TSPAN12,NLGN1,CTNNA2,PIK3R3,TAF8,CERS3,SPAG9,RAB11A,CRMP1,EVC,MYB,FGF2,LRRC4C,POU6F2,GRIK1,NEDD9,AGBL4,PEAK1,ADAMTS4,SEMA4D,SH3PXD2A,ISM1,FBN3,ARMC2,RORC,ELP3,PLXNA2,ADCYAP1R1,FNDC3A,SETD1A,JARID2,RILPL1,KLHL3,DKK2,ITGA11,RARB,SPEN,PRKCG,NCOA1,SPOCK1,BLOC1S5,EHMT1,GAS8,OC90,NTM,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,ATF3,FBXO45,MATN3,LMBRD1,SRSF5,EBF2,ADAM20,ADAM21,TSG101,VCL,LAMB1,CLIC4,MYO9A,IDE,COL11A1,KCNQ1,RF2X,WN3,ADAMTS6,RHOJ,P4HB,SUFU,TG,NLGN3,SCUBE2,PAFAH1B1,KIF3A,CCDC169-SOHLH2,SOHLH2,POLE,CNTFR,COL4A3,DDAH1,NMUR2,AKAP6,RASAL1,PADI6,NR2C1,TRPC5,TTL7,GLI2,NEO1,SCUBE1,ERCC1,RUFY3,WDTC1,TPD52,COL19A1,DAB2,THEMIS,PKHD1,XKR4,USH2A,LDLRAD4,MYSM1,SETD5,DZIP1,DLG3,WNK1,RELN,SIN3A,RSP02,CSF3R,KCNQ2,EYS,DOCK11,CRELD1,CFDP1,IQGAP1,APOLD1,ZNF423,SP1,LUZP1,MACF1,ARHGAP12,MYO7A,ALK,GSTM3,INPP5D,CLASPI,DSC2,TEAD4,HOXC13,AKAP2,SRA1,TOP1,MBOAT1,GPM6B,XDH,OVOL2,NFATC2,RBBP6,PRKG1,PAX7,RGS7,BNC1,ATP2B4,PACRG,SYNE3,GALNTL5,PACSIN1,TMEM2,ACTL6B,ASXL3,PAK3,TET1,DYX1C1,ASGR2,ADNP,GPR161,MAPKAPK2,ARID4A,MAP1B,MARK1,CDK6,PHF2,CELF1,TYR,TFRC,EPHA5,WXOX,MEF2A,ADCY9,DHX30,DROSHA,GFRAL,GPC3,ADRBK1,PLS3,PSMB2,CALD1,EYA1,BRINP1,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,GHR,MNAT1,FLRT2,FGD1,DIAPH2,ACTR2,ELAVL4,LGI4,HDAC1,SMOC2,ADIPOR2,PLCG2,ROCK1,EPS8,NID1,SCMH1,PAXIP1,EGR2,RNF10,RYPB,AP3B1,PTPN2,INSRR,NTRK1,MAP1A,PPP1R9A,ANK3,DNMBP,ACO2,UNC13A,PTPRQ,EPHB1,PDE6A,EPHA10,PTPN9,AXIN2,SARM1,SNTG2,EPCAM,PARD3,PTPN14,TRIM46,TUB,SH3GL3,JAG2,BCOR,AP3D1,CARM1,P2B1,ADAM19,ARHGAP44,SRD5A2,P1FO,COCH,SMARCA2,CUX1,SP1,EPHAT7,FOX2,MCU,CTNNA1,FBXW4,BCAR3,ILDR2,SHROOM3,CHURC1,MAP3K13,RAPGEF3,SDK1,SH3BP1,MST1,KAZN,ERCC3,PTK7,SMYD1,TTC9,SNCA,BMPR1B,CD53,MAGI2,PNPT1,ZEB2,RAI2,OCA2,HEY2,RC3H1,COL13A1,HYDIN,RNF103,WNT7B,HMGCS2,PTPRS,KMT2D,TLL2,TRIP12,ADTRP,ABCA12,CSRPI,RASAI,MTF,SRSF6,RBM45,HIPK1,PKP2,RTN4RL1,BTK,SGCZ,ZNRF3,TROVE2,CBFA2T2,IGF1,CTNNB1,DPYSL3,MAPK1,PTEN,CLDN11,MIB1,SPRED2,BMP7,SCN8A,SOX5,CIR1,LHFP15,TTL4,PRCP,LRRK2,MEGF11,ZRANB1,ALDOC,UNC119,RAPH1,BAG6,LILRB4,MORC3,TMEM108,ITGAM,IL11RA,PKD2,EFNA5,SHANK3,SHPTN4,RIPPLY1,DAZL,ALPK3,PDGFC,AMOTL1,NCOA3,PPP2R3C,TBCD,WNT7A,ZBED6,BRWD3,MAP4,PLCL2,KAT6A,SH3PXD2B,BMP6,MYCBP2,NFE2L1,GPI,IL17RD,SOSI,TSHR,EXT1,ATRX,PRICKLE2,SERINC5,IKZF1,PARVB,PRMT2,RAPGEF2,CDH9,KCNC2,SMO,SUN1,BLOC1S3,MARK4,CPT1A,MYLPF,TCF4,TNFRSF11B,SYT17,BPGM,SOX30,TFE3,GRIN1,ADAM29,RHOA,SYNGAP1,GRIN3A,NDE1,RORI,TF,ONECUT2,RHOBTB1,SHROOM1,CUL3,SH3KBP1,HSPD1,NFKBID,EPM2A,GABRB3,GSK3B,EMB,RDX,STAT6,ACTA2,SYN1,MLF1,EEF2K,FAM49B,PTPRB,RBBP8,CCDC14,CDK13,ALAS2,UPPF2,CD27,SCN9A,BOK,SULF1,MTHFD1L,KRT8,AGT,HGFRP2,CDH20,ADAR,BLOC1S6,FBN2,STAT2,ZMPSTE24,BRINP3,NDRG2,PTK2,PHEX,SNX3,RIMS2,PBX1,TCPI1,TEC,EXOSC3,SHB,GAP43,MAP3K5,CPE,TRPC4AP,CREBBP,FAM171A1,ARVCF,COL9A1,DLX1,PCSK6,SLC29A1,TAOK2,UGT1A1,PYGO2,SHC1,NDUFS2,ALDOA,ARHGAP15,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,PGM3,SCGL,SETDB2,ANKS1A,ALOX5,CPLX2,DNAJB6,MDGA2,SP7,CD44,FGD3,LARP4,ADAM8,SLC5A3,CLDN4,PACSIN2,RPS6KA5,THSD7A,HUS1,PKD1L1,PRDM2,CXCL17,FGD4,NOS1,PEX7,TBC1D23,PLEKHA1,RGS14,ACTN4,MC1R,STK4,TCF25,TUBB3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,TMEFF2,CLPTM1,IL18,MFSD8,ASF1B,DLCL1,PPARA,ARID5B,CALCRL,PHLPP1,PRRC2C,NOTCH4,SOBP,CRX,FBN1,PAX6,PRKCZ,FAM20C,ADORA2A,GRIN2B,PPP1CC,COL22A1,PHLDB2,OTUD7B,KLC3,KLHL1,NIPBL,TMIGD2,PCDH10,UPB1,ASPN,ANGPT1,EYA3,FHL2,LRRK1,MBTD1,ATF6,SHROOM4,IGF2BP3,GCNT2,ETSI,PPP1CA,VWC2,MAP2,MTF2,NEBL,TAGLN3,FBXO31,CDK5RAP1,CNTN1,NCOR2,PRKCQ,LGI2,BRAF,CSRNP1,DIAPH1,HDAC2,IMPACT,POU3F3,NOTO,SPINT2,TNR,MBNL3,PHIP,CDKL3,PPP2CA,ANGPT4,ACAN,ATXN1,CAMSA3,SP100,ANXA2,CR2,SRGAP2,TMEFF1,ADCY1,NUMB,SYK,CNOT1,WWTR1,SIT1,ASB1,CIT,RADIL,BRCA2,DVL2,NEB,YBX1,GRIP1,PTPRJ,TAF1,GPRIN3,RNF38,GPM6A,OSBP2,POTEE,CADM1,HSF1,MAX,DHFR,EZH1,SRPK2,SASH1,ASAP1,ADAMTS7,SULT2B1,BMP1,VAV3,ZP3,RNF2,CAV2,GNAI2,MYEF2,INPP5F,AXL,TNFSF9,WIF1,CD109,MET,FMNL1,CCR3,SNX1,TIMELESS,UCHL5,ANKRD6,MALT1,SETD3,TRA2B,CCDC136,EHD2,KDM2B,MLXIPL,SEMA3C,NEDD4L,PTPRC,EDA,GP89A,SH3GL2,TYRO3,RNF213,SYNDIG1,VPS52,NCAM1,TANC1,TRAF3IP2,CREB1,LIG1,AFF4,EDNRA,NGGT1,BMP4,CPNE1</p>
GO:0032502	developmental process	2.614587173958802e-	<p>RDH14,CLRN1,DNAH11,RCN1,ENPP1,PRDX2,ADAMTS16,LDB2,NRXN1,ASPH,PRMT3,GSS,RDH13,PRKCI,MOV10L1,TACC2,MAP4K4,PDE4D,DNMT1,SIPR2,HLX,LPH,SLC9A1,NEGR1,PBX3,SPAG16,LMBR1,TRPS1,CBFB,CLASP2,SEMA3A,IL31R</p>

	44	<p> A,LSAMP,GRID2,RPS6KA2,PRDM12,TENM3,CALR3,CHERP,DOCK1,WWC1,CLDN18,RYR1,NRG3,ASH1L,LATS2,NOX5,IQCG,ASTN2,EPB41,SEMA3D,PHACTR1,MYO T,NREP,TIAM2,STOX2,FHOD3,NLGN4X,PTGIS,DCHS2,WWC3,TJP1,UNC5C,ZSWI M6,PRLR,HIVEP3,FTO,UTRN,KALRN,WIPF3,SPRR2D,NTRK3,CBL,ARNT,ATRNLI, VWDE,SEMA5A,FLT3,RAD51B,STAT5B,TOX,ENPP2,ATP2B2,GRM5,NOC3L,PLCE1 ,LHFPL4,SAMHD1,FER,MAP2K5,SPATA5,KITLG,MAPK10,PTPRR,SPNS2,NDUFV2 ,LRP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,MFAP5,EZR,MEGF10,NRXN3,XRCC4,R OBO1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,MECOM,TACCI,TENM1,KIF5C,LMN A,KIAA1217,TRAF6,ESRP1,ROBO2,NFASC,ITPKB,DNAJA3,VAZ2,GRK5,ABI1,ULK4 ,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,GAS7,PSMB7,TSSK1B,PCDH17,KND C1,ZC4H2,KIF26B,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,ARHGAP24,KLHL12 ,AKAP13,TTL5,GFI1B,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,CDH10,N RIP1,THRB,XIRP2,IMP2,LAMA2,GFRA2,TCIRG1,DACHI,PTPN11,RBM19,HERC4 ,DOCK10,HDAC6,GOLGA4,MYT1,ADORA1,ADAMTS3,EPHA1,IKBKB,ERBB4,CDH 12,DPY19L2,LIMK1,ZNF609,ATP8A2,ACTG2,HIF3A,CUL4B,KLHL6,LARGE,CECR2 ,ESR1,MYO18B,NPHP3,GRM7,ANKRD11,PTPRO,CDON,NTRK2,DNAI2,EP300,CEL A1,MEGF9,DYM,TENM2,RNF220,HOOK3,PDGFB,RIMS1,TNIK,SNX2,KIRREL3,CD H8,CSGALNACT1,TOB2,MID1,GOLGA3,HNF4G,INSR,FMN2,RERE,PRKAR1A,ATP 8B1,UNC5D,H2AFY2,PLLP,LAMA3,TCF7L2,PIP4K2A,CDH4,PAK1,FBXW11,ESRRB ,MAP3K4,PTPRD,CNTN5,BASP1,CATSPERB,RBM20,SLC4A10,TBR1,CATSPER2,ST RC,BDNF,TFAP2A,ATRN,AMIGO1,FANCA,CHRM3,TGIF2,POMGN2,FUT8,HERC3,FMNL2,PHACTR4,MEIS1,TENM4,LHFPL2,TRIM13,UBR2,LCK,MDM4,EDARADD ,SHC4,ECT2,ZNF148,MYO3B,TFDP2,NAV2,ACOX1,LAMC1,PTPRU,MB,AFF3,SGC D,DENND5A,DMD,CENPF,CRISPLD2,USP13,KAT7,WDR7,SLC8A1,GSN,RBM4,PR PS2,GPR171,SATB2,PAFAH1B2,RIT2,HIRA,MACROD2,TANC2,JPH2,CASS4,FYN,A RNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4,AFF2,R XFP1,MAL2,CHRD11,APOD,SLC2A14,B4GALT6,RTN4R,PLEKHM3,BCR,CH13L1,C CDC141,TTN,NDRG4,BMP2K,PAQR3,ANKH,ADAMTSL1,TLI1,NTN1,EGFLAM,DC TN1,SLC4A5,NRG1,UBP1,STRBP,FRY,MAP2K1,MDF1,FNIP1,STIM1,VAZ2,MYH9,M AD1L1,LRFN5,DAGLA,PLEKHA5,VGLL4,CNTN4,HDAC5,NTNG1,PCSK2,NAV1,NFI A,TMEM30A,SYNE1,JD2,CMKLR1,SBF2,CDKL2,TSPAN8,LRGUK,ROR2,DCN,SLC 39A14,PRPSAP2,LIN7A,SCFD1,CATSPER3,DOCK2,CDH13,PLXDC1,SOX13,ACSB G1,UST,FGF14,DMC1,PCDHB16,EXOC4,MAD2L2,TLE6,RAB27A,CAPRIN2,CCNYL 1,NLN,NCKAP1,TERF2,FOXN3,RCC2,BOC,ANO6,ARL3,NEUROD1,KIF2A,FBXO9, ACTL8,PARP11,COL12A1,CCBE1,USP22,ZDHHHC15,JAK2,MYPN,YTHDC2,TRAPP C9,FBXW7,SMC3,CLSTN2,SYT1,ITCH,BBS12,LZTS1,BCL11B,RBFOX1,TMC1,LRIG 3,PKNOX1,CLDN1,HUNK,MLLT3,PNPLA1,PLS1,TEX11,TCF7,PDE2A,MSI2,SEPT7, KLF15,TBX15,ANXA4,CYFIP2,WNT11,PALMD,IFT80,FIG4,KREMEN1,IMMP2L,NR G4,ASTN1,NOX4,SIPAIL3,MKLN1,CACNA1H,SLAH1,QKI,ILIRAPL1,CCDC62,CAM K2B,ADAM23,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,SGK1,PC SK5,PDLIM4,MYO3A,ZHX2,KEL,BTRC,NFATC3,F2RL1,BCAS3,C9ORF47,C2ORF49 ,RPGRIPL,CELSR1,SLIT3,SDK2,SLIT2,TP73,MUSTN1,GABRB1,CDH23,CORO1C, RRAS2,CTNND2,DISC1,TSNAX,KANK1,LRRC10,LAMC2,MTDH,CLMN,TTBK2,MYT 1L,OPCML,FSTL5,CHRM1,SMAD6,RXFP2,BNC2,CLOCK,ITSN2,TCF12,ZNF675,SM OC1,ETV6,SYNJ2,NELL1,SUCO,KCNH1,PRR14,TFAP2D,BMPER,BCL3,DCLK1,AN KRD54,PARVA,SDN1,ADAM12,NAIP,STRIP1,HNRNPC,SLC17A7,SBNO2,LINGO2,Y THDF1,FGF10,CNTNAP2,FBXL17,ARHGEF28,SMYD3,ENAH,GREB1L,ILIRAPL2,P PL,LOXL3,MAST2,SVIL,CAPN3,VMP1,SMURF2,EPHA4,RORA,PRKCA,AUTS2,CNR 1,TNFSF11,PPP3CA,NSUN2,MAG,CAMK4,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DA CH2,FCGR2B,ARHGAP22,SMARCC1,CDHR2,IGF1R,PPARG,NGRN,AXIN1,DLG5,I L18R1,BFSP1,ADD2,MTF1,CPO,MSR1,ANKRD17,CYBB,OTC,XK,BRIP1,SPATA6L,A NXA13,ANKRD26,PFAS,RYR2,FBLIM1,DRAXIN,LEPR,FGF1,NIN,NPAT,NR4A3,DC T,MYOCD,PER2,KIR2DL4,AJUBA,CACNA1C,CPNE6,GLG1,SCN3B,CHEK2,PHLDB 1,KRT6B,PRDM16,MYO1E,CSMD1,HCK,CAPN2,TRIM8,DIO2,MRC2,CSPG4,DCC, CTDPI,MMP16,OBSCN,NF2,FLT4,MEF2B,BICC1,HDAC4,PAX2,PHF5A,ELN,SPG1 1,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,IFT122,DDX10,DNM3,SSH1,SYNCRIP,SMA D3,CUX2,ITPR1,PTPRM,ARNT2,ACKR2,NHS,RNF168,EMG1,CASZ1,ABI2,PSAP,SH ANK1,SYT3,NEDD4,NRP2,ARHGEF18,VANGL1,BTBD3,PREX1,CRTAC1,HOXD3,H OXD4,NAV3,TAB1,NFATC1,PRTG,CDC73,APP,SSBP3,GSX2,PDGFRA,ODF3,CEP8 5L,DIP2B,NOX1,YAPI,HEG1,AMFR,FSTL4,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D 19,ALPL,JAK1,ANGPTL4,PEMT,LRP5,PTPRG,BDH2,ISLR2,SLC9B2,SOX2,SETD2,Z DHHC6,PLAC1,GPC6,TTCC39C,ADAMTS2,CHST11,TEAD1,DEFB118,PRICKLE1,RC AN1,ELAVL3,SPTBN4,VASH2,ZNF521,PAQR5,DRD1,CHUK,FRS2,PALB2,SFMBT1, MMP2,TPH1,SYNE2,CPNE9,KDM6A,PRKD1,STAT1,PARP6,DGKQ,ETV5,SYBU,RN D3,SLC6A3,MORN2,HNF4A,ZBTB7C,SHANK2,STRA6,VPS4A,EREG,ABLIM1,MYOF ,MYH15,DSCAML1,SEMA6D,RBFOX3,ATF2,POU2F2,TCF3,RAF1,CELF4,ADAMTS 12,PSMD11,SRRM4,GGT7,BMPR2,USP33,DPYSL2,CAMK1D,BMPR1A,AP1B1,PAB PC4,TSPAN12,NLGN1,CTNNA2,PIK3R3,CDK12,TA8,CERS3,SPAG9,RAB11A,CRM P1,EVC,MYB,FGF2,LRRC4C,POU6F2,GRIK1,ZFP41,NEDD9,AGBL4,PEAK1,ADAM TS4,SEMA4D,SH3PXD2A,ISM1,FBN3,ARMC2,RORC,ELP3,PLXNA2,ADCYAP1R1,F NDC3A,SETD1A,JARID2,RILPL1,KLHL3,DKK2,BRDT,PHC2,ITGA11,RARB,SPEN,P RKCG,NCOA1,SPOCK1,BLOC1S5,EEF1E1,EHMT1,GAS8,OC90,NTM,CHRD,DYLL3, EIF2B5,EIF4G1,EPHB3,ATF3,FBXO45,MATN3,LMBRD1,SRSF5,PAWR,EBF2,DLEC </p>
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			<p> <i>I,ADAM20,ADAM21,TSG101,CCDC3,VCL,LAMB1,CLIC4,MYO9A,ANKS4B,IDE,CO L11A1,KCNQ1,RF22,WNT3,ADAMTS6,ZNF322,RHOJ,P4HB,SUFU,TG,NLGN3,SCU BE2,PAFAH1B1,KIF3A,CCDC169- SOHLH2,SOHLH2,POLE,CNTFR,COL4A3,DDAH1,NMUR2,HIP1,AKAP6,RASAL1,P ADI6,NR2C1,TRPC5,TTL7,GLI2,NEO1,SCUBE1,ERCC1,RUFY3,WDTC1,ALDH6A1 ,TPD52,COL19A1,DAB2,THEMIS,PKHD1,XKR4,USH2A,LDLRAD4,MYSM1,SETD5, DZIP1,DLG3,WNK1,RELN,SIN3A,RSP02,CSF3R,KCNQ2,EYS,DOCK11,CRELD1,CF DP1,IQGAP1,APOLD1,ZNF423,SP1,LUZP1,MACF1,ARHGAP12,MYO7A,ALK,GST M3,INPP5D,CLASP1,DSC2,TEAD4,HOXC13,SLC9C1,AKAP2,SRA1,TOPI,UBE2V1, MBOAT1,GPM6B,ADIRF,XDH,OVOL2,NFATC2,RBBP6,PRKG1,PAX7,RGS7,BNC1, ATP2B4,PACRG,SYNE3,GALNTL5,PACSIN1,TMEM2,ACTL6B,ASXL3,PAK3,TET1,D YX1C1,ASGR2,ADNP,GPR161,MAPKAPK2,ARID4A,MAP1B,MARK1,CDK6,PHF2,C ELF1,TYR,TFRC,EPHA5,WWOX,MEF2A,ADCY9,DHX30,DROSHA,GFRAL,GPC3,A DRBK1,PLS3,PSMB2,CALD1,EYA1,BRINP1,DIS3L2,GNB3,TRPV1,HOXB3,HOXB4, HOXB5,HOXB6,TFEB,GHR,MNAT1,FLRT2,FGD1,DIAPH2,ACTR2,ELAVL4,LGI4,H DAC1,SMOC2,ADIPOR2,PLCG2,ROCK1,EPSS8,NID1,SCMH1,PAXIP1,EGR2,RNF10, RYBP,AP3B1,PTPN2,INSR,NTRK1,MAP1A,PPP1R9A,AKAP2,DNMBP,ACO2,UNC13 A,PTPRQ,EPHB1,PDE6A,EPHA10,PTPN9,AXIN2,SARM1,SNTG2,EPCAM,PARD3,P TPN14,TRIM46,TUB,SH3GL3,JAG2,BCOR,AP3D1,CARM1,AP2B1,ADAM19,ARHGA P44,SRD5A2,PFO,COCH,SMARCA2,CUX1,RAD51C,SP11,EPHA7,FOXP2,MCU,CT NNA1,FBXW4,GLIS1,LRRRC8,BCAR3,ILDR2,SHROOM3,CHURC1,MAP3K13,RAPG EF3,SDK1,SH3BP1,MST1,KAZN,ERCC3,PTK7,SMYD1,TTC9,NHSL2,SNCA,BMPR1B ,CD53,MAGI2,USP42,PNPT1,ZEB2,RAI2,FOXJ3,OCA2,HEY2,RC3H1,COL13A1,HY DIN,RNF103,WNT7B,HMGCS2,PTPRS,KMT2D,PRKAG1,CREM,TLL2,TRIP12,ADTR P,ABCA12,CSRPI,RASA1,MITF,SRSF6,RBM45,HIPK1,PKP2,RTN4RL1,BTK,SGCZ,Z NRF3,TROVE2,CBFA2T2,IGF1,CTNBNB1,DPYSL3,MAPK1,PTEN,CLDN11,MIB1,SP RED2,BMP7,SCN8A,PUM1,SOX5,CIR1,LHFPL5,TLL4,PRCP,LRRK2,OSGIN1,SEP T6,MEGF11,ZRANB1,ALDOC,UNC119,RAPH1,BAG6,LILRB4,MORC3,IFT81,TMEM 108,ITGAM,IL11RA,PKD2,EFNA5,HSF2BP,SHANK3,STMN4,RIPPLY1,DAZL,ALPK3 ,PDGFC,SERPINA5,AMOTL1,NCOA3,STEAP4,PPP2R3C,TBCD,WNT7A,ZBED6,BR WD3,MAP4,NME8,PLCL2,SPANXA2,KAT6A,GPR21,SH3PXD2B,BMP6,MYCBP2,NF E2L1,GPI,IL17RD,SOS1,TSHR,WDR43,EXT1,ATRX,PRICKLE2,SERINC5,IKZF1,PAR VB,PNPLA3,PRMT2,RAPGEF2,CDH9,KCNC2,SMO,SUN1,BLOCIS3,MARK4,CPT1A ,MYLPF,TCF4,TNFRSF11B,SYT17,BPGM,SOX30,TFE3,GRIN1,ADAM29,BBS9,RHO A,SYNGAP1,GRIN3A,NDE1,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,SHROOM1,CU L3,SH3KBP1,HSPD1,NFKBID,EPM2A,GABRB3,GSK3B,EMB,RDX,STAT6,ACTA2,SY N1,MLF1,EEF2K,FAM49B,PTPRB,RBBP8,CCDC14,CDK13,ALAS2,UPF2,CD27,SC N9A,BOK,SULF1,MTHFD1L,KRT8,AGT,HDGFRP3,CDH20,ADAR,BLOCIS6,FBN2, STAT2,ZMPSTE24,BRINP3,NDRG2,PTK2,TPPP2,PHOX,SNX3,RIMS2,PBX1,TCP11, TEC,EXOSC3,SHB,GAP43,MAP3K5,CPE,TCFL5,TRPC4AP,CREBBP,FAM171A1,AR VCF,COL9A1,DLX1,PCSK6,SLC29A1,TAOK2,UGT1A1,PYGO2,SHC1,NDUFS2,ALD OA,ARHGAP15,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,PGM5,SCEL,SETDB2, ANKS1A,Alox5,CPLX2,DNAJB6,MDGA2,SP7,CD44,FGD3,LARP4,ADAM8,SLC5A3 ,CLDN4,PACSIN2,RPS6KA5,CDS1,THSD7A,HUS1,PKD1L1,PRDM2,CXCL12,FGD4, NOS1,PEX7,TBC1D23,MED15,PLEKHA1,PLVAP,RGS14,ACTN4,MC1R,SCNN1B,ST K4,TCF25,TUBB3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,TMEFF2,CLPTM1,IL18,M FSD8,ASF1B,DLCL1,PPARA,ARID5B,CALCRL,PHLPP1,PRRC2C,NOTCH4,SOBP,CR X,FBN1,PAX6,PRKCZ,FAM20C,ADORA2A,GRIN2B,PPP1CC,COL22A1,PHLDB2,O TUD7B,KLC3,KLHL1,NIPBL,TMIGD2,PCDH10,UPB1,ASPN,ANGPT1,EYA3,FHL2,L RRK1,MBTD1,OSBPL8,ATF6,SHROOM4,IGF2BP3,GCNT2,ETS1,PPP1CA,VWC2,M AP2,MTF2,NEBL,TAGLN3,FBXO31,CDK5RAP1,CNTN1,NCOR2,PRKCG,LGI2,BRA F,CSRNP1,DIAPH1,HDAC2,HTR2C,IMPACT,POU3F3,NOTO,SPINT2,TNR,MBNL3, ELF2,PHIP,CDKL3,PPP2CA,ANGPT4,ACAN,ATXN1,CAMSAP3,SP100,ANXA2,PRM T7,CR2,SRGAP2,TMEFF1,ADCY1,NUMB,SYK,CNOT1,WWTR1,SLIT1,ASB1,CIT,RA DIL,BRCA2,DVL2,MORC1,NEB,YBX1,GRIP1,PTPRJ,TAF1,GPRIN3,RNF38,GPM6A, OSBP2,PLEKHB2,POTEE,CADM1,HSF1,MAX,DHFR,EZH1,SRPK2,SASH1,ASAP1,A DAMTS7,SULT2B1,BMP1,VAV3,ZP3,RNF2,CAV2,GNA12,MYEF2,INPP5F,AXL,TNF SF9,WIF1,CD109,MET,FMNL1,CCR3,SNX1,TIMELESS,UCL5,ANKRD6,MALTI,SE TD3,TRA2B,TMEM120B,CCDC136,EHD2,KDM2B,MLXIPL,SEMA3C,NEDD4L,NDC 1,PHB,PTPRC,EDA,GPR89A,SH3GL2,TYRO3,RNF213,SYNDIG1,VPS52,ADCY10,N CAM1,TANC1,TRAF3IP2,CREB1,LIG1,SHISA6,AFF4,EDNRA,GNGT1,BMP4,CPNE1 </i> </p>
GO:0009653	anatomical structure morphogenesis	1.360511596905982e-43	<p> <i>CLRN1,DNAH11,ADAMTS16,NRXN1,ASPH,PRMT3,RDH13,PRKCI,MAP4K4,HLX,L LPH,PBX3,LMBR1,CLASP2,SEMA3A,GRID2,TENM3,DOCK1,RYR1,NRG3,ASH1L,N OX5,ASTN2,EPB41,SEMA3D,PHACTR1,MYOT,TIAM2,FHOD3,PTGIS,TJPI,UNC5C, KALRN,ATRNL1,SEMA5A,ENPP2,FER,MAP2K5,LRP2,PIK3CD,SP3,ANK2,OLFM1, MFAP5,EZR,NRXN3,ROBO1,CHD7,HTR2B,ITGB6,CDKL5,KIF5C,TRAF6,ROBO2,N FASC,VAV2,ABII,ITGB1,TRIOBP,HSP90AA1,GAS7,PSMB7,KNDCC1,KIF26B,DSCAM ,TRIO,ARHGAP24,KLHL12,AKAP13,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABC C8,CDH10,THRB,XIRP2,IMPG2,LAMA2,TCIRG1,PTPN11,DOCK10,HDAC6,GOLG A4,EPHA1,ERBB4,CDH12,LIMK1,ATP8A2,ACTG2,HIF3A,KLHL6,CECR2,ESR1,MY O18B,NPHP3,ANKRD11,PTPRO,CDON,NTRK2,EP300,CELA1,MEGF9,RIMS1,TNIK ,SNX2,KIRREL3,CDH8,CSGALNACT1,INSR,RERE,PRKAR1A,ATP8B1,UNC5D,LAM A3,CDH4,PAK1,FBXW11,PTPRD,BASP1,SLC4A10,TBRI,STRC,BDNF,TFAP2A,ATR </i> </p>

			<p>N,AMIGO1,TGIF2,NPRL3,FMNL2,PHACTR4,MEIS1,TENM4,TRIM13,MDM4,ECT2,MYO3B,LAMC1,AFF3,SGCD,DMD,CRISPLD2,SATB2,HIRA,TANC2,CASS4,FYN,ADAMTS9,NF1,PCDH15,LMTK2,FAT3,RTN4,RXFPI,APOD,B4GALT6,RTN4R,BCR,CH13L1,CCDC141,TTN,NDRG4,ADAMTSL1,NTN1,EGFLAM,NRG1,UBP1,FRY,MAP2K1,MDF1,STIM1,VAX2,MYH9,CNTN4,HDAC5,NTNG1,ROR2,DCN,SCFD1,CDH13,PLXDC1,SOX13,UST,EXOC4,CAPRIN2,NCKAP1,FOXN3,RCC2,BOC,NEUROD1,COL12A1,CCBE1,ZDHHC15,MYPN,FBXW7,SYT1,LZTS1,BCL11B,LRIG3,PKNOX1,MLLT3,PLS1,SEPT7,TBX15,CYFIP2,WNT11,PALMD,IFT80,FIG4,NOX4,SIPA1L3,MKLN1,CACNA1H,SLAH1,QKI,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,SEMA5B,TGFB1,SGK1,PCSK5,MYO3A,ZHX2,KEL,BTRC,BCAS3,C9ORF47,C2ORF49,RPGRIP1L,CELSR1,SLIT3,SDK2,SLIT2,CDH23,CORO1C,CTNND2,DISC1,KANK1,LAMC2,MTDH,SMAD6,ITSN2,KCNH1,BMPER,BCL3,DCLK1,PARVA,ADAM12,STRIP1,SBNO2,YTHDF1,FGF10,CNTNAP2,ARHGEF28,ENAH,GREB1L,CAPN3,SMURF2,EPHA4,RORA,PRKCA,AUTS2,TNFSF11,PPP3CA,MAG,CTNNB1,PARK2,ARHGAP22,SMARCC1,IGF1R,PPARG,AXIN1,DLG5,CYBB,XK,RYR2,FBLIM1,DRAXIN,LEPR,FGF1,NIN,NR4A3,MYOCD,AJUBA,CACNA1C,CPNE6,GLG1,PHLDB1,MYO1E,CSMD1,HCK,CAPN2,CSPG4,DCC,MMP16,OBSCN,NF2,FLT4,PAX2,ELN,SPG11,SFRP1,FOXO3,CHL13B,CNTN6,NFIB,IFT122,DNM3,SSH1,SMAD3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,VANG1,BTBD3,PREX1,HOXD3,HOXD4,TAB1,NFATC1,PRTG,CDC73,APP,SSBP3,GSX2,PDGFRA,DIP2B,NOX1,YAP1,HEG1,FSTL4,EYA2,SH3D19,ALPL,JAK1,ANGPTL4,LRP5,ISLR2,SOX2,SETD2,ZDHHC6,GPC6,TTC39C,SH3PXD1,PRICKLE1,SPTBN4,VASH2,CHUK,FRS2,PALB2,MMP2,CPNE9,KDM6A,PRKD1,STAT1,PARP6,RND3,SLC6A3,HNF4A,STRA6,EREG,ABLIM1,MYOF,DSCAML1,SEMA6D,ATF2,ADAMTS12,BMPR2,USP33,DPYSL2,BMPRI1,TSPAN12,NLGN1,CTNNA2,PIK3R3,SPAG9,RAB11A,CRMP1,FGF2,LRRC4C,NEDD9,PEAK1,SEMA4D,SH3PXD1,ISM1,FBN3,PLXNA2,RILPL1,KLHL3,RARB,NCOA1,DVL3,EPHB3,FBXO45,LMBR1,VCL,LAMB1,CLIC4,MYO9A,COL11A1,KCNQ1,RFAX2,WNT3,RHOJ,P4HB,SUFU,NLGN3,SCUBE2,PAFAH1B1,KIF3A,COL4A3,DDAH1,RASAL1,TRPC5,GLI2,NEO1,ERCC1,RUFY3,TPD52,DAB2,PKHD1,USH2A,DLG3,WNK1,RELN,SIN3A,RSP02,CFDPI,IQGAP1,APOLD1,SP1,LUZP1,MACF1,ARHGAP12,MYO7A,CLASP1,TEAD4,HOXC13,AKAP2,XDH,OVOL2,NFATC2,PAX7,ATP2B4,SYNE3,PACSIN1,TMEM2,ASXL3,PAK3,TET1,ADNP,MAP1B,TFRC,EPHA5,WWOX,MEF2A,GPC3,PSMB2,CALD1,EYA1,HOXB3,HOXB4,HOXB5,HOXB6,GHR,FLRT2,FGD1,ACTR2,ELAVL4,HDAC1,SMOC2,ADIPOR2,ROCK1,EPSS8,PAXIP1,EGR2,AP3B1,NTRK1,MAP1A,ANK3,DNMBP,UNC13A,PTPRQ,EPHB1,EPHA10,AXIN2,SARM1,PARD3,PTPN14,TRIM46,JAG2,BCOR,ARHGAP44,COCH,CUX1,SP11,EPHA7,MCU,CTNNA1,FBXW4,BCAT2,SHROOM3,MAP3K13,RAPGEF3,SDK1,SH3BP1,MST1,PTK7,BMPRI1B,CD53,MAGI2,NPPT1,HIEY2,RC3H1,COL13A1,WNT7B,PTPRS,ADTRP,CSRPI,RASA1,SRSF6,HIPK1,PKP2,ZNRF3,MAPK1,PTEN,MIB1,BMP7,SOX5,LHFPL5,PRCP,LRRK2,MEGF11,ZRANB1,RAPH1,TMEM108,PKD2,EFNA5,SHANK3,RIPPLY1,PDGFC,AMOTL1,TBCD,WNT7A,BRWD3,BMP6,MYCBP2,NFE2L1,GPI,SOS1,TSHR,EXT1,ATRX,PRICKLE2,PARVB,RAPGEF2,CDH9,SMO,MYLPI,TNFRSF11B,SYT17,SOX30,RHOA,SYNGAP1,ROR1,ONECUT2,RHOBTB1,SHROOM1,CUL3,SH3KBP1,GSK3B,EMB,RDX,STAT6,ACTA2,EF2K,FAM49B,PTPRB,SULF1,MTHFD1L,KRT8,AGT,CDH20,FBXW2,SCST2,ZMPSTE24,PTK2,PHEX,RIMS2,PBX1,SHB,GAP43,CPE,CREBBP,FAM171A1,COL9A1,DLX1,TAOK2,SHC1,ALDOA,ARHGAP15,CD160,ECE1,LBX2,PGM5,SETDB2,ALOX5,DNAJB6,CD44,FGD3,LARP4,ADAM8,CLDN4,PACSIN2,RPS6KA5,THSD7A,CXCL17,FGD4,NOS1,PEX7,PLEKHA1,ACTN4,STK4,TUBB3,SPEF1,EPHB1,SLC1A1,WLS,TMEFF2,IL18,DLC1,PPARA,ARID5B,CALCRL,NOTCH4,SOBP,CRX,FBN1,PAX6,PRKCZ,FAM20C,ADORA2A,COL22A1,PHLDB2,NIPBL,TMIGD2,ASPN,ANGPT1,EYA3,FHL2,IGF2BP3,ETS1,PPP1CA,MAP2,NEBL,FBXO31,PRKCQ,BRAF,CSRNP1,DIAPH1,HDAC2,IMPACT,NOTO,SPINT2,TNR,PHIP,CDKL3,ANGPT4,ACAN,CAMSAP3,SP100,ANXA2,SRGAP2,TMEFF1,ADCY1,NUMB,SYK,CNOT1,WWTR1,SLIT1,RADIL,DVL2,NEB,YBX1,GRIP1,GPM6A,EZH1,SRPK2,SASH1,BMP1,VAV3,ZP3,RNF2,GNA12,AXL,CD109,MET,FMNL1,CCR3,SNX1,TIMELESS,UCHL5,ANKRD6,CCDC136,EHD2,KDM2B,MLXIPL,SEMA3C,NEDD4L,EDA,SH3GL2,TYRO3,RNF213,VPS52,NCAM1,TANCI,CREB1,LIG1,EDNRA,GNGT1,BMP4,CPNE1</p>
GO:0065007	biological regulation	1.98768953900901e-43	<p>RDH14,CD247,POLDIP3,CLRN1,DNAH11,RIC8B,ENPP1,PRDX2,ADAMTS16,LDB2,GPC5,NRXN1,ASPH,B4GALNT2,F8,PRMT3,GP6,RDH13,PRKCI,MOV10L1,SLCO3A1,MAP4K4,PDE4D,PDCL,DNMT1,SIPR2,HLX,LLPH,TMBIM4,SLC9A1,PDE7B,FAM155A,C6ORF89,NEGR1,PBX3,ADCY8,MED13L,LMBR1,TRPS1,CBFB,PDE8A,PDE4DIP,ZNF823,CLASP2,SEMA3A,IL31R4,GRID2,TAS1R2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CHERP,MED26,DOCK1,WWC1,CLDN18,C12ORF49,CTDSPL2,FBXL2,RYR1,NRG3,ASH1L,NOS1AP,LATS2,TBC1D19,NOX5,ANP32A,ASTN2,EPB41,SEMA3D,PHACTR1,DPP6,PTH2R,NREP,SCAF8,TIAM2,STOX2,FHOD3,KSR2,MAPRE2,NLGN4X,PTGIS,PRKAG2,WWC3,TJP1,GRM8,UNC5C,NUDT6,HPSE2,OR5P2,OR5P3,CLCN1,PRLR,MVP,PAGRI,ADCY7,HIVEP3,FTO,NPAS3,UTRN,RGS7BP,KALRN,UBAP2,PITPNCI,SEC23B,PHACTR2,DCAF12,ACOXL,NTRK3,CBL,ARNT,ATRNLI,PLEKHG4B,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,LRRFIP2,FLT3,RAD51B,SUSD4,STAT5B,TOX,ENPP2,ATP2B2,KCNQ5,EXD1,GRM5,PLCE1,LHFPL4,SAMHD1,ZNF566,FER,CASK,MARVELD3,MAPK4,MAP2K5,KITLG,KCNIP4,MAPK10,PTPRR,SPNS2,DENND2D,LRP2,PIK3CD,ZNF536,SP3,DEPDC5,HDGF,PRCC,ZSWIM7,ANK2,EIF4G3,SAAL1,OLFM1,SH2D1A,E</p>

			<p>ZR,IKZF2,MEGF10,NRXN3,XRCC4,ROBO1,MALRD1,SLC9A9,TOM1L1,TNFAIP8L1,CHD7,SLC26A6,HTR2B,PSMD1,ITGB6,CDKL5,MECOM,TACC1,MIR1185-1,TENM1,CAMKMT,RYR3,LMNA,NUCB1,GOT1,NMT2,INPP4B,AFM,TRAF6,ESRP1,ROBO2,ITPKB,CTNNA3,DNAJA3,OXRI,SLC24A2,NKAIN2,VAV2,GRK5,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,CDC6,PSMB7,TSC22D3,CNIH2,SRGA P3,MCC,TSSK1B,NKAIN3,PCDH17,KNDC1,ZC4H2,KIF26B,CCDC22,DSCAM,STK38L,SRGAP2B,CDAN1,GMD5,SAMD12,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,GF11B,PDE1A,PARD6G,PTPRK,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,ERCI,HMGN3,NCF4,NRIP1,RGS6,DGKI,ANKS1B,THRB,STXBP4,PDE4A,ERC2,GABRA3,MIR105-2,MIR767,EFCAB7,ITGB3BP,LAMA2,GFRA2,MAST4,IL17RB,TCIRG1,DACHI,PTPN11,ZNF569,KCNS3,NETO2,RBM19,HERC4,MGAT5,CCT2,CACNB2,DOCK10,ORC2,CYTH3,HDAC6,GOLGA4,SERTAD2,DDDB1,MYT1,ADORA1,GPRASP1,GPRASP2,ADAMTS3,EPHA1,IKBKB,KIF18B,PEX14,ERBB4,GBE1,ADRA1D,CNNM1,SORCS1,MRE11A,GBF1,LIMK1,ZNF609,TLK1,BRD8,ATP8A2,KAT6B,ABR,ACTG2,HIF3A,SNIP1,CUL4B,KLHL6,LARGE,ESR1,KCNJ16,NPHP3,GRM7,MIER1,PCBP3,PMEP1,MAML3,DPP10,PTPRO,CDON,NTRK2,CYB561A3,TNRC6A,FRMD4A,STX12,EP300,CCLA1,ZYG11B,TENM2,ZNF76,RNF220,MCF2L2,RGS22,ZNF471,FNTA,HOKK3,PDGFB,CACNA1B,RIMS1,TNIK,CCND3,CDH8,USP46,TOB2,MID1,ZNF19,ZNF23,BRMS1,CHFR,ZNF605,ALOX5AP,SCML4,BPI,STK39,DAP3,HNF4G,INSR,FMN2,RERE,PRKAR1A,ASB5,AFAP1,FUBP1,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,HPS1,JMJD1C,CAB39,USP34,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,ZDHHC13,PTPRD,RNF144A,BASP1,EGLN3,RBM20,SLC4A10,TBRI,CATSPER2,SAMD4A,BDNF,TFAP2A,ATRAN,AMIGO1,CDK14,CLDN12,FANCA,KCNMA1,PEG3,ZIM2,CHRM3,TGIF2,TGIF2-C20ORF24,FUT8,OR2T3,NPRL3,FMNL2,PHACTR4,MEIS1,TENM4,GRIK4,LHFPL2,VRTN,KCNRG,TRIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4,EDARADD,IL5RA,ENTPD5,SHC4,ECT2,TMC2,SLC12A8,ZNF148,MTA3,SNX6,TDFP2,NAV2,CHMLA,COXI,VAMP7,LAMC1,PPM1L,ARHGAP42,CST2,PTCD3,PTPRU,RFTN1,ERN2,CDC45,LSP1,C1D,MB,AP3S1,NPLOC4,AFF3,SGCD,DENND5A,MICU3,DMD,CENPF,ATG10,LRRN2,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,GPR171,MED12L,SATB2,PAFAH1B2,RTT2,HIRA,TANC2,JP H2,DRG2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,ADAMTS9,NF1,NCF2,SMG7,PLCB1,DST,MGMT,PCDH15,LMTK2,STX6,ARID4B,SNCB,PPP4R2,FAT3,RTN4,AFF2,RXFP1,DPEP1,CHRD1,DGKH,APOD,RTN4R,BCR,PPP1R12B,NOSIP,RWDD3,BRPF1,SHISA9,CHI3L1,TTN,NDRG4,ICA1,BMP2K,PAQR3,IF130,PIK3R2,ANKH,CACNA1E,RANBP9,KLHL21,NTN1,EGFLAM,DCTN1,SLC4A5,NOMO3,NRG1,ARHGAP10,SMAP2,SH2D3C,CNNM2,CDK19,SLC16A10,SLC43A2,UBP1,BDKRB1,BDKRB2,DOCK8,BID,MIR600HG,FRY,MAP2K1,KCNIP1,MDFI,FNIP1,RAPGEF6,STIM1,VAX2,NALCN,RALGPS2,MYH9,FRMPD4,MAD1L1,LRFN5,DAGLA,TMBIM6,VGLL4,PPP2CB,CNTN4,PPP3R1,HDAC5,CSRNP3,RBM5,NTNG1,PCSK2,VSTM1,ZNF692,OR6N2,NF1A,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,SBF2,INPP4A,ITIH2,CDKL2,TSPAN8,ROR2,DCN,ZDHHC3,SLC39A14,PRPSAP2,LIN7A,SCFD1,CATSPER3,PCBD2,SYN2,HNRNP1L,DOCK2,CDH13,CREBRF,TRDMT1,SOX13,FHIT,WDR70,PTPRT,ENTPD1,AUNIP,UST,COPS5,CSPP1,PPP1R42,FGF14,EXOC4,IPO5,ARHGAP32,MAD2L2,TLE6,RAB27A,RGS8,CAPRIN2,CCNYL1,ZNF418,NLN,NCKAPI,PHF20L1,DEFA1B,DEFA3,CD99,RAB3C,F5,PDF,TERF2,PTGER2,RALGPS1,SLX1B,ZNF286A,GOLPH3L,CLDN16,FOXN3,RCC2,BOC,ANO6,ARL3,CERKL,NEUROD1,GNAQ,KIF2A,FBXO9,ICK,TMEM117,RAD51D,RFFL,RANBP1,CCBE1,DENND1A,HERC5,USP22,ZDHHC15,JAK2,YTHDC2,FAM168A,TRAPPC9,FBXW7,LINC00473,KCNB2,OAZ2,SYN3,SKAP1,SMC3,CLSTN2,UIMC1,SYT1,ITCH,MLIP,CROCC,NPSR1,ZFYVE28,BBS12,ABCC2,LZTS1,BCL11B,SMG1,SCN4A,RBFOX1,TMCI,PKNOXI,DTHD1,CLDN1,HUNK,MLLT3,TSHZ2,ATP9A,ARAP2,SLC9A7,CDC42BPB,PNPLA1,PLS1,TEX11,DOCK9,DENND2A,SH2D6,TCF7,PDE2A,SEPT7,KLF15,TBX15,ANXA4,LAMTOR3,MAG11,KCNC4,CYFIP2,WNT11,PALMD,ARHGAP23,IFT80,TRIM59,APBB1IP,FIG4,MTA1,KREMEN1,NRG4,KLF8,CLPB,NOX4,LCOR,SIPA1L3,RPRD1B,MKLN1,CACNA1H,SLAH1,QKI,IL1RAPL1,CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,BANP,PLCXD3,SGK1,PCSK5,SPSB4,NUP93,MMP28,TRIM65,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,KEL,BTRC,DUS2,NFATC3,JPH3,CRADD,DLGAP1,MIR153-2,PTPRN2,CLDN10,F2RL1,BCAS3,C9ORF47,GRIK3,CDYL2,RPGRIP1L,DNAJB2,CESLRI,SLIT3,AAK1,CC2D1B,ZFYVE9,MIR218-1,SLIT2,ASB15,COLGALT1,TP73,GABRR3,CADPS2,ITIH4,GABRB1,SYT13,HHAT,CDH23,GPR176,HP,HPR,CORO1C,SAP18,RRAS2,CTNND2,ZBTB22,C12ORF4,OR9A4,ILF2,DISC1,BLID,KCNJ3,CEP135,KANK1,CACNA1D,ZFAND2A,CPT1C,PTPDC1,CACNA2D3,ANO4,LAMC2,CALML4,CLN6,MTDH,ANK1,CLMN,TTBK2,FANK1,XPR1,MYT1L,KDM4B,CHRM1,RAB11FIP4,MMP26,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,BNC2,ZNF398,TMTC2,CLOCK,ITSN2,CHST9,TCF12,ZNF675,ANO3,SMO1,PLCB4,ETV6,NELL1,SUCO,KCNH1,ENOX2,TFAP2D,BMPER,TIMP2,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,PARVA,SND1,DAPP1,ADAM12,DUSP22,GPR52,RABGAP1L,NAIP,STRIP1,HNRNPC,TRRAP,ANKFN1,HOMER2,SLC17A7,DOCK3,SNBO2,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,FBXL17,RASA4,RASA4B,ARHGEF28,SMYD3,STXBP5,KCNH7,KANK4,KCTD10,IL1RAPL2,IQCJ-</p>
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<i>SCHIP1,SH3RF3,PLIN3,LOXL3,RHPN2,MAST2,FANCI,SVIL,GLP2R,ADCY2,CAPN3,SLC16A1,LUM,VMP1,SMURF2,EPHA4,RORA,HIVEP2,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,OR51B2,OR51B4,OR51I1,UBQLN3,GN4,NFYB,MAGEA4,MAG,KLF12,CAMK4,GATAD2B,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,FCGR2A,FCGR2B,FCGR3A,FCGR3B,ARHGAP22,SMARCC1,KLF17,CDHR2,IGF1R,PPARG,IARS2,NGRN,AXIN1,GARNL3,PRKAR1B,OTUB1,DLG5,IL18R1,IL1RL1,ADD2,CIPC,MTF1,CPQ,MSR1,CELF2,CBX5,P2RY10,TRPM1,ANKRD17,CYBB,OTC,XK,CASKIN1,APOL3,SCAMP5,BRIP1,ANXA13,ANKRD26,ECM2,LRPPRC,SREBF2,AARS2,KCNJ12,RYR2,CDK11A,KCN46,FBLIM1,CDK11B,DRAXIN,LEPR,LEPROT,FGF1,NIN,PROS1,RGS10,NPAT,NR4A3,FOXK2,NOL3,DCT,PRKAR2A,RIOK2,AGAP1,ESCO1,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,PER2,KIR2DL1,KIR2DL4,KIR3DL2,AJUBA,CACNA1C,CPNE6,GLG1,ZNF626,ZNF737,SCN3B,CHEK2,SUPT3H,PHLDB1,UBQLN4,PRDM16,MYO1E,ASB8,CSMD1,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,PPP2R2B,CSPG4,GRM1,BRMS1L,RIMS4,AGFG2,DCC,ZBTB8A,ZBTB8B,ARHGAP31,P2RY14,ANKFY1,CTDP1,ZUFSP,HS3ST5,BAZ1B,MMP16,OBSCN,RGL1,NF2,FLT4,MEF2B,SGMS1,BICC1,HDAC4,PAX2,PHF5A,TNS3,SECISBP2L,SPTBN1,TPTE,ELN,TRABD2B,SFRP1,MED13,ST8SIA1,PPP6R2,ZNF395,FOXO3,DGKB,TRHDE,ARL13B,CNTN6,NFIB,MUC12,SP4,ARHGAP29,ZCCHC17,IFT122,RANBP3,BCL2L13,DNM3,SSH1,CELF5,ATP10D,SYNCRIP,SMAD3,RNFT2,CUX2,ITPR1,PTPRM,WWP2,ARNT2,SBNO1,ACKR2,KRBOX1,ZNF662,CYP4F11,ZNF777,SIMC1,WPI1,EMB1,GSMD1,MTBP,RNF168,C1S,CASZ1,ABI2,C10ORF90,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,IFNAR1,DCP1B,OR14K1,MIER3,NEDD4,NRP2,ARHGEF18,VANGL1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,HOXD4,KPNB1,NAV3,SLC4A4,ZNF114,TAB1,SLC6A1,KTF12,TXNDC12,NFATC1,RAB6C,KCNK1,PRTG,CDC73,APP,SSBP3,GSX2,PDGFR,RA,BET1L,SLK,FCRL4,ADD3,RBM8A,CCN2,DIP2B,NOX1,ARIH1,YAP1,HEG1,AMFR,RAB11FIP5,SESN1,CDK3,TEN1,FSTL4,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D19,BORA,RNLS,IBTK,NVL,ALPL,JAK1,PDE6D,ANGPTL4,TNNI3K,PEMT,LRP5,MTCP1,MUC20,POLR3G,PTPRG,BDH2,ISLR2,SLC9B2,ZNF787,GN2,SOX2,SETD2,ZDHHC6,GPC6,KIF24,CHST11,TEAD1,PRICKLE1,RCAN1,ECSIT,ZNF653,SPTBN4,GR1A3,VASH2,ZNF521,DRD1,TMEM14A,GLRA2,ARID3A,ZNF761,CHUK,ERLIN1,FRS2,PALB2,RFT1,SFMBT1,VILL,MMP2,ZNF584,SERGEF,TPH1,ESR2,SYNE2,S100A12,DCUN1D3,CPNE9,KDM6A,PRKD1,STAT1,CELF6,PARP6,ST18,DGKG,ETV5,RHOXF2B,RND3,SLC6A3,USP53,TAF3,ARHGEF33,PLAGL1,HNF4A,ZBTB7C,LRRC2,TASPI,SHANK2,TMEM183A,STRA6,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,FXD2,FXD6,FXD7,FXD8,FXD9,FXD10,FXD11,FXD12,FXD13,FXD14,FXD15,FXD16,FXD17,FXD18,FXD19,FXD20,FXD21,FXD22,FXD23,FXD24,FXD25,FXD26,FXD27,FXD28,FXD29,FXD30,FXD31,FXD32,FXD33,FXD34,FXD35,FXD36,FXD37,FXD38,FXD39,FXD40,FXD41,FXD42,FXD43,FXD44,FXD45,FXD46,FXD47,FXD48,FXD49,FXD50,FXD51,FXD52,FXD53,FXD54,FXD55,FXD56,FXD57,FXD58,FXD59,FXD60,FXD61,FXD62,FXD63,FXD64,FXD65,FXD66,FXD67,FXD68,FXD69,FXD70,FXD71,FXD72,FXD73,FXD74,FXD75,FXD76,FXD77,FXD78,FXD79,FXD80,FXD81,FXD82,FXD83,FXD84,FXD85,FXD86,FXD87,FXD88,FXD89,FXD90,FXD91,FXD92,FXD93,FXD94,FXD95,FXD96,FXD97,FXD98,FXD99,FXD100,FXD101,FXD102,FXD103,FXD104,FXD105,FXD106,FXD107,FXD108,FXD109,FXD110,FXD111,FXD112,FXD113,FXD114,FXD115,FXD116,FXD117,FXD118,FXD119,FXD120,FXD121,FXD122,FXD123,FXD124,FXD125,FXD126,FXD127,FXD128,FXD129,FXD130,FXD131,FXD132,FXD133,FXD134,FXD135,FXD136,FXD137,FXD138,FXD139,FXD140,FXD141,FXD142,FXD143,FXD144,FXD145,FXD146,FXD147,FXD148,FXD149,FXD150,FXD151,FXD152,FXD153,FXD154,FXD155,FXD156,FXD157,FXD158,FXD159,FXD160,FXD161,FXD162,FXD163,FXD164,FXD165,FXD166,FXD167,FXD168,FXD169,FXD170,FXD171,FXD172,FXD173,FXD174,FXD175,FXD176,FXD177,FXD178,FXD179,FXD180,FXD181,FXD182,FXD183,FXD184,FXD185,FXD186,FXD187,FXD188,FXD189,FXD190,FXD191,FXD192,FXD193,FXD194,FXD195,FXD196,FXD197,FXD198,FXD199,FXD200,FXD201,FXD202,FXD203,FXD204,FXD205,FXD206,FXD207,FXD208,FXD209,FXD210,FXD211,FXD212,FXD213,FXD214,FXD215,FXD216,FXD217,FXD218,FXD219,FXD220,FXD221,FXD222,FXD223,FXD224,FXD225,FXD226,FXD227,FXD228,FXD229,FXD230,FXD231,FXD232,FXD233,FXD234,FXD235,FXD236,FXD237,FXD238,FXD239,FXD240,FXD241,FXD242,FXD243,FXD244,FXD245,FXD246,FXD247,FXD248,FXD249,FXD250,FXD251,FXD252,FXD253,FXD254,FXD255,FXD256,FXD257,FXD258,FXD259,FXD260,FXD261,FXD262,FXD263,FXD264,FXD265,FXD266,FXD267,FXD268,FXD269,FXD270,FXD271,FXD272,FXD273,FXD274,FXD275,FXD276,FXD277,FXD278,FXD279,FXD280,FXD281,FXD282,FXD283,FXD284,FXD285,FXD286,FXD287,FXD288,FXD289,FXD290,FXD291,FXD292,FXD293,FXD294,FXD295,FXD296,FXD297,FXD298,FXD299,FXD300,FXD301,FXD302,FXD303,FXD304,FXD305,FXD306,FXD307,FXD308,FXD309,FXD310,FXD311,FXD312,FXD313,FXD314,FXD315,FXD316,FXD317,FXD318,FXD319,FXD320,FXD321,FXD322,FXD323,FXD324,FXD325,FXD326,FXD327,FXD328,FXD329,FXD330,FXD331,FXD332,FXD333,FXD334,FXD335,FXD336,FXD337,FXD338,FXD339,FXD340,FXD341,FXD342,FXD343,FXD344,FXD345,FXD346,FXD347,FXD348,FXD349,FXD350,FXD351,FXD352,FXD353,FXD354,FXD355,FXD356,FXD357,FXD358,FXD359,FXD360,FXD361,FXD362,FXD363,FXD364,FXD365,FXD366,FXD367,FXD368,FXD369,FXD370,FXD371,FXD372,FXD373,FXD374,FXD375,FXD376,FXD377,FXD378,FXD379,FXD380,FXD381,FXD382,FXD383,FXD384,FXD385,FXD386,FXD387,FXD388,FXD389,FXD390,FXD391,FXD392,FXD393,FXD394,FXD395,FXD396,FXD397,FXD398,FXD399,FXD400,FXD401,FXD402,FXD403,FXD404,FXD405,FXD406,FXD407,FXD408,F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FBXW4, PSPC1, ACAP2, GLIS1, SFMBT2, TRDN, ATG14, EIF3H, GABRA6, LRRC8D, LY86, STAC, BCAR3, JAZF1, ILDR2, SHROOM3, STK38, TRPC6, ABCB7, ACOT8, RBPMS, RENBP, CHURC1, CREB5, FCHSD2, MAP3K13, OTUD3, RAB15, RAPGEF3, SDK1, PDXP, SH3BP1, MST1, ATP13A5, ERCC3, PTK17, SMYD1, CHID1, SNCA, BMPR1B, CACNG2, CD53, GRM4, MAGI2, PRIM2, TBC1D9, USP42, PNPT1, USP50, ZEB2, DHRS4, CABLES1, FOXJ3, SYT9, HEY2, RC3H1, CHMP3, EIF3E, CNGA3, RNF19B, WNT7B, PTPRS, ZMYND11, KMT2D, PRKAG1, CDKL1, CREM, PSMF1, RAB5B, KMT2C, SULT2A1, TLL2, CAST, TRIP12, DFFA, SPPL2A, ADTRP, ABCA12, GNG7, CSRP1, PLD1, RASA1, MACC1, MTF, SRSF6, OPRD1, CABIN1, HIPK1, NUGGC, PKP2, RPTOR, RTN4R1, NFIX, BTK, MIR383, SGCZ, SIGLEC9, TBC1D16, XPO4, DSG1, ZNRF3, KCTD13, MLLT1, SLC4A8, TROVE2, CBFA2T2, IGF1, MLXIP, PLA2G4E, STX8, ATF7IP, CTNBNL1, HTT, DPYSL3, LARS2, MAPK1, PTEN, ARHGEF17, MIB1, SPRED2, SLC30A7, BMP7, SCN8A, TXN2, MXI1, PIK3C3, PUM1, RASA2, SOX5, CIR1, PCBP2, TLL4, PRCP, RAB30, ZNF780A, ZNF780B, LRRK2, ATP6V1A, MLYCD, OSGIN1, GNA14, TMEM59, ZRANB1, EBAG9, SPAG5, UNC119, ZBTB20, CHMP5, CNIH3, RAPH1, RFC3, BAG6, LILRB4, MORC3, IFT81, TMCO1, TMEM108, ITGAM, ARHGAP25, IL11RA, NSG2, PKD2, ZNF652, EFNA5, SHANK3, KCTD1, STMN4, RIPPLY1, MIA2, NT5E, RCOR3, TADA2A, DAZL, BTBD11, RGS9, PDGFC, SERPINA3, SERPINA4, SERPINA5, AMOTL1, ATP8B4, FAM13B, NCOA3, BEST3, PKIB, MTMR3, ZNF146, ZNF565, SGSM1, STEAP4, CUEDC2, PPP2R3C, TBDC, WNT7A, ZBED6, SNAP23, BRWD3, NLRP1, RPS6KC1, UACA, LPGAT1, MAP4, CRT3, DNAJC1, AGAP5, GPR141, ARNTL2, ELOVL5, PLCL2, KAT6A, MTIF2, GPR21, RABEP1, SH3PXD2B, TTC28, RHOT1, SIK3, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, MYCBP2, NFE2L1, ANO1, GPI, IL17RD, SH3RF2, SOS1, TSHR, WDR43, ZNF30, EXT1, N4BP1, PDCD1LG2, ATRX, DPH6, PLIN2, PRICKLE2, SERINC5, GABRR2, IKZF1, PARVB, PNPLA3, PRMT2, RARGE2, ASCC1, KCNC2, SMO, VRK3, RALY, ENPP3, GET4, BLOC1S3, MARK4, PPP1R37, PRKAR2B, STXBP5L, CPT1A, PSEN2, TCF4, TNFRSF11B, PAG1, SYT17, AFF1, BPGM, DECRI, SOX30, DNAJC6, TFE3, UBR5, GRB14, GRIN1, JADE1, KCTD8, ARRDC4, 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RGS14, SIPA1L2, ACTN4, ARHGAP11A, MC1R, SCNN1B, STK4, TCF25, ZFAND6, DRAM1, ZNF282, MARK3, SPEF1, COX6A1, EPHB2, GATC, SLC1A1, WLS, EDRF1, SIGMAR1, TMEFF2, XCR1, BCO2, CLPTM1, IL18, DTNA, LRRC52, MFSD8, NKAIN1, UBE2K, GPSM2, DNAJC7, HCAR1, HCAR2, HCAR3, DIS3, DLC1, PPARA, PPP1R10, ARID5B, GRTP1, PDP1, CALCL, MCOLN1, STEAP3, EPB41L4B, SLC25A33, SMARCAL1, PHLPP1, MAGI3, CPEB4, GPSM3, MOB3B, NOTCH4, SYTL4, ZMYND8, ZNF366, CRX, CYP2C18, FBNI, PAX6, PRKCZ, ZC3H4V1, ATP1A3, CD96, FAM20C, ADORA2A, GRIN2B, KCTD7, PAH, PPP1CC, RABGEF1, CCNG2, CPEB1, PHLDB2, PLCXD2, TYK2, OTUD7B, DENND4B, NIPBL, TMIGD2, YEATS4, CNRIP1, COL28A1, PHF20, ZNF143, ASPN, ANGPT1, BRF1, CADPS, PACS2, TBL1X, EYA3, FHL2, FRMPD1, LRRK1, MBTD1, OSBP1, ATF6, ZBTB5, ZNF708, IGF2BP3, EPB41L2, GCNT2, ETS1, PPP1CA, TBC1D10C, VWC2, ARHGAP21, CFI, GRIA4, MAP2, MTF2, RBMS3, CCL22, STPG1, BTN3A2, TAGLN3, FBXO31, ATG3, CDK5RAP1, CNTN1, NCOR2, PRKCQ, BRAF, CSRNPI, DIAPH1, HDAC2, HTR2C, IM PACT, MIR1912, ATP8A1, PHKG2, SRCAP, CAPN6, POU3F3, NOTO, PPP1R14A, SPINT2, TNFR, MBNL3, UBE2E2, ZKSCAN5, HIGD2A, CD300A, ELF2, IRAK1BP1, MOXD1, PHIP, CDKL3, PPP2CA, SKP1, ANGPT4, ARHGEF6, DNAJC9, MAOA, RPL23, SH3BP4, RFC5, A </i> </p>
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			<p>TXN1,CAMSAP3,DCDC1,SP100,ZNF347,ZNF415,OPN1LW,ANXA2,TRIM29,KCND2,PARN,ATP6V0A1,PIGU,PRMT7,RAB27B,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,NUP214,SRGAP2,ADCY1,MADD,NUMB,RBM42,SOLE,SYK,CNOT1,RBM39,WWTRI,A RHGAP19,CYP39A1,GRIK2,GT2H5,SCN1A,SLIT1,ASB1,FRMD5,NFXL1,CIT,MYRI P,RADIL,UBAP2L,ZBTB38,BRC42,HRK,RAP1GAP2,ALDH8A1,ATF7,CACNG3,DVL 2,MORC1,MTRF1,NEB,YBX1,ANKRD13A,GRIP1,PTPRJ,SLC10A1,TAF1,ATP2B3,EI F4E3,PPME1,TICAM1,TANK,THAP3,GPM6A,UCN2,ITGAE,TAC3,PLEKHB2,POTE E,CADM1,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,INPP5A,MIR663B,NRF1,SRPK2,A NKRD13C,ATP10B,PLEKHM1,SASH1,DENND2C,ASAP1,NCOA2,ADAMTS7,RALGA PA1,GBP5,MCM8,SULT2B1,WDR18,BMP1,CGNL1,EEFSEC,FCHO1,QRICHI,VAV3 ,ZP3,CHD6,DLGAP2,KCNQ3,CIB2,RNF2,ZNF554,MOB3A,CAV2,GNA12,SH2D3A,S KA2,AKTIP,COL4A5,MYEF2,POC1B,CA12,INPP5F,NUAK2,TMPRSS3,AXL,REPS2,T NFSF9,TRIM37,WIF1,CD109,DENND4C,MET,SESTD1,TBC1D10A,FMNL1,ZNF461, CAMK2D,CCR3,KCNJ6,NBEA,RAD9B,SNX1,TIMELESS,UCHL5,ANKRD6,BRD9,MA LT1,SERPINE3,SETD3,TRA2B,ZDHHC11,SPTAN1,EHD2,KDM2B,MLXIPL,SEMA3C ,THEM4,CCT3,NEDD4L,PHB,PTPRC,RPH3A,EDA,GPR89A,ZNF555,CTCF,PBLD,S H3GL2,TYRO3,MTMR12,NR6A1,RNF213,SPON2,SYNDIG1,TSPAN5,ADCY10,NCAM 1,TRAF3IP2,TRIM60,ATF6B,CREB1,RASSF8,RGMB,SGTB,SHISA6,TNXB,TRAP1,AF F4,CLNK,EBF4,EDNRA,GNGT1,PRAP1,STXBP6,ZNF511,BMP4,ABLIM3,CASP12,C PNE1</p>
GO:0000902	cell morphogenesis	3.8022776620538266e-41	<p>CLRN1,NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,DOCK1,EPB41,SEMA3D, PHACTR1,MYOT,TIAM2,UNC5C,KALRN,ATRN1,SEMA5A,ENPP2,FER,LRP2,OLF M1,EZR,NRXN3,ROBO1,ITGB6,CDKL5,KIF5C,ROBO2,NFASC,ABI1,ITGB1,TRIOBP ,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,CDC42EP3,MYO10,CDH10,LAMA2, PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,CDH12,LIMK1,ATP8A2,PTPRO,NTRK2 ,EP300,MEGF9,RIMS1,TRIK,SNX2,KIRREL3,CDH8,REER,UNC5D,LAMA3,CDH4,P AK1,PTPRD,TBR1,STRC,BDNF,ATRN,AMIGO1,FMNL2,ECT2,LAMC1,DMD,TANC2 ,CASS4,FYN,PCDH15,LMTK2,FAT3,RTN4,B4GALT6,RTN4R,CCDC141,ADAMTSL1, NTN1,NRG1,FRY,MAP2K1,VAX2,MYH9,CNTN4,NTNG1,SCFD1,UST,CAPRIN2,NCK AP1,RCC2,BOC,ZDHHC15,MYPN,SYT1,LZTS1,BCL11B,PLS1,SEPT7,CYFIP2,PALM D,NOX4,SIPA1L3,MKLN1,SLAH1,IL1RAPL1,CAMK2B,SEMA5B,TGFB1,SGK1,KEL,S LIT3,SLIT2,CDH23,CORO1C,CTNND2,DISC1,KANK1,LAMC2,ITSN2,DCLK1,PARV A,STRIP1,YTHDF1,CNTNAP2,ARHGEF28,ENAH,EPHA4,AUTS2,PPP3CA,MAG,CT NNB1,PARK2,IGF1R,XK,FBLIM1,DRAXIN,NIN,CPNE6,HCK,DCC,PAX2,SPG11,AR L13B,CNTN6,NFIB,DNM3,SSH1,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,A RHGEF18,BTBD3,PREX1,PRTG,APP,DIP2B,YAP1,HEG1,FSTL4,SH3D19,ISLR2,SP TBN4,CPNE9,PARP6,RND3,DSCAML1,SEMA6D,BMPR2,USP33,DPSYL2,NLGN1,C TNN2,SPAG9,RAB11A,CRMP1,LRR4C,NEDD9,PEAK1,SEMA4D,PLXNA2,RILPL1 ,DVL3,EPHB3,FBXO45,VCL,LAMB1,CLIC4,MYO9A,WNT3,RHOJ,P4HB,NLGN3,PA FAH1B1,KIF3A,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,PKHD1,USH2A,ARHGA N3A,CFDP1,IQGAP1,MACF1,MYO7A,AKAP2,SYNE3,PACSIN1,PAK3,ADNP,MAP1 B,EPHA5,MEF2A,FLRT2,FGD1,ACTR2,ELAVL4,ROCK1,EPS8,EGR2,AP3B1,NTRK1 ,MAP1A,ANK3,DNMBP,UNC13A,PTPRQ,EPHB1,EPHA10,SARM1,PARD3,TRIM46, ARHGAP44,COCH,CUX1,SPI1,EPHA7,SHROOM3,MAP3K13,PTK7,BMPR1B,WNT7 B,PTPRS,RASA1,PTEN,BMP7,LHFPL5,LRRK2,ZRANB1,RAPH1,TMEM108,EFNA5,S HANK3,TBCD,WNT7A,BRWD3,MYCBP2,SOS1,EXT1,PARVB,RAPGEF2,CDH9,SMO, SYT17,RHOA,SYNGAP1,RHOBTB1,SHROOM1,CUL3,SH3KBP1,GSK3B,EMB,RDX,E EF2K,CDH20,ZMPSTE24,PTK2,RIMS2,GAP43,FAM171A1,TAOK2,ALDOA,ARHGA P15,ECE1,CD44,FGD3,LARP4,ADAM8,CLDN4,PACSIN2,RPS6KA5,FGD4,ACTN4,S TK4,TUBB3,EPHB2,TMEFF2,DLC1,NOTCH4,PAX6,PRKCZ,ADORA2A,COL22A1,M AP2,FBXO31,PRKCQ,BRAF,DIAPH1,IMPACT,SPINT2,TNR,PHIP,CDKL3,SRGAP2, TMEFF1,ADCY1,NUMB,SLIT1,RADIL,DVL2,GRIP1,GPM6A,GNA12,AXL,MET,FMN L1,SNX1,SEMA3C,NEDD4L,SH3GL2,TYRO3,NCAM1,CREB1,EDNRA,CPNE1</p>
GO:0051179	localization	6.19580958582497e-41	<p>CD247,POLDIP3,CLRN1,DNAH11,ZDHHC14,SLC39A11,ENPP1,SLC35E3,HOKK2, RTBDN,BLZF1,LDB2,GPC5,NRXN1,ASPH,PRKCI,SLCO3A1,MAP4K4,PDE4D,SIPR 2,SLC9A1,ANTXR2,FAM155A,CD302,LY75,ADCY8,SPAG16,CLASP2,SEMA3A,GRID 2,CHERP,SLC35E1,DOCK1,WWC1,CLDN18,KIF22,CTDSPL2,SLC25A17,CACHD1, RYR1,NRG3,ASH1L,NOS1AP,LATS2,TUBA1C,LRP1B,NOX5,ANP32A,IQCG,ASTN2, EPB41,SEMA3D,PHACTR1,DPP6,SLC14A2,MAPRE2,NLGN4X,PRKAG2,WWC3,TJP 1,UNC5C,CLCN1,SLC35F3,PRLR,MVP,FTO,UTRN,KALRN,PITPNC1,SEC23B,LTV1, SNX31,NTRK3,CBL,ATRN1,RAB4B,RAB4B- EGLN2,SEMA5A,STAT5B,ENPP2,ATP2B2,KCNQ5,GRM5,LHFPL4,FAM53A,FER,CA SK,MARVELD3,MAP2K5,CCDC93,KITLG,KCNIP4,PTPRR,SPNS2,CEP128,LRP2,PI K3CD,SLC38A11,TNPO3,HDGF,ANK2,EZR,MEGF10,NRXN3,XRCC4,ROBO1,SLC9 A9,TOM1L1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,TENM1,RYR3,KIF5C,LMNA,SR P72,AFM,NFASC,CTNNA3,DNAJA3,SLC24A2,NKAIN2,VAV2,ULK4,ITGB1,HSP90A A1,APOL4,SLC24A3,ELMO2,PSMB7,CNIH2,SRGAP3,MCC,NKAIN3,PCDH17,CCD C22,SLC22A8,FAM126A,SRGAP2B,CDAN1,CNGB1,ARHGAP24,KLHL12,AKAP13,D LG2,FLVCR2,IPT43,PARD6G,PTPRK,DAB1,MYO10,ABCC8,ERC1,HMGN3,AFTPH, NCF4,NRIP1,DGKI,ANKS1B,STXBP4,ERC2,GABRA3,IMPG2,EFCA7,LAMA2,TCIR G1,DACH1,PTPN11,KCNS3,NIPAL2,NETO2,MGAT5,CCT2,CACNB2,DOCK10,CYT H3,HDAC6,GOLGA4,SV2B,ADORA1,GPRASP1,EPHA1,IKBKB,PEX14,ERBB4,CNN M1,SORCSI,GBF1,DNAH2,LIMK1,ZNF609,TLK1,ATP8A2,OSBPL10,CECR2,ESR1,K</p>

			<p> CNJI6,NPHP3,GRM7,DPP10,PTPRO,NTRK2,CYB561A3,FRMD4A,STX18,MEGF9,FNTA,HOOK3,VPS45,PDGFB,CACNA1B,AVL9,RIMS1, TNIK,SNX2,KIRREL3,MID1,STK39,MSTO1,INSR,FMN2,RERE,ATP8B1,UNC5D,H2AFY2,PLLP,LAMA3,TCF7L2,PI P4K2A,HPS1,CAB39,PAK1,FBXW11,SCAMP4,MYOM1,ZDHHC13,SPTSSA,SLC20A2,SLC4A10,TBRI,CATSPER2,BDNF,GLTP,ATRN,AMIGO1,SFT2D1,KCNMA1,CHRM3,POMGNT2,FUT8,FMNL2,PHACTR4,GRIK4,KCNRG,LCK,ECT2,TMC2,TMEM144,SLC12A8,SNX6,CHML,VAMP7,LAMC1,SPNS3,SLC6A16,PTPRU,RFTN1,SHFM1,MB,AP3S1,NPLOC4,TMPRSS15,RHCE,DENND5A,MICU3,DMD,CENPF,RANBP17,ATG10,SLC30A9,KAT7,SLC8A1,PRELID2,GSN,RBM4,SATB2,RIT2,TANC2,JPH2,DEPDC1B,CASS4,FYN,ARNTL,ADAMTS9,NF1,NCF2,SMG7,PLCB1,SLC16A6,DST,LMTK2,STX6,SNCB,SLC25A21,FAT3,RTN4,MAL2,DPEP1,GOLGA2P5,SLC5A6,APOD,SLC2A14,VT 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A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF 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A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF 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A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,PTPRM,WWP2,ACKR2,WIP11,MTBP,VPS39,ABI2,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,SVOPL,PRES1,PLA2G4C,DRM1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUF A9,LEPR,LEPROT,FGF1,NIN,PROS1,NR4A3,WDR45B,NOL3,RIOK2,AGAP1,SCARA3,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,MRC2,CSPG4,GRM1,RIMS4,DCC,ANKFY1,OBSCN,NF2,FLT4,HDAC4,DNAH9,SPTBN1,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CCDC9</p>
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			<p> <i>13A,EPHB1,PTPN9,SNUPN,AXIN2,CEP112,ATP13A3,PARD3,GNL3L,PTPN14,TRIM46,TUB,SH3GL3,TEKT1,KCND3,CACNG8,AP3D1,KIF3C,SLC9C2,AP2B1,NETO1,ANXA8L1,ARHGAP44,HEATR5A,SNX33,CD84,LP4,CUX1,SP11,CHNRNB4,MCU,VPS16,CTNNA1,LIMA1,ACAP2,TRDN,ATG14,GABRA6,LRRC8C,LRRC8D,STAC,ILDR2,SHROOM3,TRPC6,ABCB7,SLC41A2,FCHSD2,RAB15,RAPGEF3,SLC48A1,SH3BP1,MSMT1,ATP13A5,ERCC3,PTK7,RSRC1,SNCA,CACNG2,GRM4,MAGI2,TBC1D9,PNPT1,ZEB2,OCA2,SLC39A9,SYT9,HEY2,CHMP3,RNF103-CHMP3,CNGA3,SLC22A10,PRKAG1,RAB5B,OSBPL1A,ADTRP,ABCA12,PLD1,CLC1,MITF,OPRD1,PKP2,BTK,TBC1D16,XPO4,VPS41,KCTD13,SLC4A8,IGF1,PLA2G4E,STX8,HTT,DPYSL3,MAPK1,PTEN,MIB1,SLC7A14,IFFO1,SLC30A7,BMP7,SCN8A,ATXN2,PIK3C3,LHFPL5,NUP88,PRCP,LRRK2,ATP6V1A,OSGIN1,SEPT6,TMEM59,ZRANB1,SPAG5,UNC119,CHMP5,CNIH3,BAG6,LILRB4,MORC3,SLC44A1,IFT81,TMCO1,TMEM108,IPCEF1,ITGAM,ARHGAP25,NSG2,PKD2,EFNA5,SHANK3,MLA2,PDGFC,SERPINA5,AMOTL1,ATP8B4,BEST3,SGSM1,STEAP4,TMCC1,WNT7A,ZBED6,ZC3H11A,SNAP23,MAP4,DNAJC1,NME8,RABEP1,SH3PXD2B,POM121C,RHOT1,BMP6,MYCBP2,ANO1,GPI,ANO8,SH3RF2,SOS1,EXT1,ATRXL,PLIN2,SERINC5,GABRR2,SAMM50,RAPGEF2,ABCG2,KCNC2,SMO,SLC6A14,GET4,SLC44A3,CD160,LCOS3,MARK4,STXBP5L,CPT1A,PSEN2,SYT17,SOX30,DNAJC6,UBR5,GRIN1,ARRDC4,BBS9,RHOA,SYNGAPI,GRIN3A,NDE1,TF,ONECUT2,RHOBTB1,ESYT2,FAM19A4,CUL3,SH3KBP1,HSPD1,ITPR2,TSPAN33,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,EMB,RDX,ACTA2,SYN1,EEF2K,FAM49B,IWS1,CCDC14,NECAB2,UPF2,ITGBL1,MCTP2,SCN9A,VAMP1,BOK,SULF1,AGT,PRKAA2,SYT7,ADAR,BLOC1S6,FBN2,PITPNM2,ZMPSTE24,PTK2,TPP2,HEPHL1,LAT2,PEX5L,SNX3,EXOC6B,PDE4B,RIMS2,COX5A,SLC25A51,TOMM5,COPG2,CPE,SEC16B,TRPC4AP,STOML1,TIMM44,PCSK6,CHKA,SLC25A42,GTFT2IRD2,NCF1,SLC29A1,TAOK2,UGT1A3,SLC44A3,CD160,KCNJ15,RPS6KB1,SLC5A10,STC2,ZDHHC23,GPR173,ANKS1A,ITGAL,ALOX5,CPLX2,DNAJB6,CD44,ADAM8,SLC5A3,ARFGAP3,CLDN4,PACSN2,CDS1,GRID1,PKD1L1,SLC25A18,COX5B,CXCL17,MON2,NOS1,PEX7,GCKR,TBC1D23,PLEKHA1,PLVAP,RGS14,ACTN4,COG4,SCNN1B,STK4,ZFAND6,SPEF1,COX6A1,EPHB2,SLC1A1,WLS,SIGMAR1,TMEFF2,XCR1,LRRC52,MFSD8,NKAIN1,GPSM2,HCAR2,DLC1,PPARA,PPP1R10,ABCD3,ARID5B,GRTP1,CALCRL,MCOLN1,STEAP3,EPB41L4B,SLC25A33,KPNA4,GPSM3,LDHC,SYTL4,ZMYND8,FBN1,PAX6,PRKCZ,ATP1A3,ADORA2A,GPRIN2B,KCTD7,PPP1CC,RABGEF1,WDR83OS,PHLDB2,OTUD7B,GPR107,KLC3,NIPBL,ANGPT1,CADPS,PACS2,FRMPD1,OSBPL8,IGF2BP3,EPB41L2,SLC25A26,SLC02B1,GCNT2,ETS1,HACL1,TBC1D10C,ARHGAP21,CFI,GRIA4,MAP2,BIN2,CCL22,STPG1,FBXO31,ATG3,CNTN1,NCOR2,PRKCQ,BRAF,DIAPH1,HTR2C,SIL1,TNS4,ATP8A1,POU3F3,SPINT2,TNR,TMEM163,CLTB,UOCR10,CD300A,EMC3,SKP1,SLC26A2,ANGPT4,FAM149B1,RPL23,SH3BP4,ATXN1,CAMSAP3,SP100,VTI1A,ANXA2,FAT2,TRIM29,KCND2,PARN,ATP6V0A1,PIGU,RAB27B,ITSN1,NUP214,PITPNM3,SRGAP2,WIPI2,ADCY1,NUMB,SLC18B1,SQLE,SYK,MOGAT2,WWTR1,GRIK2,SCN1A,SLIT1,FRMD5,MYRIP,RAB2A,RADIL,SEC31B,SLC44A5,BRC4,CACNG3,DNAH3,DVL2,YBX1,ANKRD13A,GRIPI,PTPRJ,SLC10A1,ATP2B3,ERGIC1,GPM6A,OSBP2,MYO1A,SLC13A3,SLC2A12,HSF1,CNIH4,ANKRD13C,ATP10B,PLEKHM1,SASH1,HGSNAT,SLC5A4,GBP5,MCN8,CGNL1,FCHO1,VAV3,ZP3,KCNQ3,MLPH,GRK37,TNS4,GNAI2,AKTIP,EPS15,INPP5F,TMPRSS3,AXL,REPS2,DENND4C,MET,SESTD1,TBC1D10A,FMNL1,MICAL3,CAMK2D,CCR3,KCNJ6,NBEA,SNX1,MALTI,ZDHHC11,ZDHHC11B,EHD2,SEMA3C,THEM4,TRAPPC8,CCT3,NEDD4L,NDCl,PTPRC,RPH3A,GPR89A,CTCF,RAB28,SH3GL2,TYRO3,MTMR12,RNF213,SPON2,PTNDR1,TSPAN5,VPS52,ADCY10,TRAF3IP2,CREB1,SGTB,SHISA6,CLNK,EDNRA,GNGT1,PRAP1,SLC25A13,STXBP6,BMP4,ABLIM3,CPNE1</i> </p>
GO:0023051	regulation of signaling	1.722211415775773e-38	<p> <i>RIC8B,ENPPI,PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDE4D,PDCL,SIPR2,TMBIM4,SLC9A1,ADCY8,PDE8A,SEMA3A,GRID2,CHERP,WWC1,C12ORF49,CTDSP2L2,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,NREP,TIAM2,MAPRE2,NLGN4X,PTGIS,WWC3,GRM8,PRLR,MVP,PAGRI,RGS7BP,KALRN,NTRK3,CBL,ARNT,PLEKHG4B,SEMA5A,FLT3,ATP2B2,GRM5,PLCE1,SAMHD1,FER,CASK,MARVELD3,MAP2K5,KITLG,PTPRR,LRP2,PIK3CD,ZNF536,DEPDC5,ANK2,SH2D1A,EZR,NRXN3,ROBO1,TNFAIP8L1,CHD7,HTR2B,MECOM,TENM1,CAMKMT,RYR3,LMNA,NMT2,TRAF6,ROBO2,ITPKB,DNAJA3,SLC24A2,VAV2,GRK5,ULK4,ITGB1,HSP90A1,PSMB7,CNIH2,SRGAP3,MCC,PCDH17,CCDC22,TRIO,ARHGAP24,AKAP13,DAB1,ABCC8,ERC1,HMGN3,RGS6,DGKI,STXBP4,PDE4A,ERC2,LAMA2,TCIRG1,PTPN11,NETO2,HERC4,MGAT5,CACNB2,CYTH3,HDAC6,ADORA1,GPRASP1,ADAMTS3,IKBKB,ERBB4,ADRA1D,GBF1,ABR,ESR1,NPHP3,GRM7,MIER1,PMEP1,PTPRO,CDON,NTRK2,EP300,RNF220,RGS22,PDGFB,CACNA1B,RIMS1,TNII,CCND3,USP46,MID1,STK39,INSR,AFAP1,TCF7L2,PIP4K2A,USP34,PAK1,LITAF,FBXW11,MAP3K4,ZDHHC13,PTPRD,SLC4A10,BDNF,CDK14,FANCA,NPRL3,PHACTR4,GRIK4,TRIM13,UBR2,ARHGAP6,LCK,ENTPD5,ECT2,SNX6,VAMP7,ARHGAP42,PTPRU,ERN2,NPLOC4,DMD,SLC8A1,RIT2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,NF1,PLCB1,RTN4,CHRD1,APOD,RTN4R,BCR,RWDD3,SHISA9,CHI3L1,NDRG4,ICA1,BMP2K,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,ARHGAP10,BDKRB2,DOCK8,BID,MAP2K1,MDF1,FNIP1,RALGPS2,MAD1L1,TMBIM6,VGLL4,PPP2CB,CNTN4,NTNG1,CMKLR1,ROR2,DCN,ZDHHC3,SLC39A14,DOCK2,CDH13,CREBRF,SOX13,PTPR,POPS5,ARHGAP32,MAD2L2,TLE6,RGS8,CAPRIN2,CCNYL1,RALGPS1,NEUROD1,GN4Q,FBXO9,RFFL,CCBE1,DENND1A,JAK2,FBXW7,LINC00473,SYN3,CLSTN2,SYT1,ITCH,NPSR1,ZFY</i> </p>

			<p>VE28,LZTS1,MLLT3,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,ARHGAP23,IFT80,T RIM59,KREMEN1,NOX4,SIPA1L3,SLAH1,CAMK2B,PRKCD,TAB2,ACVR2A,RUNX2, CD4,SGK1,NUP93,IGSF1,PIBF1,BTRC,JPH3,CRADD,DLGAP1,F2RL1,GRIK3,RPG RIP1L,SLIT3,AAK1,SLIT2,TP73,CTNND2,DISC1,KANK1,MTDH,SMAD6,CLOCK,ZN F675,PLCB4,BMPER,BCL3,ANKRD54,DAPK2,TNFRSF10B,DUSP22,NAIP,HOMER 2,DOCK3,YTHDF1,FGF10,FBXL17,RASA4,RASA4B,ARHGEF28,STXBP5,KCTD10,I QCJ- SCHIP1,SH3RF3,LOXL3,CAPN3,SLC16A1,SMURF2,EPHA4,RORA,PRKCA,AUTS2, CNRI,TNFSF11,PPP3CA,GNG4,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,ARHGAP22 ,IGF1R,PPARG,AXIN1,GARNL3,PRKAR1B,DLG5,IL18R1,P2RY10,ANKRD17,APOL3 ,SREBF2,RYR2,DRAXIN,LEPROT,FGF1,RGS10,NOL3,MYOCD,TRIM5,PER2,AJUBA ,GLG1,CHEK2,PRDM16,SORBS1,TBCK,TRIM8,CSPG4,GRM1,RIMS4,DCC,ARHGA P31,OBSCN,NF2,FLT4,SGMS1,BICC1,SPTBN1,TPTE,TRABD2B,SFRP1,FOXO3,DG KB,CNTN6,ARHGAP29,IFT122,SMAD3,CUX2,ITPR1,WWP2,GRIK5,SHANK1,NEDD 4,ARHGEF18,PREX1,TAB1,SLC6A1,TXNDC12,NFATC1,CDC73,APP,GSX2,PDGFR A,NOX1,YAP1,HEG1,AMFR,RAB11FIP5,SESNI,FSTL4,NLGN2,TNFRSF19,EYA2,TN NI3K,LRP5,SLC9B2,SOX2,GPC6,CHST11,PRICKLE1,RCAN1,ZNF653,DRD1,TMEM 14A,CHUK,FRS2,ESR2,S100A12,PRKD1,STAT1,DGKG,HNF4A,SHANK2,EREG,CC NY,GRAMD4,TMEM237,RAF1,CELF4,RASGRF2,CARD16,CASP1,PTPN1,ADAMTS1 2,BMPR2,USP33,BMPRI1,TSPAN12,NLGN1,SPAG9,DENND4A,EVC,PDE11A,FGF2 ,LRR4C,GRIK1,ADCY5,SEMA4D,DOK6,MCTP1,ADCYAP1R1,DKK2,SORCS2,RAB 11FIP3,PRKCG,NCOA1,EEF1E1,EEF1E1- BLOC1S5,GAS8,LMO7,CHRD,DVL3,PTPRE,RBX1,ARHGAP39,ATF3,SHOC2,PAWR, AGO3,DEPTOR,FBXL20,TSG101,CCDC3,TERF2IP,MYO9A,WDR59,WNT3,P4HB,C CL14,CCL15,SUFU,NLGN3,PTPN13,SCUBE2,PAFAH1B1,PRDM15,FAM13A,HIP1, AKAP6,RASAL1,BTBD9,NR2C1,GLI2,NEO1,TNKS,SCUBE1,MGLL,DAB2,PKHD1,U BRI,LDLRAD4,WNK1,RELN,NEK10,RUVBL2,RSP02,GUCY1A2,PEL1,IQGAP1,MA P3K7,ZNF423,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,STAU1,UBE2V1, XDH,LTBP1,OVOL2,SNX5,RGS7,ATP2B4,NSF,PAK3,CAMTA1,DYX1C1,ATAD1,AD NP,GPR161,MAP1B,P2RY8,RNF34,TFRC,EPHA5,SORCS3,WWOX,SYT12,CACNA1A ,GFRAL,GPC3,ADRBK1,PSMB2,EYA1,TSPAN6,CLEC16A,GHR,FGD1,ELAVL4,HDA CI,INVS,SMOC2,TRIM24,PLCG2,ROCK1,EPH8,C1QTNF1,EGF2,HIPK3,CAPN10,G PR35,PTPN2,NTRK1,TRIM44,MAP1A,PPP1R9A,SLC39A10,EIF3A,DNMBP,UNC13A ,EPHB1,AXIN2,SARM1,MUC1,TUB,JAG2,CACNG8,CARM1,VWF,NETO1,ARHGAP4 4,ARHGEF3,SPI1,EPHA7,CHRN4,MCU,PTPRA,CTNNA1,LY86,BCAR3,STK38,RBP MS,MAP3K13,OTUD3,SH3BP1,MST1,PTK7,SNCA,BMPRI1,CACNG2,GRM4,MAG12 ,ZEB2,SYT9,HEY2,RC3H1,WNT7B,PTPRS,ZMYND11,KMT2D,SPPL2A,ABCA12,GN G7,RASA1,HIPK1,RPTOR,TBC1D16,ZNRF3,KCTD13,SLC4A8,CBFA2T2,IGF1,HTT MAPK1,PTEN,ARHGEF17,SPRED2,BMP7,PUM1,RASA2,PRCP,LRRK2,ZRANB1,CH MP5,CNIH3,LILRB4,IFT81,TMEM108,ARHGAP25,PKD2,EGFNA5,SHANK3,RGS9,PD GFC,FAM13B,NCOA3,WNT7A,ZBED6,UACA,CRTC3,PLCL2,KAT6A,GPR21,SIK3,B MP6,ANO1,IL17RD,SH3RF2,SOS1,PRMT2,RAPGEF2,SMO,VRK3,PRKAR2B,STXBP 5L,CPT1A,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,SYNGAP1,GRIN3A,R ORI,RQCD1,ONECUT2,FAM19A4,CUL3,GSK3B,RDX,ACTA2,CYNG1,MLF1,FAM49B, NECAB2,CD27,DUSP26,MCTP2,BOK,SULF1,NACC2,RNF43,AGT,PRKAA2,SYT7,A DAR,FBN2,STAT2,ZMPSTE24,HRH4,NDRG2,PTK2,PEX5L,SNX3,PDE4B,RIMS2,VE PH1,MAP3K5,CREBBP,APCDD1L,DLX1,PCSK6,NCF1,TAOK2,SHC1,ARHGAP15,C D160,ECE1,LBX2,RPS6KB1,GUCY2F,SCEL,ANKS1A,ALOX5,CPLX2,CD44,FGD3,A DAM8,PACSIN2,BCL2L14,CSNK1A1,GRID1,CXCL17,FGD4,PLEKHA1,RGS14,SIPA 1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,SPEF1,EPHB2,SLC1A1,WL S,IL18,UBE2K,HCAR2,DLCL1,PPARA,PPP1R10,PHLPP1,MAG13,MOB3B,SYTL4,ZNF 366,FBN1,PRKCZ,ZC3H4V1,FAM20C,ADORA2A,GRIN2B,RABGEF1,OTUD7B,DEN ND4B,CNRI1,ASPN,ANGPT1,TBL1X,EYA3,FHL2,FRMPD1,LRRK1,OSBPL8,ATF6, GCNT2,PPP1CA,TBC1D10C,VWC2,ARHGAP21,RBMS3,CCL22,NCOR2,PRKCQ,BR AF,HDAC2,HTR2C,TNR,CD300A,PHIP,PPP2CA,MAOA,RPL23,SH3BP4,SP100,ANX A2,PIGU,ITSN1,SRGAP2,ADCY1,MADD,SYK,CNOT1,WWTR1,ARHGAP19,GRIK2,C T,MYRIP,RAP1GAP2,CACNG3,DVL2,PTPRJ,TAF1,ATP2B3,TICAM1,TANK,ANKRD 13C,SASH1,RALGAP1,CGNL1,VAV3,DLGAP2,CAV2,GNA12,INPP5F,AXL,WIF1,C D109,DENND4C,MET,UCLH5,ANKRD6,MALT1,PHB,PTPRC,EDA,GPR89A,PBLD,T YRO3,RNF213,TSPAN5,NCAM1,TRAF3IP2,ATF6B,CREB1,SHISA6,TRAP1,PRAP1,B MP4,CPNE1</p>
GO:00 07275	multicellular organism development	1.85658829 10257026e- 38	<p>CLRN1,DNAH11,RCN1,ENPP1,PRDX2,ADAMTS16,LDB2,NRXN1,ASPH,PRMT3,GS S,RDH13,PRKCI,TACC2,MAP4K4,DNMT1,S1PR2,HLX,LLPH,SLC9A1,NEGR1,PBX3 ,LMBR1,TRPS1,CBFB,CLASP2,SEMA3A,IL31RA,LSAMP,GRID2,RPS6KA2,PRDM12, TENM3,CHERP,DOCK1,CLDN18,RYR1,NRG3,ASH1L,NOX5,ASTN2,SEMA3D,PHAC TRI,MYOT,NREP,TIAM2,STOX2,FHOD3,NLGN4X,PTGIS,DCHS2,TJP1,UNC5C,ZS WIM6,PRLR,HIVEP3,FTO,UTRN,KALRN,SPRR2D,NTRK3,CBL,ARNT,ATRNL1,SEM A5A,FLT3,RAD51B,STAT5B,TOX,ENPP2,ATP2B2,GRM5,PLCE1,LHFPL4,SAMHD1, MAP2K5,SPATA5,KITLG,PTPRR,SPNS2,NDUFV2,LRP2,PIK3CD,ZNF536,SP3,ANK 2,OLFM1,MFAP5,MEGF10,NRXN3,XRCC4,ROBO1,CHD7,HTR2B,ITGB6,CDKL5,M ECOM,TACC1,TENM1,KIF5C,LMNA,KIAA1217,TRAF6,ESRP1,ROBO2,NFASC,ITP KB,DNAJA3,VAV2,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,GAS7,P SMB7,PCDH17,KNDC1,ZC4H2,KIF26B,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,</p>

			<p> ARHGAP24, KLHL12, AKAP13, TTL5, GF11B, RUNX1, DAB1, ABCC8, NR1P1, THR8, XI RP2, IMPG2, LAMA2, GFRA2, TCIRG1, DACH1, PTPN11, RBM19, DOCK10, HDAC6, GO LGA4, MYT1, ADORA1, ADAMTS3, EPHA1, IKBKB, ERBB4, LIMK1, ZNF609, ATP8A2, A CTG2, HIF3A, CUL4B, LARGE, CECR2, ESR1, MYO18B, NPHP3, GRM7, ANKRD11, PTP RO, CDON, NTRK2, DNAI2, EP300, CELA1, MEGF9, DYM, TENM2, RNF220, HOOK3, PD GFB, RIMS1, TNIK, KIRREL3, CSGALNACT1, TOB2, MID1, INSR, RERE, PRKARIA, ATP 8B1, UNC5D, H2AFY2, PLLP, LAMA3, TCF7L2, PIP4K2A, CDH4, PAK1, FBXW11, ESRRB , MAP3K4, PTPRD, CNTN5, BASP1, RBM20, SLC4A10, TBR1, STRC, BDNF, TFAP2A, ATR N, AMIGO1, FANCA, CHRM3, TGIF2, POMGNT2, FUT8, NPRL3, PHACTR4, MEIS1, TEN M4, LHFPL2, LCK, MDM4, ECT2, ZNF148, MYO3B, TFDP2, NAV2, LAMC1, PTPRU, MB, AFF3, SGCD, DENND5A, DMD, CENPF, CRISPLD2, KAT7, WDR7, SLC8A1, GSN, PRPS2, GPR171, SATB2, PAFAH1B2, RIT2, HIRA, MACROD2, TANC2, JPH2, FYN, ARNTL, ADA MTS9, NF1, PLCB1, MGMT, PCDH15, LMTK2, ARID4B, FAT3, RTN4, AFF2, RXFP1, MAL 2, CHRDL1, APOD, B4GALT6, RTN4R, BCR, CHI3L1, CCDC141, TTN, NDRG4, BMP2K, P LQR3, ANKH, ADAMTSL1, TLL1, NTN1, EGFLAM, DCTN1, SLC4A5, NRG1, UBPI, FRY, MAP2K1, MDF1, FNIP1, STIM1, VAX2, MYH9, MAD1L1, LRFN5, DAGLA, PLEKHA5, VGL L4, CNTN4, HDAC5, NTNG1, PCSK2, NAV1, NF1A, TMEM30A, CMKLR1, SBF2, ROR2, DC N, SLC39A14, PRPSAP2, LIN7A, DOCK2, CDH13, PLXDC1, SOX13, ACSBG1, UST, FGF1 4, DMC1, PCDHB16, EXOC4, MAD2L2, TLE6, CAPRIN2, NLN, NCKAP1, TERF2, FOXN3, BOC, ANO6, ARL3, NEUROD1, KIF2A, COL12A1, CCBE1, USP22, ZDHHC15, JAK2, MYP N, TRAPPC9, FBXW7, CLSTN2, SYT1, ITCH, LZTS1, BCL11B, RBFOX1, TMCI, LRIG3, PK NOX1, CLDN1, HUNK, MLLT3, PNPLA1, PLS1, TEX11, TCF7, PDE2A, SEPT7, KLF15, TB X15, CYFIP2, WNT11, IFT80, FIG4, KREMEN1, IMMP2L, NRG4, ASTN1, NOX4, SIPA1L3, CACNA1H, SIAH1, QKI, IL1RAPL1, CCDC62, CAMK2B, ADAM23, SOX6, TAB2, ACVR2A , RUNX2, SEMA5B, CD4, TGFBI, SGK1, PCSK5, PDLIM4, MYO3A, ZHX2, KEL, BTRC, NF ATC3, F2RL1, BCAS3, C9ORF47, C2ORF49, RPGRIPL, CELSR1, SLIT3, SDK2, SLIT2, TP 73, MUSTN1, GABRB1, CDH23, 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			<p> <i>I, LHFPL5, TTL4, PRCP, LRRK2, MEGF11, UNC119, RAPH1, BAG6, LILRB4, MORC3, T MEM108, ITGAM, PKD2, EFNA5, SHANK3, STMN4, RIPPPLY1, ALPK3, PDGFC, AMOTL1, NCOA3, PPP2R3C, TBCD, WNT7A, ZBED6, MAP4, PLCL2, KAT6A, SH3PXD2B, BMP6, MYCBP2, GPI, IL17RD, SOS1, TSHR, EXT1, ATRX, PRICKLE2, SERINC5, IKZF1, RAPGE F2, KCNC2, SMO, SUN1, BLOC1S3, MARK4, CPT1A, MYLPF, TCF4, TNFRSF11B, SYTI17, BPGM, TFE3, GRIN1, ADAM29, RHOA, SYNGAP1, GRIN3A, NDE1, ROR1, TF, ONECUT2, CUL3, HSPD1, NFKBID, EPM2A, GABRB3, GSK3B, EMB, STAT6, ACTA2, SYN1, MLF1, E EF2K, PTPRB, RBBP8, CCDC14, CDK13, ALAS2, UPF2, CD27, SCN9A, BOK, SULF1, MT HFD1L, KRT8, AGT, HDGFRP3, ADAR, BLOC1S6, FBN2, ZMPSTE24, BRINP3, NDRG2, P TK2, PHEX, SNX3, RIMS2, PBX1, EXOSC3, SHB, GAP43, CPE, TRPC4AP, CREBBP, ARVC F, COL9A1, DLX1, PCSK6, SLC29A1, TAOK2, UGT1A1, PYGO2, SHC1, NDUFS2, CD160, ECE1, LBX2, RPS6KB1, STC2, GPR173, SCEL, SETDB2, ANKS1A, ALOX5, CPLX2, DNAJ B6, MDGA2, SP7, CD44, ADAM8, SLC5A3, CLDN4, RPS6KA5, THSD7A, HUS1, PKD1L1, PRDM2, CXCL17, PEX7, TBC1D23, PLEKHA1, RGS14, MC1R, STK4, TCF25, TUBB3, SPE F1, EPHB2, SLC1A1, WLS, SIGMAR1, TMEFF2, CLPTM1, IL18, MFSD8, ASF1B, DLCL1, P PARA, ARID5B, CALCL, PHLPP1, PRRC2C, NOTCH4, SOBP, CRX, FBN1, PAX6, PRKC Z, FAM20C, ADORA2A, GRIN2B, PPP1CC, COL22A1, PHLD2, OTUD7B, KLHL1, NIPB L, TMIGD2, PCDH10, UPB1, ASPN, ANGPT1, EYA3, FHL2, LRRK1, MBTD1, ATF6, SHRO OM4, IGF2BP3, GCNT2, ETS1, PPP1CA, VWC2, MAP2, MTF2, NEBL, TAGLN3, FBXO31, CDK5RAP1, CNTN1, NCOR2, PRKCQ, LGI2, BRAF, CSRNPI, HDAC2, IMPACT, POU3F 3, NOTO, SPINT2, TNR, CDKL3, PPP2CA, ANGPT4, ACAN, ATXN1, CAMSAP3, SP100, AN XA2, CR2, SRGAP2, TMEFF1, ADCY1, NUMB, SYK, CNOT1, WWTR1, SLIT1, ASB1, CIT, R ADIL, BRCA2, DVL2, NEB, YBX1, GRIP1, PTPRJ, TAF1, GPRIN3, RNF38, GPM6A, POTEE, CADM1, HSF1, MAX, DHFR, EZH1, SRPK2, SASH1, ASAP1, ADAMTS7, SULT2B1, BMP1, VAV3, ZP3, RNF2, CAV2, GNAI2, MYEF2, INPP5F, AXL, TNFSF9, CD109, MET, CCR3, TI MELESS, UCHL5, ANKRD6, MALT1, TRA2B, KDM2B, SEMA3C, NEDD4L, PTPRC, EDA, GPR89A, SH3GL2, TYRO3, RNF213, SYNDIG1, VPS52, NCAM1, TRAF3IP2, CREB1, EDN RA, GNGT1, BMP4, CPNE1</i> </p>
GO:0010646	regulation of cell communication	1.2763780440980062e-37	<p> <i>RIC8B, ENPP1, PRDX2, GPC5, NRXN1, ASPH, PRKCI, MAP4K4, PDE4D, PDCL, S1PR2, T MBIM4, SLC9A1, ADCY8, PDE8A, SEMA3A, GRID2, CHERP, WWC1, C12ORF49, CTDSP L2, FBXL2, NRG3, ASH1L, NOS1AP, LATS2, NREP, TIAM2, MAPRE2, NLGN4X, PTGIS, W WC3, GRM8, PRLR, MVP, PAGR1, RGS7BP, KALRN, NTRK3, CBL, ARNT, PLEKHG4B, SE MA5A, FLT3, GRM5, PLCE1, SAMHD1, FER, CASK, MARVELD3, MAP2K5, KITLG, PTPR R, LRP2, PIK3CD, ZNF536, DEPDC5, ANK2, SH2D1A, EZR, NRXN3, ROBO1, TNFAIP8L1, CHD7, HTR2B, MECOM, TENM1, CAMKMT, LMNA, NMT2, TRAF6, ROBO2, ITPKB, DN AJA3, SLC24A2, VAV2, GRK5, ULK4, ITGB1, HSP90AA1, PSMB7, CNH2, SRGAP3, MCC, PCDH17, CCDC22, TRIO, ARHGAP24, AKAP13, DAB1, ABCC8, ERC1, HMGN3, RGS6, D GK1, STXBPA, PDE4A, ERC2, LAMA2, TCIRG1, PTPN11, NETO2, HERC4, MGAT5, CACN B2, CYTH3, HDAC6, ADORA1, GPRASP1, ADAMTS3, IKBKB, ERBB4, ADRAID, GBF1, A BR, ESRI, NPHP3, GRM7, MIER1, PMEP1, PTPRO, CDON, NTRK2, EP380, RNF220, RG S22, PDGFB, CACNA1B, RIMS1, TNK1, CCND3, USP46, MID1, STK39, INSR, AFAP1, TCF 7L2, PIP4K2A, USP34, PAK1, LITAF, FBXW11, MAP3K4, ZDHHC13, PTPRD, SLC4A10, B DNF, CDK14, FANCA, NPRL3, PHACTR4, GRIK4, TRIM13, UBR2, ARHGAP6, LCK, ENT PD5, ECT2, SNX6, VAMP7, ARHGAP42, PTPRU, ERN2, NPLOC4, DMD, SLC8A1, RIT2, D EPDC1B, CASS4, KCTD16, FYN, MKRN2, ARNTL, NF1, PLCB1, RTN4, CHRDL1, APOD, R TN4R, BCR, RWDD3, SHISA9, CHI3L1, NDRG4, ICA1, BMP2K, PAQR3, PIK3R2, RANBP9, NOMO3, NRG1, ARHGAP10, BDKRB2, DOCK8, BID, MAP2K1, MDF1, FNIP1, RALGPS2, MAD1L1, TMIM6, VGLL4, PPP2CB, CNTN4, NTNG1, CMKLR1, ROR2, DCN, ZDHHC3, SLC39A14, DOCK2, CDH13, CREBRF, SOX13, PTPRT, COP55, ARHGAP32, MAD2L2, T LE6, RGS8, CAPRN2, CCNYL1, RALGPS1, NEUROD1, GNAQ, FBXO9, RFFL, CCBE1, D ENND1A, JAK2, FBXW7, LINC00473, SYN3, CLSTN2, SYTI, ITCH, NPSR1, ZFYVE28, LZT S1, MLLT3, PDE2A, KLF15, LAMTOR3, CYFIP2, WNT11, ARHGAP23, IFT80, TRIM59, KR EMEN1, NOX4, SIPA1L3, SIAH1, CAMK2B, PRKCD, TAB2, ACVR2A, RUNX2, CD4, SGK1, NUP93, IGSF1, PIBF1, BTRC, JPH3, CRADD, DLGAP1, F2RL1, GRIK3, RRGRIPL, SLIT 3, AAK1, SLIT2, TP73, CTNND2, DISC1, KANK1, MTDH, SMAD6, CLOCK, ZNF675, PLCB 4, BMPER, BCL3, ANKRD54, DAPK2, TNFRSF10B, DUSP22, NAIP, HOMER2, DOCK3, Y THDF1, FGF10, FBXL17, RASA4, RASA4B, ARHGEF28, STXBPA5, KCTD10, IQCJ- SCHIP1, SH3RF3, LOXL3, CAPN3, SLC16A1, SMURF2, EPHA4, RORA, PRKCA, AUTS2, CNR1, TNFSF11, PPP3CA, GNG4, UFL1, CTNNB1, PARK2, SOD2, FCGR2B, ARHGAP22, JGF1R, PPARG, AXIN1, GARNL3, PRKAR1B, DLG5, IL18R1, P2RY10, ANKRD17, APOL3, SREBF2, RYR2, DRAXIN, LEPROT, FGF1, RGS10, NOL3, MYOCD, TRIM5, PER2, AJUBA, GLG1, CHEK2, PRDM16, SORBS1, TBCK, TRIM8, CSPG4, GRM1, RIMS4, DCC, ARHGA P31, OBSCN, NF2, FLT4, SGMS1, BICC1, SPTBN1, TPTE, TRABD2B, SFRP1, FOXO3, DG KB, CNTN6, ARHGAP29, IFT122, SMAD3, CUX2, ITPR1, WWP2, GRIK5, SHANK1, NEDD 4, ARHGEF18, PREX1, TAB1, SLC6A1, TXNDC12, NFATC1, CDC73, APP, GSX2, PDGFR A, NOX1, YAP1, HEG1, AMFR, RAB11FIP5, SESN1, FSTL4, NLGN2, TNFRSF19, EYA2, LR P5, SLC9B2, SOX2, GPC6, CHST11, PRICKLE1, RCAN1, ZNF653, DRD1, TMEM14A, CH UK, FRS2, ESR2, S100A12, PRKD1, STAT1, DGKG, HNF4A, SHANK2, EREG, CCNY, GR MD4, TMEM237, RAF1, CELF4, RASGRF2, CARD16, CASP1, PTPN1, ADAMTS12, BMPR 2, USP33, BMPRI4, TSPAN12, NLGN1, SPAG9, DENND4A, EVC, PDE11A, FGF2, LRRC4 C, GRIK1, ADCY5, SEMA4D, DOK6, MCTP1, ADCYAP1R1, DKK2, SORCS2, RAB11FIP3, PRKCG, NCOA1, EEF1E1, EEF1E1- BLOC1S5, GAS8, CHRDL, DVL3, PTPRE, RBX1, ARHGAP39, ATF3, SHOC2, PAWR, AGO3,</i> </p>

			<p>,ZDHH3,SLC39A14,DOCK2,CDH13,CREBRF,SOX13,FHIT,WDR70,PTPRT,AUNIP,COPPS5,FGF14,DMC1,IPO5,ARHGAP32,MAD2L2,MAN1A1,TLE6,RGS8,CAPRIN2,CNYL1,NLN,NCKAP1,DEFA1B,DEFA3,TERF2,PTGER2,RALGPS1,SLX1B,STIP1,FOXN3,RCC2,BOC,ANO6,ARL3,NEUROD1,GNAQ,FBXO9,ICK,TMEM117,RAD51D,RNFL,RANBP1,CCBE1,DENND1A,JAK2,FAM168A,FBXW7,LINC00473,SKAP1,SMC3,UIMC1,SYT1,ITCH,NPSR1,ZFYVE28,SMG1,DTHD1,CLDN1,HUNK,MLLT3,ARAP2,CDC42BPB,DOCK9,SH2D6,TCF7,PDE2A,KLF15,ANXA4,LAMTOR3,MAGI1,CYFIP2,WNT11,ARHGAP23,IFT80,TRIM59,APBB1IP,MTA1,KREMEN1,IMMP2L,NRG4,CLPB,NOX4,LCOR,SIPA1L3,MKLN1,CACNA1H,SLAH1,IL1RAPL1,CCDC62,CAMK2B,ADAM23,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,PLCXD3,SGK1,SPSB4,NUP93,MMP28,IGSF1,PIBF1,ASCC2,BTRC,NFATC3,POLK,CRADD,DLGAP1,PTPRN2,F2RL1,BCAS3,C9ORF47,GRIK3,RPGRIPL,DNAJB2,CELSRI,SLIT3,AAK1,ZFYVE9,SLIT2,ASB15,TP73,GABRR3,GABRB1,SYT13,HHAT,GPR176,HP,CORO1C,RRAS2,CTNND2,OR9A4,DISC1,KANK1,CACNA1D,ZFAND2A,PTPDC1,MTDH,ANK1,TTBK2,XPR1,CHRM1,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,CLOCK,ZNF675,PLCB4,KCNH1,BMPER,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,PARVA,DAPPI,ADAM12,DUSP22,GPR52,NAIP,TRRAP,HOMER2,DOCK3,SBNO2,FGF10,FBXL17,RASA4,RASA4B,ARHGEF28,SMYD3,KCTD10,IL1RAPL2,IQCSCHIP1,SH3RF3,LOXL3,RHPN2,MAST2,FANCI,GLP2R,ADCY2,CAPN3,SLC16A1,SURF2,EPHA4,RORA,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NSUN2,HBE1,OR51B2,OR51B4,OR51I1,UBQLN3,GNG4,NFYB,MAG,CAMK4,UFL1,CTNNB1,PARK2,SOD2,FCGR2A,FCGR2B,FCGR3A,FCGR3B,HSPA6,ARHGAP22,SMARCC1,IGF1R,PPARG,AXIN1,GARNL3,MACROD1,OTUB1,DLG5,IL18R1,IL1RL1,MTF1,MSR1,CBX5,P2RY10,TRPM1,ANKRD17,CYBB,CASKIN1,APOL3,SCAMP5,BRIP1,SREBF2,TDPI,RYR2,DRAXIN,LEPR,LEPROT,FGF1,RGS10,NR4A3,WDR45B,NOL3,PRKAR2A,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,KIR2DL1,KIR2DL4,AJUBA,CACNA1C,CPNE6,GLG1,CHEK2,UBQLN4,PRDM16,MYO1E,ASB8,PPP1CB,SPDYA,HCK,SORBS1,CAPN2,TBCK,TRIM8,CSPG4,GRM1,DCC,ARHGAP31,P2RY14,BAZ1B,OBSCN,RGL1,NF2,FLT4,SGMS1,BICC1,HDAC4,PAX2,TNS3,SPTBN1,TPTE,TRABD2B,SFRP1,S100A1,FOXO3,DGKB,TPH2,TRHDE,ARL13B,CNTN6,ARHGAP29,IFT122,SSH1,SYNCRIP,SMAD3,RNF22,CUX2,ITPR1,PTPRM,WWP2,ACKR2,WIP1,RNF168,AB12,GRIK5,PSAP,SHANK1,SYT3,IFNAR1,OR14K1,NEDD4,NRP2,ARHGEF18,VANGL1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,KPNB1,TAB1,TXND12,NFATC1,RAB6C,SECE1B,CDC73,APP,GSX2,PDGFRA,AOC2,FCRL4,NOX1,YAP1,HEG1,AMFR,RAB11,FIP5,SESNI,CDK3,FSTL4,NLGN2,TNFRSF19,EYA2,ALPL,JAK1,LRP5,MUC20,PTPRG,SLC9B2,GNG2,SOX2,SETD2,GPC6,CHST11,TEAD1,PRICKLE1,RCAN1,ZNF653,GRIA3,DRD1,TMEM14A,GLRA2,CHUK,ERLIN1,FRS2,PALB2,MMP2,SERGEF,ESR2,S100A12,CPNE9,KDM6A,PRKD1,STAT1,ST18,DGKG,ETV5,RND3,HNF4A,LRRC2,SHANK2,SHPRH,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,SEMA6D,ATF2,GRAMD4,TMEM237,RAF1,CELF4,RASGRF2,EPHX1,CARD16,CASP1,PTPN1,ADAMTS12,POLA1,BMPR2,USP33,DYSL2,CAMK1D,BMPR1A,TSPAN12,NLGN1,COL16A1,PIK3R3,SPAG9,MORC2,DENND4A,EVC,PDE11A,EPG5,FGF2,BACH1,GRIK1,OR6C70,PPM1F,TICRR,ADCY5,NEDD9,SEMA4D,DOK6,HELQ,RORC,MCTP1,PLXNA2,PTAFR,ADCYAP1R1,JARID2,ANKDD1A,DDX58,DKK2,SORCS2,CHCHD6,ITGA11,PI4KA,RARB,SPEN,PIK3C2B,PRKCG,VIPR1,NCOA1,BLOC1S5,EEF1E1,EEF1E1-BLOC1S5,GRIA2,GAS8,ALKBH3,CHRD,DVL3,ECE2,EIF2B5,EIF4G1,EPHB3,PTPRE,EBX1,ARHGAP39,ATF3,FBXO45,SHOC2,SRSF5,STT3B,PAWR,AGO3,ACAA1,DEPTOR,PKN3,MAML2,TSG101,CCDC3,TERF2IP,CLIC4,MYO9A,ANKS4B,IDE,WDR59,KCNQ1,RFX2,WNT3,RCE1,RHOJ,P4HB,CCL14,CCL15,CCL15-CCL14,SUFU,TG,NLGN3,PTPN13,SCUBE2,ZFYVE1,PAFAH1B1,PRDM15,FAM13A,POLE,CNTFR,COL4A3,TRPA1,DDAH1,NMUR2,HIP1,AKAP6,RASAL1,NR2C1,EDEM3,IRS4,GLI2,NEO1,TKNS,SCUBE1,ERCC1,PXDNL,GPR39,WDTC1,MGLL,DAB2,THEMIS,BLM,PKHD1,UBR1,LDLRAD4,DZIP1,WNK1,RELN,NEK10,SIN3A,RUVBL2,OR5H2,OR5H6,OR5K4,RSP02,GUCY1A2,CSF3R,DOCK11,PELI1,PPP2R5C,IQGAP1,SPATA18,MAP3K7,DDX47,TAS2R41,ZNF423,SP1,OR56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,GSTM3,INPP5D,STAU1,DSC2,EEPD1,TEAD4,SLC35A4,SRA1,UBI2,V1,XDH,LTBP1,OVOL2,SNX5,NFATC2,RBBP6,CHD1L,OR6C74,PRKG1,RGS7,ATP2B4,PACRG,APEX2,PAK3,CAMTA1,DYX1C1,P2RX6,ASGR2,ADNP,GPR161,MAPKAPK2,MAP1B,CDC42BPA,COL4A6,SCARB1,MARK1,CDK6,ATP6V0A2,P2RY8,RNF34,TFRC,UVRAG,EPHA5,SORCS3,WWOX,GABRG3,MEF2A,SYT12,ADCY9,CACNA1A,NFRKB,DCUN1D5,FNBP1,GFRAL,GPC3,XRN1,ADRBK1,PSMB2,ZNF207,EYA1,PTGER3,BRINP1,GNB3,SHPK,TRPV1,TSPAN6,TFEB,CLEC16A,GHR,MNAT1,FLRT2,FGD1,ACTR2,ACACA,ELAVL4,HDAC1,INVS,RECQL5,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,C1QTNF1,PAXIP1,EGR2,HIPK3,RNF10,GAPVD1,CAPN10,GPR35,CUL2,ABCC1,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,ZFAND1,PKN2,PPP1R9A,SLC39A10,EIF3A,ANK3,DNMBP,UNC13A,EPHB1,MAN1B1,PDE6A,EPHA10,AXIN2,SARM1,TMEM199,EPCAM,PARD3,RCAN2,MUC1,TUB,SH3GL3,JAG2,CACNG8,AP3D1,CARM1,VWF,NETO1,ARHGAP44,HTR1D,ARHGEF3,RAD51C,SP11,DGKK,EPHA7,CHRN4,MCU,RANBP10,PTPRA,CTNNA1,AIFM2,FBXW4,ACAP2,ATG14,GABRA6,LRRC8C,LRRC8D,LY86,STAC,BCAR3,SHROOM3,STK38,RBPMS,CHURC1,MAP3K13,OTUD3,RAB15,RAPGEF3,PDXP,SH3BP1,MST1,ERCC3,PTK7,SNCA,BMPR1B,POLN,CACNG2,CD53,GRM4,MAGI2,PNPT1,USP50,ZEB2,SYT9,HEY2,RC3H1,RNF103,RNF103-</p>
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			<p>CHMP3,CNGA3,WNT7B,HMGCS2,PTPRS,ZMYND11,KMT2D,PRKAG1,CREM,SULT2A1,TRIP12,DFFA,SPPL2A,ADTRP,ABCA12,GNG7,PLD1,RASA1,MACC1,MITF,OPRD1,CABIN1,HIPK1,NUGGC,RPTOR,RTN4RL1,BTK,SIGLEC9,VPS41,ZNRF3,KCTD13,TROVE2,CBFA2T2,IGF1,STX8,HTT,DPYSL3,MAPK1,PTEN,ARHGEF17,MIB1,SPRED2,IFFO1,BMP7,PIK3C3,PUM1,RASA2,SOX5,PRCP,RAB30,LRRK2,ATP6V1A,OSGIN1,GNA14,ZRANB1,UNC119,ZBTB20,CHMP5,CNIH3,RAPH1,RFC3,BAG6,CHAF1B,LILRB4,IFT81,TMCO1,TMEM108,IPCEF1,ITGAM,ARHGAP25,IL11RA,NSG2,PKD2,EFNA5,HSF2BP,SHANK3,SEL1L2,BTBD11,RGS9,AOX1,PDGFC,AMOTL1,FAM13B,NCOA3,MTMR3,WNT7A,ZBED6,RPS6KC1,UACA,CRTC3,GPR141,NME8,GLDC,PLCL2,KAT6A,GPR21,RABEP1,RHOT1,SIK3,BMP6,NFE2L1,ANO1,GPI,IL17RD,SH3RF2,SOS1,TSHR,EXT1,N4BP1,PDCD1LG2,ATRX,PRICKLE2,GABRR2,PNPLA3,PRMT2,RAPGEF2,ASCC1,ABCG2,KCNC2,SMO,VRK3,GET4,BLOC1S3,MARK4,PRKAR2B,CPT1A,PSEN2,TNFRSF11B,PAG1,SYT17,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,SPRTN,WSB2,OR4M1,OR4N2,SYNGAP1,VIPR2,GRIN3A,MCM3,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,FAM19A4,CUL3,TFEC,HSPD1,ITPR2,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,DNAJC3,GNG12,RDX,STAT6,ACTA2,MLF1,EEF2K,FAM49B,RBBP8,NECAB2,STK32B,CD27,DUSP26,ITGBL1,MCTP2,BOK,SULF1,KRT8,NACC2,RNF43,TNFRSF8,AGT,HDGFRP3,POLH,PRKAA2,SYT7,ADAR,BLOC1S6,FBN2,PITPNM2,STAT2,ZMPSTE24,BRINP3,HRH4,NDRG2,PTK2,LAT2,PEX5L,PHEX,RNF121,SNX3,PDE4B,RIMS2,TCP11,TEC,SHB,VEPH1,GAP43,MAP3K5,CPE,CREBBP,IQGAP2,PRKD3,APCDD1L,DLX1,FMOD,INSL6,PCSK6,NCF1,SLC29A1,TAK2,UGT1A1,UGT1A10,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9,PYGO2,SHC1,NDUFS2,ARHGAP15,CD160,ECE1,LBX2,PARP10,RNF171,RPS6KB1,STC2,GPR173,GUCY2F,SCEL,ANKS1A,ITGAL,ALOX5,DNAJB6,CD44,FGD3,ADAM8,RPS6KA5,BCL2L14,CDS1,CSNK1A1,GRID1,HUS1,CXCL17,CRL6,FGD4,NOS1,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,SCNN1B,STK4,ZFAND6,MARK3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,IL18,TEX12,DTNA,MFSD8,TPMT,UBE2K,GPSM2,DNAJC7,HCAR1,HCAR2,HCAR3,DLCL1,PPARA,PPP1R10,ARID5B,CALCRL,MCOLN1,SLC25A33,SMARCAL1,PHLPP1,MAG3,CPEB4,GPSM3,MOB3B,NOTCH4,ZNF366,CYP2C18,CYP2C19,FBN1,PAX6,PRKCZ,ZC3HAV1,ATP1A3,FAM20C,ADORA2A,GRIN2B,PPP1CC,RABGEF1,CPEB1,PLCXD2,TYK2,OTUD7B,DENND4B,KIN,NIPBL,CNRIPI,ASPN,ANGPT1,TBL1X,EYA4,FHL2,FRMPD1,LRRK1,OSBPL8,ATF6,GCNT2,PPP1CA,TBC1D10C,VWC2,ARHGAP21,GRIA4,MTF2,RBMS3,BIN2,CCL22,BTN3A2,FBXO31,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI,DIAPIH1,HDAC2,HTR2C,IMPACT,SPINT2,TNR,UBE2E2,CD300A,IRAK1BP1,PHIP,PP2CA,ANGPT4,ARHGEF6,MAOA,RPL23,SH3BP4,RFC5,DCDC1,SP100,OPN1LW,REV3L,KCND2,PIGU,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,SRGAP2,WIP1,ADCY1,MADD,SYK,CNOT1,WWTR1,ARHGAP19,GRIK2,GT2H5,ASB1,CIT,RADIL,ZBTB38,BRCA2,HRK,RAP1GAP2,CACNG3,DVL2,YBX1,GRIP1,PTPRJ,SLC10A1,TAF1,TICAM1,TANK,UCN2,ITGAE,TAC3,A3GALT2,HSF1,MAX,DHFR,INPP5A,SRPK2,ANKRD13C,PLEKHM1,SASH1,NCOA2,ADAMTS7,RALGAP1,GBP5,MCM8,BMP1,CGNL1,FCHO1,QRICHI,VAV3,ZP3,CHD6,DLGAP2,CIB2,MOB3A,CAV2,GNA12,SH2D3A,UGGT1,COL4A5,MYEF2,INPP5F,NUAK2,AXL,REPS2,TNFSF9,WIF1,CD109,DENND4C,MET,CAMK2D,CCR3,RAD9B,TIMELESS,UCL5,ANKRD6,MALT1,PFKP,TRA2B,INO80C,MLXIPL,SEMA3C,THEM4,PHB,PTPRC,EDA,GPR89A,EXD2,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,SPON2,TSPAN5,ADCY10,NCAM1,TRAF3IP2,ATF6B,CREB1,LIG1,RASSF8,RGMB,SGTB,SHISA6,TRAP1,CLNK,EDNRA,GNGT1,PRAP1,BMP4,CASP12,CPNE1</p>
GO:0023052	signaling	7.605238647256185e-36	<p>CD247,RIC8B,ENPPI,PRDX2,GPC5,NRXN1,ASPH,GP6,PRKCI,MAP4K4,PDE4D,PDCD,DNMT1,SIPR2,TMBIM4,SLC9A1,PDE7B,ADCY8,LMBR1,PDE8A,CLASP2,SEMA3A,IL31RA,GRID2,TAS1R2,RPS6KA2,PTGFR,TENM3,CHERP,DOCK1,WWC1,CLDN18,C12ORF49,CTDSP12,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,ANP32A,SEMA3D,PTH2R,NREP,TIAM2,KSR2,MAPRE2,NLGN4X,PTGIS,PRKAG2,WWC3,GRM8,UNC5C,OR5P2,OR5P3,CLCN1,PRLR,MVP,PAGR1,ADCY7,RGS7BP,KALRN,PITPN1,NTRK3,CBL,ARNT,ATRNLI,PLEKHG4B,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,LRRFIP2,FLT3,STAT5B,ATP2B2,GRM5,PLCE1,SAMHD1,FER,CASK,MARVELD3,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,SPNS2,LRP2,PIK3CD,ZNF536,DEPDC5,HDGF,ANK2,OLFM1,SH2D1A,EZR,NRXN3,ROBO1,TOM1L1,TNFAIP8L1,CHD7,HTR2B,ITGB6,MECOM,TENM1,CAMKMT,RYR3,LMNA,NUCB1,GOT1,NMT2,INPP4B,TRAF6,ROBO2,NFASC,ITPKB,CTNNA3,DNAJA3,SLC24A2,VAV2,GRK5,ABII,ULK4,ITGB1,HSP90AA1,CDC6,PSMB7,CNIH2,SRGAP3,MCC,TSSK1B,PCDH17,KNDC1,CCDC22,DSCAM,STK38L,GMD5,SAMD12,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,DLG2,PDE1A,PTPRK,DAB1,CDC42EP3,MYO10,ABCC8,ERC1,HMGN3,RGS6,DGKI,ANKS1B,THRB,STXBP4,PDE4A,ERC2,GABRA3,ITGB3BP,LAMA2,GFRA2,MAST4,IL17RB,TCIRG1,PTPN11,NETO2,HERC4,MGAT5,CACNB2,DOCK10,CYTH3,HDAC6,DDI1,SV2B,ADORA1,GPRASP1,ADAMTS3,EPHA1,IKBK,ERBB4,ADRA1D,SORCS1,MRE11A,GBF1,LIMK1,TLK1,BRD8,ABR,SNIP1,KLHL6,ESR1,NHP3,GRM7,MIER1,PMEP1,MAML3,PTPRO,CDON,NTRK2,EP300,CELA1,TENM2,RNF220,RGS22,FNTA,PDGFB,CACNA1B,RIMS1,TNKK,CCND3,CDH8,USP46,MID1,CHFR,BPI,STK39,DAP3,HNF4G,INSR,FMN2,PRKAR1A,ASB5,AFAP1,UNC5D,LAMA3,TCF7L2,PIP4K2A,CAB39,USP34,PAK1,LITAF,FBXW11,ESRRB,MYO1,MAP3K4,ZDHHC13,PTPRD,SLC4A10,BDNF,CDK14,FANCA,CHRM3,TGIF2,FUT8,OR2T3,NPRL3,PHACTR4,TENM4,GRIK4,TRIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4</p>

			<p> ,EDARADD,IL5RA,ENTPD5,SHC4,ECT2,SNX6,CHML,VAMP7,PPM1L,ARHGAP42,P TPRU,RFTN1,ERN2,CDC45,LSP1,AP3S1,NPLOC4,SGCD,DMD,CENPF,ATG10,LRR N2,KAT7,SLC8A1,RBM14,GPR171,RIT2,DRG2,DEPDC1B,CASS4,KCTD16,FYN,MK RN2,ARNTL,NF1,PLCB1,DST,LMTK2,SNCB,RTN4,RXFP1,CHRD1,DGKH,APOD,R TN4R,BCR,PPP1R12B,RWDD3,SHISA9,CHI3L1,TTN,NDRG4,ICA1,BMP2K,PAQR3, PIK3R2,CACNA1E,RANBP9,NTN1,NOMO3,NRG1,ARHGAP10,SH2D3C,SLC16A10, BDKRB1,BDKRB2,DOCK8,BID,MAP2K1,MDF1,FNIP1,RAPGEF6,VAX2,RALGPS2, MYH9,MAD1L1,DAGLA,TMBIM6,VGLL4,PPP2CB,CNTN4,PPP3R1,NTNG1,VSTM1, OR6N2,CMKLR1,INPP4A,CDKL2,ROR2,DCN,ZDHHC3,SLC39A14,LIN7A,SYN2,DO CK2,CDH13,CREBRF,SOX13,FHIT,PTPRT,COPSS,FGF14,PCDHB16,EXOC4,ARH GAP32,MAD2L2,TFE6,RGS8,CAPRIN2,CCNYL1,NLN,NCKAP1,DEFA1B,DEFA3,PT GER2,RALGPS1,FOXN3,RCC2,BOC,ANO6,ARL3,NEUROD1,GNAQ,FBXO9,ICK,TM EM117,RFFL,RANBP1,CCBE1,DENND1A,JAK2,FBXW7,LINC00473,SYN3,SKAP1,C LSTN2,UIMC1,SYT1,ITCH,NPSR1,ZFYVE28,LZTS1,SMG1,SCN4A,SLC1A4,DTHD1, HUNK,MLLT3,ARAP2,CDC42BPB,DOCK9,SH2D6,TCF7,PDE2A,KLF15,ANXA4,LA MTOR3,MAGI1,KCNC4,CYFIP2,WNT11,ARHGAP23,IFT80,TRIM59,APBB1IP,MTA1 ,KREMEN1,NRG4,CLPB,NOX4,SIPA1L3,MKLN1,CACNA1H,SLAH1,IL1RAPL1,CAM K2B,PRKCD,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,PLCXD3,SGK1,PCSK5,P DLIM4,SPSB4,NUP93,IGSF1,PIBF1,BTRC,NFATC3,JPH3,CRADD,DLGAP1,PTPRN 2,F2RL1,C9ORF47,GRIK3,RPGRIPL,CELSR1,SLIT3,AAK1,ZFYVE9,SLIT2,ASB15,T P73,GABRR3,CADPS2,GABRB1,SYT13,HHAT,GPR176,CORO1C,RRAS2,CTNND2,O R9A4,DISC1,KCNJ3,KANK1,CACNA1D,PTPDC1,MTDH,ANK1,TTBK2,XPR1,CHRM 1,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,CLOCK,ZNF675,PLCB4,KCNH1,BMPE R,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DAPP1,ADAM12,DUSP22,GPR52,N AIP,HOMER2,SLC17A7,DOCK3,OTOA,YTHDF1,FGF10,CNTNAP2,FBXL17,RASA4, RASA4B,ARHGEF28,STXBP5,KCTD10,IL1RAPL2,IQCJ- SCHIP1,SH3RF3,LOXL3,RHPN2,MAST2,GLP2R,ADCY2,CAPN3,SLC16A1,SMURF2, EPHA4,RORA,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NSUN2,OR51B2,OR51 B4,OR51I1,GNF4,MAG,CAMK4,UFL1,CTNNB1,PARK2,SOD2,FCGR2A,FCGR2B,F CGR3A,FCGR3B,ARHGAP22,SMARCC1,IGF1R,PPARG,AXIN1,GARNL3,PRKAR1B, DLG5,IL18R1,IL1RL1,P2RY10,TRPM1,ANKRD17,CYBB,CASKIN1,APOL3,BRIP1,SR EBF2,RYR2,DRAXIN,LEPR,LEPROT,FGF1,RGS10,NR4A3,NOL3,PRKAR2A,MYOCD ,OR52E6,OR52E8,OR52N1,TRIM5,PER2,KIR2DL1,KIR2DL4,AJUBA,CACNA1C,CPN E6,GLG1,SCN3B,CHEK2,PRDM16,MYO1E,ASB8,PPP1CB,HCK,SORBS1,TBCK,TRI M8,CSPG4,GRM1,RIMS4,DCC,ARHGAP31,P2RY14,OBSCN,RGL1,NF2,FLT4,SGMS 1,BICCI,HDAC4,PAX2,TNS3,SPTBN1,TPTE,TRABD2B,SPG11,SFRP1,FOXO3,DGK B,TRHDE,ARL13B,CNTN6,ARHGAP29,IFT122,SMAD3,CUX2,ITPR1,PTPRM,WWP2, ACKR2,ABI2,GRIK5,PSAP,SLC16A2,SHANK1,SYT3,IFNAR1,OR14K1,NEDD4,NRP2, ARHGEF18,VANGL1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,KPNB1,TAB1,SLC6 A1,TXNDC12,NFATC1,RAB6C,CDC73,APP,GSX2,PDGFRA,FCRL4,NOX1,YAP1,HE G1,AMFR,RAB11FIP5,SESN1,FSTL4,NLGN2,TNFRSF19,EYA2,JAK1,TNNI3K,LRP5, MUC20,PTPRG,SLC9B2,GNG2,SOX2,GPC6,CHST11,TEAD1,PRICKLE1,RCAN1,ZN F653,SPTBN4,GRIA3,DRD1,TMEM14A,GLRA2,CHUK,ERLIN1,FRS2,MMP2,SERGE F,ESR2,S100A12,KDM6A,PRKD1,STAT1,ST18,DGKG,RND3,SLC6A3,HNF4A,LRRC2 ,SHANK2,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,SEMA6D,ATF2,GRAMD4,TMEM 237,RAF1,CEL4,RASGRF2,CARD16,CASP1,PTPN1,ADAMTS12,BMPR2,USP33,DP YSL2,BMPRI1,TSPAN12,NLGN1,COL16A1,PIK3R3,SPAG9,DENND4A,EVC,PDE11 A,EPG5,FGF2,LRRRC4,GRIK1,OR6C70,PPM1F,TICRR,ADCY5,NEDD9,SEMA4D,D OK6,RORC,MCTP1,PLXNA2,PTAFR,ADCYAP1R1,ANKDD1A,DDX58,DKK2,SORCS 2,RAB11FIP3,ITGA11,PI4KA,RARB,SPEN,PIK3C2B,PRKCG,VIPR1,NCOA1,EEF1E1 ,EEF1E1- BLOC1S5,GRIA2,GAS8,LMO7,CHRD,DVL3,ECE2,EIF2B5,EPHB3,PTPRE,RBX1,AR HGAP39,ATF3,SHOC2,PAWR,AGO3,DEPTOR,PKN3,FBXL20,MAML2,TSG101,CCD C3,TERF2IP,MYO9A,IDE,WDR59,KCNQ1,WNT3,RCE1,RHOJ,P4HB,CCL14,CCL15, CCL15- CCL14,SUFU,TG,NLGN3,PTPN13,SCUBE2,PAFAH1B1,PRDM15,FAM13A,CNTFR, COL4A3,TRPA1,DDAH1,NMUR2,HIP1,AKAP6,RASAL1,BTBD9,NR2C1,IRS4,GLI2,N EO1,TNKS,SCUBE1,GPR39,MGLL,DAB2,THEMIS,BLM,PKHD1,UBR1,LDLRAD4,D ZIP1,WNK1,RELN,NEK10,RUVBL2,OR5H2,OR5H6,OR5K4,RSPO2,GUCY1A2,CSF3 R,KCNQ2,DOCK11,PELI1,PPP2R5C,IQGAP1,MAP3K7,DDX47,TAS2R41,ZNF423,O R56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,STAU1,DSC2,TEAD4,UB E2V1,XDH,LTBP1,OVL2,SNX5,NFATC2,OR6C74,PRKG1,RGS7,ATP2B4,NSF,PAK 3,CAMTA1,DYX1C1,P2RX6,ASGR2,ATAD1,ADNP,GPR161,MAPKAPK2,MAP1B,CD C42BPA,COL4A6,SCARB1,MARK1,CDK6,P2RY8,RNF34,TFRC,EPHA5,SORCS3,WW OX,GABRG3,MEF2A,SYT12,ADCY9,CACNA1A,FNBP1,GFRAL,GPC3,ADRBK1,PSM B2,ZNF207,EYA1,PTGER3,GNB3,TRPV1,TSPAN6,CLEC16A,GHR,FLRT2,FGD1,EL AVL4,HDAC1,INVS,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,C1QTNF1,PA XIP1,EGR2,HIPK3,RNF10,GAPVD1,CAPN10,GPR35,CUL2,AP3B1,PTPN2,INSRR,N TRK1,TRIM44,MAP1A,PKN2,PPP1R9A,SLC39A10,EIF3A,ANK3,DNMBP,UNC13A,E PHB1,PDE6A,EPHA10,AXIN2,SARM1,EPCAM,PAR3,RCAN2,MUC1,TUB,SH3GL3, JAG2,KCND3,CACNG8,CARM1,VWF,NETO1,ARHGAP44,SRD5A2,HTR1D,ARHGE F3,SPI1,DGKK,EPHA7,CHRN4,MCU,RANBP10,PTPRA,CTNNA1,FBXW4,TRDN,G ABRA6,LY86,STAC,BCAR3,ILDR2,STK38,RBPMS,CHURC1,FCHSD2,MAP3K13,OT </p>
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			<p>UD3,RAB15,RAPGEF3,SH3BP1,MST1,PTK7,SNCA,BMPRI1B,CACNG2,CD53,GRM4,MAGI2,USP50,ZEB2,SYT9,HEY2,RC3H1,CNGA3,WNT7B,PTPRS,ZMYND11,KMT2D,PRKAG1,CREM,DDFA,SPPL2A,ADTRP,ABCA12,GNG7,PLD1,RASA1,MACC1,MITF,OPRD1,CABIN1,HIPK1,PKP2,RPTOR,BTK,SIGLEC9,TBC1D16,ZNRF3,KCTD13,SLC4A8,TROVE2,CBFA2T2,IGF1,HTT,MAPK1,PTEN,ARHGEF17,MIB1,SPRED2,BMP7,SCN8A,PIK3C3,PUM1,RASA2,PRCP,RAB30,LRRK2,OSGIN1,GNA14,ZRANB1,UNC119,CHMP5,CNIH3,RAPH1,BAG6,LILRB4,IFT81,TMCO1,TMEM108,ITGAM,ARHGAP25,IL11RA,NSG2,PKD2,EFNA5,SHANK3,BTBD11,RGS9,PDGFC,AMOTL1,FAM13B,NCOA3,WNT7A,ZBED6,SNAP23,RPS6KC1,UACA,CRTC3,GPR141,CEP89,PLCL2,KAT6A,GPR21,RABEP1,RHOT1,SIK3,BMP6,ANO1,GPI,IL17RD,SH3RF2,SOS1,TSHR,EXT1,PDCL1LG2,ATRX,PRICKLE2,GABRR2,PRMT2,RAPGEF2,KCNC2,SMO,VRK3,MARK4,PRKAR2B,STXBP5L,CPT1A,PSEN2,TNFRSF11B,PAG1,SYT17,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,WSB2,OR4M1,OR4N2,SYNGAP1,VIPR2,GRIN3A,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,FAM19A4,CUL3,SH3KBP1,HSPD1,ITPR2,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,GNG12,RDX,STAT6,ACTA2,SYN1,MLF1,FAM49B,NECAB2,STK32B,CD27,DUSP26,ITGBL1,MCTP2,SCN9A,BOCK,SULF1,KRT8,NACC2,RNF43,TNFRSF8,AGT,HDGFRP3,LRRK1,OSBPL8,ADAR,BLOC1S6,FBN2,PITPNM2,STAT2,ZMPSTE24,HRH4,NDRG2,PTK2,LAT2,PEX5L,PHEX,SNX3,PDE4B,RIMS2,TCP11,TEC,SHB,VEPH1,GAP43,MAP3K5,CPE,CREBBP,IQGA2,PRKD3,APCDD1L,DLX1,FMOD,INSL6,PCSK6,NCF1,SLC29A1,TAOK2,PYGO2,SHC1,ARHGAP15,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,GUCY2F,SCEL,ANKS1A,ITGAL,Alox5,CPLX2,CD44,FGD3,ADAM8,PACSIN2,RPS6KA5,BCL2L14,CD51,CSNK1A1,GRID1,HUS1,CXCL17,FCRL6,FGD4,NOS1,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,IL18,DTNA,MFSD8,UBE2K,GPSM2,HCAR1,HCAP2,HCAR3,DLC1,PPARA,PPP1R10,ARID5B,CALCRL,MCOLN1,SLC25A33,PHLPP1,MAGI3,CPEB4,MOB3B,NOTCH4,SYTL4,ZNF366,FBN1,PAX6,PRKCZ,ZC3H4V1,ATP1A3,FAM20C,ADORA2A,GRIN2B,PPP1CC,RABGEF1,PLCXD2,TYK2,OTUD7B,DENND4B,CNRP1,ASPN,ANGPT1,CADPS,TBLIX,EYA3,FHL2,FRMPD1,LRRK1,OSBPL8,ATF6,GCNT2,PPP1CA,TBC1D10C,VWC2,ARHGAP21,GRIA4,RBMS3,CCL22,BTN3A2,FBXO31,CNTN1,NCOR2,PRKCQ,BRAF,CSRN1,HDAC2,HTR2C,TNR,CD300A,IRAK1B,PI,PHIP,PPP2CA,ANGPT4,ARHGEF6,MAOA,RPL23,SH3BP4,DCDC1,SP100,ONP1LW,ANXA2,KCND2,PIGU,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,SRGAP2,ADCY1,MADD,SYK,CNOT1,WWTR1,ARHGAP19,GRIK2,SCN1A,ASB1,CIT,MYRIP,RADIL,BRCA2,HRK,RAP1GAP2,CACNG3,DVL2,GRIP1,PTPRJ,SLC10A1,TAF1,ATP2B3,TICAM1,TANK,UCN2,ITGAE,TAC3,HSF1,INPP5A,SRPK2,ANKRD13C,PLEKHM1,SASH1,RALGAP1,BMP1,CGNL1,FCHO1,QRICH1,VAV3,ZP3,DLGAP2,KCNQ3,MOB3A,CARV2,GNA12,SH2D3A,COL4A5,INPP5F,NUAK2,AXL,REPS2,TNFSF9,WIF1,CD109,DENND4C,MET,CAMK2D,CCR3,RAD9B,TIMELESS,UCHL5,ANKRD6,MALT1,MLXIP,L,SEMA3C,THEM4,PHB,PTPRC,RPH3A,EDA,GPR89A,PBL,SH3GL2,TYRO3,NR6A1,RNF213,TSPAN5,ADCY10,NCAM1,TRAF3IP2,ATF6B,CREB1,RASSF8,RGMB,SHISA6,TRAP1,CLNK,EDNR4,GNGT1,PRAP1,BMP4,CASP12,CPNE1</p>
GO:0050789	regulation of biological process	1.9413868053455873e-35	<p>CD247,POLDIP3,CLRN1,DNAH11,RIC8B,ENPP1,PRDX2,ADAMTS16,LDB2,GPC5,NRXN1,ASPH,B4GALNT2,PRMT3,GP6,PRKCI,MOV10L1,SLC03A1,MAP4K4,PDE4D,PDCL,DNMT1,SIPR2,HLX,LLPH,TMBIM4,SLC9A1,PDE7B,C6ORF89,NEGR1,PBX3,ADCY8,MED13L,LMBR1,TRPS1,CBFB,PDE8A,PDE4DIP,ZNF823,CLASP2,SEMA3A,IL31RA,GRID2,TAS1R2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CHERP,ME26,DOCK1,WWC1,CLDN18,C12ORF49,CTDSPL2,FBXL2,RYR1,NRG3,ASH1L,NOS1AP,LATS2,NOX5,ANP32A,ASTN2,EPB41,SEMA3D,PHACTR1,DPP6,PTH2R,NREP,SCAF8,TLAM2,STOX2,FHOD3,KSR2,MAPRE2,NLGN4X,PTGIS,PRKAG2,WWC3,TJP1,GRM8,UNC5C,NUDT6,HPSE2,OR5P2,OR5P3,CLCN1,PLRL,MVP,PAGR1,ADCY7,HIVEP3,FTO,NPAS3,UTRN,RGS7BP,KALRN,UBAP2,PITPN1,DCAF12,NTRK3,CBL,ARNT,ATRN1,PLEKHG4B,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,LRRFIP2,FLT3,RAD51B,SUSD4,STAT5B,TOX,ENPP2,ATP2B2,KCNQ5,EXD1,GRM5,PLCE1,LHFPL4,SAMHD1,ZNF566,FER,CASK,MARVELD3,MAPK4,MAP2K5,KITLG,KCNIP4,MAPK10,PTPRR,SPNS2,LRP2,PIK3CD,ZNF536,SP3,DPEPC5,HDGF,PRCC,ANK2,EIF4G3,SAAL1,OLFM1,SH2D1A,EZR,IKZF2,MEGF10,NRXN3,ROBO1,MALRD1,TOM1L1,TNFAIP8L1,CHD7,SLC26A6,HTR2B,PSMD1,ITGB6,CDKL5,MECOM,TACC1,MIR1185-1,TENM1,CAMKMT,RYR3,LMNA,NUCB1,GOT1,NMT2,INPP4B,TRAF6,ESRP1,ROBO2,ITPKB,CTNNA3,DNAJA3,OXR1,SLC24A2,NKAIN2,VAV2,GRK5,AB11,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,CDC6,PSMB7,TSC22D3,CNIH2,SRGAP3,MCC,TSSK1B,NKAIN3,PCDH17,KNDC1,ZC4H2,KIF26B,CCDC22,DSCAM,STK38L,SRGAP2B,CDAN1,GMDS,SAMD12,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,GF11B,PDE1A,PARD6G,PTPRK,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,ERC1,HMGN3,NRIP1,RGS6,DGKI,ANKS1B,THRB,STXBP4,PDE4A,ERC2,GABRA3,MIR105-2,MIR767,EFCAB7,ITGB3BP,LAMA2,GFRA2,MAST4,IL17RB,TCIRG1,DACHI,PTPN11,ZNF569,KCNS3,NETO2,RBM19,HERC4,MGAT5,CCT2,CACNB2,DOCK10,ORC2,CYTH3,HDAC6,GOLGA4,SERTAD2,DDB1,MYT1,ADORA1,GPRASP1,ADAMTS3,EPHA1,IKBKB,KIF18B,PEX14,ERBB4,GBE1,ADRA1D,SORCS1,MRE11A,GBF1,LIMK1,ZNF609,TLK1,BRD8,ATP8A2,KAT6B,ABR,ACTG2,HIF3A,SNIP1,CUL4B,KLHL6,ESR1,KCNJ16,NPHP3,GRM7,MIER1,PCBP3,PMEPA1,MAML3,DPP10,PTPR,CDON,NTRK2,TNRC6A,FRMD4A,STX18,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,R</p>

			<p>GS22,ZNF471,FNTA,HOOX3,PDGFB,CACNA1B,RIMS1,TNIK,CCND3,CDH8,USP46,TOB2,MID1,ZNF19,ZNF23,BRMS1,CHFR,ZNF605,ALOX5AP,SCML4,BPI,STK39,DAP3,HNF4G,INSR,FMN2,RERE,PRKAR1A,ASB5,AFAP1,FUBP1,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,JMJD1C,CAB39,USP34,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,ZDHHHC13,PTPRD,RNF144A,BASPI,EGLN3,RBM20,SLC4A10,TBR1,CATSPER2,SAMD4A,BDNF,TFAP2A,ATRN,AMIGO1,CDK14,FANCA,KCNMA1,PEG3,ZIM2,CHRM3,TGIF2,TGIF2-</p> <p>C20ORF24,FUT8,OR2T3,NPRL3,FMNL2,PHACTR4,MEIS1,TENM4,GRIK4,LHFPL2,VRTN,KCNRG,TRIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4,EDARADD,IL5RA,ENTPD5,SHC4,ECT2,TMC2,ZNF148,MTA3,SNX6,TFDP2,CHML,VAMP7,LAMC1,PPM1L,ARHGAP42,CST2,PTCD3,PTPRU,RFTN1,ERN2,CDC45,LSP1,C1D,AP3S1,NPLOC4,AFF3,SGCD,DENND5A,DMD,CENPF,ATG10,LRRN2,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,GPR171,MEID12L,SATB2,PAFAH1B2,RIT2,HIRA,TANC2,JPH2,DRG2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,ADAMTS9,NF1,SMG7,PLCB1,DST,MGMT,LMTK2,STX6,ARID4B,SNCB,PPP4R2,FAT3,RTN4,AFF2,RXFP1,DPEP1,CHRDLL,DGGEF6,STIM1,RTN4R,BCR,PPP1R12B,RWDD3,BRPF1,SHISA9,CHI3L1,TTN,NDRG4,ICA1,BMP2K,PAQR3,IFI30,PIK3R2,ANKH,CACNA1E,RANBP9,KLHL21,NTN1,EGFLAM,DCTN1,SLC4A5,NOMO3,NRG1,ARHGAP10,SH2D3C,CDK19,SLC43A2,UBP1,BDKRB1,BDKRB2,DOCK8,BID,MIR600HG,FRY,MAP2K1,KCNIP1,MDF1,FNPI,RAPGEF6,STIM1,VAX2,NALCN,RALGPS2,MYH9,FRMPD4,MAD1L1,LRFN5,DAGLA,TMBIM6,VGLL4,PPP2CB,CTNN4,PPP3R1,HDAC5,CSRNP3,RBM5,NTNG1,VSTIM1,ZNF692,OR6N2,NF1A,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,INPP4A,ITIH2,CDKL2,TSPAN8,ROR2,DNCN,ZDHHHC3,SLC39A14,SCFD1,CATSPER3,PCBD2,HNRNPDL,DOCK2,CDH13,CREBRF,TRDMT1,SOX13,FHIT,WDR70,PTPRT,AUNIP,UST,COPS5,CSPP1,PPP1R42,FGF14,EXOC4,IPO5,ARHGAP32,MAD2L2,TLE6,RAB27A,SGS8,CAPRN2,CCNYL1,ZNF418,NLN,NCKAP1,PHF20L1,DEFA1B,DEFA3,CD99,RAB3C,PDF,TERF2,PTGER2,RALGPS1,SLX1B,ZNF286A,GOLPH3L,FOXN3,RCC2,BOC,ANO6,ARL3,CERKL,NEUROD1,GNAQ,KIF2A,FBXO9,ICK,TMEM117,RAD51D,RFFL,RANBP1,CCBE1,DENND1A,HERC5,USP22,ZDHHHC15,JAK2,YTHDC2,FAM168A,TRAPPC9,FBXW7,LINC00473,KCNB2,OAZ2,SYN3,SKAP1,SMC3,CLSTN2,UIMC1,SYT1,ITCH,MLIP,CROCC,NPSR1,ZFYVE28,BBS12,ABCC2,LZTS1,BCL11B,SMG1,SCN4A,RBFOX1,TMC1,PKNOX1,DTHD1,CLDN1,HUNK,MLLT3,TSHZ2,ATP9A,ARAP2,SLC9A7,CDC42BPB,PLS1,TEX11,DOCK9,SH2D6,TCF7,PDE2A,SEPT7,KLF15,TBX15,ANXA4,LAMTOR3,MAGI1,KCNC4,CYFIP2,WNT11,PALMD,ARHGAP23,IFT80,TRIM59,APBB1IP,FIG4,MTA1,KREMEN1,NRG4,KLF8,CLPB,NOX4,LCOR,SIPA1L3,RPRD1B,MKLN1,CACNA1H,SLAH1,QKI,ILIRAPL1,CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,BANP,PLCXD3,SGK1,SPSB4,NUP93,MMP28,TRIM65,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,KEL,BTRC,DUS2,NFATC3,JPH3,CRADD,DLGAP1,MIR153-2,CLDN10,F2RL1,BCAS3,C9ORF47,GRIK3,CDYL2,RPGRIP1L,DNAJB2,CELSR1,SLIT3,AAK1,CC2D1B,ZFYVE9,MIR218-1,SLIT2,ASB15,COLGALT1,TP73,GABRR3,CADPS2,ITIH4,GABRB1,SYT13,HHAAT,GPR176,HP,HPR,CORO1C,SAP18,RRAS2,CTNND2,ZBTB22,C12ORF4,OR9A4,ILF2,DISC1,BLID,KCNJ3,CEP135,KANK1,CACNA1D,ZFAND2A,PTPDC1,CACNA2D3,LAMC2,CLN6,MTDH,ANK1,CLMN,TTBK2,FANK1,XPR1,MYT1L,KDM4B,CHRM1,RAB11FIP4,MMP26,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,BNC2,ZNF398,CLOCK,ITSN2,TCF12,ZNF675,SMOC1,PLCB4,ETV6,NELL1,SUCO,KCNH1,ENOX2,TFAP2D,BMPER,TIMP2,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,PARVA,SND1,DAPPL1,DAMI2,DUSP22,GPR52,RABGAP1L,NAIP,STRIP1,HNRNPCT,TRRAP,ANKFN1,HOMER2,SLC17A7,DOCK3,SBN02,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,FBXL17,RASA4,RASA4B,ARHGEF28,SMYD3,STXBP5,KCNH7,KANK4,KCTD10,ILIRAPL1,IQCC-</p> <p>SCHIP1,SH3RF3,PLIN3,LOXL3,RHPN2,MAST2,FANCI,SVIL,GLP2R,ADCY2,CAPN3,SLC16A1,LUM,VMP1,SMURF2,EPHA4,RORA,HIVEP2,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,OR51B2,OR51B4,OR51I1,UBQLN3,GNAG4,NFYB,MAGEA4,MAG,KLF12,CAMK4,GATAD2B,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,FCGR2A,FCGR2B,FCGR3A,FCGR3B,ARHGAP22,SMARCC1,KLF17,CDHR2,IGF1R,PPARG,NGRN,AXIN1,GARNL3,PRKAR1B,OTUB1,DLG5,IL18R1,IL1RL1,ADD2,CIPC,MTF1,MSR1,CELF2,CBX5,P2RY10,TRPM1,ANKRD17,CYBB,XK,CASKIN1,APOL3,SCAMP5,BRIP1,ANXA13,ANKRD26,ECM2,LPPRC,SREBF2,KCNJ12,RYR2,CDK11A,KCNA6,FBLIM1,CDK11B,DRAXIN,LEPR,LEPROT,FGF1,NIN,PROS1,RGS10,NPAT,NR4A3,FOKK2,NOL3,DCT,PRKAR2A,RIOK2,ESCO1,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,PER2,KIR2DL1,KIR2DL4,KIR3DL2,AJUBA,CACNA1C,CPNE6,GLG1,ZNF626,ZNF737,SCN3B,CHEK2,SUP13H,PHLDB1,UBQLN4,PRDM16,MYO1E,ASB8,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,CSPG4,GRM1,BRMS1L,PRKSA,DCC,ZBTB8A,ZBTB8B,ARHGAP31,P2RY14,ANKFY1,CTDP1,ZUFSP,HS3ST5,BAZ1B,OBSCN,RLG1,NF2,FLT4,MEF2B,SGMS1,BICC1,HDAC4,PAX2,PHF5A,TNS3,SECSBP2L,SPPTBN1,TPTE,ELN,TRABD2B,SFRP1,MED13,ST8SIA1,PPP6R2,ZNF395,FOXO3,DGKB,TRHDE,ARL13B,CNTN6,NFIB,MUC12,SP4,ARHGAP29,ZCCHC17,IFT122,BCL2L13,DNM3,SSH1,CELF5,SYNCRIP,SMAD3,RNFT2,CUX2,ITPR1,PTPRM,WWP2,AR</p>
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			<p> NT2,SBNO1,ACKR2,KRBOX1,ZNF662,ZNF777,SIMC1,WIP1,EBF3,MTBP,RNF168,C1S,CASZ1,ABI2,C10ORF90,GRIK5,PSAP,SLC16A2,LZTFL1,SHANK1,SYT3,IFNAR1,DCP1B,OR14K1,MIER3,NEDD4,NRP2,ARHGEF18,VANG1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,HOXD4,KPNB1,NAV3,SLC4A4,ZNF114,TAB1,SLC6A1,KT112,TXNDC12,NFATC1,RAB6C,PRTG,CDC73,APP,SSBP3,GSX2,PDGFRA,BET1L,SLK,F CRL4,ADD3,RBM8A,CCN2,DIP2B,NOX1,ARIH1,YAP1,HEG1,AMFR,RAB11FIP5,SE SN1,CDK3,TEN1,FSTL4,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D19,BORA,RNLS,IBT K,NVL,ALPL,JAK1,ANGPTL4,TNNI3K,PEMT,LRP5,MTCP1,MUC20,POLR3G,PTPR G,ISLR2,SLC9B2,ZNF787,GN2,SOX2,SETD2,ZDHHC6,GPC6,KIF24,CHST11,TEA D1,PRICKLE1,RCAN1,ZNF653,SPTBN4,GRIA3,VASH2,ZNF521,DRD1,TMEM14A,G LRA2,ARID3A,ZNF761,CHUK,ERLIN1,FRS2,PALB2,SFMBT1,VILL,MMP2,ZNF584, SERGEF,TPH1,ESR2,SYNE2,S100A12,DCUN1D3,CPNE9,KDM6A,PRKD1,STAT1,C ELF6,PARP6,ST18,DGKG,ETV5,RHOXF2B,RND3,SLC6A3,TAFA3,PLAGL1,HNF4A,Z BTB7C,LRRC2,TASP1,SHANK2,STRA6,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,FX YD2,FXD6,FXD6- FXD2,SEMA6D,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,GRAMD4,TMEM237,KCN G4,RAF1,CELF4,RASGRF2,ZNF766,ACOX2,CARD16,CASP1,PTPN1,ADAMTS12,SR RM4,POLA1,GGT7,BMPR2,USP33,DPYSL2,VBP1,CAMK1D,BMPR1A,ZKSCAN1,PA BPC4,TSPAN12,NLGN1,BTBD10,COL16A1,CTNNA2,IKZF4,PIK3R3,CDK12,TAF8,C AND2,SPAG9,MORC2,DENND4A,RAB11A,CRMP1,EVC,PDE11A,EPG5,MYB,FGF2, ZNF71,LRRC4C,POU6F2,BACH1,GRIK1,OR6C70,MXD3,PPM1F,TICRR,ADCY5,GL I4,ZFP41,NEDD9,AGBL4,BEND5,PEAK1,SEMA4D,ISM1,NFX1,CDC27,DOK6,ROR C,MCTP1,ELP3,PLXNA2,PTAFR,ADCYAP1R1,SP140,SP140L,SETD1A,RHOXF2,YM E1L1,ABCA13,JARID2,RILPL1,ANKDD1A,DDX58,DDK2,SORCS2,RAB11FIP3,BRD T,PHC2,ITGA11,PI4KA,RARB,SPEN,PIK3C2B,PRKCG,SIN3B,VIPR1,NCOA1,SPOC K1,AREL1,BLOC1S5,EEF1E1,EEF1E1- BLOC1S5,TXNDC5,GRIA2,EHMT1,GAS8,LMO7,AP2M1,CHRD,DVL3,ECE2,EIF2B5, EIF4G1,EPHB3,PSMD2,PTPRE,RBX1,TCF20,ANAPC5,ARHGAP39,ATF3,LIN28B,A TP6V0B,SHOC2,SRSF5,LINC00461,CKS1B,PAWR,EBF2,AGO3,DEPTOR,ADCE1,PK N3,FBXL20,MAML2,TSG101,DES11,CCDC3,VCL,LAMB1,TERF2IP,CLIC4,MYO9A, CRYM,IDE,WDR59,KCNQ1,RF2,WNT3,RCE1,ZNF322,RHOJ,P4HB,CCL14,CCL15, CCL15- CCL14,SUFU,TG,MAGEA11,NLGN3,PTPN13,SCUBE2,PAFAH1B1,KIF3A,PRDM15, ZNF670,ZNF695,CCDC169- SOHLH2,SOHLH2,FAM13A,CNTFR,COL4A3,TRPA1,DDAH1,NMUR2,ZNF354C,HI P1,AKAP6,RASAL1,TCEA3,PADI6,ZNF704,BTBD9,NR2C1,TRPC5,UBA2,IRS4,ME1, GLI2,NEO1,TNKS,SCUBE1,WBP2NL,ERCC1,RUFY3,TNRC6B,GLIS3,GPR39,WDTC 1,ZNF664,STON2,MGLL,C9,DAB2,THEMIS,BLM,PKHD1,USH2A,UBR1,CACUL1,L DLRAD4,MYSM1,SETD5,DZIP1,SMG5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2, ABCB1,OR5H2,OR5H6,OR5K4,RPO2,COMMD6,GUCY1A2,CSF3R,KCNQ2,DOCK 11,GMEB1,PEL1,PPP2R5C,CFDP1,IQGAP1,MAP3K7,APOLD1,DDX47,TAS2R41,Z NF423,SP1,OR56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,STAU1,CLA SP1,DSC2,EEDP1,TEAD4,FASTKD5,HOXC13,AKAP2,APBB3,SLC35A4,SRA1,TOPI, UBE2V1,MBOAT1,TPCN1,GPM6B,ADIRF,CLIC5,XDH,AHNAK,LTPB1,OTPN2,SNX 5,NFATC2,RBBP6,OR6C74,PRKG1,PAX7,RGS7,BNC1,ATP2B4,NSF,PACRG,SYNE3, PACSIN1,SPTBN5,TMEM2,ACTL6B,ASXL3,PAK3,MASP1,SSH2,TET1,CAMTA1,CCP G1,DYX1C1,P2RX6,ASGR2,ATAD1,ADNP,GPR161,MAPKAPK2,ARID4A,MAP1B,CD C42BP4,COL4A6,MPHOSPH9,SCARB1,MARK1,CDK6,ATP6V0A2,PHF2,KCNAB2,C ELF1,P2RY8,RNF34,TFRC,UVRAG,EPAH5,SORCS3,WWOX,GABRG3,MEF2A,SYT1 2,CRIL,ADCY9,CACNA1A,MIR1226,DCAF6,DCUN1D5,DROSHA,FNBP1,GFRAL,G PC3,SGIP1,STOM,XRN1,ADRBK1,SATB1,TBC1D5,PSMB2,ZNF207,EYA1,GATAD2A ,PTGER3,SCOC,BRINP1,DIS3L2,GNB3,SHPK,TRPV1,RBM12B,RNF216,TSPAN6,HO XB3,HOXB4,HOXB5,HOXB6,MIR10A,TFEB,CLEC16A,GHR,MNAT1,FLRT2,FGD1,S NX9,ACTR2,L3MBTL4,ELAVL4,LGI4,HDAC1,INVS,RECQL5,C2,CFB,SMOC2,TRIM 24,ADIPOR2,PLCG2,ROCK1,EPS8,NID1,SCMH1,C1QTNF1,PAXIP1,ZNF713,EGR2, HIPK3,RNF10,RYPB,GAPVD1,CAPN10,GPR35,CUL2,ABCC1,AP3B1,PTPN2,INSRR, NTRK1,KPNA6,TRIM44,ZFAND1,MAP1A,PKN2,PPP1R9A,TMIGD1,SLC39A10,EIF3 A,ANK3,DNMBP,UNC13A,EPHB1,PDE6A,EPAH10,PTPN9,AXIN2,SARM1,EPCAM, PARD3,RCAN2,ZNF425,GNL3L,MUC1,PTPN14,TRIM46,TUB,SH3GL3,JAG2,KCND 3,BCOR,CACNG8,AP3D1,ZNF41,CARM1,VWF,AP2B1,NETO1,ZNF383,ANXA8L1,A DAM19,ARHGAP44,SNX33,P1FO,CD84,COCH,HTR1D,LPA,ZNF616,ZNF836,SMAR CA2,ARHGEF3,CUX1,MIR1302- 10,RAD51C,SP1,DGKK,DNMT3B,EPAH7,CHRNA4,FOXP2,MCU,RANBP10,PTPRA, CTNNA1,LIM1A,AIFM2,FBXW4,PSPC1,GLIS1,SFMBT2,TRDN,ATG14,EIF3H,GABR A6,LY86,STAC,BCAR3,JAZF1,SHROOM3,STK38,TRPC6,ABC7,ACOT8,RBPMS,RE NBP,CHURC1,CREB5,FCHSD2,MAP3K13,OTUD3,RAB15,RAPGEF3,SDK1,PDXP,S H3BP1,MST1,ERCC3,PTK7,SMYD1,CHID1,SNCA,BMPR1B,CACNG2,CD53,GRM4, MAGI2,PRIM2,USP42,PNPT1,USP50,ZEB2,DHRS4,CABLES1,FOXJ3,SYT9,HEY2,R C3H1,CHMP3,EIF3E,CNGA3,RNF19B,WNT7B,PTPRS,ZMYND11,KMT2D,PRKAG1, CDKL1,CREM,PSMF1,RAB5B,KMT2C,TLL2,CAST,TRIP12,DFFA,SPPL2A,ADTRP,A BCA12,GNF7,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,CABIN1,HIPK1,NUGGC, PKP2,RPTOR,RTN4RL1,NFIX,BTK,MIR383,SIGLEC9,TBC1D16,XPO4,ZNF73,KCT D13,MLLT1,SLC4A8,TROVE2,CBFA2T2,IGF1,MLXIP,PLA2G4E,STX8,ATF7IP,CTN </p>
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			<p> <i>NBL1, HTT, DPYSL3, MAPK1, PTEN, ARHGEF17, MIB1, SPRED2, BMP7, SCN8A, ATXN2, MXI1, PIK3C3, PUM1, RAS42, SOX5, CIR1, PCBP2, TLL4, PRCP, RAB30, ZNF780A, ZNF780B, LRRK2, ATP6V1A, MLYCD, OSGIN1, GNA14, TMEM59, ZRANB1, EBAG9, SPAG5, UNC119, ZBTB20, CHMP5, CNIH3, RAPH1, RFC3, BAG6, LILRB4, MORC3, IFT81, TMC01, TMEM108, ITGAM, ARHGAP25, IL11RA, NSG2, PKD2, ZNF652, EFNA5, SHANK3, KCTD1, STMN4, RIPPLY1, NT5E, RCOR3, TADA2A, DAZL, BTBD11, RGS9, PDGFC, SERPINA3, SERPINA4, SERPINA5, AMOTL1, FAM13B, NCOA3, BEST3, PKIB, MTMR3, ZNF146, ZNF565, CUEDC2, PPP2R3C, TBCD, WNT7A, ZBED6, BRWD3, NLRP1, RPS6KC1, UACA, LPGAT1, MAP4, CRT3, DNAJC1, GPR141, ARNTL2, ELOVL5, PLCL2, KAT6A, MTIF2, GPR21, RABEP1, TTC28, RHOT1, SIK3, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, MYCBP2, NFE2L1, ANO1, GPI, IL17RD, SH3RF2, SOS1, TSHR, WDR43, ZNF30, EXT1, N4BP1, PDCD1LG2, ATRX, DPH6, PLIN2, PRICKLE2, GABRR2, IKZF1, PARVB, PRMT2, RAPGEF2, ASCC1, KCNC2, SMO, VRK3, RALY, ENPP3, BLOC1S3, MARK4, PRKAR2B, STXBPSL, CPT1A, PSEN2, TCF4, TNFRSF11B, PAG1, SYT17, AFF1, DECR1, SOX30, DNAJC6, TFE3, UBR5, GRB14, GRIN1, JADE1, KCTD8, ARRDC4, RHOA, SPRTN, WSB2, OR4M1, OR4N2, SYNGAP1, VIPR2, GRIN3A, ROR1, RQCD1, TF, ONECUT2, RHOTB1, FAM194A, CUL3, SH3KBP1, TFEC, HSPD1, ITPR2, NFKBID, EPM2A, GABRR3, GSKL3, ABCG8, PLD2, PRR16, DNAJC3, GNG12, RDX, STAT6, ACTA2, SYN1, MLF1, EEF2K, FAM49B, IWS1, PPIR16A, PTPRB, RBBP8, NECAB2, CDK13, STK32B, UPF2, CD27, DUSP26, ITGBL1, MCPT2, SCN9A, TAPBPL, BOK, RNF144B, SULF1, ZNF362, KRT8, NACC2, RNF43, SUPT4H1, TNFRSF8, ZNF354A, AGT, HDGFRP3, METTL16, CCNJL, ELOVL3, PCKB, PRKAA2, SYT7, ADAR, BLOC1S6, CUL9, FBN2, PITPNM2, STAT2, ZMPSTE24, BRINP3, HRH4, NDRG2, PTK2, TPPP2, UPK3B, LAT2, PEX5L, SNX3, PDE4B, RIMS2, PBX1, TCP11, TEC, EXOSC3, FBXO10, SHB, VEPH1, CDC14A, GAP43, MAP3K5, CPE, SEC16B, TCFL5, CREBBP, IQGAP2, PRKD3, FAM171A1, UTP20, APCDD1L, DLX1, FMOD, INSL6, PCSK5, CEP70, GTF2IRD2, NCF1, SLC29A1, TAOX2, UGT1A1, UGT1A10, UGT1A4, UGT1A8, PYGO2, SHC1, ZNF813, ALDOA, ARHGAP15, CD160, ECE1, KCNJ15, LBX2, PARP10, RNFT1, RPS6KB1, STC2, YLPM1, DPRX, GPR173, GUCY2F, PRG3, SCEL, SERPINB11, SETDB2, ANKSA1, ITGAL, ALOX5, CPLX2, DNAJB6, SP7, CD44, FGD3, LARP4, ADAM8, SLC5A3, CLDN4, PACSIN2, RPS6KA5, ZNF484, BCL2L14, CDS1, ZNF93, CSNK1A1, GRID1, HUS1, MIR346, PRDM2, CXCL17, FCRL6, FGD4, NOS1, ZNF44, GCKR, MED15, PLEKHA1, PLVAP, RGS14, SIPA1L2, ACTN4, ARHGAP11A, MC1R, STK4, TCF25, ZFAND6, DRAM1, ZNF282, MARK3, SPEF1, EPHB2, SLC1A1, WLS, EDRF1, SIGMAR1, TMEFF2, XCR1, BCO2, CLPTM1, IL18, DTNA, LRRC52, MFSD8, NKAIN1, UBE2K, GPSM2, DNAJC7, HCAR1, HCAR2, HCAR3, DIS3, DLCL1, PPARA, PPP1R10, ARID5B, CALCL, MCOLN1, EPB41L4B, SLC25A33, SMARCA11, PHLPP1, MAGI3, CPEB4, GPSM3, MOB3B, NOTCH4, SPY14, ZMYND8, ZNF366, CRX, FBN1, PAX6, PRKCZ, ZC3H4V1, ATP1A3, CD96, FAM20C, ADORA2A, GRIN2B, KCTD7, PPP1CC, RABGEF1, CCNG2, CPEB1, PHLDB2, PLCXD2, TYK2, OTUD7B, DENND4B, NIPBL, TMIGD2, YEATS4, CNRIP1, COL28A1, PHF20, ZNF143, ASPN, ANGPT1, BRF1, CADPS, TBL1X, EYA3, FHL2, FRMPD1, LRRK1, MBTD1, OSBPL8, ATF6, ZBTB5, ZNF708, IGF2BP3, EPB41L2, GCNT2, ETS1, PPP1CA, TBC1D10C, VWC2, ARHGAP21, CFI, GRIA4, MAP2, MTF2, RBMS3, CCL22, STPG1, BTN3A2, TAGLN3, FBXO31, ATG3, CDK5RAP1, CNTN1, NCOR2, PRKCQ, BRAF, CSRNPI, DIAPH1, HDAC2, HTR2C, IMPACT, MIR1912, ATP8A1, PHKG2, SRCAP, CAPN6, POU3F3, NOTCH4, SPY14, ZMYNT2, TNFR, MBNL3, UBE2E2, ZKSCAN5, HIGD2A, CD300A, ELF2, IRAK1BP1, PHIP, CDKL3, PPP2CA, SKP1, ANGPT4, ARHGEF6, MAOA, RPL23, SH3BP4, RFC5, ATXN1, CAMSAP3, DDC1, SP100, ZNF347, ZNF415, OPN1LW, ANXA2, TRIM29, KCND2, PARN, ATP6V0A1, PIGU, PRMT7, RAB27B, C1QTNF9, CR2, DONSON, FCRL2, ITSN1, NUP214, SRGAP2, ADCY1, MADD, NUMB, RBM42, SQLE, SYK, CNOT1, RBM39, WWTR1, ARHGAP19, GRIK2, GTF2H5, SCN1A, SLIT1, ASB1, FRMD5, NFXL1, CIT, MYRIP, RADIL, ZBTB38, BRCA2, HRK, RAP1GAP2, ATF7, CACNG3, DVL2, MORC1, MTRF1, NEB, YBX1, ANKRD13A, GRIPI, PTPRJ, SLC10A1, TAF1, ATP2B3, EIF4E3, TICAM1, TANK, THAP3, GPM6A, UCN2, ITGAE, TAC3, PLEKHB2, CADM1, HSF1, MAX, SAP130, DHFR, EZH1, ETF1, INPP5A, MIR663B, NRF1, SRPK2, ANKRD13C, PLEKHM1, SASHI, ASAPI, NCOA2, ADAMTS7, RALGAP1, GBP5, SULT2B1, WDR18, BMP1, CGNL1, EEFSEC, FCHO1, QRICHI1, VAV3, ZP3, CHD6, DLGAP2, KCNQ3, RNF2, ZNF554, MOB3A, CAV2, GNA12, SH2D3A, SKA2, AKTIP, COL4A5, MYEF2, INPP5F, NUAKE2, AXL, REPS2, TNFSF9, TRIM37, WIF1, CD109, DENND4C, MET, SESTD1, TBC1D10A, FMNL1, ZNF461, CAMK2D, CCR3, KCNJ6, RAD9B, SNX1, TIMELESS, UCHL5, ANKRD6, BRD9, MALTI, SERPINE3, SETD3, TRA2B, ZDHHC11, SPTAN1, EHD2, KDM2B, MLXIPL, SEMA3C, THEM4, CCT3, NEDD4L, PHB, PTPRC, EDA, GPR89A, ZNF555, CTCF, PBLD, SH3GL2, TYRO3, NR6A1, RNF213, SPON2, SYNDIG1, TSAN5, ADCY10, NCAM1, TRAF3IP2, TRIM60, ATF6B, CREB1, RASSF8, RGM, SGTB, SHISA6, TNXB, TRAP1, AFF4, CLNK, EBF4, EDNRA, GNGT1, PRAP1, STXB6, ZNF511, BMP4, ABLIM3, CASP12, CPNE1</i> </p>
GO:0120036	plasma membrane bounded cell projection organization	2.943940985078052e-35	<p> <i>CLRN1, ADAMTS16, NRXN1, PRMT3, PRKCI, MAP4K4, S1PR2, LLPH, NEGR1, SPAG16, CLASP2, SEMA3A, GRID2, PRDM12, TENM3, IQCG, SEMA3D, PHACTR1, MYOT, NREP, TIAM2, UNC5C, KALRN, NTRK3, SEMA5A, TOX, ENPP2, PLCE1, FER, LRP2, OLFM1, EZR, NRXN3, ROBO1, CDKL5, TENM1, KIF5C, ROBO2, NFASC, VAV2, ABI1, ULK4, ITGB1, TRIOBP, HSP90AA1, GAS7, KND1, DSCAM, TRIO, ARHGAP24, IFT43, DAB1, CDC42EP3, MYO10, LAMA2, TCIRG1, PTPN11, DOCK10, HDAC6, GOLGA4, EPHA1, GBF1, DNAH2, LIMK1, ATP8A2, CUL4B, CECR2, NPHP3, GRM7, PTPRO, NTRK2, DNAI2, EP300, TENM2, RIMS1, TNK1, SNX2, KIRREL3, INSR, RERE, ATP8B1, UNC5D, LAMA3, CDH4, PAK1, PTPRD, TBR1, STRC, BDNF, AMIGO1, LRRC49, DENND5A, DMD, GSN, RIT2, TANC2,</i> </p>

			<p>FYN,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,DCTN1,FRY,MAP2K1,RAPGEF6,VAX2,MYH9,CNTN4,WDR92,NTNG1,TMEM30A,LRGUK,ROR2,CDH13,UST,CAPRIN2,NCKAPI1,RCC2,BOC,ANO6,ARL3,ICK,TTL8,ZDHC15,JAK2,MYPN,SYT1,CROCC,BBS12,LZTS1,BCL11B,PLS1,SEPT7,CYFIP2,IFT80,FIG4,KREMEN1,SLAH1,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,SGK1,PIBF1,KEL,F2RL1,BCAS3,RPGRIP1L,SLIT3,SLIT2,CDH23,CORO1C,CTNND2,DISC1,CEP135,KANK1,PTPDC1,LAMC2,CLMN,TTBK2,SPAG17,ITSN2,DCLK1,PARVA,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,CNR1,PPP3CA,MAG,CTNNB1,PARK2,FCGR2B,CDHR2,IGF1R,DLG5,XK,DRAXIN,NIN,AJUBA,CPNE6,CSPG4,DCAC,HDAC4,PAX2,SPG11,SFRP1,ARL13B,CNTN6,NFIB,IFT122,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,PRTG,APP,DIP2B,YAPI,FSTL4,NLGN2,PTPRG,ISLR2,KIF24,TTC39C,SPTBN4,VASH2,MMP2,SYNE2,CPNE9,PRKD1,PARP6,DGKG,TCTN3,ABLIM1,DSCAML1,SEMA6D,TMEM237,ABLIM2,BMPR2,USP33,DYPSL2,CAMK1D,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRC4C,SEMA4D,ARMC2,PLXNA2,RILPL1,SPOCK1,BLOC1S5,GAS8,DVL3,EPHB3,FBXO45,VCLL,AMB1,WDR90,MYO9A,KCNQ1,RFX2,WNT3,NLGN3,PAFAH1B1,KIF3A,CEP350,RASALI,TRPC5,GLI2,NEO1,RUFY3,DAB2,PKHD1,DZIP1,RELN,SLC3A,DOCK11,IQGA,P1,ZNF423,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACIN1,ACTL6B,PAK3,DYX1C1,ADNP,CEP41,MAP1B,MPHOSPH9,MARK1,AIF1L,EPHA5,MEF2A,FLRT2,FGD1,RPGR,ACTR2,ELAVL4,ROCK1,EPS8,EGR2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,TUB,TEKT1,CARMI,ARHGAP44,PIFO,CUX1,EPHA7,CTNNA1,LIMA1,MAP3K13,SDK1,PTK7,BMPR1B,MAGI2,HYDIN,WNT7B,PTPRS,CDKL1,PLD1,RTN4RL1,TROVE2,CBF42T2,HTT,DYPSL3,PTEN,BMP7,LHFPL5,LRRK2,SEPT6,RAPH1,IFT81,TMEM108,PKD2,EFNA5,SHANK3,STMN4,WNT7A,MAP4,NME8,CEP89,MYCBP2,SOS1,TSHR,EXT1,PARVB,RAPGEF2,SMO,BLOC1S3,MARK4,SYT17,BBS9,RHOA,SYNGAP1,GRIN3A,ROR1,ONECUT2,GSK3B,EMB,RDX,EEF2K,AGT,HDGFRP3,BLOC1S6,PTK2,SNX3,RIMS2,CDC14A,GAP43,CEP70,TAOK2,ECE1,CD44,FGD3,RPS6KA5,FGD4,TBC1D23,PLEKHA1,TUBB3,SPEF1,EPHB2,PAX6,PRKCZ,ATP1A3,ADORA2A,GRIN2B,KLC3,KLHL1,MAP2,FBXO31,ATG3,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,NOTO,TNR,CDKL3,ARHGEF6,FAM149B1,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,WWTR1,SLIT1,DVL2,GRIPI,GPRIN3,GPM6A,MYO1A,DHFR,PLEKHM1,ASAP1,VAV3,POC1B,INPP5F,SNX1,EHD2,SEMA3C,NEDD4L,SH3GL2,NCAM1,TANC1,CREB1,EDNR4,ABLIM3,CPNE1</p>
GO:0048731	system development	3.0182524511189066e-35	<p>CLRN1,DNAH11,RCN1,ENPP1,PRDX2,ADAMTS16,LDB2,NRXN1,PRMT3,GSS,RDH13,PRKCI,TACC2,MAP4K4,DNMT1,HLX,LLPH,SLC9A1,NEGR1,PBX3,TRPS1,CBFB,CLASP2,SEMA3A,IL31RA,LSAMP,GRID2,RPS6KA2,PRDM12,TENM3,CHERP,DOCK1,CLDN18,RYR1,NRG3,ASH1L,NOX5,ASTN2,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,STOX2,FHOD3,NLGN4X,PTGIS,DCHS2,TJP1,UNC5C,ZSWIM6,PRLR,HIVEP3,FTO,UTRN,KALRN,SPRR2D,NTRK3,CBL,ARNT,ATRN1,SEMA5A,FLT3,ZNF608,TOX,ENPP2,ATP2B2,GRM5,PLCE1,LHFPL4,SAMHD1,MAP2K5,SPATA5,KITLG,SPNS2,NDUFV2,LRP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,MFAP5,MEGF10,NRXN3,XRCC4,ROBO1,CHD7,HTR2B,ITGB6,CDKL5,MECOM,TACC1,TENM1,KIF5C,LMNA,KIAA1217,TRAF6,ESRP1,ROBO2,NFASC,ITPKB,DNAJA3,VAV2,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,GAS7,PSMB7,PCDH17,KNDC1,ZC4H2,KIF26B,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,TTL5,GFIIB,RUNX1,DAB1,ABCC8,NRIP1,THRB,XIRP2,IMPG2,LAMA2,GFRA2,TCIRG1,PTPN11,DOCK10,HDAC6,GOLGA4,MYT1,ADORA1,EPHA1,EPHB4,LIMK1,ZNF545,ATP8A2,ACTG2,HIF3A,CUL4B,LARGE,CECR2,ESR1,MYO18B,NPHP3,GRM7,ANKRD11,PTPRO,CDON,NTRK2,EP300,CELA1,MEGF9,DYM,TENM2,RNF220,HOOK3,PDGFB,RIMS1,TNIK,KIRREL3,CSGALNACT1,TOB2,INSR,RERE,PRKAR1A,ATP8B1,UNC5D,H2AFY2,PLLP,LAMA3,TCF7L2,PIP4K2A,CDH4,PAK1,FBXW11,ESRRB,MAP3K4,PTPRD,CNTN5,BASP1,RBM20,SLC4A10,TBRI,STRC,BDNF,TFAP2A,ATRN,AMIGO1,FANCA,CHRM3,TGIF2,POMGNT2,NPRL3,PHACTR4,MEIS1,TENM4,LCK,MDM4,ECT2,ZNF148,MYO3B,TFDP2,NAV2,LAMC1,PTPRU,MB,SGCD,DENND5A,DMD,CENPF,CRISPLD2,KAT7,WDR7,SLC8A1,GSN,PRPS2,GPR171,SATB2,PAFAH1B2,RIT2,MACROD2,TANC2,JPH2,FYN,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4,AFF2,RXFP1,MAL2,CHRD1,APOD,B4GALT6,RTN4R,BCR,CHI3L1,CCDC141,TTN,NDRG4,BMP2K,PAQR3,ANKH,ADAMTSL1,TLL1,NTN1,EGFLAM,DCTN1,SLC4A5,NRG1,UBP1,FRY,MAP2K1,MDF1,FNIP1,STIM1,VAX2,MYH9,MAD1L1,LRFN5,DAGLA,PLEKHA5,VGLL4,CNTN4,HDAC5,NTNG1,PCSK2,NAV1,NF1A,TMEM30A,CMKLR1,SBF2,ROR2,DCN,SLC39A14,PRPSAP2,LIN7A,DOCK2,CDH13,PLXDC1,SOX13,ACSBG1,UST,FGF14,DMC1,PCDHB16,EXOC4,MA2D2,CAPRIN2,NLN,NCKAPI,FOXN3,BOC,ANO6,ARL3,NEUROD1,KIF24,CCBE1,ZDHC15,JAK2,MYPN,TRAPPC9,FBXW7,CLSTN2,SYT1,ITCH,LZTS1,BCL11B,RBFOX1,TMC1,LRIG3,PKNOX1,CLDN1,MLLT3,PNPLA1,PLS1,TEX11,TCF7,PDE2A,KLF15,TBX15,CYFIP2,WNT11,IFT80,FIG4,KREMEN1,IMMP2L,NRG4,ASTN1,NOX4,SIPIAL3,CACNAIH,SLAH1,QKI,IL1RAPL1,CAMK2B,ADAM23,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,SGK1,PCSK5,PDLIM4,MYO3A,ZHX2,KEL,BTRC,NFATC3,F2RL1,BCAS3,RPGRIP1L,CELSR1,SLIT3,SDK2,SLIT2,TP73,MUSTN1,GABRB1,CDH23,CORO1C,CTNND2,DISC1,KANK1,LRRC10,LAMC2,MTDH,CLMN,TTBK2,MYT1L,OPCML,CHRM1,SMAD6,RXFP2,BNC2,CLOCK,ITSN2,TCF12,ZNF675,SMOY,ETV6,SYNJ2,NELL1,PRR14,TFAP2D,BMPER,BCL3,DCLK1,ANKRD54,PARVA,ADA</p>

			<p> MI2, NAIP, SLC17A7, SBNO2, LINGO2, YTHDF1, FGF10, CNTNAP2, FBXL17, ENAH, GR EB1L, IL1RAPL2, PPL, LOXL3, SVIL, CAPN3, SMURF2, EPHA4, RORA, PRKCA, AUTS2, C NR1, TNFSF11, PPP3CA, NSUN2, MAG, CAMK4, UFL1, TRAK1, CTNNB1, PARK2, SOD2, FCGR2B, ARHGAP22, SMARCC1, IGF1R, PPARG, NGRN, DLG5, IL18R1, BFPSP1, ADD2, MTF1, ANKRD17, CYBB, OTC, XK, BRIP1, RYR2, DRAXIN, LEPR, FGF1, NIN, NR4A3, DC T, MYOCD, PER2, CACNA1C, CPNE6, GLG1, SCN3B, PHLDB1, MYO1E, CSMD1, CSPG4 , DCC, CTDPI, MMP16, NF2, FLT4, MEF2B, BICC1, HDAC4, PAX2, ELN, SPG11, SFRP1, FOXO3, ARL13B, CNTN6, NFIB, IFT122, DNM3, SMAD3, CUX2, PTPRM, ARNT2, NHS, R NF168, CASZ1, ABI2, PSAP, SHANK1, SYT3, NEDD4, NRP2, VANGL1, BTBD3, PREX1, CR TAC1, HOXD3, HOXD4, NAV3, TAB1, NFATC1, PRTG, CDC73, APP, SSBP3, GSX2, PDGF RA, CEP85L, DIP2B, NOX1, YAP1, HEG1, FSTL4, NLGN2, TNFRSF19, ALPL, JAK1, ANG P TL4, LRP5, PTPRG, ISLR2, SLC9B2, SOX2, SETD2, PLAC1, GPC6, TTC39C, ADAMTS2, C HST11, TEAD1, PRICKLE1, RCAN1, ELAVL3, SPTBN4, VASH2, ZNF521, DRD1, FRS2, P A LB2, SFMBT1, MMP2, TPH1, SYNE2, CPNE9, KDM6A, PRKD1, STAT1, PARP6, DGKG, SY BU, SLC6A3, HNF4A, SHANK2, STRA6, EREG, ABLIM1, MYH15, DSCAM1, SEMA6D, R BFOX3, ATF2, POU2F2, TCF3, RAF1, CELF4, ADAMTS12, SRRM4, BMPR2, USP33, DPY SL2, CAMK1D, BMPR1A, AP1B1, PABPC4, TSPAN12, NLGN1, CTNNA2, PIK3R3, CERS3, SPAG9, RAB11A, CRMP1, EVC, MYB, FGF2, LRRC4C, POU6F2, GRIK1, AGBL4, ADAMT S4, SEMA4D, SH3PX2A, ISM1, RORC, ELP3, PLXNA2, FNDC3A, SETD1A, JARID2, KLH L3, ITGA11, RARB, SPEN, PRKCG, NCOA1, SPOCK1, BLOC1S5, GAS8, OC90, NTM, CHR D, DVL3, EIF2B5, EIF4G1, EPHB3, ATF3, FBXO45, MATN3, SRSF5, EBF2, ADAM20, AD A M21, TSG101, VCL, LAMB1, CLIC4, MYO9A, COL11A1, KCNQ1, WNT3, ADAMTS6, RHOJ , SUFU, TG, NLGN3, SCUBE2, PAFAH1B1, POLE, CNTFR, COL4A3, DDAH1, NMUR2, AK AP6, RASAL1, TRPC5, TLL7, GLI2, NEO1, SCUBE1, ERCC1, RUFY3, TPDS2, COL19A1, DAB2, THEMIS, PKHD1, USH2A, LDLRAD4, MYSM1, SETD5, ZDIP1, WNK1, RELN, SIN3 A, RSP02, CSF3R, KCNQ2, DOCK11, CRELD1, IQGAP1, APOLD1, ZNF423, SP1, LUZP1, MACF1, MYO7A, ALK, GSTM3, INPP5D, CLASP1, DSC2, TEAD4, HOXC13, MBOAT1, GP M6B, XDH, OVOL2, NFATC2, RBBP6, PRKG1, PAX7, RGS7, ATP2B4, PACSIN1, TMEM2, ACTL6B, ASXL3, PAK3, DYX1C1, ASGR2, ADNP, GPR161, MAPKAPK2, ARID4A, MAP1B , MARK1, CDK6, PHF2, CELF1, TYR, TFRC, EPHA5, WWOX, MEF2A, DHX30, DROSHA, GFRAL, GPC3, ADRBK1, PLS3, PSMB2, CALD1, EYA1, BRINP1, TRPV1, HOXB3, HOXB4, HOXB5, HOXB6, TFE3, GHR, MNAT1, FLRT2, FGD1, ACTR2, ELAVL4, LGI4, HDAC1, SM OC2, ADIPOR2, PLCG2, ROCK1, NID1, PAXIP1, EGR2, RNF10, AP3B1, PTPN2, NTRK1, MAP1A, PPP1R9A, ANK3, ACO2, UNC13A, PTPRQ, EPHB1, PDE6A, EPHA10, PTPN9, A XIN2, SARM1, SNTG2, EPCAM, PARD3, PTPN14, TRIM46, TUB, SH3GL3, JAG2, BCOR, A P3D1, CARM1, AP2B1, ADAM19, ARHGAP44, SRD5A2, PIFO, SMARCA2, CUX1, SPI1, E PHA7, FOXP2, CTNNA1, FBXW4, BCAR3, ILDR2, SHROOM3, MAP3K13, RAPGEF3, SD K1, MST1, KAZN, ERCC3, PTK7, SMYD1, TTC9, SNCA, BMPR1B, MAGI2, PNPT1, ZEB2, H EY2, RC3H1, COL13A1, HYDIN, RNF103, WNT7B, HMGS2, PTPRS, TLL2, ADTRP, ABC A12, RASAL1, MTF, SRSF6, RBM45, HIPK1, PKP2, RTN4RL1, BTK, SGCE, ZNRF3, TROVE 2, CBFA2T2, IGF1, CTNBNB1, DPYSL3, MAPK1, PTEN, CLDN11, MIB1, SPRED2, BMP7, SCN8A, SOX5, LHFPL5, PRCP, LRRK2, MEGF11, UNC119, RAPH1, BAG6, LILRB4, TME M108, ITGAM, PKD2, EFNA5, SHANK3, STMN4, ALPK3, PDGFC, AMOTL1, NCOA3, PPP 2R3C, TBCD, WNT7A, ZBED6, MAP4, PLCL2, KAT6A, SH3PX2B, BMP6, MYCBP2, IL17 RD, SOS1, TSHR, EXT1, ATRX, PRICKLE2, SERINC5, IKZF1, RAPGEF2, KCNC2, SMO, S UN1, BLOC1S3, MARK4, CPT1A, MYLPF, TCF4, TNFRSF11B, SYTI7, BPGM, TFE3, GRI N1, ADAM29, RHOA, SYNGAP1, GRIN3A, NDE1, ROR1, TF, ONECUT2, CUL3, HSPD1, N FKBID, EPM2A, GABRB3, GSK3B, EMB, STAT6, ACTA2, SYN1, MLF1, EEF2K, PTPRB, C CDC14, CDK13, ALAS2, UPF2, CD27, BOK, SULF1, MTHFD1L, KRT8, AGT, HDGFRP3, ADAR, BLOC1S6, FBN2, ZMPSTE24, BRINP3, NDRG2, PTK2, PHEX, SNX3, RIMS2, PBX1 , EXOSC3, SHB, GAP43, CPE, TRPC4AP, COL9A1, DLX1, SLC29A1, TAOK2, UGT1A1, PY GO2, SCEL1, NDUFS2, CD160, ECE1, RPS6KB1, STC2, GPR173, SCEL1, SETDB2, ANKSI A, ALOX5, CPLX2, DNAJB6, MDGA2, SP7, CD44, ADAM8, SLC5A3, CLDN4, RPS6KA5, THS D7A, CXCL17, PEX7, TBC1D23, PLEKHA1, RGS14, STK4, TCF25, TUBB3, SPEF1, EPHB 2, SLC1A1, WLS, SIGMAR1, TMEFF2, CLPTM1, IL18, MFSD8, DLC1, PPARA, ARID5B, C ALCLRL, PHLPP1, PRRC2C, NOTCH4, SOBP, CRX, FBN1, PAX6, PRKCZ, FAM20C, ADOR A2A, GRIN2B, PPP1CC, COL22A1, PHLDB2, KLHL1, NIPBL, TMIGD2, PCDH10, UPB1, ASP, ANGPT1, FHL2, LRRK1, MBTD1, ATF6, SHROOM4, IGF2BP3, GCNT2, ETS1, PPP 1CA, VWC2, MAP2, NEBL, TAGLN3, FBXO31, CDK5RAP1, CNTN1, NCOR2, PRKCQ, LGI 2, BRAF, CSRNPI, HDAC2, IMPACT, POU3F3, NOTO, SPINT2, TNFR, CDKL3, PPP2CA, A NGPT4, ACAN, ATXN1, CAMSAP3, SP100, ANXA2, CR2, SRGAP2, TMEFF1, ADCY1, NU MB, SYK, WWTR1, SLIT1, ASB1, CIT, RADIL, BRC42, DVL2, NEB, GRIP1, PTPRJ, TAF1, G PRIN3, RNF38, GPM6A, POTE, CADM1, HSF1, MAX, DHFR, EZH1, SRPK2, SASH1, ASA PI, ADAMTS7, BMP1, VAV3, ZP3, CAV2, MYEF2, INPP5F, AXL, TNFSF9, CD109, MET, C CR3, TIMELESS, UCHL5, ANKRD6, MALT1, TRA2B, KDM2B, SEMA3C, NEDD4L, PTPR C, EDA, GPR89A, SH3GL2, TYRO3, RNF213, SYNDIG1, VPS52, NCAM1, TRAF3IP2, CRE B1, EDNRA, NGT1, BMP4, CPNE1 </p>
GO:0007154	cell communication	5.221525592385442e-35	<p> CD247, RIC8B, ENPPI, PRDX2, GPC5, NRXN1, ASPH, GP6, PRKCI, MAP4K4, PDE4D, P DCL, DNMT1, SIPR2, TMIM4, SLC9A1, PDE7B, ADCY8, LMBR1, PDE8A, CLASP2, SEM A3A, IL31RA, GRID2, TAS1R2, RPS6KA2, PTGFR, TENM3, CHERP, DOCK1, WWCI, CLD N18, C12ORF49, CTDSP2, FBXL2, NRG3, ASH1L, NOS1AP, LATS2, ANP32A, SEMA3D, PTH2R, NREP, TIAM2, KSR2, MAPRE2, NLGN4X, PTGIS, PRKAG2, WWC2, GRM8, UNC5 C, OR5P2, OR5P3, CLCN1, PRLR, MVP, PAGR1, ADCY7, RGS7BP, KALRN, PITPNC1, NT </p>

			<p> <i>RK3,CBL,ARNT,ATRLN1,PLEKHG4B,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,LRRFIP2,FLT3,STAT5B,GRM5,PLCE1,SAMHD1,FER,CASK,MARVELD3,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,SPNS2,LRP2,PIK3CD,ZNF536,DEPDC5,HDGF,ANK2,OLFM1,SH2D1A,EZR,NRXN3,ROBO1,TOM1L1,TNFAIP8L1,CHD7,HTR2B,ITGB6,MECOM,TENM1,CAMKMT,LMNA,NUCB1,GOT1,NMT2,INPP4B,TRAF6,ROBO2,NFASC,ITPKB,CTNNA3,DNAJA3,SLC24A2,VAV2,GRK5,ABI1,ULK4,ITGB1,HSP90AA1,CDC6,PSMB7,CNIH2,SRGAP3,MCC,TSSK1B,PCDH17,KNDC1,CDC22,DSCAM,STK38L,GMDS,SAMD12,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,DLG2,PDE1A,PTPRK,DAB1,CDC42EP3,MYO10,ABCC8,ERC1,HMGN3,RGS6,DGKI,ANKS1B,THRB,STXBP4,PDE4A,ERC2,GABRA3,ITGB3BP,LAMA2,GFRA2,MAST4,IL17RB,TCIRG1,PTPN11,NETO2,HERC4,MGAT5,CACNB2,DOCK10,CYTH3,HDAC6,DDI1,SV2B,ADORA1,GPRASP1,ADAMTS3,EPHA1,IKKB,ERBB4,ADRA1D,SORCS1,MRE11A,GBF1,LIMK1,TLK1,BRD8,ABR,SNIP1,KLHL6,ESR1,NPHP3,GRM7,MIER1,PMEP1,MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,TENM2,RNF220,RGS22,FNT4,PDGF, CACNA1B,RIMS1,TNIK,CCND3,CDH8,USP46,MID1,CHFR,BPI,STK39,DAP3,HNF4G,INSR,FMN2,PRKAR1A,ASB5,AFAP1,UNC5D,LAMA3,TCF7L2,PIP4K2A,CAB39,USP34,PAK1,LITAF,FBXW11,ESRRB,MYO1,MAP3K4,ZDHHC13,PTPRD,SLC4A10,BDNF,CDK14,FANCA,CHRM3,TGIF2,FUT8,OR2T3,NPRL3,PHACTR4,TENM4,GRIK4,TRIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4,EDARADD,IL5RA,ENTPD5,SHC4,ECT2,SNX6,CHML,VAMP7,PPM1F,ARHGAP42,PTPRU,RFTN1,ERN2,CDC45,LSP1,AP3S1,NPLOC4,SGCD,DMD,CENPF,ATG10,LRRN2,KAT7,SLC8A1,RBM14,GPR171,RIT2,DRG2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,NF1,PLCB1,DST,LMTK2,SNCB,RTN4,RXFP1,CHRDLI,DGKH,APOD,RTN4R,BCR,PPP1R12B,RWDD3,SHISA9,CHI3L1,TTN,NDRG4,ICA1,BMP2K,PAQR3,R2,CACNA1E,RANBP9,NTN1,NOMO3,NRG1,ARHGAP10,SH2D3C,SLC16A10,BDKRBI,BDKRB2,DOCK8,BID,MAP2K1,MDF1,FNIP1,RAPGEF6,VAX2,RALGPS2,MYH9,MAD1L1,DAGLA,TMBIM6,VGLL4,PPP2CB,CNTN4,PPP3R1,NTNG1,VSTM1,OR6N2,CMKLR1,INPP4A,CDKL2,ROR2,DCN,ZDHHC3,SLC39A14,LIN7A,SYN2,DOCK2,CDH13,CREBRF,SOX13,FHIT,PTPRT,COP5,FGF14,PCDH16,EXOC4,ARHGAP32,MAD2L2,TLE6,RGS8,CAPRIN2,CCNYL1,NLN,NCKAP1,DEFA1B,DEFA3,PTGER2,RALGPS1,FOXN3,RCC2,BOC,ANO6,ARL3,NEUROD1,GNAQ,FBXO9,ICK,TMEM117,RFFL,RANBP1,CCBE1,DENND1A,JAK2,FBXW7,LINC00473,SYN3,SKAP1,CLSTN2,UIMC1,SYT1,ITCH,NPSR1,ZFYVE28,LZTS1,SMG1,SCN4A,SLC1A4,DTHD1,HUNK,MLLT3,ARAP2,CDC42BPB,DOCK9,SH2D6,TCF7,PDE2A,KLF15,ANXA4,LAMTOR3,MAGI1,KCNC4,CYFIP2,WNT11,ARHGAP23,IFT80,TRIM59,APBB1P,MTA1,KREMN1,NRG4,CLPB,NOX4,SIPAIL3,MKLN1,CACNA1H,SLAH1,ILIRAPL1,CAMK2B,PRKCD,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,PLCXD3,SGK1,PCSK5,PDLIM4,SPSB4,NUP93,IGSF1,PIBF1,BTRC,NFATC3,JPH3,CRADD,DLGAP1,PTPRN2,F2RL1,C9ORF47,GRIK3,RPGRIPL,CELSR1,SLIT3,AAK1,ZFYVE9,SLIT2,ASB15,TP73,GABRR3,CADPS2,GABRB1,SYT13,HHAT,GPR176,CORO1C,RRAS2,CTNND2,OR9A4,DISC1,KCNJ3,KANK1,CACNA1D,PTPDC1,MTDH,ANK1,TTBK2,XPR1,CHRM1,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,CLOCK,ZNF675,PLCB4,KCNH1,BMPER,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DAPP1,ADAM12,DUSP22,GPR52,NAIP,HOMER2,SLC17A7,DOCK3,OIP5,OTOA,YTHDF1,FGF10,CNTNAP2,FBXL17,RASA4,RASA4B,ARHGEF28,STXBP5,KCTD10,ILIRAPL2,IQCJ-SCHIP1,SH3RF3,LOXL3,RHPN2,MAST2,GLP2R,ADCY2,CAPN3,SLC16A1,SMURF2,EPHA4,RORA,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NSUN2,OR51B2,OR51B4,OR51I1,GN44,MAG,CAMK4,UFL1,CTNNB1,PARK2,SOD2,FCGR2A,FCGR2B,FCGR3A,FCGR3B,ARHGAP22,SMARCC1,IGF1R,PPARG,AXIN1,GARNL3,PRKAR1B,DLG5,IL18R1,IL1RL1,P2RY10,TRPM1,ANKRD17,CYBB,CASKIN1,APOL3,BRIP1,SRBF2,RYR2,DRAXIN,LEPR,LEPROT,FGF1,RGS10,NR4A3,WDR45B,NOL3,PRKAR2A,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,PER2,KIR2DL1,KIR2DL4,AJUBA,CACNA1C,CPNE6,GLG1,SCN3B,CHEK2,PRDM16,MYO1E,ASB8,PPP1CB,HCK,SORBS1,TBCK,TRIM8,CSPG4,GRM1,RIMS4,DCC,ARHGAP31,P2RY14,OBSN,RLG1,NF2,FIL4,SGMS1,BICC1,HDAC4,PAX2,TNS3,SPTBN1,TPTE,TRABD2B,SPG11,SFRP1,FOXO3,DGKB,TRHDE,ARL13B,CNTN6,ARHGAP29,IFT122,SMAD3,CUX2,ITPR1,PTPRM,WWP2,ACKR2,WIP1,ABI2,GRIK5,PSAP,SLC16A2,SHANK1,SYT3,IFNAR1,OR14K1,NEDD4,NRP2,ARHGEF18,VANG1,PREX1,PLA2G4C,DOCK4,ESRRG,HOXD3,KPNB1,TAB1,SLC6A1,TXNDC12,NFATC1,RAB6C,CDC73,APP,GSX2,PDGFR4,FCRL4,NOX1,YAP1,HEG1,AMFR,RAB11FIP5,SESN1,FSTL4,NLGN2,TNFRSF19,EYA2,JA K1,TNNI3K,LRP5,MUC20,PTPRG,SLC9B2,GNG2,SOX2,GPC6,CHST11,TEAD1,PRCKLE1,RCAN1,ZNF653,SPTBN4,GRIA3,DRD1,TMEM14A,GLRA2,CHUK,ERLIN1,FRS2,MMP2,SERGEF,ESR2,S100A12,KDM6A,PRKD1,STAT1,ST18,DGKG,RND3,SLC6A3,HNF4A,LRRC2,SHANK2,VPS4A,EREG,CCNY,TCTN3,MAPKAPK3,SEMA6D,ATF2,GRAMD4,TMEM237,RAF1,CELF4,RASGRF2,CARD16,CASP1,PTPN1,ADAMTS12,BMPR2,USP33,DYSL2,BMPR1A,TSPAN12,NLGN1,COL16A1,PIK3R3,SPAG9,DE NND4,EVC,PDE11A,EPG5,FGF2,LRRC4C,GRIK1,OR6C70,PPM1F,TICRR,ADCY5,NEDD9,SEMA4D,DOK6,RORC,MCTP1,PLXNA2,PTAFR,ADCYAP1R1,ANKDD1A,DX58,DKK2,SORCS2,RAB11FIP3,ITGA11,PI4KA,RARB,SPEN,PIK3C2B,PRKCG,VIPRI,NCOA1,EEF1E1,EEF1E1-BLOC1S5,GRIA2,GAS8,CHRD,DVL3,ECE2,EIF2B5,EIF4G1,EPHB3,PTPRE,RBX1,ARHGAP39,ATF3,SHOC2,PAWR,AGO3,DEPTOR,PKN3,FBXL20,MAML2,TSG101,CCDC3,TERF2IP,MYO9A,IDE,WDR59,KCNQ1,WNT3,RCE1,RHOJ,P4HB,CCL14,CCL1 </i> </p>
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			<p>5,CCL15- CCL14,SUFU,TG,NLGN3,PTPN13,SCUBE2,ZFYVE1,PAFAH1B1,PRDM15,FAM13A,CNTFR,COL4A3,TRPA1,DDAH1,NMUR2,HIP1,AKAP6,RASAL1,BTBD9,NR2C1,IRS4,GLI2,NEO1,TKNS,SCUBE1,GPR39,MGLL,DAB2,THEMIS,BLM,PKHD1,UBR1,LDL,RAD4,DZIP1,WNK1,RELN,NEK10,RUVBL2,OR5H2,OR5H6,OR5K4,RSPQ2,GUCY1A2,CSF3R,KCNQ2,DOCK11,PEL1,PPP2R5C,IQGAP1,MAP3K7,DDX47,TAS2R41,ZNF423,OR56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,STAU1,DSC2,TEAD4,UBE2V1,XDH,LTBP1,OVOL2,SNX5,NFATC2,OR6C74,PRKG1,RGS7,ATP2B4,PAK3,CAMTA1,DYX1C1,P2RX6,ASGR2,ATAD1,ADNP,GPR161,MAPKAPK2,MAP1B,CD42BPA,COL4A6,SCARB1,MARK1,CDK6,P2RY8,RNF34,TFRC,EPAH5,SORCS3,WWOX,GABRG3,MEF2A,SYT12,ADCY9,CACNA1A,FNBP1,GFRAL,GPC3,ADRBK1,PSMB2,ZNF207,EYA1,PTGER3,GNB3,TRPV1,TSPAN6,TFEB,CLEC16A,GHR,FLRT2,FGD1,ELAVL4,HDAC1,INVS,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,C1QTNF1,PAXIP1,EGR2,HIPK3,RNF10,GAPVD1,CAPN10,GPR35,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,MAP1A,PKN2,PPP1R9A,SLC39A10,EIF3A,ANK3,DNMBP,UNC13A,EPHB1,PDE6A,EPAH10,AXIN2,SARM1,EPCAM,PARD3,RCAN2,MUC1,TUB,S,H3GL3,JAG2,CACNG8,CARM1,VWF,NETO1,ARHGAP44,SRD5A2,HTR1D,ARHGEF3,SP11,DGKK,EPAH7,CHRN4,MCU,RANBP10,PTPR,CTNNA1,FBXW4,TRDN,ATG14,GABRA6,LY86,STAC,BCAR3,ILDR2,STK38,RBPMS,CHURC1,FCHSD2,MAP3K13,OTUD3,RAB15,RAPGEF3,SH3BP1,MST1,PTK7,SNCA,BMPR1B,CACNG2,CD53,GRM4,MAG12,USP50,ZEB2,SYT9,HEY2,RC3H1,CNGA3,WNT7B,PTPRS,MYND11,KMT2D,PRKAG1,CREM,DFFA,SPPL2A,ADTRP,ABCA12,GNG7,PLD1,RASA1,MACC1,MITF,OPRD1,CABIN1,HIPK1,PKP2,RPTOR,BTK,SIGLEC9,VPS41,ZNRF3,KCTD13,SLC4A8,TROVE2,CBFA2T2,IGF1,HTT,MAPK1,PTEN,ARHGEF17,MIB1,SPRED2,BMP7,SCN8A,PIK3C3,PUM1,RASA2,PRCP,RAB30,LRRK2,OSGIN1,GNA14,ZRANB1,UNC119,CNIH3,RAPH1,BAG6,LILRB4,IFT81,TMCO1,TMEM108,ITGAM,ARHGAP25,IL11RA,NSG2,PKD2,EFNA5,SHANK3,BTBD11,RGS9,PDGFC,AMOTL1,FAM13B,NCOA3,MTMR3,WNT7A,ZBED6,SNAP23,RPS6KC1,UACA,CRTC3,GPR141,CEP89,PLCL2,KAT6A,GPR21,RABEP1,RHOT1,SIK3,BMP6,ANO1,GPI,IL17RD,SH3RF2,SOS1,TSHR,EXT1,PDCD1LG2,ATRX,PRICKLE2,GABRR2,PRMT2,RAPGEF2,KCNC2,SMO,RK3,MARK4,PRKAR2B,STXBPL,CPT1A,PSEN2,TNFRSF11B,PAG1,SYT17,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,WSB2,OR4M1,OR4N2,SYNGAP1,VIPR2,GRIN3A,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,FAM19A4,CUL3,SH3KBP1,HSPD1,ITPR2,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,GNG12,RDX,STAT6,ACTA2,SYN1,MLF1,FAM49B,NECAB2,STK32B,CD27,DUSP26,ITGBL1,MCTP2,SCN9A,BOK,SULF1,KRT8,NACC2,RNF43,TNFRSF8,AGT,HDGFRP3,PRKAA2,SYT7,HCAR,BLOCIS6,FBN2,PITPNM2,STAT2,ZMPSTE24,HRH4,NDRG2,PTK2,LAT2,PEX5L,PHEX,SNX3,FREM3,PDE4B,RIMS2,TCP11,TEC,SHB,VEPH1,GAP43,MAP3K5,CPE,CREBBP,IQGAP2,PRKD3,APCDD1L,DLX1,FMOD,INSL6,PCSK6,NCF1,SLC29A1,TAOK2,PYGO2,SHC1,ARHGAP15,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,GUCY2F,SCCL,ANKS1A,ITGAL,ALOX5,CPLX2,CD44,FGD3,ADAM8,PACSIN2,RPS6KA5,BCL2L14,CDS1,CSNK1A1,GRID1,HUS1,CXCL17,FCRL6,FGD4,NOS1,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,IL18,DTNA,MFSB8,UBE2K,GPSM2,HCAR1,HCAR2,HCAR3,DLC1,PPARA,PPP1R10,ARID5B,CALCRL,MCOLN1,SLC25A33,PHLPP1,MAGI3,CPEB4,MOB3B,NOTCH4,SYTL4,ZNF366,FBN1,PAX6,PRKCZ,ZC3H4V1,ATPIA3,FAM20C,ADORA2A,GRIN2B,PPP1CC,RABGEF1,PLCXD2,TYK2,OTUD7B,DENN4B,CNRI1,ASPN,ANGPT1,CADPS,TBL1X,EYA3,FHL2,FRMPD1,LRRK1,OSBP18,ATF6,GCNT2,PPP1CA,TBC1D10C,VWC2,ARHGAP21,GRIA4,RBMS3,CCL22,BTN3A2,FBXO31,CNTN1,NCOR2,PRKCQ,BRAF,CSRNP1,HDAC2,HTR2C,IMPACT,TNR,C,D300A,IRAK1BP1,PHIP,PPP2CA,ANGPT4,ARHGEF6,MAOA,RPL23,SH3BP4,DCDC1,SP100,OPN1LW,STNG1,KCND2,PIGU,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,SRGAP2,WIP1,ADCY1,MADD,SYK,CNOT1,WWTR1,ARHGAP19,GRIK2,SCN1A,ASB1,CIT,MYRIP,RADIL,BCRA2,HRK,RAP1GAP2,CACNG3,DVL2,GRIP1,PTPRJ,SLC10A1,TAF1,TICAM1,TANK,UCN2,ITGAE,TAC3,HSF1,MAX,INPP5A,SRPK2,ANKRD13C,PLEKHM1,SASH1,RALGAP1,BMP1,CGNL1,FCHO1,QRICH1,VAV3,ZP3,DLGAP2,KCNQ3,MOB3A,CAV2,GNA12,SH2D3A,COL4A5,INPP5F,NUAK2,AXL,REPS2,TNFSF9,WIF1,CD109,DENND4C,MET,CAMK2D,CCR3,RAD9B,TIMELESS,UCLH5,ANKRD6,MALT1,MLXIPL,SEMA3C,THEM4,PHB,PTPRC,RPH3A,EDA,GPR89A,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,TSPAN5,ADCY10,NCAM1,TRAF3IP2,ATF6B,CREB1,RASSF8,RGMB,SHISA6,TRAP1,CLNK,EDNRA,GNGT1,PRAP1,BMP4,CASP12,CPNE1</p>
GO:0032501	multicellular organismal process	6.776815889445187e-35	<p>RDH14,CLRN1,DNAH11,RCN1,ENPP1,PRDX2,ADAMTS16,LDB2,NRXN1,ASPH,F8,PRMT3,GSS,GP6,RDH13,PRKCI,MOV10L1,TACC2,SLC3A1,MAP4K4,PDE4D,PDCL,DNMT1,SIPR2,HLX,LLPH,SLC9A1,NEGR1,PBX3,ADCY8,SPAG16,LMBR1,TRPS1,CBFB,CLASP2,SEMA3A,IL31RA,LSAMP,GRID2,TAS1R2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CALR3,CHERP,DOCK1,WWC1,CLDN18,RYR1,NRG3,ASH1L,NOS1AP,LATS2,NOX5,SPESP1,IQCG,ASTN2,EPB41,SEMA3D,PHACTR1,MYOT,PTH2R,NREP,TIAM2,STOX2,FHOD3,KSR2,MAPRE2,NLGN4X,PTGIS,DCHS2,WWC3,TJPI,GRM8,UNC5C,ZSWIM6,OR5P2,OR5P3,CLCN1,PRLR,ADCY7,HIVEP3,FTO,UTRN,KALRN,WIPF3,SPRR2D,NTRK3,CBL,ARNT,ATRNLI,SEMA5A,FLT3,RAD51B,STAT5B,TOX,ENPP2,ATP2B2,GRM5,PLCE1,LHFPL4,SAMHD1,MARVELD3,MAP2K5,SPAT5,KITLG,PTPR,SPNS2,NDUFV2,LRP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,MFA P5,EZR,MEGF10,NRXN3,XRCC4,ROBO1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,M</p>

			<p> ECOM,TACCI,TENM1,RYR3,KIF5C,LMNA,LPO,KIAA1217,TRAF6,ESRP1,ROBO2,N FASC,ITPKB,CTNNA3,DNAJA3,OXR1,SLC24A2,VAV2,ABII,ULK4,NHLH1,ITGB1,T RIOBP,HSP90AA1,SLC24A3,GAS7,PSMB7,CNIH2,MCC,TSSK1B,PCDH17,KNDC1,Z C4H2,KIF26B,SLC22A8,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,ARHGAP24,KL HL12,AKAP13,TLL5,GF11B,RUNX1,DAB1,OMA1,ABCC8,NR1P1,DGKI,THRB,PDE 4A,GABRA3,XIRP2,IMPG2,LAMA2,GFRA2,TCIRG1,DACH1,PTPN11,RBM19,HERC 4,CACNB2,DOCK10,HDAC6,GOLGA4,MYT1,ADORA1,ADAMTS3,EPHA1,IKBKB,E RBB4,ADRA1D,DYP19L2,LIMK1,ZNF609,ATP8A2,ACTG2,HIF3A,CUL4B,LARGE,C ECR2,ESR1,MYO18B,NPHP3,GRM7,ANKRD11,PTPRO,CDON,NTRK2,DNAI2,EP30 0,CELA1,MEGF9,DYM,TENM2,RNF220,HOOK3,PDGFB,RIMS1,JNIK,KIRREL3,US P46,CSGALNACT1,TOB2,MID1,GOLGA3,ALOX5AP,BPI,STK39,INSR,FMN2,RERE, PRKARIA,ATP8B1,UNC5D,H2AFY2,PLLP,LAMA3,TCF7L2,PIP4K2A,CDH4,HPS1,J MJD1C,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,PTPRD,CNTN5,BASP1,CA TSPERB,RBM20,SLC4A10,TBR1,CATSPER2,STRC,BDNF,TFAP2A,ATRN,AMIGO1,C LDN12,FANCA,KCNMA1,CHRM3,TGIF2,POMGNT2,FUT8,OR2T3,NPRL3,PHACTR 4,MEIS1,TENM4,LHFPL2,UBR2,PKHD1L1,LCK,MDM4,IL5RA,ECT2,TMC2,ZNF148 ,MYO3B,TFDP2,NAV2,ACOX1,VAMP7,LAMC1,ARHGAP42,CST2,PTPRU,RFTN1,M B,NPLOC4,AFF3,SGCD,DENND5A,DMD,CENPF,CRISPLD2,KAT7,WDR7,SLC8A1, GSN,RBM4,PRPS2,GPR171,SATB2,PAFAH1B2,RIT2,HIRA,MACROD2,TANC2,JPH2 ,FYN,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4, AFF2,RXFP1,MAL2,CHRD1,SLC5A6,DGKH,APOD,SLC2A14,B4GALT6,RTN4R,BC R,PPP1R12B,SHISA9,CHI3L1,CCDC141,TTN,NDRG4,BMP2K,PAQR3,ANKH,ADAM TSL1,TLL1,NTN1,EGFLAM,DCTN1,SLC4A5,NRG1,UBP1,BDKRB1,BDKRB2,STRBP, FRY,MAP2K1,MDF1,FNIP1,STIM1,VAX2,MYH9,MAD1L1,LRFN5,DAGLA,PLEKHA5 ,VGLL4,CNTN4,VWA1,HDAC5,NTNG1,PCSK2,NAV1,OR6N2,NFLA,TMEM30A,SYNE 1,CMKLR1,SBF2,PPIP5K2,TSPAN8,LRGUK,ROR2,DCN,SLC39A14,PRPSAP2,LIN7A ,CATSPER3,DOCK2,CDH13,PLXDC1,SOX13,ENTPD1,ACSBG1,UST,LHFPL3,FGF1 4,DMC1,PCDHB16,EXOC4,MAD2L2,TLE6,RAB27A,CAPRIN2,CNLY1,NLN,NCKA P1,F5,TERF2,CLDN16,FOXN3,BOC,ANO6,ARL3,NEUROD1,GNAAQ,KIF2A,PARP11, COL12A1,CCBE1,USP22,ZDHHC15,JAK2,MYPN,YTHDC2,TRAPP9,FBXW7,KCNB 2,SMC3,CLSTN2,SYT1,ITCH,MLIP,CROCC,NPSR1,BBS12,ABCC2,LZTS1,BCL11B,S CN4A,RBFOX1,TMCI,SLC1A4,LRIG3,PKNOX1,CLDN1,HUNK,MLL3,PNPLA1,PLS 1,TEX11,TCF7,PDE2A,SEPT7,KLF15,TBX15,ANXA4,CYFIP2,WNT11,IFT80,FIG4,M TA1,KREMEN1,IMMP2L,NRG4,ASTN1,NOX4,SIPA1L3,CACNA1H,SLAH1,QKI,IL1R APL1,CCDC62,CAMK2B,ADAM23,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,C D4,TGFB1,SGK1,PCSK5,PDLIM4,MYO3A,PIBF1,ZHX2,KEL,BTRC,NFATC3,JPH3, DLGAP1,F2RL1,BCAS3,C9ORF47,C2ORF49,RPGRIP1L,CELSR1,SLIT3,SDK2,SLIT2 ,TP73,GABRR3,MUSTN1,GABRB1,CDH23,CORO1C,RRAS2,CTNND2,OR9A4,DISC1 ,TSNAX,KCNJ3,KANK1,CACNA1D,LRRC10,LAMC2,CLN6,MTDH,CLMN,TTBK2,MY TIL,OPCML,CHRM1,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,BNC2,CLOCK,ITSN 2,TCF12,ZNF675,SMOC1,OTOGL,ETV6,SYNJ2,NELL1,SUCO,PRR14,TFAP2D,BMP ER,BCL3,DCLK1,ANKRD54,PARVA,SND1,ADAM12,NAIP,HNRNPC,ANKFN1,HOM ER2,SLC17A7,OTOA,SBN02,LINGO2,YTHDF1,FGF10,CNTNAP2,FBXL17,ENAH,G REB1L,IL1RAPL2,PPL,LOXL3,RHPN2,MAST2,SVIL,CAPN3,SLC16A1,LUM,VMPI,S MURF2,EPHA4,RORA,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NSUN2,OR51 B2,OR51B4,OR51I1,MAG,CAMK4,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,FC GR2B,ARHGAP22,SMARCC1,IGF1R,PPARG,IGDCC3,NGRN,AXIN1,PRKAR1B,DLG 5,IL18R1,IL1RL1,BFSP1,ADD2,TMEM63C,MTF1,MSR1,CELF2,TRPM1,ANKRD17,C YBB,OTC,XK,SCAMP5,BRIP1,SPATA6L,KCNJ12,RYR2,DRAXIN,LEPR,FGF1,NIN,P ROS1,NPAT,NR4A3,NOL3,DCT,MYOCD,OR52E6,OR52E8,OR52N1,PER2,KIR2DL4, CACNA1C,CPNE6,GLG1,SCN3B,PHLDB1,PRDM16,MYO1E,CSMD1,PPP1CB,SPDY A,CAPN2,TRIM8,DIO2,MRC2,CSPG4,GRM1,DCC,CTDP1,HS3ST5,MMP16,NF2,FL T4,MEF2B,BICC1,HDAC4,PAX2,DNAH9,SPTBN1,ELN,SPG11,SFRP1,FOXO3,DGK B,TRHDE,ARL13B,CNTN6,NFIB,IFT122,DNM3,SYNCRIP,SMAD3,CUX2,ITPR1,PTP RM,ARNT2,ACKR2,CYP4F11,NHS,SNB1,RNF168,EMG1,CASZ1,ABI2,GRIK5,PSAP ,SLC16A2,SHANK1,SYT3,OR14K1,NEDD4,NRP2,VANGL1,BTBD3,PREX1,PLA2G4C ,DOCK4,CRTAC1,ESRRG,HOXD3,HOXD4,NAV3,SLC4A4,TAB1,SLC6A1,NFATC1,P RTG,CDC73,APP,SSBP3,GSX2,PDGFRA,AOC2,ODF3,CEP85L,DIP2B,NOX1,YAP1, HEG1,AMFR,RAB11FIP5,PPCS,FSTL4,NLGN2,TNFRSF19,EYA2,RNLS,ALPL,JAK1, PDE6D,ANGPTL4,TNNI3K,PEMT,LRP5,POLR3G,PTPRG,ISLR2,SLC9B2,SOX2,SET D2,PLAC1,GPC6,TTC39C,ADAMTS2,CHST11,TEAD1,DEFB118,PRICKLE1,RCAN1, SSPN,ELAVL3,SPTBN4,VASH2,ZNF521,PAQR5,DRD1,GLRA2,CHUK,FRS2,PALB2, SFMBT1,MMP2,TPH1,SYNE2,CPNE9,KDM6A,PRKD1,STAT1,PARP6,DGKG,SYBU, SLC6A3,USP53,MORN2,HNF4A,SHANK2,STR46,VPS4A,EREG,ABLIM1,MYOF,MY H15,DSCAML1,SEMA6D,SLC16A12,RBFOX3,ATF2,POU2F2,TCF3,RAFI,CELF4,C ARD16,CASP1,ADAMTS12,SRRM4,POLA1,GGT7,BMPR2,USP33,DYSL2,CAMK1D, BMPRI1,APIB1,PABPC4,TSPAN12,NLGN1,COL16A1,CTNNA2,PIK3R3,TAF8,CERS 3,SPAG9,RAB11A,CRMP1,EVC,MYB,FGF2,LRRC4C,POU6F2,GRIK1,OR6C70,PPM 1F,ADCY5,ZFP41,AGBL4,ADAMTS4,SEMA4D,SH3PXD2A,ISM1,ARMC2,RORC,ELP 3,PLXNA2,PTAFR,ADCYAP1R1,FNDC3A,SETD1A,JARID2,KLHL3,DDX58,DDX2,R AB11FIP3,BRDT,PHC2,ITGA11,RARB,SPEN,PRKCG,NCOA1,SPOCK1,BLOC1S5,E HMT1,GAS8,OC90,NTM,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,XPNPEP3,ATF3,FBX O45,AKRID1,MATN3,LMBRD1,SRSF5,EBF2,DLEC1,PKN3,FBXL20,ADAM20,ADA </p>
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			<p>M21,TSG101,VCL,LAMB1,CLIC4,MYO9A,CRYM,IDE,COL11A1,KCNQ1,RF2,WNT3,ADAMTS6,ZNF322,RHOJ,SUFU,TG,NLGN3,SCUBE2,PAFAH1B1,CCDC169-SOHLH2,SOHLH2,POLE,CNTFR,COL4A3,TRPA1,DDAH1,TRPM3,NMUR2,AKAP6,RASAL1,PADI6,BTBD9,TRPC5,TLL7,GLI2,NEO1,SCUBE1,ERCC1,RUFY3,WDTC1,TPD52,MGLL,COL19A1,DAB2,THEMIS,PKHD1,USH2A,LDLRAD4,MYSM1,SETD5,DZIP1,WNK1,RELN,NEK10,SIN3A,ABCB1,OR5H2,OR5H6,OR5K4,RSP2,CSF3R,KCNQ2,EYS,DOCK11,PEL1,SLC22A3,CRELD1,IQGAP1,MAP3K7,APOLD1,TAS2R41,ZNF423,SP1,OR56B1,LUZP1,MACF1,MYO7A,ALK,SLC8A2,GSTM3,INPP5D,KLK2,CLASP1,DSC2,TEAD4,HOXC13,SLC9C1,TOPI,MBOAT1,GPM6B,CLIC5,XDH,LTBP1,OVOL2,SNX5,NFATC2,RBBP6,OR6C74,PRKG1,PAX7,RGS7,BNC1,ATP2B4,PACRG,GALNTL5,PACIN1,TMEM2,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,DYX1C1,P2RX6,ASGR2,ATAD1,ADNP,GPR161,MAPKAPK2,ARID4A,MAP1B,SCARB1,MARK1,CDK6,PHF2,CELF1,TYR,TFR,EPHA5,SORCS3,WWOX,GABRG3,MEF2A,ADCY9,DHX30,DROSHA,GFRAL,GPC3,SGIP1,ADRBK1,PLS3,PSMB2,CALD1,EYA1,PTGER3,BRINP1,DIS3L2,GNB3,TRPV1,RNF216,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,GHR,MNAT1,FLRT2,FGD1,DIAPH2,RPGR,ACTR2,ACACA,ELAVL4,LGI4,HDAC1,SMOC2,ADIPOR2,PLCG2,ROCK1,EPS8,NID1,SCMH1,C1QTNF1,ADIP1,EGRP10,RYBP,GPR35,ABCC1,AP3B1,PTPN2,INSRR,NTRK1,KPNA6,MYBPC2,MAP1A,PKN2,PPP1R9A,ANK3,ACO2,UNC13A,PTPRQ,EPHB1,PDE6A,EPHA10,PTPN9,AXIN2,SARM1,SNHG2,EPCAM,PARD3,PTPN14,TRIM46,TUB,SH3GL3,JAG2,KCND3,BCOR,CACNG8,AP3D1,CARM1,VWF,AP2B1,NETO1,ADAM19,ARHGAP44,PIF5A2,PIFO,CD84,COCH,HTR1D,LPA,SMARCA2,CUX1,HMCN1,RAD51C,SP11,DGKK,EPHA7,CHRN4,FOX2,CTNNA1,LIMA1,FBXW4,GLIS1,TRDN,GABRA6,STAC,BCAR3,ILDR2,SHROOM3,RENBP,CHURC1,MAP3K13,RAPGEF3,SDK1,SH3BP1,MST1,KAZN,ERCC3,PTK7,SMYD1,TTC9,CHD1,SNCA,BMPR1B,CACNG2,MAG2,AD2,PNPT1,USP50,ZEB2,RAI2,FOXJ3,OCA2,HEY2,RC3H1,COL13A1,HYDIN,RNF103,CNGA3,WNT7B,HMGCS2,PTPRS,KMT2D,PRKAG1,CREM,TLL2,TRIP12,ADTR,ABCA12,CSRPI,RASA1,MITF,SRSF6,OPRD1,RBM45,HIPK1,PKP2,RTN4RL1,BTK,SGCZ,DSG1,ZNRF3,SLC4A8,TROVE2,CBFA2T2,IGF1,CTNBL1,HTT,DYSL3,MAPK1,PTEN,CLDN11,MI1B1,SPRED2,BMP7,SCN8A,PUM1,SOX5,CIR1,LHFPL5,TLL4,PRCP,LRRK2,SEPT6,MEGF11,UNC119,ZBTB20,RAPH1,BAG6,LILRB4,MORC3,SLC44A1,IFT81,TMEM108,ITGAM,PKD2,EFNA5,HSF2BP,SHANK3,STMN4,RIPPLY1,DAZL,RGS9,ALPK3,PDGFC,SERPINA3,SERPINA5,AMOTL1,NCOA3,CUEDC2,PPP2R3C,TBCD,WNT7A,ZBED6,SNAP23,NLRP1,MAP4,CRTC3,NME8,PLCL2,SPANX2,KAT6A,GPR21,SH3PXD2B,BMP6,MYCBP2,ANO1,GPI,IL17RD,SOS1,TSHR,WDR43,EXT1,N4BP1,PDCC1LG2,ATRX,PRICKLE2,SERINC5,GABRR2,IKZF1,RAPGEF2,ABCG2,KCNC2,SMO,SUN1,BLOC1S3,MARK4,PRKAR2B,CPT1A,MYLPF,TCF4,TNFRSF11B,SYT17,BPGM,DECR1,SOX30,TFE3,GRIN1,ADAM29,BBS9,RHOA,OR4M1,OR4N2,SYNGAP1,GRIN3A,NDE1,ROR1,TF,ONECUT2,FAM19A4,CUL3,HSPD1,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,EMB,STAT6,ACTA2,SYN1,MLF1,EEF2K,FAM49B,TPRBR,RBBP8,CCDC14,CDK13,ALAS2,UPF2,CD27,SCN9A,BOK,SULF1,MTHFD1L,KRT8,TNFRSF8,ZNF354A,AGT,HDGFRP3,ELOVL3,PRKAA2,SYT7,ADAR,BLOC1S6,FBN2,ESPNL,ZMPSTE24,BRINP3,NDRG2,PTK2,TPPP2,PHOX,SNX3,PDE4B,RIMS2,PBX1,TCP11,TEC,EXOSC3,SHB,CDCL1A,GAP43,CPE,TCFL5,TRPC4AP,CREBBP,ARVCF,COL9A1,DLX1,PCSK6,NCF1,SLC29A1,TAOK2,UGT1A1,UGT1A7,PYGO2,SHC1,NDUFS2,ALDOA,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,GUCY2F,PRG3,SCEL,SETDB2,ANKS1A,ALOX5,CPLX2,DNAJB6,MDGA2,SP7,CD44,ADAM8,SLC5A3,CLDN4,RPS6KA5,THSD7A,HUS1,PKD1L1,PRDM2,COX5B,CXCL17,NOS1,PEX7,TBC1D23,MED15,PLEKHA1,PLVAP,RGS14,MC1R,SCNN1B,STK4,TCF25,TUBB3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,TMEFF2,CLPTM1,IL18,DTNA,MFSD8,ASF1B,HCA2,DLCL1,PPARA,ARID5B,CALCRL,EPB41L4B,PHLPP1,PRRC2C,GPSM3,NOTCH4,SOBP,CRX,FBN1,PAX6,PRKCZ,ZC3HAV1,ATP1A3,CD96,FAM20C,ADORA2A,GRIN2B,PPP1CC,RABGEF1,COL22A1,PHLDB2,OTUD7B,KLC3,KLHL1,NIPBL,TMIGD2,PCDH10,UPB1,ASP,N,ANGPT1,TBL1X,EYA3,FHL2,LRRK1,MBTD1,ATF6,SHROOM4,IGF2BP3,SLC2B1,GCNT2,ETS1,PPP1CA,VWC2,MAP2,MTF2,BTN3A2,KIFC3,NEBL,TAGLN3,FBXO31,CDK5RAP1,CNTN1,NCOR2,PRKCQ,LGI2,BRAF,CSRNP1,DIAPH1,HDAC2,HTR2C,IMPACT,MYOM3,ATP8A1,POU3F3,NOTO,SPINT2,TNR,CDKL3,PPP2CA,SLC26A2,ANGPT4,ACAN,ATXN1,CAMSAP3,SP100,OPN1LW,VTI1A,ANXA2,FAT2,KCND2,PARN,PRMT7,CR2,SRGAP2,TMEFF1,ADCY1,NUMB,SYK,CNOT1,MOGAT2,WTR1,CYP39A1,GRIK2,SCN1A,SLIT1,ASB1,CIT,RADIL,BRCA2,CACNG3,DVL2,MORC1,NEB,YBX1,GRIPI,PTPRJ,TAF1,ATP2B3,GPRIN3,TICAM1,RNF38,GPM6A,OSBP2,UCN2,MYO1A,TAC3,POTEE,SLC13A3,CADM1,HSF1,MAX,DHFR,EZH1,SRPK2,PLEKHM1,SASH1,ASAP1,NCOA2,ADAMTS7,GBP5,MCM8,SULT2B1,BMP1,VAV3,ZP3,DLGAP2,CIB2,RNF2,CAV2,GNAI2,SYNM,MYEF2,POC1B,INPP5F,TMPRSS3,AXL,TNFSF9,CD109,MET,CAMK2D,CCR3,TIMELESS,UCLH5,ANKRD6,MALTI,SETD3,TRA2B,CCDC136,KDM2B,MLXIPL,SEMA3C,NEDD4L,NDC1,PHB,PTPRC,EDA,GPR89A,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,SPON2,SYNDIG1,VPS52,ADCY10,NCAM1,TANC1,TRAF3IP2,CREB1,SHISA6,AFF4,CLNK,EDNRA,NGT1,PRAP1,BMP4,CPNE1</p>
GO:0030030	cell projection organization	9.332718703266314e-35	<p>CLRN1,ADAMTS16,NRXN1,PRMT3,PRKCI,MAP4K4,PDCL,SIPR2,LLPH,NEGR1,SPAG16,CLASP2,SEMA3A,GRID2,PRDM12,TENM3,IQCG,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,UNC5C,KALRN,NTRK3,SEMA5A,TOX,ENPP2,PLCE1,FER,LRP2,OLFMI,EZR,NRXN3,ROBO1,CDKL5,TENM1,KIF5C,ROBO2,NFASC,VAV2,ABI1,ULK4,I</p>

			<p>TGB1,TRIOBP,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,ARHGAP24,IFT43,DAB1,CD42EP3,MYO10,LAMA2,TCIRG1,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,GBF1,DNAH2,LIMK1,ATP8A2,CUL4B,CECR2,NPHP3,GRM7,PTPRO,NTRK2,DNAI2,E300,TENM2,RIMS1,TRKB,SNX2,KIRREL3,INSR,REER,ATP8B1,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,STRC,BDNF,AMIGO1,LRR49,DETNND5A,DMD,GSN,RIT2,TANC2,FYN,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,DCTN1,FRY,MAP2K1,RAPGEF6,VAX2,MYH9,CNTN4,WDR92,NTNG1,TMEM30A,LRGUK,ROR2,CDH13,UST,CAPRIN2,NCKAP1,RCC2,BOC,ANO6,ARL3,ICK,TTL8,ZDHHC15,JAK2,MYPN,SYT1,CROCC,BBS12,LZTS1,BCL11B,PLS1,SEPT7,CYFIP2,IFT80,FIG4,KREMEN1,SHAH1,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,SGK1,PIBF1,KEL,F2RL1,BCAS3,RPGRIP1L,SLIT3,SLIT2,CDH23,CORO1C,CTNND2,DISC1,CEP135,KANK1,PTPDC1,LAMC2,CLMN,TTBK2,SPAG17,ITSN2,DCLK1,PARVA,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,CNRI,PPP3CA,MAG,CTNNB1,PARK2,FCGR2B,CDHR2,IGF1R,DLG5,XK,DRAXIN,NIN,AJUBA,CPNE6,CDSPG4,DCC,HDAC4,PAX2,DNAH9,SPG11,SFRP1,ARL13B,CNTN6,NFIB,IFT122,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,SPAG6,PRTG,APP,DIP2B,YAP1,FSTL4,NLGN2,PTPRG,ISLR2,KIF24,TTTC39C,SPTBN4,VASH2,MMP2,SYNE2,CPNE9,PRKD1,PARP6,DGKG,TCTN3,ABLIM1,DSCAML1,SEMA6D,TMEM237,ABLIM2,BMPR2,USP33,DPYSL2,CAMK1D,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRR4C,SEMA4D,ARMC2,PLXNA2,POC1A,RILPL1,SPOCK1,BLOC1S5,GAS8,DVL3,EPHB3,FBXO45,VCL,LAMB1,WDR90,MYO9A,KCNQ1,RFK2,WNT3,RHOJ,NLGN3,PAFAH1B1,KIF3A,CEP350,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,PKHD1,DZIP1,RELN,SIN3A,DOCK11,IQGAP1,ZNF423,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACIN1,ACTL6B,PAK3,DYX1C1,ADNP,CEP41,MAP1B,MPHOSPH9,MARK1,AIF1L,EPHA5,MEF2A,FLRT2,FGD1,RPGR,ACTR2,ELAVL4,ROCK1,EPS8,EGR2,NTRK1,MAP1A,PKN2,PPP1R9A,ANK3,UNC13A,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,TUB,TEKT1,CARM1,ARHGAP44,PIFO,CUX1,EPHA7,CTNNA1,LIMA1,MAP3K13,SDK1,PTK7,BMPR1B,MAGI2,HDYDIN,WNT7B,PTPRS,CDKL1,PLD1,RTN4RL1,TROVE2,CBFA2T2,HTT,DPYSL3,PTEN,BMP7,LHFPL5,LRRK2,SEPT6,RAPH1,IFT81,TMEM108,PKD2,EFNA5,SHANK3,STMN4,WNT7A,MAP4,NME8,CEP89,MYCBP2,SOS1,TSHR,EXT1,PARVB,RAPGEF2,SMO,BLOC1S3,MARK4,SYT17,BBS9,RHOA,SYNGAP1,GRIN3A,ROR1,ONECUT2,CUL3,GSK3B,EMB,RDX,EEF2K,AGT,HDGFRP3,BLOC1S6,PTK2,SNX3,RIMS2,CDC14A,GAP43,CEP70,TAOK2,ECE1,CD44,FGD3,PACIN2,RPS6KA5,FGD4,TBC1D23,PLEKHA1,TUBB3,SPEF1,EPHB2,PAX6,PRKCZ,ATP1A3,ADORA2A,GRIN2B,KLC3,KLHL1,MAP2,FBXO31,ATG3,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,NOTO,TNR,CDKL3,ARHGEF6,FAM149B1,CAMSA3,SRGAP2,TMEFF1,ADCY1,NUMB,WWTR1,SLIT1,DVL2,GRIP1,GPRIN3,GPM6A,MYO1A,DHFR,PLEKHM1,ASAP1,VAV3,POC1B,INPP5F,SNX1,EHD2,SEMA3C,NEDD4L,SH3GL2,NCAM1,TANC1,CREB1,EDNRA,ABLIM3,CPNE1</p>
GO:0120039	plasma membrane bounded cell projection morphogenesis	4.255970818953704e-34	<p>NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,SEMA3D,PHACTR1,MYOT,TIAM2,UNC5C,KALRN,SEMA5A,ENPP2,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,RBO2,NFASC,AB11,ITGB1,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,PTPRO,NTRK2,RIMS1,TRKB,SNX2,KIRREL3,REER,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,DMD,TANC2,FYN,LMTK2,RTN4,B4GALT6,RTN4R,CCDC141,ADAMTSL1,NTN1,MAP2K1,VAX2,CNTN4,NTNG1,UST,CAPRIN2,NCKAP1,BOC,ZDHHC15,MYPN,SYT1,LZTS1,BCL11B,CYFIP2,SHAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SLIT2,CORO1C,CTNND2,DISC1,KANK1,LAMC2,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,PPP3CA,MAG,CTNNB1,PARK2,IGF1R,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRTG,APP,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRR4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,PACIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,ANK3,UNC13A,EPHB1,EPHA10,SARM1,PARD3,TRIM46,ARHGAP44,CUX1,EPHA7,MAP3K13,PTK7,BMPR1B,WNT7B,PTPRS,PTEN,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,RAPGEF2,SMO,SYT17,RHOA,SYNGAP1,GSK3B,EMB,EEF2K,PTK2,RIMS2,GAP43,TAOK2,ECE1,CD44,RPS6KA5,TUBB3,EPHB2,PAX6,PRKCZ,ADORA2A,MAP2,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDKL3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPM6A,SNX1,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1</p>
GO:0048858	cell projection morphogenesis	4.470128094284913e-34	<p>NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,SEMA3D,PHACTR1,MYOT,TIAM2,UNC5C,KALRN,SEMA5A,ENPP2,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,RBO2,NFASC,AB11,ITGB1,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,PTPRO,NTRK2,RIMS1,TRKB,SNX2,KIRREL3,REER,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,DMD,TANC2,FYN,LMTK2,RTN4,B4GALT6,RTN4R,CCDC141,ADAMTSL1,NTN1,MAP2K1,VAX2,CNTN4,NTNG1,UST,CAPRIN2,NCKAP1,BOC,ZDHHC15,MYPN,SYT1,LZTS1,BCL11B,CYFIP2,SHAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SLIT2,CORO1C,CTNND2,DISC1,KANK1,LAMC2,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,PPP3CA,MAG,CTNNB1,PARK2,IGF1R,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRTG,APP,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRR4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,PACIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,ANK3,UNC13A,EPHB1,EPHA10,SARM1,PARD3,TRIM46,ARHGAP44,CUX1,EPHA7,MAP3K13,PTK7,BMPR1B,WNT7B,PTPRS,PTEN,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,RAPGEF2,SMO,SYT17,RHOA,SYNGAP1,GSK3B,EMB,EEF2K,PTK2,RIMS2,GAP43,TAOK2,ECE1,CD44,RPS6KA5,TUBB3,EPHB2,PAX6,PRKCZ,ADORA2A,MAP2,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDKL3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPM6A,SNX1,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1</p>

			4,NRP2,BTBD3,PRTG,APP,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRC4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,PACSIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,ANK3,UNC13A,EPHB1,EPHA10,SARM1,PARD3,TRIM46,ARHGAP44,CUX1,EPH A7,MAP3K13,PTK7,BMPR1B,WNT7B,PTPRS,PTEN,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,RAPGEF2,SMO,SYT17,RHOA,SYN GAP1,GSK3B,EMB,EEF2K,PTK2,RIMS2,GAP43,TAOK2,ECE1,CD44,PACSIN2,RPS 6KA5,TUBB3,EPHB2,PAX6,PRKCZ,ADORA2A,MAP2,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDKL3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPM6A,SNX 1,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1
GO:0031175	neuron projection development	2.3989330253712672e-33	CLRN1,NRXN1,PRMT3,PRKCI,MAP4K4,LLPH,NEGR1,CLASP2,SEMA3A,GRID2,PRDM12,TENM3,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,UNC5C,KALRN,NTRK3,SEMA5A,TOX,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,ROBO2,NFASC,ABII,ULK4,ITGB1,TRIOBP,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,CUL4B,SECE2,GRM7,PTPRD,NTRK2,EP300,RIMS1,TNIK,KIRREL3,REER,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,STRC,BDNF,AMIGO1,DENND5A,DMD,RIT2,TANC2,FYN,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,FRY,MAP2K1,VAX2,CNTN4,SPAG9,RAB11A,CRMP1,LRRC4C,SEMA4D,PLXNA2,SPOCK1,C15,JAK2,MYPN,SYT1,LZTS1,BCL11B,PLS1,CYFIP2,FIG4,KREMEN1,SHAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SLIT2,CDH23,CTNND2,DISC1,KANK1,LAMC2,CLMN,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,CNR1,PPP3CA,MAG,CTNNA1,PARK2,IGF1R,DLG5,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,SFRP1,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,PRTG,APP,DIP2B,FSTL4,NLGN2,PTPRG,ISLR2,SPTBN4,VASH2,MMP2,CPNE9,PRKD1,PARP6,DGKG,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,CAMK1D,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRC4C,SEMA4D,PLXNA2,SPOCK1,BLOC1S5,DVL3,EPHB3,FBXO45,VCL,LAMB1,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,RELN,SIN3A,IQGAP1,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACSIN1,ACTL6B,PAK3,ADNP,MAP1B,MARK1,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,CARM1,ARHGAP44,CUX1,EPHA7,CTNNA1,MAP3K13,SDK1,PTK7,BMPR1B,MAGI2,WNT7B,PTPRS,RTN4RL1,CBFA2T2,DPYSL3,PTEN,BMP7,LHFPL5,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,WNT7A,MAP4,MYCBP2,SOS1,TSHR,EXT1,RAPGEF2,SMO,BLOC1S3,SYT17,RHOA,SYNGAP1,GRIN3A,ROR1,GSK3B,EMB,EEF2K,AGT,HDGFRP3,BLOC1S6,PTK2,SNX3,RIMS2,GAP43,TAOK2,ECE1,RPS6KA5,TBC1D23,TUBB3,EPHB2,PAX6,PRKCZ,ADORA2A,KLHL1,MAP2,FBXO31,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,TNR,CDKL3,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPR1N3,GPM6A,DHFR,ASAP1,INPP5F,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1
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			<p> MGLL, C9, DAB2, THEMIS, BLM, PKHD1, USH2A, UBR1, LDLRAD4, DZIPI, WNK1, RELN, NEK10, SIN3A, RUVBL2, ABCB1, OR5H2, OR5H6, OR5K4, RSP02, GUCY1A2, CSF3R, EYS, DOCK11, PELI1, SLC22A3, PPP2R5C, IQGAP1, SPATA18, SLC47A1, MAP3K7, DD X47, TAS2R41, ZNF423, SP1, OR56B1, TRIM22, MACF1, ARHGAP12, ALK, SLC8A2, GST M3, INPP5D, STAU1, CLASP1, DSC2, EEPD1, TEAD4, SLC35A4, SRA1, TOP1, UBE2V1, CLIC5, XDH, LTBPI, OVOL2, SNX5, NFATC2, RBBP6, CHD1L, OR6C74, PRKG1, RGS7, AT P2B4, PACRG, APEX2, PAK3, MASP1, ZPLD1, CAMTA1, DYX1C1, P2RX6, ASGR2, ADNP ,GPR161, MAPKAPK2, MAP1B, CDC42BPA, COL4A6, SCARB1, MARK1, CDK6, ATP6V0 A2, CELF1, P2RY8, TYR, RNF34, TFRC, UVRAG, EPHA5, SORCS3, WWOX, GABRG3, ME F2A, SYT12, CR1L, ADCY9, CACNA1A, NFRKB, DCUN1D5, DROSHA, FBNP1, GFRAL, G PC3, SGIP1, XRN1, ADRBK1, TBC1D5, PSMB2, ZNF207, EYA1, PTGER3, BRINP1, GNB3, SHPK, TRPV1, RNF216, TSPAN6, TFEB, CLEC16A, GHR, MNAT1, FLRT2, FGD1, RPGR, ACTR2, ACACA, ELAVL4, HDAC1, INVS, RECQL5, C2, CFB, SMOC2, TRIM24, ADIPOR2, PLCG2, ROCK1, EPS8, C1QTNF1, PAXIP1, EGR2, HIPK3, RNF10, GAPVD1, CAPN10, G PR35, CUL2, ABCC1, AP3B1, PTPN2, INSR, NTRK1, CRISP3, KPNA6, TRIM44, ZFAND1 ,PKN2, PPP1R9A, SLC39A10, EIF3A, ANK3, DNMBP, ACO2, UNC13A, PTPRQ, EPHB1, MAN1B1, PDE6A, EPHA10, AXIN2, SARMI1, TMEM199, EPCAM, PARD3, RCBM5, MUC1, TUB, SH3GL3, JAG2, CACNG8, AP3D1, CARM1, VWF, NETO1, ARHGAP44, SRD5A2, CD 84, COCH, HTR1D, ARHGEF3, HMCN1, RAD51C, SPI1, DGKK, EPHA7, CHRN4, MCU, RANBP10, PTPRA, CTNNA1, AIFM2, FBXW4, PSPC1, ACAP2, TRDN, ATG14, GABRA6, L RRC8C, LRRK8D, LY86, STAC, BCAR3, ILDR2, SHROOM3, STK38, LAIR1, RBPM5, CHU RC1, MAP3K13, OTUD3, RAB15, RAPGEF3, SDK1, PDXP, SH3BP1, MST1, ERCC3, PTK7 ,RSRC1, CHID1, SNCA, BMPRI1B, POLN, CACNG2, CD53, GRM4, MAGI2, PNPT1, USP50 ,ZEB2, SYT9, HEY2, RC3H1, RNF103, RNF103-CHMP3, CNGA3, RNF19B, WNT7B, HMGCS2, PTPRS, ZMYND11, KMT2D, PRKAG1, CR EM, SUL2A1, TRIP12, DFFA, SPPL2A, ADTRP, ABCA12, GNG7, CSRP1, PLD1, RASA1, MACC1, MTF, SRSF6, OPRD1, CABIN1, HIPK1, NUGGC, RPTOR, RTN4RL1, BTK, SIGL EC9, 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			<i>RD6,IFI44L,MALTI1,PFKP,TRA2B,ZDHHCI1,INO80C,MLXIPL,SEMA3C,THEM4,NEDD4L,PHB,PTPRC,EDA,GPR89A,EXD2,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,SPON2,TSPAN5,ADCY10,NCAM1,TANC1,TRAF3IP2,TRIM60,ATF6B,CREB1,LIG1,RASF8,RGMB,SGTB,SHISA6,TRAP1,CLNK,EDNRA,GNGT1,HADHA,PRAP1,SLC25A13,BMP4,CASP12,CPNE1</i>
GO:0048812	neuron projection morphogenesis	4.610860855348641e-33	<i>NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,SEMA3D,PHACTR1,MYOT,TIAM2,UNC5C,KALRN,SEMA5A,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,ROBO2,NFASC,ABII,ITGB1,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,PTPRO,NTRK2,RIMS1,TNIK,KIRREL3,RERE,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,DMD,TANC2,FYN,LMTK2,RTN4,B4GALT6,RTN4R,CCDC141,ADAMTSL1,NTN1,MAP2K1,VAX2,CNTN4,NTNG1,UST,CAPRIN2,NCKAP1,BOC,ZDHHCI5,MYPN,SYT1,LZTS1,BCL11B,CYFIP2,SLAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SLIT2,CTNND2,DISC1,LAMC2,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,PPP3CA,MAG,CTNNB1,PARK2,IGF1R,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRTG,APP,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRK4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,PACSIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,ANK3,UNC13A,EPHA10,SARM1,PARD3,TRIM46,ARHGAP44,CUX1,EPHA7,MAP3K13,PTK7,BMPR1B,WNT7B,PTPRS,PTEN,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,RAPGEF2,SMO,SYT17,RHOA,SYNGAP1,GSK3B,EMB,EEF2K,PTK2,RIMS2,GAP43,TAOK2,ECE1,RPS6KA5,TUBB3,EPHB3,PAX6,PRKCZ,ADORA2A,MAP2,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDKL3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPM6A,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1</i>
GO:0048666	neuron development	5.154869252684276e-33	<i>CLRN1,NRXN1,PRMT3,RDH13,PRKCI,MAP4K4,LLPH,NEGR1,PBX3,CLASP2,SEMA3A,GRID2,PRDM12,TENM3,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,UNC5C,KALRN,NTRK3,SEMA5A,TOX,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,TENM1,KIF5C,ROBO2,NFASC,ABII,ULK4,ITGB1,TRIOBP,HSP90AA1,GAS7,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,RUNX1,DAB1,THRB,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,CUL4B,CECR2,GRM7,PTPRO,NTRK2,EP300,TENM2,RNF220,RIMS1,TNIK,KIRREL3,RERE,ATP8B1,UNC5D,LAMA3,CDH4,PAK1,PTPRD,SLC4A10,TBR1,STRC,BDNF,AMIGO1,TENM4,DENND5A,DMD,RIT2,TANC2,FYN,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,FRY,MAP2K1,VAX2,CNTN4,NTNG1,TMEM30A,ROR2,UST,CAPRIN2,NCKAP1,BOC,ARL3,NEUROD1,ZDHHCI5,JAK2,MYPN,SYT1,LZTS1,BCL11B,TMC1,PLS1,CYFIP2,FIG4,KREMEN1,SLAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,RPGRIP1L,SLIT3,SLIT2,GABRB1,CDH23,CTNND2,DISC1,KANK1,LAMC2,CLMN,MYT1L,OPCML,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,AUTS2,CNRI,PPP3CA,MAG,CTNNB1,PARK2,SOD2,IGF1R,DLG5,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,SFRP1,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,PRTG,APP,DIP2B,FSTL4,NLGN2,PTPRG,ISLR2,SPTBN4,VASH2,DRD1,MMP2,CPNE9,PRKD1,PARP6,DGKG,DSCAML1,SEMA6D,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRK4C,AGBL4,SEMA4D,PLXNA2,SPOCK1,BLOC1S5,NTM,DVL3,EPHB3,FBXO45,VCL,LAMB1,MYO9A,KCNQ1,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,WNK1,RELN,SIN3A,IQGAP1,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACSIN1,ACTL6B,PAK3,ADNP,MAP1B,MARK1,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,LGI4,ROCK1,EGR2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRO,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,CARM1,ARHGAP44,CUX1,EPHA7,CTNNA1,MAP3K13,SDK1,PTK7,BMPR1B,MAGI2,WNT7B,PTPRS,RTN4RL1,CBFA2T2,DPYSL3,PTEN,BMP7,LHFPL5,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,TBCD,WNT7A,MAP4,MYCBP2,SOS1,TSHR,EXT1,RAPGEF2,SMO,BLOC1S3,SYT17,RHOA,SYNGAP1,GRIN3A,ROR1,ONECUT2,GSK3B,EMB,SYN1,EEF2K,AGT,HDGFRP3,BLOC1S6,PTK2,SNX3,RIMS2,PBX1,GAP43,TAOK2,ECE1,ANKS1A,RPS6KA5,TBC1D23,TUBB3,EPHB2,MFSD8,PAX6,PRKCZ,ADORA2A,KLHL1,MAP2,FBXO31,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,TNR,CDKL3,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPRIN3,GPM6A,DHFR,ASAP1,INPP5F,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,GNGT1,CPNE1</i>
GO:0048468	cell development	9.865867175843609e-33	<i>CLRN1,NRXN1,PRMT3,RDH13,PRKCI,MOV10L1,MAP4K4,PDE4D,SIPR2,LLPH,NEGR1,PBX3,SPAG16,CBFB,CLASP2,SEMA3A,GRID2,RPS6KA2,PRDM12,TENM3,DOCK1,CLDN18,RYR1,IQCG,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,FHOD3,TJP1,UNC5C,KALRN,NTRK3,ATRNL1,SEMA5A,TOX,GRM5,FER,KITLG,LRP2,ANK2,OLFM1,EZR,MEGF10,NRXN3,ROBO1,CHD7,SLC26A6,HTR2B,CDKL5,TENM1,KIF5C,LMN4,TRAF6,ROBO2,NFASC,ABII,ULK4,ITGB1,TRIOBP,HSP90AA1,GAS7,TSSK1B,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,KLHL12,AKAP13,RUNX1,DAB1,ABCC8,THRB,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,IKBKB,ERBB4,DPY19L2,LIMK1,ATP8A2,CUL4B,CECR2,ESR1,MYO18B,GRM7,PTPRO,NTRK2,EP300,MEGF9,TENM2,RNF220,HOOK3,PDGFB,RIMS1,TNIK,KIRREL3,FMN2,RERE,PRKAR1A,ATP8B1,UNC5D,LAMA3,PIP4K2A,CDH4,PAK1,FBXW11,PTPRD,SLC4A10,TBR1,CATSP</i>

			<p>ER2,STRC,BDNF,ATRN,AMIGO1,PHACTR4,MEIS1,TENM4,LAMC1,SGCD,DENND5A,DMD,SLC8A1,SATB2,RIT2,TANC2,CASS4,FYN,ARNTL,NF1,PLCB1,PCDH15,LM TK2,ARID4B,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,TTN,NDRG4,PAQR3,A DAMTSL1,NTN1,SLC4A5,NRG1,STRBP,FRY,MAP2K1,VAX2,MYH9,CNTN4,NTNG1, TMEM30A,ROR2,CATSPER3,UST,DMC1,CAPRIN2,NCKAP1,RCC2,BOC,ARL3,NEU ROD1,ZDHHC15,JAK2,MYPN,YTHDC2,FBXW7,SYT1,LZTS1,BCL11B,TMC1,CLDN1 ,PLS1,PDE2A,MSI2,CYFIP2,FIG4,KREMEN1,SIPA1L3,SLAH1,OKI,IL1RAPL1,CAMK 2B,RUNX2,SEMA5B,TGFB1,SGK1,KEL,F2RL1,C9ORF47,RPGRIP1L,SLIT3,SLIT2,T P73,GABRB1,CDH23,CORO1C,CTNND2,DISC1,KANK1,LRRC10,LAMC2,CLMN,MY TIL,OPCML,CLOCK,ITSN2,DCLK1,PARVA,YTHDF1,CNTNAP2,SMYD3,ENAH,CAP N3,EPHA4,AUTS2,CNR1,TNFSF11,PPP3CA,NSUN2,MAG,UFL1,CTNNB1,PARK2,S OD2,IGF1R,PPARG,DLG5,BFSP1,XK,BRIP1,DRAXIN,NIN,DCT,PER2,CPNE6,MYO 1E,DCC,CTDP1,OBSCN,NF2,HDAC4,PAX2,SPG11,SFRP1,FOXO3,ARL13B,CNTN6, NFIB,DNM3,SMAD3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRE X1,CRTAC1,PRTG,APP,GSX2,PDGFRA,DIP2B,YAP1,HEG1,FSTL4,NLGN2,LRP5,PT PRG,ISLR2,SLC9B2,SETD2,CHST11,RCAN1,SPTBN4,VASH2,PAQR5,DRD1,FRS2,M MP2,CPNE9,PRKD1,PARP6,DGKG,HNF4A,EREG,MYOF,DSCAML1,SEMA6D,POU 2F2,CELF4,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,BMPRI1A,PABPC4,NLGN1,C TNN2,SPAG9,RAB11A,CRMP1,FGF2,LRRC4C,NEDD9,AGBL4,PEAK1,SEMA4D,A RMC2,PLXNA2,FNDC3A,RILPL1,RARB,SPEN,SPOCK1,BLOC1S5,NTM,DVL3,EIF2 B5,EPHB3,FBXO45,VCL,LAMB1,CLIC4,MYO9A,COL11A1,KCNQ1,RF2X,WNT3,P4 HB,NLGN3,PAFAH1B1,CCDC169- SOHLH2,SOHLH2,AKAP6,RASAL1,TRPC5,GLI2,NEO1,ERCC1,RUFY3,DAB2,PKHD 1,USH2A,DZIP1,WNK1,RELN,SIN3A,IQGAP1,MACF1,MYO7A,ALK,GSTM3,MBOAT 1,GPM6B,OVOL2,NFATC2,PRKG1,BNC1,PACRG,GALNTL5,PACSLN1,ACTL6B,PA K3,ADNP,ARID4A,MAP1B,MARK1,CDK6,CELF1,EPHA5,MEF2A,BRINP1,TRPV1,H OXB3,FLRT2,DIAPH2,ACTR2,ELAVL4,LGI4,HDAC1,ROCK1,EGR2,RNF10,NTRK1, MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,AXIN2,SARM1,P ARD3,TRIM46,CARM1,ARHGAP44,SMARCA2,CUX1,SPI1,EPHA7,CTNNA1,SHROO M3,MAP3K13,RAPGEF3,SDK1,PTK7,BMPRI1B,MAGI2,OCA2,HEY2,HYDIN,WNT7B, PTPRS,KMT2D,ABCA12,CSR1,RTN4RL1,BTK,SGCZ,CBFA2T2,IGF1,DPYSL3,MAP K1,PTEN,BMP7,LHFPL5,LRKK2,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,DAZL, ALPK3,TBCD,WNT7A,MAP4,BMP6,MYCBP2,SOS1,TSHR,EXT1,ATRX,PARVB,PRM T2,RAPGEF2,SMO,BLOC1S3,SYT17,BPGM,SOX30,RHOA,SYNGAP1,GRIN3A,ROR1, ONECUT2,CUL3,GSK3B,EMB,RDX,ACTA2,SYN1,EEF2K,ALAS2,SULF1,KRT8,AGT, HDGFRP3,BLOC1S6,ZMPSTE24,PTK2,SNX3,RIMS2,PBX1,TCP11,GAP43,DLX1,TA OK2,PYGO2,ECE1,RPS6KB1,PGM5,ANKS1A,RPS6KA5,TBC1D23,RGS14,ACTN4,T UBB3,EPHB2,TMEFF2,MFSD8,PPARA,ARID5B,NOTCH4,FBNI,PAX6,PRKCZ,FAM 20C,ADORA2A,PPP1CC,COL22A1,KLC3,KLHL1,FHL2,LRKK1,MAP2,NEBL,FBXO3 1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,SPINT2,TNR,CDKL3,ACAN,CAMSAP3,AN XA2,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,RADIL,BRC4,DVL2,NEB,GRIP1,GPR IN3,GPM6A,OSBP2,DHFR,ASAP1,ZP3,RNF2,CAV2,INPP5F,AXL,MET,CCDC136,SE MA3C,NEDD4L,PTPRC,SH3GL2,TYRO3,NCAM1,CREB1,AFF4,EDNRA,NGGT1,BM P4,CPNE1</p>
GO:00 30154	cell differentiation	2.69474407 33255574e- 32	<p>RDH14,CLRN1,ENPP1,PRDX2,NRXN1,PRMT3,RDH13,PRKCI,MOV10L1,MAP4K4, PDE4D,DNMT1,S1PR2,HLX,LLPH,SLC9A1,NEGR1,PBX3,SPAG16,TRPS1,CBFB,CL ASP2,SEMA3A,IL31RA,GRID2,RPS6KA2,PRDM12,TENM3,CALR3,DOCK1,CLDN18, RYR1,NRG3,IQCG,ASTN2,SEMA3D,PHACTR1,MYOT,NREP,FHOD3,NLGN4 X,TJPI,UNC5C,ZSWIM6,PRLR,HIVEP3,FTO,KALRN,WIPF3,SPRR2D,NTRK3,ARNT, ATRNL1,SEMA5A,FLT3,STAT5B,TOX,ATP2B2,GRM5,NOC3L,FER,SPATA5,KITLG,L RP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,EZR,MEGF10,NRXN3,ROBO1,CHD7,SLC 26A6,HTR2B,ITGB6,CDKL5,MECOM,TENM1,KIF5C,LMNA,TRAF6,ESRP1,ROBO2, NFASC,ITPKB,DNAJA3,GRK5,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,GAS7 ,PSMB7,TSSK1B,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP1 3,RUNX1,DAB1,ABCC8,THRB,LAMA2,TCIRG1,PTPN11,HERC4,DOCK10,HDAC6,G OLG44,MYT1,EPHA1,IKBKB,ERBB4,DYI19L2,LIMK1,ZNF609,ATP8A2,CUL4B,CE CR2,ESR1,MYO18B,NPHP3,GRM7,PTPRO,CDON,NTRK2,EP300,CELA1,MEGF9,T ENM2,RNF220,HOKK3,PDGFB,RIMS1,TNIK,KIRREL3,TOB2,HNF4G,FMN2,RERE, PRKARI,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,PAK1,FBXW1 1,ESRRB,MAP3K4,PTPRD,BASP1,CATSPERB,SLC4A10,TBRI,CATSPER2,STRC,BD NF,TFAP2A,ATRN,AMIGO1,FANCA,TGIF2,POMGNT2,PHACTR4,MEIS1,TENM4,L CK,EDARADD,SHC4,ECT2,NAV2,LAMC1,PTPRU,MB,SGCD,DENND5A,DMD,CEN PF,USP13,KAT7,WDR7,SLC8A1,RBM4,GPR171,SATB2,RIT2,HIRA,TANC2,CASS4,F YN,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4,RX FP1,CHRD1,APOD,SLC2A14,B4GALT6,RTN4R,PLEKHM3,BCR,CCDC141,TTN,N DRG4,PAQR3,ADAMTSL1,TLL1,NTN1,SLC4A5,NRG1,STRBP,FRY,MAP2K1,MDF1,F NIP1,VAX2,MYH9,DAGLA,CNTN4,HDAC5,NTNG1,NAV1,TMEM30A,SYNE1,JD2,C MKLR1,LRGUK,ROR2,SLC39A14,CATSPER3,DOCK2,SOX13,UST,DMC1,MAD2L2, RAB27A,CAPRIN2,NLN,NCKAP1,RCC2,BOC,ARL3,NEUROD1,KIF2A,FBXO9,ACTL 8,PARP11,COL12A1,ZDHHC15,JAK2,MYPN,YTHDC2,TRAPPC9,FBXW7,SYT1,ITC H,BBS12,LZTS1,BCL11B,RBFOX1,TMC1,PKNOX1,CLDN1,MLLT3,PNPLA1,PLS1,T CF7,PDE2A,MSI2,SEPT7,KLF15,TBX15,ANXA4,CYFIP2,WNT11,IFT80,FIG4,KREM EN1,ASTN1,NOX4,SIPA1L3,CACNA1H,SLAH1,OKI,IL1RAPL1,CAMK2B,SOX6,ACVR</p>

			<p>2A,RUNX2,SEMA5B,CD4,TGFB1,SGK1,ZHX2,KEL,NFATC3,F2RL1,C9ORF47,RPG RIP1L,CELSR1,SLIT3,SDK2,SLIT2,TP73,MUSTN1,GABRB1,CDH23,CORO1C,RRAS 2,CTNND2,DISC1,TSNAX,KANK1,LRRC10,LAMC2,CLMN,MYT1L,OPCML,FSTL5,C HRM1,SMAD6,CLOCK,ITSN2,TCF12,ZNF675,SMOC1,ETV6,NELL1,SUCO,KCNH1, BCL3,DCLK1,ANKRD54,PARVA,SND1,ADAM12,HNRNPC,SBNO2,YTHDF1,FGF10, CNTNAP2,FBXL17,ARHGEF28,SMYD3,ENAH,PPL,LOXL3,MAST2,CAPN3,EPHA4, RORA,PRKC4,AUTS2,CNR1,TNFSF11,PPP3C4,NSUN2,MAG,CAMK4,UFL1,TRAK1 ,CTNNB1,PARK2,SOD2,FCGR2B,ARHGAP22,CDHR2,IGF1R,PPARG,NGRN,AXIN1, DLG5,IL18R1,BFSP1,MSR1,ANKRD17,XK,BRIP1,ANXA13,ANKRD26,DRAXIN,LEP R,FGF1,NIN,NR4A3,DCT,MYOCD,PER2,CPNE6,GLG1,PHLDB1,PRDM16,MYO1E, HCK,CAPN2,DIO2,MRC2,CSPG4,DCC,CTDPI,OBSCN,NF2,FLT4,MEF2B,HDAC4, PAX2,PHF5A,SPG11,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,DNM3,SYNCRIP,SMAD 3,CUX2,PTPRM,NHS,CASZ1,ABI2,PSAP,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PREX 1,CRTAC1,HOXD3,NAV3,NFATC1,PRTG,CDC73,APP,SSBP3,GSX2,PDGFRA,ODF3 ,CEP85L,DIP2B,YAP1,HEG1,FSTL4,NLGN2,VDAC1,EYA2,ALPL,LRP5,PTPRG,BDH 2,ISLR2,SLC9B2,SOX2,SETD2,CHST11,PRICKLE1,RCAN1,ELAVL3,SPTBN4,VASH2 ,ZNF521,PAQR5,DRD1,FRS2,SFMBT1,MMP2,TPH1,SYNE2,CLAVL3,KDM6A,PRKDI ,STAT1,PARP6,DGKG,ETV5,MORN2,HNF4A,ZBTB7C,EREG,MYOF,DSCAML1,SEM A6D,ATF2,POU2F2,TCF3,RAFI,CELF4,ADAMTS12,PSMD11,SRRM4,BMPR2,USP3 3,DPYSL2,CAMK1D,BMPRI1,PABPC4,NLGN1,CTNNA2,CDK12,TAF8,CERS3,SPA G9,RAB11A,CRMP1,MYB,FGF2,LRRC4C,POU6F2,ZFP41,IQGAP1,APOLD1,ZNF423 ,EMA4D,SH3PXD2A,ARMC2,RORC,ELP3,PLXNA2,ADCYAP1R1,FNDC3A,SETD1A,J ARID2,RILPL1,BRDT,ITGA11,RARB,SPEN,NCOA1,SPOCK1,BLOCIS5,NTM,CHRD, DVL3,EIF2B5,EIF4G1,EPHB3,ATF3,FBXO45,EBF2,DLEC1,TSG101,CCDC3,VCL,L AMB1,CLIC4,MYO9A,ANKS4B,COL11A1,KCNQ1,RFX2,WNT3,P4HB,SUFU,NLGN3, SCUBE2,PAFAH1B1,CCDC169- SOHLH2,SOHLH2,HIP1,AKAP6,RASAL1,NR2C1,TRPC5,TTL7,GLI2,NEO1,SCUBE 1,ERCC1,RUFY3,ALDH6A1,TPD52,COL19A1,DAB2,THEMIS,PKHD1,USH2A,LDLR AD4,DZIP1,WNK1,RELN,SIN3A,RSP02,CSF3R,DOCK11,IQGAP1,APOLD1,ZNF423 ,MACF1,MYO7A,ALK,GSTM3,INPP5D,CLASP1,TEAD4,SLC9C1,SRA1,UBE2V1,MB OAT1,GPM6B,ADIRF,XDH,OVOL2,NFATC2,PRKG1,BNC1,PACRG,GALNTL5,PACS IN1,ACTL6B,PAK3,TET1,DYX1C1,ADNP,ARID4A,MAP1B,MARK1,CDK6,CELF1,TF RC,EPHA5,WWOX,MEF2A,DROSHA,GPC3,PSMB2,EYA1,BRINP1,GNB3,TRPV1,HO XB3,HOXB4,HOXB5,GHR,FLRT2,DIAPH2,ACTR2,ELAVL4,LGI4,HDAC1,PLCG2,R OCK1,PAXIP1,EGR2,RNF10,AP3B1,PTPN2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13 A,PTPRQ,EPHB1,EPHA10,PTPN9,AXIN2,SARM1,EPCAM,PARD3,TRIM46,SH3GL3, JAG2,AP3D1,CARM1,ARHGAP44,SRD5A2,SMARCA2,CUX1,SP11,EPHA7,CTNNA1, GLIS1,LRRC8C,ILDR2,SHROOM3,MAP3K13,RAPGEF3,SDK1,SH3BP1,KAZN,ERCC 3,PTK7,SMYD1,NHSL2,BMPRI1B,CD53,MAGI2,USP42,ZEB2,FOXJ3,OCA2,HEY2,R C3H1,COL13A1,HYDIN,WNT7B,PTPRS,KMT2D,CREM,TLL2,ALCA12,CSRPI,RASA 1,MITF,SRSF6,RBM45,HIPK1,PKP2,RTN4RL1,BTK,SGCZ,CBFA2T2,IGF1,DPYSL3, MAPK1,PTEN,MIB1,SPRED2,BMP7,PUM1,SOX5,LHFPL5,LRRK2,OSGIN1,SEPT6,A LDOC,RAPH1,BAG6,LILRB4,TMEM108,ITGAM,EFNA5,SHANK3,STMN4,DAZL,ALP K3,NCOA3,STEAP4,PPP2R3C,TBCD,WNT7A,ZBED6,MAP4,NME8,PLCL2,SKT6A,S H3PXD2B,BMP6,MYCBP2,IL17RD,SOS1,TSHR,EXT1,ATRX,IKZF1,PARVB,PNPLA3, PRMT2,RAPGEF2,SMO,SUN1,BLOCIS3,CPT1A,TCF4,SYT17,BPGM,SOX30,TFE3,B BS9,RHOA,SYNGAP1,GRIN3A,NDE1,ROR1,TF,ONECUT2,CUL3,NFKBID,EPM2A,G SK3B,EMB,RDX,STAT6,ACTA2,SYN1,MLF1,EEF2K,CDK13,ALCA12,CSRPI,RASA 1,KRT8,AGT,HDGFRP3,ADAR,BLOCIS6,FBN2,ZMPSTE24,BRINP3,NDRG2,PTK2, TPPP2,SNX3,RIMS2,PBX1,TCP11,SHB,GAP43,MAP3K5,TCFL5,DLX1,TAOK2,PYG O2,NDUFS2,ECE1,LBX2,RPS6KB1,GPR173,PGM5,SCEL,ANKS1A,ALOX5,CPLX2,D NAJB6,MDGA2,SP7,ADAM8,RPS6KA5,CDS1,THSD7A,CXCL17,NOS1,PEX7,TBC1D 23,PLEKHA1,RGS14,ACTN4,STK4,TUBB3,EPHB2,SLC1A1,TMEFF2,CLPTM1,IL18, MFSD8,ASF1B,PPARA,ARID5B,PRRC2C,NOTCH4,CRX,FBN1,PAX6,PRKCZ,FAM2 0C,ADORA2A,PPP1CC,COL22A1,PHLDB2,KLC3,KLHL1,NIPBL,ANGPT1,EYA3,FH L2,LRRK1,OSBPL8,GCNT2,ETS1,VWC2,MAP2,MTF2,NEBL,FBXO31,CDK5RAP1,C NTN1,PRKCQ,BRAF,HDAC2,HTR2C,IMPACT,POU3F3,NOTO,SPINT2,TNR,MBNL3 ,ELF2,CDKL3,PPP2CA,ACAN,CAMSAP3,ANXA2,PRMT7,CR2,SRGAP2,TMEFF1,AD CY1,NUMB,SYK,CNOT1,WWTR1,SLIT1,CIT,RADIL,BRCA2,DVL2,MORC1,NEB,YBX 1,GRIP1,PTPRJ,GPRIN3,GPM6A,OSBP2,PLEKHB2,CADM1,HSF1,DHFR,SRPK2,AS AP1,ADAMTS7,SULT2B1,BMP1,ZP3,RNF2,CAV2,GNA12,MYEF2,INPP5F,AXL,TNF SF9,WIF1,CD109,MET,MALT1,SETD3,TMEM120B,CCDC136,EHD2,SEMA3C,NED D4L,PHB,PTPRC,EDA,GPR89A,SH3GL2,TYRO3,VPS52,NCAM1,TANC1,TRAF3IP2, CREB1,AFF4,EDNR4,GNGT1,BMP4,CPNE1</p>
GO:00 32990	cell part morphogenesis	3.56848336 4954669e- 32	<p>NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,SEMA3D,PHACTR1,MYOT,TIAM 2,UNC5C,KALRN,SEMA5A,ENPP2,LRP2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,R OBO2,NFASC,ABI1,ITGB1,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,DAB1,LAMA2,P TPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,PTPRO,NTRK2,RIMS1,T NIK,SNX2,KIRREL3,RERE,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIG O1,DMD,TANC2,FYN,LMTK2,RTN4,B4GALT6,RTN4R,CCDC141,ADAMTSL1,NTN1, MAP2K1,VAX2,CNTN4,NTNG1,UST,CAPRIN2,NCKAP1,BOC,ZDHHC15,MYPN,SYT 1,LZTS1,BCL11B,CYFIP2,SLAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SL IT2,CORO1C,CTNND2,DISC1,KANK1,LAMC2,ITSN2,DCLK1,YTHDF1,CNTNAP2,E</p>

			<p> <i>NAH,EPHA4,AUTS2,PPP3CA,MAG,CTNNB1,PARK2,IGF1R,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRTG,APP,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRC4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,PACSIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,EGR2,NTRK1,MAP1A,ANK3,UNC13A,EPHB1,EPHA10,SARM1,PARD3,TRIM46,ARHGAP44,CUX1,EPHA7,MAP3K13,PTK7,BMPR1B,PNPT1,WNT7B,PTPRS,PTEN,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,RAPGEF2,SMO,SYT17,RHOA,SYNGAP1,GSK3B,EMB,EEF2K,PTK2,RIMS2,GAP43,TAOK2,ECE1,CD44,PACSI N2,RPS6KA5,TUBB3,EPHB2,PAX6,PRKCZ,ADORA2A,MAP2,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDKL3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIPI,GPM6A,SNX1,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1</i> </p>
GO:0048699	generation of neurons	3.7485556565278417e-32	<p> <i>CLRNI,NRXN1,PRMT3,RDH13,PRKCI,MAP4K4,LLPH,NEGR1,PBX3,CLASP2,SEMA3A,GRID2,PRDM12,TENM3,NRG3,ASTN2,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,NLGN4X,UNC5C,ZSWIM6,KALRN,NTRK3,SEMA5A,TOX,PTP2B2,LRP2,ZNF536,OLFM1,NRXN3,ROBO1,CHD7,CDKL5,TENM1,KIF5C,ESRP1,ROBO2,NFASC,ABI1,ULK4,ITGB1,TRIOBP,HSP90AA1,GAS7,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,RUNX1,DAB1,ABCC8,THRB,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,ERBB4,LIMK1,ZNF609,ATP8A2,CUL4B,CECR2,GRM7,PTPRO,CDON,NTRK2,EP300,TENM2,RNF220,HOKK3,RIMS1,TNIK,KIRREL3,REER,ATP8B1,UNC5D,LAMA3,CDH4,PAK1,PTPRD,SLC4A10,TBR1,STRC,BDNF,AMIGO1,TGIF2,POMGNT2,MEIS1,TENM4,ECT2,DENND5A,DMD,SATB2,RIT2,TANC2,FYN,ARNTL,NF1,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,NRG1,FRY,MAP2K1,VAX2,DAGLA,CNTN4,NTNG1,NAV1,TMEM30A,ROR2,UST,CAPRIN2,NCKAP1,BOC,ARL3,NEUROD1,ZDHHC15,JAK2,MYPN,TRAPPC9,SYT1,LZTS1,BCL11B,TMC1,PLS1,CYFIP2,WNT11,FIG4,KREMEN1,ASTN1,SLAH1,ILIRAPL1,CAMK2B,RUNX2,SEMA5B,TGFB1,SGK1,ZHX2,KEL,RPGRIP1L,CELSLR1,SLIT3,SDK2,SLIT2,TP73,GABRB1,CDH23,CTNND2,DISC1,KANK1,LAMC2,CLMN,MYT1L,OPCML,ITSN2,TCF12,DCLK1,YTHDF1,CNTNAP2,ENAH,EPHA4,RORA,AUTS2,CNRI,PPP3CA,MAG,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,NGRN,DLG5,XK,DRAXIN,NIN,DCT,PER2,CPNE6,DCC,NF2,PAX2,SPG11,SFRP1,FOXO3,CNTN6,NFIB,DNM3,CUX2,PTPRM,CASZ1,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,HOXD3,PRTG,APP,GSX2,CEP85L,DIP2B,YAP1,FSTL4,NLGN2,PTPRG,ISLR2,SOX2,SPTBN4,VASH2,ZNF521,DRD1,FRS2,MMP2,CPNE9,PRKD1,PARP6,DGKG,DSCAML1,SEMA6D,TCF3,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,BMPR1A,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRRC4C,AGBL4,SEMA4D,ELP3,PLXNA2,SPEN,NCOA1,SPOCK1,BLOC1S5,NTM,DVL3,EIF4G1,EPHB3,FBXO45,VCL,LAMB1,MYO9A,KCNQ1,WNT3,SUFU,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,USH2A,WNK1,RELN,SIN3A,RSP02,IQGAP1,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACSIN1,ACTL6B,PAK3,DYX1C1,ADNP,MAP1B,MARK1,CDK6,EPHA5,MEF2A,EYA1,BRINP1,HOXB3,FLRT2,ACTR2,ELAVL4,LGI4,HDAC1,ROCK1,EGR2,RNF10,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,SH3GL3,JAG2,CARM1,ARHGAP44,CUX1,EPHA7,CTNNA1,MAP3K13,SDK1,ERCC3,PTK7,BMPR1B,MAGI2,HEY2,WNT7B,PTPRS,HIPK1,RTN4RL1,CBFA2T2,DPYSL3,PTEN,MIB1,BMP7,SOX5,LHFPL5,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,TBCD,WNT7A,MAP4,BMP6,MYCBP2,SOS1,TSHR,EXT1,RAPGEF2,SMO,BLOC1S3,TCF4,SYT17,RHOA,SYNGAP1,GRIN3A,NDE1,ROR1,ONECUT2,GSK3B,EMB,SYN1,EEF2K,AGT,HDGFRP3,BLOC1S6,BRINP3,PTK2,SNX3,RIMS2,PBX1,GAP43,DLX1,TAOK2,ECE1,GPR173,ANKS1A,MDGA2,RPS6KA5,PEX7,TBC1D23,RGS14,TUBB3,EPHB2,MFSD8,PAX6,PRKCZ,ADORA2A,PPP1CC,KLHL1,NIPBL,VWC2,MAP2,FBXO31,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,NOTO,TNFR,CDKL3,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,CIT,DVL2,GRIPI,GPRIN3,GPM6A,DHFR,ASAP1,MYEF2,INPP5F,AXL,MET,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,GNGT1,BMP4,CPNE1</i> </p>
GO:0035556	intracellular signal transduction	5.036055204645524e-32	<p> <i>PRDX2,NRXN1,ASPH,PRKCI,MAP4K4,PDE4D,DNMT1,TMBIM4,SLC9A1,PDE7B,ADCY8,PDE8A,SEMA3A,IL31RA,RPS6KA2,PTGFR,CHERP,DOCK1,WWC1,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,ANP32A,TIAM2,KSR2,MAPRE2,PRKAG2,WWC3,ADCY7,KALRN,NTRK3,CBL,PLEKHG4B,RAB4B,RAB4B-EGLN2,SEMA5A,FLT3,GRM5,PLCE1,FER,MARVELD3,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,LRP2,PIK3CD,DEPDC5,ANK2,EZR,ROBO1,TNFALP8L1,HTR2B,MECOM,TENM1,NUCB1,TRAF6,ITPKB,DNAJA3,VAV2,ULK4,ITGB1,HSP90AA1,CDC6,PSMB7,SRGAP3,TSSK1B,KNDC1,CCDC22,STK38L,TRIO,ARHGAP24,AKAP13,DAB1,CDC42EP3,ERC1,RGS6,DGKI,PDE4A,MAST4,PTPN11,DOCK10,CYTH3,ADORA1,IKBKB,ERBB4,ADRA1D,MRE11A,GBF1,LIMK1,TLK1,ABR,SNIP1,ESR1,MIER1,CDO N,NTRK2,EP300,PDGFB,TNIK,MID1,CHFR,STK39,INSR,FMN2,PRKARIA,ASB5,TCF7L2,CAB39,PAK1,LITAF,FBXW11,MYOM1,MAP3K4,ZDHHC13,CHRM3,NPRL3,PHACTR4,TRIM13,RASGEF1B,UBR2,ARHGAP6,LCK,MDM4,ENTPD5,SHC4,ECT2,CHML,PPM1L,ARHGAP42,ERN2,CDC45,NPLOC4,SGCD,DMD,CENPF,KAT7,SLC8A1,RIT2,DEPDC1B,CASS4,FYN,MKRN2,ARNTL,NF1,PLCB1,RTN4,DGKH,RTN4R,BCR,CHI3L1,TTN,NDRG4,PAQR3,PIK3R2,RANBP9,NTN1,NRG1,ARHGAP10,SH2D3C,BDKRB2,DOCK8,BID,MAP2K1,FNIP1,RAPGEF6,RALGPS2,MAD1L1,TMBIM6,VGL</i> </p>

			<p>L4,PPP2CB,PPP3R1,CMKLR1,ROR2,DCN,DOCK2,CDH13,FHIT,COP55,FGF14,ARHGAP32,MAD2L2,NCKAP1,RALGPS1,FOXN3,ARL3,NEUROD1,FBXO9,ICK,TMEM117,RFFL,DENND1A,JAK2,FBXW7,LINC00473,UIMC1,ITCH,NPSR1,SMG1,HUNK,CDC42BPB,DOCK9,SH2D6,PDE2A,LAMTOR3,WNT11,ARHGAP23,TRIM59,CLPB,NOX4,SIPA1L3,SLAH1,PRKCD,TAB2,CD4,SGK1,SPSB4,BTRC,NFATC3,CRAADD,F2RL1,CELSR1,SLIT2,ASB15,TP73,RRAS2,DISC1,KANK1,MTDH,CLOCK,ZNF675,PLCB4,KCNH1,BMPER,BCL3,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DUSP22,NAIP,HOMER2,DOCK3,FGF10,RASA4,RASA4B,ARHGEF28,KCTD10,IQCJ-SCHIP1,SH3RF3,MAST2,ADCY2,CAPN3,EPHA4,RORA,PRKCA,AUTS2,TNFSF11,PP3CA,NSUN2,CAMK4,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,ARHGAP22,IGF1R,PPARG,AXIN1,GARNL3,DLG5,IL18R1,P2RY10,ANKRD17,APOL3,BRIP1,RYR2,FGF1,NOL3,PRKAR2A,TRIM5,AJUBA,CACNA1C,CHEK2,ASB8,PPP1CB,TBCK,TRIM8,CSPG4,GRM1,ARHGAP31,OBSCN,RGL1,NF2,FLT4,SGMS1,PRKGI,RGS7,ATP2B4,PAK3,CAMTA1,ADNP,MAPKAPK2,CDC42BPA,MARK1,P2RY8,RNF34,TFRC,EPHA5,WWOX,MEF2A,ADCY9,GFRAL,PSMB2,ZNF207,TSPAN6,CLEC16A,GHR,FGD1,HDAC1,TRIM24,PLCG2,ROCK1,EPS8,C1QTNF1,PAXIP1,HIPK3,GPR35,CUL2,PTPN2,NTRK1,TRIM44,PKN2,PPP1R9A,EIF3A,DNMBP,UNC13A,EPHB1,RCAN2,MUC1,VWF,ARHGAP44,ARHGEF3,SP11,DGKK,EPHA7,MCU,STAC,BCAR3,STK38,MAP3K13,OTUD3,RAB15,RAPGEF3,SH3BP1,GRM4,MAGI2,USP50,RC3H1,WNT7B,ZMYND11,ADTRP,PLD1,RASA1,HIPK1,RPTOR,BTK,KCTD13,IGF1,HTT,MAPK1,PTEN,ARHGEF17,SPRED2,BMP7,PIK3C3,PUM1,RASA2,RAB30,LRRK2,BAG6,LILRB4,ARHGAP25,SHANK3,RGS9,PDGFC,AMOTL1,FAM13B,WNT7A,UACA,PLCL2,KAT6A,RHOT1,SIK3,SH3RF2,SOS1,ATRX,RAPGEF2,KCNC2,SMO,VRK3,MARK4,PRKAR2B,PSE,N2,PAG1,GRIN1,RHOA,WSB2,SYNGAP1,ROR1,TF,RHOBTB1,CUL3,ITPR2,GSK3B,PLD2,RDX,ACTA2,MLF1,FAM49B,NECAB2,STK32B,CD27,DUSP26,MCTP2,BOK,NACC2,AGT,PRKAA2,PITPNM2,ZMPSTE24,HRH4,NDRG2,PTK2,LAT2,PEX5L,TCPI1,TEC,MAP3K5,PRKD3,NCF1,TAOK2,SHC1,ARHGAP15,CD160,RPS6KB1,GUCY2F,CD44,FGD3,ADAM8,RPS6KA5,HUS1,CXCL17,FGD4,NOS1,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,EPHB2,WLS,XCRI,IL18,MFSD8,GPSM2,DLC1,PPARA,PPP1R10,MCOLN1,PHLPP1,MAG3,MOB3B,PRKCZ,ZC3HAV1,GRIN2B,PPP1CC,RABGEF1,TYK2,OTUD7B,DENND4B,ANGPT1,FHL2,LRRK1,OSBPL8,GCNT2,TBC1D10C,ARHGAP21,CCL22,FBXO31,PRKCQ,BRAF,HTR2C,CD300A,IRAK1BP1,PPP2CA,ARHGEF6,RPL23,SH3BP4,DCDC1,SP100,DONSON,ITSN1,SRGAP2,ADCY1,MADD,SYK,WWTR1,ARHGAP19,GRIK2,ASB1,CITBRCA2,RAP1GAP2,DVL2,GRIPI,PTPRJ,TAFI1,TICAM1,TANK,HSF1,INPP5A,SRPK2,PLEKHM1,ASH1,RALGAP1,CGNL1,QRICH1,VAV3,CAV2,GNA12,ITPD3A,INPP5F,NUAK2,AXL,DENND4C,MET,CAMK2D,CCR3,RAD9B,TIMELESS,ANKRD6,MALTI1,THEM4,PHB,PTPRC,EDA,GPR89A,TYRO3,ADCY10,TRAF3IP2,TRAP1,CLNK,EDNRA,PRAP1,BMP4,CPNE1</p>
GO:0048869	cellular developmental process	7.030347516629712e-32	<p>RDH14,CLRN1,ENPPI,PRDX2,NRXN1,PRMT3,RDH13,PRKCI,MOV10L1,MAP4K4,PDE4D,DNMT1,S1PR2,HLX,LLPH,SLC9A1,NEGR1,PBX3,SPAG16,TRPS1,CBFB,CLASP2,SEMA3A,IL31RA,GRID2,RPS6KA2,PRDM12,TENM3,CALR3,DOCK1,CLDN18,RYR1,NRG3,IQCG,ASTN2,SEMA3D,PHACTR1,MYOT,NREP,TIAM2,FHOD3,NLGN4X,TJP1,UNC5C,ZSWIM6,PRLR,HIVEP3,FTO,KALRN,WIPF3,SPRR2D,NTRK3,ARNT,ATRNL1,SEMA5A,FLT3,STAT5B,TOX,ENPP2,ATP2B2,GRM5,NOC3L,FER,SPATA5,KITLG,MAPK10,LRP2,PIK3CD,ZNF536,SP3,ANK2,OLFM1,EZR,MEGF10,NRXN3,ROBO1,CHD7,SLC26A6,HTR2B,ITGB6,CDKL5,MECOM,TENM1,KIF5C,LMNA,TRAF6,ESRP1,ROBO2,NFASC,ITPKB,DNAJA3,GRK5,ABII,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,GAS7,PSMB7,TSSK1B,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,RUNX1,DAB1,ABCC8,THRB,LAMA2,TCIRG1,PTPN11,HERC4,DOCK10,HDAC6,GOLGA4,MYT1,EPHA1,IKBKB,ERBB4,DPIY19L2,LIMK1,ZNF609,ATP8A2,CUL4B,CECR2,ESR1,MYO18B,NPHP3,GRM7,PTPRO,CDON,NTRK2,EQ300,CELA1,MEGF9,TENM2,RNF220,HOKK3,PDGFB,RIMS1,JNIK,SNX2,KIRREL3,TOB2,HNF4G,FMN2,RERE,PRKAR1A,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,PAK1,FBXW11,ESRRB,MAP3K4,PTPRD,BASPI,CATSPERB,SLC4A10,TBRI,CATSPER2,STRC,BDNF,TFAP2A,ATRNL,AMIGO1,FANCA,FGF12,POMGNT2,PHACTR4,MEIS1,TENM4,LCK,EDARADD,SHC4,ECT2,NAV2,LAMC1,PTPRU,MB,SGCD,DENND5A,DMD,CENPF,USP13,KAT7,WDR7,SLC8A1,RBM4,GPR171,SATB2,RIT2,HIRA,TANC2,CASS4,FYN,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,LMTK2,ARID4B,FAT3,RTN4,RXFP1,CHRDLL1,APOD,SLC2A14,B4GALT6,RTN4R,PLEKHM3,BCR,CCDC141,TTN,NDRG4,PAQR3,ADAMTSL1,TLL1,NTN1,SLC4A5,NRG1,STRB</p>

			<p> <i>P,FRY,MAP2K1,MDF1,FNIP1,VAX2,MYH9,DAGLA,CNTN4,HDAC5,NTNG1,NAV1,TMEM30A,SYNE1,JDP2,CMKLR1,LRGUK,ROR2,SLC39A14,CATSPER3,DOCK2,SOX13,UST,DMC1,MAD2L2,RAB27A,CAPRIN2,NLN,NCKAP1,TERF2,RCC2,BOC,ARL3,NEUROD1,KIF2A,FBXO9,ACTL8,PARP11,COL12A1,ZDHHC15,JAK2,MYPN,YTHDC2,TRAPPC9,FBXW7,SYT1,ITCH,BBS12,LZTS1,BCL11B,RBFOX1,TMCI,PKNOXI,CLDN1,MLLT3,PNPLA1,PLS1,TCF7,PDE2A,MSI2,SEPT7,KLF15,TBX15,ANXA4,CYFIP2,WNT11,IFT80,FIG4,KREMEN1,ASTN1,NOX4,SIPA1L3,CACNA1H,SLAH1,QKI,IL1RAPL1,CAMK2B,PRKCD,SOX6,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,SGK1,ZHX2,KEL,NFATC3,F2RL1,C9ORF47,RPGRIPI1,CELSR1,SLIT3,SDK2,SLIT2,TP73,MUSTN1,GABRB1,CDH23,CORO1C,RRAS2,CTNND2,DISC1,TSNAX,KANK1,LRRC10,LAMC2,CLMN,MYT1L,OPCML,FSTL5,CHRM1,SMAD6,CLOCK,ITSN2,TCF12,ZNF675,SMOC1,ETV6,NELL1,SUCO,KCNH1,BCL3,DCLK1,ANKRD54,PARVA,SND1,ADAMI2,HNRNPC,SBNO2,YTHDF1,FGF10,CNTNAP2,FBXL17,ARHGEF28,MYD3,ENAH,PPL,LOXL3,MAST2,CAPN3,EPHA4,RORA,PRKCA,AUTS2,CNR1,TNFSF11,PPP3CA,NSUN2,MAG,CAMK4,UFL1,TRAK1,CTNNB1,PARK2,SOD2,FCGR2B,ARHGAP22,CDDR2,IGF1R,PPARG,NGRN,AXIN1,DLG5,IL18R1,BFSP1,MSR1,ANKRD17,XK,BRIP1,ANXA13,ANKRD26,DRAXIN,LEPR,FGF1,NIN,NR4A3,DCT,MYOCD,PER2,KIR2DL4,CPNE6,GLG1,CHEK2,PHLDB1,PRDM16,MYO1E,HCK,CAPN2,DIO2,MRC2,CSPG4,DCC,CTDP1,OBSCN,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SPG11,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,DNM3,SYNCRIP,SMAD3,CUX2,PTPRM,NHS,CASZ1,ABI2,PSAP,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PREX1,CRAT1,HOXD3,NAV3,NFATC1,PTG,CDC73,APP,SSBP3,GSX2,PDGFRA,ODF3,CEP85L,DIP2B,YAP1,HEG1,FSTL4,NLGN2,VDAC1,EYA2,ALPL,LRP5,PTPRG,BDH2,ISLR2,SLC9B2,SOX2,SETD2,CHST11,PRICKLE1,RCAN1,ELAVL3,SPTBN4,VASH2,ZNF521,PAQR5,DRD1,FRS2,SFMBT1,MMP2,TPH1,SYNE2,CPNE9,KDM6A,PRKD1,STAT1,PARP6,DGKG,ETV5,MORN2,HNF4A,ZBTB7C,EREG,MYOF,DSCAML1,SEMA6D,ATF2,POU2F2,TCF3,RAFI1,CELF4,ADAMTS12,PSMD11,SRRM4,BMPR2,USP33,DPSYL2,CAMK1D,BMPRI A,PABPC4,NLGN1,CTNNA2,CDK12,TAF8,CERS3,SPAG9,RAB11A,CRMP1,MYB,FGF2,LRRC4C,POU6F2,ZFP41,NEDD9,AGBL4,PEAK1,SEMA4D,SH3PXD2A,ARMC2,RORC,ELP3,PLXNA2,ADCYAP1R1,FNDC3A,SETD1A,JARID2,RILPL1,BRDT,ITGA11,RARB,SPEN,NCOA1,SPOCK1,BLOC1S5,EEF1E1,NTM,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,ATF3,FBXO45,PAWR,EBF2,DLEC1,TSG101,CCDC3,VCL,LAMBI,CLIC4,MYO9A,ANKS4B,COL11A1,KCNQ1,RFX2,WNT3,P4HB,SUFU,NLGN3,SCUBE2,PAFAH1B1,CCDC169-SOHLH2,SOHLH2,HIP1,AKAP6,RASA1,NR2C1,TRPC5,TTL7,GLI2,NEO1,SCUBE1,ERCC1,RUFY3,ALDH6A1,TPD52,COL19A1,DAB2,THEMIS,PKHD1,USH2A,LDLRAD4,DZIP1,WNK1,RELN,SIN3A,RSPO2,CSF3R,DOCK11,IQGAP1,APOLD1,ZNF423,MACF1,MYO7A,ALK,GSTM3,INPP5D,CLASPI,TEAD4,SLC9C1,SRA1,UBE2V1,MB OAT1,GPM6B,ADIRF,XDH,OVOL2,NFATC2,PRKG1,BNC1,PACRG,GALNTL5,PACSI NI,ACTL6B,PAK3,TEF1,DYX1C1,ADNP,ARID4A,MAP1B,MARK1,CDK6,CELF1,TFRC,EPHA5,WWOX,MEF2A,DROSHA,GPC3,PSMB2,EYA1,BRINP1,GNB3,TRPV1,HOXB3,HOXB4,HOXB5,GHR,FLRT2,DIAPH2,ACTR2,ELAVL4,LGI4,HDAC1,PLCG2,ROCK1,PAXIP1,EGR2,RNF10,AP3B1,PTPN2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,AXIN2,SARM1,EPCAM,PARD3,TRIM46,SH3GL3,JAG2,AP3D1,CARM1,ARHGAP44,SRD5A2,SMARCA2,CUX1,SP11,EPHA7,CTNNA1,GLIS1,LRRC8C,ILDR2,SHROOM3,MAP3K13,RAPGEF3,SDK1,SH3BP1,KAZN,ERCC3,PTK7,SMYD1,NHSL2,BMPR1B,CD53,MAGI2,USP42,PNPT1,ZEB2,FOXJ3,OCA2,HEY2,RC3H1,COL13A1,HYDIN,WNT7B,PTPRS,KMT2D,CREM,TLL2,ABCA12,CSRPI1,RASA1,MITF,SRSF6,RBM45,HIPK1,PKP2,RTN4RL1,BTK,SGCZ,CBFA2T2,IGF1,DPSYL3,MAPK1,PTEN,MIB1,SPRED2,BMP7,PUM1,SOX5,LHFPL5,LRRK2,OSGIN1,SEPT6,ALDOC,RAPH1,BAG6,LILRB4,MORC3,TMEM108,ITGAM,EFNA5,SHANK3,STMN4,DAZL,ALPK3,NCOA3,STEAP4,PPP2R3C,TBCD,WNT7A,ZBED6,MAP4,NME8,PLCL2,KAT6A,SH3PXD2B,BMP6,MYCBP2,IL17RD,SOS1,TSHR,EXT1,ATRX,IKZF1,PARVB,PNPLA3,PRMT2,RAPGEF2,SMO,SUN1,BLOC1S3,CPT1A,TCF4,SYT17,BPGM,SOX30,TFE3,BBS9,RHOA,SYNGAP1,GRIN3A,NDE1,ROR1,TF,ONECUT2,CUL3,NFKBID,EPM2A,GSK3B,EMB,RDX,STAT6,ACTA2,SYN1,MLF1,EEF2K,CDK13,ALAS2,CD27,BOK,SULF1,KRT8,AGT,HDGFRP3,ADAR,BLOC1S6,FBN2,ZMPSTE24,BRINP3,NDRG2,PTK2,TPPP2,SNX3,RIMS2,PBX1,TCP11,SHB,GAP43,MAP3K5,TCFL5,D LX1,TAOK2,PYGO2,NDUFS2,ECE1,LBX2,RPS6KB1,GPR173,PGM5,SCEL,ANKS1A,ALOX5,CPLX2,DNAJB6,MDGA2,SP7,CD44,ADAM8,PACSIN2,RPS6KA5,CDS1,THSD7A,CXCL17,NOS1,PEX7,TBC1D23,PLEKHA1,RGS14,ACTN4,STK4,TUBB3,EPHB2,SLC1A1,TMEFF2,CLPTM1,IL18,MFSD8,ASF1B,PPARA,ARID5B,PRRC2C,NOTCH4,CRX,FBN1,PAX6,PRKCZ,FAM20C,ADORA2A,PPP1CC,COL22A1,PHLDB2,KLC3,KLHL1,NIPBL,ANGPT1,EYA3,FHL2,LRRK1,OSBPL8,GCNT2,ETS1,VWC2,MAP2,MTF2,NEBL,FBXO31,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,HTR2C,IMPACT,POU3F3,NOTO,SPINT2,TNR,MBNL3,ELF2,CDKL3,PPP2CA,ACAN,CAMSA3,ANXA2,PRMT7,CR2,SRGAP2,TMEFF1,ADCY1,NUMB,SYK,CNOT1,WWTR1,SLIT1,CIT,RADIL,BRCA2,DVL2,MORC1,NEB,YBX1,GRIP1,PTPRJ,GPRIN3,GPM6A,OSBP2,PLEKHB2,CADM1,HSF1,DHFR,SRPK2,ASAP1,ADAMTS7,SULT2B1,BMP1,ZP3,RNF2,CAV2,GNAI2,MYEF2,INPP5F,AXL,TNFSF9,WIF1,CD109,MET,SNX1,MALTI1,SETD3,TMEM120B,CCDC136,EHD2,SEMA3C,NEDD4L,PHB,PTPRC,EDA,GPR89A,SH3GL2,TYRO3,VPS52,NCAM1,TANC1,TRAF3IP2,CREB1,AFF4,EDNRA,NGGT1,BMP4,CPNE1 </i> </p>
GO:00	nervous system	2.72358206	<p> <i>CLRN1,DNAH11,LDB2,NRXN1,PRMT3,GSS,RDH13,PRKCI,TACC2,MAP4K4,HLX,L </i> </p>

07399	development	6127127e-31	<p>LPH,NEGRI,PBX3,CLASP2,SEMA3A,LSAMP,GRID2,PRDM12,TENM3,CHERP,NRG3,ASTN2,SEMA3D,PHACTRI,MYOT,NREP,TIAM2,NLGN4X,UNC5C,ZSWIM6,KALRN,NTRK3,SEMA5A,TOX,ATP2B2,GRM5,LHFPL4,SPATA5,NDUFV2,LRP2,ZNF536,ANK2,OLFM1,NRXN3,ROBO1,CHD7,CDKL5,TACC1,TENM1,KIF5C,TRAF6,ESRP1,ROBO2,NFASC,ABI1,ULK4,NHLH1,ITGB1,TRIOBP,HSP90AA1,GAS7,PCDH17,KNDC1,ZC4H2,DSCAM,FAM126A,SRGAP2B,CNGB1,TRIO,RUNX1,DAB1,ABCC8,THRB,LAMA2,GFRA2,TCIRG1,PTPN11,DOCK10,HDAC6,GOLGA4,MYT1,ADORA1,EPHA1,ERBB4,LIMK1,ZNF609,ATP8A2,CUL4B,CECR2,NPHP3,GRM7,PTPRO,CDON,NTRK2,EP300,TENM2,RNF220,HOOK3,RIMS1,TNIK,KIRREL3,RERE,ATP8B1,UNC5D,H2AFY2,PLLP,LAMA3,CDH4,PAK1,FBXW11,PTPRD,CNTN5,BASP1,SLC4A10,TBR1,STRC,BDNF,TFAP2A,ATRN,AMIGO1,CHRM3,TGIF2,POMGNT2,PHACTR4,MEIS1,TENM4,ECT2,ZNF148,NAV2,DENND5A,DMD,CENPF,SLC8A1,GSN,SATB2,PAFAH1B2,RIT2,MACROD2,TANC2,FYN,ARNTL,NF1,PLCB1,PCDH15,LMTK2,FAT3,RTN4,AFF2,MAL2,CHRD1,APOD,B4GALT6,RTN4R,BCR,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,DCTN1,NRG1,FRY,MAP2K1,VAX2,LRFN5,DAGLA,CNTN4,NTNG1,PCSK2,NAV1,NFIA,TMEM30A,SBF2,ROR2,PLXDC1,SOX13,ACSBG1,UST,FGF14,PCDHB16,CAPRN2,NCKAPI,BOC,ARL3,NEUROD1,KIF24,ZDHHHC15,JAK2,MYPN,TRAPPC9,CLSTN2,SYT1,LZTS1,BCL11B,RBFOX1,TMC1,CLDN1,PLS1,KLF15,CYFIP2,WNT11,FIG4,KREMEN1,IMMP2L,NRG4,ASTN1,SLAH1,QKI,IL1RAPL1,CAMK2B,ADAM23,SOX6,RUNX2,SEMA5B,TGFB1,SGK1,ZHX2,KEL,RPGRIP1L,CELSRI,SLIT3,SDK2,SLIT2,TP73,GABRB1,CDH23,CTNND2,DISC1,KANK1,LAMC2,CLMN,TTBK2,MYT1L,OPCML,CHRM1,ITSN2,TCF12,ETV6,SYNJ2,NELL1,TFAP2D,DCLK1,NAIP,SLC17A7,LINGO2,YTHDF1,FGF10,CNTNAP2,FBXL17,ENAH,IL1RAPL2,LOXL3,EPHA4,RORA,AUTS2,CNR1,PPP3CA,MAG,UFL1,TRAK1,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF1R,PPARG,NGRN,DLG5,ADD2,MTF1,XK,DRAXIN,LEPR,NIN,DCT,PER2,CPNE6,SCN3B,CSPG4,DCC,NF2,HDAC4,PAX2,SPG11,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,IFT122,DNM3,CUX2,PTPRM,ARNT2,CASZ1,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,HOXD3,NAV3,PRTG,APP,SSBP3,GSX2,CEP85L,DIP2B,YAP1,FSTL4,NLGN2,PTPRG,ISLR2,SOX2,SETD2,GPC6,PRICKLE1,ELAVL3,SPBN4,VASH2,ZNF521,DRD1,FRS2,MMP2,SYNE2,CPNE9,KDM6A,PRKD1,PARP6,DGKG,SYBU,SLC6A3,SHANK2,DSCAML1,SEMA6D,RBFOX3,ATF2,TCF3,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,BMPRI1,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,FGF2,LRRRC4C,POU6F2,GRIK1,AGBL4,SEMA4D,ELP3,PLXNA2,SETD1A,JARID2,RARB,SPEN,PRKCG,NCOA1,SPOCK1,BLOC1S5,GAS8,NTM,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,FBXO45,VCL,LAMB1,MYO9A,KCNQ1,WNT3,SUFU,TG,NLGN3,PAFAH1B1,CNTRF,NMUR2,RASAL1,TRPC5,TLL7,GLI2,NEO1,RUFY3,DAB2,USH2A,SETD5,WNK1,RELN,SIN3A,RSP02,KCNQ2,IQGAP1,ZNF423,LUZP1,MACF1,MYO7A,ALK,GSTM3,MBOAT1,GPM6B,OVOL2,PRKG1,RGS7,ATP2B4,PACSIN1,ACTL6B,PAK3,DYX1C1,ADNP,GPR161,MAP1B,MARK1,CDK6,CELF1,EPHA5,MEF2A,DHX30,GFRA1,EYA1,BRINP1,TRPV1,HOXB3,MNAT1,FLRT2,ACTR2,MARK4,LG14,HDAC1,ROCK1,EGR2,RNF10,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,SARM1,SNTG2,PARD3,TRIM46,SH3GL3,JAG2,CARM1,ARHGAP44,SRD5A2,SMARCA2,CUX1,EPHA7,FOXP2,CTNNA1,SHROOM3,MAP3K13,SDK1,ERC3,PTK7,SNCA,BMPRI1B,MAGI2,ZEB2,HEY2,HDYD,RNF103,WNT7B,HMGCS2,PTPRS,RBM45,HIPK1,RTN4RL1,CBFA2T2,DPYSL3,MAPK1,PTEN,CLDN11,MIB1,BMP7,SCN8A,SOX5,LHFPL5,LRRK2,UNC119,RAPH1,BAG6,TMEM108,ITGAM,PKD2,EFNA5,SHANK3,STMN4,PDGFC,TBCD,WNT7A,MAP4,BMP6,MYCBP2,SOS1,TSHR,EXT1,ATRX,SERINC5,RAPGEF2,KCNC2,SMO,SUN1,BLOC1S3,MARK4,TCF4,SHD1,GRIN1,RHOA,SYNGAP1,GRIN3A,NDE1,ROR1,ONECUT2,EPM2A,GABRB3,GSK3B,EMB,SYN1,EEF2K,CCDC14,BOK,SULF1,MTHFD1L,AGT,HDGFRP3,BLOC1S6,BRINP3,NDRG2,PTK2,SNX3,RIMS2,PBX1,GAP43,DLX1,TAOK2,PYGO2,NDUFS2,ECE1,GPR173,ANKS1A,CPLX2,MDGA2,SLC5A3,RPS6KA5,PEX7,TBC1D23,RGS14,STK4,TUBB3,EPHB2,SLC1A1,WLS,SIGMAR1,MFSD8,DLC1,CRX,PAX6,PRKCZ,ADORA2A,GRIN2B,PPP1CC,KLHL1,NIPBL,PCDH10,SHROOM4,IGF2BP3,VWC2,MAP2,TAGLN3,FBXO31,CDK5RAP1,CNTN1,PRKCQ,LGI2,BRAF,HDAC2,IMPACT,POU3F3,NOTO,SPINT2,TNR,CDKL3,ACAN,ATXN1,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,CIT,BRCA2,DVL2,GRIP1,TAF1,GPRIN3,GPM6A,POTEE,CADM1,DHFR,EZH1,ASAP1,MYEF2,INPP5F,AXL,MET,UCHL5,TRA2B,KDM2B,SEMA3C,NEDD4L,SH3GL2,TYRO3,SYNDIG1,NCAM1,CREB1,EDNR4,GNGT1,BMP4,CPNE1</p>
GO:0032989	cellular component morphogenesis	3.831472861119627e-31	<p>NRXN1,PRMT3,MAP4K4,LLPH,CLASP2,SEMA3A,SEMA3D,PHACTRI,MYOT,TIAM2,FHOD3,UNC5C,KALRN,SEMA5A,ENPP2,LRP2,ANK2,OLFM1,NRXN3,ROBO1,CDKL5,KIF5C,ROBO2,NFASC,ABI1,ITGB1,HSP90AA1,GAS7,KNDC1,DSCAM,TRIO,AKAP13,DAB1,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,PTPRO,NTRK2,RIMS1,TNIK,SNX2,KIRREL3,RERE,PRKAR1A,UNC5D,LAMA3,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,TENM4,DMD,TANC2,FYN,LMTK2,RTN4,B4GALT6,RTN4R,CCDC141,TTN,ADAMTSL1,NTN1,MAP2K1,VAX2,CNTN4,NTNG1,UST,CAPRN2,NCKAPI,BOC,ZDHHHC15,MYPN,SYT1,LZTS1,BCL11B,CYFIP2,FIG4,SLAH1,IL1RAPL1,CAMK2B,SEMA5B,SGK1,KEL,SLIT3,SLIT2,CORO1C,CTNND2,DISC1,ANK1,LAMC2,ITSN2,DCLK1,YTHDF1,CNTNAP2,ENAH,CAPN3,EPHA4,AUTS2,PPP3CA,MAG,CTNNB1,PARK2,IGF1R,XK,DRAXIN,NIN,CPNE6,PHLDB1,DCC,OBSCN,PAX2,SPG11,CNTN6,NFIB,DNM3,CUX2,PTPRM,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,PRTG,APP,PDGFRA,DIP2B,FSTL4,ISLR2,SPTBN4,CPNE9,PARP6,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,LRR</p>

			C4C,SEMA4D,PLXNA2,DVL3,EPHB3,FBXO45,VCL,MYO9A,RFK2,WNT3,NLGN3,P FAFH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,IQGAP1,MACF1,CLAS P1,PACSIN1,PAK3,ADNP,MAP1B,EPHA5,MEF2A,FLRT2,ACTR2,ELAVL4,ROCK1,E GR2,NTRK1,MAP1A,ANK3,UNC13A,EPHB1,EPHA10,SARM1,PARD3,TRIM46,ARH GAP44,CUX1,EPHA7,MAP3K13,PTK7,BMPR1B,PNPT1,WNT7B,PTPRS,CSRPI,PT N,BMP7,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,WNT7A,MYCBP2,SOS1,EXT1,R APGEF2,SMO,SYT17,SOX30,RHOA,SYNGAP1,GSK3B,EMB,EEF2K,KRT8,PTK2,RI MS2,GAP43,TAOK2,ECE1,PGM5,CD44,PACSIN2,RPS6KA5,TUBB3,EPHB2,PAX6,P RKCC,ADORA2A,PHLDB2,MAP2,NEBL,FBXO31,PRKCQ,BRAF,IMPACT,TNR,CDK L3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,NEB,GRIP1,GPM6A,SNX1,CCDC 136,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNRA,CPNE1
GO:00 30182	neuron differentiation	5.67618349 0736121e- 31	CLRN1,NRXN1,PRMT3,RDH13,PRKCI,MAP4K4,LLPH,NEGR1,PBX3,CLASP2,SEM A3A,GRID2,PRDM12,TENM3,SEMA3D,PHACTRI,MYOT,NREP,TIAM2,NLGN4X,U NC5C,ZSWIM6,KALRN,NTRK3,SEMA5A,TOX,ATP2B2,LRP2,ZNF536,OLFM1,NRXN 3,ROBO1,CDKL5,TENM1,KIF5C,ESRP1,ROBO2,NFASC,ABII,ULK4,ITGB1,TRIOBP ,HSP90AA1,GAS7,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,RUNX1,DAB1,THRB,LAM A2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,ERBB4,LIMK1,SLIT2,TP73,GABRB4,CEC R2,GRM7,PTPRO,CDON,NTRK2,EP300,TENM2,RNF220,RIMS1, TNIK,KIRREL3,RE RE,ATP8B1,UNC5D,LAMA3,CDH4,PAK1,PTPRD,SLC4A10,TBR1,STRC,BDNF,AMI GO1,TGIF2,MEIS1,TENM4,ECT2,DENND5A,DMD,SATB2,RIT2,TANC2,FYN,PCDH 15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMT SL1,NTN1,NRG1,FRY,MAP2K1,VAX2,CNTN4,NTNG1,TMEM30A,ROR2,UST,CAPRI N2,NCKAP1,BOC,ARL3,NEUROD1,ZDHHC15,JAK2,MYPN,TRAPPC9,SYT1,LZTS1, BCL11B,TMC1,PLS1,CYFIP2,WNT11,FIG4,KREMEN1,SHAH1,IL1RAPL1,CAMK2B,R UNX2,SEMA5B,SGK1,ZHX2,KEL,RPGRIPL,SLIT3,SDK1,SLIT2,TP73,GABRB4,CEC H23,CTNND2,DISC1,KANK1,LAMC2,CLMN,MYT1L,OPCML,ITSN2,TCF12,DCLK1, YTHDF1,CNTNAP2,ENAH,EPHA4,RORA,AUTS2,CNR1,PPP3CA,MAG,CTNNB1,PA RK2,SOD2,IGF1R,NGRN,DLG5,XK,DRAXIN,NIN,CPNE6,DCC,PAX2,SPG11,SFRP1, FOXO3,CNTN6,NFIB,DNM3,CUX2,PTPRM,CASZ1,AB12,SHANK1,SYT3,NEDD4,NR P2,BTBD3,CRTAC1,HOXD3,PRTG,APP,GSX2,DIP2B,FSTL4,NLGN2,PTPRG,ISLR2, SOX2,SPTBN4,VASH2,ZNF521,DRD1,MMP2,CPNE9,PRKD1,PARP6,DGKG,DSCAM L1,SEMA6D,TCF3,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,NLGN1,CTNNA2,SPA G9,RAB11A,CRMP1,LRRC4C,AGBL4,SEMA4D,PLXNA2,NCOA1,SPOCK1,BLOC1S5 ,NTM,DVL3,EIF4G1,EPHB3,FBXO45,VCL,LAMB1,MYO9A,KCNQ1,WNT3,SUFU,NL GN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,USH2A,WNK1,RELN,SI N3A,RSPO2,IQGAP1,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACSIN1,ACT L6B,PAK3,ADNP,MAP1B,MARK1,EPHA5,MEF2A,EYA1,BRINP1,FLRT2,ACTR2,ELA VL4,LG14,HDAC1,ROCK1,EGR2,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ, EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,SH3GL3,JAG2,CARM1,ARHGAP44 ,CUX1,EPHA7,CTNNA1,MAP3K13,SDK1,ERCC3,PTK7,BMPR1B,MAG12,HEY2,WNT 7B,PTPRS,HIPK1,RTN4RL1,CBFA2T2,DPYSL3,PTEN,MIB1,BMP7,LHFPL5,LRRK2 ,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,TBCD,WNT7A,MAP4,BMP6,MYCBP2,S OS1,TSHR,EXT1,RAPGEF2,SMO,BLOC1S3,TCF4,SYT17,RHOA,SYNGAP1,GRIN3A, ROR1,ONECUT2,GSK3B,EMB,SYN1,EEF2K,AGT,HDGFRP3,BLOC1S6,BRINP3,PT K2,SNX3,RIMS2,PBX1,GAP43,DLX1,TAOK2,ECE1,ANKS1A,MDGA2,RPS6KA5,TBC 1D23,TUBB3,EPHB2,MFSD8,PAX6,PRKCZ,ADORA2A,PPP1CC,KLHL1,VWC2,MAP 2,FBXO31,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,NOTO,TNR,CDKL3, CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,DVL2,GRIP1,GPM6A,D HFR,ASAP1,MYEF2,INPP5F,MET,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDN RA,GNGT1,BMP4,CPNE1
GO:00 48522	positive regulation of cellular process	1.10530777 74697584e- 30	CD247,POLDIP3,CLRN1,PRDX2,LDB2,GPC5,NRXN1,ASPH,GP6,PRKCI,SLCO3A1, MAP4K4,PDCL,DNMT1,S1PR2,HLX,SLC9A1,C6ORF89,NEGR1,PBX3,ADCY8,CBFB ,PDE8A,PDE4DIP,CLASP2,SEMA3A,IL31RA,GRID2,TAS1R2,RPS6KA2,PRDM12,PT GFR,TENM3,CHERP,MED26,DOCK1,WWC1,C12ORF49,CTDSPL2,NRG3,ASH1L,N OSIAP,LATS2,NOX5,EPB41,SEMA3D,SCAF8,TIAM2,STOX2,MAPRE2,PTGIS,PRKA G2,TJP1,UNC5C,HPSE2,PRLR,PAGR1,HIVEP3,FTO,NPAS3,UTRN,KALRN,NTRK3, CBL,ARNT,SEMA5A,FLT3,RAD51B,STAT5B,TOX,ENPP2,GRM5,PLCE1,FER,CASK, MAP2K5,KITLG,LRP2,PIK3CD,SP3,HDGF,ANK2,SAAL1,OLFM1,SH2D1A,EZR,ME GF10,ROBO1,TOM1L1,CHD7,SLC26A6,HTR2B,CDKL5,MECOM,TACCI,TENM1,L MNA,TRAF6,ROBO2,ITPKB,DNAJA3,SLC24A2,VAV2,GRK5,AB11,NHLH1,ITGB1,TR IOBP,HSP90AA1,CDC6,PSMB7,KNDC1,ZC4H2,KIF26B,CCDC22,DSCAM,AKAP13, GFI1B,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,HMGN3,NRIP1,DGKI,THR B,STXBP4,EFCAB7,LAMA2,TCIRG1,PTPN11,MGAT5,CCT2,CACNB2,CYTH3,HDAC 6,GOLGA4,SELTAD2,DDBI,ADORA1,ADAMTS3,EPHA1,IKBK,ERBB4,ADRA1D,M RE11A,LIMK1,ZNF609,BRD8,ATP8A2,KAT6B,CUL4B,ESR1,MIER1,MAML3,DPP10, CDON,NTRK2,TNRC6A,FRMD4A,STX18,EP300,CELA1,ZYG11B,TENM2,ZNF76,RN F220,FNTA,PDGFB,RIMS1,TNFK,CCND3,MID1,BRMS1,CHFR,STK39,HNF4G,INSR, FMN2,RERE,H2AFY2,TCF7L2,PIP4K2A,CDH4,CAB39,USP34,PAK1,LITAF,FBXW1 1,ESRRB,MYOM1,MAP3K4,ZDHHC13,PTPRD,RNF144A,EGLN3,RBM20,TBR1,SAM D4A,BDNF,TFAP2A,AMIGO1,KCNMA1,PEG3,TGIF2,MEIS1,TENM4,TRIM13,LCK,I L5RA,ENTPD5,SHC4,ECT2,ZNF148,MTA3,TFDP2,VAMP7,LAMC1,PTPRU,ERN2,D MD,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,MED 12L,SATB2,PAFAH1B2,RIT2,JPH2,DEPDC1B,CASS4,FYN,MKRN2,ARNTL,ADAMTS

			<p> 9,NF1,PLCB1,MGMT,LMTK2,ARID4B,RTN4,RTN4R,RWDD3,BRPF1,CHI3L1,TTN,N DRG4,BMP2K,PIK3R2,NTN1,EGFLAM,DCTN1,NRG1,SH2D3C,CDK19,UBP1,BDKR B1,DOCK8,BID,MAP2K1,FNIP1,STIM1,MYH9,FRMPD4,MAD1L1,VGLL4,PPP3R1, HDAC5,CSRNP3,RBM5,NFIA,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,ROR2,DC N,ZDHHHC3,SLC39A14,PCBD2,HNRNPPLL,CDH13,CREBRF,SOX13,COP5,CSPPI,I PO5,MAD2L2,RAB27A,CAPRIN2,CCNYL1,NCKAP1,CD99,PDF,TERF2,SLX1B,GOL PH3L,RCC2,BOC,ANO6,ARL3,NEUROD1,RANBP1,CCBE1,USP22,ZDHHHC15,JAK2, YTHDC2,FAM168A,FBXW7,OAZ2,SKAP1,CLSTN2,UIMC1,SYT1,ITCH,MLIP,CROC C,NPSR1,BCL11B,PKNOX1,CLDN1,MLLT3,PLS1,SEPT7,KLF15,LAMTOR3,MAGI1, CYFIP2,WNT11,APBB1IP,FIG4,MTA1,NOX4,RPRD1B,CACNA1H,SIAH1,IL1RAPL1, CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PP MIE,TGFB1,BANP,SPSB4,NUP93,TRIM65,NSD1,PIBF1,BTRC,NFATC3,CRADD,F2 RL1,BCAS3,C9ORF47,DNAJB2,AAK1,SLIT2,COLGALT1,TP73,CADPS2,HP,HPR,CO RO1C,SAP18,RRAS2,ILF2,DISC1,BLID,CEP135,KANK1,ZFAND2A,LAMC2,CLN6,M TDH,FANK1,CHRM1,SMAD6,ZNF398,CLOCK,ITSN2,TCF12,ETV6,NELL1,SUCO,T FAP2D,BMPER,BCL3,ANKRD54,DAPK2,TNFRSF10B,DUSP22,NAIP,DOCK3,SBNO 2,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,SMYD3,STXBPS,IQCJ- SCHIP1,SH3RF3,LOXL3,FANCI,SVIL,GLP2R,CAPN3,LUM,VMP1,SMURF2,EPHA4, RORA,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NFYB,MAGEA4,M AG,KLF12,CAMK4,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF 1R,PPARG,NGRN,AXIN1,DLG5,IL18R1,IL1RL1,MTF1,MSR1,P2RY10,ANKRD17,AP OL3,SCAMP5,ANXA13,ECM2,SREBF2,RYR2,LEPR,LEPROT,FGF1,NIN,NPAT,NR4A 3,FOXK2,DCT,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,CPNE6,CHEK2,SUP T3H,PHLDB1,PRDM16,SPDYA,HCK,SORBS1,RAB3GAP2,CAPN2,TRIM8,CSPG4,G RM1,ANKFY1,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,PTBN1,TRABD2B,SFRP1, MED13,ST8SIA1,ZNF395,FOXO3,CNTN6,NFIB,BCL2L13,DNM3,SMAD3,RNFT2,CU X2,WWP2,ARNT2,WIP1,EBF3,MTBP,RNF168,CASZ1,ABI2,GRIK5,SHANK1,SYT3,I FNAR1,DCP1B,NEDD4,NRP2,PREX1,DOCK4,ESRRG,HOXD3,HOXD4,NAV3,SLC4 A4,TAB1,NFATC1,CDC73,APP,SSBP3,GSX2,PDGFRA,DIP2B,NOX1,ARIH1,YAP1,S ESN1,NLGN2,TNFRSF19,VDAC1,EYA2,SH3D19,BORA,NVL,JAK1,LRP5,MTCP1,ISL R2,SLC9B2,SOX2,ZDHHHC6,TEAD1,PRICKLE1,VASH2,ZNF521,DRD1,ARID3A,CHU K,FRS2,MMP2,TPH1,ESR2,SYNE2,S100A12,DCUNID3,CPNE9,PRKD1,STAT1,PAR P6,ST18,ETV5,PLAGL1,HNF4A,ZBTB7C,TASPI,SHANK2,VPS4A,EREG,CCNY,TCT N3,FXDY2,SEMA6D,ATF2,POU2F2,TCF3,GRAMD4,RAFI,CELF4,RASGRF2,ACOX 2,CARD16,CASP1,PTPN1,BMPR2,CAMK1D,BMPR1A,NLGN1,BTBD10,COL16A1,IK ZF4,PIK3R3,CDK12,CAND2,SPAG9,MORC2,RAB11A,EVC,WP2NL,ERCC1,ZNF71,BAC H1,PPM1F,NEDD9,AGBL4,SEMA4D,CDC27,DOK6,RORC,ELP3,PLXNA2,PTAFR,A DCYAP1R1,ABCA13,JARID2,DDX58,DKK2,BRDT,RARB,SPEN,PRKCG,VIPR1,NCO A1,BLOC1S5,EEF1E1,EEF1E1- BLOC1S5,GAS8,LMO7,AP2M1,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,RBX1,TCF20,A NAPC5,ATF3,LIN28B,SHOC2,SRSF5,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,C CDC3,LAMB1,TERF2IP,WDR59,KCNQ1,RFK2,WNT3,RHOJ,P4HB,CCL14,CCL15,N LGN3,SCUBE2,PAFAH1B1,KIF3A,PRDM15,CNTFR,COL4A3,DDAH1,HIP1,AKAP6, RASAL1,NR2C1,TRPC5,UBA2,GLI2,NEO1,TNKS,SCUBE1,WBP2NL,ERCC1,RUFY3, TNRC6B,GLIS3,DAB2,BLM,PKHD1,CACUL1,MYSM1,DZIP1,DLG3,WNK1,RELN,N EK10,SIN3A,RUVBL2,ABCB1,RSP02,GUCY1A2,DOCK11,GMEB1,PELI1,IQGAP1, MAP3K7,ZNF423,SP1,TRIM22,MACF1,ALK,SLC8A2,INPP5D,STAU1,CLASPI,TEAD 4,HOXC13,APBB3,SLC35A4,SR1,UBE2V1,TPCN1,ADIRF,XDH,SCD3L,SNX5,NFA TC2,RGS7,BNC1,ATP2B4,NSF,PACSIN1,ACTL6B,ASXL3,PAK3,SSH2,TET1,CAMTA 1,CCPG1,ATAD1,ADNP,ARID4A,MAPIB,SCARB1,CDK6,PHF2,CELF1,P2RY8,TFR C,UVRAG,EPHA5,WWOX,MEF2A,SYT12,DCAF6,DCUNID5,GFRAL,GPC3,SGIP1,S TOM,ADRBK1,TBC1D5,PSMB2,EYA1,SCOC,BRINP1,DIS3L2,TRPV1,TPAN6,HOX B3,HOXB4,HOXB5,TFEB,CLEC16A,GHR,MNAT1,FLRT2,SNX9,ACTR2,ELAVL4,HD AC1,SMOC2,TRIM24,PLCG2,ROCK1,EPS8,NID1,C1QTNF1,PAXIP1,EGR2,RNF10,R YBP,CAPN10,GPR35,AP3B1,PTPN2,INSRR,NTRK1,KPNA6,TRIM44,ZFAND1,MAP1 A,PKN2,SLC39A10,ANK3,UNC13A,EPHB1,EPHA10,PTPN9,AXIN2,SARM1,EPCAM, PARD3,GNL3L,MUC1,TRIM46,SH3GL3,JAG2,CACNG8,AP3D1,CARM1,VWF,AP2B 1,NETO1,ADAM19,SNX33,PIFO,ZNF836,SMARCA2,ARHGEF3,CUX1,RAD51C,SP11 ,DNMT3B,EPHA7,CHRN4,MCU,CTNNA1,AIFM2,FBXW4,GLIS1,TRDN,ATG14,LY8 6,STAC,BCAR3,TRPC6,ABCB7,RBPMS,CHURC1,CREB5,FCHSD2,MAP3K13,RAB15 ,RAPGEF3,PDXP,MST1,ERCC3,PTK7,SMYD1,SNCA,BMPR1B,CACNG2,CD53,GRM 4,MAGI2,PRIM2,PNPT1,USP50,ZEB2,DHRS4,FOXJ3,SYT9,HEY2,RC3H1,EIF3E,RN F19B,WNT7B,KMT2D,PRKAG1,CREM,KMT2C,DFFA,ADTRP,ABCA12,PLD1,MACC 1,MITF,SRSF6,OPRD1,HIPK1,RPTOR,NFIX,BTK,XPO4,KCTD13,SLC4A8,CBFA2T2, IGF1,MLXIP,PLA2G4E,ATF7IP,CTNBNL1,HTT,DPYSL3,MAPK1,PTEN,MIB1,SPRE D2,BMP7,PUM1,SOX5,PCBP2,ZNF780B,LRRK2,MLYCD,OSGIN1,TMEM59,ZRANB 1,SPAG5,UNC119,ZBTB20,RFC3,BAG6,LILRB4,TMEM108,ITGAM,IL11RA,PKD2,E FNA5,SHANK3,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2R3C,WNT7A,ZBED6,NL RP1,UACA,LPGAT1,CRTC3,ARNTL2,ELOVL5,KAT6A,SIK3,ZNF197,BMP6,TAF15,M YCBP2,ANO1,GPI,SH3RF2,SOS1,TSHR,WDR43,PDCD1LG2,ATRX,PRMT2,RAPGEF 2,KCNC2,SMO,VRK3,BLOC1S3,MARK4,CPT1A,TCF4,SYT17,SOX30,TFE3,UBR5,GR IN1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,SH3KBP1,T FEC,HSPD1,NFKBID,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,ACTA2,EEF2K,F </p>
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			<p>AM49B,NECAB2,CDK13,CD27,DUSP26,BOK,RNF144B,SULF1,NACC2,SUPT4H1,TNFRSF8,AGT,METTL16,PRKAA2,SYT7,BLOC1S6,FBN2,BRINP3,PTK2,TPPP2,SNX3,RIMS2,PBX1,TEC,EXOSC3,CDC14A,MAP3K5,SEC16B,CREBBP,DLX1,NCF1,TAOK2,SHC1,CD160,ECE1,LBX2,RNFT1,RPS6KB1,SCEL,SETDB2,ALOX5,SP7,CD44,LARP4,ADAM8,SLC5A3,CLDN4,RPS6KA5,ZNF484,BCL2L14,CDS1,CSNK1A1,PRDM2,CXCL17,NOS1,PLVAP,RGS14,ACTN4,MC1R,STK4,EPHB2,SLC1A1,WLS,EDRF1,IL18,LRRC52,UBE2K,GPSM2,HCAR2,DIS3,DLX1,PPARA,PPP1R10,ARID5B,CALCRL,EPB41L4B,SLC25A33,GPSM3,MOB3B,NOTCH4,SYTL4,CRX,PAX6,PRKCZ,ZC3HAV1,FAM20C,ADORA2A,GRIN2B,PPP1CC,CPEB1,PHLDB2,NIPBL,TMIGD2,YEATS4,ZNF143,ANGPT1,BRF1,CADPS,TBL1X,EYA3,LRRK1,OSBPL8,ATF6,EPB41L2,GCNT2,ETS1,PPP1CA,VWC2,MAP2,MTF2,CCL22,STPG1,FBXO31,CDK5RAP1,CNTN1,PRKCQ,BRAF,CSRNP1,DIAPH1,HDAC2,HTR2C,IMPACT,ATP8A1,PHKG2,SRCAP,POU3F3,TNR,UBE2E2,CD300A,ELF2,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,MAOA,PRDL23,SH3BP4,RFC5,SP100,OPN1LW,ANXA2,PARN,RAB27B,ADCY1,MADD,NUMB,SYK,CNOT1,WWTR1,GRIK2,FRMD5,CIT,MYRIP,ZBTB38,BRCA2,HRK,ATF7,CACNG3,DVL2,YBX1,GRIPI,PTPRJ,TAF1,TICAM1,TANK,THAP3,GPM6A,CADM1,HSF1,MAX,EZH1,NRF1,SRPK2,PLEKHM1,SASH1,ASAP1,NCOA2,GBP5,GRID2,TASIR2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CHERP,MED26,DOCK1,WWC1,C12ORF49,CTD SPL2,NRG3,ASH1L,NOS1AP,LATS2,NOX5,EPB41,SEMA3D,PTH2R,SCAF8,TIAM2,STOX2,KSR2,MAPRE2,PTGIS,PRKAG2,TJP1,UNC5C,HPSE2,PRLR,PAGR1,HIVEP3,FTO,NPAS3,UTRN,KALRN,NTRK3,CBL,ARNT,EGLN2,SEMA5A,FLT3,RAD51B,SUSD4,STAT5B,TOX,ENPP2,GRM5,PLCE1,FER,CASK,MAP2K5,KITLG,LRP2,PIK3CD,SLP3,HDGF,ANK2,SAAL1,OLFM1,SH2D1A,EZR,MEGF10,ROBO1,TOM1L1,CHD7,SLC26A6,HTR2B,CDKL5,MECOM,TACC1,TENM1,LMNA,TRAF6,ROBO2,ITPKB,DNAJA3,SLC24A2,VAV2,GRK5,ABI1,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,CDC6,PSMB7,KNDCC1,ZC4H2,KIF26B,CCDC22,DSCAM,CNGB1,AKAP13,GFII1B,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,HMGN3,NRIP1,DGKI,THRB,STXBP4,EFCAB7,LAMA2,TCIRG1,PTPN11,RBM19,MGAT5,CCT2,CACNB2,CYTH3,HDAC6,GOLGA4,SERTAD2,DDBI,ADORA1,ADAMTS3,EPHA1,IKBKKB,ERBB4,ADRA1D,MRE11A,LIMK1,ZNF609,BRD8,ATP8A2,KAT6B,ACTG2,CUL4B,KLHL6,ESR1,MIER1,MAML3,DPP10,CDON,NTRK2,TNRC6A,FRMD4A,STX18,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,FNTA,PDGFB,RIMS1,TNFK,CCND3,TOB2,MID1,BRMS1,CHFR,ALOX5AP,STK39,HNF4G,INSR,FMN2,RERE,ASB5,FUBP1,H2AFY2,TCF7L2,PIP4K2A,CDH4,CAB39,USP34,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,ZDHHC13,PTPRD,RNF144A,BASP1,EGLN3,RBM20,TBR1,SAMD4A,BDNF,TFAP2A,AMIGO1,KCNMA1,PEG3,CHRM3,TGIF2,MEIS1,TENM4,LHFPL2,TRIM13,LCK,IL5RA,ENTPD5,SHC4,ECT2,ZNF148,MTA3,TFDP2,VAMP7,LAMC1,PTPRU,RFTN1,ERN2,DMD,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,MED12L,SATB2,PAFAH1B2,RIT2,JPH2,DEPDC1B,CASS4,FYN,MKRN2,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,LMTK2,ARID4B,RTN4,RTN4R,BCR,RWDD3,BRPF1,CHI3L1,TTN,NDRG4,BMP2K,PIK3R2,RANBP9,NTN1,EGFLAM,DCTN1,NRG1,SH2D3C,CDK19,UBP1,BDKRB1,DOCK8,BID,MAP2K1,FNIP1,STIM1,MYH9,FRMPD4,MAD1L1,VGLL4,PPP3R1,HDAC5,CSRNP3,RBM5,NF1A,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,RODR2,DCN,ZDHHC3,SLC39A14,PCBD2,HNRNPLL,DOCK2,CDH13,CREBRF,SOX13,COPS5,CSPP1,IPO5,MAD2L2,TLE6,RAB27A,CAPRIN2,CCNYL1,NCKAP1,CD99,PDF,TERF2,SLX1B,GOLPH3L,RCC2,BOC,ANO6,ARL3,NEUROD1,RANBP1,CCBE1,USP22,ZDHHC15,JAK2,YTHDC2,FAM168A,FBXW7,OAZ2,SKAP1,CLSTN2,UIMC1,SYTI1,ITCH,MLIP,CROCC,NPSR1,BCL11B,PKNOX1,CLDN1,MLLT3,PLS1,PDE2A,SEPT7,KLF15,LAMTOR3,MAGI1,CYFIP2,WNT11,APBB1IP,FIG4,MTA1,NOX4,RPRD1B,CACNA1H,SHAH1,QKI,ILIRAPL1,CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,BANP,SGK1,SPSB4,NUP93,TRIM65,NSD1,PIBF1,BTRC,NFATC3,CRADD,F2RL1,BCAS3,C9ORF47,DNAJB2,AAK1,SLIT2,COLGALT1,TP73,CADPS2,HP,HPR,CORO1C,SAP18,RRAS2,C12ORF4,ILF2,DISC1,BLID,CEP135,KANK1,CACNA1D,ZFAND2A,LAMC2,CLN6,MTDH,FANK1,CHRM1,SMA D6,ZNF398,CLOCK,ITSN2,TCF12,ETV6,NELL1,SUCO,TFAP2D,BMPER,BCL3,ANKRD54,DAPK2,TNFRSF10B,ADAM12,DUSP22,NAIP,HNRNPC,DOCK3,SBNO2,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,SMYD3,STXBP5,IQCI-SCHIP1,SH3RF3,PLIN3,LOXL3,FANCI,SVIL,GLP2R,CAPN3,LUM,VMP1,SMURF2,EPHA4,RORA,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NFYB,MAGEA4,MAG,KLF12,CAMK4,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF1R,PPARG,NGRN,AXIN1,DLG5,IL18R1,IL1RL1,MTF1,MSR1,P2RY10,ANKRD17,CYBB,APOL3,SCAMP5,ANXA13,ECM2,SREBF2,RYR2,LEPR,LEPROT,FGF1,NIN,NPAT,NR4A3,FOXK2,DCT,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,CPNE6,SCN3B,CHEK2,SUPT3H,PHLDB1,PRDM16,SPDYA,HCK,SORBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,GRM1,ANKFY1,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,</p>
GO:0048518	positive regulation of biological process	1.7406069590670796e-30	<p>CD247,POLDIP3,CLRN1,PRDX2,LDB2,GPC5,NRXN1,ASPH,GP6,PRKCI,SLCO3A1,MAP4K4,PDE4D,PDCL,DNMT1,S1PR2,HLX,LLPH,SLC9A1,C6ORF89,NEGR1,PBX3,ADCY8,CBFB,PDE8A,PDE4DIP,CLASP2,SEMA3A,IL31RA,GRID2,TASIR2,RPS6KA2,PRDM12,SETD4,PTGFR,TENM3,CHERP,MED26,DOCK1,WWC1,C12ORF49,CTD SPL2,NRG3,ASH1L,NOS1AP,LATS2,NOX5,EPB41,SEMA3D,PTH2R,SCAF8,TIAM2,STOX2,KSR2,MAPRE2,PTGIS,PRKAG2,TJP1,UNC5C,HPSE2,PRLR,PAGR1,HIVEP3,FTO,NPAS3,UTRN,KALRN,NTRK3,CBL,ARNT,EGLN2,SEMA5A,FLT3,RAD51B,SUSD4,STAT5B,TOX,ENPP2,GRM5,PLCE1,FER,CASK,MAP2K5,KITLG,LRP2,PIK3CD,SLP3,HDGF,ANK2,SAAL1,OLFM1,SH2D1A,EZR,MEGF10,ROBO1,TOM1L1,CHD7,SLC26A6,HTR2B,CDKL5,MECOM,TACC1,TENM1,LMNA,TRAF6,ROBO2,ITPKB,DNAJA3,SLC24A2,VAV2,GRK5,ABI1,NHLH1,ITGB1,TRIOBP,HSP90AA1,SLC24A3,CDC6,PSMB7,KNDCC1,ZC4H2,KIF26B,CCDC22,DSCAM,CNGB1,AKAP13,GFII1B,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,HMGN3,NRIP1,DGKI,THRB,STXBP4,EFCAB7,LAMA2,TCIRG1,PTPN11,RBM19,MGAT5,CCT2,CACNB2,CYTH3,HDAC6,GOLGA4,SERTAD2,DDBI,ADORA1,ADAMTS3,EPHA1,IKBKKB,ERBB4,ADRA1D,MRE11A,LIMK1,ZNF609,BRD8,ATP8A2,KAT6B,ACTG2,CUL4B,KLHL6,ESR1,MIER1,MAML3,DPP10,CDON,NTRK2,TNRC6A,FRMD4A,STX18,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,FNTA,PDGFB,RIMS1,TNFK,CCND3,TOB2,MID1,BRMS1,CHFR,ALOX5AP,STK39,HNF4G,INSR,FMN2,RERE,ASB5,FUBP1,H2AFY2,TCF7L2,PIP4K2A,CDH4,CAB39,USP34,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,ZDHHC13,PTPRD,RNF144A,BASP1,EGLN3,RBM20,TBR1,SAMD4A,BDNF,TFAP2A,AMIGO1,KCNMA1,PEG3,CHRM3,TGIF2,MEIS1,TENM4,LHFPL2,TRIM13,LCK,IL5RA,ENTPD5,SHC4,ECT2,ZNF148,MTA3,TFDP2,VAMP7,LAMC1,PTPRU,RFTN1,ERN2,DMD,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,MED12L,SATB2,PAFAH1B2,RIT2,JPH2,DEPDC1B,CASS4,FYN,MKRN2,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,LMTK2,ARID4B,RTN4,RTN4R,BCR,RWDD3,BRPF1,CHI3L1,TTN,NDRG4,BMP2K,PIK3R2,RANBP9,NTN1,EGFLAM,DCTN1,NRG1,SH2D3C,CDK19,UBP1,BDKRB1,DOCK8,BID,MAP2K1,FNIP1,STIM1,MYH9,FRMPD4,MAD1L1,VGLL4,PPP3R1,HDAC5,CSRNP3,RBM5,NF1A,RNF4,TMEM30A,CSNK2A3,JDP2,CMKLR1,RODR2,DCN,ZDHHC3,SLC39A14,PCBD2,HNRNPLL,DOCK2,CDH13,CREBRF,SOX13,COPS5,CSPP1,IPO5,MAD2L2,TLE6,RAB27A,CAPRIN2,CCNYL1,NCKAP1,CD99,PDF,TERF2,SLX1B,GOLPH3L,RCC2,BOC,ANO6,ARL3,NEUROD1,RANBP1,CCBE1,USP22,ZDHHC15,JAK2,YTHDC2,FAM168A,FBXW7,OAZ2,SKAP1,CLSTN2,UIMC1,SYTI1,ITCH,MLIP,CROCC,NPSR1,BCL11B,PKNOX1,CLDN1,MLLT3,PLS1,PDE2A,SEPT7,KLF15,LAMTOR3,MAGI1,CYFIP2,WNT11,APBB1IP,FIG4,MTA1,NOX4,RPRD1B,CACNA1H,SHAH1,QKI,ILIRAPL1,CCDC62,CAMK2B,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,BANP,SGK1,SPSB4,NUP93,TRIM65,NSD1,PIBF1,BTRC,NFATC3,CRADD,F2RL1,BCAS3,C9ORF47,DNAJB2,AAK1,SLIT2,COLGALT1,TP73,CADPS2,HP,HPR,CORO1C,SAP18,RRAS2,C12ORF4,ILF2,DISC1,BLID,CEP135,KANK1,CACNA1D,ZFAND2A,LAMC2,CLN6,MTDH,FANK1,CHRM1,SMA D6,ZNF398,CLOCK,ITSN2,TCF12,ETV6,NELL1,SUCO,TFAP2D,BMPER,BCL3,ANKRD54,DAPK2,TNFRSF10B,ADAM12,DUSP22,NAIP,HNRNPC,DOCK3,SBNO2,LINGO2,YTHDF1,FGF10,CNTNAP2,CIZ1,SMYD3,STXBP5,IQCI-SCHIP1,SH3RF3,PLIN3,LOXL3,FANCI,SVIL,GLP2R,CAPN3,LUM,VMP1,SMURF2,EPHA4,RORA,HSD17B12,PRKCA,AUTS2,CNR1,CD6,TNFSF11,PPP3CA,NFYB,MAGEA4,MAG,KLF12,CAMK4,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF1R,PPARG,NGRN,AXIN1,DLG5,IL18R1,IL1RL1,MTF1,MSR1,P2RY10,ANKRD17,CYBB,APOL3,SCAMP5,ANXA13,ECM2,SREBF2,RYR2,LEPR,LEPROT,FGF1,NIN,NPAT,NR4A3,FOXK2,DCT,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,CPNE6,SCN3B,CHEK2,SUPT3H,PHLDB1,PRDM16,SPDYA,HCK,SORBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,GRM1,ANKFY1,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,</p>

			<p> SPTBN1,TRABD2B,SFRP1,MED13,ST8SLA1,ZNF395,FOXO3,CNTN6,NFIB,BCL2L13, DNM3,SYNCRIP,SMAD3,RNFT2,CUX2,WWP2,ARNT2,WIP1,EBF3,MTBP,RNF168, CIS,CASZ1,ABI2,GRIK5,SHANK1,SYT3,IFNAR1,DCP1B,NEDD4,NRP2,PREX1,DOC K4,ESRRG,HOXD3,HOXD4,NAV3,SLC4A4,TAB1,SLC6A1,NFATC1,CDC73,APP,SSB P3,GSX2,PDGFRA,DIP2B,NOX1,ARIH1,YAP1,HEG1,SESNI,NLGN2,TNFRSF19,VD AC1,EYA2,SH3D19,BORA,NVL,ALPL,JAK1,ANGPTL4,PEMT,LRP5,MTCP1,POLR3 G,ISLR2,SLC9B2,SOX2,SETD2,ZDHHC6,TEAD1,PRICKLE1,SPTBN4,VASH2,ZNF52 1,DRD1,ARID3A,CHUK,FRS2,MMP2,TPH1,ESR2,SYNE2,S100A12,DCUN1D3,CPNE 9,KDM6A,PRKD1,STAT1,PARP6,ST18,ETV5,RHOXF2B,SLC6A3,PLAGL1,HNF4A,Z BTB7C,TASP1,SHANK2,STRA6,VPS4A,EREG,CCNY,TCTN3,FXDY2,SEMA6D,ATF2, POU2F2,TCF3,GRAMD4,RAF1,CELF4,RASGRF2,ACOX2,CARD16,CASP1,PTPN1,B MPR2,CAMK1D,BMPRI1A,NLGN1,BTBD10,COL16A1,IKZF4,PIK3R3,CDK12,CAND 2,SPAG9,MORC2,RAB11A,EVC,MYB,FGF2,ZNF71,BACH1,PPM1F,NEDD9,AGBL4, SEMA4D,CDC27,DOK6,RORC,ELP3,PLXNA2,PTAFR,ADCYAP1R1,RHOXF2,ABCA 13,JARID2,DDX58,DKK2,BRDT,RARB,SPEN,PRKCG,VIPR1,NCOA1,AREL1,BLOC1 S5,EEF1E1,EEF1E1- BLOC1S5,EHMT1,GAS8,LMO7,AP2M1,CHRD,DVL3,EIF2B5,EIF4G1,EPHB3,RBX1, TCF20,ANAPC5,ATF3,LIN28B,SHOC2,SRSF5,CKS1B,PAWR,EBF2,AGO3,MAML2,T SG101,CCDC3,LAMB1,TERF2IP,IDE,WDR59,KCNQ1,RFEX2,WNT3,ZNF322,RHOJ,P 4HB,CCL14,CCL15,NLGN3,SCUBE2,PAFAH1B1,KIF3A,PRDM15,CNTFR,COL4A3, DDAH1,HIP1,AKAP6,RASAL1,NR2C1,TRPC5,UBA2,GLI2,TKNS,SCUBE1,WB P2NL,ERCC1,RUFY3,TNRC6B,GLIS3,C9,DAB2,THEMIS,BLM,PKHD1,CACUL1,MY SM1,DZIP1,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,ABCB1,RSP02,GUCY1A2,D OCK11,GMEB1,PELI1,IQGA1,MAP3K7,ZNF423,SP1,TRIM22,MACF1,ALK,SLC8A 2,INPP5D,STAU1,CLASP1,EEPDP1,TEAD4,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1 ,TPCN1,GPM6B,ADIRF,XDH,OVOL2,SNX5,NFATC2,RGS7,BNC1,ATP2B4,NSF,PAC SIN1,ACTL6B,ASXL3,PAK3,MASP1,SSH2,TET1,CAMTA1,CCPG1,ATAD1,ADNP,MA PKAPK2,ARID4A,MAP1B,SCARB1,MARK1,CDK6,PHF2,CELF1,P2RY8,TFRC,UVRA G,EPHA5,WWOX,MEF2A,SYT12,CR1L,DCAF6,DCUN1D5,DROSHA,GFRAL,GPC3, SGIP1,STOM,ADRBK1,TBC1D5,PSMB2,EYA1,PTGER3,SCOC,BRINP1,DIS3L2,TRP V1,TSPAN6,HOXB3,HOXB4,HOXB5,TFEB,CLEC16A,GHR,MNAT1,FLRT2,SNX9,AC TR2,ELAVL4,HDAC1,C2,CFB,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,NID 1,C1QTNF1,PAXIP1,EGR2,RNF10,RYBP,CAPN10,GPR35,ABCC1,AP3B1,PTPN2,IN SRR,NTRK1,KPNA6,TRIM44,ZFAND1,MAP1A,PKN2,SLC39A10,ANK3,UNC13A,EP HB1,EPHA10,PTPN9,AXIN2,SARM1,EPCAM,PARD3,GNL3L,MUC1,TRIM46,TUB,S H3GL3,JAG2,CACNG8,AP3D1,CARM1,VWF,AP2B1,NETO1,ADAM19,SNX33,PIFO, CD84,COCH,ZNF836,SMARCA2,ARHGEF3,CUX1,RAD51C,SP11,DNMT3B,EPHA7, CHRN4,MCU,CTNNA1,AIFM2,FBXW4,PSPC1,GLIS1,TRDN,ATG14,LY86,STAC,BC AR3,TRPC6,ABCB7,RBPMS,CHURC1,CREB5,FCHSD2,MAP3K13,RAB15,RAPGEF3 ,PDXP,MST1,ERCC3,PTK7,SMYD1,SNCA,BMPRI1B,CACNG2,CD53,GRM4,MAGI2,P RIM2,PNPT1,USP50,ZEB2,DHRS4,FOXJ3,SYT9,HEY2,RC3H1,EIF3E,RNF19B,WNT 7B,KMT2D,PRKAG1,CREM,KMT2C,DFFA,ADTRP,ABCA12,PLD1,MACC1,MITF,SR SF6,OPRD1,HIPK1,PKP2,RPTOR,NFIX,BTK,XPO4,KCTD13,SLC4A8,CBFA2T2,IGF 1,MLXIP,PLA2G4E,ATF7IP,CTNBNB1,HTT,DYSL3,MAPK1,MIB1,SPRED2,B MP7,PUM1,SOX5,PCBP2,ZNF780B,LRRK2,MLYCD,OSGIN1,TMEM59,ZRANB1,SP AG5,UNC119,ZBTB20,RFC3,BAG6,LILRB4,TMEM108,ITGAM,IL11RA,PKD2,EFNA 5,SHANK3,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2R3C,WNT7A,ZBED6,NLRP1, UACA,LPGAT1,CRTC3,ARNTL2,ELOVL5,PLCL2,KAT6A,GPR21,SIK3,ZNF197,BMP 6,TAF15,MYCBP2,ANO1,GPI,SH3RF2,SOS1,TSHR,WDR43,PDCD1LG2,ATRX,PLIN 2,PRMT2,RAPGEF2,KCNC2,SMO,VRK3,ENPP3,BLOC1S3,MARK4,CPT1A,TCF4,SY T17,DECR1,SOX30,TFE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD 1,TF,ONECUT2,CUL3,SH3KBP1,TFEC,HSPD1,NFKBID,EPM2A,GSK3B,PLD2,PR 16,DNAJC3,RDX,STAT6,ACTA2,EEF2K,FAM49B,NECAB2,CDK13,CD27,DUSP26,B OK,RNF144B,SULF1,NACC2,SUPT4H1,TNFRSF8,AGT,METTL16,ELOVL3,PRKAA2 ,SYT7,ADAR,BLOC1S6,FBN2,ZMPSTE24,BRINP3,PTK2,TPP2,LAT2,SNX3,PDE4B, RIMS2,PBX1,TEC,EXOSC3,CDC14A,MAP3K5,SEC16B,CREBBP,DLX1,NCF1,TAOK 2,SHC1,CD160,ECE1,LBX2,RNFT1,RPS6KB1,PRG3,SCEL,SETDB2,ALOX5,SP7,CD4 4,LARP4,ADAM8,SLC5A3,CLDN4,RPS6KA5,ZNF484,BCL2L14,CDS1,CSNK1A1,PR DM2,CXCL17,NOS1,PLEKHA1,PLVAP,RGS14,ACTN4,MC1R,STK4,EPHB2,SLC1A1, WLS,EDRF1,IL18,LRRCS2,UBE2K,GPSM2,HCAR2,DIS3,DLCL1,PPARA,PPP1R10,AR ID5B,CALCRL,EPB41L4B,SLC25A33,GPSM3,MOB3B,NOTCH4,SYTL4,CRX,PAX6,P RKCZ,ZC3H4V1,FAM20C,ADORA2A,GRIN2B,KCTD7,PPP1CC,RABGEF1,CPEB1,P HLDB2,NIPBL,TMIGD2,YEATS4,ZNF143,ANGPT1,BRF1,CADPS,TBL1X,EYA3,LRR K1,OSBPL8,ATF6,EPB41L2,GCNT2,ETS1,PPP1CA,VWC2,CFI,MAP2,MTF2,RBMS3, CCL22,STPG1,BTN3A2,FBXO31,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRN P1,DIAPH1,HDAC2,HTR2C,IMPACT,ATP8A1,PHKG2,SRAP,POU3F3,TNR,UBE2E2 ,CD300A,ELF2,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,MAOA,RPL23,SH3BP4,RFC5, SP100,OPN1LW,ANXA2,PARN,RAB27B,CR2,ADCY1,MADD,NUMB,SYK,CNPT1,W WTR1,GRIK2,FRMD5,CIT,MYRIP,ZBTB38,BRCA2,HRK,ATF7,CACNG3,DVL2,YBX1 ,GRIPI,PTPRJ,TAFA1,TICAM1,TANK,THAP3,GPM6A,CADM1,HSF1,MAX,EZH1,NRF 1,SRPK2,PLEKHM1,SASH1,ASAP1,NCOA2,GBP5,SULT2B1,BMP1,FCHO1,QRICH1, VAV3,ZP3,CHD6,MOB3A,CAV2,GNA12,SH2D3A,AKTIP,INPP5F,AXL,TNFSF9,TRI M37,WIF1,MET,TBC1D10A,CAMK2D,CCR3,SNX1,TIMELESS,UCLH5,ANKRD6,MA </p>
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			<p>LT1,SETD3,TRA2B,EHD2,KDM2B,MLXIPL,SEMA3C,CCT3,NEDD4L,PHB,PTPRC,EDA,GPR89A,CTCF,TYRO3,NR6A1,SPON2,SYNDIG1,TSPAN5,ADCY10,TRAF3IP2,ATF6B,CREB1,RGMB,SGTB,CLNK,EDNR4,PRAP1,BMP4,ABLM3,CPNE1</p>
GO:0022008	neurogenesis	2.195213545909502e-30	<p>CLRN1,NRXN1,PRMT3,RDH13,PRKCI,MAP4K4,LLPH,NEGR1,PBX3,CLASP2,SEMA3A,GRID2,PRDM12,TENM3,NRG3,ASTN2,SEMA3D,PHACTRI,MYOT,NREP,TIAM2,NLGN4X,UNC5C,ZSWIM6,KALRN,NTRK3,SEMA5A,TOX,ATP2B2,GRM5,LRP2,ZNF536,OLFM1,NRXN3,ROBO1,CHD7,CDKL5,TENM1,KIF5C,ESRP1,ROBO2,NFASC,ABI1,ULK4,ITGB1,TRIOBP,HSP90AA1,GAS7,KNDC1,ZC4H2,DSCAM,CNGB1,TRIO,RUNX1,DAB1,ABCC8,THRB,LAMA2,PTPN11,DOCK10,HDAC6,GOLGA4,EPHA1,ERBB4,LIMK1,ZNF609,ATP8A2,CUL4B,CECR2,GRM7,PTPRO,CDON,NTRK2,EP300,TENM2,RNF220,HOOK3,RIMS1,TNIK,KIRREL3,RERE,ATP8B1,UNC5D,LAMA3,CDH4,PAK1,PTPRD,SLC4A10,TBR1,STRC,BDNF,AMIGO1,TGIF2,POMGNT2,MEIS1,TENM4,ECT2,NAV2,DENND5A,DMD,SATB2,RIT2,TANC2,FYN,ARNTL,NF1,PCDH15,LMTK2,FAT3,RTN4,APOD,B4GALT6,RTN4R,CCDC141,NDRG4,PAQR3,ADAMTSL1,NTN1,NRG1,FRY,MAP2K1,VAX2,DAGLA,CNTN4,NTNG1,NAV1,TMEM30A,ROR2,SOX13,UST,CAPRIN2,NCKAP1,BOC,ARL3,NEUROD1,ZDHHHC15,JAK2,MYPN,TRAPPC9,SYT1,LZTS1,BCL11B,TMCI,PLS1,KLF15,CYFIP2,WNT11,FIG4,KREMEN1,ASTN1,SLAH1,IL1RAPL1,CAMK2B,SOX6,RUNX2,SEMA5B,TGFB1,SGK1,ZHX2,KEL,RPGRIPI1L,CELSR1,SLIT3,SDK2,SLIT2,TP73,GABRB1,CDH23,CTNND2,DISC1,KANK1,LAMC2,CLMN,MYT1L,OPCML,CHRM1,ITSN2,TCF12,ETV6,DCLK1,YTHDF1,FGF10,CNTNAP2,ENAH,EPHA4,RORA,AUTS2,CNR1,PPP3CA,MAG,UFL1,TRAK1,CTNNA1,PARK2,SOD2,IGF1R,PPARG,NGRN,DLG5,XK,DRAXIN,LEPR,NIN,DCT,PER2,CPNE6,CSPG4,DCC,NF2,PAX2,SPG11,SFRP1,FOXO3,CNTN6,NFIB,DNM3,CUX2,PTPRM,CASZ1,ABI2,SHANK1,SYT3,NEDD4,NRP2,BTBD3,CRTAC1,HOXD3,NAV3,PRTG,APP,GX2,CEP85L,DIP2B,YAP1,FSTL4,NLGN2,PTPRG,ISLR2,SOX2,SPTBN4,VASH2,ZNF521,DRD1,FRS2,MMP2,SYNE2,CPNE9,PRKD1,PARP6,DGKG,DSCAML1,SEMA6D,TCF3,SRRM4,BMPR2,USP33,DPYSL2,CAMK1D,BMPRI1A,NLGN1,CTNNA2,SPAG9,RAB11A,CRMP1,FGF2,LRRC4C,AGBL4,SEMA4D,ELP3,PLXNA2,RARB,SPEN,NCOA1,SPOCK1,BLOC1S5,NTM,DVL3,EIF2B5,EIF4G1,EPHB3,FBXO45,VCL,LAMB1,MYO9A,KCNQ1,WNT3,SUFU,NLGN3,PAFAH1B1,RASAL1,TRPC5,GLI2,NEO1,RUFY3,DAB2,USH2A,WNK1,RELN,SIN3A,RSPO2,IQGAP1,MACF1,MYO7A,ALK,MBOAT1,GPM6B,PRKG1,PACSIN1,ACTL6B,PAK3,DYX1C1,ADNP,MAP1B,MARCK1,CDK6,EPHA5,MEF2A,EYA1,BRINP1,HOXB3,FLRT2,ACTR2,ELAVL4,LGI4,HDAC1,ROCK1,EGR2,RNF10,NTRK1,MAP1A,PPP1R9A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,SARM1,PARD3,TRIM46,SH3GL3,JAG2,CARM1,ARHGAP44,CUX1,EPHA7,CTNNA1,MAP3K13,SDK1,ERCC3,PTK7,BMPRI6,MAGI2,HEY2,WNT7B,PTPRS,HIPK1,RTN4RL1,CBFA2T2,DPYSL3,MAPK1,PTEN,MIB1,BMP7,SOX5,LHFPL5,LRRK2,RAPH1,TMEM108,EFNA5,SHANK3,STMN4,TBCD,WNT7A,MAP4,BMP6,MYCBP2,SOS1,TSHR,EXT1,RAPGEF2,SMO,SUN1,BLOC1S3,TCF4,SYT17,RHOA,SYNGAP1,GRIN3A,NDE1,ROR1,ONECUT2,EPM2A,GSK3B,EMB,SYN1,EEF2K,BOK,AGT,HDGFRP3,BLOC1S6,BRINP3,PTK2,SNX3,RIMS2,PBX1,GAP43,DLX1,TAOK2,NDUFS2,ECE1,GPR173,ANKS1A,MDGA2,RPS6KA5,PEX7,TBC1D23,RGS14,TUBB3,EPHB2,SLC1A1,MFSD8,PAX6,PRKCZ,ADORA2A,PPP1CC,KLHL1,NIPBL,VWC2,MAP2,FBXO31,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,NOTO,TNR,CDKL3,CAMSAP3,SRGAP2,TMEFF1,ADCY1,NUMB,SLIT1,CIT,DVL2,GRIP1,GPRIN3,GPM6A,DHFR,ASAP1,MYEF2,INPP5F,AXL,MET,SEMA3C,NEDD4L,SH3GL2,NCAM1,CREB1,EDNR4,NGGT1,BMP4,CPNE1</p>
GO:0009966	regulation of signal transduction	1.814793478085714e-29	<p>RIC8B,ENPPI,PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDE4D,PDCL,SIPR2,TMBIM4,SLC9A1,PDE8A,SEMA3A,CHERP,WWC1,C12ORF49,CTDSPL2,FBXL2,ASH1L,NO51AP,LATS2,NREP,TIAM2,MAPRE2,NLGN4X,PTGIS,WWC3,PRLR,MVP,PAGR1,RGS7BP,KALRN,NTRK3,CBL,ARNT,PLEKHG4B,SEMA5A,FLT3,GRM5,PLCE1,SAMHD1,FER,MARVELD3,MAP2K5,KITLG,PTPRR,LRP2,PIK3CD,ZNF536,DEPDC5,SH2D1A,EZR,ROBO1,TNFAIP8L1,HTR2B,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,ROBO2,ITPKB,DNAJA3,VAV2,GRK5,ULK4,ITGB1,HSP90AA1,PSMB7,CNIH2,SRGAP3,MCC,CCDC22,TRIO,ARHGAP24,AKAP13,DAB1,RGS6,DGKI,PDE4A,PTPN11,NETO2,HERC4,MGAT5,CYTH3,HDAC6,ADORA1,GPRASP1,ADAMTS3,IKBKB,ERBB4,ADRA1D,GBF1,ABR,ESR1,NPHP3,MIER1,PMEP1,PTPRO,CDON,NTRK2,EP300,RNF220,RGS22,PDGFB,RIMS1,TNIK,CCND3,MID1,STK39,INSR,AFAP1,TCF7L2,PIP4K2A,USP34,PAK1,LITAF,FBXW11,MAP3K4,ZDHHHC13,PTPRD,BDNF,CDK14,FANCA,NPRL3,PHACTR4,TRIM13,UBR2,ARHGAP6,LCK,ENTPD5,ECT2,SNX6,ARHGAP42,PTPRU,ERN2,NPLOC4,DMD,RIT2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,NF1,PLCB1,RTN4,CHRD1,APOD,RTN4R,BCR,RWDD3,SHISA9,CHI3L1,NDRG4,BMP2K,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,ARHGAP10,BDKRB2,DOCK8,BID,MAP2K1,MDF1,FNIP1,RALGPS2,MAD1L1,TMBIM6,VGLL4,PPP2CB,CMKLRI,ROR2,DCN,ZDHHHC3,SLC39A14,DOCK2,CDH13,CREBRF,SOX13,PTPRT,COPS5,ARHGAP32,MAD2L2,TLE6,RGS8,CAPRIN2,CCNYL1,RALGPS1,NEUROD1,GNAQ,FBXO9,RFFL,CCBE1,DENND1A,JAK2,FBXW7,LINC00473,ITCH,NPSR1,ZFYVE28,MLLT3,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,ARHGAP23,IIFT80,TRIM59,KREMEN1,NOX4,SIPA1L3,SLAH1,PRKCD,TAB2,ACVR2A,RUNX2,CD4,SGK1,NUP93,IGSF1,PIBF1,BTRC,CRADD,DLGAP1,F2RL1,RPGRIPI1,SLIT3,AAK1,SLIT2,TP73,CTNND2,DISC1,KANK1,MTDH,SMAD6,CLOCK,ZNF675,BMPER,BCL3,ANKRD54,DAPK2,TNFRSF10B,DUSP22,NAIP,HOMER2,DOCK3,FGF10,FBXL17,RAS44,RAS44B,ARHGEF28,KCTD10,IQCJ-</p>

			<p>SCHIP1,SH3RF3,LOXL3,CAPN3,SMURF2,EPHA4,RORA,PRKCA,AUTS2,TNFSF11, GNG4,UFL1,CTNBNB1,PARK2,SOD2,FCGR2B,ARHGAP22,IGF1R,PPARG,AXIN1,G ARNL3,DLG5,IL18R1,P2RY10,ANKRD17,APOL3,SREBF2,DRAXIN,LEPROT,FGF1, RGS10,NOL3,MYOCD,TRIM5,AJUBA,GLG1,CHEK2,PRDM16,SORBS1,TBCK,TRIM 8,CSPG4,GRM1,ARHGAP31,OBSCN,NF2,FLT4,SGMS1,BICC1,SPTBN1,TPTE,TRAB D2B,SFRP1,FOXO3,CNTN6,ARHGAP29,IFT122,SMAD3,CUX2,ITPR1,WWP2,SHAN K1,NEDD4,ARHGEF18,PREX1,TAB1,TXNDC12,NFATC1,CDC73,APP,GSX2,PDGF RA,NOX1,YAP1,HEG1,AMFR,SESN1,FSTL4,NLGN2,TNFRSF19,EYA2,SOX2,GPC6,C HST11,PRICKLE1,RCAN1,ZNF653,TMEM14A,CHUK,FRS2,ESR2,S100A12,PRKD1,S TAT1,DGKG,HNF4A,SHANK2,EREG,CCNY,GRAMD4,TMEM237,RAF1,CELF4,RAS GRF2,CARD16,CASP1,PTPN1,ADAMTS12,BMPR2,USP33,BMPRI4,TSPAN12,NLG N1,SPAG9,DENND4A,EVC,PDE11A,FGF2,SEMA4D,DOK6,ADCYAP1R1,DKK2,NC OA1,EEF1E1,EEF1E1-</p> <p>BLOC1S5,GAS8,CHRD,DVL3,PTPRE,RBX1,ARHGAP39,ATF3,SHOC2,PAWR,AGO3, DEPTOR,TSG101,CCDC3,TERF2IP,MYO9A,WDR59,WNT3,P4HB,CCL14,CCL15,SU FU,NLGN3,PTPN13,SCUBE2,PAFAH1B1,PRDM15,FAM13A,HIP1,AKAP6,RASAL1, NR2C1,GLI2,NEO1,TKNS,SCUBE1,MGLL,DAB2,PKHD1,UBR1,LDLRAD4,WNK1,R ELN,NEK10,RUVBL2,RSP02,GUCY1A2,PEL1,IQGAP1,MAP3K7,ZNF423,TRIM22, MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,UBE2V1,XDH,LTBP1,OVOL2,SNX5,RGS 7,ATP2B4,PAK3,CAMTA1,DYX1C1,GPR161,P2RY8,RNF34,TFRC,WWOX,GFRAL,G PC3,ADRBK1,PSMB2,EYA1,TSPAN6,CLEC16A,GHR,FGD1,HDAC1,INVS,SMOC2,T RIM24,PLCG2,ROCK1,EPH3,C1QTNF1,HIPK3,GPR35,PTPN2,NTRK1,TRIM44,SLC 39A10,EIF3A,DNMBP,EPHB1,AXIN2,SARM1,MUC1,TUB,JAG2,CACNG8,CARM1,V WF,NETO1,ARHGAP44,ARHGEF3,SPI1,EPHA7,CTNNA1,LY86,CACAR3,STK38,RBP MS,MAP3K13,OTUD3,SH3BP1,MST1,PTK7,SNCA,BMPRI4,CACNG2,GRM4,MAG12 ,ZEB2,HEY2,RC3H1,WNT7B,PTPRS,ZMYND11,KMT2D,SPPL2A,GNG7,RASA1,HIP K1,RPTOR,ZNRF3,KCTD13,CBFA2T2,IGF1,HTT,MAPK1,PTEN,ARHGEF17,SPRED 2,BMP7,PUM1,RASA2,PRCP,LRRK2,ZRANB1,CNIH3,LILRB4,IFT81,TMEM108,ARH GAP25,PKD2,SHANK3,RGS9,PDGFC,FAM13B,NCOA3,WNT7A,UACA,CRTC3,PLC L2,KAT6A,GPR21,SIK3,BMP6,IL17RD,SH3RF2,SOS1,PRMT2,RAPGEF2,SMO,VRK3 ,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,SYNGAP1,ROR1,RQCD1,ONEC UT2,FAM19A4,CUL3,GSK3B,RDX,ACTA2,MLF1,FAM49B,NECAB2,CD27,DUSP26, BOK,SULF1,NACC2,RNF43,AGT,PRKAA2,ADAR,FBN2,STAT2,ZMPSTE24,HRH4,N DRG2,PTK2,PEX5L,SNX3,PDE4B,RIMS2,VEPH1,MAP3K5,CREBBP,APCDD1L,DLX 1,PCSK6,NCFI1,TAOK2,SHC1,ARHGAP15,CD160,LBX2,RPS6KB1,GUCY2F,SCEL,A NKS1A,CD44,FGD3,ADAM8,BCL2L14,CSNK1A1,CXCL17,FGD4,PLEKHA1,RGS14, SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,SPEF1,EPHB2,WLS,IL 18,UBE2K,DLC1,PPARA,PPP1R10,PHLPP1,MAG13,MOB3B,ZNF366,FBN1,PRKCZ, ZC3HAV1,FAM20C,ADORA2A,RABGEF1,OTUD7B,DENND4B,CNRIP1,ASP,NANG PTI,TBL1X,EYA3,FHL2,FRMPD1,LRRK1,OSBPL8,ATF6,GCNT2,PPP1CA,TBCID10 C,VWC2,ARHGAP21,RBMS3,CCL22,NCOR2,PRKCQ,BRAF,HDAC2,HTR2C,CD300 A,PHIP,PPP2C4,MAOA,RPL23,SH3BP4,SP100,PIGU,ITSN1,SRGAP2,MADD,SYK,C NOT1,WWTR1,ARHGAP19,GRIK2,CIT,RAP1GAP2,CACNG3,DVL2,PTPRJ,TAF1,TI CAM1,TANK,ANKRD13C,SASH1,RALGAP1,CGNLI1,VAV3,DLGAP2,CAV2,GNAI2,I NPP5F,AXL,WIF1,CD109,DENND4C,MET,UCHL5,ANKRD6,MALTI,PHB,PTPRC,E DA,GPR89A,PBLD,TYRO3,RNF213,TSPAN5,NCAM1,TRAF3IP2,ATF6B,SHISA6,TRA P1,PRAP1,BMP4,CPNE1</p>
GO:0036211	protein modification process	4.857697077765972e-29	<p>LNX2,ZDHHC14,ENPP1,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,SLCO3A1,MAP4 K4,PDE4D,DNMT1,S1PR2,C6ORF89,ADCY8,MGAT4C,CBFB,PDE8A,IL31RA,RPS6 KA2,PRDM12,SETD4,CTDSPL2,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,RNF145,KSR 2,PRKAG2,PRLR,MVP,PAGRI,KALRN,DCAF12,NTRK3,CBL,ARNT,EGLN2,FLT3,E NPP2,GRM5,PLCE1,FER,CASK,MAPK4,MAP2K5,KITLG,USP32,MAPK10,PTPRR,P IK3CD,CAMK1G,B3GALT1,ROBO1,TOM1L1,HTR2B,CDKL5,MECOM,TENM1,CAM KMT,LMNA,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXRI,GRK5,ABI1,ULK4,TRIOBP ,HSP90AA1,CDC6,PSMB7,TSSK1B,KNDC1,ZC4H2,STK38L,TRIO,KLHL12,AKAP13, TTLL5,PTPRK,DAB1,ERCI,KLHL7,MAST4,PTPN11,HERC4,MGAT5,HDAC6,DDBI, ADORA1,MSRA,EPHA1,IKBKB,ERBB4,DYI19L2,MRE11A,LIMK1,TLK1,BRD8,KAT 6B,ABR,CUL4B,LARGE,MIER1,PMEPA1,PTPRO,CDON,KANSL1,FBXL18,NTRK2,E P300,RNF220,FNTA,TPST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46, BRMS1,CHFR,STK39,INSR,PRKARIA,ASB5,ST6GALNAC3,JMJD1C,CAB39,USP34, PAK1,FBXW11,MAP3K4,ZDHHC13,PTPRD,RNF144A,EGLN3,BDNF,CDK14,CHRM 3,POMGNT2,FUT8,TRIM13,UBR2,HLCS,LCK,ENTPD5,ECT2,MYO3B,MTA3,SNX6, CHML,PPM1L,PTPRU,ERN2,DMD,ATG10,USP13,KAT7,SLC8A1,RBM14,RIT2,MAC ROD2,CASS4,FYN,MKRN2,ARNTL,NF1,LMTK2,ARID4B,GXYLT2,PPP4R2,FBXO21, B4GALT6,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,TTN,BMP2K,PAQR3,TPGS 2,KLHL21,EGFLAM,PPIG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,FRY,MAP2K1, FNIP1,GALNT16,PPP2CB,HDAC5,RNF4,CSNK2A3,GALNT18,UBE3D,JD2,WDSP B1,CDKL2,ROR2,DCN,ZDHHC3,WDR70,PTPRT,UST,COPS5,IPO5,MAD2L2,MAN1 A1,CAPRIN2,CCNYL1,PHF20L1,PDF,GNAQ,FBXO9,ICK,RFFL,TTLL8,PARP11,HE RC5,USP22,ZDHHC15,JAK2,FBXW7,UBR7,UIMC1,ITCH,USP12,ZFYVE28,SMG1,H UNK,B3GALT5,CDC42BPB,PHKA1,DHDDS,KLF15,SPSB1,WNT11,TPST1,TRIM59, MTA1,NOX4,RPRD1B,SLAH1,CAMK2B,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E ,TGFB1,SGK1,P4HA2,SPSB4,MYO3A,NSD1,PIBF1,BTRC,PTPRN2,PDZRN3,DNAJB</p>

			<p>2,AAK1,KLHL2,SLIT2,ASB15,RNF133,RNF148,HHAT,CORO1C,PTPDC1,TMTC1,TTBK2,KDM4B,SMAD6,TMTC2,CLOCK,ZNF675,BMPER,DCLK1,RNF212,ANKRD54,DAPK2,TNFRSF10B,DAPP1,DUSP22,TRRAP,DOCK3,FGF10,FBXL17,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCI,CAPN3,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,CAMK4,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,MACROD1,OTUB1,RSPRY1,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,WDR45B,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,CHEK2,SUPT3H,PRDM16,ASB8,PPP1CB,SPDYA,HCK,RAB3GAP2,TBCK,TRIM8,PP2R2B,CSPG4,BRMS1L,CTDP1,HS3ST5,BAZ1B,OBSCN,NF2,FLT4,HDAC4,SPTBN1,TPTE,TRABD2B,SFRP1,ST8SIA1,PPP6R2,USP54,SSH1,RNFT2,RAB6A,PTPRM,WIP2,WIP1,MTBP,RNF168,ABI2,C10ORF90,NEDD4,GALNT14,TAB1,ST3GAL3,CD73,APP,USP49,PDGFRA,SLK,CCNI2,DIP2B,KANSL2,ARIH1,HEG1,AMFR,ST6GALNAC5,CDK3,EYA2,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SETD2,ZDHC6,PRICKLE1,RCAN1,SPTBN4,DRD1,CHUK,RFT1,S100A12,DCUN1D3,KDM6A,PRKD1,NAA25,PARP6,USP53,LRR2,SHPRH,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,USP33,CAMK1D,BMPR1A,PIK3R3,CDK12,CAND2,SPAG9,MYB,FGF2,PP2A,PPM1F,UBE2R2,NEDD9,AGBL4,PEAK1,SEMA4D,NFX1,CDC27,SETD1A,JARID2,KLHL3,PRKCG,SIN3B,NCOA1,AREL1,EHMT1,LMO7,UCHL3,DVL3,EIF4G1,EPHB3,PTPRE,RBX1,ANAPC5,FBXO45,STT3B,CKS1B,DEPTOR,PKN3,FBXL20,TSG101,DES1,TERF2IP,FKBP5,RCE1,B3GALNT1,P4HB,SUMF1,PTPN13,QPCTL,PAD16,TRPC5,UBA2,EDEM3,TTL7,TNKS,WDTC1,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,JOSD1,PELI1,PPP2R5C,IQGA1,DCAF5,MAP3K7,TRIM22,ZNRF1,ALK,SLC8A2,UBOX5,TOPI,AGBL1,UBE2V1,PADI3,XDH,RBBP6,PRKG1,TTL9,ATP2B4,PARP12,ACTL6B,PAK3,SSH2,TET1,HECTD4,MKRN3,CAMTA1,ADNP,MAPKAPK2,CEP41,ARID4A,UBE3C,CDC42BP4,MARK1,CDK6,PHF2,RNF34,TFRC,UVRAG,EPHA5,ALG14,DCAF6,DCUN1D5,ADRBK1,PSMB2,EYA1,CDC43,RNF10,RYPB,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,PKN2,SLC39A10,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,PARD3,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,MGAT4A,CARM1,FOLH1,SPI1,DNMT3B,EPHA7,PTPRA,FBXW4,ATG14,BCAR3,STK38,RBPMS,NTMT1,MAP3K13,OTUD3,RAPGEF3,PDXP,PTK7,RSRC1,SMYD1,SNCA,BMPR1B,MAGI2,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,KMT2C,UBE2QL1,TRIP12,ADTRP,OPRD1,HIPK1,RPTOR,BTK,ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,HTT,MAPK1,PTEN,MIB1,SPRED2,BMP7,PCMTD2,PIK3C3,TTL4,LRRK2,TMEM59,ZRANB1,PIGS,UNC119,BAG6,LILRB4,MORC3,PKD2,EFNA5,SEL1L2,RCOR3,TADA2A,ALPK3,PDGFC,NCOA3,PKIB,MTMR3,PPP2R3C,RPS6KC1,PLCL2,WDR5B,KAT6A,SIK3,BMP6,MYCBP2,SH3RF2,EXT1,DPY19L4,N4BP1,ATRX,DPH6,C8ORF44-SGK3,PRMT2,RAPGEF2,VRK3,ALG9,MARK4,PRKAR2B,DPY19L1,GALNT10,UBE2H,DNAJC6,UBR5,JADE1,ARRDC4,RHOA,SPRTN,WSB2,ROR1,RQCD1,CUL3,EPM2A,GSK3B,DNAJC3,EEF2K,IWS1,PPP1R16A,PTPRB,CDK13,PGGT1B,STK32B,DUSP26,RNF144B,RNF43,AGT,CCNJL,PRKAA2,ADAR,CUL9,STAT2,ZMPSTE24,PTK2,PHEX,RNF121,TEC,DCAF10,FBXO10,CDC14A,MAP3K5,CPE,TRPC4AP,CREBBP,PRKD3,LMTK3,NCF1,TAOK2,PYGO2,SHC1,PARP10,RNFT1,RPS6KB1,ZDHC23,GALNT13,GUCY2F,SETDB2,FBXO28,CD44,ADAM8,FKBP14,RPS6KA5,CSNK1A1,HUS1,PRDM2,NOS1,RGS14,STK4,MARK3,EPHB2,SLC1A1,TTL11,MARCH8,IL18,PCMT1,UBE2K,DLC1,FBXL13,PDPI,PHLPP1,PP1L6,MOB3B,ACPI,RNF150,PAX6,PRKCZ,FAM20C,ADORA2A,MAN2B1,PPP1CC,RABGEF1,CCNG2,TYK2,OTUD7B,NIPBL,YEATS4,PHF20,ANGPT1,TBL1X,EYA3,LRRK1,OSBPL8,GCNT2,PPP1CA,MTF2,FBXO31,ATG3,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SRCAP,UBE2E2,C18ORF25,CD300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,RPL23,OPN1LW,PIGU,PRMT7,WIP2,ALG2,MADD,SYK,WWTR1,GTTF2H5,ASB1,CIT,BRCA2,DVL2,PTPRJ,TAF1,PPME1,TICAM1,RNF38,TANK,RIMKLA,GALNT7,HSF1,EZH1,ETF1,RNGTT,SRPK2,SASH1,RNF2,MOB3A,GNA12,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B-GALNT4,INPP5F,NUAK2,AXL,AGBL3,TRIM37,CD109,MET,CAMK2D,UCHL5,MALTI,SETD3,TRIM69,ZDHC11,ZDHC11B,KDM2B,MLXIPL,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TRAF3IP2,TRIM60,CREB1,METTL21A,TNXB,EDNRA,BMP4</p>
GO:0006464	cellular protein modification process	4.857697077765972e-29	<p>LNX2,ZDHC14,ENPP1,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,SLCO3A1,MAP4K4,PDE4D,DNMT1,S1PR2,C6ORF89,ADCY8,MGAT4C,CBFB,PDE8A,IL31RA,RPS6KA2,PRDM12,SETD4,CTDSP2,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,RNF145,KSR2,PRKAG2,PRLR,MVP,PAGRI,KALRN,DCAF12,NTRK3,CBL,ARNT,EGLN2,FLT3,ENPP2,GRM5,PLCE1,FER,CASK,MAPK4,MAP2K5,KITLG,USP32,MAPK10,PTPRR,PIK3CD,CAMK1G,B3GALT1,ROBO1,TOM1L1,HTR2B,CDKL5,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXRI,GRK5,ABII,ULK4,TRIOBP,HSP90AA1,CDC6,PSMB7,TSSK1B,KND1,ZC4H2,STK38L,TRIO,KLHL12,AKAP13,TTL5,PTPRK,DAB1,ERC1,KLHL7,MAST4,PTPN11,HERC4,MGAT5,HDAC6,DDDB1,ADORA1,MSRA,EPHA1,IKBKB,ERBB4,DPY19L2,MRE11A,LIMK1,TLK1,BRD8,KAT6B,ABR,CUL4B,LARGE,MIER1,PMEPA1,PTPRO,CDON,KANSL1,FBXL18,NTRK2,E300,RNF220,FNTA,TPST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,BRMS1,CHFR,STK39,INSR,PRKAR1A,ASB5,ST6GALNAC3,JMJD1C,CAB39,USP34,</p>

			<p> PAK1,FBXW11,MAP3K4,ZDHHC13,PTPRD,RNF144A,EGLN3,BDNF,CDK14,CHRM3,POMGNT2,FUT8,TRIM13,UBR2,HLCS,LCK,ENTPD5,ECT2,MYO3B,MTA3,SNX6,CHML,PPM1L,PTPRU,ERN2,DMD,ATG10,USP13,KAT7,SLC8A1,RBM14,RIT2,MACROD2,CASS4,FYN,MKRN2,ARNTL,NF1,LMTK2,ARID4B,GXYLT2,PPP4R2,FBXO21,B4GALT6,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,TTN,BMP2K,PAQR3,TPGS2,KLHL21,EGFLAM,PIIG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,FRY,MAP2K1,FNIP1,GALNT16,PPP2CB,HDAC5,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,CDKL2,ROR2,DCN,ZDHHC3,WDR70,PTPRT,UST,COPS5,IPO5,MAD2L2,MAN1A1,CAPRIN2,CCNYL1,PHF20L1,PDF,GNAQ,FBXO9,ICK,RFFL,TTL8,PARP11,HERC5,USP22,ZDHHC15,JAK2,FBXW7,UBR7,UIMC1,ITCH,USP12,ZFYVE28,SMG1,HUNK,B3GALT5,CDC42BPB,PHKA1,DHDDS,KLF15,SPSB1,WN111,TPST1,TRIM59,MTA1,NOX4,RPRD1B,SIAH1,CAMK2B,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,P4HA2,SPSB4,MYO3A,NSD1,PIBF1,BTRC,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,SLIT2,ASB15,RNF133,RNF148,HHAT,CORO1C,PTPDC1,TMTC1,TTBK2,KDM4B,SMAD6,TMTC2,CLOCK,ZNF675,BMPER,DCLK1,RNF212,ANKRD54,DAPK2,TNFRSF10B,DAPP1,DUSP22,TRRAP,DOCK3,FGF10,FBXL17,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCI,CAPN3,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,CAMK4,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,MACROD1,OTUB1,RSPRY1,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,WDR45B,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,CHEK2,SUPT3H,PRDM16,ASB8,PPP1CB,SPDYA,HCK,RAB3GAP2,TBCK,TRIM8,PP2R2B,CSPG4,BRMS1L,CTDP1,HS3ST5,BAZ1B,OBSCN,NF2,FLT4,HDAC4,SPTBN1,TPTE,TRABD2B,SFRP1,ST8SLA1,PPP6R2,USP54,SSH1,RNFT2,RAB6A,PTPRM,WWP2,WIP1,MTBP,RNF168,ABI2,C10ORF90,NEDD4,GALNT14,TAB1,ST3GAL3,CD73,APP,USP49,PDGFRA,SLK,CCNI2,DIP2B,KANSL2,ARIH1,HEG1,AMFR,ST6GALNAC5,CDK3,EYA2,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SETD2,ZDHHC6,PRICKLE1,RCAN1,SPTBN4,DRD1,CHUK,RFT1,S100A12,DCUNID3,KDM6A,PRKD1,NAA25,PARP6,USP53,LRR2,SHPRH,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,USP33,CAMK1D,BMPRI4,PIK3R3,CDK12,CAND2,SPAG9,MYB,FGF2,PPA2,PPM1F,UBE2R2,NEDD9,AGBL4,PEAK1,SEMA4D,NFX1,CDC27,SETD1A,JARID2,KLHL3,PRKCG,SIN3B,NCOA1,AREL1,EHMT1,LMO7,UCHL3,DVL3,EIF4G1,EPHB3,PTPRE,RBX1,ANAPC5,FBXO45,STT3B,CKS1B,DEPTOR,PKN3,FBXL20,TSG101,DES1,TERF2IP,FKBP5,RCE1,B3GALNT1,P4HB,SUMF1,PTPN13,QPCTL,PADI6,TRPC5,UBA2,EDEM3,TTL7,TNKS,WDTC1,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,JOSD1,PELI1,PPP2R5C,IQGAP1,PSMB2,EYA1,CDCA3,RNF216,GHR,MNAT1,SNX9,HDAC1,TRIM24,PLCG2,ROCK1,PAXIP1,EGR2,HIPK3,RNF10,RYPB,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,PKN2,SLC39A10,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,PARD3,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,MGAT4A,CARM1,FOLH1,SP1,DNMT3B,EPHA7,PTPRA,FBXW4,ATG14,BCAR3,STK38,RBPMS,NTMT1,MAP3K13,OTUD3,RAPGEF3,PDXP,PTK7,RSRC1,SMYD1,SNCA,BMPRI1B,MAGI2,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,KMT2C,UBE2QL1,TRIP12,ADTRP,OPRD1,HIPK1,RPTOR,BTK,ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,HTT,MAPK1,PTEN,MIB1,SPRED2,BMP7,PCMTD2,PIK3C3,TTL4,LRRK2,TMEM59,ZRANB1,PIGS,UNC119,BAG6,LILRB4,MORC3,PKD2,EFNA5,SEL1L2,RCOR3,TADA2A,ALPK3,PDGFC,NCOA3,PKIB,MTMR3,PPP2R3C,RPS6KC1,PLCL2,WDR5B,KAT6A,SIK3,BMP6,MYCBP2,SH3RF2,EXT1,DYPY19L4,N4BP1,ATRX,DPH6,C8ORF44-SGK3,PRMT2,RAPGEF2,VRK3,ALG9,MARK4,PRKAR2B,DYPY19L1,GALNT10,UBE2H,DNAJC6,UBR5,JADE1,ARRDC4,RHOA,SPRTN,WSB2,RORI,RQCD1,CUL3,EPM2A,GSK3B,DNAJC3,EEF2K,IWS1,PPP1R16A,PTPRB,CDK13,PGGT1B,STK32B,DUSP26,RNF144B,RNF43,AGT,CCNJL,PRKAA2,ADAR,CUL9,STAT2,ZMPSTE24,PTK2,PHEX,RNF121,TEC,DCAF10,FBXO10,CDC14A,MAP3K5,CPE,TRPC4AP,CREBBP,PRKD3,LMTK3,NCF1,TAOK2,PYGO2,SHC1,PARP10,RNFT1,RPS6KB1,ZDHHC23,GALNT13,GUCY2F,SETDB2,FBXO28,CD44,ADAM8,FKBP14,RPS6KA5,CSNK1A1,HUS1,PRDM2,NOS1,RGS14,STK4,MARK3,EPHB2,SLC1A1,TTL11,MARCH8,IL18,PCMT1,UBE2K,DLC1,FBXL13,PDP1,PHLPP1,PPIL6,MOB3B,ACPI,RNF150,PAX6,PRKCZ,FAM20C,ADORA2A,MAN2B1,PPP1CC,RABGEF1,CCNG2,TYK2,OTUD7B,NIPBL,YEATS4,PHF20,ANGPT1,TBL1X,EYA3,LRRK1,OSBPL8,GCNT2,PPP1CA,MTF2,FBXO31,ATG3,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SRCAP,UBE2E2,C18ORF25,CD300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,RPL23,OPN1LW,PIGU,PRMT7,WIP12,ALG2,MADD,SYK,WWTR1,GTTF2H5,ASB1,CIT,BRCA2,DVL2,PTPRJ,TAF1,PPME1,TICAM1,RNF38,TANK,RIMKLA,GALNT7,HSF1,EZH1,ETF1,RNGTT,SRPK2,SASH1,RNF2,MOB3A,GNA12,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B-GALNT4,INPP5F,NUAK2,AXL,AGBL3,TRIM37,CD109,MET,CAMK2D,UCHL5,MALTI,SETD3,TRIM69,ZDHHC11,ZDHHC11B,KDM2B,MLXIPL,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TRAF3IP2,TRIM60,CREB1,METTL21A,TNXB,EDNRA,BMP4 </p>
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GO:0007165	signal transduction	7.864492541437179e-29	<p>CD247, R1C8B, ENPPI, PRDX2, GPC5, NRXN1, ASPH, GP6, PRKCI, MAP4K4, PDE4D, PDC1, DNMT1, SIPR2, TMBIM4, SLC9A1, PDE7B, ADCY8, LMBR1, PDE8A, CLASP2, SEMA3A, IL31RA, GRID2, TASI1R2, RPS6KA2, PTGFR, TENM3, CHERP, DOCK1, WWCI, CLDN18, C12ORF49, CTDSPL2, FBXL2, NRG3, ASH1L, NOS1AP, LATS2, ANP32A, SEMA3D, PTH2R, NREP, TIAM2, KSR2, MAPRE2, NLGN4X, PTGIS, PRKAG2, WWC3, GRM8, UNC5C, OR5P2, OR5P3, PRLR, MVP, PAGR1, ADCY7, RGS7BP, KALRN, PITPNC1, NTRK3, CB1, ARNT, ATRNL1, PLEKHG4B, EGLN2, MIA, RAB4B, RAB4B-EGLN2, SEMA5A, LRRFIP2, FLT3, STAT5B, GRM5, PLCE1, SAMHD1, FER, MARVELD3, MAPK4, MAP2K5, KITLG, MAPK10, PTPRR, SPNS2, LRP2, PIK3CD, ZNF536, DEPDC5, HDGF, ANK2, OLFM1, SH2D1A, EZR, NRXN3, ROBO1, TOM1L1, TNFAIP8L1, HTR2B, ITGB6, MECOM, TENM1, CAMKMT, LMNA, NUCB1, GOT1, NMT2, INPP4B, TRAF6, ROBO2, ITPKB, DNAJA3, SLC24A2, VAV2, GRK5, ABI1, ULK4, ITGB1, HSP90AA1, CDC6, PSMB7, CNIH2, SRGAP3, MCC, TSSK1B, KND1, CCDC22, DSCAM, STK38L, GMD5, SAMD12, CNGB1, TRIO, ARHGAP24, KLHL12, AKAP13, PDE1A, PTPRK, DAB1, CDC42EP3, MYO10, ERC1, RGS6, DGK1, ANKS1B, THRB, STXB4, PDE4A, GABRA3, ITGB3BP, GFRA2, MAST4, IL17RB, PTPN11, NETO2, HERC4, MGAT5, DOCK10, CYTH3, HDAC6, DDB1, ADORA1, GPRASP1, ADAMTS3, EPHA1, IKBKB, ERBB4, ADRA1D, SORCS1, MRE11A, GBF1, LIMK1, TLK1, BRD8, ABR, SNIP1, KLHL6, ESR1, NPHP3, GRM7, MIER1, PMEP1, MAML3, PTPRO, CDON, NTRK2, EP300, CELA1, TENM2, RNF220, RGS22, FNTA, PDGFB, RIMS1, TNK1, CCND3, MID1, CHFR, BPI, STK39, DAP3, HNF4G, INSR, FMN2, PRKAR1A, ASB5, AFAP1, UNC5D, LAMA3, TCF7L2, PIP4K2A, CAB39, USP3D, PAK1, LITAF, FBXW11, ESRRB, MYO1, MAP3K4, ZDHHC13, PTPRD, BDNF, CDK14, FANCA, CHRM3, TGF12, FUT8, OR2T3, NPRL3, PHACTR4, TENM4, GRIK4, TRIM13, RASGEF1B, UBR2, ARHGAP6, LCK, MDM4, EDARADD, IL5RA, ENTPD5, SHC4, ECT2, SNX6, CHML, PPM1L, ARHGAP42, PTPRU, RFTN1, ERN2, CDC45, LSP1, AP3S1, NPLOC4, SGCD, DMD, CENPF, ATG10, LRRN2, KAT7, SLC8A1, RBM14, GPR171, RIT2, DRG2, DEPDC1B, CASS4, KCTD16, FYN, MKRN2, ARNTL, NF1, PLCB1, 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CSPG4, GRM1, DCC, ARHGAP31, P2RY14, OBSN, RGL1, NF2, FLT4, SGMS1, BICC1, HDAC4, PAX2, TNS3, SPTBN1, TPTE, TRABD2B, SFRP1, FOXO3, DGKB, TRHDE, ARL13B, CNTN6, ARHGAP29, IFT122, SMAD3, CUX2, ITPR1, PTPRM, WWP2, ACKR2, ABI2, GRIK5, PSAP, SHANK1, IFNAR1, OR14K1, NEDD4, NRP2, ARHGEF18, VANG1, PREX1, PLA2G4C, DOCK4, ESRRG, HOXD3, KPNB1, TAB1, TXNDC12, NFATC1, RAB6C, CDC73, APP, GSX2, PDGFRA, FCRL4, NOX1, YAP1, HEG1, AMFR, SESN1, FSTL4, NLGN2, TNFRSF19, EYA2, JAK1, LRP5, MUC20, PTPRG, GNG2, SOX2, GPC6, CHST11, TEAD1, PRICKLE1, RCAN1, ZNF653, GRIA3, DRD1, TMEM14A, GLRA2, CHUK, ERLIN1, FRS2, MMP2, SERGEF, ESR2, S100A12, KDM6A, PRKD1, STAT1, ST18, DGKG, RND3, HNF4A, LRRC2, SHANK2, VPS4A, EREG, CCNY, TCTN3, MAPKAPK3, SEMA6D, ATF2, GRAMD4, TMEM237, RAF1, CELF4, RASGRF2, CARD16, CASP1, PTPN1, ADAMTS12, BMPR2, USP33, DPYSL2, BMPRIA, TSPAN12, NLGN1, COL16A1, PIK3R3, SPAG9, DENND4A, EVC, PDE11A, EPG5, FGF2, GRIK1, OR6C70, PPM1F, TICRR, ADCY5, NEDD9, SEMA4D, DOK6, RORC, MCTP1, PLXNA2, PTAFR, ADCYAP1R1, ANKDD1A, DDX58, DKK2, SORCS2, ITGA11, PI4KA, RARB, SPEN, PIK3C2B, PRKCG, VIPR1, NCOA1, EEF1E1, EEF1E1-BLOC1S5, GRIA2, GAS8, CHRD, DVL3, ECE2, EIF2B5, EPHB3, PTPRE, RBX1, ARHGAP39, ATF3, SHOC2, PAWR, AGO3, DEPTOR, PKN3, MAML2, TSG101, CCDC3, TERF2IP, MYO9A, IDE, WDR59, KCNQ1, WNT3, RCE1, RHOJ, P4HB, CCL14, CCL15, CCL15-CCL14, SUFU, TG, NLGN3, PTPN13, SCUBE2, PAFAH1B1, PRDM15, FAM13A, CNTFR,</p>
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			<p>COL4A3,TRPA1,DDAH1,NMUR2,HIP1,AKAP6,RASAL1,NR2C1,IRS4,GLI2,NEO1,TNKS,SCUBE1,GPR39,MGLL,DAB2,THEMIS,BLM,PKHD1,UBR1,LDLRAD4,DZIP1,WNK1,RELN,NEK10,RUVBL2,OR5H2,OR5H6,OR5K4,RSPO2,GUCY1A2,CSF3R,DOCK11,PELI1,PPP2R5C,IQGAP1,MAP3K7,DDX47,TAS2R41,ZNF423,OR56B1,TRIM22,MACF1,ARHGAP12,ALK,SLC8A2,INPP5D,TEAD4,UBE2V1,XDH,LTBP1,OVOL2,SNX5,NFATC2,OR6C74,PRKG1,RGS7,ATP2B4,PAK3,CAMTA1,DYX1C1,P2RX6,ASGR2,ADNP,GPR161,MAPKAPK2,CDC42BPA,COL4A6,SCARB1,MARK1,CDK6,P2RY8,RNF34,TFRC,EPHA5,SORCS3,WWOX,GABRG3,MEF2A,ADCY9,FNBP1,GFRAL,GPC3,ADRBK1,PSMB2,ZNF207,EYA1,PTGER3,GNB3,TRPV1,TSPAN6,CLEC16A,GHR,F LRT2,FGD1,HDAC1,INVS,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,C1QTNF1,PAXIP1,HIPK3,RNF10,GAPVD1,GPR35,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,PKN2,PPP1R9A,SLC39A10,EIF3A,ANK3,DNMBP,UNC13A,EPHB1,PDE6A,EPHA10,AXIN2,SARM1,EPCAM,PARD3,RCAN2,MUC1,TUB,SH3GL3,GABR2,CACNG8,CARM1,VWF,NETO1,ARHGAP44,HTR1D,ARHGEF3,SPI1,DGKK,EPHA7,CHRN4,MUCU,RANBP10,PTPRA,CTNNA1,FBXW4,GABRA6,LY86,STAC,BCAR3,STK38,RBPMS,CHURC1,MAP3K13,OTUD3,RAB15,RAPGEF3,SH3BP1,MST1,PTK7,SNCA,BMPR1B,CACNG2,CD53,GRM4,MAGI2,USP50,ZEB2,HEY2,RC3H1,CNGB3,WNT7B,PTPR,MYND11,KMT2D,PRKAG1,CREM,DFFA,SPPL2A,ADTRP,GNG7,PLD1,RASA1,MACC1,MITF,OPRD1,CABIN1,HIPK1,RPTOR,BTK,SIGLEC9,ZNRF3,KCTD13,TROVE2,CBFA2T2,IGF1,HTT,MAPK1,PTEN,ARHGEF17,MIB1,SPRED2,BMP7,PIK3C3,PUM1,RASA2,PRCP,RAB30,LRRK2,OSGIN1,GNA14,ZRANB1,UNC119,CNIH3,RAPH1,BAG6,LILRB4,IFT81,TMCO1,TMEM108,ITGAM,ARHGAP25,IL11RA,NSG2,PKD2,EFNA5,SHANK3,BTBD11,RGS9,PDGFC,AMOTL1,FAM13B,NCOA3,WNT7A,RPS6KC1,UACA,CRTC3,GPR141,PLCL2,KAT6A,GPR21,RABEP1,RHOT1,SIK3,BMP6,ANO1,GP1,IL17RD,SH3RF2,SOS1,TSHR,EXT1,PDCC1LG2,ATRX,PRICKLE2,GABRR2,PRMT2,RAPGEF2,KCNC2,SMO,VRK3,MARK4,PRKAR2B,PSEN2,TNFRSF11B,PAG1,SOX30,UBR5,GRB14,GRIN1,JADE1,KCTD8,RHOA,WSB2,OR4M1,OR4N2,SYNGAP1,VIPR2,GRIN3A,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,FAM19A4,CUL3,HSPD1,ITPR2,NFKBID,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,GNG12,RDX,STAT6,ACTA2,MLF1,FAM49B,NECAB2,STK32B,CD27,DUSP26,ITGBL1,MCTP2,BOK,SULF1,KRT8,NACC2,RNF43,TNFRSF8,AGT,HDGFRP3,PRKAA2,ADAR,FBN2,PITPNM2,STAT2,ZMPSTE24,HRH4,NDRG2,PTK2,LAT2,PEX5L,SNX3,PDE4B,RIMS2,TCPI1,TEC,SHB,VEPH1,GAP43,MAP3K5,CPE,CREBBP,IQGAP2,PRKD3,APCDD1L,DLX1,FMOD,INSL6,PCSK6,NCF1,SLC29A1,TAOK2,PYGO2,SHC1,ARHGAP15,CD160,ECE1,LBX2,RPS6KB1,STC2,GPR173,GUCY2F,SCEL,ANKS1A,ITGAL,CD44,FGD3,ADAM8,RPS6KA5,BCL2L14,CDS1,CSNK1A1,GRID1,HUS1,CXCL17,FCRL6,FLG2A,NOS1,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,MC1R,STK4,ZFAND6,MARK3,SPEF1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,IL18,DTNA,MFSD8,UBE2K,GPSM2,HCAR1,HCAR2,HCAR3,DLCI,PPARA,PPP1R10,ARID5B,CALCL,MCOLN1,SLC25A33,PHLPP1,MAGI3,CPEB4,MOB3B,NOTCH4,ZNF366,FBN1,PAX6,PRKCZ,ZC3HAV1,PHIP,PPP2CA,ANGPT4,ARHGEF6,MAOA,RPL23,SH3BP4,DCDC1,SP100,OPN1LW,PIGU,C1QTNF9,CR2,DONSON,FCRL2,ITSN1,SRGAP2,ADCY1,MADD,SYK,CNOT1,WWTR1,ARHGAP19,GRIK2,ASB1,CIT,RADIL,BRCA2,HRK,RAP1GAP2,CACNG3,DVL2,GRIP1,PTPRJ,SLC10A1,TAF1,TICAM1,TANK,UCN2,ITGAE,TAC3,HSF1,INPP5A,SRPK2,ANKRD13C,PLEKHM1,SASH1,RALGAP1,BMP1,CGNL1,FCHO1,QRICH1,VAV3,ZP3,DLGAP2,MOB3A,CAV2,GNA12,SH2D3A,COL4A5,INPP5F,NUAK2,AXL,REPS2,TNFSF9,WIF1,CD109,DENND4C,MET,CAMK2D,CCR3,RAD9B,TIMELESS,UCLH5,ANKRD6,MALT1,MLXIPL,SEMA3C,THEM4,PHB,PTPRC,EDA,GPR89A,BPLD,SH3GL2,TYRO3,NR6A1,RNF213,TSPAN5,ADCY10,NCAM1,TRAF3IP2,ATF6B,CREB1,RASSF8,RGMB,SHISA6,TRAP1,CLNK,EDNRA,NGGT1,PRAP1,BMP4,CASP12,CPNE1</p>
GO:0048583	regulation of response to stimulus	1.1384268334153873e-28	<p>CD247,RIC8B,ENPPI,PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDE4D,PDCL,SIPR2,HLX,TMBIM4,SLC9A1,ADCY8,PDE8A,CLASP2,SEMA3A,GRID2,SETD4,CHERP,WWC1,C12ORF49,CTDSPL2,FBXL2,ASH1L,NOS1AP,LATS2,SEMA3D,NREP,TIAM2,MAPRE2,NLGN4X,PTGIS,WWC3,PRLR,MVP,PAGRI,ADCY7,RGS7BP,KALRN,NTRK3,CBL,ARNT,PLEKHG4B,SEMA5A,FLT3,SUSD4,STAT5B,GRM5,PLCE1,SAMHD1,FER,CASK,MARVELD3,MAP2K5,KITLG,MAPK10,PTPRR,SPNS2,LRP2,PIK3CD,ZNF536,DEPDC5,SH2D1A,EZR,ROBO1,TNFAIP8L1,HTR2B,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,ROBO2,ITPKB,DNAJA3,OXR1,VAV2,GRK5,ULK4,ITGB1,HS90AA1,PSMB7,CNIH2,SRGAP3,MCC,CCDC22,DSCAM,TRIO,ARHGAP24,AKAP13,DAB1,ABCC8,RGS6,DGKI,PDE4A,PTPN11,NETO2,HERC4,MGAT5,CYTH3,HDAC6,ADORA1,GPRASP1,ADAMTS3,IKKB,ERBB4,ADRA1D,GBF1,LIMK1,ABR,KLHL6,ESR1,NPHP3,MIER1,PMEP1,PTPRO,CDON,NTRK2,EP300,RNF220,RGS22,PDGFB,RIMS1,TNIK,CCND3,MID1,ALOX5AP,STK39,INSR,FMN2,AFAP1,TCF7L2,PIP4K2A,USP34,PAK1,LITAF,FBXW11,MAP3K4,ZDHHC13,PTPRD,TBRI,BDNF,CDK14,FANCA,FUT8,NPRL3,PHACTR4,TRIM13,UBR2,ARHGAP6,LCK,ENTPD5,ECT2,SNX6,VAMP7,ARHGAP42,PTPRU,RFTN1,ERN2,NPLOC4,DMD,USP13,KAT7,RBM14,RIT2,DEPDC1B,CASS4,KCTD16,FYN,MKRN2,ARNTL,NF1,PLCB1,MGMT,PPP4R2,RTN4,CHRD1L,APOD,RTN4R,BCR,RWDD3,SHISA9,CHI3L1,NDRG4,BMP2K,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,MAP2K1,</p>

			<p> MDF1, FNIP1, RALGPS2, MAD1L1, LRFN5, DAGLA, TM6IM6, VGLL4, PPP2CB, CMKLR1, TSPAN8, ROR2, DCN, ZDHHC3, SLC39A14, DOCK2, CDH13, CREBRF, SOX13, PTPRT, AUNIP, COPS5, ARHGAP32, MAD2L2, TLE6, RGS8, CAPRIN2, CCNYL1, TERF2, RALGPS1, ANO6, NEUROD1, GNAQ, FBXO9, RFFL, CCBE1, DENND1A, HERC5, JAK2, FAMI68A, FBXW7, LINC00473, SKAP1, UIMC1, ITCH, MLIP, NPSR1, ZFYVE28, SMG1, CLDN1, MLLT3, PDE2A, KLF15, LAMTOR3, CYFIP2, WNT11, ARHGAP23, IFT80, TRIM59, KREMEN1, CLPB, NOX4, SIPA1L3, SIAH1, CAMK2B, ERCC8, PRKCD, TAB2, ACVR2A, RUNX2, SEMA5B, CD4, TGFB1, SGK1, NUP93, MMP28, IGSF1, PIBF1, BTRC, CRADD, DLGAP1, F2RL1, RPRIP1L, SLIT3, AAK1, SLIT2, TP73, CTNND2, C12ORF4, DISC1, KANK1, MTDH, MMP26, SMAD6, CLOCK, ZNF675, BMPER, BCL3, ANKRD54, DAPK2, TNFRSF10B, DUSP22, NAIP, HOMER2, DOCK3, SBNO2, YTHDF1, FGF10, FBXL17, RASA4, RASA4B, ARHGEF28, KCTD10, IQCJ- SCHIP1, SH3RF3, LOXL3, CAPN3, SMURF2, EPHA4, RORA, PRKCA, AUTS2, CNR1, TNFSF11, PPP3CA, GNG4, UFL1, CTNNB1, PARK2, SOD2, FCGR2A, FCGR2B, FCGR3A, FCGR3B, 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ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, ARHGAP44, CD84, COCH, ARHGEF3, SPI1, EPHA7, MCU, CTNNA1, AIFM2, PSPC1, LY86, BCAR3, STK38, RBPM5, MAP3K13, OTUD3, SH3BP1, MST1, PTK7, SNCA, BMPR1B, CACNG2, GRM4, MAGI2, PNP1, ZEB2, HEY2, RC3H1, WNT7B, PTPRS, ZMYND11, KMT2D, TRIP12, SPPL2A, ADTRP, GNG7, RASA1, SRSF6, HIPK1, RPTOR, RTN4RL1, BTK, ZNRF3, KCTD13, CBFA2T2, IGFI1, HTT, MAPK1, PTEN, ARHGEF17, SPRED2, BMP7, PUM1, RASA2, PCBP2, PRCP, LRRK2, ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, ARHGAP44, CD84, COCH, ARHGEF3, SPI1, EPHA7, MCU, CTNNA1, AIFM2, PSPC1, LY86, BCAR3, STK38, RBPM5, MAP3K13, OTUD3, SH3BP1, MST1, PTK7, SNCA, BMPR1B, CACNG2, GRM4, MAGI2, PNP1, ZEB2, HEY2, RC3H1, WNT7B, PTPRS, ZMYND11, KMT2D, TRIP12, SPPL2A, ADTRP, GNG7, RASA1, SRSF6, HIPK1, RPTOR, RTN4RL1, BTK, ZNRF3, KCTD13, CBFA2T2, IGFI1, HTT, MAPK1, PTEN, ARHGEF17, SPRED2, BMP7, PUM1, RASA2, PCBP2, PRCP, LRRK2, ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, ARHGAP44, CD84, COCH, ARHGEF3, SPI1, EPHA7, MCU, CTNNA1, AIFM2, PSPC1, LY86, BCAR3, STK38, RBPM5, MAP3K13, OTUD3, SH3BP1, MST1, PTK7, SNCA, BMPR1B, CACNG2, GRM4, MAGI2, PNP1, ZEB2, HEY2, RC3H1, WNT7B, PTPRS, ZMYND11, KMT2D, TRIP12, SPPL2A, ADTRP, GNG7, RASA1, SRSF6, HIPK1, RPTOR, RTN4RL1, BTK, ZNRF3, KCTD13, CBFA2T2, IGFI1, HTT, MAPK1, PTEN, ARHGEF17, SPRED2, BMP7, PUM1, RASA2, PCBP2, PRCP, LRRK2, ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, 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ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, ARHGAP44, CD84, COCH, ARHGEF3, SPI1, EPHA7, MCU, CTNNA1, AIFM2, PSPC1, LY86, BCAR3, STK38, RBPM5, MAP3K13, OTUD3, SH3BP1, MST1, PTK7, SNCA, BMPR1B, CACNG2, GRM4, MAGI2, PNP1, ZEB2, HEY2, RC3H1, WNT7B, PTPRS, ZMYND11, KMT2D, TRIP12, SPPL2A, ADTRP, GNG7, RASA1, SRSF6, HIPK1, RPTOR, RTN4RL1, BTK, ZNRF3, KCTD13, CBFA2T2, IGFI1, HTT, MAPK1, PTEN, ARHGEF17, SPRED2, BMP7, PUM1, RASA2, PCBP2, PRCP, LRRK2, ZRANB1, CNIH3, BAG6, LILRB4, IFT81, TMEM108, ITGAM, ARHGAP25, PKD2, SHANK3, NT5E, RGS9, PDGFC, FAMI13B, NCOA3, PPP2R3C, WNT3A, DNMBP, EPHB1, AXIN2, SARM1, MUC1, TUB, JAG2, CACNG8, CARM1, VWF, NETO1, ARHGAP44, CD84, COCH, ARHGEF3, SPI1, EPHA7, MCU, CTNNA1, AIFM2, PSPC1, LY86, BCAR3,</p>
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GO:0048523	negative regulation of	3.1055267994434715e-	<p>ENPPI,PRDX2,LDB2,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,MAP4K4,PDE4D,DNMT1,SIPR2,HLX,TMBIM4,SLC9A1,ADCY8,TRPS1,CBFB,PDE8A,CLASP2,SEMA3A,IL31RA,GRID2,RPS6KA2,PRDM12,PTGFR,CHERP,WWC1,CLDN18,CTDSP2L2,RYR</p>

	cellular process	28	<p> <i>I, NR3G3, ASH1L, LATS2, ASTN2, SEMA3D, SCAF8, FHOD3, NLGN4X, PTGIS, PRKAG2, WWC3, TJPI1, NUDT6, PRLR, MVP, FTO, RGS7BP, KALRN, NTRK3, CBL, SEMA5A, STAT5B, GRM5, SAMHD1, ZNF566, FER, CASK, MARVELD3, MAP2K5, KITLG, PTPRR, LRP2, ZNF536, SP3, DEPD5, HDGF, ANK2, SH2D1A, EZR, ROBO1, MALRD1, TOM1L1, TNFAIP8L1, CHD7, HTR2B, MECOM, TENM1, RYR3, LMNA, TRAF6, ROBO2, ITPKB, DNAJA3, OXR1, SLC24A2, GRK5, ABI1, ITGB1, TRIOBP, CDC6, PSMB7, TSC22D3, CNIH2, SRGAP3, MCC, PCDH17, CCDC22, DSCAM, SRGAP2B, CDAN1, TRIO, ARHGAP24, GF11B, PTPRK, RUNX1, DAB1, OMA1, ABCC8, NR1P1, RGS6, DGKI, THRB, DACH1, PTPN11, HERC4, MGAT5, ORC2, HDAC6, SERTAD2, DDB1, ADORA1, GPRASP1, EPHA1, IKBKB, PEX14, ERBB4, GBE1, MRE11A, LIMK1, ATP8A2, KAT6B, ESR1, NPHP3, GRM7, MIER1, PCBP3, PMEP1, PTPRO, NTRK2, TNRC6A, FRMD4A, EP300, CELA1, TENM2, RGS22, HOOK3, PDGFB, CCND3, TOB2, MID1, ZNF19, BRMS1, CHFR, SCML4, BPI, STK39, FMN2, RERE, PRKAR1A, ATP8B1, H2AFY2, TCF7L2, PIP4K2A, CAB39, PAK1, LITAF, FBXW11, ESRRB, PTPRD, BASP1, TBR1, SAMD4A, BDNF, TFAP2A, PEG3, ZIM2, TGIF2, NPRL3, PHACTR4, MEIS1, KCNKG, UBR2, ARHGAP6, LCK, MDM4, ZNF148, MTA3, SNX6, TFDP2, ARHGAP42, CST2, PTPRU, ERN2, CDC45, C1D, NPLOC4, DENND5A, DMD, CENPF, TOX3, PDSS4, LARP4B, KAT7, SLC8A1, GSN, RBM14, RBM4, GPR171, SATB2, RIT2, ATP9A, TEX11, TCFY, MKRN2, ARNTL, ADAMTS9, NF1, PLCB1, MGMT, SNCB, FAT3, RTN4, DPEP1, CHRDL1, APOD, RTN4R, BCR, NDRG4, PAQR3, IFI30, PIK3R2, RANBP9, NTN1, NMO3, NRG1, ARHGAP10, SLC43A2, BDKRB1, BDKRB2, DOCK8, BID, FRY, MAP2K1, MDFI, FNIP1, VAX2, MYH9, MAD1L1, LRFN5, TMBIM6, VGLL4, PPP2CB, CNTN4, HDAC5, RBM5, ZNF692, JDP2, ITIH2, ROR2, DCN, SCFD1, CDH13, CREBRF, TRDMT1, SOX13, FHIT, PTPRT, AUNIP, COP5, IPO5, MAD2L2, TLE6, RGS8, CAPRN2, TERF2, SLX1B, FOXN3, RCC2, CERKL, NEUROD1, GNAQ, RFFL, JAK2, YTHDC2, FBXW7, LINC00473, OA22, UIMC1, ITC, MLIP, NPSR1, ZFYVE28, BBS12, LZTS1, BCL11B, SMG1, MLLT3, ATP9A, TEX11, TCF7, PDE2A, KLF15, TBX15, ANXA4, WNT11, IFT80, TRIM59, FIG4, MTA1, KREMEN1, KLF8, NOX4, LCOR, ILIRAPL1, PRKCD, SOX6, TAB2, RUNX2, SEMA5B, PPM1E, TGFB1, MIMP28, NSD1, IGSF1, PIBF1, ZHX2, KEL, BTRC, DUS2, NFATC3, JPH3, CRADD, F2RL1, BCAS3, C9ORF47, GRIK3, CDYL2, RPGRIP1L, DNAJB2, SLIT3, CC2D1B, SLIT2, TP73, ITIH4, HP, CORO1C, SAP18, KANK1, MTDH, CLMN, TTBK2, FANK1, MYT1L, KDM4B, SMAD6, ZNF398, CLOCK, ZNF675, ETV6, NELL1, TFAP2D, BMPER, TIMP2, BCL3, DCLK1, DUSP22, NAIP, HNRNPC, HOMER2, SBN02, YTHDF1, FGF10, RASA4, RASA4B, SMYD3, KANK4, KCTD10, IQCJ-</i> </p> <p> <i>SCHIP1, LOXL3, RHPN2, SVIL, CAPN3, SMURF2, EPHA4, RORA, PRKCA, CNR1, SMG6, PPP3CA, NSUN2, GNG4, MAGEA4, MAG, KLF12, GATAD2B, PIP5K1I, UFL1, CTNBNB1, PARK2, SOD2, METTL13, FCGR2B, SMARCC1, CDHR2, IGF1R, PPARG, AXIN1, PRKAR1B, OTUB1, DLG5, ADD2, CIPC, CBX5, ANKRD17, SCAMP5, BRIPI, ANXA13, ANKRD26, LRPPRC, SREBF2, RYR2, DRAXIN, LEPR, LEPROT, PROS1, RGS10, NPAT, NR4A3, FOXK2, NOL3, PRKAR2A, MYOCD, PER2, KIR3DL4, KIR3DL2, AJUBA, CACNA1C, GLG1, CHEK2, UBQLN4, PRDM16, HCK, CSTL1, TBC1D14, BRMS1L, DCC, CTDP1, BAZ1B, NF2, FLT4, BICC1, HDAC4, PAX2, SPTBN1, TPTE, TRABD2B, SFRP1, FOXO3, NFIB, ZCCHC17, IFT122, DNM3, SSH1, SYNCRIP, SMAD3, CUX2, ITPR1, PTPRM, WWP2, SIMC1, MTBP, RNF168, SLC16A2, LZTFL1, SHANK1, DCP1B, MIER3, NEDD4, ARHGEF18, NAV3, SLC6A1, TXNDC12, NFATC1, PRGT, CDC73, APP, PDGFRA, ADD3, WAP1, HEG1, AMFR, RAB11FIP5, SESN1, TEN1, FSTL4, VDAC1, EYA2, IBTK, ANGPTL4, LRP5, PTPRG, SOX2, KIF24, CHST11, PRICKLE1, RCAN1, ZNF653, SPTBN4, DRD1, TMEM14A, ERLIN1, FRS2, PALB2, SFMBT1, VILL, MMP2, SERGEF, ESR2, DCUN1D3, PRKD1, STAT1, ST18, DKG, ETV5, TAF3, PLAGL1, HNF4A, ZBTB7C, SHANK2, VPS4A, EREG, SEMA6D, ATF2, TCF3, GRAMD4, RAF1, CELF4, CARD16, PTPN1, ADAMTS12, BMPR2, VBP1, CAMK1D, BMPR1A, NLGN1, BTBD10, CTNNA2, IKZF4, CDK12, SPAG9, CRMP1, PDE11A, MYB, FGF2, BACH1, MXD3, PPM1F, TICRR, AGBL4, BEND5, SEMA4D, NFX1, RORC, MCTP1, PLXNA2, ADCYAP1R1, YME1L1, JARID2, DKK2, SORCS2, RAB11FIP3, PHC2, RARB, SPE, N, PRKCG, SIN3B, SPOCK1, AREL1, EEF1E1, TXNDC5, EHMT1, GAS8, AP2M1, CHRDE, IF4G1, PTPRE, RBX1, ATF3, LIN28B, PAWR, AGO3, DEPTOR, DLEC1, TSG101, CCDC3, VCL, TERF2IP, CLIC4, CRYM, KCNQ1, WNT3, SUFU, MAGEA11, PTPN13, PAFAH1B1, PRDM15, CNTFR, COL4A3, TRPA1, DDAH1, AKAP6, RASA1, NR2C1, TRPC5, GLI2, TNKS, ERCC1, RUFY3, TNRC6B, GLIS3, WDTC1, DAB2, BLM, PKHD1, USH2A, UBR1, LDLRAD4, DLG3, WNK1, SIN3A, RUVBL2, PELI1, PPP2R5C, CFDP1, IQGAP1, ZNF423, TRIM22, ARHGAP12, INPP5D, CLASP1, SRA1, TPCN1, GPM6B, XDH, LTBP1, OVOL2, SNX5, NFATC2, PRKG1, PAX7, RGS7, ATP2B4, PACRG, PACSIN1, SPTBN5, SSH2, TET1, ATAD1, ADNP, GPR161, MAPKAPK2, ARID4A, MAP1B, MPHOSPH9, MARK1, CDK6, PHF2, CELF1, RNF34, TFRC, SORCS3, WWOX, MEF2A, GFRAL, GPC3, XRN1, ADRBK1, SATB1, PSMB2, ZNF207, EYA1, GATAD2A, BRINP1, DIS3L2, TRPV1, TSPAN6, HOXB3, HOXB4, CLEC16A, GHR, MNAT1, L3MBTL4, ELAVL4, HDAC1, INVS, RECQL5, TRIM24, PLCG2, ROCK1, EPS8, SCMH1, C1QTNF1, HIPK3, RNF10, RYBP, GPR35, PTPN2, NTRK1, TRIM44, MAP1A, TMIGD1, SLC39A10, EIF3A, ANK3, EPHB1, PTPN9, AXIN2, SARM1, EPCAM, PAR3, ZNF425, GNL3L, MUC1, PTPN14, TRIM46, SH3GL3, BCOR, CARM1, AP2B1, ANXA8L1, ARHGAP44, SNX33, CD84, LPA, SMARCA2, CUX1, SPI1, DNMT3B, EPHA7, FOXP2, CTNNA1, LIMA1, AIFM2, PSPC1, GLIS1, SFMBT2, TRDN, ATG14, EIF3H, JAZF1, STK38, ABCB7, ACOT8, RENBP, OTUD3, RAPGEF3, SH3BP1, MST1, SMYD1, SNCA, BMPR1B, MAGI2, PNPT1, ZEB2, HEY2, RC3H1, EIF3E, PTPRS, ZMYND11, CREM, PSMF1, CAST, TRIP12, DFFA, ADTRP, ABCA12, RASA1, MTF, SRSF6, OPRD1, NUGGC, PKP2, RTN4RL1, NFIX, BTK, ZNRF3, KCTD13, MLLT1, CBFA2T2, IGF1, ATF7IP, HTT, DPYSL3, MAPK1, PTEN,</i> </p>
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			<p> MIB1, SPRED2, BMP7, ATXN2, MXI1, PUM1, RASA2, CIR1, LRRK2, OSGIN1, TMEM59, UNC119, ZBTB20, BAG6, LILRB4, MORC3, ITGAM, ARHGAP25, PKD2, EFNA5, SHANK3, KCTD1, RIPPLY1, RCOR3, DAZL, RGS9, SERPINA3, SERPINA4, SERPINA5, PKIB, TBCCD, WNT7A, ZBED6, UACA, MAP4, CRTC3, DNAJC1, PLCL2, KAT6A, GPR21, BMP6, TAF15, GPI, IL17RD, SH3RF2, N4BP1, PDCD1LG2, ATRX, IKZF1, PRMT2, RAPGEF2, SMO, VRK3, ENPP3, PRKAR2B, STXBP5L, PSEN2, PAG1, SOX30, UBR5, GRB14, JADE1, RHOA, SYNGAP1, VIPR2, RQCD1, ONECUT2, CUL3, TFEC, HSPD1, ITPR2, EPM2A, GSK3B, DNAJC3, RDX, STAT6, EEF2K, FAM49B, PTPRB, RBBP8, NECAB2, CDK13, CD27, DUSP26, BOK, RNF144B, SULF1, NACC2, RNF43, SUPT4H1, TNFRSF8, AGT, HDGFRP3, METTL16, PRKAA2, ADAR, FBN2, STAT2, ZMPSTE24, BRINP3, NDRG2, PTK2, SNX3, PDE4B, PBX1, EXOSC3, VEPH1, TCFL5, CREBBP, UTP20, APCDD1L, DLX1, TAOK2, UGT1A1, UGT1A10, UGT1A4, UGT1A8, SHC1, CD160, PARP10, RPS6KB1, GPR173, PRG3, SERPINB11, SETDB2, ALOX5, DNAJB6, CD44, ADAM8, PACSIN2, RPS6KA5, ZNF93, CSNK1A1, HUS1, PRDM2, NOS1, GCKR, PLEKHA1, RGS14, ACTN4, STK4, TCF25, ZFAND6, ZNF282, MARK3, SPEF1, EPHB2, SLC1A1, TMEFF2, XCR1, IL18, DIS3, DLCL1, PPARA, PPP1R10, ARID5B, MCOLN1, SMARCA1, PHLPP1, CPEB4, NOTCH4, SYTL4, ZMYND8, ZNF366, FBNI, PAX6, PRKCZ, ADORA2A, GRIN2B, RABGEF1, CPEB1, PHLDB2, OTUD7B, NIPBL, COL28A1, ASPN, ANGPT1, TBL1X, EYA3, FHL2, LRRK1, MBTD1, OSBPL8, ZBTB5, IGF2BP3, GCNT2, ETS1, TBC1D10C, VWC2, GRIA4, MAP2, MTF2, RBMS3, TAGLN3, FBXO31, CDK5RAP1, NCOR2, PRKCQ, BRAF, DIAPH1, HDAC2, HTR2C, IMPACT, POU3F3, SPINT2, TNFR, MBNL3, HIGD2A, CD300A, ELF2, PHIP, CDKL3, PPP2CA, ANGPT4, RPL23, SH3BP4, ATXN1, CAMSAP3, SPI100, ANXA2, TRIM29, PARN, DONSON, SRGAP2, NUMB, RBM42, CNOT1, WWTR1, GRIK2, SLIT1, FRMD5, CIT, ZBTB38, BRCA2, MORC1, YBX1, ANKRD13A, PTPRJ, TAF1, TANK, HSF1, MAX, SAP130, DHFR, EZH1, INPP5A, NCOA2, ADAMTS7, SULT2B1, CGNL1, ZP3, RNF2, ZNF554, CAV2, GNAI2, INPP5F, NUAAC, AXL, TRIM37, WIF1, CD109, MET, SESTD1, CAMK2D, RAD9B, TIMELESS, UCHL5, ANKRD6, MALTI, SERPINE3, SPTAN1, KDM2B, MLXIPL, SEMA3C, NEDD4L, PHB, PTPRC, ZNF555, CTCF, PBLD, SH3GL2, TYRO3, NR6A1, RNF213, TRAF3IP2, ATF6B, CREB1, SHISA6, TRAPI, CLNK, PRAP1, STXBP6, BMP4, CPNE1 </p>
GO:0065008	regulation of biological quality	1.3144890316240835e-27	<p> RDH14, CLRN1, ENPP1, PRDX2, ADAMTS16, LDB2, NRXN1, ASPH, F8, PRMT3, GP6, RDH13, PRKCI, PDE4D, SIPR2, SLC9A1, FAM155A, NEGR1, ADCY8, CLASP2, SEMA3A, IL31RA, GRID2, RPS6KA2, PTGFR, CHERP, CLDN18, RYR1, NOS1AP, NOX5, EPB41, SEMA3D, PTH2R, FHOD3, KSR2, NLGN4X, TJP1, CLCN1, PRLR, FTO, RGS7BP, KALRN, ACOXL, NTRK3, ARNT, EGLN2, SEMA5A, FLT3, STAT5B, ATP2B2, GRM5, PLCE1, LHFPL4, FER, CASK, KITLG, SPNS2, PIK3CD, SP3, ZSWIM7, ANK2, OLFM1, EZR, NRXN3, MALRD1, SLC9A9, CHD7, SLC26A6, HTR2B, ITGB6, CDKL5, TENM1, RYR3, LMNA, GOT1, AFM, TRAF6, ROBO2, ITPKB, CTNNA3, DNAJA3, SLC24A2, VAV2, ITGB1, TRIOBP, HSP90AA1, SLC24A3, PSMB7, TSC22D3, CNIH2, CCDC22, DSCAM, CNGB1, OMA1, CDC42EP3, MYO10, ABCC8, ERC1, HMGN3, DGKI, THRB, STXBP4, ERC2, GABRA3, LAMA2, TCIRG1, PTPN11, CCT2, CACNB2, DOCK10, HDAC6, GOLGA4, DDB1, ADORA1, GPRASP2, ERBB4, ADRA1D, CNNM1, LIMK1, ATP8A2, LARGE, ESR1, NPHP3, PTPRO, NTRK2, CYB561A3, TNRC6A, EP300, PDGFB, RIMS1, CDH8, CHFR, STK39, INSR, ATP8B1, TCF7L2, CDH4, JMJD1C, FBXW11, ESRRB, PTPRD, SLC4A10, SAMD4A, BDNF, AMIGO1, CLDN12, KCNMA1, CHRM3, FMNL2, GRIK4, LCK, MDM4, SLC12A8, NAV2, ACOX1, VAMP7, LAMC1, ARHGAP42, MB, SGCD, MICU3, DMD, SLC30A9, LARP4B, USP13, KAT7, SLC8A1, GSN, TANC2, JPH2, FYN, ARNTL, NF1, PCDH15, RTN4, DGKH, RTN4R, BCR, SHISA9, ICA1, IFI30, PIK3R2, NTN1, DCTN1, SLC4A5, NRG1, CNNM2, SLC16A10, BDKRB1, BDKRB2, BID, STIM1, NALCN, MYH9, FRMPD4, LRFN5, DAGLA, TMBIM6, CNTN4, PCSK2, TMEM30A, CMKLR1, TSPAN8, DCN, SLC39A14, LIN7A, SYN2, TRDMT1, ENTPD1, RAB27A, CAPRI, N2, NCKAP1, F5, PTGER2, CLDN16, ANO6, NEUROD1, GNAQ, ZDHHC15, JAK2, FBXW7, SYN3, CLSTN2, SYT1, CROCC, NPSR1, BBS12, LZTS1, SCN4A, PKNOX1, CLDN1, ATP9A, SLC9A7, PNPLA1, PLS1, PDE2A, SEPT7, KLF15, CYFIP2, PALMD, NOX4, MKLN1, CACNA1H, IL1RAPL1, CAMK2B, PRKCD, ACVR2A, SEMA5B, TGFB1, SGK1, PCSK5, KEL, BTRC, JPH3, PTPRN2, F2RL1, C9ORF47, GRIK3, DNAJB2, AAK1, SLIT2, GABRR3, CADPS2, GABRB1, CDH23, DISC1, KCNJ3, KANK1, CACNA1D, CPT1C, ANO4, CLN6, XPR1, CHRM1, TMT2C, CLOCK, CHST9, ZNF675, ANO3, KCNH1, ANKRD54, PARVA, HNRNPC, HOMER2, SLC17A7, LINGO2, YTHDF1, FGF10, STXBP5, KCNH7, KANK4, IL1RAPL2, SVIL, CAPN3, SLC16A1, VMP1, EPHA4, RORA, HSD17B12, PRKCA, CNR1, TNFSF11, PPP3CA, NSUN2, MAG, PIP5KL1, UFL1, CTNNB1, PARK2, SOD2, FCGR2B, ARHGAP22, CDHR2, IGF1R, PPARG, IARS2, DLG5, IL18R1, ADD2, MTF1, CPQ, P2RY10, TRPM1, OTC, XK, SREBF2, AARS2, RYR2, FBLIM1, DRAXIN, LEPR, PROS1, NR4A3, FOXK2, NOL3, PER2, CACNA1C, SCN3B, CHEK2, PRDM16, CSMD1, HCK, DIO2, GRM1, RIMS4, DCC, NF2, PAX2, SPTBN1, ELN, SFRP1, MED13, FOXO3, DGKB, TRHDE, ZCCHC17, DNMT3, SSH1, ATP10D, SYNERIP, SMAD3, CUX2, ITPR1, WWP2, ACKR2, CYP4F11, AB12, C10ORF90, GRIK5, SLC16A2, SHANK1, DCP1B, NEDD4, NRP2, ARHGEF18, DOCK4, ESRRG, SLC4A4, SLC6A1, KCNK1, CDC73, APP, PDGFRA, ADD3, DIP2B, NOX1, YAP1, HEG1, RAB11FIP5, STL4, NLGN2, EYA2, RNLS, IBTK, ALPL, ANGPTL4, TNNI3K, PEMT, LRP5, BDH2, ISLR2, SLC9B2, GPC6, ECSIT, SPTBN4, DRD1, TMEM14A, GLRA2, RFT1, VILL, MMP2, TPH1, PRKD1, STAT1, DGKG, RND3, SLC6A3, USP53, HNF4A, SHANK2, TMEM183A, SEMA6D, ATF2, RAF1, CELF4, RASGRF2, ACOX2, BMPR2, USP33, DPYSL2, PABPC4, NLGN1, CTNNA2, ATP9B, RAB11A, FGF2, PPA2, GRIK1, ADCY5, SEMA4D, MCTP1, PLXNA2, PTAFR, ADCYAP1R1, KLHL3, SORCS2, RAB11FIP3, PRKCG, SLC9B1, EHMT1, AP2M1, DVL3, ECE2, EIF4G1, EPHB3, TRAPPC11, LIN28B, AKR1D1, EBF2, DEPTOR, FBXL20, VCL, T </p>

			<p>ERF2IP, CLIC4, CRYM, IDE, KCNQ1, WNT3, RHOJ, CCL14, CCL15, TG, NLGN3, PAFAH1B1, KIF3A, TRPA1, DDAH1, NMUR2, HIP1, AKAP6, TSPAN1, BTBD9, TRPC5, NEO1, SCUBE1, RUFY3, TNRC6B, WDTC1, DAB2, PKHD1, XKR4, USH2A, SETD5, DLG3, WNK1, RELN, SIN3A, ABCB1, DOCK11, SLC22A3, CFDP1, ZNF423, MACF1, ALK, SLC8A2, INPP5D, KLK2, STAU1, DSC2, FASTKD5, SLC9C1, AKAP2, TPCN1, GPM6B, XDH, SNX5, PRKG1, ATP2B4, SYNE3, SPTBN5, PAK3, SLC04A1, SSH2, P2RX6, ASGR2, ATAD1, ADNP, MAPKAPK2, ARID4A, MAP1B, SCARB1, CDK6, ATP6V0A2, KCNA2, CELF1, P2RY8, TFRC, EPHA5, SORCS3, GABRG3, SYT12, CACNA1A, SGIP1, ADRBK1, PSMB2, ZNF207, PTGER3, SCOC, DIS3L2, GNB3, TRPV1, HOXB6, GHR, FLRT2, FGD1, SNX9, ACTR2, ACACA, ELAVL4, TRIM24, ADIPOR2, PLCG2, ROCK1, EPS8, C1QTNF1, EGR2, CAPN10, GPR35, ABCC1, AP3B1, PTPN2, NTRK1, TRIM44, MAP1A, TMIGD1, SLC39A10, ANK3, DNMBP, UNC13A, EPHB1, AXIN2, TMEM199, ATP13A3, GNL3L, TRIM46, TUB, KCND3, CACNG8, AP3D1, SLC9C2, VWF, AP2B1, NETO1, ARHGAP44, DTD2, SRD5A2, COCH, DSG1, SPI1, DGKK, EPHA7, CHRN4, MCU, LIMA1, TRDN, ATG14, GABRA6, LRRC8D, ILDR2, SHROOM3, TRPC6, ABCB7, RENBP, FCHSD2, MAP3K13, OTUD3, PDXP, SH3BP1, ATP13A5, SNCA, CACNG2, GRM4, PNPT1, DHRS4, SYT9, HEY2, RC3H1, WNT7B, PTPRS, SULT2A1, ADTRP, ABCA12, CSRP1, RASA1, OPRD1, PKP2, RPTOR, BTK, SGCZ, DSG1, SLC4A8, IGF1, ATF7IP, HTT, LARS2, MAPK1, PTEN, SLC30A7, SCN8A, PUM1, PRCP, LRRK2, ATP6V1A, GNA14, ZBTB20, BAG6, MORC3, TMCO1, TMEM108, PKD2, EFNA5, SHANK3, TADA2A, DAZL, PDGFC, SERPINA3, ATP8B4, STEAP4, PPP2R3C, WNT7A, ZBED6, SNAP23, BRWD3, CRT3, PLC2, GPR21, RHOT1, BMP6, TAF15, ANO1, GPI, SOS1, TSHR, EXT1, GABRR2, IKZF1, PARVB, PNPLA3, RAPGEF2, KCNC2, SMO, RALY, GET4, BLOC1S3, STXBP5L, CPT1A, TNFRSF11B, BPGM, DECR1, TFE3, GRIN1, RHOA, SYNGAP1, GRIN3A, TF, RHOTB1, FAM19A4, CUL3, SH3BP1, HSPD1, ITPR2, GABRB3, GSK3B, ABCG8, PRR16, RDX, STAT6, ACTA2, SYN1, EEF2K, FAM49B, ALAS2, MCTP2, SCN9A, BOK, AGT, METTL16, ELOVL3, PRKAA2, SYT7, ADAR, BLOC1S6, ZMPSTE24, FGGY, HRH4, PTK2, HEPHL1, PDE4B, RIMS2, TEC, EXOSC3, CPE, CREBBP, FAM171A1, PCSK6, SLC29A1, TAOX2, UGT1A1, UGT1A3, UGT1A7, UGT1A8, UGT1A9, ALDOA, ARHGAP15, ECE1, STC2, ALOX5, CPLX2, FGD3, ADAM8, CLDN4, GRID1, FGD4, NOS1, GCKR, PLEKHA1, PLVAP, RGS14, SCNN1B, STK4, EPHB2, GATC, SLC1A1, XCR1, BCO2, IL18, UBE2K, HCAR2, DIS3, DLCL1, PPARG, MCOLN1, STEAP3, SLC25A33, SYTL4, CYP2C18, PAX6, PRKCC2, ATP1A3, ADORA2A, GRIN2B, KCTD7, PAH, ANGPT1, CADPS, PACS2, TBL1X, LRRK1, GCNT2, ETS1, PPP1CA, MAP2, STPG1, CDK5RAP1, NCOR2, PRKCQ, BRAF, DIAPH1, HTR2C, ATP8A1, POU3F3, TNFR, MOXD1, PHIP, CDKL3, MAOA, RPL23, KCND2, PARN, ATP6V0A1, ADCY1, NUMB, SYK, CNOT1, WWTR1, CYP39A1, GRIK2, SCN1A, SLIT1, CIT, MYRIP, UBAP2L, RAP1GAP2, ALDH8A1, CACNG3, NEB, YBX1, GRIP1, PTPRJ, TAF1, ATP2B3, GPM6A, TAC3, POTE, HSF1, ATP10B, PLEKHM1, MCM8, VAV3, KCNQ3, CIB2, CAV2, GNA12, MYEF2, POC1B, CA12, TMPRSS3, AXL, MET, FMNL1, CAMK2D, CCR3, NBEA, TRAF2B, SPTAN1, MLXIPL, SEMA3C, THEM4, CCT3, NEDD4L, PHB, PTPRC, RPH3A, GPR89A, PBLD, SH3GL2, TYRO3, SYNDIG1, TRAF3IP2, CREB1, SHISA6, EDNRA, BMP4</p>
GO:0000904	cell morphogenesis involved in differentiation	1.717623606990732e-27	<p>CLRN1, NRXN1, PRMT3, CLASP2, SEMA3A, DOCK1, SEMA3D, PHACTR1, MYOT, TIAM2, UNC5C, KALRN, ATRNL1, SEMA5A, FER, OLFM1, NRXN3, ROBO1, CDKL5, KIF5C, ROBO2, NFASC, ABI1, ITGB1, TRIOBP, HSP90AA1, KND1, DSCAM, TRIO, DAB1, LAMA2, PTPN11, DOCK10, HDAC6, GOLGA4, EPHA1, LIMK1, ATP8A2, PTPRJ, NTRK2, EP300, MEGF9, TNK1, RERE, UNC5D, LAMA3, CDH4, PAK1, PTPRD, TBR1, STRC, BDNF, ATRN, AMIGO1, LAMC1, TANC2, CASS4, FYN, PCDH15, LMTK2, FAT3, RTN4, B4GALT6, RTN4R, CCDC141, ADAMTSL1, NTN1, MAP2K1, VAX2, MYH9, CNTN4, NTNG1, UST, CAPRIN2, RCC2, BOC, ZDHHC15, MYPN, LZTS1, BCL11B, PLS1, SIPA1L3, SLI1, ILIRAPL1, CAMK2B, SEMA5B, KEL, SLIT2, SLIT3, CDH23, CORO1C, CTNND2, DISC1, KANK1, LAMC2, DCLK1, PARVA, YTHDF1, ENAH, EPHA4, AUTS2, PPP3CA, MAG, CTNNB1, IGF1R, XK, DRAXIN, NIN, DCC, PAX2, SPG11, ARL13B, CNTN6, NFIB, DNMT3, CUX2, PTPRM, AB2, SHANK1, NEDD4, NRP2, BTBD3, PREX1, PRTG, APP, DIP2B, HEG1, FSTL4, ISLR2, SPTBN4, PARP6, DSCAML1, SEMA6D, BMPR2, USP33, DPYSL2, NLGN1, CTNNA2, RAB11A, CRMP1, LRRC4C, NEDD9, PEAK1, SEMA4D, PLXNA2, RILPL1, EPHB3, FBXO45, VCL, LAMB1, CLIC4, WNT3, P4HB, NLGN3, PAFAH1B1, TRPC5, GLI2, NEO1, RUFY3, DAB2, PKHD1, USH2A, RELN, SIN3A, MACF1, MYO7A, PAK3, ADNP, MAP1B, EPHA5, MEF2A, FLRT2, ACTR2, ELAVL4, ROCK1, EGR2, NTRK1, MAP1A, ANK3, PTPRQ, EPHB1, EPHA10, SARMI1, PARD3, TRIM46, ARHGAP44, CUX1, SPI1, EPHA7, MAP3K13, PTK7, BMPR1B, PTPRS, PTEN, BMP7, LHFPL5, LRRK2, RAPH1, EFNA5, SHANK3, TBCD, WNT7A, MYCBP2, SOS1, EXT1, PARVB, RAPGEF2, SMO, RHOA, SYNGAP1, CUL3, GSK3B, EMB, EEF2K, PTK2, GAP43, TAOX2, ECE1, RPS6KA5, ACTN4, TUBB3, EPHB2, TMEFF2, NOTCH4, PAX6, COL22A1, MAP2, FBXO31, PRKCQ, BRAF, SPINT2, TNFR, CDKL3, SRGAP2, TMEF1, ADCY1, NUMB, SLIT1, RADIL, AXL, MET, SEMA3C, NEDD4L, TYRO3, NCAM1, CREB1, EDNRA</p>
GO:0050793	regulation of developmental process	1.5068637197883785e-26	<p>ENPP1, PRDX2, NRXN1, PRKCI, DNMT1, S1PR2, HLX, LLPH, TRPS1, CBFB, CLASP2, SEMA3A, GRID2, DOCK1, WWC1, CLDN18, LATS2, EPB41, SEMA3D, NREP, TIAM2, PTGIS, WWC3, TJP1, PRLR, FTO, KALRN, NTRK3, ARNT, SEMA5A, STAT5B, TOX, ENPP2, GRM5, KITLG, LRP2, PIK3CD, ZNF536, OLFM1, EZR, MEGF10, ROBO1, CHD7, CDKL5, LMNA, TRAF6, ESRP1, ROBO2, ITPKB, ITGB1, TRIOBP, PSMB7, KND1, ZC4H2, DSCAM, TRIO, GF11B, RUNX1, DAB1, OMA1, CDC42EP3, MYO10, ABCC8, LAMA2, TCIRG1, PTPN11, RBM19, HDAC6, GOLGA4, EPHA1, IKBKB, ERBB4, LIMK1, ATP8A2, ESR1, NPHP3, CDON, NTRK2, CELA1, HOOK3, PDGFB, RIMS1, TNK1, TOB2, INSRL, H2AFY2, LAMA3, TC7L2, CDH4, PAK1, ESRRB, PTPRD, BASP1, BDNF, TFAP2A, ATRN, AMIGO1, FANCA, T</p>

			<p>GIF2, FMNL2, MEIS1, TENM4, ECT2, DMD, CENPF, KAT7, SLC8A1, RBM4, GPR171, TA NC2, JPH2, CASS4, FYN, ARNTL, ADAMTS9, NF1, PLCB1, FAT3, RTN4, RTN4R, BCR, CHI 3L1, BMP2K, ANKH, NTN1, NRG1, MAP2K1, FNIP1, STIM1, MYH9, VGLL4, CNTN4, HDA C5, NTNG1, JDP2, CMKLR1, ROR2, DCN, SOX13, UST, MAD2L2, TLE6, CAPRIN2, NLN, T ERF2, RCC2, BOC, ANO6, NEUROD1, CCBE1, ZDHHC15, JAK2, FBXW7, CLSTN2, SYT1, ITCH, BBS12, LZTS1, BCL11B, RBFOX1, MLLT3, PLS1, TCF7, SEPT7, WNT11, PALMD, FI G4, KREMEN1, MKLN1, IL1RAPL1, CAMK2B, SOX6, ACVR2A, RUNX2, SEMA5B, CD4, T GFB1, ZHX2, KEL, NFATC3, C9ORF47, CELSR1, SLIT2, TP73, CORO1C, DISC1, KANK1, MTDH, SMAD6, CLOCK, ITSN2, TCF12, ZNF675, SMOC1, NELL1, SUCO, BMPER, ANKR D54, PARVA, ADAM12, STRIP1, LINGO2, FGF10, LOXL3, CAPN3, SMURF2, EPHA4, RO RA, PRKCA, TNFSF11, PPP3CA, NSUN2, MAG, CAMK4, UFL1, CTNNB1, PARK2, SOD2, FCGR2B, IGF1R, PPARG, AXIN1, DLG5, MSRI, ANKRD17, CYBB, XK, ANKRD26, FBLIM 1, DRAXIN, FGF1, NIN, DCT, MYOCD, PER2, KIR2DL4, CPNE6, GLG1, PHLDB1, HCK, C APN2, DCC, CTDPI, NF2, FLT4, HDAC4, PAX2, SFRP1, FOXO3, NFIB, DNM3, SMAD3, C UX2, PTPRM, CASZ1, ABI2, SHANK1, SYT3, NEDD4, ARHGEF18, VANGL1, PREX1, HOX D3, NFATC1, PRTG, CDC73, APP, SSBP3, GSX2, PDGFRA, DIP2B, YAP1, FSTL4, NLGN2, SH3D19, JAK1, ANGPTL4, LRP5, ISLR2, SLC9B2, SOX2, ZDHHC6, GPC6, PRICKLE1, SP TBN4, VASH2, FRS2, SFMBT1, TPH1, CPNE9, PRKD1, STAT1, PARP6, DGKG, RND3, SLC 6A3, HNF4A, ZBTB7C, EREG, SEMA6D, ATF2, TCF3, RAF1, CELF4, ADAMTS12, BMPR2, DPYSL2, CAMK1D, BMPR1A, TSPAN12, NLGN1, CDK12, TAF8, SPAG9, RAB11A, MYB, F GF2, LRR4C, NEDD9, AGBL4, SEMA4D, ISM1, RORC, PLXNA2, SETD1A, JARID2, RAR B, SPEN, NCOA1, BLOC1S5, EEF1E1, EHMT1, CHRDL, DVL3, EIF4G1, EPHB3, PAWR, CC DC3, VCL, MYO9A, WNT3, ZNF322, RHOJ, P4HB, SUFU, TG, NLGN3, SCUBE2, PAFAH1 B1, KIF3A, COL4A3, DDAH1, AKAP6, RASAL1, TRPC5, GLI2, RUFY3, DAB2, PKHD1, US H2A, LDLRAD4, MYSM1, RELN, SIN3A, RSP02, CSF3R, CFPD1, APOLD1, SP1, MACF1, ALK, INPP5D, CLASP1, TEAD4, AKAP2, SRA1, GPM6B, ADIRF, XDH, OVOL2, NFATC2, BNC1, ATP2B4, SYNE3, PACSIN1, TMEM2, PAK3, ADNP, MAP1B, MARK1, CDK6, CELF 1, TFRC, DROSHA, GPC3, PSMB2, EYA1, BRINP1, GNB3, TRPV1, HOXB3, HOXB4, GHR, FLRT2, FGD1, ACTR2, ELAVL4, LGI4, HDAC1, SMOC2, ROCK1, EPS8, PAXIP1, EGR2, R NF10, AP3B1, PTPN2, NTRK1, DNMBP, UNC13A, EPHB1, AXIN2, SARM1, PARD3, TRIM 46, SH3GL3, BCOR, AP3D1, CARM1, ARHGAP44, COCH, CUX1, SPI1, EPHA7, MCU, CT NNA1, GLIS1, SHROOM3, MAP3K13, RAPGEF3, SDK1, MST1, SMDY1, BMPR1B, CD53, MAGI2, PNPT1, ZEB2, HEY2, RC3H1, WNT7B, PTPRS, TLL2, TRIP12, ABCA12, RA SA1, MTF, SRSF6, HIPK1, PKP2, RTN4RL1, BTK, ZNRF3, IGF1, MAPK1, PTEN, MIB1, SP RED2, BMP7, SOX5, TLL4, LRRK2, ZRANB1, BAG6, LILRB4, EFNA5, SHANK3, NCOA3, PPP2R3C, WNT7A, ZBED6, BRWD3, GPR21, BMP6, IL17RD, SOS1, TSHR, WDR43, PRIC KLE2, PARVB, RAPGEF2, SMO, TCF4, TNFRSF11B, SYT17, TFE3, RHOA, SYNGAP1, GRI N3A, ROR1, RHOTB1, SH3KBP1, NFKBID, GSK3B, RDX, STAT6, EEF2K, FAM49B, CDK 13, CD27, SULF1, AGT, BLOC1S6, FBN2, STAT2, ZMPSTE24, BRINP3, PTK2, RIMS2, PBX 1, TCP11, EXOSC3, MAP3K5, TCFL5, FAM171A1, DLX1, TAOK2, SHC1, ALDOA, ARHGA P15, CD160, LBX2, RPS6KB1, STC2, ALOX5, SP7, CD44, FGD3, LARP4, ADAM8, CLDN4, CDS1, FGD4, RGS14, ACTN4, STK4, SPEF1, EPHB2, CLPTM1, IL18, DLC1, PPARA, NOT CH4, FBN1, PAX6, PRKCZ, FAM20C, PPP1CC, PHLDB2, NIPBL, TMIGD2, ASPN, GCNT 2, ETS1, VWC2, MAP2, FBXO31, CDK5RAP1, BRAF, DIAPH1, HDAC2, HTR2C, IMPACT, TNR, MBNL3, PHIP, CDKL3, PPP2CA, ANGPT4, SP100, NUMB, SYK, CNOT1, WWTR1, SL IT1, DVL2, YBX1, GRIP1, PLEKHB2, HSF1, SASH1, ASAP1, ADAMTS7, SULT2B1, BMP1, ZP3, GNA12, INPP5F, AXL, TNFSF9, WIF1, CD109, FMNL1, CCR3, ANKRD6, MALTI, SE TD3, EHD2, KDM2B, SEMA3C, NEDD4L, PTPRC, SYNDIG1, CREB1, BMP4, CPNE1</p>
GO:00 48667	cell morphogenesis involved in neuron differentiation	4.48756361 03668245e- 26	<p>CLRN1, NRXN1, PRMT3, CLASP2, SEMA3A, SEMA3D, PHACTR1, MYOT, TIAM2, UNC5 C, KALRN, SEMA5A, OLFM1, NRXN3, ROBO1, CDKL5, KIF5C, ROBO2, NFASC, ABI1, IT GB1, TRIOBP, HSP90AA1, KNDIC1, DSCAM, TRIO, DAB1, LAMA2, PTPN11, DOCK10, H DAC6, GOLGA4, EPHA1, LIMK1, ATP8A2, PTPRO, NTRK2, TNK, RERE, UNC5D, LAMA 3, CDH4, PAK1, PTPRD, TBR1, STRC, BDNF, AMIGO1, TANC2, FYN, PCDH15, LMTK2, R TN4, B4GALT6, RTN4R, CCDC141, ADAMTSL1, NTN1, MAP2K1, VAX2, CNTN4, NTNG1, UST, CAPRIN2, BOC, ZDHHC15, MYPN, LZTS1, BCL11B, PLS1, SIAH1, IL1RAPL1, CAM K2B, SEMA5B, KEL, SLIT3, SLIT2, CDH23, CTNND2, DISC1, LAMC2, DCLK1, YTHDF1, E NAH, EPHA4, AUTS2, PPP3CA, MAG, IGF1R, XK, DRAXIN, NIN, DCC, PAX2, SPG11, CNT N6, NFIB, DNM3, CUX2, PTPRM, ABI2, SHANK1, NEDD4, NRP2, BTBD3, PRTG, APP, DIP 2B, FSTL4, ISLR2, SPTBN4, PARP6, DSCAML1, SEMA6D, BMPR2, USP33, DPYSL2, NLG N1, CTNNA2, RAB11A, CRMP1, LRR4C, SEMA4D, PLXNA2, EPHB3, FBXO45, VCL, WN T3, NLGN3, PAFAH1B1, TRPC5, GLI2, NEO1, RUFY3, RELN, SIN3A, MACF1, MYO7A, PA K3, ADNP, MAP1B, EPHA5, MEF2A, FLRT2, ACTR2, ELAVL4, EGR2, NTRK1, MAP1A, AN K3, PTPRQ, EPHB1, EPHA10, SARM1, PARD3, TRIM46, ARHGAP44, CUX1, EPHA7, MA P3K13, PTK7, BMPR1B, PTPRS, PTEN, BMP7, LHFPL5, LRRK2, RAPH1, EFNA5, SHANK 3, TBCE, WNT7A, MYCBP2, SOS1, EXT1, RAPGEF2, SMO, SYNGAP1, GSK3B, EMB, EEF2 K, PTK2, GAP43, TAOK2, ECE1, RPS6KA5, TUBB3, EPHB2, PAX6, MAP2, FBXO31, PRKC Q, BRAF, TNR, CDKL3, TMEFF1, ADCY1, NUMB, SLIT1, SEMA3C, NEDD4L, NCAM1, CR EB1, EDNR4</p>
GO:00 43412	macromolecule modification	5.20984293 7996584e- 26	<p>LNX2, ZDHHC14, ENPP1, NRXN1, ASPH, B4GALNT2, PRMT3, PRKCI, MOV10L1, SLCO 3A1, MAP4K4, PDE4D, DNMT1, SIPR2, C6ORF89, ADCY8, MGAT4C, CBFB, PDE8A, IL3 1RA, RPS6KA2, PRDM12, SETD4, CTDSP2, FBXL2, NRG3, ASH1L, NOS1AP, LATS2, RN F145, KSR2, PRKAG2, PRLR, MVP, PAGR1, FTO, KALRN, DCAF12, MRMI, NTRK3, CBL, ARNT, EGLN2, FLT3, TOX, ENPP2, GRM5, PLCE1, FER, CASK, MAPK4, MAP2K5, KITLG</p>

			<p>,USP32,MAPK10,PTPRR,PIK3CD,CAMK1G,B3GALT1,ROBO1,TOM1L1,HTR2B,CDKL5,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXRI,GRK5,ABI1,ULK4,TRIOBP,HSP90AA1,CDC6,PSMB7,THUMP3,TSSK1B,KNDC1,ZC4H2,STK38L,TRIO,KLHL12,AKAP13,TLL5,PTPRK,DAB1,ERC1,KLHL7,MAST4,PTPN11,HERC4,MGAT5,HDAC6,DDBI,ADORA1,MSRA,EPHA1,IKBKB,ERBB4,DPLY1,9L2,MRE11A,LIMK1,TLK1,BRD8,KAT6B,ABR,CUL4B,LARGE,MIER1,PMEPA1,PTPRO,CDON,KANSL1,FBXL18,NTRK2,EP300,RNF220,FNT4,TPST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,BRMS1,CHFR,STK39,INSR,PRKAR1A,ASB5,S6GALNAC3,JMJD1C,CAB39,USP34,PAK1,FBXW11,MAP3K4,ZDHHHC13,PTPRD,RNF144A,EGLN3,BDNF,CDK14,CHRM3,POMGNT2,FUT8,TRIM13,UBR2,HLCS,LCK,ENTPD5,ECT2,MYO3B,MTA3,SNX6,CHML,PPM1L,PTPRU,ERN2,DMD,ATG10,USP13,KAT7,SLC8A1,RBM14,RIT2,MACROD2,CASS4,FYN,MKRN2,ARNTL,NF1,MGMT,LMTK2,ARID4B,GXYLT2,PPP4R2,FBXO21,NEIL2,B4GALT6,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,TTN,BMP2K,PAQR3,TPGS2,KLHL21,EGFLAM,PPIG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,FRY,MAP2K1,FNIP1,GALNT16,PPP2CB,HDAC5,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,CDKL2,ROR2,DCN,ZDHHHC3,TRDMT1,WDR70,PTPRT,UST,COP5,IPO5,MAD2L2,MAN1A1,CAPRIN2,CNLY1,PHF20L1,PDF,GNAQ,FBXO9,ICK,RFFL,TLL8,PARP11,HERC5,USP22,ZDHHHC15,JAK2,FBXW7,UBR7,UIMC1,ITCH,USP12,ZFYVE28,SMG1,HUNK,B3GALT5,CDC42BPB,PHKA1,DHDDS,KLF15,SPSB1,WNT11,TPST1,TRIM59,MTA1,NOX4,RPRD1B,SLAH1,CAMK2B,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,P4HA2,SPSB4,MYO3A,NSD1,PIBF1,BTRC,DUS2,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,SLIT2,ASB15,RNF133,RNF148,HHAT,CORO1C,CDKAL1,PTPDC1,TMTC1,TBCK2,KDM4B,SMAD6,TMTC2,CLOCK,ZNF675,BMPER,DCLK1,RNF212,ANKRD54,DAPK2,TNFRSF10B,DAPP1,DUSP22,TRRAP,DOCK3,FGF10,FBXL17,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCI,CAPN3,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,NSUN2,CAMK4,PIP5K1,UFL1,TRAK1,CTNNB1,PARK2,IGF1R,PARG,AXIN1,PRKAR1B,MACROD1,OTUB1,RSPRY1,AARS2,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,WDR45B,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,CHEK2,SUPT3H,PRDM16,ASB8,PPP1CB,SPDYA,HCK,RAB3GAP2,TBCK,TRIM8,PPP2R2B,CSPG4,BRMS1L,CTDP1,HS3ST5,BAZ1B,OBSCN,NF2,FLT4,HDAC4,SPTBN1,TPT,TRABD2B,SFRP1,ST8SLA1,PPP6R2,USP54,SSH1,TYW1B,RNF72,RA6A,PTPRM,WWP2,WIP1,MTBP,RNF168,EMG1,ABI2,C10ORF90,NEDD4,GALNT14,TAB1,KT12,ST3GAL3,CDC73,APP,USP49,PDGFRA,SLK,CCN2,DIP2B,KANSL2,ARIH1,HEG1,AMFR,ST6GALNAC5,CDK3,EYA2,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SETD2,ZDHHHC6,PRICKLE1,RCAN1,SPTBN4,DRD1,CHUK,RFT1,S100A12,DCUN1D3,KDM6A,PRKD1,NAA25,PARP6,USP53,LRR2,SHPRH,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,USP33,CAMK1D,BMPR1A,PIK3R3,CDK12,CAND2,SPAG9,MYB,FGF2,PPA2,PPM1F,UBE2R2,NEDD9,AGBL4,PEAK1,SEMA4D,NFX1,CDC27,ELP3,SETD1A,JARID2,KLHL3,PRKCG,SIN3B,NCOA1,AREL1,EHMT1,LMO7,UCHL3,ALKBH3,DVL3,EIF4G1,EPHB3,PTPRE,RBX1,ANAPC5,FBXO45,STT3B,CKS1B,TRMT61B,DEPTOR,PKN3,FBXL20,TSG101,DESII,TERF2IP,FKBP5,RCE1,B3GALNT1,P4HB,SUMF1,PTPN13,QPCTL,PADI6,TRPC5,UBA2,EDEM3,TLL7,TNKS,WDC1,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,TYW1,JOSD1,PELI1,PPP2R5C,IQGAP1,DCAF5,MAP3K7,TRIM22,ZNRF1,ALK,SLC8A2,UBOX5,TOPI,AGBL1,UBE2V1,PADI3,XDH,RBBP6,PRKG1,TLL9,ATP2B4,PARP12,ACTL6B,PAK3,SSH2,TET1,HECTD4,MKRN3,CAMTA1,ADNP,MAPKAPK2,CEP41,ARID2,KLHL3,PRKCG,2BPA,MARK1,CDK6,PHF2,RNF34,TFRC,UVRAG,EPHA5,ALG14,DCAF6,DCUN1D5,ADRBK1,PSMB2,EYA1,GATAD2A,CDCA3,RNF216,GHR,MNAT1,SNX9,HDAC1,TRIM24,PLCG2,ROCK1,PAXIP1,EGR2,HIPK3,RNF10,RYPB,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,PKN2,SLC39A10,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,PARD3,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,MGAT4A,CARM1,FOLH1,SPH1,DNMT3B,EPHA7,PTPRA,FBXW4,ATG14,BCAR3,STK38,RBPMS,NTMT1,MAP3K13,OTUD3,RAPGEF3,PDXP,PTK7,RSRC1,SMYD1,SNCA,BMPR1B,MAGI2,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,KMT2C,UBE2QL1,TRIP12,ADTRP,OPRD1,HIPK1,RPTOR,BTK,ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,ATF7IP,HTT,MAPK1,PTEN,MIB1,SPRED2,BMP7,PCMTD2,PIK3C3,TLL4,LRRK2,TMEM59,ZRANB1,PIGS,UNC119,BAG6,LILRB4,MORC3,PKD2,EFNA5,SEL1L2,RCOR3,TADA2A,ALPK3,PDGFC,NCOA3,PKIB,MTMR3,PPP2R3C,RPS6KC1,PLCL2,WDR5B,KAT6A,SIK3,BMP6,MYCBP2,SH3RF2,EXT1,DYPY19L4,N4BP1,ATRX,DHP6,C8ORF44-SGK3,PRMT2,RAPGEF2,VRK3,ALG9,FDXACB1,MARK4,PRKAR2B,DYPY19L1,GALNT10,UBE2H,DNAJC6,UBR5,JADE1,ARRDC4,RHOA,SPRTN,WSB2,ROR1,RQCD1,CUL3,EPM2A,GSK3B,DNAJC3,EEF2K,IWS1,PPP1R16A,PTPRB,CDK13,PGGT1B,STK32B,DUSP26,RNF144B,RNF43,AGT,METTL16,CCNJL,PRKAA2,ADAR,CUL9,STAT3,2,ZMPSTE24,PTK2,PHFX,RNF121,TEC,DCAF10,EXOSC3,FBXO10,CDCA14,MAPK5,CPE,TRPC4AP,CREBBP,PRKD3,LMTK3,NCF1,TAOK2,PYGO2,SHC1,PARP10,RNFT1,RPS6KB1,ZDHHHC23,GALNT13,GUCY2F,SETDB2,FBXO28,CD44,ADAM8,FKBP14,RPS6KA5,CSNK1A1,HUS1,PRDM2,NOS1,RGS14,STK4,MARK3,EPHB2,SLC1A1,TLL11,MARCH8,IL18,PCMT1,UBE2K,DLC1,FBXL13,PDP1,PHLPP1,PPIL6,MOB3B,ACP1,RNF150,PAX6,PRKCZ,FAM20C,ADORA2A,MAN2B1,PPPICC,RABGEF1,CCNG2,TYK2,OTUD7B,NIPBL,YEATS4,PHF20,ANGPT1,TBL1X,EYA3,LRRK1,OSB</p>
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			<p>PL8,TRMT2B,GCNT2,PPP1CA,MTF2,FBXO31,ATG3,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SRCAP,UBE2E2,C18ORF25,CD300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,RPL23,OPN1LW,PARN,PIGU,PRMT7,WIP2,ALG2,MADD,SYK,WWTR1,GT2H5,ASB1,CIT,BRCA2,DVL2,MORC1,PTPRJ,TAF1,PPME1,TICAM1,RNF38,TANK,RIMKLA,GALNT7,NSUN6,HSF1,EZH1,ETFI,ETFL,RNGTT,SRPK2,SASH1,RNF2,MOB3A,GNAI2,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B-GALNT4,INPP5F,NUAK2,AXL,AGBL3,TRIM37,CD109,MET,CAMK2D,UCHL5,MAL,T1,SETD3,TRIM69,ZDHHHC11,ZDHHHC11B,KDM2B,MLXIPL,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TRAF3IP2,TRIM60,CREB1,METTL21A,TNXB,EDNRA,BMP4</p>
GO:0006928	movement of cell or subcellular component	2.690705470199556e-25	<p>CLRN1,DNAH11,LDB2,GPC5,NRXN1,PRKCI,MAP4K4,PDE4D,S1PR2,SLC9A1,SPAG16,CLASP2,SEMA3A,DOCK1,WWC1,KIF22,NRG3,ASH1L,NOS1AP,IQCG,ASTN2,SEMA3D,PHACTR1,MYOT,MAPRE2,WWC3,TJP1,UNC5C,KALRN,WIPF3,NTRK3,ATRNL1,SEMA5A,STAT5B,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR,SPNS2,PIK3CD,ANK2,MEGF10,NRXN3,ROBO1,HTR2B,ITGB6,CDKL5,KIF5C,LMNA,ROBO2,NFASC,CTNNA3,VAV2,ULK4,ITGB1,ELMO2,CNIH2,SRGAP3,MCC,KIF26B,DSCAM,SRGAP2B,TRIO,ARHGAP24,DLG2,IFT43,PTPRK,DAB1,ABCC8,LAMA2,DACK1,PTPN11,MGAT5,CACNB2,DOCK10,HDAC6,ADORA1,EPHA1,KIF18B,PEX14,ERBB4,GBF1,DNAH2,ZNF609,NPHP3,PTPRO,NTRK2,DNAI2,MEGF9,PDGFB,AVL9,KIRREL3,STK39,INSR,FMN2,RERE,UNC5D,LAMA3,CDH4,PAK1,FBXW11,TBR1,CATSPER2,BDNF,ATRN,POMGNT2,FUT8,FMN2,PHACTR4,LCK,LAMC1,PTPLA,AP3S1,STARD9,SGCD,SLC8A1,GSN,SATB2,DEPDC1B,CASS4,FYN,ADAMTS9,NF1,PLCB1,DST,FAT3,RTN4,DPEP1,APOD,BCR,CCDC141,NDRG4,ADAMTSL1,NTN1,NRG1,BDKRB1,DOCK8,MAP2K1,MYH9,CNTN4,HDAC5,NTNG1,NAV1,CMKLR1,ROD2,BCN,CATSPER3,CDH13,PTPRT,CCNYL1,NCKAP1,DEFA1B,CD99,TERF2,RCC2,BOC,ANO6,ARL3,KIF2A,ICK,RFFL,TLL8,CCBE1,JAK2,MYPN,FBXW7,BBS12,BCL11B,DNAH14,KIF21A,DYNCL11,CLDN1,CDC42BPB,WNT11,ASTN1,SLAH1,CAMK2B,PRKCD,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,CELSR1,SLIT3,SLIT2,CORO1C,RRAS2,DISC1,KCNJ3,KANK1,CACNA1D,LAMC2,TTBK2,SPAG17,BMPER,DCLK1,DAPK2,PARVA,DUSP22,YTHDF1,FGF10,ENAH,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11,PPP3CA,PIP5KL1,TRAK1,CTNNA1,SOD2,IGF1R,PPARG,DNAH10,DLG5,MYO1D,ADD2,LRRP3C,RYR2,DRAXIN,FGF1,NR4A3,DNHD1,MYOCD,AJUBA,CACNA1C,SCN3B,MYO1E,HCK,CSPG4,DCC,NF2,FLT4,HDAC4,DNAH9,TPTE,AP3B2,SPG11,SFRP1,FOXO3,ARL13B,CNTN6,NFIB,IFT122,SMAD3,RAB6A,PTPRM,ACKR2,ABI2,NRP2,PREX1,DOCK4,KPNB1,NAV3,PRTG,APP,GSX2,PDGFRA,SLK,CEP85L,NOX1,MYO1F,LRP5,PTPRG,SLC9B2,SETD2,GPC6,KIF24,DRD1,MMP2,SYNE2,S100A12,PRKD1,SYBU,RND3,DSCAMLI,SEMA6D,RAF1,ADAMTS12,USP33,DPLYSL2,CAMK1D,BMPRI1,CTNNA2,PIK3R3,SPAG9,RAB11A,CRMP1,FGF2,PPMIF,NEDD9,AGBL4,PEAK1,SEMA4D,ARMC2,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,ITGA11,PIK3C2B,SLC9B1,SPOCK1,BLOC1S5,GAS8,CHRD,EPHB3,FBXO45,PKN3,VCLL,LAMB1,CLIC4,KCNQ1,WNT3,RHOJ,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,KIF3A,GLI2,NEO1,RUFY3,DAB2,PKHD1,USH2A,LDLRAD4,MYSMI,DZIP1,WNK1,RELN,NEK10,CSF3R,IQGAP1,SP1,MACF1,MYO7A,CLASPI,DSC2,SLC9C1,OVOL2,NFATC2,PRKG1,TLL9,ATP2B4,PAK3,SSH2,DYX1C1,MAP1B,CD42BPA,SCARB1,MARK1,CDK6,EPHA5,GPC3,FLRT2,RPGR,ACTR2,SMOC2,PLCG2,ROCK1,EPS8,PAXIP1,EGR2,ABCC1,AP3B1,NTRK1,MAP1A,PKN2,TMIGD1,EPHB1,EPHA10,TRIM46,TUB,DNAH12,TEKT1,KCND3,AP3D1,KIF3C,SPI1,EPHA7,MCU,CTNNA1,LIMA1,SH3BP1,MST1,PTK7,BMPRI1B,MAGI2,ZEB2,HYDIN,ADTRP,PLD1,MITF,PKP2,KCTD13,IGF1,HTT,DPYSL3,MAPK1,PTEN,BMP7,PRCP,LRRK2,OSGIN1,ZRANB1,IFT81,TMEM108,EFNA5,PDGFC,AMOTL1,WNT7A,MAP4,EPDR1,NME8,RHOT1,MYCBP2,GPI,SH3RF2,SOS1,EXT1,RAPGEF2,SMO,SUN1,BLOC1S3,MYPF,RHOA,NDE1,TF,ONECUT2,FAM19A4,CUL3,SH3KBP1,PLD2,EMB,RDX,ACTA2,FAM49B,ITGBL1,SULF1,AGT,BLOC1S6,PTK2,TPPP2,PDE4B,COPG2,GAP43,TAK2,ECE1,RPS6KB1,KIF6,GPR173,ANKS1A,ITGAL,ALOX5,CD44,ADAM8,CLDN4,RPS6KA5,CXCL17,PEX7,PLVAP,ACTN4,STK4,TUBB3,SPEF1,EPHB2,TMEFF2,XCR1,DLCL1,ARID5B,EPB41L4B,GPSM3,LHDC,ZMYND8,PAX6,PRKCZ,RABGEF1,PHLDB2,KLC3,NIPBL,ANGPT1,OSBPL8,GCNT2,ETS1,ARHGAP21,MAP2,BIN2,CCL22,KIFC3,FBXO31,PRKCQ,BRAF,DIAPH1,ATP8A1,POU3F3,SPINT2,TNR,CD300A,ANGPT4,CAMSAP3,SP100,FAT2,RAB27B,SRGAP2,TMEFF1,NUMB,SYK,SCN1A,SLIT1,FRMD5,RADIL,DNAH3,PTPRJ,GPM6A,MYO1A,SASH1,VAV3,ZP3,GNAI2,INPP5F,AXL,MET,FMN1,CAMK2D,CCR3,SEMA3C,NEDD4L,PTPRC,TYRO3,ADCY10,NCAM1,EDNRA,BMP4</p>
GO:0032879	regulation of localization	3.7833534397362676e-25	<p>CD247,DNAH11,ENPP1,LDB2,GPC5,NRXN1,ASPH,PRKCI,MAP4K4,PDE4D,S1PR2,SLC9A1,ADCY8,CLASP2,SEMA3A,CHERP,DOCK1,WWC1,CLDN18,CTDSP2,RYR1,NRG3,NOS1AP,LATS2,ASTN2,EPB41,SEMA3D,PHACTR1,DPP6,MAPRE2,PRKAG2,TJP1,UNC5C,CLCN1,FTO,UTRN,KALRN,NTRK3,CBL,RAB4B,RAB4B-EGLN2,SEMA5A,ENPP2,KCNQ5,GRM5,FER,CASK,MARVELD3,MAP2K5,KITLG,KCNIP4,PTPRR,PIK3CD,ANK2,EZR,NRXN3,ROBO1,CHD7,SLC26A6,HTR2B,TENM1,RYR3,LMNA,CTNNA3,NKAIN2,ULK4,ITGB1,CNIH2,SRGAP3,MCC,NKAIN3,PCDH17,SRGAP2B,PARD6G,PTPRK,ABCC8,HMG3,DGKI,STXBPA,EFCAB7,LAMA2,TCIRG1,DACH1,PTPN11,KCNS3,NETO2,MGAT5,CCT2,CACNB2,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,GBF1,ZNF609,ATP8A2,KCNJ16,GRAM1,PTPRJ,PTPRO,FRMD4A,STX18,PDGFB,CACNA1B,RIMS1,STK39,INSR,ATP8B1,UNC5D,LAMA3,TCF7L2,</p>

			<p> <i>CAB39,PAK1,MYOM1,TBR1,CATSPER2,BDNF,AMIGO1,KCNMA1,CHRM3,KCNRG,LCK,ECT2,TMC2,VAMP7,PTPRU,DMD,KAT7,SLC8A1,GSN,RBM4,RIT2,JPH2,CASS4,FYN,ARNTL,ADAMTS9,NF1,PLCB1,STX6,RTN4,DPEP1,APOD,BCR,SHISA9,TTN,NDRG4,ICA1,BMP2K,PIK3R2,CACNA1E,NTN1,NRG1,SLC43A2,BDKRB1,DOCK8,MAP2K1,KCNIP1,STIM1,NALCN,MAD1L1,TMBIM6,HDAC5,NTNG1,TMEM30A,CMKLR1,ROR2,DCN,ZDHHC3,SCFD1,CATSPER3,DOCK2,CDH13,CREBRF,PTPRT,FGF14,IPO5,RAB27A,CD99,RAB3C,GOLPH3L,RCC2,ANO6,NEUROD1,KIF2A,RFFL,CBE1,IAK2,FBXW7,KCNB2,OAZ2,SYT1,CROCC,NPSR1,SCN4A,TMC1,CLDN1,ATP9A,PLS1,KLF15,KCNC4,WNT11,MKLNI,CACNA1H,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,CD4,TGFB1,SGK1,MMP28,KEL,JPH3,CLDN10,F2RL1,BCAS3,DNAJB2,AAK1,SLIT2,CADPS2,SYT13,CORO1C,RRAS2,C12ORF4,KCNJ3,CEP135,KANK1,CACNA1D,CACNA2D3,LAMC2,TTBK2,CHRM1,CLOCK,KCNH1,BMPER,DCLK1,DAPK2,DUSP22,RABGAP1L,HOMER2,SLC17A7,YTHDF1,FGF10,STXBP5,KCNH7,PLIN3,CAPN3,SLC16A1,VMP1,SMURF2,EPHA4,PRKCA,CNR1,TNFSF11,PPP3CA,NSUN2,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,PRKAR1B,DLG5,MSR1,CYBB,SCAMP5,ANXA13,SREBF2,KCNJ12,RYR2,KCNA6,LEPR,LEPROT,FGF1,NR4A3,NOL3,RIOK2,MYOCD,TRIM5,PER2,AJUBA,CACNA1C,SCN3B,PRKBS1,TRIM8,RIMS4,ANKFY1,NF2,FLT4,HDAC4,SPTBN1,SFRP1,FOXO3,DNM3,SMAD3,ITPR1,PTPRM,WWP2,GRIK5,LZTFL1,SHANK1,SYT3,NEDD4,NRP2,DOCK4,NAV3,SLC6A1,APP,GSX2,PDGFRA,BET1L,SLK,NOX1,YAP1,RAB11FIP5,NLGN2,VDAC1,BORA,IBTK,NVL,LRP5,PTPRG,SLC9B2,SETD2,GPC6,SPTBN4,DRD1,TMEM14A,MMP2,SERGEF,SYNE2,PRKD1,HNF4A,VPS4A,FXD2,FXD6,FXD6-FXD2,SEMA6D,KCNG4,RAF1,RASGRF2,PTPN1,BMPR2,CAMK1D,BMPR1A,NLGN1,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,ADCY5,NEDD9,SEMA4D,MCTP1,ELP3,PLXNA2,PTAFR,ADCYAP1R1,ABCA13,DDX58,RAB11FIP3,PRKCG,GAS8,AP2M1,CHRD,FBXL20,TSG101,VCL,LAMB1,CLIC4,KCNQ1,RHOJ,SUFU,NLGN3,KIF3A,TRPA1,HIP1,AKAP6,BTBD9,RUFY3,STON2,DAB2,PKHD1,LDLRAD4,MYSM1,DZIP1,WNK1,RELN,SIN3A,RUVBL2,ABCB1,KCNQ2,SP1,TRIM22,MACF1,CLASP1,DSC2,EEPDI,APBB3,TPCNI,GPM6B,CLIC5,AHNAK,SNX5,PRKG1,RGS7,ATP2B4,NSSF,PACSINI,PAK3,SSH2,ATAD1,MAP1B,SCARB1,CDK6,KCNAB2,TFRC,EPHA5,MEF2A,SYT12,CACNA1A,GPC3,SGIP1,STOM,ADRBK1,TBC1D5,PTGER3,TRPV1,FLRT2,C2,SMOC2,PLCG2,ROCK1,C1QTNF1,GAPVD1,CAPN10,GPR35,PTPN2,ZFAND1,MAP1A,PKN2,TMIGD1,ANK3,PTPN9,GNL3L,PTPN14,TRIM46,TUB,SH3GL3,KCN D3,CACNG8,AP3D1,AP2B1,NETO1,ARHGAP44,SNX33,CD84,SP11,CHRN4,MCU,CTNNA1,TRDN,STAC,TRPC6,RAB15,RAPGEF3,SH3BP1,MST1,SNCA,CACNG2,MAGI2,SYT9,CHMP3,RAB5B,ADTRP,ABCA12,PLD1,MITF,OPRD1,PKP2,XPO4,SLC5A8,IGF1,PLA2G4E,STX8,HTT,DPYSL3,MAPK1,PTEN,MIB1,BMP7,SCN8A,ATXN2,PIK3C3,PRCP,LRRK2,OSGIN1,TMEM59,SPAG5,UNC119,CNIH3,LILRB4,ITGAM,PKD2,EFNA5,SHANK3,PDGFC,AMOTL1,BEST3,WNT7A,ZBED6,DNAJCI,BMP6,MYCBP2,ANO1,GPI,SH3RF2,PLIN2,RAPGEF2,KCNC2,SMO,MARK4,STXBP5L,CPT1A,PSE N2,SYT17,DNAJC6,UBR5,GRIN1,RHOA,GRIN3A,TF,ONECUT2,ITPR2,EPM2A,GSK3B,ABCG8,RDX,ACTA2,SYN1,EEF2K,FAM49B,IWS1,NECAB2,MCTP2,SCN9A,BOK,SULF1,AGT,PRKAA2,SYT7,ZMPSTE24,PTK2,TPPP2,SNX3,PDE4B,RIMS2,SEC16B,CD160,KCNJ15,RPS6KB1,STC2,GPR173,ALOX5,CPLX2,DNAJB6,ADAM8,SLC5A3,CLDN4,PACSIN2,CXCL17,NOS1,PLVAP,ACTN4,STK4,EPHB2,SLC1A1,WLS,TMEFF2,XCR1,LRRK52,NKAIN1,GPSM2,HCAR2,DLC1,PPARA,MCOLN1,EPB41L4B,GPSM3,SYTL4,ZMYND8,PAX6,PRKCZ,ADORA2A,KCTD7,PPP1CC,RABGEF1,PHLDB2,OTUD7B,NIPBL,ANGPT1,CADPS,OSBPL8,EPB41L2,GCNT2,ETSI,MAP2,FBXO31,ATG3,CNTN1,BRAF,DIAPH1,HTR2C,ATP8A1,SPINT2,CD300A,ANGPT4,CAMSAP3,SP100,ANXA2,TRIM29,KCND2,PARN,RAB27B,NUP214,SRGAP2,ADCY1,NUMB,SYK,WWTR1,SCN1A,FRMD5,MYRIP,CACNG3,ANKRD13A,PTPRJ,SLC10A1,SASH1,ZP3,KCNQ3,GNAI2,INPP5F,AXL,MET,SESTD1,CAMK2D,KCNJ6,EHD2,SEMA3C,CCT3,NEDD4L,PTPRC,GPR89A,CREB1,SHISA6,EDNRA,PRAP1,STXBP6,BMP4,ABLIM3 </i> </p>
GO:0051234	establishment of localization	9.815696773218974e-25	<p> <i>POLDIP3,DNAH11,ZDHHC14,SLC39A11,ENPPI,SLC35E3,HOOK2,RTBDN,BLZF1,NRXN1,ASPH,PRKCI,SLC03A1,PDE4D,SLC9A1,ANTXR2,FAM155A,CD302,LY75,ADCY8,SPAG16,CLASP2,GRID2,CHERP,SLC35E1,DOCK1,WWCI,KIF22,CTDSPL2,SLC25A17,CACHD1,RYR1,NOS1AP,TUBA1C,LRP1B,NOX5,ANP32A,ASTN2,EPB41,DPP6,SLC14A2,NLGN4X,PRKAG2,CLCN1,SLC35F3,PRLR,MVP,UTRN,KALRN,PITPNC1,SEC23B,LTV1,SNX31,CBL,RAB4B,RAB4B-EGLN2,STAT5B,ENPP2,ATP2B2,KCNQ5,GRM5,FAM53A,FER,CASK,CCDC93,KCNIP4,SPNS2,LRP2,PIK3CD,SLC38A11,TNPO3,ANK2,EZR,MEGF10,NRXN3,SLC9A9,TOMIL1,CHD7,SLC26A6,HTR2B,TENM1,RYR3,KIF5C,LMNA,SRP72,AFM,SLC24A2,NKAIN2,VAV2,ITGB1,HSP90AA1,APOL4,SLC24A3,ELMO2,PSMB7,CNIH2,MCC,NKAIN3,PCDH17,CCDC22,SLC22A8,CNGB1,KLHL12,AKAP13,DLG2,FLVCR2,IFT43,MYO10,ABCC8,ERC1,HMGN3,AFTPH,NCF4,DGKI,STXBP4,ERC2,GABRA3,EFCAB7,TCIRG1,PTPN11,KCNS3,NIPAL2,NETO2,CCT2,CACNB2,CYTH3,HDAC6,GOLGA4,SV2B,ADORA1,GPRASP1,PEX14,ERBB4,CNNM1,SORCS1,GBF1,LIMK1,TLK1,ATP8A2,OSBPL10,CECR2,KCNJ16,NPHP3,GRM7,DPP10,NTRK2,CYB561A3,FRMD4A,STX18,HOOK3,VPS45,PDGFB,CACNA1B,RIMS1,SNX2,STK39,INSR,FMN2,ATP8B1,H2AFY2,PLLP,TCF7L2,PIP4K2A,HPS1,CAB39,PAK1,FBXW11,SCAMP4,MYOM1,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,GLTP,AMIGO1,SFT2D1,KCNMA1,CHRM3,GRIK4,KCNRG,LCK,ECT2,TMC2,TMEM144,SLC12A8,SNX6,EHML,VAMP7,SPNS3,SLC6A16,RFTN1,SHFM1,MB,AP3S1,NPLOC4,TMPRSS15,RHCE,DENND5A,MICU3 </i> </p>

			<p> DMD,CENPF,RANBP17,ATG10,SLC30A9,SLC8A1,PRELID2,GSN,RBM4,RIT2,TANC2,JPH2,FYN,ARNTL,ADAMTS9,NF1,NCF2,SMG7,SLC16A6,DST,LMTK2,STX6,SNCB,SLC25A21,MAL2,GOLGA2P5,SLC5A6,APOD,SLC2A14,VTAA1,BCR,SHISA9,TTN,NDRG4,ICA1,BMP2K,PIK3R2,ANKH,CACNA1E,NTN1,DCTN1,SLC4A5,NRG1,KCNN3,CNNM2,SLC16A10,SLC43A2,BDKRBI,BDKRB2,BID,MAP2K1,KCNNP1,SLC35A2,SLCO1A2,STIM1,NALCN,MYH9,MAD1L1,TMBIM6,TMEM30A,PAR3B,SCFD2,ZDHH3,SLC39A14,LIN7A,SCFD1,CATSPER3,SYN2,DOCK2,CDH13,PITPNB,CREBRF,COPS5,FGF14,EXOC4,IPO5,MAN1A1,TLE6,RAB27A,MTX3,RAB3C,COG8,TERF2,TMED6,GOLPH3L,CLDN16,RCC2,ANO6,ARL3,NEUROD1,IPO11,ICK,PARP11,RANBP1,DENND1A,ZDHH15,JAK2,FBXW7,KCNB2,OAZ2,SYN3,STARD6,SYT1,CROCC,NPSR1,BBS12,SNAP25- </p> <p> AS1,ABCC2,SMG1,SCN4A,RBFOX1,TMC1,SLC1A4,DYNC1I1,CLDN1,SLC5A9,ATP9A,SLC9A7,PLS1,DENND2A,KLF15,KCNC4,KPNA3,CTAGE6,CENPC,VPS13B,CLCA2,CYB561D1,IMMP2L,MKLN1,CACNA1H,OKI,IL1RAPL1,CAMK2B,PRKCD,SLC35F1,CD4,TGFB1,SGK1,PCSK5,NUP93,PIBF1,KEL,JPH3,PTPRN2,CLDN10,F2RL1,BCAS3,GRIK3,AAK1,ZFYVE9,GABRR3,CADPS2,GABRB1,SYT13,CDH23,CORO1C,C12ORF4,KCNJ3,CEP135,CACNA1D,ZFAND2A,ABCC11,CACNA2D3,GRPEL2,ANO4,ANK1,CLMN,XPR1,SPAG17,CHRM1,RAB11FIP4,CLOCK,ITSN2,ANO3,SYNJ2,KCNH1,BCL3,DCLK1,ANKRD54,RABGAP1L,ANKFN1,HOMER2,SLC17A7,FGF10,SMYD3,STXBP5,KCNH7,PLIN3,LOXL3,CAPN3,SLC16A1,VMP1,SNX8,CNR1,CD6,ANO2,TNFSF11,SMG6,PPP3CA,NSUN2,HBE1,TRAK1,CTNBN1,PARK2,RN7SL832P,FCGR2B,HSPA6,TSNARE1,IGF1R,PPARG,AXIN1,PRKAR1B,COX8A,MYO1D,TMEM63C,MSR1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUFA9,LEPR,LEPROT,PROS1,NR4A3,NOL3,RIOK2,AGAP1,SCARA3,PER2,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GA2,TBCK,MRC2,GRM1,RIMS4,ANKFY1,DNAH9,SPTBN1,AP3B2,SPG11,SFRP1,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,WWP2,ACKR2,WIP11,VPS39,GRIK5,PSAP,SLC16A2,SHANK1,SYT3,NEDD4,SVOP,SLC35F4,KPNB1,SLC4A4,VPS53,SLC6A1,RAB6C,SEC61B,KCNK1,THOC3,APP,BET1L,RBM8A,NOX1,RAB11FIP5,SFXN5,MYO1F,NLGN2,VDAC1,EYA2,SSR2,IBTK,SCRN1,LRP5,SEC22C,SLC9B2,SETD2,ZDHH6,PRICKLE1,SPTBN4,GRIA3,DRD1,TMEM14A,GLRA2,RFT1,SERGEF,TPH1,SYNE2,PRKD1,OSBPL2,SYBU,SLC6A3,HNF4A,STRA6,VPS4A,MAPKAPK3,FXYP2,FXYP6,FXYP6- </p> <p> FXYP2,PITRM1,SLC16A12,ATF2,KCNG4,RAFI,RASGRF2,PTPN1,USP33,DYSL2,CAMK1D,APIB1,NLGN1,ATP9B,SNX16,SPAG9,RAB11A,EPG5,IPO9,FGF2,GRIK1,RA24,PPM1F,ADCY5,AGBL4,MCTP1,XPO6,PTAFR,HHLPL1,ADCYAP1R1,EEA1,ABCA13,RILPL1,KLHL3,MRS2,SORCS2,RAB11FIP3,SLC5A8,PRKCG,SLC9B1,BLOC1S5,TXNDC5,TANGO6,GRIA2,GAS8,OC90,AP2M1,SLC35D1,TNPO1,TRAPPC11,TECPR2,ATP6V0B,LMBRD1,FBXL20,TSG101,DES11,CLIC4,CRYM,KCNQ1,SLC2A11,RHOJ,SUFU,TG,NLGN3,PAFAH1B1,KIF3A,ATG4C,TRPA1,TRPM3,NMUR2,HIP1,AKAP6,BTBD9,TRPC5,ENTHD1,TNKS,RUFY3,STON2,TPD52,DAB2,PKHD1,XKR4,TRAM2,USH2A,DZUPI,SMG5,WNK1,RELN,NEK10,RUVBL2,ABCB1,KCNQ2,SLC22A3,SLC25A16,SLC47A1,EML4,FAM91A1,PLEKHF2,APOLD1,MACF1,ARHGAP12,MYO7A,SLC8A2,CLASPI,EEPD1,SLC9C1,APBB3,SLC35A4,TPCN1,GPM6B,CLIC5,XDH,AHNK,SNX5,RGS7,ATP2B4,NSF,SYNE3,PACSIN1,SPTBN5,SLCO4A1,DYX1C1,P2RX6,ASGR2,ATAD1,MAPKAPK2,NXT2,CEP41,MAP1B,SCARB1,MARK1,ATP6V0A2,KCNAB2,TFR3,UVRAG,EPA5,GABRG3,MEF2A,SYT12,CACNA1A,FNBP1,GPC3,SGIP1,SOM,ADRBK1,EEPD1,PSMB2,PTGER3,TRPV1,CLEC16A,GHR,SLC38A6,PRSS12,SNX9,RPGR,ARL5A,ACTR2,C2,PLCG2,ROCK1,C1QTNF1,EGR2,GAPVD1,CAPN10,GPR35,ABCC1,AP3B1,KPNA6,ZFAND1,MAP1A,SLC39A10,ANK3,UNC13A,SNUPN,ATP13A3,PAR3,PTPN14,TRIM46,TUB,SH3GL3,KCND3,CACNG8,AP3D1,KIF3C,SLC9C2,AP2B1,NETO1,ANXA8L1,ARHGAP44,HEATR5A,SNX33,CD84,LPA,CUX1,SP11,CHRN4,MCU,VPS16,LIMA1,ACAP2,TRDN,ATG14,GABRA6,LRRC8C,LRRC8D,STAC,ILDR2,TRPC6,ABCB7,SLC41A2,FCHSD2,RAB15,RAPGEF3,SLC48A1,SH3BP1,ATP13A5,RSRC1,SNCA,CACNG2,GRM4,MAGI2,TBC1D9,PNPT1,OCA2,SLC39A9,SYT9,CHMP3,RNF103- </p> <p> CHMP3,CNGA3,SLC22A10,PRKAG1,RAB5B,OSBPL1A,ADTRP,ABCA12,PLD1,CLC1,OPRD1,PKP2,BTK,TBC1D16,XPO4,VPS41,SLC4A8,IGF1,PLA2G4E,STX8,HTT,MAPK1,PTEN,MIB1,SLC7A14,SLC30A7,SCN8A,ATXN2,PIK3C3,LHFP5,NUP88,LRRK2,ATP6V1A,SPAG5,UNC119,CHMP5,CNIH3,BAG6,LILRB4,SLC44A1,IFT81,TMCO1,TMEM108,IPCEF1,ITGAM,ARHGAP25,NSG2,PKD2,EFNA5,SHANK3,MIA2,SERPINA5,ATP8B4,BEST3,SGSM1,STEAP4,TMCC1,WNT7A,ZBED6,ZC3H11A,SNAP23,MAP4,DNAJC1,RABEP1,POM121C,RHOT1,BMP6,ANO1,ANO8,EXT1,PLIN2,SERINC5,GABRR2,SAMM50,ABCG2,KCNC2,SMO,SLC6A14,GET4,SUN1,LSG1,BLOC1S3,STXBP5L,CPT1A,PSEN2,SYT17,SOX30,DNAJC6,UBR5,GRIN1,ARRDC4,BBS9,RHOA,GRIN3A,NDE1,TF,RHOBTB1,ESYT2,FAM19A4,CUL3,SH3KBP1,HSPD1,ITPR2,EPM2A,GABRB3,GSK3B,ABCG8,PLD2,EMB,RDX,SYN1,EEF2K,IWS1,NECAB2,UPF2,MCTP2,SCN9A,VAMP1,BOK,AGT,SYT7,ADAR,BLOC1S6,PITPNM2,ZMPSTE24,PTK2,HEPHL1,LAT2,PEX5L,SNX3,EXOC6B,PDE4B,RIMS2,COX5A,SLC25A51,TOMM5,COPG2,CPE,SEC16B,TRPC4AP,STOML1,TIMM44,PCSK6,CHKA,SLC25A42,GTFT2R,D2,NCF1,SLC29A1,TAOK2,UGT1A3,SLC44A3,CD160,KCNJ15,RPS6KB1,SLC5A10,STC2,ZDHH23,ITGAL,ALEX5,CPLX2,ADAM8,SLC5A3,ARFGAP3,CLDN4,PACIN2,GRID1,PKD1L1,SLC25A18,COX5B,MON2,NOS1,PEX7,GCKR,TBC1D23,PLEKHA1, </p>
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			<p>RGS14,ACTN4,COG4,SCNN1B,STK4,ZFAND6,COX6A1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,LRRC52,MFSD8,NKAIN1,GPSM2,HCAR2,PPARA,PPP1R10,ABCD3,GRTPI,CALCRL,MCOLN1,STEAP3,SLC25A33,KPNA4,SYTL4,PAX6,PRKCZ,ATP1A3,ADORA2A,GRIN2B,KCTD7,PPP1CC,RABGEF1,WDR83OS,PHLDB2,GPR107,KLC3,NIPBL,ANGPT1,CADPS,FRMPD1,OSBPL8,IGF2BP3,SLC25A26,SLC02B1,HACL1,TBC1D10C,ARHGAP21,CFI,GRIA4,MAP2,BIN2,STPG1,ATG3,CNTN1,NCOR2,BRAF,DIAPIH1,HTR2C,SIL1,ATP8A1,TMEM163,CLTB,UQCR10,CD300A,EMC3,SLC26A2,RPL23,SH3BP4,ATXN1,CAMSAP3,SP100,VTI1A,ANXA2,KCND2,ATP6V0A1,RAB27B,ITSN1,NUP214,PITPNM3,ADCY1,NUMB,SLC18B1,SYK,MOGAT2,GRIK2,SCN1A,SLIT1,MYRIP,RAB2A,SEC31B,SLC44A5,BRCA2,CACNG3,YBX1,ANKRD13A,GRIP1,PTPRJ,SLC10A1,ATP2B3,ERGIC1,GPM6A,OSBP2,MYO1A,SLC13A3,SLC2A12,HSF1,CNIH4,ATP10B,PLEKHM1,HGSNAT,SLC5A4,FCHO1,VAV3,ZP3,KCNQ3,MLPH,RAB37,CAV2,AKTIP,EPS15,INPP5F,TMPRSS3,AXL,REPS2,DENND4C,MEP,SESTD1,TBC1D10A,MICAL3,CAMK2D,KCNJ6,SNX1,MALT1,ZDHHC11,ZDHHC11B,EHD2,THEM4,TRAPPC8,CCT3,NEDD4L,NDIC1,PTPRC,RPH3A,GPR89A,RAB28,SH3GL2,TYRO3,MTMR12,SPON2,SYNDIG1,VPS52,ADCY10,TRAF3IP2,CREB1,SGTB,SHISA6,CLNK,EDNRA,PRAP1,SLC25A13,STXBP6,BMP4,ABLM3,CPNE1</p>
GO:0006810	transport	1.049781333710413e-24	<p>POLDIP3,DNAH11,ZDHHC14,SLC39A11,ENPP1,SLC35E3,HOKK2,RTBDN,BLZF1,NRXN1,ASPH,PRKCI,SLC03A1,PDE4D,SLC9A1,ANTXR2,FAM155A,CD302,LY75,ADCY8,SPAG16,CLASP2,GRID2,CHERP,SLC35E1,DOCK1,WWC1,CTDPSL2,SLC25A17,CACHD1,RYR1,NOS1AP,TUBA1C,LRP1B,NOX5,ANP32A,ASTN2,EPB41,DPP6,SLC14A2,NLGN4X,PRKAG2,CLCN1,SLC35F3,PRLR,MVP,UTRN,KALRN,PITPNCI,SEEC23B,LTV1,SNX31,CBL,RAB4B,RAB4B-EGLN2,STAT5B,ENPP2,ATP2B2,KCNQ5,GRM5,FAM53A,FER,CASK,CCDC93,KCNIP4,SPNS2,LRP2,PIK3CD,SLC38A11,TNPO3,ANK2,EZR,MEGF10,NRXN3,SLC9A9,TOM1L1,CHD7,SLC26A6,HTR2B,TENM1,RYR3,KIF5C,LMNA,SRP72,AFM,SLC24A2,NKAIN2,VAV2,ITGB1,HSP90AA1,APOL4,SLC24A3,ELMO2,PSMB7,CNIH2,NKAIN3,PCDH17,CCDC22,SLC22A8,CNGB1,KLHL12,AKAP13,DLG2,FLVCR2,IFT43,MYO10,ABCC8,ERC1,HMGN3,AFTPH,NCF4,DGKI,STXBP4,ERC2,GABRA3,EFCAB7,TCIRG1,PTPN11,KCNS3,NIPAL2,NETO2,CCT2,CACNB2,CYTH3,HDAC6,GOLGA4,SV2B,ADORA1,GPRASP1,PEX14,ERBB4,CNNM1,SORCS1,GBF1,LIMK1,TLK1,ATP8A2,OSBPL10,CECR2,KCNJ16,NPHP3,GRM7,DPP10,NTRK2,CYB561A3,FRMD4A,STX18,HOKK3,VPS45,PDGFB,CACNA1B,RIMS1,SNX2,STK39,INSR,FMN2,ATP8B1,PLLP,TCF7L2,PIP4K2A,HPS1,CAB39,PAK1,FBXW11,SCAMP4,MYOM1,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,GLTP,AMIGO1,SFT2D1,KCNMA1,CHRM3,GRIK4,KCNRG,LCK,ECT2,TMC2,TMEM144,SLC12A8,SNX6,CHML,VAMP7,SPNS3,SLC6A16,RFTN1,SHFM1,MB,AP3S1,NPLOC4,TMPRSS15,RHCE,DENND5A,MICU3,DMD,CENPF,RANBP17,ATG10,SLC30A9,SLC8A1,PRELID2,GSN,RBM4,RIT2,TANC2,JPH2,FYN,ARNTL,ADAMTS9,NF1,NCF2,SMG7,SLC16A6,DST,LMTK2,STX6,SNCB,SLC25A21,MAL2,GOLGA2P5,SLC5A6,APOD,SLC2A14,VTAA1,BCR,SHISA9,TTN,NDRG4,ICA1,BMP2K,PIK3R2,ANKH,CACNA1E,NTN1,DCTN1,SLC4A5,NRG1,KCNN3,CNNM2,SLC16A10,SLC43A2,BDKRB1,BDKRB2,BID,MAP2K1,KCNIP1,SLC35A2,SLC01A2,STIM1,NALCN,MYH9,TMBIM6,TMEM30A,SCFD2,ZDHHC3,SLC39A14,LIN7A,SCFD1,CATSPER3,SYN2,DOCK2,CDH13,PITPNB,CREBRF,COPS5,FGF14,EXOC4,IPO5,MAN1A1,RAB27A,MTX3,RAB3C,COG8,TERF2,TMED6,GOLPH3L,CLDN16,ANO6,ARL3,NEUROD1,IPO11,ICK,PARP11,RANBP1,DENND1A,ZDHHC15,JAK2,FBXW7,KCNB2,OAZ2,SYN3,STARD6,SYTI,NPSR1,BBS12,SNAP25-AS1,ABCC2,SMG1,SCN4A,RBFOX1,TMC1,SLC1A4,DYNC111,CLDN1,SLC5A9,ATP9A,SLC9A7,PLS1,DENND2A,KLF15,KCNC4,KPNA3,CTAGE6,VPS13B,CLCA2,CYB561D1,IMMP2L,MKLN1,CACNA1H,QK1,ILIRAPL1,CAMK2B,PRKCD,SLC35F1,CD4,TGFB1,SGK1,PCSK5,NUP93,KEL1,JPH3,PTPRN2,CLDN10,F2RL1,BCAS3,GRIK3,AAK1,ZFYVE9,GABRR3,CADPS2,GABRB1,SYT13,CDH23,CORO1C,C12ORF4,KCNJ3,CACNA1D,ZFAND2A,ABCC11,CACNA2D3,GRPEL2,ANO4,ANK1,CLMN,XPRI,SPAG17,CHRM1,RAB11FIP4,CLOCK,ITSN2,ANO3,SYNJ2,KCNH1,BCL3,DCLK1,ANKRD54,RABGAP1L,HOMER2,SLC17A7,FGF10,STXBP5,KCNH7,PLIN3,LOXL3,CAPN3,SLC16A1,VMPI,SNX8,CNR1,CD6,ANO2,TNFSF11,SMG6,PPP3CA,NSUN2,HBE1,TRAK1,CTNNB1,PARK2,RN7SL832P,FCGR2B,HSPA6,TSNARE1,IGF1R,PPARG,AXINI,PRKAR1B,COX8A,MYO1D,TMEM63C,MSR1,TRPM1,CYBB,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,KCNJ12,RYR2,KCNA6,NDUFA9,LEPR,LEPROT,PROS1,NR4A3,NOL3,RIOK2,AGAP1,SCARA3,PER2,CACNA1C,CPNE6,SCN3B,MYO1E,HCK,SLC35E4,SORBS1,TBC1D14,RAB3GAP2,TBCK,MRC2,GRM1,RIMS4,ANKFY1,DNAH9,SPTBN1,AP3B2,SPG11,SFRP1,CCDC91,IFT122,RANBP3,DNM3,ATP10D,SNX14,SMAD3,ITPR1,RAB6A,WWP2,ACKR2,WIP1,VPS39,GRIK5,PSAP,SLC16A2,SHANK1,SYT3,NEDD4,SVOP,SLC35F4,KPNB1,SLC4A4,VPS53,SLC6A1,RAB6C,SEC1B,KCNK1,THOC3,APP,BET1L,RBM8A,NOX1,RAB11FIP5,SFXN5,MYO1F,NLGN2,VDAC1,EYA2,SSR2,IBTK,SCRN1,LRP5,SEC22C,SLC9B2,SETD2,ZDHHC6,PRICKLE1,SPTBN4,GRIA3,DRD1,TMEM14A,GLRA2,RFT1,SERGEF,TPH1,SYNE2,PRKD1,OSBPL2,SYBU,SLC6A3,HNF4A,STRA6,VPS4A,MAPKAPK3,FXYP2,FXYP2,FXYP2,PITRM1,SLC16A12,ATF2,KCNG4,RAF1,RASGRF2,PTPN1,USP33,DPYSL2,CAMK1D,AP1B1,NLGN1,ATP9B,SNX16,SPAG9,RAB11A,EPG5,IPO9,FGF2,GRIK1,RAB24,PPM1F,ADCY5,AGBL4,MCTP1,XPO6,PTAFR,HHIPL1,ADCYAP1R1,EEA1,ABC A13,RILPL1,KLHL3,MRS2,SORCS2,RAB11FIP3,SLC5A8,PRKCZ,SLC9B1,BLOC1S5,TXNDC5,TANGO6,GRIA2,GAS8,OC90,AP2M1,SLC35D1,TNPO1,TRAPPC11,TECPR</p>

			<p>2,ATP6V0B,LMBRD1,FBXL20,TSG101,DES11,CLIC4,CRYM,KCNQ1,SLC2A11,RHOJ,SUFU,TG,NLGN3,PAFAH1B1,KIF3A,ATG4C,TRPA1,TRPM3,NMUR2,HIP1,AKAP6,BTBD9,TRPC5,ENTHD1,TNKS,RUFY3,STON2,TPD52,DAB2,XKR4,TRAM2,DZIP1,SMG5,WNK1,RELN,NEK10,ABCB1,KCNQ2,SLC22A3,SLC25A16,SLC47A1,FAM91A1,PLEKHF2,APOLD1,MACF1,ARHGAP12,MYO7A,SLC8A2,CLASPI,EEPDI,SLC9C1,APBB3,SLC35A4,TPCN1,GPM6B,CLIC5,XDH,AHNAK,SNX5,RGS7,ATP2B4,NSF,SYNE3,PACSLN1,SPTBN5,SLC04A1,DYX1C1,P2RX6,ASGR2,ATAD1,MAPKAPK2,NXT2,CEP41,MAP1B,SCARB1,ATP6V0A2,KCNAB2,TFR3,UVRAG,EPHA5,GABRG3,MEF2A,SYT12,CACNA1A,FNBP1,GPC3,SGIP1,STOM,ADRBK1,TBC1D5,PSMB2,PTGER3,TRPV1,CLEC16A,GHR,SLC38A6,PRSS12,SNX9,RPGR,ARL5A,ACTR2,C2,PLCG2,ROCK1,C1QTNF1,EGR2,GAPVD1,CAPN10,GPR35,ABCC1,AP3B1,KPNA6,ZFAND1,MAP1A,SLC39A10,ANK3,UNC13A,SNUPN,ATP13A3,PARD3,PTPN14,TRIM46,TUB,SH3GL3,KCND3,CACNG8,AP3D1,KIF3C,SLC9C2,AP2B1,NETO1,ANXA8L1,ARHGA P44,HEATR5A,SNX33,CD84,LP4,CUX1,SPI1,CHRN4,MCU,VPS16,LIM1,ACAP2,TRDN,ATG14,GABRA6,LRRC8C,LRRC8D,STAC,ILDR2,TRPC6,ABCB7,SLC41A2,FC HSD2,RAB15,RAPGEF3,SLC48A1,SH3BP1,ATP13A5,RSRC1,SNCA,CACNG2,GRM4,MAGI2,TBC1D9,PNPT1,OCA2,SLC39A9,SYT9,CHMP3,RNF103-CHMP3,CNGA3,SLC22A10,PRKAG1,RAB5B,OSBPL1A,ADTRP,ABCA12,PLD1,CLC C1,OPRD1,PKP2,BTK,TBC1D16,XPO4,VPS41,SLC4A8,IGF1,PLA2G4E,STX8,HTT,MAPK1,PTEN,MIB1,SLC7A14,SLC30A7,SCN8A,ATXN2,PIK3C3,LHFP5,NUP88,LR RK2,ATP6V1A,SPAG5,UNC119,CHMP5,CNIH3,LILRB4,SLC44A1,IFIT81,TMCO1,TM EM108,IPCEF1,ITGAM,ARHGAP25,NSG2,PKD2,EFNA5,SHANK3,MIA2,SERPINA5,ATP8B4,BEST3,SGSM1,STEAP4,TMCC1,WNT7A,ZBED6,ZC3H11A,SNAP23,DNAJC 1,RABEP1,POM121C,RHOT1,BMP6,ANO1,ANO8,EXT1,PLIN2,SERINC5,GABRR2,S AMM50,ABCG2,KCNC2,SMO,SLC6A14,SUN1,LSG1,BLOC1S3,STXBP5L,CPT1A,PS EN2,SYT17,SOX30,DNAJC6,UBR5,GRIN1,ARRDC4,BBS9,RHOA,GRIN3A,NDE1,TF, RHOB1,ESYT2,FAM19A4,CUL3,SH3KBP1,HSPD1,ITPR2,EPM2A,GABRB3,GSK3 B,ABCG8,PLD2,EMB,RDX,SYN1,EEF2K,IWS1,NECAB2,UPF2,MCTP2,SCN9A,VAM P1,BOK,AGT,SYT7,ADAR,BLOC1S6,PITPNM2,ZMPSTE24,PTK2,HEPH1,LAT2,PE X5L,SNX3,EXOC6B,PDE4B,RIMS2,COX5A,SLC25A51,TOMM5,COPG2,CPE,SEC16 B,TRPC4AP,STOML1,TIMM44,PCSK6,CHKA,SLC25A42,GTFT2,NCFI,SLC29A1 ,TAOK2,UGT1A3,SLC44A3,CD160,KCNJ15,RPS6KB1,SLC5A10,STC2,ZDHHC23,IT GAL,ALOX5,CPLX2,ADAM8,SLC5A3,ARFGAP3,CLDN4,PACSLN2,GRID1,PKD1L1,S LC25A18,COX5B,MON2,NOS1,PEX7,GCKR,TBC1D23,RGS14,ACTN4,COG4,SCNNI B,STK4,ZFAND6,COX6A1,EPHB2,SLC1A1,WLS,SIGMAR1,XCR1,LRRC52,MFSD8,N KAIN1,HCAR2,PPARA,PPP1R10,ABCD3,GRTP1,CALCR,MCOLN1,STEAP3,SLC25 A33,KPNA4,SYTL4,PRKCZ,ATP1A3,ADORA2A,GRIN2B,KCTD7,PPP1CC,RABGEF1 ,GPR107,KLC3,ANGPT1,CADPS,OSBPL8,IGF2BP3,SLC25A26,SLC02B1,HACL1,TB C1D10C,ARHGAP21,CFI,GRIA4,MAP2,BIN2,STPG1,ATG3,CNTN1,NCOR2,BRAF,D LAPH1,HTR2C,SIL1,ATP8A1,TMEM163,CLTB,UQCRL10,CD300A,SLC26A2,RPL23,S H3BP4,ATXN1,CAMSAP3,SP100,VTI1A,ANXA2,KCND2,ATP6V0A1,RAB27B,ITSN1, NUP214,PITPNM3,ADCY1,NUMB,SLC18B1,SYK,MOGAT2,GRK2,SCN1A,SLIT1,MY RIP,RAB2A,SEC31B,SLC44A5,CACNG3,YBX1,ANKRD13A,GRIP1,PTPRJ,SLC10A1, ATP2B3,ERGIC1,GPM6A,OSBP2,MYO1A,SLC13A3,SLC2A12,HSF1,STEAP3,SLC25 B,PLEKHM1,HGSNAT,SLC5A4,FCHO1,VAV3,ZP3,KCNQ3,MLPH,RAB37,CAV2,AKTI P,EPS15,INPP5F,TMPRSS3,AXL,REPS2,DENND4C,MET,SESTD1,TBC1D10A,MICA L3,CAMK2D,KCNJ6,SNX1,MALT1,ZDHHC11,ZDHHC11B,EHD2,THEM4,TRAPPC8, CCT3,NEDD4L,NDIC1,PTPRC,RPH3A,GPR89A,RAB28,SH3GL2,TYRO3,MTMR12,SP ON2,SYNDIG1,VPS52,ADCY10,TRAF3IP2,CREB1,SGTB,SHISA6,CLNK,EDNRA,PRA PI,SLC25A13,STXBP6,BMP4,ABLIM3,CPNE1</p>
GO:0019538	protein metabolic process	1.4424249254899502e-24	<p>POLDIP3,LNX2,ZDHHC14,ENPP1,ADAMTS16,NRXN1,ASPH,B4GALNT2,F8,PRMT 3,PRKCI,SLC03A1,MAP4K4,PDE4D,DNMT1,S1PR2,C6ORF89,ADCY8,MGAT4C,CB FB,PDE8A,IL31RA,RPS6KA2,PRDM12,SETD4,CALR3,CTDSPL2,FBXL2,NRG3,ASH 1L,NOS1AP,LATS2,CPA6,DPP6,RNF145,KSR2,PRKAG2,OVCH2,PRLR,MVP,PAGRI ,FTO,KALRN,DCAF12,NTRK3,CBL,ARNT,EGLN2,FLT3,ENPP2,GRM5,PLCE1,FER, CASK,MAPK4,MAP2K5,ISCA1,KITLG,USP32,MAPK10,PTPRR,LRP2,PIK3CD,NAAL ADL2,CAMK1G,EIF4G3,EZR,B3GALT1,ROBO1,TOM1L1,HTR2B,PSMD1,CDKL5,M ECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,SEN5,ITPKB,DNAJA3,OXRI,GRK5 ,ABI1,ULK4,TRIOBP,HSP90AA1,APOL4,CDC6,PSMB7,TSSK1B,KNDC1,ZC4H2,PG PEP1L,CCDC22,ADGB,MOCOS,STK38L,TRIO,KLHL12,AKAP13,TTL5,PTPRK,RU NX1,DAB1,OMA1,ERC1,DNAJB14,KLHL7,MAST4,TCIRG1,PTPN11,HERC4,MGAT5 ,HDAC6,DDDB1,ADORA1,MSRA,ADAMTS3,EPHA1,IKBKB,ERBB4,DYPY19L2,MRE11 A,LIMK1,TLK1,BRD8,KAT6B,ABR,CUL4B,LARGE,MIER1,PMEP1,DPP10,PTPRO, CDON,KANSL1,FBXL18,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,RNF220,FNTA,TP ST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,CSGALNACT1,CAPN14 ,BRMS1,CHFR,STK39,INSR,FMN2,PRKAR1A,ASB5,TCF7L2,ST6GALNAC3,JMJD1C, CAB39,USP34,PAK1,FBXW11,MAP3K4,ZDHHC13,PTPRD,RNF144A,EGLN3,SAMD 4A,BDNF,CDK14,CHRM3,POMGNT2,FUT8,TRIM13,UBR2,HLC5,LCK,MDM4,ENT PD5,ECT2,MYO3B,MTA3,SNX6,CHML,PPM1L,CST2,PTCD3,PTPRU,ERN2,NPLOC 4,TMPRSS15,DMD,ATG10,LARP4B,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,RIT2, MACROD2,DRG2,CASS4,FYN,MKRN2,ARNTL,ADAMTS9,LINC01138,NF1,PLCB1, MGMT,LMTK2,ARID4B,GXYLT2,PPP4R2,RTN4,FBXO21,DPEP1,ADON,B4GALT6,A DAMTS19,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,TTN,BMP2K,PAQR3,RAN</p>

			<p>BP9,TPGS2,TLI1,KLHL21,EGFLAM,PPIG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,BID,FRY,MAP2K1,FNIP1,MYH9,GALNT16,VGLL4,PPP2CB,HDAC5,PCSK2,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,ITIH2,CDKL2,ROR2,CPB1,DCN,ZDHC3,CREBRF,FHIT,WDR70,PTPRT,UST,COP5,IPO5,MAD2L2,MAN1A1,SRBD1,CAPRIN2,CCNYL1,NLN,PHF20L1,PDF,GNAQ,FBXO9,ICK,RFFL,TLL8,PARP11,CCBE1,HERC5,USP22,ZDHHC15,JAK2,FBXW7,OAZ2,UBR7,UIMC1,ITCH,USP12,ZFYVE28,SMG1,HUNK,B3GALT5,CDC42BPB,PHKA1,DHDDS,KLF15,SPSB1,CYFIP2,WNT11,TPST1,TRIM59,CLCA2,MTA1,IMMP2L,NOX4,RPRD1B,SLAH1,QKI,CAMK2B,ADAM23,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFBI1,BANP,MRPL33,SGK1,PCSK5,P4HA2,SPSB4,MYO3A,MMP28,NSD1,PIBF1,ASCC2,KEL,BTRC,CRADD,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,HS6ST2,SLIT2,ASB15,RNF133,RNF148,ITIH4,HHAT,HP,HPR,CORO1C,CDKAL1,DISC1,BLID,ZFAND2A,PTPDC1,CLN6,TMTC1,TTBK2,KDM4B,MMP26,SMAD6,TMTC2,CLOCK,CHST9,ZNF675,RPL36,NELL1,BMPER,TIMP2,BCL3,DCLK1,RNF212,ANKRD54,EIF3L,DAPK2,TNFRSF10B,DAPP1,ADAM12,DUSP22,NAIP,TRRAP,DOCK3,YTHDF1,FGF10,FBXL17,SMYD3,UNKL,KC TD10,SH3RF3,LOXL3,MAST2,FANCI,CAPN3,GANC,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,UBQLN3,UBQLNL,CAMK4,PIP5CB,SPDYA,HCK,CSTL1,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,PPP2R2B,CSPG4,BRMS1L,CTDP1,ZUFSP,HS3ST5,BAZ1B,MMP16,OBSCN,NF2,FLT4,HDAC4,PAX2,SECISBP2L,SPTBN1,TPT E,TRABD2B,SFRP1,ST8SLA1,PPP6R2,FOXO3,TRHDE,USP54,BCL2L13,SSH1,SYNCRIP,SMAD3,RNF22,RAB6A,PTPRM,WWP2,SIMC1,WIP1,MTBP,RNF168,C1S,ABL2,C10ORF90,DCP1B,NEDD4,GALNT14,TAB1,SEC61B,ST3GAL3,CDC73,APP,USP49,PDGFRA,SLK,RBM8A,CCN2,DIP2B,KANSL2,ARIH1,HEG1,AMFR,ST6GALNAC5,CDK3,NLGN2,EYA2,SH3D19,BORA,IBTK,SCRN1,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SOX2,SETD2,ZDHHC6,ADAMTS2,CHST11,PRICKLE1,RCAN1,SPTBN4,VASH2,DRD1,CHUK,ERLIN1,RFT1,MMP2,S100A12,DCUN1D3,KDM6A,PRKD1,NAA25,PARP6,ST18,USP53,LRRC2,TASP1,SHPRH,VPS4A,EREG,CCNY,MAPKAPK3,PITRM1,ATF2,GRAMD4,RAF1,CELF4,CARD16,CASP1,PTPN1,ADAMTS12,PSMD11,GGT7,BMPR2,USP33,VBP1,CAMK1D,BMPR1A,PABPC4,PIK3R3,CDK12,CAND2,SPAG9,MYB,FGF2,PPA2,PPM1F,UBE2R2,NEDD9,AGBL4,PEAK1,ADAMTS4,SEMA4D,NFX1,CDC27,PTAFR,SETD1A,YME1L1,JARID2,KLHL3,DDX58,PRKCG,SIN3B,NCOA1,SPOCK1,AREL1,EEF1E1,EHMT1,LMO7,UCEL3,DVL3,ECE2,EIF2B5,EIF4G1,EPHB3,PSMD2,PTPRE,RBX1,XPNPEP3,ANAPC5,FBXO45,STT3B,CKS1B,PAWR,AGO3,DEPTOR,PKN3,FBXL20,ADAM20,ADAM21,TSG101,DES1,TERF2IP,IDE,COL11A1,FKBP5,ADAMTS6,RCE1,B3GALNT1,P4HB,SUFU,SUMF1,PTPN13,QPCTL,ADAMTS14,ATG4C,COL4A3,HIP1,PDMT1,ADRBK1,PSMB2,EDM3,TTL7,TNKS,TNRC6B,GLCE,WDTC1,MRPS28,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DLG3,WNK1,GTPBP2,RELN,NEK10,SIN3A,RUVBL2,PSMD7,JOSD1,PELI1,PPP2R5C,IQGAP1,SPATA18,DCAF5,MAP3K7,APOLD1,SP1,TRI M22,ZNRF1,ALK,SLC8A2,KLK2,TMPRSS12,UBOX5,SLC35A4,TOPI1,AGBL1,UCHL3,1,PADI3,XDH,SNX5,RBBP6,PRKG1,TTL9,ATP2B4,NSF,PARP12,ACTL6B,PAK3,MASPI,SSH2,TET1,HECTD4,MKRN3,CAMTA1,DYX1C1,ASGR2,ADNP,MAPKAPK2,C EP41,ARID4A,UBE3C,C10ORF65,CDC42BPA,MARK1,CDK6,PHF2,CELF1,RNF34,TFRC,UVRAG,EPHA5,ALG14,DCAF6,DCUNID5,GPC3,XRN1,ADRBK1,PSMB2,RHBDL3,EYA1,CDCA3,DIS3L2,RNF216,GHR,MNAT1,PRSS12,SNX9,ACACA,ELAVL4,H DAC1,HS6ST3,C2,CFB,TRIM24,PLCG2,ROCK1,MRPS17,PAXIP1,EGR2,HIPK3,RNF10,RYBP,CAPN10,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,MAP1A,PKN2,SLC39A10,EIF3A,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,TMEM199,PCPSB3,GNL3L,KRTCAP2,MUC1,PTPN14,FBXO39,NUDT14,BCOR,MGAT4A,CARM1,ANXA8L1,ADAM19,SNX33,FOLH1,CD84,LPA,SPH1,DNMT3B,EPHA7,LRRC47,XPNPEP2,CU ZD1,PTPRA,FBXW4,MRPS24,ATG14,EIF3H,BCAR3,STK38,ACOT8,RBPMS,RENBP,NTMT1,MAP3K13,OTUD3,RAPGEF3,ADAMTS17,PDXP,MST1,PTK7,RSRC1,SMYD1,SNCA,BMPR1B,MAGI2,USP42,PNPT1,USP50,RC3H1,EIF3E,RNF103,RNF103-CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,PSMF1,KMT2C,TLL2,UBE2QL1,CAST,TRIP12,SPPL2A,ADTRP,PLD1,OPRD1,HIPK1,RPTOR,BTK,ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,HTT,LARS2,MAPK1,PTEN,MIB1,SPRED2,BMP7,PCMTD2,ATXN2,PIK3C3,PUM1,PCBP2,TLL4,PRCP,LRRK2,TMEM59,ZRANB1,PIGS,UNC119,BAG6,LILRB4,MORC3,MSRB3,PKD2,EFNA5,SEL1L2,RCOR3,TADA2A,DAZL,AMZ2,ALPK3,PDGFC,SERPINA3,SERPINA4,SERPINA5,NCOA3,PKIB,MTMR3,HS2ST1,PPP2R3C,WNT7A,NLRP1,PEPD,RPS6KC1,UACA,DNAJC1,PLCL2,WDR5B,KAT6A,MTIF2,SIK3,BMP6,MYCBP2,GPI,SH3RF2,EXT1,DYPY19L4,N4BP1,ATRX,DPH6,C8ORF44-SGK3,PRMT2,RAPGEF2,VRK3,GET4,ALG9,MARK4,PRKAR2B,DYPY19L1,PSEN2,GALNT10,UBE2H,DNAJC6,UBR5,GRIN1,JADE1,ADAM29,ARRDC4,RHOA,SPRTN,WSB2,ROR1,RQCD1,CPVL,CUL3,HSPD1,TSPAN33,EPM2A,GSK3B,PRR16,DNAJC3,RDX,EEF2K,IWS1,PPP1R16A,PTPRB,NECAB2,CDK13,PGGT1B,ALAS2,STK32B,CD27,DUSP26,BOK,RNF144B,SULF1,RNF43,AGT,METTL16,CCNJL,PRKAA2,ADAR,CUL9,STAT2,ZMPSTE24,PTK2,ARMC8,PHEX,RNF121,SNX3,TEC,DCAF10,EXOSC3,FBXO10,CDC14A,MAP3K5,CPE,TRPC4AP,CREBBP,PRKD3,LMTK3,PCSK6,NCF1,T</p>
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			<p>AOK2,PYGO2,SHC1,ECE1,PARP10,RNFT1,RPS6KB1,ZDHHHC23,GALNT13,GUCY2F,PRG3,SERPINB11,SETDB2,DNAJB6,FBXO28,CD44,LARP4,ADAM8,FKBP14,MRPS6,CLDN4,RPS6KA5,CSNK1A1,HUS1,PRDM2,NOS1,RGS14,STK4,MARK3,EPHB2,GATC,SLC1A1,TTL11,MARCH8,IL18,PCMT1,MFSD8,UBE2K,DIS3,DLC1,FBXL13,PPARA,PDP1,PHLPP1,PPIL6,CPEB4,MOB3B,ACPI,RNF150,PAX6,PRKCZ,FAM20C,ADORA2A,GRIN2B,MAN2B1,PPP1CC,RABGEF1,CCNG2,CPEB1,TYK2,OTUD7B,NIPBL,YEATS4,COL28A1,PHF20,ANGPT1,BRF1,TBL1X,EYA3,LRRK1,OSBPL8,JGF2BP3,L2HGDH,GCNT2,PPP1CA,CFI,MTF2,FBXO31,ATG3,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SRCAP,CAPN6,SPINT2,UBE2E2,UQCRC2,C18ORF25,CD300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,MRPS16,RPL23,ACAN,OPN1LW,ANXA2,PARN,PIGU,PRMT7,FARSB,WIP12,ALG2,MADD,SYK,CNOT1,WWTR1,GTF2H5,ASB1,CIT,BRCA2,DVL2,MTRF1,YBX1,PTPRJ,TAF1,EIF4E3,PPME1,TICAM1,RNF38,TANK,RIMKLA,GALNT7,HSF1,DHFR,EZH1,ETF1,RNGTT,SRPK2,SASH1,ADAMTS7,BMP1,EEFSEC,RNF2,MOB3A,GNA12,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B-GALNT4,INPP5F,NUAK2,TMPRSS3,AXL,AGBL3,TRIM37,CD109,MET,TBC1D10A,CAMK2D,MRPL1,SNX1,UCHL5,MALT1,SERPINE3,SETD3,TRIM69,ZDHHHC11,ZDHHHC11B,KDM2B,MLXIPL,FBXL4,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TSPAN5,TRAF3IP2,TRIM60,CREB1,METTL21A,SGTB,TNXB,TRAP1,EDNRB,BMP4,CASP12,CPNE1</p>
GO:1901564	organonitrogen compound metabolic process	2.271630663374417e-24	<p>NT5C1B,NT5C1B-RDH14,SUCLG2,POLDIP3,LNX2,ZDHHHC14,ENPP1,ADAMTS16,GPC5,NRXN1,ASPH,B4GALNT2,F8,PRMT3,GSS,PRKCI,SLCO3A1,MAP4K4,PDE4D,DNMT1,SIPR2,PDE7B,C6ORF89,ADCY8,MGAT4C,CBFB,PDE8A,IL31RA,ALDH4A1,RPS6KA2,PRDM12,SETD4,CALR3,CTDSP12,FBXL2,NRG3,ASH1L,NOS1AP,LAP46,DPP6,RNF145,KSR2,PTGIS,PRKAG2,HPSE2,OVCH2,PRLR,MVP,PAGRI,ADCY7,FTO,KALRN,DCAF12,NTRK3,CBL,ARNT,EGLN2,FLT3,STAT5B,ENPP2,GRM5,PLCE1,SAMHD1,FER,CASK,MAPK4,MAP2K5,ISCA1,KITLG,USP32,MAPK10,PTPRR,SPNS2,CH13L2,LRP2,PIK3CD,NAALADL2,CAMK1G,EIF4G3,ADPGK,EZR,B3GALT1,ROBO1,TOM1L1,HTR2B,PSMD1,CDKL5,MECOM,TENM1,CAMKMT,NADK2,LMNA,GOT1,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXR1,GRK5,AB11,ULK4,TRIOBP,HSP90AA1,APOL4,CDC6,PSMB7,TSSK1B,KNDC1,ZC4H2,PGPEP1L,CCDC22,ADGB,MOCOS,STK38L,AMDHD1,TRIO,KLHL12,AKAP13,DLG2,TLL5,PTPRK,RUNX1,DAB1,OMA1,ERCI,MMAA,DNAJB14,KLHL7,PDE4A,MAST4,TCIRG1,PTPN11,HERC4,MGAT5,HDAC6,DDBI,ADORA1,MSR4,ADAMTS3,EPHA1,IKBKB,ERBB4,DPPY19L2,MRE11A,LIMK1,TLK1,BRD8,KAT6B,ABR,OSBPL10,CUL4B,LARGE,MIER1,PMPEA1,DPP10,PTPRO,CDON,KANSL1,FBXL18,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,RNF220,FNTA,TPST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,CSGALNACT1,CAPN14,BRMS1,CHFR,STK39,INSR,FMN2,PRKAR1A,ASB5,TCF7L2,ST6GALNAC3,JMD1C,CAB39,USP34,PAK1,FBXW11,MAP3K4,ZDHHHC13,SH2D3C,CDK19,SLC16A10,BDKRB1,BDKRB2,BID,FRY,MAP2K1,FNIP1,MYH9,GALNT16,VGLL4,PPP2CB,HDAC5,PCSK2,ALDH3B2,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,ITIH2,CDKL2,LRGUK,ROR2,CPB1,DCN,ZDHHHC3,PRPSAP2,PCBD2,CREBRF,FHIT,WDR70,PTPRT,ACSBG1,UST,COP55,AK2,IPO5,MAD2L2,MAN1A1,SRBD1,CAPRIN2,CCNYL1,NLN,PHF20L1,BBOX1,PDF,SULT1A4,NME7,AK5,CERKL,GNAQ,FBXO9,ICK,RFFL,TLL8,PARP11,CCBE1,HERC5,USP22,ZDHHHC15,JAK2,FBXW7,LINC00473,OAZ2,UBR7,UIMC1,ITCH,USP12,ZFYVE28,ABCC2,SMG1,IMPDH1,HUNK,B3GALT5,DAYS,CDC42BPB,PNPLA1,PHKA1,DHDDS,PDE2A,KLF15,SPSB1,CYFIP2,WNT11,TPST1,TRIM59,CLCA2,MTA1,IMMP2L,NOX4,RPRD1B,SIAH1,OKI,CAMK2B,ADAM23,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,BANP,MRPL33,SGK1,PCSK5,P4HA2,SPSB4,MYO3A,MMP28,NSD1,PIBF1,ASCC2,KEL,BTRC,CRADD,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,HS6ST2,SLIT2,ASB15,RNF133,RNF148,ITIH4,HHA1,HP,HPR,CORO1C,CDKAL1,DISC1,BLID,ZFAND2A,CPT1C,PTPDC1,CLN6,TMTC1,TTBK2,KDM4B,MMP26,SMAD6,TMTC2,CLOCK,CHST9,ZNF675,RPL36,BCKDHB,NELL1,BMPER,TIMP2,BCL3,DCLK1,RNF212,ANKRD54,EIF3L,DAPK2,TNFRSF10B,DAPP1,ADAM12,DUSP22,NAIP,TRRAP,DOCK3,YTHDF1,FGF10,FBXL17,ADK,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCI,ADCY2,CAPN3,GANC,SMURF2,EPHA4,RORA,HSD17B12,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,UBQLN3,UBQLNL,CAMK4,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SOD2,SMARCC1,IGF1R,PPARG,IARS2,NGRN,AXIN1,PRKAR1B,MACROD1,OTUB1,CPO,OTC,APOL3,LRPPRC,RSPRY1,AARS2,PFAS,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,PROS1,FOXK2,WDR45B,NOL3,DCT,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,GLG1,CHEK2,SUPT3H,UBQLN4,PRDM16,ASB8,PPP1CB,SPDYA,HCK,CSTL1,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,PPP2R2B,CSPG4,BRMS1L,CTDP1,ZUFSP,HS3ST5,BAZ1B,MMP16,OBSCN,NF2,FLT4,SGMS1,HDAC4,PAX2,CPOX,SECISBP2L,SPTBN</p>

			<p> I, TPTE, TRABD2B, SFRP1, ST8SLA1, PPP6R2, FOXO3, TPH2, TRHDE, USP54, BCL2L13, SSH1, SYNCRIP, SMAD3, TYW1B, RNFT2, RAB6A, PTPRM, WWP2, SIMC1, WIP1, MTBP, RNF168, CIS, ABI2, C10ORF90, PSAP, SLC16A2, DCP1B, NEDD4, PLA2G4C, OGDHL, SLC44A, GALNT14, TAB1, SEC61B, ST3GAL3, UCK2, CDC73, APP, USP49, PDGFRA, AOC2, SLK, RBM8A, CCNI2, DIP2B, KANSL2, ARIH1, HEG1, AMFR, ST6GALNAC5, PPCS, CDK3, NLGN2, EYA2, SH3D19, BORA, IBTK, SCRN1, SBK3, ALPL, JAK1, FPGT, TNNI3K, TNNI3K, PEMT, LRP5, MTCPI, PTPRG, BDH2, SOX2, SETD2, ZDHHC6, GPC6, ADAMTS2, CHST11, PRICKLE1, RCAN1, SPTBN4, VASH2, ELOVL2, DRD1, CHUK, ERLIN1, RFT1, MMP2, TPH1, S100A12, DCUN1D3, NUDT10, KDM6A, PRKD1, NAA25, HEXA, PARP6, ST18, SLC6A3, USP53, HNF4A, LRRC2, TASP1, SHPRH, VPS4A, EREG, CCNY, MAPKAPK3, PITRM1, ATF2, GRAMD4, RAF1, CELF4, CARD16, CASP1, PTPN1, ADAMTS12, PSMD11, GGT7, BMPR2, USP33, VBP1, CAMK1D, BMPRI1, IDO2, PABPC4, PIK3R3, CDK12, CAND2, CERS3, SPAG9, MYB, FGF2, PPA2, PPM1F, UBE2R2, ADCY5, NEDD9, AGBL4, PEAK1, ADAMTS4, SEMA4D, NFX1, CDC27, PTAFR, HIBADH, SETD1A, YME1L1, JARID2, KLHL3, DDX58, SLC5A8, PRKCG, SIN3B, NCOA1, SPOCK1, AREL1, EEF1E1, EHMT1, LMO7, UCHL3, DVL3, ECE2, EIF2B5, EIF4G1, EPHB3, PSMD2, PTPRE, RBX1, XPNEP3, ANAPC5, FBXO45, STT3B, CKS1B, PAWR, AGO3, DEPTOR, PKN3, FBXL20, ADAM20, ADAM21, TSG101, DESI1, TERF2IP, CRYM, IDE, COL11A1, FKBP5, ADAMTS6, RCE1, B3GALNT1, P4HB, SUFU, TG, SUMF1, PTPN13, PAFAH1B1, QPCTL, ADAMTS14, ATG4C, COL4A3, DDAH1, HIP1, PADI6, CMPK1, BTBD9, CERS4, TRPC5, UBA2, EDEM3, TTL7, TNKS, TNRC6B, GLCE, WDT1, ALDH6A1, MRPS28, TPK1, DAB2, BLM, UBR1, CACUL1, LDLRAD4, MYSM1, SETD5, DLG3, WNK1, GTPBP2, RELN, NEK10, SIN3A, RUBL2, TYW1, PSMD7, GUCY1A2, JOSD1, PELI1, SLC22A3, PPP2R5C, SLC25A16, IQGAP1, SPATA18, DCAF5, MAP3K7, APOLD1, SP1, TRIM22, ZNRF1, ALK, SLC8A2, GSTM3, GSTM5, KLK2, TMPRSS12, UBOX5, SLC35A4, TOP1, AGBL1, UBE2V1, MBOAT1, PADI3, CLIC5, XDH, SNX5, RBBP6, PRKG1, TTL9, ATP2B4, NSF, PARP12, TMEM2, ACTL6B, PAK3, MASP1, SSH2, TET1, HECTD4, MKRN3, CAMTA1, DYX1C1, ASGR2, ADNP, MAPKAPK2, CEP41, ARID4A, UBE3C, C12ORF65, CDC42BPA, SCARB1, MARK1, CDK6, PHF2, CELF1, TYR, RNF34, TFRG, UVRAG, EPHA5, ALG14, ADCY9, DCAF6, DCUN1D5, GPC3, XRN1, ADRBK1, PSMB2, RHBDL3, EYA1, CDCA3, DIS3L2, RNF216, GHR, MNAT1, PRSS12, SNX9, ACACA, ELAVL4, HDAC1, HS6ST3, C2, CFB, TRIM24, PLCG2, ROCK1, MRPS17, PAXIP1, EGR2, HIPK3, RNF10, RYBP, CAPN10, CUL2, ABCC1, AP3B1, PTPN2, INSR, NTRK1, TRIM44, MAP1A, PKN2, SLC39A10, EIF3A, HYKK, PTPRQ, EPHB1, MAN1B1, EPHA10, PTPN9, AXIN2, SARM1, TMEM199, PARD3, GNL3L, KRTPCAP2, MUC1, PTPN14, FBXO39, NUDT14, BCOR, MGAT4A, CARM1, ANXA8L1, ADAM19, SNX33, FOLH1, CD84, LPA, SPI1, DNMT3B, EPHA7, LRRC47, XPNEP2, CUZD1, PTPRA, FBXW4, MRPS24, ATG14, EIF3H, BCAR3, STK38, ABCB7, ACOT8, RBPMS, RENBP, NTMT1, MAP3K13, OTUD3, RAPGEF3, ADAMTS17, PDXP, MST1, PTK7, RSR1, SMYD1, SNCA, BMPR1B, MAGI2, USP42, PNPT1, USP50, NADK, RC3H1, EIF3E, RNF103, RNF103-CHMP3, RNF19B, HMGCS2, PTPRS, KMT2D, PRKAG1, CDKL1, CREM, PSMF1, KMT2C, SULT2A1, TLL2, UBE2QL1, CAST, TRIP12, SPPL2A, ADTRP, ABCA12, PLD1, OPRD1, HIPK1, RPTOR, BTK, ZNRF3, ASPHD1, KCTD13, MLLT1, ZZZ3, IGF1, PLA2G4E, HTT, LARS2, MAPK1, PTEN, MIB1, SPRED2, BMP7, PCMTD2, ATXN2, PIK3C3, PUM1, PCBP2, TTL4, PRCP, LRRK2, ATP6V1A, MLYCD, TMEM59, ZRANB1, ALDOC, PIGS, UNC119, ZBTB20, BAG6, LILRB4, MORC3, SLC44A1, ITGAM, MSRB3, PKD2, BLVRA, EFNA5, SEL1L2, NT5E, RCOR3, TADA2A, DAZL, AMZ2, ALPK3, PDGFC, SERPINA3, SERPIN4, SERPIN A5, SPTLC3, NCOA3, PKIB, MTMR3, HS2ST1, PPP2R3C, WNT7A, NLRP1, PEPD, RPS6KCI, UACA, DNAC1, ELOVL5, GLDC, PLCL2, WDR5B, KAT6A, MTF2, SIK3, BMP6, MYCBP2, NFE2L1, GPI, SH3RF2, EXT1, DPY19L4, N4BP1, ATRX, DPH6, SERINC5, C8ORF44, SGK3, PRMT2, RAPGEF2, MTHFD2L, VRK3, FARI, AMPD1, ENPP3, GET4, ACADS, ALG9, MARK4, PRKAR2B, DPY19L1, CPT1A, PSEN2, GALNT10, UBE2H, BPGM, DNAJC6, UBR5, GRIN1, JADE1, ADAM29, ARRDC4, RHOA, SPRTN, WSB2, RORI, RQCD1, CKMT1B, CPVL, CUL3, HSPD1, TSPAN33, EPM2A, GSK3B, PRR16, DNAJC3, RDX, EEF2K, IWS1, PPP1R16A, PTPRB, NECAB2, CDK13, PGGT1B, ALAS2, STK32B, CD27, DUSP26, BOK, RNF144B, SULF1, MTHFD1L, RNF43, AGT, METTL16, CCNJL, ELOVL3, PRKAA2, ADAR, CUL9, STAT2, ZMPSTE24, PTK2, ARMC8, PHEX, PPCDC, RNF121, SNX3, PDE4B, TEC, DCAF10, EXOSC3, FBXO10, CDC14A, MAP3K5, CPE, TRPC4AP, CREBBP, PRKD3, LMTK3, PCSK6, CHKA, NCF1, TAOK2, UGT1A1, UGT1A4, PYGO2, SHC1, SLC44A3, ALDOA, ECE1, PARP10, RNFT1, RPS6KB1, ZDHHC23, GALNT13, GUCY2F, PRG3, SERPINB11, SETDB2, DNAJB6, FBXO28, CD44, LARP4, ADAM8, FKBP14, MRPS6, CLDN4, RPS6KA5, CDS1, CSNK1A1, HUS1, PRDM2, NOS1, RGS14, STK4, MARK3, EPHB2, GATC, SLC1A1, TTL11, MARCH8, IL18, PCMT1, MFSD8, UBE2K, DIS3, DLC1, FBXL13, PPARA, PDP1, PNPLA6, PHLPP1, MAGI3, PPIL6, CPEB4, LDHC, MOB3B, ACPI, RNF150, PAX6, PRKCZ, FAM20C, ADORA2A, GRIN2B, MAN2B1, PAH, PPP1CC, RABGEF1, CCNG2, CPEB1, TYK2, OTUD7B, NIPBL, YEATS4, COL28A1, PHF20, UPB1, ANGPT1, BRF1, TBL1X, EYA3, LRRK1, OSBPL8, IGF2BP3, L2HGDH, NT5M, SLCO2B1, GCNT2, PPP1CA, CFI, MTF2, FBXO31, ATG3, CDK5RAP1, CNTN1, PRKCQ, BRAF, HDAC2, IMPACT, FKBP3, PHKG2, SRCAP, CAPN6, SPINT2, UBE2E2, WSCD1, UQCRC2, C18ORF25, CD300A, MOXD1, PHIIP, CDKL3, PPP2CA, SKP1, SLC26A2, ANGPT4, MAOA, MRPS16, RPL23, ACAN, OPN1LW, ANXA2, PARN, PIGU, PRMT7, FARSB, WIP1, ADCY1, ALG2, MADD, SYK, CNOT1, WWT1, GTF2H5, ASB1, CIT, SLC44A5, BRCA2, ALDH8A1, DVL2, MTRF1, YBX1, PTPRJ, TAF1, EIF4E3, PPM1, TICAM1, RNF38, TANK, RIMKLA, GALNT7, A3GALT2, HSF1, DHFR, EZH1, ETF1, RINGT, SRPK2, SASH1, ADAMTS7, CEPT1, SULT2B1, BMP1, EEFSEC, RN </p>
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			F2,MOB3A,GNAI2,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B-GALNT4,INPP5F,NUAK2,TMPRSS3,AXL,AGBL3,TRIM37,CD109,MET,TBC1D10A,CAMK2D,MRPL1,SNX1,UCHL5,MALTI,PFKP,SERPINE3,SETD3,TRIM69,ZDHHHC11,ZDHHHC11B,KDM2B,MLXIPL,FBXL4,GNS,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TSPAN5,ADCY10,TRAF3IP2,TRIM60,CREB1,METTL21A,SGTB,TNXXB,TRAP1,EDNRA,SLC25A13,BMP4,CASP12,CPNE1
GO:0051128	regulation of cellular component organization	3.834830473423998e-24	CLRN1,ENPP1,ADAMTS16,NRXN1,ASPH,PRKCI,MAP4K4,DNMT1,SLC9A1,NEGR1,PDE4DIP,CLASP2,SEMA3A,GRID2,RPS6KA2,TENM3,NRG3,NOX5,SEMA3D,SCAF8,TIAM2,FHOD3,MAPRE2,TJP1,KALRN,NTRK3,CBL,EGLN2,RAB4B,RAB4B-EGLN2,SEMA5A,TOX,ENPP2,PLCE1,LHFPL4,FER,MAP2K5,OLFM1,EZR,ROBO1,TOM1L1,CDKL5,TENM1,LMNA,ROBO2,ULK4,TRIOBP,HSP90AA1,CDC6,KNDC1,DS-CAM,STK38L,ARHGAP24,AKAP13,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,IL17RB,PTPN11,CCT2,HDAC6,GOLGA4,SERTAD2,EPHA1,IKKBK,MRE11A,LIMK1,TLK1,ATP8A2,ESR1,PMEP1,PTPRO,NTRK2,STX18,EP300,TENM2,PDGFB,RIMS1,TNIK,CDH8,MID1,CHFR,INSR,AFAP1,ATP8B1,PIP4K2A,CDH4,PAK1,MAP3K4,PTPRD,TBRI,BDNF,AMIGO1,NPRL3,ARHGAP6,ECT2,DENND5A,DMD,CENPF,GSN,RBM14,RIT2,TANC2,FYN,PLCB1,FAT3,RTN4,APOD,RTNAR,NDRG4,BMP2K,PAQR3,NTN1,DCTN1,NRG1,BDKRB1,BID,MAP2K1,FNIP1,MYH9,FRMPD4,MAD1L1,LRFN5,VGLL4,NTNG1,RNF4,TMEM30A,CSNK2A3,ROR2,DCN,SCFD1,CDH13,UST,MA-D2L2,CAPRIN2,NCKAP1,TERF2,SLX1B,RCC2,ANO6,ARL3,ZDHHHC15,FBXW7,SKAP1,CLSTN2,SYT1,ITCH,CROCC,LZTS1,SMG1,CLDN1,MLL2,SEPT7,CYFIP2,WNT11,FIG4,KREMEN1,MKLN1,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,PPM1E,TGFB1,SGK1,KEL,F2RL1,BCAS3,DNAJB2,CELSR1,SLIT3,AAK1,SLIT2,COLGALTI,CORO1C,DISC1,CEP135,KANK1,TTBK2,SMAD6,ITSN2,DUSP22,HNRNPC,SLC17A7,LINGO2,CNTNAP2,STXBP5,KANK4,IL1RAPL2,IQCJ-SCHIP1,RHPN2,SVIL,EPHA4,AUTS2,CNR1,SMG6,PPP3CA,GNG4,MAG,CTNNB1,PARK2,FCGR2B,ARHGAP22,CDHR2,IGF1R,PPARG,DLG5,ADD2,XK,SCAMP5,SREBF2,CDK11A,FBLIM1,CDK11B,DRAXIN,NIN,NOL3,RIOK2,MYOCD,AJUBA,CPNE6,PHLDB1,UBQLN4,HCK,TBC1D14,RAB3GAP2,CAPN2,DCC,ANKFY1,CTDP1,BAZ1B,NF2,HDAC4,SPTBN1,ELN,TRABD2B,SFRP1,DGKB,MUC12,DNM3,SSH1,SMAD3,CUX2,WIP1,MTBP,ABI2,C10ORF90,GRIK5,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,NAV3,RAB6C,CDC73,APP,PDGFRA,SLK,ADD3,DIP2B,NOX1,YAP1,TEN1,FSTL4,NLGN2,VDAC1,BORA,LRP5,PTPRG,ISLR2,ZDHHHC6,GPC6,KIF24,SPTBN4,TMEM14A,VILL,ESR2,SYNE2,DCUNID3,CPNE9,PRKD1,PARP6,DGKG,RND3,HNF4A,SHANK2,EREG,SEMA6D,RAF1,PTPN1,BMPR2,DYSL2,VBP1,CAMK1D,NLGN1,COL16A1,CTNNA2,SPAG9,MORC2,RAB11A,CRMP1,LRRC4C,PPM1F,PEAK1,SEMA4D,CDC27,MCTP1,PLXNA2,SETD1A,ABCA13,SPOCK1,AP2M1,DVL3,EIF4G1,EPHB3,ANAPC5,TSG101,VCL,TERF2IP,CLIC4,MYO9A,WNT3,NLGN3,PAFAH1B1,KIF3A,HIP1,AKAP6,RASAL1,BTBD9,TRPC5,TNKS,ERCC1,RUFY3,STON2,DAB2,PKHD1,LDLRAD4,SETD5,DZIP1,SMG5,RELN,SIN3A,DOCK11,IQGAP1,MACF1,ALK,CLASP1,MBOAT1,GPM6B,NFATC2,PACSINI,SPTBN5,PAK3,SSH2,TET1,ATAD1,ADNP,MAP1B,MPHOSPH9,MARK1,PHF2,TFRC,UVRAG,EPHA5,DCUNID5,GPC3,SGIP1,XRN1,TBC1D5,ZNF207,CLEC16A,MNAT1,FLRT2,SNX9,ACTR2,ELAVL4,PLCG2,ROCK1,EPS8,NTRK1,MAP1A,UNC13A,EPHB1,PTPN9,AXIN2,SARM1,LMK3L,TRIM46,SH3GL3,CARM1,AP2B1,ARHGAP44,SNX33,PIFO,SMARCA2,CUX1,EPHA7,MCU,PTPRA,LI-MA1,ABCB7,FCHSD2,MAP3K13,RAPGEF3,PDXP,SH3BP1,PTK7,SNCA,CD53,MAGI2,USP50,ZEB2,SYT9,CHMP3,PTPRS,CDKL1,RAB5B,ADTRP,PLD1,RASA1,OPRD1,RPTOR,RTN4RL1,CBFA2T2,IGF1,ATF7IP,HTT,DYSL3,MAPK1,PTEN,MIB1,BMP7,ATXN2,LRRK2,OSGIN1,EBAG9,SPAG5,UNC119,CHMP5,EFNA5,SHANK3,STMN4,PKIB,MTMR3,TBCD,WNT7A,MAP4,RHOT1,BMP6,MYCBP2,ATR,XR,APGEF2,MAR-K4,SYT17,DNAJC6,JADE1,RHOA,SYNGAP1,ROR1,TF,RHOBTB1,CUL3,EPM2A,GSK3B,RDX,EEF2K,FAM49B,NECAB2,CDK13,BOK,AGT,HGFRP3,PRKAA2,CUL9,S-TAT2,ZMPSTE24,PTK2,TPPP2,SNX3,RIMS2,GAP43,IQGAP2,CEP70,TAOK2,PARP10,YLPM1,SETDB2,CPLX2,DNAJB6,CD44,PACSIN2,SPEF1,EPHB2,TMEFF2,GPSM2,DLC1,PPARA,PPP1R10,SLC25A33,SYTL4,PRKCZ,GRIN2B,RABGEF1,PHLDB2,ANGPT1,MAP2,FBXO31,ATG3,CNTN1,PRKCQ,BRAF,DIAPH1,HDAC2,IMPACT,ATP8A1,CAPN6,NOTO,TNR,CD300A,PHIP,CDKL3,PPP2CA,SH3BP4,CAMSAP3,ANXA2,PARN,NUMB,SYK,CNOT1,SLIT1,CIT,HRK,DVL2,MTRF1,NEB,ANKRD13A,GRIPI,P-TPRJ,TICAM1,GPM6A,HSF1,ETF1,PLEKHM1,ASAP1,GBP5,CGNL1,CAV2,SKA2,INPP5F,AXL,TRIM37,MET,CAMK2D,SPTAN1,EHD2,KDM2B,SEMA3C,CCT3,NEDD4L,PHB,CTCF,SYNDIG1,RASSF8,PRAP1,STXBP6,BMP4
GO:0018193	peptidyl-amino acid modification	4.030262157598333e-24	ZDHHHC14,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,PDE4D,DNMT1,S1PR2,IL31RA,RPS6KA2,PRDM12,SETD4,ASH1L,NOS1AP,LATS2,PRKAG2,PRLR,MVP,PAGRI,NT-RK3,CBL,ARNT,EGLN2,FLT3,ENPP2,GRM5,FER,MAP2K5,KITLG,CAMK1G,MECO-M,TENM1,CAMKMT,LMNA,NMT2,SENP5,OXRI,ABI1,HSP90AA1,TSSK1B,STK38L,TTLL5,MAST4,PTPN11,MGAT5,HDAC6,ADORA1,EPHA1,IKKBK,ERBB4,DPIY19L2,TLK1,BRD8,KAT6B,KANSL1,NTRK2,EP300,TPST2,PDGFB,FKBP9,GALNTL6,STK39,INSR,CAB39,PAK1,EGLN3,BDNF,FUT8,LCK,SNX6,DMD,KAT7,CASS4,FYN,LMT-K2,ARID4B,ASPHD2,BCR,RWDD3,BRPF1,CHI3L1,TTN,PAQR3,TPGS2,EGFLAM,P-PIG,NRG1,SH2D3C,BDKRB2,MAP2K1,FNIP1,GALNT16,CSNK2A3,ROR2,DCN,ZDHHHC3,MAD2L2,CAPRIN2,PHF20L1,PDF,TTLL8,USP22,ZDHHHC15,JAK2,FBXW7,ZFY-VE28,SMG1,CDC42BPB,KLF15,TPST1,NOX4,PRKCD,CD4,TGFB1,SGK1,P4HA2,NS-D1,PIBF1,HHAT,TTBK2,KDM4B,CLOCK,DCLK1,RNF212,DUSP22,TRRAP,DOCK3,

			<p>FGF10,SMYD3,LOXL3,MAST2,CAPN3,EPHA4,PRKCA,AUTS2,CAMK4,CTNNB1,IGF1R,AXIN1,DYRK4,ESCO1,MYOCD,CHEK2,SUPT3H,PRDM16,HCK,CSPG4,BAZ1B,NF2,FLT4,HDAC4,SFRP1,RAB6A,ABI2,APP,PDGFRA,DIP2B,KANSL2,IBTK,JAK1,MTCP1,SETD2,ZDHHC6,SPTBN4,DRD1,CHUK,KDM6A,PRKD1,NAA25,EREG,MAPKAPK3,ATF2,RAF1,PTPN1,CAMK1D,MYB,PPM1F,NEDD9,AGBL4,PEAK1,SEMA4D,SETD1A,JARID2,PRKCG,NCOA1,EHMT1,EIF4G1,EPHB3,STT3B,PKN3,TSG101,DES1,TERF2IP,FKBP5,P4HB,QPCTL,PADI6,TRPC5,UBA2,TTL7,TNKS,SETD5,DLG3,WNK1,RELN,SIN3A,RUVBL2,MAP3K7,ALK,TOP1,AGBL1,PADI3,TTL9,ATP2B4,ACTL6B,ADNP,MAPKAPK2,CEP41,ARID4A,CDC42BP4,MARK1,TFRC,EPHA5,ADRBK1,EYA1,GHR,PLCG2,ROCK1,PAXIP1,EGR2,HIPK3,PTPN2,INSRR,NTRK1,PKN2,EPHB1,EPHA10,PARD3,GNL3L,KRTCAP2,MUC1,NUDT14,BCOR,CARM1,FOLH1,SP11,DNMT3B,EPHA7,BCAR3,STK38,NTMT1,MAP3K13,RAPGEF3,SMYD1,SNCA,KMT2D,KMT2C,OPRD1,HIPK1,RPTOR,BTK,ASPHD1,ZZZ3,IGF1,MAPK1,PTEN,SPRED2,BMP7,TTL4,LRRK2,UNC119,BAG6,LILRB4,MORC3,EFNA5,TADA2A,PDGFC,NCOA3,PLCL2,WDR5B,KAT6A,BMP6,DPIY19L4,ATRX,DPH6,PRMT2,VRK3,DPIY19L1,JADE1,ROR1,RQCD1,EPM2A,GSK3B,IWS1,STK32B,AGT,PRKAA2,ZMPSTE24,PTK2,TEC,CREBBP,LMTK3,NCF1,PYGO2,SHC1,RPS6KB1,ZDHHC23,GALNT13,SETDB2,CD44,FKBP14,RPS6KA5,CSNK1A1,NOS1,STK4,MARK3,EPHB2,SLC1A1,TLL11,IL18,UBE2K,PPIL6,PRKCZ,TYK2,YEATS4,PHF20,ANGPT1,LRRK1,MTF2,CNTN1,PRKCQ,BRAF,HDAC2,FKBP3,SRAP,CD300A,PPP2CA,ANGPT4,PRMT7,SYK,CIT,BRCA2,DVL2,PTPRJ,TAF1,HSF1,EZH1,SRPK2,SH2D3A,UGGT1,GALNT4,INPP5F,AXL,AGBL3,MET,CAMK2D,SETD3,ZDHHC11,ZDHHC11B,MLXIPL,PTPRC,CTCF,TYRO3,METTL2A</p>
GO:0044260	cellular macromolecule metabolic process	4.280725526118149e-24	<p>POLDIP3,LNX2,ZDHHC14,ENPP1,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,MOV10L1,SLCO3A1,MAP4K4,PDE4D,DNMT1,SIPR2,C6ORF89,ADCY8,MGAT4C,CBFB,PDE8A,IL31RA,RNASET2,RPS6KA2,PRDM12,SETD4,CALR3,KIF22,CTDSP2L,PMS1,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,RNF145,KSR2,PRKAG2,PRLR,MVP,PAGR1,FTO,KALRN,DCAF12,MRM1,NTRK3,CBL,ARNT,EGLN2,FLT3,RAD51B,TOX,ENPP2,GRM5,NOC3L,PLCE1,SAMHD1,FER,CASK,MAPK4,MAP2K5,KITLG,USP32,MAPK10,PTPRR,LRP2,PIK3CD,CAMK1G,ZSWIM7,EIF4G3,EZR,XRCC4,B3GALT1,ROBO1,TOM1L1,HTR2B,PSMD1,CDKL5,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXR1,GRK5,ABI1,ULK4,ERCC6L2,ITGB1,TRIOBP,HSP90A A1,CDC6,PSMB7,THUMP3D,TSSK1B,KNDC1,ZC4H2,CCDC22,MOCOS,STK38L,C DAN1,TRIO,KLHL12,AKAP13,TTL5,PTPRK,DAB1,OMA1,ERC1,DNAJB14,KLHL7,MAST4,TCIRG1,DACH1,PTPN11,HERC4,MGAT5,CCT2,ORC2,HDAC6,DDDB1,ADORA1,MSRA,GPRASP1,EPHA1,IKKBK,ERBB4,GBE1,DPIY19L2,MRE11A,LIMK1,TLK1,BRD8,TEX264,KAT6B,ABR,CUL4B,LARGE,CECR2,MIER1,PMPEA1,PTPRO,CDON,KANSL1,FBXL18,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,RNF220,FNTA,TPST2,P DGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,CSGALNACT1,BRMS1,CHFR,STK39,INSR,FMN2,PRKAR1A,ASB5,TCF7L2,ST6GALNAC3,JMJD1C,CAB39,BDKR34,PAK1,FBXW11,MAP3K4,ZDHHC13,PTPRD,RNF144A,EGLN3,SAMD4A,BDNF,CDK14,FANCA,CHRM3,POMGNT2,FUT8,VRTN,TRIM13,UBR2,HLCS,LCK,ENTPD5,ECT2,MYO3B,MTA3,SNX6,CHML,PPM1L,CST2,PTCD3,PTPRU,ERN2,CDC45,SHFM1,NPLOC4,DMD,CENPF,ATG10,SLC30A9,PDS5A,LARP4B,USP13,KAT7,SLC8A1,GSN,HFM1,RBM14,RBM4,RIT2,MACROD2,DRG2,CASS4,FYN,MKNR2,ARNTL,ADAMTS9,LINC01138,NF1,SMG7,PLCB1,MGMT,LMTK2,ARID4B,GXYLT2,PPP4R2,FBXO21,DPEP1,POLA2,NEIL2,B4GALT6,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,T TN,BMP2K,PAQR3,TPGS2,KLHL21,EGFLAM,PIG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,BID,FRY,MAP2K1,FNIP1,MYH9,GALNT16,VGLL4,PPP2CB,HDAC5,NF1A,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,ITIH2,CDKL2,ROR2,DCN,ZD HHC3,TRDMT1,FHIT,WDR70,PTPRT,AUNIP,UST,COP5,DMC1,IPO5,MAD2L2,M AN1A1,SRBD1,CAPRN2,CCNYL1,PHF20L1,PDF,TERF2,SLX1B,GN4Q,FBXO9,ICK ,RAD51D,RFFL,TTL8,PARP11,CCBE1,HERC5,USP22,ZDHHC15,IAK2,FAM168A,FBXW7,OAZ2,UBR7,SMC3,UIMC1,ITCH,USP12,ZFYVE28,BCL11B,SMG1,HUNK,B 3GALT5,CDC42BPB,PHKA1,TEX11,DHDDS,TCF7,KLF15,SPSB1,CYFIP2,WNT11,T PST1,TRIM59,MTA1,IMMP2L,NOX4,RPRD1B,MKLN1,SLAH1,QKI,CAMK2B,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,MRPL33,SGK1,PCSK5,P4HA2,SPSB4,MYO3A,NSD1,PIBF1,ZHX2,ASCC2,BTRC,POLK,CRADD,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,HS6ST2,SLIT2,ASB15,TP73,RNF133,RNF148,ITIH4,HHAT,CORO1C,CDKAL1,MGAM,DISC1,BLID,ZFAND2A,PTPDC1,CLN6,TMTC1,TTBK2,KDM4B,S MAD6,TMTC2,CLOCK,CHST9,ZNF675,RPL36,NELL1,BMPER,TIMP2,BCL3,DCLK1,RNF212,ANKRD54,EIF3L,DAPK2,TNFRSF10B,SND1,DAPPI,DUSP22,NAIP,HNRN PC,TRRAP,DOCK3,YTHDF1,FGF10,CIZ1,FBXL17,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCI,CAPN3,GANC,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,UBQLN3,UBQLNL,CAMK4,PIP5K1,UFL1,TRAK1,CTNNB1,PARK2,SMARCC1,IGF1R,PPARG,IARS2,NGRN,AXIN1,PRKAR1B,MACROD1,OTUB1,ANKRD17,BRIP1,LRPPRC,RSPRY1,AARS2,TDP1,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,PROS1,WDR45B,NOL3,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,GLG1,CHEK2,SUPT3H,UBQLN4,PRDM16,ASB8,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,PPP2R2B,CSPG4,BRMSIL,CTDPI,HS3ST5,BAZ1B,OBSCN,NF2,FLT4,HDAC4,PAX2,SECISBP2L,SPTBN1,PTPE,TRABD2B,SFRP1,ST8SIA1,PPP6R2,FOXO3,USP54,NF1B,ZCCHC17,BCL2L13,DNM3,SSH1,SYNCRIP,SMAD3,RNFT2,RAB6A,PTPRM,WWP2,SIMC1,WIP1,MTB</p>

			<p>P,RNF168,EMG1,ABI2,C10ORF90,DCP1B,NEDD4,GALNT14,TAB1,SEC61B,ST3GA L3,CDC73,APP,USP49,PDGFRA,SLK,RBM8A,CCNI2,DIP2B,KANSL2,ARIH1,HEG1, AMFR,ST6GALNAC5,CDK3,TEN1,EYA2,SH3D19,BORA,IBTK,SBK3,NVL,JAK1,FPG T- TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SETD2,ZDHHC6,CHST11,PRICKLE1,RCAN 1,SPTBN4,DRD1,CHUK,ERLIN1,PALB2,RFT1,MMP2,S100A12,DCUNID3,KDM6A, PRKD1,NAA25,PARP6,ST18,USP53,LRRC2,SHPRH,VPS4A,EREG,CCNY,MAPKAPK 3,ATF2,TCF3,GRAMD4,RAF1,CELF4,CARD16,CASP1,PTPN1,ADAMTS12,PSMD11, POLA1,GGT7,BMPR2,USP33,CAMK1D,BMPR1A,PABPC4,PIK3R3,CDK12,CAND2, SPAG9,MYB,FGF2,PPA2,BACH1,PPM1F,UBE2R2,TICRR,NEDD9,AGBL4,PEAK1,S EMA4D,NFX1,CDC27,HELQ,PTAFR,SETD1A,YME1L1,JARID2,KLHL3,PRKCG,SIN 3B,NCOA1,SPOCK1,AREL1,EEF1E1,EHMT1,LMO7,UCHL3,ALKBH3,AP2M1,DVL3, EIF2B5,EIF4G1,EPHB3,PSMD2,PTPRE,RBX1,ANAPC5,FBXO45,LIN28B,LMBRD1, STT3B,CKS1B,PAWR,TRMT61B,AGO3,DEPTOR,PKN3,FBXL20,TSG101,DES11,TER F2IP,IDE,COL11A1,FKBP5,C11ORF80,RCE1,B3GALNT1,P4HB,SUFU,SUMF1,PTP N13,QPCTL,POLE,COL4A3,HIP1,PADI6,TRPC5,UBA2,EDEM3,TTL7,GLI2,TNKS, ERCC1,TNRC6B,GLCE,WDTC1,MRPS28,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MY SMI,SETD5,SMG5,DLG3,WNK1,GTPBP2,RELN,NEK10,SIN3A,RUVBL2,PSMD7,JO SD1,PEL11,PPP2R5C,IQGAP1,SPATA18,DCAF5,MAP3K7,TRIM22,ZNRF1,ALK,SLC 8A2,EEDP1,FASTKD5,UBOX5,SLC35A4,TOPI,AGBL1,UBE2V1,PADI3,XDH,SNX5, RBBP6,CHD1L,PRKG1,TTL9,ATP2B4,NSF,PARP12,APEX2,ACTL6B,PAK3,SGH2,T ET1,HECTD4,MKRN3,CAMTA1,DYX1C1,ASGR2,ATAD1,ADNP,MAPKAPK2,CEP41, ARID4A,UBE3C,C12ORF65,CDC42BP4,MARK1,CDK6,PHF2,CELF1,RNF34,TFRC, UVFAG,EPHA5,ALG14,NFRKB,DCAF6,DCUNID5,DROSHA,GPC3,XRN1,ADRBK1, TBC1D5,PSMB2,EYA1,GATAD2A,CDC43,DIS3L2,RNF216,GHR,MNAT1,SNX9,ACT R2,ELAVL4,HDAC1,HS6ST3,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,MRPS17,PA XIP1,EGR2,HIPK3,RNF10,RYBP,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,MAP1 A,PKN2,SLC39A10,EIF3A,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,TMEM1 99,PARD3,GNL3L,KRTCAP2,MUC1,PTPN14,FBXO39,NUDT14,BCOR,CACNG8,MG AT4A,CARM1,AP2B1,PGBD5,ANXA8L1,SNX33,FOLH1,LPA,RAD51C,SPI1,DNMT3B ,EPHA7,LRRC47,PTPRA,FBXW4,MRPS24,ATG14,EIF3H,BCAR3,STK38,ACOT8,RB PMS,RENBP,NTMT1,MAP3K13,OTUD3,RAPGEF3,PDXP,ERCC3,PTK7,RSRC1,SMY D1,SNCA,BMPR1B,POLN,CACNG2,MAGI2,PRIM2,USP42,PNPT1,USP50,MCMBP, RC3H1,EIF3E,RNF103,RNF103- CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,PSMF1,KMT2C,UBE2QL1,CAST, TRIP12,DFFA,ADTRP,PLD1,OPRD1,HIPK1,NUGGC,RPTOR,NFIX,BTK,TBC1D16, ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,ATF7IP,HTT,LARS2,MAPK1,PTEN,MI B1,SPRED2,IFFO1,BMP7,PCMTD2,ATXN2,PIK3C3,PUM1,PCBP2,TTL4,LRKK2,T MEM59,ZRANB1,PIGS,UNC119,CHMP5,RFC3,BAG6,CHAF1B,LILRB4,MORC3,MS RB3,PKD2,EFNA5,HSF2BP,SEL1L2,NT5E,RCOR3,TADA2A,DAZL,ALPK3,PDGFC,S ERPINA3,SERPINA4,SERPINA5,NCOA3,PKIB,MTMR3,HS2ST1,PPP2R3C,WNT7A,N LRP1,RPS6KC1,UACA,DNAJC1,PLCL2,WDR5B,KAT6A,MTIF2,SIK3,BMP6,TAF15, MYCBP2,GPI,SH3RF2,EXT1,DYP19L4,N4BP1,ATRX,DPH6,C8ORF44- SGK3,PRMT2,RAPGEF2,ASCC1,VK3,GET4,ALG9,FDXACB1,MARK4,PRKAR2B,D PY19L1,PSEN2,GALNT10,UBE2H,DNAJC6,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SP RTN,WSB2,MCM3,ROR1,RQCD1,CUL3,HSPD1,EPM2A,GSK3B,PRR16,DNAJC3,RD X,STAT6,EEF2K,IWS1,PPP1R16A,PTPRB,RBBP8,NECAB2,CDK13,PGGT1B,ALAS2, STK32B,UPE2,CD27,DUSP26,BOK,RNF144B,SULF1,RNF43,AGT,METTL16,PCGNL ,POLH,PRKAA2,ADAR,CUL9,STAT2,ZMPSTE24,PTK2,ARMC8,PHFX,RNF121,TEC, DCAF10,EXOSC3,FBXO10,CDC14A,MAP3K5,CPE,TRPC4AP,CREBBP,PRKD3,LM TK3,PCSK6,NCF1,TAOK2,PYGO2,SHC1,ECE1,PARP10,RNFT1,RPS6KB1,YLPM1,Z DHHC23,GALNT13,GUCY2F,PRG3,SERPINB11,SETDB2,DNAJB6,FBXO28,CD44,L ARP4,ADAM8,FKBP14,MRPS6,CLDN4,RPS6KA5,ZNF93,CSNK1A1,HUS1,PRDM2,N OSI,RGS14,MC1R,STK4,MARK3,EPHB2,GATC,SLC1A1,TTL11,MARCH8,IL18,PC MT1,TEX12,MFSD8,UBE2K,DIS3,DLCL1,FBXL13,PPP1R10,PDP1,CALCRL,SMARC AL1,PHLPP1,PPIL6,CPEB4,MOB3B,ACPI,RNF150,PAX6,PRKCZ,ZC3HAV1,FAM20 C,ADORA2A,RBMS1,GRIN2B,MAN2B1,PPP1CC,RABGEF1,CCNG2,CPEB1,TMEM1 61B,TYK2,OTUD7B,KIN,NIPBL,YEATS4,COL28A1,PHF20,ANGPT1,BRF1,TBL1X,E YA3,LRKK1,OSBPL8,TRMT2B,IGF2BP3,L2HGDH,NT5M,GCNT2,PPP1CA,MTF2,FB XO31,ATG3,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SR CAP,SPINT2,UBE2E2,C18ORF25,CD300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,M RPS16,RPL23,RFC5,ACAN,SP100,OPN1LW,REV3L,ANXA2,PARN,PIGU,PRMT7,DO NSON,FARSB,WIPI2,ALG2,MADD,NUMB,SYK,CNOT1,WWTR1,GTFT2H5,ASB1,CIT, ZBTB38,BRC4,CACNG3,DVL2,MORC1,MTRF1,YBX1,ANKRD13A,PTPRJ,TAF1,EI F4E3,PPME1,TICAM1,RNF38,TANK,RIMKLA,GALNT7,NSUN6,HSF1,DHFR,EZH1, POP1,ETF1,RNGTT,SRPK2,SASH1,ADAMTS7,MCM8,WDR18,EEFSEC,RNF2,MOB3 A,GNA12,SH2D3A,UGGT1,AKTIP,GALNT4,MYEF2,POC1B- GALNT4,INPP5F,NUAK2,AXL,AGBL3,ORC4,TRIM37,CD109,MET,TBC1D10A,CAM K2D,MRPL1,RAD9B,SNX1,TIMELESS,UCHL5,MALT1,SERPINE3,SETD3,TRIM69,Z DHHC11,ZDHHC11B,INO80C,KDM2B,MLXIPL,CCT3,FBXL4,NEDD4L,PHKB,PHB, PTPRC,CTCF,EXD2,SH3GL2,TYRO3,RNF213,TRAF3IP2,TRIM60,CREB1,LIG1,MET TL21A,SGTB,TNXB,TRAP1,EDNRA,BMP4</p>
GO:00	cellular protein	5.44873981	POLDIP3,LNX2,ZDHHC14,ENPP1,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,SLCO

44267	metabolic process	7684358e-23	<p> 3A1,MAP4K4,PDE4D,DNMT1,SIPR2,C6ORF89,ADCY8,MGAT4C,CBFB,PDE8A,IL31RA,RPS6KA2,PRDM12,SETD4,CALR3,CTDSPL2,FBXL2,NRG3,ASH1L,NOS1AP,LA TS2,RNF145,KSR2,PRKAG2,PRLR,MVP,PAGR1,FTO,KALRN,DCAF12,NTRK3,CBL,ARNT,EGLN2,FLT3,ENPP2,GRM5,PLCE1,FER,CASK,MAPK4,MAP2K5,KITLG,USP32,MAPK10,PTPRR,LRP2,PIK3CD,CAMK1G,EIF4G3,EZR,B3GALT1,ROBO1,TOM1L1,HTR2B,PSMD1,CDKL5,MECOM,TENM1,CAMKMT,LMNA,NMT2,TRAF6,SENP5,ITPKB,DNAJA3,OXR1,GRK5,ABI1,ULK4,TRIOBP,HSP90AA1,CDC6,PSMB7,TSSK1B,KNDC1,ZC4H2,CCDC22,MOCOS,STK38L,TRIO,KLHL12,AKAP13,TTL5,PTPRK,DAB1,OMA1,ERC1,DNAJB14,KLHL7,MAST4,TCIRG1,PTPN11,HERC4,MGAT5,HDAC6,DDB1,ADORA1,MSRA,EPHA1,IKBKB,ERBB4,DPY19L2,MRE11A,LIMK1,TLK1,BRD8,KAT6B,ABR,CUL4B,LARGE,MIER1,PMEPA1,PTPRO,CDON,KANSL1,FBXL18,NTRK2,TNRC6A,EP300,ZYG11B,RNF220,FNTA,TPST2,PDGFB,FKBP9,TNIK,CCND3,GALNTL6,FBXL7,USP46,BRMS1,CHFR,STK39,INSR,PRKAR1A,ASB5,ST6GALNAC3,JMJD1C,CAB39,USP34,PAK1,FBXW11,MAP3K4,ZDHC13,PTPRD,RNF144A,EGLN3,SAMD4A,BDNF,CDK14,CHRM3,POMGNT2,FUT8,TRIM13,UBR2,HLC5,LC K,ENTPD5,ECT2,MYO3B,MTA3,SNX6,CHML,PPM1L,CST2,PTCD3,PTPRU,ERN2,NPLOC4,DMD,ATG10,LARP4B,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,HDAC5,MACROD2,DRG2,CASS4,FYN,MKRN2,ARNTL,LINC01138,NF1,LMTK2,ARID4B,GXYLT2,PPP4R2,FBXO21,DPEP1,B4GALT6,ASPHD2,BCR,NOSIP,RWDD3,BRPF1,CHI3L1,T TN,BMP2K,PAQR3,TPGS2,KLHL21,EGFLAM,PIPG,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,BID,FRY,MAP2K1,FNIP1,MYH9,GALNT16,VGLL4,PTP2CB,HDAC5,RNF4,CSNK2A3,GALNT18,UBE3D,JDP2,WDSUB1,ITIH2,CDKL2,ROR2,DCN,ZDHC3,PHIT,WDR70,PTPRT,UST,COP5,IPO5,MAD2L2,MAN1A1,SRBD1,CAPRIN2,CCNYL1,PHF20L1,PDF,GNAQ,FBXO9,ICK,RFFL,TTL8,PARP11,CCBE1,HERC5,USP22,ZDHC15,JAK2,FBXW7,OA22,UBR7,UIMC1,ITCH,USP12,ZFYVE28,SMG1,HUNK,B3GALT5,CDC42BPB,PHKA1,DHDDS,KLF15,SPSB1,CYFIP2,WNT11,TPST1,TRIM59,MTA1,IMMP2L,NOX4,RPDR1B,SLAH1,QK1,CAMK2B,ERCC8,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,MRPL33,SGK1,PCSK5,P4HA2,SPSB4,MYO3A,NSD1,PIBF1,ASCC2,BTRC,CRADD,PTPRN2,PDZRN3,DNAJB2,AAK1,KLHL2,SLIT2,ASB15,RNF133,RNF148,ITIH4,HHAT,CORO1C,CDKAL1,DISC1,BLID,ZFAND2A,PTPDC1,CLN6,TMTC1,TTBK2,KDM4B,SMAD6,TMTC2,CLOCK,ZNF675,RPL36,NELL1,BMPER,TI MP2,BCL3,DCLK1,RNF212,ANKRD54,EIF3L,DAPK2,TNFRSF10B,DAPPI,DUSP22,NAIP,TRRAP,DOCK3,YTHDF1,FGF10,FBXL17,SMYD3,UNKL,KCTD10,SH3RF3,LOXL3,MAST2,FANCL,CAPN3,SMURF2,EPHA4,PRKCA,AUTS2,CD6,TNFSF11,PPP3CA,UBQLN3,UBQLNL,CAMK4,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SMARCC1,IGF1R,PPARG,IARS2,NGRN,AXIN1,PRKAR1B,MACROD1,OTUB1,LRPPRC,RSRPY1,AARS2,CDK11A,DYRK4,GALNT8,CDK11B,LEPR,FGF1,PROS1,WDR45B,NOL3,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,GLG1,CHEK2,SUPT3H,UBQLN4,PRDM16,ASB8,PPP1CB,SPDYA,HCK,CSTL1,RAB3GAP2,CAPN2,TBCK,TRIM8,DIO2,PPP2R2B,CSPG4,BRMS1L,CTDP1,HS3ST5,BAZ1B,OBSCN,NF2,FLT4,HDAC4,PAX2,SECISBP2L,SPTBN1,TPTE,TRABD2B,SFRP1,ST8SIA1,PPP6R2,FOXO3,USP54,BCL2L13,SSH1,SYNCRIP,SMAD3,RNFT2,RAB6A,PTPRM,WWP2,SIMC1,WIP1,MTBP,RNF168,ABI2,C10ORF90,DCP1B,NEDD4,GALNT14,TAB1,SEC61B,ST3GAL3,CD73,APP,USP49,PDGFRA,SLK,RBM8A,CCN2,DIP2B,KANSL1,ARIH1,HEG1,AMFR,ST6GALNAC5,CDK3,EYA2,SH3D19,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,PTPRG,SETD2,ZDHC6,PRICKLE1,RCAN1,SPTBN4,DRD1,CHUK,ERLIN1,RFT1,MMP2,S100A12,DCUNID3,KDM6A,PRKD1,NA25,PARP6,ST18,USP53,LRRP2,SHPRH,VPS4A,EREG,CCNY,MAPKAPK3,FTF2,GRAMD4,RAF1,CELF4,CARD16,CASP1,PTPN1,ADAMTS12,PSMD11,GGT7,BMPR2,USP33,CAMK1D,BMPR1A,PABPC4,PIK3R3,CDK12,CAND2,SPAG9,MYB,FGF2,PPA2,PPM1F,UBE2R2,NEDD9,AGBL4,PEAK1,SEMA4D,NFX1,CDC27,PTAFR,SETD1A,YME1L1,ARID2,KLHL3,PRKCG,SIN3B,NCOA1,SPOCK1,AREL1,EEF1E1,EHMT1,LMO7,UCHL3,DVL3,EIF2B5,EIF4G1,EPHB3,PSMD2,PTPRE,RBX1,ANAPC5,FBXO45,STT3B,CKS1B,AGO3,DEPTOR,PKN3,FBXL20,TSG101,DES1,TERF2IP,IDE,FKBP5,RCE1,B3GALNT1,P4HB,SUFU,SUMF1,PTPN13,QPCTL,COL4A3,HIP1,PADI6,TRPC5,UBA2,EDEM3,TTL7,TNKS,TNRC6B,WDTIC1,MRPS28,DAB2,BLM,UBR1,CACUL1,LDLRAD4,MYSM1,SETD5,DLG3,WNK1,GTPBP2,RELN,NEK10,SIN3A,RUVBL2,PSMD7,JOSD1,PELI1,PPP2R5C,IQGAP1,SPATA18,DCAF5,MAP3K7,TRIM22,ZNRF1,ALK,SLC8A2,UBOX5,SLC35A4,TOPI,AGBL1,UBE2V1,PADI3,XDH,SNX5,RBBP6,PRKG1,TTL9,ATP2B4,PARP12,ACTL6B,PAK3,SSH2,TET1,HECTD4,MKRN3,CAMTA1,DYX1C1,ADNP,MAPKAPK2,CEP41,ARID4A,UBE3C,C12ORF65,CDC42BPA,MARK1,CDK6,PHF2,CELF1,RNF34,TFRC,UVRAG,EPHA5,ALG14,DCAF6,DCUNID5,GP C3,XRNI,ADRBK1,PSMB2,EYA1,CDCA3,DIS3L2,RNF216,GHR,MNAT1,SNX9,ELAVL4,HDAC1,TRIM24,PLCG2,ROCK1,MRPS17,PAXIP1,EGR2,HIPK3,RNF10,RBYP,CUL2,AP3B1,PTPN2,INSRR,NTRK1,TRIM44,MAP1A,PKN2,SLC39A10,EIF3A,PTPRQ,EPHB1,MAN1B1,EPHA10,PTPN9,AXIN2,TMEM199,PARD3,GNL3L,KRTCAP2,MUC1,PTPN14,FBXO39,NUDT14,BCOR,MGAT4A,CARM1,ANXA8L1,SNX33,FOLH1,LPA,SP11,DNMT3B,EPHA7,LRRC47,PTPRA,FBXW4,MRPS24,ATG14,EIF3H,BCAR3,STK38,RBPMS,RENBP,NTMT1,MAP3K13,OTUD3,RAPGEF3,PDXP,PTK7,RSRC1,SMYD1,SNCA,BMPR1B,MAGI2,USP42,PNPT1,USP50,RC3H1,EIF3E,RNF103,RNF103-CHMP3,RNF19B,PTPRS,KMT2D,PRKAG1,CDKL1,PSMF1,KMT2C,UBE2QL1,CAST,TRIP12,ADTRP,PLD1,OPRD1,HIPK1,RPTOR,BTK,ZNRF3,ASPHD1,KCTD13,MLLT1,ZZZ3,IGF1,HTT,LARS2,MAPK1,PTEN,MIB1,SPRED2,BMP7,PCMTD2,ATXN2,PIK </p>
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			<p>3C3,PUM1,PCBP2,TTL4,LRRK2,TMEM59,ZRANB1,PIGS,UNC119,BAG6,LILRB4,MORC3,MSRB3,PKD2,EFNA5,SEL1L2,RCOR3,TADA2A,DAZL,ALPK3,PDGFC,SERPIN43,SERPIN44,SERPIN45,NCOA3,PKIB,MTMR3,PPP2R3C,WNT7A,NLRP1,RPS6KC1,UACA,DNAJC1,PLCL2,WDR5B,KAT6A,MTIF2,SIK3,BMP6,MYCBP2,GPI,SH3RF2,EXT1,DYPY19L4,N4BP1,ATRX,DPH6,C8ORF44-SGK3,PRMT2,RAPGEF2,VRK3,GET4,ALG9,MARK4,PRKAR2B,DYPY19L1,PSEN2,GALNT10,UBE2H,DNAJC6,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,WSB2,ROR1,RQCD1,CUL3,HSPD1,EPM2A,GSK3B,PRR16,DNAJC3,RDX,EEF2K,IWS1,PPP1R16A,PTPRB,CDK13,PGGT1B,STK32B,CD27,DUSP26,BOK,RNF144B,RNF43,AGT,ME TTL16,CCNJL,PRKAA2,ADAR,CUL9,STAT2,ZMPSTE24,PTK2,ARMC8,PHOX, RNF121,TEC,DCAF10,EXOSC3,FBXO10,CDC14A,MAP3K5,CPE,TRPC4AP,CREBBP,PRK D3,LMTK3,NCF1,TAOK2,PYGO2,SHC1,PARP10,RNFT1,RPS6KB1,ZDHHC23,GALN T13,GUCY2F,PRG3,SERPINB11,SETDB2,DNAJB6,FBXO28,CD44,LARP4,ADAM8,F KBP14,MRPS6,CLDN4,RPS6KA5,CSNK1A1,HUS1,PRDM2,NOS1,RGS14,STK4,MAR K3,EPHB2,GATC,SLC1A1,TTL11,MARCH8,IL18,PCMT1,MFSD8,UBE2K,DIS3,DL C1,FBXL13,PDP1,PHLPP1,PPIL6,CPEB4,MOB3B,ACPI,RNF150,PAX6,PRKCZ,FA M20C,ADORA2A,GRIN2B,MAN2B1,PPP1CC,RABGEF1,CCNG2,CPEB1,TYK2,OTU D7B,NIPBL,YEATS4,COL28A1,PHF20,ANGPT1,BRF1,TBL1X,EYA3,LRRK1,OSBPL8 ,IGF2BP3,L2HGDH,GCNT2,PPP1CA,MTF2,FBXO31,ATG3,CDKSRAP1,CNTN1,PR KCQ,BRAF,HDAC2,IMPACT,FKBP3,PHKG2,SRCAP,SPINT2,UBE2E2,C18ORF25,C D300A,PHIP,CDKL3,PPP2CA,SKP1,ANGPT4,MRPS16,CDN1L,ANXA2,PAR N,PIGU,PRMT7,FARSB,WIP12,ALG2,MADD,SYK,CNOT1,WWTR1,GTTF2H5,ASB1, CIT,BRCA2,DVL2,MTRF1,YBX1,PTPRJ,TAF1,EIF4E3,PPME1,TICAM1,RNF38,TAN K,RIMKLA,GALNT7,HSF1,DHFR,EZH1,ETF1,RNGTT,SRPK2,SASH1,ADAMTS7,EE FSEC,POC1,MOB3A,GNAI2,SH2D3A,UGGT1,AKTIP,GALNT4,POC1B- GALNT4,INPP5F,NUAK2,AXL,AGBL3,TRIM37,CD109,MET,TBC1D10A,CAMK2D,M RPL1,UCHL5,MALTI,SERPINE3,SETD3,TRIM69,ZDHHC11,ZDHHC11B,KDM2B,M LXIPL,FBXL4,NEDD4L,PHKB,PHB,PTPRC,CTCF,SH3GL2,TYRO3,RNF213,TRAF3I P2,TRIM60,CREB1,METTL21A,SGTB,TNXB,TRAP1,EDNRA,BMP4</p>
GO:0007166	cell surface receptor signaling pathway	8.882147723665408e-22	<p>CD247,ENPP1,PRDX2,GPC5,NRXN1,GP6,PRKCI,PDE4D,PDCL,SIPR2,CLASP2,SEMA3A,IL31RA,GRID2,DOCK1,CLDN18,CTDSPL2,NRG3,LATS2,SEMA3D,PTH2R,N REP,NLGN4X,GRM8,UNC5C,PRLR,MVP,KALRN,NTRK3,CBL,ARNT,SEMA5A,LRRFIP2,FLT3,STAT5B,GRM5,PLCE1,SAMHD1,FER,MAP2K5,KITLG,MAPK10,PTPRR,L RP2,PIK3CD,SH2D1A,EZR,ROBO1,ITGB6,LMNA,GOT1,TRAF6,ROBO2,ITPKB,DNAJA3,VAI2,GRK5,ABI1,ITGB1,PSMB7,MCC,DSCAM,GMDS,SAMD12,TRIO,KLHL12,PTPRK,DAB1,DGKI,ANKS1B,STXBP4,GFRA2,IL17RB,PTPN11,HERC4,MGAT5,DD B1,ADORA1,ADAMTS3,EPHA1,IKBKB,ERBB4,LIMK1,BRD8,KLHL6,NPH3,GRM7,PMEP1,MAML3,PTPRO,CDON,NTRK2,EP300,CELA1,RNF220,FNTA,PDGFB,RIM S1,TNIK,CCND3,BPI,STK39,INSR,UNC5D,LAMA3,TCF7L2,PIP4K2A,USP34,PAK1,FBXW11,PTPRD,BDNF,CDK14,FANCA,TGIF2,FUT8,PHACTR4,GRIK4,LCK,IL5RA,SHC4,SNX6,PPM1L,PTPRU,RFTN1,AP3S1,RBM14,GPR171,DEPDC1B,CASSA,FYN,ARNTL,NF1,PLCB1,DST,LMTK2,RTN4,CHRD1,APOD,RTN4R,NDRG4,BMP2K,PIK3R2,RANBP9,NOMO3,NRG1,BDKRB2,BID,MDF1,VAX2,MYH9,DAGLA,VGLL4,PPP2CB,CMKLR1,ROR2,DCN,ZDHHC3,SLC39A14,CDH13,SOX13,PTPR,MAD2L2,TLE6,CAPRIN2,CCNYL1,RCC2,BOC,ANO6,ARL3,NEUROD1,GNAQ,RFFL,CCBE1,JAK2,FBXW7,SKAP1,ZFYVE28,MLLT3,SH2D6,TCF7,KLF15,ANXA4,MAG11,CYFIP2,WNT11,IIFT80,KREMEN1,PRKCD,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,NUP93,IGSF1,PIBF1,BTRC,CRAD,D,F2RL1,C9ORF47,GRIK3,RPGRI1L,CELSR1,SLIT3,AAK1,ZFYVE9,SLIT2,HHAT,CTNND2,DISC1,KANK1,PTPDC1,MTDH,TTBK2,SMAD6,ZNF675,BMPER,BCL3,TNFRSF10B,ADAM12,DUSP22,NAIP,HOMER2,FGF10,FBXL17,ARHGEF28,ILIRAPL2,LOXL3,GLP2R,SMURF2,EPHA4,RORA,PRKCA,CD6,TNFSF11,PPP3CA,CTNNB1,PARK2,FCGR2A,FCGR2B,FCGR3A,FCGR3B,SMARCC1,IGF1R,PPARG,AXIN1,DLG5,IL18R1,IL1RL1,P2RY10,TRPM1,SREBF2,DRAXIN,LEPR,LEPROT,FGF1,NR4A3,NOL3,MYOCD,TRIM5,KIR2DL1,GLG1,PRDM16,MYO1E,HCK,SO RBS1,CSPG4,GRM1,DCC,P2RY14,NF2,FLT4,BICC1,SPTBN1,TRABD2B,SFRP1,FOXO3,ARL13B,CNTN6,IIFT122,SMAD3,CUX2,WWP2,ACKR2,GRIK5,SHANK1,IFNAR1,NEDD4,NRP2,VANGL1,HOXD3,TAB1,NFATC1,CDC73,APP,GSX2,PDGFRA,FCRL4,YAP1,AMFR,FSTL4,NLGN2,TNFRSF19,EYA2,JAK1,LRP5,MUC20,PTPRG,SOX2,GP C6,CHST11,PRICKLE1,GRIA3,GLRA2,CHUK,FRS2,MMP2,KDM6A,PRKD1,STAT1,S TI8,HNF4A,EREG,CCNY,TCTN3,MAPKAPK3,SEMA6D,ATF2,TMEM237,RAFI1,CEL F4,CARD16,CASP1,PTPN1,ADAMTS12,BMPR2,BMPRI1A,TSPAN12,NLGN1,COL16A1,PIK3R3,EVC,FGF2,GRIK1,ADCY5,NEDD9,SEMA4D,DOK6,PLXNA2,PTAFR,ADCYAP1R1,DKK2,ITGA11,SPEN,VIPR1,GRIA2,GAS8,CHRD,DVL3,EIF2B5,EPHB3,PTP RE,RBX1,ATF3,SHOC2,PAWR,DEPTOR,MAML2,TSG101,CCDC3,IDE,WNT3,P4HB,CCL14,CCL15,SUFU,NLGN3,SCUBE2,PAFAH1B1,PRDM15,CNTFR,COL4A3,TRPA1,HIP1,IRS4,GLI2,NEO1,TNKS,SCUBE1,DAB2,THEMIS,LDLRAD4,DZUPI,WNK1,RE LN,RUVBL2,RSP02,CSF3R,PELI1,IQGAP1,MAP3K7,DDX47,ZNF423,MACF1,ALK,S LC8A2,INPP5D,XDH,LTBP1,OVOL2,SNX5,NFATC2,PAK3,P2RX6,ASGR2,GPR161,MAPKAPK2,COL4A6,SCARB1,MARK1,CDK6,P2RY8,RNF34,EPHA5,WWOX,GFRAL,GPC3,PSMB2,EYA1,TRPV1,GHR,FLRT2,HDAC1,INVS,SMOC2,ADIPOR2,PLCG2,GPR35,PTPN2,INSRR,NTRK1,TRIM44,SLC39A10,EPHB1,EPHA10,AXIN2,JAG2,NETO1,SP11,EPHA7,CHRN4,RANBP10,PTPRA,CTNNA1,FBXW4,LY86,BCAR3,RBPMS,CHURC1,SH3BP1,MST1,PTK7,SNCA,BMPRI1B,GRM4,MAG12,ZEB2,HEY2,RC3H1,W</p>

			<p> NT7B,ZMYND11,SPPL2A,RASA1,MITF,CABIN1,HIPK1,BTK,SIGLEC9,ZNRF3,TROVE2,CBFA2T2,IGF1,HTT,MAPK1,PTEN,MIB1,SPRED2,BMP7,LRRK2,ZRANB1,BAG6,LILRB4,IFT81,TMEM108,ITGAM,IL11RA,PKD2,EFNA5,SHANK3,BTBD11,PDGFC,AMOTL1,WNT7A,PLCL2,GPR21,BMP6,IL17RD,SOS1,TSHR,EXT1,PDCD1LG2,PRICKLE2,RAPGEF2,SMO,PSEN2,SOX30,UBR5,GRB14,GRIN1,JADE1,RHOA,VIPR2,GRIN3A,RORI,RQCD1,TF,ONECUT2,CUL3,NFKBID,EPM2A,GSK3B,PLD2,STAT6,NECAB2,CD27,ITGBL1,BOK,SULF1,KRT8,RNF43,AGT,PRKAA2,ADAR,FBN2,STAT2,NDRG2,PTK2,LAT2,SNX3,PDE4B,RIMS2,TEC,VEPH1,CPE,CREBBP,APCDD1L,DLX1,FMOD,PCSK6,NCF1,SLC29A1,PYGO2,SHC1,CD160,ECE1,LBX2,RPS6KB1,GUCY2F,SCEL,ANKS1A,ITGAL,CD44,RPS6KA5,BCL2L14,CSNK1A1,GRID1,FCRL6,PLEKHA1,PLVAP,RGS14,ACTN4,STK4,SPEF1,EPHB2,SLC1A1,WLS,XCR1,IL18,UBE2K,PPARA,ARID5B,CALCRL,CPEB4,NOTCH4,FBN1,PAX6,PRKCZ,FAM20C,ADORA2A,GRIN2B,RABGEF1,TYK2,ASPN,ANGPT1,TBL1X,EYA3,LRRK1,OSBPL8,GCNT2,PPP1CA,VWC2,GRIA4,RBMS3,CCL22,BTN3A2,CNTN1,PRKCQ,BRAF,CSRNPI,HDAC2,CD300A,PHIP,PPP2CA,ANGPT4,SP100,PIGU,CR2,FCRL2,MADD,SYK,WWTR1,GRK2,DVL2,PTPRJ,TICAM1,ITGAE,HSF1,SASH1,FCHO1,VAV3,CAV2,COL4A5,INPP5F,AXL,REPS2,TNFSF9,WIF1,CD109,MET,CCR3,UCLH5,ANKRD6,MALTI1,SEMA3C,PHB,PTPRC,EDA,PBLD,TYRO3,RNF213,TSPAN5,NCAM1,TRAF3IP2,RGMB,SHISA6,CLNK,EDNR4,BMP4,CPNE1 </p>
GO:0050790	regulation of catalytic activity	1.8962112664254195e-21	<p> RIC8B,LDB2,NRXN1,ASPH,MAP4K4,C6ORF89,ADCY8,DOCK1,NRG3,NOS1AP,LATS2,TBC1D19,PHACTR1,TLAM2,MAPRE2,PRKAG2,PRLR,MYP,KALRN,SEC23B,PHACTR2,NTRK3,CBL,PLEKHG4B,FLT3,GRM5,PLCE1,MAP2K5,KITLG,DENND2D,DEPDC5,XRCC4,ROBO1,TOMIL1,HTR2B,PSMD1,CDKL5,TENM1,NUCB1,TRAF6,DNAJA3,VAV2,ABI1,ITGB1,HSP90AA1,CDC6,SRGAP3,KNDCC1,TRIO,ARHGAP24,AKAP13,DAB1,NCF4,RGS6,DGKI,MGAT5,CCT2,DOCK10,CYTH3,HDAC1,EPHA1,IKBKB,ERBB4,MRE11A,GBF1,LIMK1,ABR,ESR1,GRM7,PTPRO,NTRK2,MCF2L2,FNTA,PDGFB,RIMS1,CCND3,ALOX5AP,INSR,PRKAR1A,PIP4K2A,HPS1,CAB39,PAK1,MAP3K4,EGLN3,NPRL3,PHACTR4,RASGEF1B,ARHGAP6,LCK,ECT2,SNX6,CHML,ARHGAP42,CST2,ERN2,DENND5A,SLC8A1,GSN,DEPDC1B,CASS4,FYN,NF1,NCF2,PLCB1,MGMT,LMTK2,SNCB,PPP4R2,RXFP1,DPEP1,DGKH,RTN4R,BCR,PP1R12B,NOSIP,BRPF1,CHI3L1,TTN,BMP2K,PAQR3,PIK3R2,NRG1,ARHGAP10,SMAP2,SH2D3C,DOCK8,BID,FRY,MAP2K1,FNIP1,RAPGEF6,STIM1,RALGPS2,TMBIM6,PPP3R1,SBF2,ITIH2,ROR2,SLC39A14,PRPSAP2,DOCK2,PTPRT,PPP1R42,IPO5,ARHGAP32,MAD2L2,RGS8,CCNYL1,TERF2,RALGPS1,RCC2,GNAQ,RFFL,RANBP1,DENND1A,HERC5,JAK2,FBXW7,OAZ2,ZFYVE28,ARAP2,DOCK9,DENND2A,ANXA4,LAMTOR3,CYFIP2,WNT11,ARHGAP23,NOX4,SIPA1L3,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,PCSK5,PIBF1,BTRC,DUS2,CRADD,F2RL1,BCAS3,SLIT2,ITIH4,HP,CORO1C,BLID,CACNA1D,CALML4,RXFP2,ITSN2,ZNF675,TIMP2,ANKRD54,TNFRSF10B,PARVA,DUSP22,RABGAP1L,NAIP,DOCK3,RASA4,RASA4B,ARHGEF28,SMYD3,STXB5,CAPN3,EPHA4,CNRI,TNFSF11,SMG6,CNTN1B1,PARK2,SOD2,ARHGAP22,IGF1R,PPARG,AXIN1,GARNL3,PRKAR1B,LEPR,FGF1,PROS1,RGS10,NOL3,PRKAR2A,AGAP1,MYOCD,AJUB4,CACNA1C,SPDYA,CSTL1,TBC1D14,RAB3GAP2,TBCK,PPP2R2B,AGFG2,ARHGAP31,MMP16,OBSCN,RGL1,NF2,FLT4,PAX2,SFRP1,PPP6R2,ARHGAP29,RANBP3,BCL2L13,SMAD3,SIMC1,PSAP,DCP1B,ARHGEF18,PREX1,DOCK4,TAB1,APP,PDGFRA,CCNI2,HEG1,TEN1,BORA,IBTK,NVL,PDE6D,ANGPTL4,LRP5,MTCP1,SOX2,RCAN1,ECSIT,DRD1,FRS2,SERGEF,S100A12,DCUNID3,PRKD1,ST18,ARHGEF33,EREG,CCNY,PITRM1,GRAMD4,RAFI1,RASGRF2,CARD16,CASPI,PTPN1,BMPR2,BMPRI1,PIK3R3,CDK12,DENND4A,FGF2,PPM1F,ADCY5,NEDD9,SEMA4D,SH3PXD2A,ELP3,PLXNA2,PTAFR,ADCYAP1R1,SPOCK1,DVL3,EIF2B5,EPHB3,PSMD2,ARHGAP39,SHOC2,CKS1B,DEPTOR,TSG101,MYO9A,CCL14,CCL15,PAFAH1B1,FAM13A,COL4A3,DDAH1,NMUR2,HIP1,RASAL1,TNKS,WDTC1,DAB2,BLM,CACUL1,DLG3,WNK1,RELN,NEK10,DOCK11,PPP2R5C,IQGAP1,MAP3K7,ARHGAP12,ALK,SLC8A2,XDH,PRKG1,RGS7,ATP2B4,CCPG1,ADNP,SCARB1,RNF34,UVRAG,EPHA5,DCUNID5,GPC3,TBC1D5,GHR,MNAT1,FGD1,SNX9,RPGR,HDAC1,ROCK1,HIPK3,GAPVD1,AP3B1,PTPN2,INSRR,NTRK1,SLC39A10,DNMBP,EPHB1,EPHA10,AXIN2,RCAN2,KRTCAP2,ANXA8L1,ARHGAP44,PIFO,LPA,ARHGEF3,EPHA7,ACAP2,ATG14,BCAR3,STK38,RENB,MAP3K13,RAPGEF3,SH3BP1,SNCA,BMPRI1B,MAGI2,PRIM2,TBC1D9,USP50,ZEB2,PRKAG1,PSMF1,CASST,DFFA,RASA1,CABIN1,RPTOR,BTK,TBC1D16,MLLT1,IGF1,HTT,MAPK1,PTEN,ARHGEF17,SPRED2,BMP7,RASA2,LRRK2,UNC119,RFC3,LILRB4,ITGAM,ARHGAP25,PKD2,EFNA5,MIA2,RGS9,PDGFC,SERPINA3,SERPINA4,SERPINA5,FAM13B,PKIB,SGSM1,PPP2R3C,TBCD,NLRP1,UACA,AGAP5,RABEP1,SH3PXD2B,MYCBP2,GPI,SH3RF2,SOS1,TSHR,SERINC5,RAPGEF2,VRK3,PPP1R37,PRKAR2B,STXB5L,PSEN2,GRIN1,ARRDC4,RHOA,SYNGAP1,VIPR2,PPP3R2,RORI,HSPD1,EPM2A,GSK3B,DNAJC3,RDX,PPP1R16A,PTPRB,CD27,BOK,AGT,CCNJL,ADAR,PTK2,MAP3K5,IQGAP2,PCSK6,NCF1,TAOK2,UGT1A1,UGT1A10,UGT1A4,UGT1A7,UGT1A8,SHC1,ARHGAP15,SERPINB11,DNAJB6,CD44,FGD3,ADAM8,SLC5A3,ARFGAP3,CLDN4,FGD4,NOS1,GCKR,RGS14,SIPA1L2,ARHGAP11A,STK4,COX6A1,EPHB2,SLC1A1,IL18,GPSM2,DIS3,DLC1,PPP1R10,GRTP1,PDP1,GPSM3,MOB3B,PRKCZ,ADORA2A,GRIN2B,RABGEF1,CCNG2,DENND4B,COL28A1,ANGPT1,OSBPL8,TBC1D10C,ARHGAP21,CCL22,CDK5RAP1,PRKCQ,PPP1R14A,SPINT2,CD300A,PPP2CA,SKP1,ANGPT4,ARHGEF6,RPL23,SH3BP4,RFC5,ANXA2,PARN,ITSN1,SRGAP2,MADD,SYK,WWTR1,ARHGAP19,CIT,RAP1GAP2,DVL2,PTPRJ,PPME1,TANK,HSF1,DHFR,SASH1, </p>

			DENND2C,ASAPI,RALGAP1,VAV3,MOB3A,CAV2,GNA12,SH2D3A,AXL,CD109,DENND4C,MET,TBC1D10A,CAMK2D,UCHL5,MALT1,SERPINE3,PHB,PTPRC,TYRO3,MTMR12,TNXXB,EDNRA,BMP4
GO:0031323	regulation of cellular metabolic process	7.370991750191733e-21	POLDIP3,ENPP1,PRDX2,LDB2,NRXN1,ASPH,PRMT3,PRKCI,SLCO3A1,PDE4D,DNMT1,SIPR2,HLX,SLC9A1,C6ORF89,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,FBXL2,NRG3,ASH1L,NOS1AP,LATS2,NOX5,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,MVP,PAGRI,HIVEP3,FTO,NPAS3,DCAF12,NTRK3,CBL,ARNT,LRRFIP2,FLT3,STAT5B,TOX,ENPP2,GRM5,PLCE1,ZNF566,FER,CASK,MAP2K5,KITLG,MAPK10,LRP2,ZNF536,SP3,DEPDC5,HDGF,EIF4G3,EZR,IKZF2,ROBO1,MALRD1,TOM1L1,CHD7,HTR2B,MECOM,TACCI,TENM1,LMN4,TRAF6,ESRP1,ITPKB,DNAJA3,OXR1,VAV2,ABI1,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,KNDC1,ZC4H2,CCDC22,DSCAM,CDAN1,AKAP13,GF11B,PTPRK,RUNX1,DAB1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,PTPN11,ZNF569,MGAT5,CCT2,ORC2,HDAC6,SERTAD2,DDBI,MYT1,ADORA1,EPHA1,IKBKB,PEX14,ERBB4,MRE11A,LIMK1,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,PMEP1,MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,ZNF471,FNTA,PDGFB,TNIF,CCND3,TOB2,ZNCF1,BRMS1,CHFR,ZNF605,SCML4,HNF4G,INSR,FMN2,REER,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,PIP4K2A,JMJD1C,CAB39,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1,LITAF,FBXW11,ESRRB,MAP3K4,RNF144A,BASP1,EGLN3,RBM20,TBR1,SAMD4,BDNF,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,LCK,MDM4,ENTPD5,ECT2,ZNF148,MTA3,SNX6,TFDP2,CST2,PTCD3,ERN2,C1D,AFF3,DMD,CENPF,ATG10,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,MED12L,SA TB2,PAFAH1B2,RIT2,HIRA,CASS4,FYN,MKRN2,ARNTL,NF1,SMG7,PLCB1,MGMT,LMTK2,ARID4B,PPP4R2,RTN4,AFF2,DPEP1,APOD,BCR,RWDD3,BRPF1,CH13L1,TN,PAQR3,PIK3R2,NRG1,SH2D3C,UBP1,BDKRB1,BDKRB2,BID,FRY,MAP2K1,MDFI,FNIP1,VAX2,MYH9,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NF1A,RNF4,JDP2,CMKLR1,ITIH2,ROR2,DCN,SCFD1,PCBD9,HNRNPLL,CDH13,CREBRF,TRDMT1,SOX13,FHIT,WDR70,PTPRT,AUNIP,COP55,PPP1R42,EXOC4,IPO5,MAD2L2,TLE6,RAB27A,CAPRIN2,CCNYL1,ZNF418,NLN,PHF20L1,TERF2,SLX1B,ZNF286A,FOXN3,NEUROD1,GNAQ,RFFL,CCBE1,HERC5,USP22,IAK2,FA M168A,TRAPPC9,FBXW7,SKAP1,SMC3,UIMC1,ITCH,MLIP,ZFYVE28,LZTS1,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,LAMTOR3,CYFIP2,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,MKLN1,QKI,CCDC62,E RCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,CD4,PPM1E,TGFB1,BANP,SGK1,SPSB4,TRIM65,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,CRADDF2RL1,BCAS3,CDYL2,DNAJB2,CC2D1B,SLIT2,TP73,ITIH4,HP,CORO1C,SAP18,ZBTB22,ILF2,DISC1,BLID,ZFAND2A,CLN6,MTDH,FANK1,MYT1L,KDM4B,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,NELL1,TFAP2D,BMPER,TIMP2,BCL3,ANKRD54,DAPK2,TNFRSF10B,SND1,DUSP22,NAIP,HNRNPC,TRRAP,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,FANCI,CAPN3,LUM,SMURF2,EPHA4,RORA,HIVEP2,PRKCA,AUTS2,CNR1,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,UBQLN3,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,PIPSKL1,UFL1,TRAK1,CTNNB1,PARK2,SDO2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,PRKAR1B,OTUB1,IL18R1,CIPC,MTF1,CELF2,CBX5,ANKRD17,BRIP1,LRPPRC,SREBF2,CDK11A,CDK11B,LEPR,FGF1,PROS1,NPAT,NR4A3,FOKK2,NOL3,PRKAR2A,RIOK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,GLG1,ZNF626,ZNF737,CHEK2,SUPT3H,UBQLN4,PRDM16,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,TRABD2B,SFRP1,MED13,PPP6R2,ZNF395,FOXO3,NFIB,SP4,ZCCHC17,BCL2L1,SSH1,CELF5,SYNCRIP,SMAD3,RNFT2,CUX2,ITPR1,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,SIMC1,WIP1,EBF3,MTBP,RNF168,CASZ1,PSAP,IFNAR1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,SLC4A4,ZNF114,TAB1,KTI12,NFATC1,CDC73,APP,SSBP3,GSX2,PDGFRA,RBM8A,CCNI2,DIP2B,ARH1,YAP1,HEG1,SESNI,TEN1,VDAC1,EYA2,SH3D19,BORA,IBTK,NVL,LRP5,MTCP1,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,RCAN1,ZNF653,SPTBN4,ZNF521,DRD1,ARID3A,ZNF761,CHUK,ERLIN1,SFMBT1,ZNF584,ESR2,S100A12,DCUN1D3,PRKD1,STAT1,CELF6,ST18,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,CCNY,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,GRAMD4,RAFI1,CELF4,ZNF766,CARD16,CASP1,PTPN1,SRRM4,BMPR2,USP33,CAMK1D,BMPRI4,ZKSCAN1,PABPC4,BTBD10,IKZF4,PIK3R3,CDK12,CAND2,SPAG9,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,GLI4,ZFP41,NEDD9,AGBL4,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,PRKCG,SIN3B,NCOA1,SPOCK1,EHMT1,LMO7,AP2M1,DVL3,EIF2B5,EIF4G1,EPHB3,RBX1,TCF20,ATF3,LIN28B,ATP6V0B,SRF5,CKS1B,PAWR,EBF2,AGO3,DEPTOR,MAML2,TSG101,DES1,TERF2IP,CRYM,IDE,RFX2,ZNF322,SUFU,MAGEA11,PTPN13,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,COL4A3,DDAH1,ZNF354C,HIP1,TCEA3,PADI6,ZNF704,NR2C1,TRPC5,UBA2,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTCL1,ZNF664,DAB2,BLM,PKHD1,CACUL1,LDLRAD4,MYSM1,SETD5,SMG5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,COMMD6,GMEB1,PELI1,IQGAP1,MAP3K7,ZNF423,SP1,TRIM2,ALK,SLC8A2,TEAD4,FASTKD5,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,TPCN1,A

			<p>DIRF,XDH,AHNAK,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BNC1,ATP2B4,NSF,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,DYX1C1,ATAD1,ADNP,MAPKAPK2,ARID4A,SCARB1,CDK6,ATP6V0A2,PHF2,CELF1,RNF34,TFRC,UVRAG,EPHA5,WWOX,MEF2A,DCAF6,DCUNID5,DROSHA,GPC3,XRN1,SATB1,TBC1D5,PSMB2,EYA1,GATA2A,SCOC,DIS3L2,GNB3,TRPV1,RBM12B,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,CLEC16A,GHR,MNAT1,SNX9,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,C1QTNF1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYPB,AP3B1,PTPN2,INSRR,NTRK1,KPNA6,TRIM44,MAP1A,SLC39A10,EPHB1,EPHA10,AXIN2,EPCAM,PARD3,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ANXA8L1,SNX33,PIFO,LPA,ZNF616,ZNF836,SMARCA2,CUX1,SP11,DNMT3B,EPHA7,FOX2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,BCAR3,JAZF1,STK38,ABC7,ACOT8,RBPMS,RENB,CHURC1,CREB5,MAP3K13,RAPGEF3,SMYD1,SNC A,BMPR1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,DHRS4,FOXJ3,HEY2,PRC3H1,EIF3E,RNF19B,ZMYND11,KMT2D,PRKAG1,CREM,PSMF1,KMT2C,CAST,TRIP12,DFFA,ADTRP,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,NUGGC,RPTOR,NFIX,BTK,TBC1D16,KCTD13,MLLT1,CBFA2T2,IGF1,MLXIP,ATF7IP,HTT,MAPK1,PTEN,SPRED2,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,PRCP,ZNF780A,FOXJ3,ELCVL5,PRCL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,GPI,SH3RF2,WDR43,ZNF30,N4BP1,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,VRK3,RALY,PRKAR2B,CPT1A,TCF4,SOX30,TFE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTR,NROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,EPMA2,GSK3B,PRR16,DNAJC3,RDX,STAT6,MLF1,EEF2K,IWS1,PPP1R16A,PTPRB,RBBP8,NECAB2,CDK13,CD27,DUSP26,BOK,RNF144B,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,CCNJL,POLH,PRKAA2,ADAR,STAT2,ZMPSTE24,PTK2,PBX1,TEC,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,TAOK2,UGT1A1,UGT1A10,UGT1A4,UGT1A8,PYGO2,SHC1,ZNF813,ECE1,LBX2,PARP10,RNFT1,RPS6KB1,STC2,YLPM1,DPRX,PRG3,SERPINB1,SETDB2,ALOX5,DNAJB6,SP7,CD44,LARP4,ADAM8,SLC5A3,CLDN4,RPS6KA5,ZNF484,ZNF93,CSNK1A1,HUS1,PRDM2,NOS1,ZNF44,GCKR,MED15,RGS14,ACTN4,MC1R,STK4,TCF25,DRAM1,ZNF282,EPHB2,SLC1A1,EDRF1,BCO2,IL18,MFSD8,UBE2K,DIS3,DLC1,PPARA,PPP1R10,ARID5B,SLC25A33,SMARCA1,CPEB4,MOB3B,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3HAV1,FAM20C,ADORA2A,GRIN2B,RABGEF1,CCNG2,CPEB1,OTUD7B,NIPBL,YEATS4,COL28A1,PHF20,ZNF143,ANGPT1,BRF1,TBLIX,EYA3,FHL2,LRRK1,MBTD1,OSBP L8,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,PPP1CA,MTF2,TAGLN3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI,HDAC2,HTR2C,IMPACT,PHKG2,SRCAP,POU3F3,NOTO,PPP1R14A,SPINT2,MBNL3,ZKSCAN5,CD300A,ELF2,PHIP,PTPDC3,SKP1,ANGPT4,RPL23,SH3BP4,RFC5,ATXN1,SP100,ZNF347,ZNF415,ANXA2,TRIM29,PARN,ATP6V0A1,DONSON,ADCY1,MADD,NUMB,RBM42,SYK,CNOT1,RBM39,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRC4,ATF7,DVL2,MORC1,MTRF1,YBX1,ANKRD13A,PTPRJ,TAF1,EIF4E3,TICAM1,TANK,THAP3,HSF1,MAX,SAP130,DHFR,ETI1,ETI1,NRF1,SRPK2,SASH1,NCOA2,WDR18,EEFSEC,QRICH1,VAV3,ZP3,CHD6,RNF2,ZNF554,MOB3A,GNA12,SH2D3A,AKTIP,MYEF2,INPP5F,AXL,TRIM37,CD109,MET,TBC1D10A,ZNF461,CAMK2D,TIMELESS,UCLH5,BRD9,MALTI1,SERPINE3,SETD3,TRA2B,KDM2B,MLXIPL,CCT3,PHB,PTPRC,EDA,ZNF555,CTCF,SH3GL2,TYRQ3,NR6A1,TRAF3IP2,ATF6B,CREB1,RGMB,TNXB,TRAP1,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0016310	phosphorylation	7.690378350133354e-21	<p>ENPPI1,LDB2,NRXN1,PRKCI,SLCO3A1,MAP4K4,PDE4D,SIPR2,ADCY8,PDE8A,IL31RA,RPS6KA2,GK5,NRG3,LATS2,KSR2,PRKAG2,PRLR,MVP,KALRN,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,FER,CASK,MAPK4,MAP2K5,KITLG,MAPK10,PIK3CD,CAMK1G,ADPGK,ROBO1,TOM1L1,HTR2B,CDKL5,TENM1,NADK2,TRAF6,ITPKB,DNAJA3,VAV2,GRK5,ABI1,ULK4,HSP90AA1,CDC6,TSSK1B,KNDC1,DSCAM,STK38L,TRIO,AKAP13,DAB1,ERIC1,DGKI,MAST4,PTPN11,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,LIMK1,TLK1,ABR,PMEP1,PTPRO,CDON,NTRK2,EP300,PDGFB,TNIK,CCND3,STK39,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,PP1P5K1,BDNF,CDK14,LCK,ENTPD5,ECT2,MYO3B,SNX6,ERN2,DMD,SLC8A1,PRPS2,RIT2,CASS4,FYN,NF1,LMTK2,DGKH,BCR,CHI3L1,TTN,BMP2K,PAQR3,PIK3R2,NRGI,SH2D3C,CDK19,BDKRB1,BDKRB2,MAP2K1,FNIP1,CSNK2A3,PPP5K2,CDKL2,LRGUK,ROR2,PTPRT,AK2,IPO5,MAD2L2,GALK2,CAPRIN2,CCNYL1,NME7,AK5,CKERKL,GNAQ,ICK,HERC5,JAK2,FBXW7,ZFYVE28,SMG1,HUNK,IDNK,CDC42BPB,PHKA1,LAMTOR3,WNT11,NOX4,CAMK2B,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,MYO3A,NSD1,PIBF1,AAK1,SLIT2,CORO1C,TBKB2,SMAD6,ZNF675,BMPER,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DUSP22,TRRAP,DOCK3,FGF10,ADK,SMYD3,MAST2,EPHA4,PRKCA,CD6,TNFSF11,CAMK4,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,CDK11A,DYRK4,CDK11B,LEPR,FGF1,FOXK2,PRKAR2A,RIOK2,MYOCD,AJUBA,CHEK2,SPDYA,HCK,TBCK,CSPG4,BAZ1B,OBSN,NF2,FLT4,SGMS1,HDAC4,SPTBN1,SFRP1,DGKB,ABI2,OGDHL,SLC44A,TAB1,UCK2,APP,PDGFRA,SLK,CCNI2,HEG1,CDK3,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,SPTBN4,DRD1,CHUK,S100A12,PRKD1,DGKG,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,CAMK1D,BMPR1A,BTBD10,PIK3R3,CDK12,SPAG9,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,PI4KA,PIK3C2B,PRKCG</p>

			<p>,DVL3,EIF4G1,EPHB3,CKS1B,DEPTOR,PKN3,TSG101,TERF2IP,PTPN13,CMPK1,TRPC5,TNKS,TPK1,DAB2,BLM,CACUL1,LDLRAD4,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,TOPI,XDH,PRKG1,ATP2B4,PACSINI,PAK3,ADNP,MAPKAPK2,CDC42BP,MARK1,CDK6,TFRC,UVRAG,EPHA5,RBKS,ADRBK1,SHPK,GHR,MNAT1,SNX9,TRIM24,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,PKN2,HYK,K,EPHB1,EPHA10,AXIN2,PARD3,PIFO,DGKK,EPHA7,PTPRA,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,PTK7,RSRC1,N4BP2,SNCA,BMPR1B,MAGI2,NADK,PRKAG1,CDKL1,ADTRP,OPRD1,HIPK1,RPTOR,BTK,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,PIK3C3,LRRK2,ALDOC,UNC119,ZBTB20,LILRB4,MORC3,PKD2,EFNA5,TADA2A,ALPK3,PDGFC,PKIB,PPP2R3C,RPS6KC1,PLCL2,SIK3,BMP6,GPI,C8ORF44-SGK3,RAPGEF2,VRK3,MARK4,PRKAR2B,BPGM,RHOA,ROR1,RQCD1,TF,CKMT1B,SH3KBP1,EPM2A,GSK3B,DNAJC3,EEF2K,PTPRB,CDK13,STK32B,AGT,CCNJL,PRKAA2,ADAR,STAT2,ZMPSTE24,FGGY,PTK2,TEC,MAP3K5,PRKD3,LMTK3,XVLB,C HKA,NCF1,TAOK2,SHC1,ALDOA,RPS6KB1,GUCY2F,CD44,ADAM8,RPS6KA5,CSN K1A1,HUS1,NOS1,GCKR,RGS14,STK4,MARK3,EPHB2,SLC1A1,IL18,UBE2K,PPAR A,MOB3B,PAX6,PRKCZ,FAM20C,ADORA2A,RABGEF1,CCNG2,TYK2,ANGPT1,LRR K1,OSBPL8,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,PHKG2,PPP1R14A ,CD300A,PHIP,CDKL3,PPP2CA,ANGPT4,MADD,SYK,WWTR1,GTTF2H5,CIT,DVL2, PTPRJ,TAF1,PFKFB4,HSF1,SRPK2,SASH1,VAV3,MOB3A,SH2D3A,AKTIP,INPP5F, NUAKE2,AXL,CD109,MET,CAMK2D,MALT1,PFKP,MLXIP,PHKB,PHB,PTPRC,SH3 GL2,TYRO3,CREB1,TNXXB,EDNRA,BMP4</p>
GO:0007155	cell adhesion	9.369331095705121e-21	<p>PRDX2,NRXN1,B4GALNT2,GP6,MAP4K4,HLX,SLC9A1,NEGR1,CBFB,CLASP2,LSAMP,GRID2,TENM3,DOCK1,CLDN18,ASTN2,TLN2,MYOT,NLGN4X,DCHS2,TJP1,PR LR,UTRN,PCDH9,ATRNL1,SEMA5A,STAT5B,FER,CASK,MAP2K5,KITLG,EZR,MEGF10,NRXN3,ROBO1,ITGB6,TENM1,TRAF6,ROBO2,NFASC,ITPKB,CTNNA3,DNAJA3,ITGB1,TRIOBP,ELMO2,PCDH17,KIF26B,DSCAM,DLG2,PTPRK,RUNX1,DAB1,MYO10,PDZD2,CDH10,ITGB3BP,LAMA2,COL14A1,PTPN11,CYTH3,EPHA1,CDH12,PTPRO,CDON,MEGF9,TENM2,CNTNAP3B,PDGFB,KIRREL3,CDH8,PRKAR1A,UNC5D,LAMA3,CDH4,PTPRD,CNTN5,STRC,ATRNL1,AMIGO1,CLDN12,PCDH7,TENM4,ARHGAP6,LCK,LAMC1,PTPRU,DMD,LRRN2,CASS4,FYN,ADAMTS9,NF1,DST,PCDH15,FAT3,RTN4,APOD,BCR,CCDC141,ADAMTSL1,NTN1,EGFLAM,NRG1,DOCK8,MYH9,MAD1L1,LRFN5,CNTN4,NTNG1,PARD3B,CDH13,SOX13,PTPRT,ENTPD1,PCDHB16,MAD2L2,CD99,CLDN16,RCC2,BOC,COL12A1,JAK2,MYPN,SKAP1,CLSTN2,ITCH,CLDN1,MAG11,CYFIP2,APBB1IP,CLCA2,ASTN1,MKLN1,IL1RAPL1,ADAM23,PRKCD,CD4,TGFB1,CLDN10,BCAS3,CELSR1,SDK2,CDH23,CORO1C,CTNND2,DISC1,KANK1,LAMC2,OPCML,SMAD6,PARVA,ADAM12,DUSP22,OTO4,CNTNAP2,LOXL3,VMP1,ZAN,EPHA4,HSD17B12,PRKCA,CD6,TNFSF11,PPP3CA,MAG,CTNNB1,FCGR2B,CDHR2,CADM3,DLG5,ADD2,ECM2,FBLIM1,NR4A3,AJUBA,PPP1CB,HCK,SORBS1,OBSCN,NF2,SFRP1,FOXO3,CNTN6,CDH26,SMAD3,PTPRM,NRP2,PREX1,HOXD3,PRTG,APP,PDGFRA,SLK,NLGN2,JAK1,SOX2,GPC6,DEFB118,PLEKHA7,SSPN,MMP2,RND3,CNTNAP3,DSCAML1,ADAMTS12,NLGN1,COL16A1,CTNN A2,MYB,LRRRC4C,PPM1F,NEDD9,PEAK1,SEMA4D,PLXNA2,PTAFR,FNDC3A,ITGA11,SPOCK1,LMO7,NTM,CHRD,EPHB3,MUC16,PAWR,VCL,LAMB1,P4HB,NLGN3,COL4A3,GLI2,NEO1,LPP,COL19A1,DAB2,PKHD1,USH2A,DLG3,WNK1,RELN,CSF3R,PEL11,CFDP1,COL6A5,MACF1,CLASP1,DSC2,GPM6B,PRKG1,COL4A6,CDK6,TFRC,FLRT2,ROCK1,NID1,C1QTNF1,AP3B1,PTPN2,MYBPC2,PKN2,ANK3,EPHB1,EPCAM,PAR3,MUC1,JAG2,AP3D1,VWF,ADAM19,CD84,CNTNAP5,HMCN1,SPIL,EPHA7,CUZD1,PTPRA,CTNNA1,SDK1,PTK7,RC3H1,COL13A1,WNT7B,PTPRS,ADTRP,ABCA12,CSRPI,RASA1,PKP2,SIGLEC9,PCDH11X,DSG1,IGF1,CADM2,PTEN,CLDN11,BMP7,MEGF11,LILRB4,ITGAM,EFNA5,NT5E,TBCD,EPDR1,BMP6,EXT1,PCDCL1G2,PARVB,CDH9,PAG1,TFE3,RHOA,ONECUT2,HSPD1,NFKBID,GSK3B,EMB,RDX,FAM49B,CD27,DUSP26,ITGBL1,CDH20,PTK2,FREM3,ARVCF,VEZT,TAOK2,SHC1,CD160,PGM5,ITGAL,AOX5,DNAJB6,CD44,ADAM8,CLDN4,PKD1L1,AC TN4,STK4,EPHB2,TMEFF2,IL18,DLC1,PPARA,EPB41L4B,NOTCH4,FBN1,PRKCZ,CD96,ADORA2A,SPECC1L,PHLDB2,CNTN3,TMIGD2,COL28A1,PCDH10,THSD1A,NGPT1,GCNT2,ETS1,PPP1CA,VWC2,KIFC3,CNTN1,PRKCQ,BRAF,SPINT2,TNR,CD300A,PPP2CA,ACAN,CAMSA3,ANXA2,FAT2,TRIM29,SRGAP2,SYK,FRMD5,RADIL,PTPRJ,ITGAE,CADM1,FCHO1,VAV3,ZP3,AXL,TNFSF9,CCR3,VSIG10,MALT1,PTPRC,EDA,TYRO3,SPON2,NCAM1,RGMB,TNXXB,STXBP6,BMP4</p>
GO:0022610	biological adhesion	1.2886155620487679e-20	<p>PRDX2,NRXN1,B4GALNT2,GP6,MAP4K4,HLX,SLC9A1,NEGR1,CBFB,CLASP2,LSAMP,GRID2,TENM3,DOCK1,CLDN18,ASTN2,TLN2,MYOT,NLGN4X,DCHS2,TJP1,PR LR,UTRN,PCDH9,ATRNL1,SEMA5A,STAT5B,FER,CASK,MAP2K5,KITLG,EZR,MEGF10,NRXN3,ROBO1,ITGB6,TENM1,TRAF6,ROBO2,NFASC,ITPKB,CTNNA3,DNAJA3,ITGB1,TRIOBP,ELMO2,PCDH17,KIF26B,DSCAM,DLG2,PTPRK,RUNX1,DAB1,MYO10,PDZD2,CDH10,ITGB3BP,LAMA2,COL14A1,PTPN11,CYTH3,EPHA1,CDH12,PTPRO,CDON,MEGF9,TENM2,CNTNAP3B,PDGFB,KIRREL3,CDH8,PRKAR1A,UNC5D,LAMA3,CDH4,PTPRD,CNTN5,STRC,ATRNL1,AMIGO1,CLDN12,PCDH7,TENM4,ARHGAP6,LCK,LAMC1,PTPRU,DMD,LRRN2,CASS4,FYN,ADAMTS9,NF1,DST,PCDH15,FAT3,RTN4,APOD,BCR,CCDC141,ADAMTSL1,NTN1,EGFLAM,NRG1,DOCK8,MYH9,MAD1L1,LRFN5,CNTN4,NTNG1,PARD3B,CDH13,SOX13,PTPRT,ENTPD1,PCDHB16,MAD2L2,CD99,CLDN16,RCC2,BOC,COL12A1,JAK2,MYPN,SKAP1,CLSTN2,ITCH,CLDN1,MAG11,CYFIP2,APBB1IP,CLCA2,ASTN1,MKLN1,IL1RAPL1,ADAM23,PRKCD,CD4,TGFB1,CLDN10,BCAS3,CELSR1,SDK2,CDH23,CORO1C,CTNND2,DISC1,KANK1,LAMC2,OPCML,SMAD6,PARVA,ADAM12,DUSP22,OTO4,CNTNAP2,LOXL3,VMP1,ZAN,EPHA4,HSD17B12,PRKCA,CD6,TNFSF11,PPP3CA,MAG,CTNNB1,FCGR2B,CDHR2,CADM3,DLG5,ADD2,ECM2,FBLIM1,NR4A3,AJUBA,PPP1CB,HCK,SORBS1,OBSCN,NF2,SFRP1,FOXO3,CNTN6,CDH26,SMAD3,PTPRM,NRP2,PREX1,HOXD3,PRTG,APP,PDGFRA,SLK,NLGN2,JAK1,SOX2,GPC6,DEFB118,PLEKHA7,SSPN,MMP2,RND3,CNTNAP3,DSCAML1,ADAMTS12,NLGN1,COL16A1,CTNN A2,MYB,LRRRC4C,PPM1F,NEDD9,PEAK1,SEMA4D,PLXNA2,PTAFR,FNDC3A,ITGA11,SPOCK1,LMO7,NTM,CHRD,EPHB3,MUC16,PAWR,VCL,LAMB1,P4HB,NLGN3,COL4A3,GLI2,NEO1,LPP,COL19A1,DAB2,PKHD1,USH2A,DLG3,WNK1,RELN,CSF3R,PEL11,CFDP1,COL6A5,MACF1,CLASP1,DSC2,GPM6B,PRKG1,COL4A6,CDK6,TFRC,FLRT2,ROCK1,NID1,C1QTNF1,AP3B1,PTPN2,MYBPC2,PKN2,ANK3,EPHB1,EPCAM,PAR3,MUC1,JAG2,AP3D1,VWF,ADAM19,CD84,CNTNAP5,HMCN1,SPIL,EPHA7,CUZD1,PTPRA,CTNNA1,SDK1,PTK7,RC3H1,COL13A1,WNT7B,PTPRS,ADTRP,ABCA12,CSRPI,RASA1,PKP2,SIGLEC9,PCDH11X,DSG1,IGF1,CADM2,PTEN,CLDN11,BMP7,MEGF11,LILRB4,ITGAM,EFNA5,NT5E,TBCD,EPDR1,BMP6,EXT1,PCDCL1G2,PARVB,CDH9,PAG1,TFE3,RHOA,ONECUT2,HSPD1,NFKBID,GSK3B,EMB,RDX,FAM49B,CD27,DUSP26,ITGBL1,CDH20,PTK2,FREM3,ARVCF,VEZT,TAOK2,SHC1,CD160,PGM5,ITGAL,AOX5,DNAJB6,CD44,ADAM8,CLDN4,PKD1L1,AC TN4,STK4,EPHB2,TMEFF2,IL18,DLC1,PPARA,EPB41L4B,NOTCH4,FBN1,PRKCZ,CD96,ADORA2A,SPECC1L,PHLDB2,CNTN3,TMIGD2,COL28A1,PCDH10,THSD1A,NGPT1,GCNT2,ETS1,PPP1CA,VWC2,KIFC3,CNTN1,PRKCQ,BRAF,SPINT2,TNR,CD300A,PPP2CA,ACAN,CAMSA3,ANXA2,FAT2,TRIM29,SRGAP2,SYK,FRMD5,RADIL,PTPRJ,ITGAE,CADM1,FCHO1,VAV3,ZP3,AXL,TNFSF9,CCR3,VSIG10,MALT1,PTPRC,EDA,TYRO3,SPON2,NCAM1,RGMB,TNXXB,STXBP6,BMP4</p>

			<p>3,PRKCD,CD4,TGFB1,CLDN10,BCAS3,CELSR1,SDK2,CDH23,CORO1C,CTNND2,DISC1,KANK1,LAMC2,OPCML,SMAD6,PARVA,ADAM12,DUSP22,OTOA,CNTNAP2,LOXL3,VMP1,ZAN,EPHA4,HSD17B12,PRKCA,CD6,TNFSF11,PPP3CA,MAG,CTNNB1,FCGR2B,CDHR2,CADM3,DLG5,ADD2,ECM2,FBLIM1,NR4A3,AJUBA,PPP1CB,HCK,SORBS1,OBSCN,NF2,SFRP1,FOXO3,CNTN6,CDH26,SMAD3,PTPRN,NRP2,PREX1,HOXD3,PRTG,APP,PDGFRA,SLK,NLGN2,JAK1,SOX2,GPC6,DEFB118,PLEKHA7,SSPN,MMP2,RND3,CNTNAP3,DSCAML1,ADAMTS12,NLGN1,COL16A1,CTNNA2,MYB,LRRC4C,PPM1F,NEDD9,PEAK1,SEMA4D,PLXNA2,PTAFR,FNDC3A,ITGA11,SPOCK1,LMO7,NTM,CHRD,EPHB3,MUC16,PAWR,VCL,LAMB1,P4HB,NLGN3,COL4A3,GLI2,NEO1,LPP,COL19A1,DAB2,PKHD1,USH2A,DLG3,WNK1,RELN,CSF3R,PEL1,CFDP1,COL6A5,MACF1,CLASP1,DSC2,GPM6B,PRKG1,COL4A6,SCARB1,CDK6,TFRC,FLRT2,ROCK1,NID1,C1QTNF1,AP3B1,PTPN2,MYBPC2,PKN2,ANK3,EPHB1,EPCAM,PARD3,MUC1,JAG2,AP3D1,VWF,ADAM19,CD84,CNTNAP5,HMCN1,SPI1,EPHA7,CUZD1,PTPRA,CTNNA1,SDK1,PTK7,RC3H1,COL13A1,WNT7B,PTPRS,ADTRP,ABCA12,CSRPI,RAS1,PKP2,SIGLEC9,PCDH11X,DSG1,IGF1,CADM2,PTEN,CLDN11,BMP7,MEGF11,LILRB4,ITGAM,EFNA5,NT5E,TBCD,EPDR1,BMP6,EXT1,PDCD1LG2,PARVB,CDH9,PAG1,TFE3,RHOA,ONECUT2,HSPD1,NFKBID,GSK3B,EMB,RDX,FAM49B,CD27,DUSP26,ITGBL1,CDH20,PTK2,FREM3,ARVCF,VEZT,TAOK2,SHC1,CD160,PGM5,ITGAL,ALOX5,DNAJB6,CD44,ADAM8,CLDN4,PKD1L1,ACTN4,STK4,EPHB2,TMEFF2,IL18,DLCL1,PPARA,EPB41L4B,NOTCH4,FBN1,PRKCZ,CD96,ADORA2A,SPECC1L,PHLDB2,CNTN3,TMIGD2,COL28A1,PCDH10,THSD1,ANGPT1,GCNT2,ETS1,PPP1CA,VWC2,KIFC3,CNTN1,PRKCQ,BRAF,SPINT2,TNFR,CD300A,PPP2CA,ACAN,CAMSAP3,ANXA2,FAT2,TRIM29,SRGAP2,SYK,FRMD5,RADIL,PTPRJ,ITGAE,CADM1,FCHO1,VAV3,ZP3,AXL,TNFSF9,CCR3,VSIG10,MALTI1,PTPRC,EDA,TYRO3,SPON2,NCAM1,RGMB,TNKB,STXBP6,BMP4</p>
GO:0009893	positive regulation of metabolic process	1.4123181505804303e-20	<p>POLDIP3,LDB2,NRXN1,ASPH,SLCO3A1,PDE4D,DNMT1,SIPR2,SLC9A1,C6ORF89,PBX3,ADCY8,CBFB,PDE8A,IL31RA,RPS6KA2,PRDM12,SETD4,PTGFR,MED26,WWCI,NRG3,ASH1,NOS1AP,NOX5,PTH2R,SCAF8,STOX2,KSR2,PRKAG2,PRLR,PAGR1,HIVEP3,FTO,NPAS3,NTRK3,ARNT,EGLN2,FLT3,STAT5B,TOX,ENPP2,GRM5,CASK,MAP2K5,KITLG,LRP2,PIK3CD,SP3,HDGF,ANK2,OLFM1,EZR,ROBO1,TOM1L1,CHD7,HTR2B,MECOM,TACCI,TENM1,LMNA,TRAF6,DNAJA3,VAV2,ABI1,NHLH1,HSP90AA1,SLC24A3,CDC6,KNDCL1,CCDC22,DSCAM,CNGB1,AKAP13,GF11B,RUNX1,DAB1,OMA1,ABCC8,HMGN3,NRIP1,THRB,EFCAB7,PTPN11,CCT2,HDAC6,SERTAD2,DDBI,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,ACTG2,CUL4B,ESR1,MAML3,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,ZNF76,FNTA,PDGFB,RIMS1,TNFR,CCND3,BRMS1,CHFR,HNF4G,INSR,FMN2,RERE,ASB5,FUBP1,TCF7L2,PIP4K2A,CAB39,PAK1,LITAF,FBXW11,ESRRB,MYO1,MAP3K4,RNF144A,EGLN3,RBM20,TBR1,SAMD4A,BDNF,TFAP2A,PEG3,MEIS1,TRIM13,LCK,ENTPD5,ECT2,ZNF148,MTA3,TFDP2,RFTN1,ERN2,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,GSN,RBM14,MED12L,SATB2,PAFAH1B2,RIT2,CASS4,FYN,MKRN2,ARNTL,PLCB1,MGMT,LMTK2,ARID4B,RTN4,RWDD3,BRPF1,CHI3L1,TTN,PIK3R2,RANBP9,NRG1,SH2D3C,UBP1,BID,MAP2K1,FNIP1,MYH9,VGLL4,PPP3R1,HDAC5,CSRNP3,NFIA,RNF4,CSNK2A3,JDP2,CMKLR1,ROR2,DCN,PCBD2,HNRNPPL,CDH13,CREBRF,COPS5,MAD2L2,RAB27A,CAPRIN2,CCNYL1,TERF2,SLX1B,NEUROD1,CBBE1,USP22,JAK2,FAM168A,FBXW7,OAZ2,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,MTA1,NOX4,RPRD1B,QK1,CCDC62,ERCC8,PRKCD,TAB2,ACVR2A,RUNX2,CD4,TGFB1,BANP,SPSB4,TRIM65,NSD1,PIBF1,BTRC,NFATC3,CRAADD,F2RL1,BCAS3,DNAJB2,TP73,ILF2,DISC1,BLID,ZFAND2A,CLN6,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,SUCO,TFAP2D,BCL3,TNFRSF10B,HNRNPC,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,FANCI,CAPN3,LUM,SMURF2,EPHA4,RORA,AUTS2,CD6,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,UFL1,CTNBN1,PARK2,SOD2,SMARCC1,IGF1R,PPARG,NGRN,AXINI,IL18R1,IL1RL1,MTF1,CYBB,SCAMP5,SREBF2,LEPR,FGF1,NPAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,CHEK2,SUPT3H,PRDM16,SPDYA,SOBBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SPTBN1,TRABD2B,SFRP1,MED13,ZNF395,FOXO3,NFIB,BCL2L13,SYNCRIP,SMAD3,RNFT2,CUX2,WWP2,ARNT2,WIP1,EBF3,RNF168,CASZ1,IFNAR1,DCP1B,NEDD4,ESRRG,HOXD3,HOXD4,SLC4A4,TAB1,NFATC1,CDC73,APP,SSBP3,PDGFRA,DI P2B,NOX1,ARIH1,YAP1,HEG1,SESNI,VDAC1,EYA2,SH3D19,BORA,NVL,ALPL,PEMT,LRP5,MTCP1,POLR3G,SOX2,SETD2,TEAD1,PRICKLE1,ZNF521,DRD1,ARID3A,CHUK,ESR2,S100A12,DCUN1D3,KDM6A,PRKD1,STAT1,ST18,ETV5,RHOXF2B,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,CCNY,ATF2,POU2F2,TCF3,GRAMD4,RAF1,CELF4,CASP1,PTPN1,BMPR2,CAMK1D,BMPRI1,BTBD10,IKZF4,PIK3R3,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,PPM1F,NEDD9,AGBL4,SEMA4D,RORC,PTAFR,ADCYAP1R1,RHOXF2,JARID2,DDX58,BRDT,RARB,PRKCG,NCOA1,AREL1,EHMT1,LMO7,AP2M1,DVL3,EIF2B5,EIF4G1,EPHB3,RBX1,TCF20,ATF3,LIN28B,SRSF3,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,CCDC3,TERF2IP,IDE,RFX2,WNT3,PRDM15,COL4A3,DDAHI,HIP1,TRPC5,UBA2,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,DAB2,BLM,CACUL1,MYSM1,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,GMEB1,PEL1,IQGA1,MAP3K7,ZNF423,SP1,TRIM22,ALK,SLC8A2,TEAD4,HOXC13,SLC35A4,SRA1,UBE2V1,TPCN1,ADIRF,XDH,OVOL2,SNX5,NFATC2,BNC1,ATP2B4,NSF,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ATAD1,ADNP,MAPKAPK2,ARID4A,SCARB1,MARK1,CDK6,PHF2,CELF1,TFRC,UVRAG,EPHA5,WWOX,MEF2A,DCAF</p>

			<p>6,DCUNID5,DROSHA,GPC3,TBC1D5,EYA1,SCOC,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,TFEB,GHR,MNAT1,SNX9,ACTR2,ELAVL4,HDAC1,SMOC2,TRIM24,ADIPO R2,PLCG2,ROCK1,C1QTNF1,PAXIP1,EGR2,RNF10,RYBP,AP3B1,PTPN2,INSRR,NT RK1,KPNA6,TRIM44,SLC39A10,ANK3,EPHB1,EPHA10,AXIN2,EPCAM,MUC1,AP3 D1,CARM1,ADAM19,SNX33,PIFO,CD84,ZNF836,SMARCA2,SP11,DNMT3B,EPHA7, GLIS1,ATG14,BCAR3,ABCB7,RBPMS,CHURC1,CREB5,MAP3K13,RAPGEF3,MTS1, SNCA,BMPRI1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,DHRS4,FOXJ3,HEY2,RC3H1,EI F3E,RNF19B,KMT2D,PRKAG1,CREM,KMT2C,ADTRP,PLD1,MACC1,MITF,OPRD1, RPTOR,NF1X,KCTD13,IGF1,MLXIP,ATF7IP,HTT,MAPK1,PTEN,BMP7,PUM1,PCB P2,ZNF780B,LRRK2,MLYCD,TMEM59,UNC119,ZBTB20,RFC3,BAG6,ITGAM,PKD2 ,EFNA5,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2R3C,WNT7A,NLRP1,UACA,LP GAT1,CRTC3,ARNTL2,ELOVL5,KAT6A,ZNF197,BMP6,TAF15,MYCBP2,GPI,SH3RF 2,TSHR,WDR43,ATRX,PRMT2,RAPGEF2,SMO,VRK3,CPT1A,TCF4,DEC1,SOX30,T FE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL 3,TFEC,HSPD1,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,ACTA2,FAM49B,CDK1 3,BOK,RNF144B,SULF1,SUPT4H1,TNFRSF8,AGT,METTL16,ELOVL3,PRKAA2,ADA R,ZMPSTE24,PTK2,PDE4B,PBX1,TEC,EXOSC3,MAP3K5,SECHAV1,GRIN2,DLX1,N CFI,TAOK2,SHC1,CD160,ECE1,RNFT1,RPS6KB1,PRG3,SP7,CD44,LARP4,ADAM8, SLC5A3,CLDN4,RPS6KA5,ZNF484,CSNK1A1,PRDM2,CXCL17,NOS1,ACTN4,MC1R, STK4,EPHB2,SLC1A1,EDRF1,IL18,UBE2K,DIS3,DLC1,PPARA,PPP1R10,ARID5B,E PB41L4B,GPSM3,MOB3B,NOTCH4,CRX,PAX6,PRKCZ,ZC3H4,GRIN2,CPEB1, NIPBL,TMIGD2,YEATS4,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,LRRK1,OSBPL8,ATF 6,ETSI,MTF2,RBMS3,BTN3A2,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI, HDAC2,HTR2C,IMPACT,PHKG2,SRCAP,POU3F3,CD300A,ELF2,PHIP,PPP2CA,SK P1,ANGPT4,RPL23,SH3BP4,RFC5,SP100,ANXA2,PARN,MADD,SHK,CNOT1,WWTR 1,ZBTB38,BRC42,ATF7,DVL2,YBX1,PTPRJ,TAF1,TICAM1,TANK,THAP3,CADM1,H SF1,MAX,EZH1,NRF1,SRPK2,SASH1,NCOA2,GBP5,QRICH1,VAV3,ZP3,CHD6,MOB 3A,GNA12,SH2D3A,AKTIP,INPP5F,AXL,TRIM37,MET,TBC1D10A,SNX1,TIMELESS, MALT1,SETD3,TRA2B,MLXIPL,CCT3,NEDD4L,PHB,PTPRC,EDA,CTCF,TYRO3,NR 6A1,SPON2,TRAF3IP2,ATF6B,CREB1,RGMB,CLNK,BMP4,ABLIM3</p>
GO:00 61564	axon development	1.74261149 04699122e-20	<p>NRXN1,CLASP2,SEMA3A,SEMA3D,MYOT,NREP,TIAM2,UNC5C,KALRN,SEMA5A,O LFM1,NRXN3,ROBO1,CDKL5,KIF5C,ROBO2,NFASC,ITGB1,HSP90AA1,DSCAM,TR IO,DAB1,LAMA2,PTPN11,HDAC6,GOLGA4,EPHA1,LIMK1,ATP8A2,GRM7,PTPRO, NTRK2,UNC5D,LAMA3,CDH4,PAK1,TBR1,BDNF,AMIGO1,FYN,LMTK2,RTN4,APO D,B4GALT6,RTN4R,CCDC141,ADAMTSL1,NTN1,MAP2K1,VAX2,CNTN4,NTNG1,US T,BOC,JAK2,MYPN,BCL11B,KREMEN1,SLAH1,SEMA5B,KEL,SLIT3,SLIT2,DISC1,L AMC2,DCLK1,YTHDF1,ENAH,EPHA4,AUTS2,CNR1,MAG,IGF1R,XK,DRAXIN,NIN, DCC,PAX2,SPG11,CNTN6,NFIB,PTPRM,NRP2,CRTAC1,PRTG,APP,DIP2B,FSTL4,I SLR2,SPTBN4,VASH2,MMP2,DSCAML1,SEMA6D,BMPR2,USP33,DYPSL2,CTNNA2, RAB11A,CRMP1,LRRC4C,SEMA4D,PLXNA2,EPHB3,FBXO45,VCL,WNT3,NLGN3,P AFAH1B1,TRPC5,GLI2,NEO1,RUFY3,RELN,SIN3A,MACF1,PAK3,ADNP,MAP1B,EP HA5,FLRT2,EGR2,NTRK1,MAP1A,ANK3,EPHB1,EPHA10,PAR3,TRIM46,EPHA7,C TNN4,MAP3K13,PTK7,BMPRI1B,PTPRS,RTN4RL1,PTEN,BMP7,RAPH1,EFNA5,W NT7A,MYCBP2,SOS1,EXT1,SMO,SYNGAP1,GSK3B,EMB,PTK2,GAP43,TAOK2,ECE 1,RPS6KA5,TUBB3,EPHB2,PAX6,MAP2,PRKCQ,BRAF,TNR,CDKL3,TMEFF1,ADCY 1,NUMB,SLIT1,DHFR,INPP5F,SEMA3C,NCAM1,CREB1,EDNRA</p>
GO:00 40011	locomotion	2.34893898 8688033e-20	<p>CLRN1,DNAH11,LDB2,GPC5,NRXN1,PRKCI,MAP4K4,SIPR2,SLC9A1,SPAG16,CLA SP2,SEMA3A,DOCK1,WWC1,NRG3,ASH1L,IQCG,ASTN2,SEMA3D,PHACTR1,MYO T,MAPRE2,WWC3,TJP1,UNC5C,KALRN,NTRK3,ATRNLI,SEMA5A,STAT5B,ENPP2, GRM5,FER,MARVELD3,MAP2K5,KITLG,PTPRR,SPNS2,PIK3CD,MEGF10,NRXN3, ROBO1,HTR2B,ITGB6,CDKL5,KIF5C,LMNA,ROBO2,NFASC,CTNNA3,VAV2,ULK4, ITGB1,ELMO2,SRGAP3,MCC,DSCAM,SRGAP2B,TRIO,ARHGAP24,PTPRK,DAB1,A BCC8,LAMA2,DACH1,PTPN11,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4, GBF1,DNAH2,ZNF609,PTPRO,NTRK2,EP300,MEGF9,PDGFB,AVL9,KIRREL3,STK 39,INSR,RERE,UNC5D,LAMA3,CDH4,PAK1,TBR1,CATSPER2,BDNF,ATRN,POMG NT2,FUT8,FMNL2,PHACTR4,LCK,LAMC1,PTPRU,LSP1,SLC8A1,SATB2,DEPDC1B ,CASS4,FYN,ADAMTS9,NF1,PLCB1,DST,FAT3,RTN4,DPEP1,APOD,BCR,CCDC141, NDRG4,ADAMTSL1,NTN1,NRG1,BDKRB1,DOCK8,MAP2K1,MYH9,CNTN4,HDAC5, NTNG1,NAV1,CMKLR1,ROR2,DCN,CATSPER3,DOCK2,CDH13,PTPRT,CCNYL1,N CKAP1,DEFA1B,CD99,RCC2,BOC,ANO6,KIF2A,RFFL,TTL8,CCBE1,JAK2,MYPN, FBXW7,BCL11B,DNAH14,CLDN1,CDC42BPB,WNT11,ASTN1,SLAH1,CAMK2B,PRK CD,SEMA5B,TGFB1,SGK1,MMP28,JPH3,F2RL1,BCAS3,CELSR1,SLIT3,SLIT2,COR O1C,RRAS2,DISC1,KANK1,LAMC2,CLN6,TTBK2,CHRM1,BMPER,DCLK1,DAPK2, PARVA,DUSP22,YTHDF1,FGF10,ENAH,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11, PPP3CA,PIP5KL1,CTNNB1,SOD2,IGF1R,PPARG,DLG5,ADD2,DRAXIN,FGF1,NR4 A3,MYOCD,AJUBA,HCK,CSPG4,DCC,NF2,FLT4,HDAC4,TPTE,SFRP1,FOXO3,ARL 13B,CNTN6,NFIB,SMAD3,PTPRM,ACKR2,ABI2,NRP2,PREX1,DOCK4,NAV3,PRTG, APP,GSX2,PDGFRA,SLK,CEP85L,NOX1,NLGN2,LRP5,PTPRG,SLC9B2,SETD2,GP C6,RCAN1,DRD1,MMP2,SYNE2,S100A12,PRKD1,RND3,DSCAML1,SEMA6D,RAF1, ADAMTS12,BMPR2,USP33,DYPSL2,CAMK1D,BMPRI1A,CTNNA2,PIK3R3,SPAG9,R AB11A,CRMP1,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,ARMC2,MCTP1,ELP3,PLX NA2,PTAFR,DDX58,ITGA11,PIK3C2B,SLC9B1,SPOCK1,GAS8,CHRD,EPHB3,FBXO 45,PKN3,VCL,LAMB1,CLIC4,WNT3,RHOJ,CCL14,CCL15,CCL15-</p>

			<p> <i>CCL14,PAFAH1B1,GLI2,NEO1,RUFY3,DAB2,USH2A,LDLRAD4,MYSM1,DZIP1,WNK1,RELN,CSF3R,IQGAP1,SP1,MACF1,CLASP1,SLC9C1,OVOL2,NFATC2,PRKG1,TLL9,ATP2B4,PAK3,SSH2,DYX1C1,MAP1B,CDC42BP4,SCARB1,MARK1,CDK6,EPHA5,GPC3,FLRT2,SMOC2,PLCG2,ROCK1,EPH8,PAXIP1,EGR2,ABCC1,PTPN2,NTRK1,PKN2,TMIGD1,EPHB1,EPHA10,TRIM46,TEKT1,HTR1D,SP1,EPHA7,MCU,CTNNA1,LIMA1,SH3BP1,MST1,PTK7,SNCA,BMPR1B,MAGI2,ZEB2,ADTRP,PLD1,MITF,KCTD13,IGF1,DPYSL3,MAPK1,PTEN,BMP7,PRCP,LRRK2,OSGIN1,ZRANB1,EFNA5,SHANK3,PDGFC,AMOTL1,WNT7A,NME8,MYCBP2,GPI,SH3RF2,SOS1,TSHR,EXT1,RAPGEF2,SMO,SUN1,RHOA,NDE1,TF,ONECUT2,FAM19A4,CUL3,SH3KBP1,PLD2,EMB,RDX,ACTA2,FAM49B,ITGBL1,SULF1,AGT,PTK2,TPPP2,PDE4B,GAP43,T AOK2,ECE1,RPS6KB1,GPR173,ANKS1A,ITGAL,ALOX5,CD44,ADAM8,CLDN4,RPS6KA5,CXCL17,PEX7,PLVAP,ACTN4,STK4,TUBB3,SPEF1,EPHB2,TMEFF2,XCR1,DLCL1,ARID5B,EPB41L4B,GPSM3,LDHC,ZMYND8,PAX6,PRKCZ,ADORA2A,CABGEF1,PHLDB2,KLC3,NIPBL,ANGPT1,OSBPL8,GCNT2,ETS1,BIN2,CCL22,FBXO31,PRKCQ,BRAF,DIAPH1,ATP8A1,POU3F3,SPINT2,TNR,CD300A,ANGPT4,CAMSA3,SP100,FAT2,SRGAP2,TMEFF1,NUMB,SYK,SLIT1,FRMD5,RADIL,DNAH3,PTPRJ,GPM6A,SASH1,VAV3,ZP3,GNAI2,INPP5F,AXL,MET,FMNLI,CCR3,SEMA3C,PTPRC,TYR03,NCAM1,EDNRA,BMP4</i> </p>
GO:0006468	protein phosphorylation	4.853035178501259e-20	<p> <i>ENPPI,NRXN1,PRKCI,SLC03A1,MAP4K4,PDE4D,S1PR2,ADCY8,PDE8A,IL31RA,RPS6K42,NRG3,LATS2,KSR2,PRKAG2,PRLR,MVP,KALRN,NTRK3,CBL,FLT3,ENPP2,GRM5,PLCE1,FER,CASK,MAPK4,MAP2K5,KITLG,MAPK10,PIK3CD,CAMK1G,ROBO1,TOM1L1,HTR2B,CDKL5,TENM1,TRAF6,ITPKB,DNAJA3,GRK5,ABI1,ULK4,HS90AA1,CDC6,TSSK1B,KNDC1,STK38L,TRIO,AKAP13,DAB1,ERC1,MAST4,PTPN11,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,LIMK1,TLK1,ABR,PMEP1,PTPRO,CDON,NTRK2,PDGFB,TNIK,CCND3,STK39,INSR,PRKAR1A,CAB39,PAK1,MAP3K4,BDNF,CDK14,LCK,ECT2,MYO3B,SNX6,ERN2,DMD,SLC8A1,RIT2,CASS4,FYN,NF1,LMTK2,BCR,CHI3L1,TTN,BMP2K,PAQR3,NRG1,SH2D3C,CDK19,BDKRB1,BDKRB2,MAP2K1,FNIP1,CSNK2A3,CDKL2,ROR2,PTPRT,IPO5,MAD2L2,CAPRIN2,CCNYLI,GNAQ,ICK,HERC5,JAK2,FBXW7,ZFYVE28,SMG1,HUNK,CDC42BPB,PHKA1,WNT11,NOX4,CAMK2B,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,MYO3A,NSD1,PIBF1,AAK1,SLIT2,CORO1C,TTBK2,SMAD6,ZNF675,BMPEP,DLCLK1,ANKRD54,DAPK2,TNFRSF10B,DUSP22,DOCK3,FGF10,SMYD3,MAST2,EPHA4,PRKCA,CD6,TNFSF11,CAMK4,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,CDK11A,DYRK4,CDK11B,LEPR,FGF1,PRKAR2A,RIOK2,MYOCD,AJUBA,CHEK2,SPDYA,HCK,TBCK,CSPG4,BAZ1B,OBSCN,NF2,FLT4,SPTBN1,SFRP1,ABI2,TAB1,APP,PDGFRA,SLK,CCN2,HEG1,CDK3,BORA,IBTK,SBK3,JAK1,FPGT-TNNI3K,TNNI3K,LRP5,MTCP1,SPTBN4,DRD1,CHUK,S100A12,PRKD1,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,CAMK1D,BMPR1A,PIK3R3,CDK12,SPA9,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,PRKCG,DVL3,EIF4G1,EPHB3,CKS1B,DEPTOR,PKN3,TSG101,TERF2IP,PTPN13,TRPC5,TNKS,DAB2,BLM,CACUL1,LDLRAD4,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,TOPI,XDH,PRKG1,ATP2B4,PAK3,ADNP,MAPKAPK2,CDC42BP4,MARK1,CDK6,TFRC,UVRAG,EPHA5,ADRBK1,GHR,MNAT1,SNX9,TRIM24,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,PKN2,EPHB1,EPHA10,AXIN2,PARD3,EPHA7,PTPRA,ATG14,BCAR3,STK38,RPMS,MAP3K13,RAPGEF3,PTK7,RSRC1,SNCA,BMPR1B,PRKAG1,CDKL1,ADTRP,OPRD1,HIPK1,RPTOR,BTK,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,PIK3C3,LRRK2,UNC119,LILRB4,MORC3,PKD2,EFNA5,TADA2A,ALPK3,PDGFC,PKIB,PPP2R3C,RPS6KC1,PLCL2,SIK3,BMP6,C8ORF44-SGK3,RAPGEF2,VRK3,MARK4,PRKAR2B,RHOA,ROR1,RQCD1,EPM2A,GSK3B,DNAJC3,EEF2K,PTPRB,CDK13,STK32B,AGT,CCNJL,PRKAA2,ADAR,STAT2,ZMPSTE24,PTK2,TEC,MAP3K5,PRKD3,LMTK3,NCF1,TAOK2,SHC1,RPS6KB1,GUCY2F,CD44,ADAM8,RPS6KA5,CSNK1A1,HUS1,NOS1,RGS14,STK4,MARK3,EPHB2,SLC1A1,IL18,UBE2K,MOB3B,PAX6,PRKCZ,FAM20C,ADORA2A,RABGEF1,CCNG2,TYK2,ANGPT1,LRRK1,OSBPL8,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,IMPACT,PHKG2,CD300A,PHIP,CDKL3,PPP2CA,ANGPT4,MADD,SYK,WWTR1,GT2H5,CIT,DVL2,PTPRJ,TAF1,HSF1,SRPK2,SASH1,MOB3A,SH2D3A,AKTIP,INPP5F,NUAK2,AXL,CDI09,MET,CAMK2D,MALT1,MLXIPL,PHKB,PHB,PTPRC,SH3GL2,TYRO3,CREB1,TNXB,EDNRA,BMP4</i> </p>
GO:0051641	cellular localization	5.981514951848912e-20	<p> <i>CD247,POLDIP3,DNAH11,ZDHHC14,HOKK2,BLZF1,GPC5,NRXN1,ASPH,PRKCI,PDE4D,SLC9A1,FAM155A,ADCY8,CLASP2,GRID2,CHERP,WWC1,CLDN18,KIF22,CTDSPL2,RYR1,NOS1AP,LATS2,TUBA1C,NOX5,ANP32A,ASTN2,EPB41,DPP6,MAPRE2,NLGN4X,SEC23B,LTV1,SNX31,CBL,LHFPL4,FAM53A,FER,CASK,CCDC93,KCNIP4,PIK3CD,TNPO3,HDGF,ANK2,EZR,NRXN3,XRCC4,TOM1L1,CHD7,HTR2B,TENM1,RYR3,KIF5C,LMNA,SRP72,NFASC,DNAJA3,SLC24A2,ITGB1,HSP90AA1,CNHI2,PCDH17,CCDC22,FAM126A,CNGB1,KLHL12,AKAP13,DLG2,IFT43,PARD6G,PTPRK,DAB1,MYO10,ERC1,HMGN3,AFTPH,DGKI,STXBP4,ERC2,EFCAB7,TCIRG1,PTPN11,CCT2,CACNB2,HDAC6,GOLGA4,ADORA1,GPRASP1,IKBKB,PEX14,ERBB4,GBF1,TLK1,ESR1,DPP10,STX18,FNTA,HOKK3,VPS45,RIMS1,TNIK,SNX2,MID1,MSTO1,FMN2,H2AFY2,TCF7L2,PIP4K2A,FBXW11,BDNF,LCK,ECT2,SNX6,CHML,VAMP7,PTPRU,RFTN1,SHFM1,AP3S1,NPLOC4,DENND5A,DMD,CENPF,RANBP17,KAT7,SLC8A1,GSN,RBM4,RIT2,TANC2,JPH2,FYN,NF1,SMG7,DST,LMTK2,STX6,SNCR,BTN4,GOLGA2P5,APOD,VTA1,BCR,NDRG4,PAQR3,PIK3R2,KLHL21,NTN1,DCTN1,SLC4A5,NRG1,BDKRB1,BID,MAP2K1,RAPGEF6,MYH9,MAD1L1,TMBIM6,TME</i> </p>

			<p>M30A, SYNE1, PARD3B, SCFD2, ZDHHC3, SLC39A14, LIN7A, SCFD1, SYN2, DOCK2, CDH13, CREBRF, COPSS, EXOC4, IPO5, MAN1A1, TLE6, RAB27A, RAB3C, TERF2, TMED6, GOLPH3L, RCC2, ARL3, NEUROD1, IPO11, ICK, RANBP1, DENND1A, ZDHHC15, JAK2, FBXW7, KCNB2, OAZ2, SYN3, SKAP1, SYT1, CROCC, NPSR1, BBS12, SNAP25-AS1, SMG1, DYNC111, ATP9A, PLS1, DENND2A, SEPT7, TTC7B, LAMTOR3, KPNA3, CTAGE6, CENPC, WNT11, IFT80, IMMP2L, PRKCD, CD4, TGFB1, BANP, NUP93, PIBF1, JPH3, PTPRN2, ARMC1, F2RL1, BCAS3, CELSR1, ZFYVE9, CADPS2, CORO1C, C12ORF4, DISC1, KCNJ3, CACNA1D, ZFAND2A, GRPEL2, ANK1, CLMN, TTBK2, CHRM1, RAB11FIP4, ITSN2, SYNJ2, BCL3, DCLK1, ANKRD54, RABGAP1L, ANKFNI, SLC17A7, FGF10, CNTNAP2, CIZ1, STXBP5, CAPN3, VMP1, SNX8, CNR1, SMG6, PPP3CA, NSUN2, TRAK1, CTNNB1, PARK2, RN7SL832P, FCGR2B, TSNARE1, AXIN1, PRKAR1B, MYO1D, TRPM1, SYTL5, ANXA13, LRPPRC, SREBF2, RYR2, LEPROT, PROS1, NR4A3, WDR45B, NOL3, RIOK2, PER2, AJUBA, CACNA1C, SCN3B, MYO1E, HCK, SORBS1, TBC1D14, RAB39B, SETD2, TBC1K, TRIM8, RIMS4, ANKFY1, OBSCN, NF2, SPTBN1, AP3B2, SPG11, ARL13B, CCDC91, IT122, RANBP3, DNMT3, SMAD3, ITPR1, RAB6A, WIPI1, MTBP, VPS39, GRIK5, PSAP, LZTFL1, NEDD4, KPNB1, VPS53, SLC6A1, RAB6C, SEC61B, THOC3, APP, BET1L, YAP1, RAB11FIP5, MYO1F, NLGN2, EYA2, SSR2, IBTK, NVL, LRP5, SEC22C, SLC9B2, SETD2, ZDHHC6, GPC6, PRICKLE1, SPTBN4, DRD1, TMEM14A, TPH1, SYNE2, PRKD1, OSBPL2, SYBU, SLC6A3, TAF3, VPS4A, PITRM1, ATF2, RAF1, PTPN1, AP1B1, NLGN1, SNX16, TAF8, SPAG9, RAB11A, EPG5, IPO9, FGF2, RAB24, ADCY5, AGBL4, MCTP1, XPO6, PTAFR, ADYAP1R1, EEA1, ABCA13, RILPL1, SORCS2, RAB11FIP3, PRKCG, BLOC1S5, GAS8, AP2M1, TNPO1, TRAPPC11, TECPR2, LMBRD1, FBXL20, TSG101, DESI1, VCL, TERF2IP, KCNQ1, SUFU, NLGN3, PAFAH1B1, KIF3A, TRPA1, AKAP6, CEP350, PADI6, BTBD9, TNKS, RUFY3, STON2, DAB2, PKHD1, TRAM2, DZIP1, SMG5, DLG3, RELN, SIN3A, RUVBL2, SLC22A3, SLC25A16, EML4, FAM91A1, ZNF423, MACF1, MYO7A, SLC8A2, CLASP1, TPCN1, GPM6B, SNX5, ATP2B4, NSF, PACRG, SYNE3, PACSIN1, SPTBN5, ATAD1, NXT2, MAP1B, MARK1, KCNAB2, TFRC, UVRA6, EPHA5, MEK2, SYT12, GPC3, STOM, TBC1D5, TRPV1, TFEB, CLEC16A, SNX9, RPGR, ARL5A, ACTR2, PLCG2, ROCK1, EGR2, CAPN10, AP3B1, KPNA6, ZFAND1, MAP1A, ANK3, UNC13A, PTPN9, SNUPN, AXIN2, PARD3, GNL3L, PTPN14, TRIM46, TUB, KCND3, CACNG8, AP3D1, KIF3C, AP2B1, ANXA8L1, ARHGAP44, HEATR5A, SNX33, CD84, SPI1, CHRN4, VPS16, CTNNA1, ACAP2, TRDN, ATG14, SATAC, RAB15, RAPGEF3, RSR1, SNCA, CACNG2, GRM4, MAG12, TBC1D9, SYT9, HEY2, CHMP3, RNF103-CHMP3, PRKAG1, RAB5B, ABCA12, PLD1, PKP2, BTK, TBC1D16, XPO4, VPS41, SLC4A8, PLA2G4E, STX8, HTT, MAPK1, PTEN, IFFO1, SLC30A7, BMP7, PIK3C3, NUP88, LRRK2, SEPT6, TMEM59, SPAG5, CHMP5, BAG6, LILRB4, MORC3, IFT81, TMEM108, ITGAM, NSG2, PKD2, EFNA5, SHANK3, MIA2, SGSM1, STEAP4, TMCC1, WNT7A, ZBED6, ZC3H11A, SNAP23, MAP4, RABEP1, SH3PXD2B, POM121C, RHOT1, ANO1, ATRX, SAMS50, RAPGEF2, SMO, GET4, SUN1, LSG1, BLOC1S3, MARK4, STXBP5L, CPT1A, PSEN2, DNAJC6, UBR5, GRIN1, BBS9, SYNGAP1, GRIN3A, NDE1, ESYT2, CUL3, HSPG1, ITPR2, TSPAN33, EPM2A, GSK3B, PLD2, RDX, SYN1, IWS1, CCDC14, NECAB2, UPF2, MCTP2, BOK, AGT, SYT7, ADAR, BLOC1S6, ZMPSTE24, LAT2, PEX5L, SNX3, EXOC6B, RIMS2, TOMM5, CPOPG2, CPE, SEC16B, TIMM44, GTF2IRD2, NCF1, SLC29A1, TAOK2, CD160, ZDHHC23, ITGAL, CPLX2, DNAJB6, SLC5A3, ARFGAP3, PACSIN2, MON2, NOS1, PEX7, GCKR, TBC1D23, RGS14, ACTN4, STK4, ZFAND6, EPHB2, SLC1A1, WLS, XCR1, GPM2, PPP1R10, ABCD3, GRTP1, MCOLN1, KPNA4, SYTL4, PAX6, PRKCZ, ADORA2A, GRIN2B, PPP1CC, RABGEF1, WDR83OS, OTUD7B, KLC3, NIPBL, ANGPT1, CADPS, PACS2, FRMPD1, OSBPL8, EPB41L2, HAHL1, TBC1D10C, ARHGAP21, MAP2, STPG1, ATG3, BRAF, DIAPH1, HTR2C, SIL1, CLTB, CD300A, EMC3, SKP1, FAM149B1, RPL23, SH3BP4, ATXN1, CAMSAP3, SPI100, VTI1A, ANXA2, TRIM29, PIGU, RAB27B, ITSN1, NUP214, WIPI2, ADCY1, NUB1, SYK, WWTR1, GRIK2, SLIT1, MYRIP, RAB2A, SEC31B, BRCA2, CACNG3, DVL2, YBX1, ANKRD13A, GRIPI, ERGIC1, MYO1A, CNIH4, ANKRD13C, PLEKHM1, HGSNAT, GBP5, MCM8, MLPH, CAV2, AKTIP, EPS15, INPP5F, REPS2, DENND4C, TBC1D10A, CAMK2D, SNX1, MALTI, ZDHHC11, ZDHHC11B, EHD2, THEM4, TRAPPC8, CCT3, NEDD4L, NDC1, PTPRC, RPH3A, CTCF, RAB28, SYNDIG1, TSPAN5, VPS52, TRAF3IP2, SGTB, SHISA6, CLNK, EDNR4, SLC25A13, STXBP6, BMP4, ABLIM3</p>
GO:0007409	axonogenesis	6.647892184849242e-20	<p>NRXN1, CLASP2, SEMA3A, SEMA3D, MYOT, TIAM2, UNC5C, KALRN, SEMA5A, OLFM1, NRXN3, ROBO1, CDKL5, KIF5C, ROBO2, NFASC, ITGB1, HSP90AA1, DSCAM, TRIO, DAB1, LAMA2, PTPN11, HDAC6, GOLGA4, EPHA1, LIMK1, ATP8A2, PTPRO, NTRK2, UNC5D, LAMA3, CDH4, PAK1, TBR1, BDNF, AMIGO1, FYN, LMTK2, RTN4, B4GALT6, RTN4R, CCDC141, ADAMTSL1, NTN1, MAP2K1, VAX2, CNTN4, NTNG1, UST, BOC, MYPN, BCL11B, SIAH1, SEMA5B, KEL, SLIT3, SLIT2, DISC1, LAMC2, DCLK1, YTHDF1, ENAH, EPHA4, AUTS2, MAG, IGF1R, XK, DRAXIN, NIN, DCC, PAX2, SPG11, CNTN6, NFIB, PTPRM, NRP2, PRTG, APP, DIP2B, FSTL4, ISLR2, SPTBN4, DSCAML1, SEMA6D, BMPR2, USP33, DPYSL2, CTNNB2, RAB11A, CRMP1, LRRC4C, SEMA4D, PLXNA2, EPHB3, FBXO45, VCL, WNT3, NLGN3, PAFAH1B1, TRPC5, GLI2, NEO1, RUFY3, RELN, SIN3A, MACF1, PAK3, ADNP, MAP1B, EPHA5, FLRT2, EGR2, NTRK1, MAP1A, ANK3, EPHB1, EPHA10, PARD3, TRIM46, EPHA7, MAP3K13, PTK7, BMPR1B, PTPRS, PTEN, BMP7, RAPH1, EFNA5, WNT7A, MYCBP2, SOS1, EXT1, SMO, SYNGAP1, GSK3B, EMB, PTK2, GAP43, TAOK2, ECE1, RP6KA5, TUBB3, EPHB2, PAX6, MAP2, PRKCQ, BRAF, TNF, CDKL3, TMEFF1, ADCY1, NUB1, SLIT1, SEMA3C, NCAM1, CREB1, EDNR4</p>
GO:00	regulation of	7.31131209	<p>CLASP2, SEMA3A, DOCK1, EPB41, SEMA3D, TIAM2, PTGIS, TJPI, KALRN, SEMA5A, ENPP2, PIK3CD, EZR, ROBO1, CDKL5, ROBO2, ITGB1, TRIOBP, PSMB7, KND1, DSCA</p>

22603	anatomical structure morphogenesis	9839326e-20	<i>M, RUNX1, DAB1, OMA1, CDC42EP3, MYO10, ABCC8, GOLGA4, EPHA1, LIMK1, ESRI, NPHP3, NTRK2, CELA1, RIMS1, TNIK, CDH4, PAK1, PTPRD, BDNF, AMIGO1, TGIF2, F MNL2, TENM4, TANC2, CASS4, FYN, ADAMTS9, NF1, RTN4, RTN4R, BCR, CHI3L1, NTN1, MAP2K1, STIM1, MYH9, NTNG1, ROR2, DCN, UST, CAPRIN2, RCC2, CCBE1, ZDHHC15, SYT1, LZTS1, MLLT3, SEPT7, WNT11, PALMD, MKLN1, IL1RAPL1, CAMK2B, RUNX2, S EMA5B, TGFB1, KEL, CELSR1, SLIT2, CORO1C, DISC1, KANK1, MTDH, ITS2, BMPER, PARVA, ADAM12, STRIP1, FGF10, SMURF2, EPHA4, PRKCA, PPP3CA, MAG, CTNNB1, PARK2, PPARG, CYBB, XK, FBLIM1, DRAXIN, FGF1, NIN, CPNE6, PHLDB1, HCK, DCC, FLT4, PAX2, SFRP1, DNM3, CUX2, PTPRM, ABI2, SYT3, NEDD4, ARHGEF18, VANGLI1, P REX1, DIP2B, FSTL4, SH3D19, JAK1, ANGPTL4, ISLR2, ZDHHC6, GPC6, PRICKLE1, VA SH2, FRS2, CPNE9, PRKD1, STAT1, PARP6, RND3, HNF4A, SEMA6D, ATF2, ADAMTS12, BMPR2, BMPR1A, TSPAN12, NLGN1, SPAG9, RAB11A, FGF2, LRR4C, NEDD9, SEMA4 D, ISM1, PLXNA2, DVL3, EPHB3, MYO9A, WNT3, RHOJ, P4HB, PAFAH1B1, KIF3A, COL 4A3, DDAH1, RASAL1, TRPC5, RUFY3, DAB2, PKHD1, RELN, RSP02, CFDP1, SP1, MAC F1, CLASP1, AKAP2, ATP2B4, SYNE3, TMEEM2, PAK3, ADNP, MAP1B, TFRC, GPC3, PSM B2, FGD1, ACTR2, SMOC2, ROCK1, EPS8, DNMBP, UNC13A, SARM1, TRIM46, ARHGAP 44, COCH, CUX1, EPHA7, MCU, SHROOM3, MAP3K13, RAPGEF3, PTK7, MAGI2, RC3H 1, PTPRS, RASA1, HIPK1, ZNRF3, PTEN, BMP7, LRRK2, ZRANB1, EFNA5, SHANK3, WNT 7A, BRWD3, PRICKLE2, PARVB, RAPGEF2, SMO, TNFRSF11B, SYT17, RHOA, SYNGAP1, ROR1, RHOTB1, SH3KBP1, GSK3B, RDX, EEF2K, FAM49B, SULF1, AGT, STAT2, ZMP STE24, PTK2, RIMS2, FAM171A1, TAOK2, SHC1, ALDOA, ARHGAP15, CD160, LBX2, AL OX5, CD44, FGD3, LARP4, CLDN4, FGD4, ACTN4, SPEF1, EPHB2, DLC1, PHLDB2, TMI GD2, ETS1, MAP2, FBXO31, BRAF, DIAPH1, TNFR, PHIP, CDKL3, ANGPT4, SP100, SLIT1, DVL2, GRIP1, SASH1, GNA12, FMNL1, CCR3, ANKRD6, SEMA3C, NEDD4L, BMP4</i>
GO:19 02531	regulation of intracellular signal transduction	1.00091706 22441729e-19	<i>PRDX2, NRXN1, MAP4K4, PDE4D, TMBIM4, SLC9A1, PDE8A, SEMA3A, CHERP, WWC1, FBXL2, ASH1L, NOS1AP, TIAM2, MAPRE2, WWC3, KALRN, NTRK3, CBL, PLEKHG4B, S EMA5A, FLT3, GRM5, PLCE1, MARVELD3, MAP2K5, KITLG, PTPRR, LRP2, PIK3CD, D EPDC5, EZR, ROBO1, TNFAIP8L1, HTR2B, MECOM, TENM1, TRAF6, ITPKB, DNAJA3, V AV2, ULK4, ITGB1, HSP90AA1, SRGAP3, CCDC22, TRIO, ARHGAP24, AKAP13, DGKI, P DE4A, PTPN11, CYTH3, ADORA1, IKBKB, ERBB4, ADRA1D, GBF1, ABR, ESRI, MIER1, C DON, NTRK2, EP300, PDGFB, TNIK, MID1, STK39, INSR, TCF7L2, PAK1, LITAF, FBXW1 1, MAP3K4, ZDHHC13, NPRL3, TRIM13, UBR2, ARHGAP6, LCK, ENTPD5, ECT2, ARHG AP42, ERN2, NPLOC4, DMD, RIT2, CASS4, FYN, MKRN2, ARNTL, NF1, PLCB1, RTN4, RT N4R, BCR, CHI3L1, NDRG4, PAQR3, PIK3R2, RANBP9, NRG1, ARHGAP10, BDKRB2, DO CK8, BID, MAP2K1, FNIP1, RALGPS2, MAD1L1, TMBIM6, VGLL4, PPP2CB, CMKLR1, R OR2, DCN, DOCK2, CDH13, COP5, ARHGAP32, RALGPS1, FBXO9, RFFL, DENND1A, J AK2, FBXW7, LINC00473, ITCH, NPSR1, PDE2A, LAMTOR3, WNT11, ARHGAP23, TRIM 59, NOX4, SIPA1L3, SLAH1, PRKCD, TAB2, CD4, SGK1, BTRC, F2RL1, SLIT2, TP73, KANK 1, MTDH, ZNF675, BMPER, BCL3, ANKRD54, DAPK2, TNFRSF10B, DUSP22, NAIP, HO MER2, DOCK3, FGF10, RASA4, RASA4B, ARHGEF28, KCTD10, IQCJ- SCHIP1, SH3RF3, CAPN3, EPHA4, RORA, PRKCA, AUTS2, TNFSF11, UFL1, CTNNB1, P ARK2, SOD2, FCGR2B, ARHGAP22, IGF1R, PPARG, AXIN1, GARNL3, DLG5, IL18R1, P2 RY10, ANKRD17, APOL3, FGF1, NOL3, TRIM5, AJUBA, CHEK2, TBCK, TRIM8, CSPG4, G RM1, ARHGAP31, OBSCN, NF2, FLT4, SGMS1, TPTE, SFRP1, ARHGAP29, ITPR1, NEDD 4, ARHGEF18, PREX1, TAB1, TXNDC12, APP, PDGFRA, NOX1, HEG1, SESN1, TNFRSF1 9, SOX2, RCAN1, CHUK, FRS2, S100A12, PRKD1, STAT1, DGKG, SHANK2, RAF1, RASGR F2, CARD16, CASP1, PTPN1, NLGN1, SPAG9, DENND4A, PDE11A, FGF2, SEMA4D, DO K6, ADCYAP1R1, EEF1E1, EEF1E1- BLOC1S5, DVL3, ARHGAP39, ATF3, SHOC2, AGO3, DEPTOR, TERF2IP, MYO9A, WDR5 9, P4HB, CCL14, CCL15, PTPN13, PAFAH1B1, PRDM15, FAM13A, HIP1, AKAP6, RASAL 1, DAB2, PKHD1, UBR1, RELN, NEK10, GUCY1A2, PELI1, IQGAP1, MAP3K7, TRIM22, A RHGAP12, ALK, SLC8A2, UBE2V1, XDH, ATP2B4, PAK3, CAMTA1, P2RY8, RNF34, TFR C, GFRAL, TSPAN6, CLEC16A, GHR, FGD1, HDAC1, TRIM24, PLCG2, ROCK1, EPS8, CI QTNF1, HIPK3, GPR35, PTPN2, NTRK1, TRIM44, EIF3A, DNMBP, EPHB1, MUC1, VWF, ARHGAP44, ARHGEF3, SPI1, EPHA7, BCAR3, STK38, MAP3K13, OTUD3, SH3BP1, GR M4, MAGI2, RC3H1, WNT7B, ZMYND11, RASA1, RPTOR, KCTD13, IGF1, HTT, MAPK1, P TEN, ARHGEF17, SPRED2, BMP7, PUM1, RASA2, LRRK2, LILRB4, ARHGAP25, PDGFC, FAM13B, WNT7A, UACA, KAT6A, SIK3, SH3RF2, SOS1, RAPGEF2, VRK3, RHOA, SYNGA P1, ROR1, CUL3, GSK3B, RDX, ACTA2, MLF1, FAM49B, NECAB2, CD27, DUSP26, BOK, NACC2, AGT, PRKAA2, ZMPSTE24, HRH4, NDRG2, PTK2, PEX5L, MAP3K5, NCF1, TAO K2, SHC1, ARHGAP15, CD44, FGD3, ADAM8, CXCL17, FGD4, PLEKHA1, RGS14, SIPA1 L2, ACTN4, ARHGAP11A, MC1R, STK4, ZFAND6, MARK3, EPHB2, WLS, IL18, DLC1, PP A RA, PPP1R10, PHLPP1, MAGI3, MOB3B, PRKCZ, ZC3HAV1, RABGEF1, OTUD7B, DEN ND4B, ANGPT1, FHL2, LRRK1, OSBPL8, GCNT2, TBC1D10C, ARHGAP21, CCL22, BRA F, HTR2C, CD300A, PPP2CA, RPL23, SH3BP4, ITSN1, SRGAP2, MADD, SYK, ARHGAP19, GRIK2, CIT, RAP1GAP2, DVL2, PTPRJ, TAF1, TICAM1, TANK, SASH1, RALGAP1, CGN LI, VAV3, CAV2, GNA12, INPP5F, AXL, DENND4C, MET, ANKRD6, MALTI1, PHB, PTPRC ,EDA, GPR894, TRAF3IP2, TRAP1, PRAP1, BMP4, CPNE1</i>
GO:00 51171	regulation of nitrogen compound metabolic process	1.09341747 61913844e-19	<i>POLDIP3, ENPP1, PRDX2, LDB2, NRXN1, ASPH, PRMT3, PRKCI, SLC3A1, PDE4D, DN MT1, SIPR2, HLX, SLC9A1, C6ORF89, PBX3, ADCY8, MED13L, TRPS1, CBFB, PDE8A, Z NF823, IL31RA, RPS6KA2, PRDM12, MED26, WWC1, NRG3, ASH1L, NOS1AP, LATS2, SC AF8, STOX2, PTGIS, PRKAG2, WWC3, PRLR, MVP, PAGRI, HIVEP3, FTO, NPAS3, NTRK 3, CBL, ARNT, EGLN2, LRRFIP2, FLT3, STAT5B, TOX, ENPP2, GRM5, PLCE1, ZNF566, F</i>

		<p>ER,CASK,MAP2K5,KITLG,MAPK10,LRP2,ZNF536,SP3,HDGF,EIF4G3,EZR,IKZF2,ROBO1,TOM1L1,CHD7,HTR2B,PSMD1,MECOM,TACC1,TENM1,LMNA,TRAF6,ESRP1,ITPKB,DNAJA3,OXRI,ABI1,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,KNDC1,ZC4H2,CCDC22,AKAP13,GF11B,PTPRK,RUNX1,DAB1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,PTPN11,ZNF569,MGAT5,CCT2,ORC2,HDAC6,SERTAD2,DDDB1,MYT1,ADORA1,EPHA1,IKBKB,PEX14,ERBB4,MRE11A,LIMK1,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,CUL4B,ESR1,MIER1,PCBP3,PMEPA1,MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,TENM2,ZNF76,RNF220,ZNF471,FN1A,PDGFB,TNIK,CCND3,TOB2,ZNF19,ZNF23,BRMS1,CHFR,ZNF605,SCML4,HNF4G,INSR,FMN2,RERE,PRKAR1A,ASB5,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,CAB39,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1,LITAF,FBXW11,ESRRB,MAP3K4,RNF144A,BASP1,EGLN3,RBM20,TBR1,SAMD4A,BDNF,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-</p> <p>C20ORF24,MEIS1,VRTN,TRIM13,LCK,MDM4,ENTPD5,ECT2,ZNF148,MTA3,SNX6,TFDP2,CST2,PTCD3,ERN2,C1D,AFF3,DMD,CENPF,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,CASS4,FYN,MKRN2,ARNTL,NF1,PLCB1,MGMT,ARID4B,PPP4R2,RTN4,AF2,DPEP1,APOD,BCR,RWDD3,BRPF1,CHI3L1,TTN,PAQR3,PIK3R2,RANBP9,NRG1,SH2D3C,UBP1,BDKRB1,BDKRB2,BID,FRY,MAP2K1,MDF1,FNIP1,VAX2,MYH9,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NFIA,RNF4,CSNK2A3,JDP2,CMKLR1,ITIH2,ROR2,DCN,PCBD2,HNRNPLL,CDH13,CREBRF,TRDMT1,SOX13,FHIT,WDR70,PTPRT,AUNIP,COP5,IPO5,MAD2L2,TLE6,CAPRIN2,CCNYL1,ZNF418,PHF20L1,TERF2,SLX1B,ZNF286A,FOXN3,NEUROD1,GNAQ,RFFL,CCEB1,HERC5,USP22,JAK2,FAM168A,TRAPPC9,FBXW7,OAZ2,SKAP1,UIMC1,ITCH,MLIP,ZFYVE28,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,CYFIP2,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,OKI,CCDC62,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,CD4,PPM1E,TGFB1,BANP,SGK1,PSB4,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,CRADD,F2RL1,BCAS3,CDYL2,DNAJB2,CC2D1B,SLIT2,TP73,ITIH4,CORO1C,SAP18,ZBTB22,ILF2,DISC1,BLID,ZFAND2A,CLN6,MTDH,FANK1,MYT1L,KDM4B,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,NELL1,TFAP2D,BMPER,TIMP2,BCL3,ANKRD54,TNFRSF10B,SND1,DUSP2,NAIP,HNRNPC,TRRAP,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,FANCI,CAPN3,LUM,SMURF2,EPHA4,RORA,HIVEP2,PRKCA,UTS2,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,UBQLN3,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,PIP5K1I,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,PRKAR1B,OTUB1,IL18R1,CIPC,MTF1,CELF2,CBX5,BRIP1,LRPPRC,SREBF2,CDK11A,CDK11B,LEPR,FGF1,PROS1,NPAT,NR4A3,FOKK2,NOL3,PRKAR2A,RIOK2,MYOCD,TRIM5,PER2,AJUBA,GLG1,ZNF26,ZNF737,CHEK2,SUPT3H,UBQLN4,PRDM16,SPDYA,HCK,CSTL1,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,TRABD2B,SFRP1,MED13,PPP6R2,ZNF395,FOXO3,NFIB,SP4,ZCCHC17,BCL2L13,SSH1,CELF5,SYNCRIP,SMAD3,RNFT2,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,SIMC1,EBF3,MTBP,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,SLC4A4,ZNF114,TAB1,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,RBM8A,CCNI2,DIP2B,ARIH1,YAP1,HEG1,TEN1,EYA2,SH3D19,BORA,IBTK,NVL,LRP5,MTCP1,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,RCAN1,ZNF653,SPTBN4,ZNF521,DRD1,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,DCUN1D3,PRKD1,STAT1,CELF6,ZNF18,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,CCNY,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,GRAMD4,RAF1,CELF4,ZNF766,CARD16,CASP1,PTPN1,SRRM4,BMPR2,VBP1,CAMK1D,BMPRI1,ZKSCAN1,PABPC4,IKZF4,PIK3R3,CDK12,CAND2,SPAG9,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,GLI4,ZFP41,NEDD9,AGBL4,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,PRKCG,SIN3B,NCOA1,SPOCK1,AREL1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,PSMD2,RBX1,TCF20,ATF3,LIN28B,RSF5,CKS1B,PAWR,EBF2,AGO3,DEPTOR,FBXL20,MAML2,TSG101,DES1,TERF2IP,CRYM,IDE,RFX2,ZNF322,SUFU,MAGEA11,PTPN13,PRDM15,ZNF670,ZNF695,CDC169-</p> <p>SOHLH2,SOHLH2,COL4A3,DDAH1,ZNF354C,HIP1,TCEA3,PADI6,ZNF704,NR2C1,TRPC5,UBA2,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,CACUL1,LDLRAD4,MYSM1,SETD5,SMG5,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,COMMD6,GMEB1,PELI1,IQGAP1,MAP3K7,ZNF423,SP1,TRIM22,ALK,SLC8A2,TEAD4,FASTKD5,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,ADIRF,XDH,AHNAK,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,NSF,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,DYX1C1,ADNP,MAPKAPK2,ARID4A,SCARB1,CDK6,PHF2,CELF1,RNF34,TFRC,UVRAG,EPHA5,WWOX,MEF2A,DCAF6,DCUN1D5,DROSHA,GPC3,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,RBM12B,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,GHR,MNAT1,SNX9,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPN46,TRIM44,MAP1A,SLC39A10,AXIN2,EPCAM,PARD3,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ANXA8L1,SNX33,CD84,LP4,ZNF616,ZNF836,SMARCA2,CUX1,SP1,DNMT3B,EPHA7,FOX2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,BCAR3,JAZF1,STK38,ABC7,ACOT8,R</p>
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			<p>BPMS,RENBP,CHURC1,CREB5,MAP3K13,RAPGEF3,SMYD1,SNCA,BMPR1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,RNF19B,ZMYND11,KMT2D,PRKAG1,CREM,PSMF1,KMT2C,CAST,TRIP12,DFFA,ADTRP,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,RPTOR,NFIX,BTK,MLLT1,CBFA2T2,IGF1,MLXIP,ATF7IP,HTT,MAPK1,PTEN,SPRED2,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,TMEM59,UNC119,ZBTB20,RFC3,BAG6,LILRB4,ITGAM,PKD2,ZNF652,EFNA5,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,PDGFC,SERPINA3,SERPINA4,SERPINA5,NCOA3,PKIB,ZNF146,ZNF565,PPP2R3C,WNT7A,ZBED6,BRWD3,NLRP1,UACA,CRTC3,DNAJC1,ARNTL2,PLCL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,GPI,SH3RF2,WDR43,ZNF30,N4BP1,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,VRK3,RALY,PRKAR2B,TCF4,SOX30,TFE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,MLF1,EEF2K,IWS1,PPP1R16A,PTPRB,RBBP8,NECAB2,CDK13,CD27,DUSP26,BOK,RNF144B,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,CCNJL,POLH,PRKAA2,ADAR,STAT2,ZMPSTE24,PTK2,SNX3,PBX1,TEC,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,TAOK2,PYGO2,SHC1,ZNF813,LBX2,PARP10,ZNF681,RPS6KB1,YLPM1,DPRX,PRG3,SERPINB11,SETDB2,DNAJB6,SP7,CD44,LARP4,ADAM8,CLDN4,RPS6KA5,ZNF484,ZNF93,CSNK1A1,HUS1,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,STK4,TCF25,ZNF282,EPHB2,SLC1A1,EDRF1,IL18,MFSD8,UBE2K,DIS3,DLCL1,PPARA,PPP1R10,ARID5B,SMARCAL1,CPEB4,MOB3B,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3HAV1,ADORA2A,GRIN2B,RABGEF1,CCNG2,CPEB1,OTUD7B,NIPBL,YEATS4,COL28A1,PHF20,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,FHL2,LRRK1,MBTD1,OSBPL8,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,PPP1CA,MTF2,TAGLN3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,SPINT2,MBNL3,ZKSCAN5,CD300A,ELF2,PHIP,PPP2CA,SKP1,ANGPT4,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,ANXA2,TRIM29,PARN,ADCY1,MADD,RBM42,SYK,CNOT1,RBM39,WWTR1,UTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,MTRF1,YBX1,PTPRJ,TAF1,EIF4E3,TICAM1,TANK,THAP3,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,NRF1,SRPK2,SASH1,NCOA2,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MOB3A,GNAI2,SH2D3A,AKTIP,MYEF2,INPP5F,TRIM37,CD109,MET,TBC1D10A,ZNF461,CAMK2D,SNX1,TIMELESS,UCLH5,BRD9,MALT1,SERPINE3,SETD3,TRA2B,KDM2B,MLXIPL,CCT3,NEDD4L,PHB,PTPRC,EDA,ZNF555,CTCF,SH3GL2,NR6A1,TRAF3IP2,ATF6B,CREB1,RGMB,TNXB,TRAP1,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0006793	phosphorus metabolic process	2.508804720652927e-19	<p>NT5C1B,NT5C1B-RDH14,SUCLG2,ENPP1,LDB2,NRXN1,B4GALNT2,PRKCI,SLCO3A1,MAP4K4,PDE4D,S1PR2,PDE7B,ADCY8,PDE8A,IL31RA,RPS6KA2,GK5,CTDSPL2,NRG3,LATS2,KSR2,PTGIS,PRKAG2,PRLR,MVP,ADCY7,KALRN,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,SAMHD1,FER,CASK,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,PIK3CD,CAMK1G,ADPGK,ROBO1,TOM1L1,HTR2B,CDKL5,TENM1,NADK2,INPP4B,TRAF6,ITPKB,DNAJA3,VAI2,GRK5,ABI1,ULK4,HSP90AA1,CD6C,TSSK1B,KNDC1,DSCAM,MOCOS,FAM126A,STK38L,GMDS,TRIO,AKAP13,DLG2,PTPRK,DAB1,ERC1,DGKI,PDE4A,MAST4,PTPN11,MGAT5,HDAC6,ADORA1,EPAH1,IKBK,ERBB4,MRE11A,LIMK1,TLK1,ABR,OSBPL10,PMEPA1,PTPRO,CDON,NTRK2,EP300,TPST2,PDGFB,TNIK,CCND3,CSGALNACT1,STK39,INSR,PRKARIA,PIP4K2A,CAB39,PAK1,FBXW11,MAP3K4,PTPRD,PPIP5K1,BDNF,CDK14,FUT8,LCK,ENTPD5,ECT2,MYO3B,SNX6,PIPOX,PPM1L,PTPRU,ERN2,DMD,SLC8A1,PRPS2,RIT2,CASS4,FYN,NF1,SMG7,PLCB1,LMTK2,PPP4R2,DGKH,NEIL2,BCR,CHI3L1,TTN,BMP2K,PAQR3,PIK3R2,NRG1,SH2D3C,ACYP1,CDK19,BDKRB1,BDKRB2,MAP2K1,FINP1,PPP2CB,CSNK2A3,INPP4A,PPIP5K2,CDKL2,LRGUK,ROR2,PRPSAP2,FHIT,PTPRT,ENTPD1,ACSBG1,PPP1R42,AK2,IPO5,MAD2L2,GALK2,CAPRIN2,CCNYL1,NME7,AK5,CERKL,GNAQ,ICK,HERC5,JAK2,FBXW7,LINC00473,ZFYVE28,SMG1,IMPDH1,HUNK,DPYS,IDNK,CDC42BPB,PHKA1,DHDDS,PDE2A,TTC7B,LAMTOR3,WNT11,TPST1,FIG4,NOX4,RPRD1B,CAMK2B,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,MYO3A,NSD1,PIBF1,BTRC,PTPRN2,AAK1,SLIT2,CORO1C,PTPDC1,TTBK2,SMAD6,ZNF675,SYNJ2,BMPER,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DAPP1,DUSP22,TRRAP,DOCK3,FGF10,ADK,SMYD3,MAST2,ADCY2,EPAH4,RORA,HSD17B12,PRKCA,CD6,TNFSF11,SMG6,PPP3CA,CAMK4,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,PFAS,CDK11A,DYRK4,CDK11B,LEPR,FGF1,FOXK2,PRKAR2A,RIOK2,MYOCD,AJUBA,CHEK2,PPP1CB,SPDYA,HCK,AGPAT4,CAPN2,TBCK,PPP2R2B,CSPG4,CTDP1,BAZ1B,OBSCN,NF2,FLT4,SGMS1,HDAC4,TNS3,SPTBN1,TPTE,SFRP1,PPP6R2,DGKB,SSH1,SMAD3,PTPRM,ABI2,PLA2G4C,OGDHL,SLC4A4,TAB1,UCK2,APP,PDGFRA,SLK,CCNI2,HEG1,PPCS,CDK3,EYA2,BORA,IBTK,SBK3,ALPL,JAK1,FPGT-TNNI3K,TNNI3K,PEMT,LRP5,MTCP1,PTPRG,RCAN1,SPTBN4,ELOVL2,DRD1,CHUK,S100A12,NUDT10,PRKD1,DGKG,LRRC2,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,CAMK1D,BMPR1A,IDO2,BTBD10,PIK3R3,CDK12,SPAG9,FGF2,PPA2,PPM1F,ADCY5,NEDD9,PEAK1,SEMA4D,PTAFR,ADCYAP1R1,SLC5A8,PI4KA,PIK3C2B,PRKCG,OC90,DVL3,EIF4G1,EPHB3,PTPRE,CKS1B,DEPTOR,PKN3,TSG101,TERF2IP,PTPN13,PAFAH1B1,CMPK1,TRPC5,ME1,TNKS,TPK1,DAB2,BLM,CACUL1,LDLRAD4,SMG5,DLG3,WNK1,RELN,NEK10,TMEM68,GUCY1A2,PPP2R5C,SLC25A16,IQGAP1,MAP3K7,ALK,SLC8A2,INPP5D,TOPI,MBOAT1,XDH,PRKG1,ATP2B4,PACIN1,PAK3,SSH2,CAMTA1,PHOSPHO2,ADNP,MAPKAPK2,CDC42BPA,SC</p>

			<p>ARBI, MARK1, CDK6, TFRC, UVRAG, EPHA5, ADCY9, RBKS, ADRBK1, EYA1, GNB3, SHPK, GHR, MNAT1, SNX9, ACACA, TRIM24, PLCG2, ROCK1, HIPK3, PTPN2, INSR, NTRK1, PKN2, SLC39A10, HYKK, PTPRQ, EPHB1, EPHA10, PTPN9, AXIN2, SARM1, PARD3, PTPN14, NUDT14, NUDT5, PIFO, DGKK, EPHA7, PTPRA, AGPAT3, ATG14, BCAR3, STK38, ACOT8, RBPM5, MAP3K13, RAPGEF3, PDXP, PTK7, RSR1, N4BP2, SNCA, BMPR1B, MAGI2, NADK, HMGCS2, PTPRS, PRKAG1, CDKL1, SULT2A1, GGPS1, ADTRP, PLD1, OPRD1, HIPK1, RPTOR, BTK, MLLT1, IGF1, PLA2G4E, HTT, MAPK1, PTEN, SPRED2, BMP7, PIK3C3, LRRK2, ATP6V1A, MLYCD, ALDOC, PIGS, UNC119, ZBTB20, LILRB4, MORC3, SLC44A1, GALT, PKD2, EFNA5, NT5E, TADA2A, NT5DC4, ALPK3, PDGFC, PKIB, MTMR3, PPP2R3C, RPS6KC1, LPGAT1, ELOVL5, PLCL2, SIK3, BMP6, GPI, SERINC5, PNPLA3, C8ORF44-SGK3, RAPGEF2, MTHFD2L, VRK3, FARI, AMPD1, ENPP3, MARK4, PRKAR2B, BPGM, DNAJC6, RHOA, ROR1, RQCD1, TF, CKMT1B, SH3KBP1, EPM2A, GSK3B, PLD2, DNAJC3, EEF2K, PPP1R16A, PTPRB, CDK13, STK32B, DUSP26, AGT, CCNJL, ELOVL3, PRKA2, ADAR, PITPNM2, STAT2, ZMPSTE24, FGGY, PTK2, PHEX, PPCDC, PDE4B, TEC, CD144, MAP3K5, PRKD3, LMTK3, XYLB, CHKA, NCF1, TAOK2, SHC1, SLC44A3, ALDOA, PARP10, RPS6KB1, GUCY2F, CD44, ADAM8, RPS6KA5, CDS1, CSNK1A1, HUS1, NOS1, GCKR, RGS14, STK4, MARK3, EPHB2, SLC1A1, IL18, UBE2K, DLC1, PPARA, PDP1, PNP1A6, PHLPP1, MAGI3, LDHC, MOB3B, ACP1, PAX6, PRKCZ, FAM20C, ADORA2A, PPP1CC, RABGEF1, CCNG2, TYK2, UPB1, ANGPT1, EYA3, LRRK1, OSBPL8, NT5M, PPP1CA, RPIA, CDK5RAP1, CNTN1, PRKCQ, BRAF, HDAC2, HTR2C, PTPR, PHKG2, PPP1R14A, CD300A, PHIP, CDKL3, PPP2CA, SLC26A2, ANGPT4, PIGU, PITPNM3, ADCY1, MAD1, SYK, WWTR1, GTF2H5, CIT, SLC44A5, DVL2, PTPRJ, TAF1, PFKFB4, HSF1, INPP5A, RRGTT, SRPK2, SASH1, CEP1, SULT2B1, VAV3, MOB3A, GNA12, SH2D3A, UGGT1, AKT1P, INPP5F, NUAK2, AXL, CD109, MET, CAMK2D, MALT1, PFKP, MALT1, PHKB, PHB, PTPRC, SH3GL2, TYRO3, MTMR12, ADCY10, CREB1, TNXB, EDNRA, HADHA, SLC25A13, BMP4</p>
GO:0031325	positive regulation of cellular metabolic process	3.068362827460258e-19	<p>POLDIP3, LDB2, NRXN1, ASPH, SLC3A1, DNMT1, S1PR2, SLC9A1, C6ORF89, PBX3, A DCY8, CBF, PDE8A, IL31RA, PRDM12, MED26, WWC1, NRG3, ASH1L, NOS1AP, NOX5, SCAF8, STOX2, PRKAG2, PRLR, PAGR1, HIVEP3, FTO, NPAS3, NTRK3, ARNT, FLT3, STAT5B, TOX, ENPP2, GRM5, CASK, MAP2K5, KITLG, LRP2, SP3, HDGF, EZR, ROBO1, TOM1L1, CHD7, HTR2B, MECOM, TAC1, TENM1, LMNA, TRAF6, DNAJA3, VAV2, AB11, N HLH1, HSP90AA1, CDC6, KND1, CCDC22, DSCAM, AKAP13, GF11B, RUNX1, DAB1, H MGN3, NR1P1, THRB, EFCA7, PTPN11, CCT2, HDAC6, SERTAD2, DDB1, ADORA1, EP HA1, IKBKB, ERBB4, MRE11A, ZNF609, BRD8, KAT6B, ESR1, MAML3, CDON, NTRK2, T NRC6A, EP300, CELA1, ZYG11B, ZNF76, FNTA, PDGFB, TNK1, CCND3, BRMS1, CHFR, HNF4G, INSR, FMN2, RERE, TCF7L2, PIP4K2A, CAB39, PAK1, LITAF, FBXW1, ESRRB, MAP3K4, RNF144A, EGLN3, RBM20, TBR1, SAMD4A, BDNF, TFAP2A, PEG3, MEIS1, TR IM13, LCK, ENTPD5, ECT2, ZNF148, MTA3, TFDP2, ERN2, ATG10, SLC30A9, TOX3, LAR P4B, USP13, KAT7, GSN, RBM14, MED12L, SATB2, PAFAH1B2, RIT2, SCAS4, FYN, MKR N2, ARNTL, PLCB1, MGMT, LMTK2, ARID4B, RWDD3, BRP1, CHI3L1, PIK3R2, NRG1, S H2D3C, UB1, BID, MAP2K1, FNIP1, MYH9, VGLL4, PPP3R1, HDAC5, CSRN3, NF1A, R NF4, JDP2, ROR2, DCN, PCBD2, HNRNP1L, CDH13, CREBRF, COPS5, MAD2L2, RAB27 A, CAPRIN2, CCNYL1, TERF2, SLX1B, NEUROD1, CCBE1, USP22, JAK2, FAM168A, FBX W7, SKAP1, UIMC1, ITCH, MLIP, BCL11B, PKNOX1, MLLT3, KLF15, LAMTOR3, CYFIP2 , WNT11, MTA1, NOX4, RPRD1B, CCDC62, ERCC8, PRKCD, TAB2, ACVR2A, RUNX2, CD 4, TGFBI, BANP, SPSB4, TRIM65, NSD1, PIBF1, BTRC, NFATC3, CRADD, F2RL1, BCAS3, DNAJB2, TP73, ILF2, DISC1, BLID, ZFAND2A, CLN6, MTDH, FANK1, SMAD6, ZNF398, C LOCK, TCF12, ETV6, TFAP2D, BCL3, TNFRSF10B, DOCK3, SBN2, YTHDF1, FGF10, C IZ1, SMYD3, FANCI, CAPN3, LUM, EPHA4, RORA, AUTS2, CD6, TNFSF11, PPP3CA, NFY B, KLF12, CAMK4, UFL1, CTNBN1, PARK2, SOD2, SMARCC1, IGF1R, PPARG, NGRN, AX IN1, MTF1, SREBF2, LEPR, FGF1, NPAT, NR4A3, FOXK2, R1OK2, MYOC, TRIM5, PER2 , AJUBA, CHEK2, SUPT3H, PRDM16, SPDYA, SORBS1, RAB3GAP2, CAPN2, TRIM8, CSP G4, FLT4, MEF2B, HDAC4, PAX2, PHF5A, TRABD2B, SFRP1, MED13, ZNF395, FOXO3, NFIB, BCL2L13, SMAD3, RNFT2, WWP2, ARNT2, WIP1, EBF3, RNF168, CASZ1, IFNAR1, DCP1B, ESRRG, HOXD3, HOXD4, SLC4A4, TAB1, NFATC1, CDC73, APP, SSBP3, PDGF RA, DIP2B, ARIH1, YAP1, SESN1, VDAC1, EYA2, SH3D19, BORA, NVL, LRP5, MTCPI, SO X2, TEAD1, PRICKLE1, ZNF521, ARID3A, CHUK, ESR2, S100A12, DCUN1D3, PRKD1, ST AT1, ST18, ETV5, PLAGL1, HNF4A, ZBTB7C, TASP1, EREG, CCNY, ATF2, POU2F2, TCF3 , GRAMD4, RAF1, CELF4, CASP1, PTPN1, BMPR2, BMPR1A, BTBD10, IKZF4, PIK3R3, C DK12, CAND2, MYB, FGF2, ZNF71, BACH1, PPM1F, NEDD9, AGBL4, SEMA4D, RORC, P TAFR, ADCYAP1R1, JARID2, DD58, BRD1, RARB, PRKCG, NCOA1, LMO7, AP2M1, DV L3, EIF2B5, EIF4G1, EPHB3, RBX1, TCF20, ATF3, LIN28B, SRSF5, CKS1B, PAWR, EBF2, MAML2, TSG101, TERF2IP, RFX2, PRDM15, COL4A3, DDAH1, HIP1, TRPC5, UBA2, GLI 2, TNKS, WBP2NL, ERCC1, TNRC6B, GLIS3, DAB2, BLM, CACUL1, MYSM1, DLG3, WNK 1, RELN, NEK10, SIN3A, RUVBL2, GMEB1, PELI1, IQGAP1, MAP3K7, ZNF423, SP1, TRI M22, ALK, SLC8A2, TEAD4, HOXC13, SLC35A4, SRA1, UBE2V1, TPCN1, ADIRF, XDH, O VOL2, SNX5, NFATC2, BNC1, ATP2B4, NSF, ACTL6B, ASXL3, PAK3, TET1, CAMTA1, CC PG1, ATAD1, ADNP, ARID4A, SCARB1, PHF2, CELF1, TFRC, UVRAG, EPHA5, WWOX, M EF2A, DCAF6, DCUN1D5, TBC1D5, EYA1, SCOC, DIS3L2, TRPV1, HOXB3, HOXB4, HO XB5, TFEB, GHR, MNAT1, SNX9, ACTR2, HDAC1, SMOC2, TRIM24, PLCG2, ROCK1, PAX IP1, EGR2, RNF10, RYBP, AP3B1, PTPN2, INSR, NTRK1, KPN46, TRIM44, SLC39A10, E PHB1, EPHA10, AXIN2, EPCAM, MUC1, AP3D1, CARM1, SNX33, PIFO, ZNF836, SMARC</p>

			<p>A2,SPI1,DNMT3B,EPHA7,GLIS1,ATG14,BCAR3,ABCB7,RBPMS,CHURC1,CREB5,M AP3K13,RAPGEF3,SNCA,BMPRI1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,DHRS4,FO XJ3,HEY2,RC3H1,EIF3E,RNF19B,KMT2D,PRKAG1,CREM,KMT2C,ADTRP,PLD1,M ACCI,MITF,OPRD1,RPTOR,NFIX,KCTD13,IGF1,MLXIP,ATF7IP,HTT,MAPK1,PTE N,BMP7,PUM1,PCBP2,ZNF780B,LRRK2,MLYCD,TMEM59,UNC119,ZBTB20,RFC3, BAG6,ITGAM,PKD2,EFNA5,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2R3C,WNT7 A,NLRP1,UACA,LPGAT1,CRTC3,ARNTL2,ELOVL5,KAT6A,ZNF197,BMP6,TAF15,M YCBP2,SH3RF2,WDR43,ATRX,PRMT2,RAPGEF2,SMO,VRK3,CPT1A,TCF4,SOX30,T FE3,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFE C,HSPD1,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,CDK13,BOK,RNF144B,SUPT 4H1,AGT,METTL16,PRKAA2,PTK2,PBX1,TEC,EXOSC3,MAP3K5,CREBBP,DLX1,N CF1,TAOK2,SHC1,ECE1,RNFT1,RPS6KB1,SP7,CD44,LARP4,ADAM8,SLC5A3,CLD N4,RPS6KA5,ZNF484,CSNK1A1,PRDM2,NOS1,ACTN4,MC1R,ASH1,STK4,SLC1A1 ,EDRF1,IL18,UBE2K,DIS3,DLC1,PPARA,PPP1R10,ARID5B,MOB3B,NOTCH4,CRX, PAX6,PRKCZ,ZC3HAV1,GRIN2B,CPEB1,NIPBL,YEATS4,ZNF143,ANGPT1,BRF1,TB LIX,EYA3,LRRK1,OSBPL8,ATF6,ETS1,MTF2,CDK5RAP1,CNTN1,PRKCQ,BRAF,CS RNP1,HDAC2,HTR2C,IMPACT,PHKG2,SRAP,POU3F3,CD300A,ELF2,PHIP,PPP2 CA,SKP1,ANGPT4,SH3BP4,RFC5,SP100,ANXA2,PARN,MADD,SYK,CNOT1,WWTR1 ,ZBTB38,BRCA2,ATF7,DVL2,YBX1,PTPRJ,TAF1,TICAM1,TANK,THAP3,HSF1,MAX, EZH1,NRF1,SASH1,NCOA2,QRICH1,VAV3,ZP3,CHD6,MOB3A,GNA12,SH2D3A,AK TIP,INPP5F,AXL,TRIM37,MET,TBC1D10A,TIMELESS,MALT1,SETD3,TRA2B,MELX1 PL,CCT3,PHB,PTPRC,CTCF,TYRO3,NR6A1,ATF6B,CREB1,RGBM,BMP4,ABLIM3</p>
GO:00 80090	regulation of primary metabolic process	3.62034678 5799433e- 19	<p>POLDIP3,ENPP1,PRDX2,LDB2,NRXN1,ASPH,PRMT3,PRKCI,SLC03A1,PDE4D,DN MT1,S1PR2,HLX,SLC9A1,C6ORF89,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,Z NF823,IL31RA,RPS6KA2,PRDM12,MED26,WWC1,NRG3,ASH1L,NOS1AP,LATS2,SC AF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,MVP,PAGR1,HIVEP3,FTO,NPAS3,NTRK 3,CBL,ARNT,EGLN2,LRRFIP2,FLT3,STAT5B,TOX,ENPP2,GRM5,PLCE1,ZNF566,F ER,CASK,MAP2K5,KITLG,MAPK10,LRP2,ZNF536,SP3,HDGF,EIF4G3,EZR,IKZF2, ROBO1,MALRD1,TOM1L1,CHD7,HTR2B,PSMD1,MECOM,TACCI,TENM1,LMNA,T RAF6,ESRP1,ITPKB,DNAJA3,OXR1,VAV2,ABI1,NHLH1,HSP90AA1,CDC6,PSMB7,T SC22D3,KNDC1,ZC4H2,CCDC22,AKAP13,GF11B,PTPRK,RUNX1,DAB1,ERC1,HM GN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,PTPN11,ZNF569,MGAT5,CCT2,ORC 2,HDAC6,SERTAD2,DDBI,MYT1,ADORA1,EPHA1,IKBKB,PEX14,ERBB4,MRE11A, LIMK1,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,CUL4B,ESR1,MIER1,PCBP3,PMEPA1, MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,TENM2,ZNF76,RN F220,ZNF471,FNTA,PDGFB,TNIK,CCND3,TOB2,ZNF19,ZNF23,BRMS1,H2AFY2,ZNF 605,SCML4,HNF4G,INSR,FMN2,RERE,PRKAR1A,ASB5,FUBP1,ATP8B1,CH2AFY2,T CF7L2,PIP4K2A,JMJD1C,CAB39,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,PAK1, LITAF,FBXW11,ESRRB,MAP3K4,RNF144A,BASP1,EGLN3,RBM20,TBR1,SAMD4A,B DNF,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,LCK,MDM4,ENTPD5,ECT2,ZNF148,MTA3,SNX6, TFDP2,CST2,PTCD3,ERN2,C1D,AFF3,DMD,CENPF,ATG10,SLC30A9,TOX3,LARP4 B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,MED12L,SATB2,RIT 2,HIRA,CASS4,FYN,MKRN2,ARNTL,NF1,PLCB1,MGMT,ARID4B,PPP4R2,RNF4,AF F2,DPEP1,APOD,RWDD3,BRPF1,CHI3L1,TTN,PAQR3,PIK3R2,RANBP9,NRG1,SH2 D3C,UBP1,BDKRB1,BDKRB2,BID,FRY,MAP2K1,MDF1,FNIP1,VAX2,MYH9,TMBIM 6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NFIA,RNF4,CSNK2A3,J DP2,CMKLRI,ITIH2,ROR2,DCN,PCBD2,HNRNP1L,CDH13,CREBRF,TRDMT1,SOX 13,FHIT,WDR70,PTPRT,AUNIP,COPSS,IPO5,MAD2L2,TLE6,CAPRIN2,CCNYL1,ZN F418,NLN,PHF20L1,TERF2,SLX1B,ZNF286A,FOXN3,NEUROD1,GNAQ,RFFL,CCB E1,HERC5,USP22,JAK2,FAM168A,TRAPPC9,FBXW7,OAZ2,SKAP1,UIMC1,ITCH,M LIP,ZFYVE28,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSZH2,TCF7,PDE2A,KLF1 5,TBX15,ANXA4,CYFIP2,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,QKI,CCDC62, ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,CD4,PPM1E,TGFB1,BANP,SGK1,SPS B4,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,CRADD,F2RL1,BCA S3,CDYL2,DNAJB2,CC2D1B,SLIT2,TP73,ITIH4,CORO1C,SAP18,ZBTB22,ILF2,DIS C1,BLID,ZFAND2A,CLN6,MTDH,FANK1,MYT1L,KDM4B,SMAD6,BNC2,ZNF398,C LOCK,TCF12,ZNF675,ETV6,NELL1,TFAP2D,BMPER,TIMP2,BCL3,ANKRD54,TNF RSF10B,SDN1,DUSP22,NAIP,HNRNPC,TRRAP,DOCK3,SBNO2,YTHDF1,FGF10,C1 ZI,SMYD3,LOXL3,FANCI,CAPN3,LUM,SMURF2,EPHA4,RORA,HIVEP2,PRKCA,AU TS2,CNR1,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,UBQLN3,NFYB,MAGEA4,KLF12, CAMK4,GATAD2B,PIP5K1I,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL1 3,SMARCC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,PRKAR1B,OTUB1,IL18R1,CIPC, MTF1,CELF2,CBX5,BRIP1,LRPPRC,SREBF2,CDK11A,CDK11B,LEPR,FGF1,PROS 1,NPAT,NR4A3,FOXK2,NOL3,PRKAR2A,RIOK2,MYOCD,TRIM5,PER2,AJUBA,GLG 1,ZNF626,ZNF737,CHEK2,SUPT3H,UBQLN4,PRDM16,PPP1CB,SPDYA,HCK,CSTL 1,SORBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,CSPG4,BRMS1L,ZBTB8A,ZBTB8B,CTD P1,BAZ1B,NF2,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,TRABD2B,SFRP1, MED13,PPP6R2,ZNF395,FOXO3,NFIB,SP4,ZCCHC17,BCL2L13,SSH1,CELF5,SYNC RIP,SMAD3,RNFT2,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,SIMC1, EBF3,MTBP,RNF168,CASZ1,PSAP,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4, SLC4A4,ZNF114,TAB1,KTII2,NFATC1,CDC73,APP,SSBP3,GX2,PDGFRA,RBM8A, CCNI2,DIP2B,ARIH1,YAP1,HEG1,TEN1,EYA2,SH3D19,BORA,IBTK,NVL,LRP5,MTG</p>

			<p> <i>P1, POLR3G, ZNF787, SOX2, SETD2, TEAD1, PRICKLE1, RCAN1, ZNF653, SPTBN4, ZNF521, DRD1, ARID3A, ZNF761, CHUK, ERLIN1, SFMBT1, ZNF584, ESR2, S100A12, DCUN1D3, PRKD1, STAT1, CELF6, ST18, ETV5, RHOF2B, SLC6A3, TAF3, PLAGL1, HNF4A, ZBTB7C, TASP1, EREG, CCNY, RBFOX3, ATF2, POU2F2, TCF3, ZNF730, GRAMD4, RAF1, CELF4, ZNF766, CARD16, CASP1, PTPN1, SRRM4, BMPR2, VBP1, CAMK1D, BMPRI4, ZKSCAN1, PABPC4, IKZF4, PIK3R3, CDK12, CAND2, SPAG9, DENND4A, MYB, FGF2, ZNF71, POU6F2, BACH1, MXD3, PPM1F, TICRR, GLI4, ZFP41, NEDD9, AGBL4, BEND5, SEMA4D, NFX1, RORC, ELP3, PTAFR, ADCYAP1R1, SP140, SP140L, RHOF2, JARID2, DD X58, BRDT, PHC2, RARB, SPEN, PRKCG, SIN3B, NCOA1, SPOCK1, AREL1, EHMT1, LMO7, DVL3, EIF2B5, EIF4G1, PSMD2, RBX1, TCF20, ATF3, LIN28B, SRSF5, CKS1B, PAWR, EBF2, AGO3, DEPTOR, FBXL20, MAML2, TSG101, DESI1, CCDC3, TERF2IP, CRYM, IDE, RFX2, ZNF322, SUFU, MAGEA11, PTPN13, PRDM15, ZNF670, ZNF695, CCDC169-SOHLH2, SOHLH2, COL4A3, ZNF354C, HIP1, TCEA3, PADI6, ZNF704, NR2C1, TRPC5, UBA2, GLI2, TNKS, WBP2NL, ERCC1, TNRC6B, GLIS3, WDTCT1, ZNF664, DAB2, BLM, PKHD1, CACUL1, LDLRAD4, MYSM1, SETD5, SMG5, DLG3, WNK1, RELN, NEK10, SIN3A, RUVBL2, COMMD6, GMEB1, PELI1, IQGAP1, MAP3K7, ZNF423, SP1, TRIM22, ALK, SLC8A2, TEAD4, FASTKD5, HOXC13, APBB3, SLC35A4, SRA1, UBE2V1, ADIRF, XDH, AHNAK, OVOL2, SNX5, NFATC2, PAX7, BNC1, ATP2B4, NSF, ACTL6B, ASXL3, PAK3, TET1, CMTA1, CCPG1, DDX1C1, ADNP, MAPKAPK2, ARID4A, SCARB1, CDK6, PHF2, CELF1, RNF34, TFRC, UVRAG, EPHA5, WWOX, MEF2A, DCAF6, DCUN1D5, DROSHA, GPC3, XRN1, SATB1, PSMB2, EYA1, GATAD2A, DIS3L2, GNB3, TRPV1, RBM12B, HOXB5, HOXB6, HOXB5, HOXB6, TFEB, GHR, MNAT1, SNX9, ACTR2, L3MBTL4, ELAVL4, HDAC1, RECQL5, SMOC2, TRIM24, PLCG2, ROCK1, SCMH1, C1QTNF1, PAXIP1, ZNF713, EGR2, HIPK3, RNF10, RYBP, AP3B1, PTPN2, NTRK1, KPNA6, TRIM44, MAP1A, SLC39A10, AXIN2, EP CAM, PARD3, ZNF425, GNL3L, MUC1, PTPN14, BCOR, AP3D1, ZNF41, CARM1, ZNF383, ANXA8L1, SNX33, CD84, LPA, ZNF616, ZNF836, SMARCA2, CUX1, SPII, DNMT3B, EPHA7, FOXF2, PTPN1, GLIS1, SFMBT2, ATG14, EIF3H, BCAR3, JAZF1, STK38, ACOT8, RBPMS, RENBP, CHURC1, CREB5, MAP3K13, RAPGEF3, SMYD1, SNCA, BMPRI1B, MAGI2, PRIM2, PNPT1, USP50, ZEB2, FOXJ3, HEY2, RC3H1, EIF3E, RNF19B, ZMYND11, KMT2D, PRKAG1, CREM, PSMF1, KMT2C, CAST, TRIP12, DFFA, ADTRP, PLD1, RASA1, MACC1, MITF, SRSF6, OPRD1, RPTOR, NFIX, BTK, MLLT1, CBFA2T2, IGF1, MLXIP, ATF7IP, HTT, MAPK1, PTEN, SPRED2, BMP7, ATXN2, MXI1, PUM1, SOX5, CIRI, PCBP2, ZNF780A, ZNF780B, LRRK2, MLYCD, TMEM59, UNC119, ZBTB20, RFC3, BAG6, LILRB4, ITGAM, PKD2, ZNF652, EFNA5, KCTD1, RIPPLY1, RCOR3, TADA2A, DAZL, PDGFC, SERPINA3, SERPINA4, SERPINA5, NCOA3, PKIB, MTMR3, ZNF146, ZNF565, PPP2R3C, WNT7A, ZBED6, BRWD3, NLRP1, UACA, LPGAT1, CRTG3, DNAJC1, ARNTL2, ELOVL5, PLCL2, KAT6A, MTIF2, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, MYCBP2, NFE2L1, GPI, SH3RF2, WDR43, ZNF30, N4BP1, ATRX, DPH6, IKZF1, PRMT2, RAPGEF2, ASCC1, SMO, VRK3, RALY, PRKAR2B, CPT1A, TCF4, SOX30, TFE3, UBR5, GRIN1, JADE1, ARDCA4, RHOA, SPTN, ROR1, RQCD1, TF, ONECUT2, CUL3, TFEC, HSPD1, EPM2A, GSK3B, PRR16, DN AJC3, RDX, STAT6, MLF1, EEK2K, IWS1, PPP1R16A, PTPRB, RBBP8, NECAB2, CDK13, CD27, DUSP26, BOK, RNF144B, ZNF362, NACC2, SUPT4H1, ZNF354A, AGT, HDGFRP3, METTL16, CCNJL, POLH, PRKAA2, ADAR, STAT2, ZMPSTE24, PTK2, SNX3, PBX1, TEC, EXOSC3, MAP3K5, TCF15, CREBBP, DLX1, GTF2IRD2, NCF1, TAOK2, UGT1A1, UGT1A10, UGT1A4, UGT1A8, PYGO2, SHC1, ZNF813, LBX2, PARP10, RNF11, RPS6KB1, YLPM1, DPRX, PRG3, SERPINB1, SETDB2, DNAJB6, SP7, CD44, LARF4, ADAM8, CLDN4, RPS6KA5, ZNF484, ZNF93, CSNK1A1, HUS1, PRDM2, NOS1, ZNF44, GCKR, MED15, RGS14, ACTN4, MC1R, STK4, TCF25, ZNF282, EPHB2, SLC1A1, EDRF1, IL18, MFSD8, UBE2K, HCAR1, HCAR2, DIS3, DLC1, PPARA, PPP1R10, ARID5B, SMARCAL1, CPEB4, MOB3B, NOTCH4, ZMYND8, ZNF366, CRX, PAX6, PRKCZ, ZC3H4V1, ADORA2A, GRIN2B, RABGEF1, CCNG2, CPEB1, OTUD7B, NIPBL, YEATS4, COL28A1, PHF20, ZNF143, ANGPT1, BRF1, TBL1X, EYA3, FHL2, LRRK1, MBTD1, OSBP18, ATF6, ZBLT5, GSKF2BP3, ETS1, PPP1CA, MTF2, TAGLN3, CDK5RAP1, CNTN1, NCOR2, PRKCQ, BRAF, CSRNPI, HDAC2, HTR2C, IMPACT, PHKG2, SRCAP, POU3F3, NOTO, SPINT2, MBNL3, ZKSCAN5, CD300A, ELF2, PHIP, PPP2CA, SKP1, ANGPT4, RPL23, RFC5, ATXN1, SP100, ZNF347, ZNF415, ANXA2, TRIM29, PARN, ADCY1, MADD, RBM42, SYK, CNOT1, RBM39, WWTR1, GTF2H5, NFXL1, ZBTB38, BRCA2, ATF7, DVL2, MORC1, MTRF1, YBX1, PTPRJ, TAF1, EIF4E3, TICAM1, TANK, THAP3, HSF1, MAX, SAP130, DHFR, EZH1, ETF1, NRF1, SRPK2, SASH1, NCOA2, WDR18, EEFESE, QRICH1, VAV3, ZP3, CHD6, RNF2, ZNF554, MOB3A, GNA12, SH2D3A, AKTIP, MYEF2, INPP5F, TRIM37, CD109, MET, TBC1D10A, ZNF461, CAMK2D, SNX1, TIMELESS, UCHL5, BRD9, MALT1, SERPINE3, SETD3, TRA2B, KDM2B, MLXIP, CCT3, NEDD4L, PHB, PTPRC, EDA, ZNF555, CTCF, SH3GL2, NR6A1, RNF213, T RAF3IP2, ATF6B, CREB1, RGMB, TNXB, TRAP1, EBF4, ZNF511, BMP4, ABLIM3</i> </p>
GO:0010604	positive regulation of macromolecule metabolic process	7.371942056106729e-19	<p> <i>POLDIP3, LDB2, NRXN1, ASPH, SLC3A1, PDE4D, DNMT1, S1PR2, SLC9A1, C6ORF89, PBX3, ADCY8, CBFB, PDE8A, IL31RA, RPS6KA2, PRDM12, SETD4, PTGFR, MED26, WWCI, NRG3, ASH1L, NOS1AP, NOX5, SCAF8, STOX2, PRKAG2, PRLR, PAGRI, HIVEP3, FT O, NPAS3, NTRK3, ARNT, EGLN2, FLT3, STAT5B, TOX, ENPP2, GRM5, CASK, MAP2K5, KITLG, LRP2, PIK3CD, SP3, HDGF, ANK2, OLFM1, EZR, ROBO1, TOM1L1, CHD7, HTR2B, MECOM, TACCI, TENM1, LMNA, TRAF6, DNAJA3, ABI1, NHLH1, HSP90AA1, SLC24A3, CDC6, KNDIC1, CCDC22, CNGBI, AKAP13, GF11B, RUNX1, DAB1, ABCC8, HMGNC3, NRIP1, THRB, EFCAB7, PTPN11, CCT2, HDAC6, SERTAD2, DDB1, ADORA1, IKKBK, ERBB4, MRE11A, ZNF609, BRD8, KAT6B, ACTG2, CUL4B, ESR1, MAML3, CDON, NTRK2, TNRC6A, EP300, CELA1, ZYG11B, ZNF76, FNTA, PDGFB, RIMS1, TNK1, CCND3, BRMS1, CH</i> </p>

			<p>FR,HNF4G,INSR,FMN2,RERE,ASB5,FUBP1,TCF7L2,CAB39,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,RNF144A,EGLN3,RBM20,TBR1,SAMD4A,BDNF,TFAP2A,PEG3,MEIS1,TRIM13,LCK,ECT2,ZNF148,MTA3,TFDP2,RFTN1,ERN2,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,GSN,RBM14,MED12L,SATB2,RIT2,CASS4,FYN,MKRN2,ARNTL,PLCB1,MGMT,ARID4B,RTN4,RWDD3,BRPF1,CH13L1,TTN,PIK3R2,RANBP9,NRG1,SH2D3C,UBP1,BID,MAP2K1,FNIP1,MYH9,VGLL4,PPP3R1,HDAC5,CSRNP3,NF1A,RNF4,CSNK2A3,JDP2,ROR2,DCN,PCBD2,HNRNPPL,CDH13,CREBRF,COP5,MAD2L2,RAB27A,CAPRIN2,CCNYL1,TERF2,SLX1B,NEUROD1,CCBE1,USP22,JAK2,FAM168A,FBXW7,OAZ2,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,PDE2A,KLF15,CYFIP2,WNT11,MTA1,NOX4,RPRD1B,OKI,CCDC62,ERCC8,PRKCD,TAB2,ACVR2A,RUNX2,CD4,TGFB1,BANP,SPSB4,NSD1,PIBF1,BTRC,NFATC3,CRADD,F2RL1,BCAS3,DNAJB2,TP73,ILF2,DISC1,BLID,ZFAND2A,CLN6,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,TPNFRSF10B,HNRNPC,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,FANCI,CAPN3,LUM,SMURF2,EPHA4,RORA,AUTS2,CD6,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,IGF1R,PPARG,NGRN,AXIN1,IL18R1,IL1RL1,MTF1,CYBB,SCAMP5,SREBF2,LEPR,FGF1,NPAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,CHEK2,SUPT3H,PRDM16,SPDYA,SORBS1,RAB3GAP2,TRIM8,CSPG4,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SPTBN1,TRABD2B,SFRP1,MED13,ZNF395,FOXO3,NFIB,BCL2L13,SYNCRIP,SMAD3,RNFT2,CUX2,WWP2,ARNT2,EBF3,RNF168,CASZ1,DCP1B,NEDD4,ESRRG,HOXD3,HOXD4,TAB1,NFATC1,CRC73,PTPN1,SSBP3,DIP2B,NOX1,ARIH1,YAP1,HEG1,EYA2,SH3D19,BORA,NVL,LRP5,MTCP1,POLR3G,SOX2,SETD2,TEAD1,PRICKLE1,ZNF521,DRD1,ARID3A,CHUK,ESR2,S100A12,DCUN1D3,KDM6A,PRKD1,STAT1,ST18,ETV5,RHOXF2B,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,CCNY,ATF2,POU2F2,TCF3,GRAMD4,RAF1,CELF4,CASP1,PTPN1,BMPR2,BMPRIA,IKZF4,PIK3R3,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,PPM1F,NEDD9,AGBL4,SEMA4D,RORC,PTAFR,RHOXF2,JARID2,DDX58,BRDT,RARB,PRKCG,NCOA1,AREL1,LMO7,AP2M1,DVL3,EIF2B5,EIF4G1,RBX1,TCF20,ATF3,LIN28B,SRSF5,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,TERF2IP,IDE,RFX2,WNT3,PRDM15,COL4A3,HIP1,TRPC5,UBA2,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,DAB2,BLM,CACUL1,MYSM1,DLG3,WNK1,RELN,NEK10,SIN3A,RUVBL2,GMEB1,PELI1,IQGAP1,MAP3K7,ZNF423,SPI1,TRIM22,SLC8A2,TEAD4,HOXC13,SLC35A4,SRA1,UBE2V1,ADIRF,XDH,OVOL2,SNX5,NFATC2,BNC1,ATP2B4,NSF,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ATAD1,ADNP,MAPKAPK2,ARID4A,MARK1,CDK6,PHF2,CELF1,TFRC,WWOX,MEF2A,DCAF6,DCUN1D5,DROSHA,GPC3,TBC1D5,EYA1,DIS3L2,HOXB3,HOXB4,HOXB5,TFEB,GHR,MNAT1,SNX9,ACTR2,ELAVL4,HDAC1,SMOC2,TRIM24,PLCG2,ROCK1,C1QTNF1,PAXIP1,EGR2,RNF10,RYBP,AP3B1,NTRK1,KPNA6,TRIM44,SLC39A10,ANK3,AXIN2,EPCAM,MUC1,AP3D1,CARM1,ADAM19,SNX33,CD84,ZNF836,SMARCA2,SPI1,DNMT3B,EPHA7,GLIS1,ATG14,BCAR3,RBPMS,CHURC1,CREB5,MAP3K13,RAPGEF3,MST1,SNCA,BMPRI1,MAGI2,PRIM2,PNPT1,USP50,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,RNF19B,KMT2D,PRKAG1,CREM,KMT2C,ADTRP,PLD1,MACC1,MITF,OPRD1,RPTOR,NFIX,KCTD13,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,PUM1,PCBP2,ZNF780B,LRRK2,UNC119,ZBTB20,RFC3,BAG6,PKD2,EFNA5,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2R3C,WNT7A,HLRP1,UACA,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,MYCBP2,GPI,SH3RF2,WDR43,ATRX,PRMT2,RAPGEF2,SMO,VRK3,TCF4,SOX30,TFE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA,SPRTN,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,GSK3B,PRR16,DNAJC3,RDX,STAT6,ACTA2,FAM49B,CDK13,BOK,RNF144B,SULF1,SUPT4H1,TNFRSF8,AGT,METTL16,PRKAA2,ADAR,ZMPSTE24,PTK2,PDE4B,PBX1,TEC,EXOSC3,MAP3K5,SECI16B,CREBBP,DLX1,NCF1,TAOK2,SHC1,CD160,ECE1,RNFT1,RPS6KB1,PRG3,SPT7,CD44,LARP4,ADAM8,CLDN4,RPS6KA5,ZNF484,CSNK1A1,PRDM2,CXCL17,NOX1,ACTN4,MC1R,STK4,EPHB2,SLC1A1,EDRF1,IL18,UBE2K,DIS3,DLCL1,PPARA,PPPIR10,ARID5B,EPB41L4B,GPSM3,MOB3B,NOTCH4,CRX,PAX6,PRKCZ,ZC3H4V1,GRIN2B,CPEB1,NIPBL,TMIGD2,YEATS4,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,LRRK1,OSBPL8,ATF6,ETS1,MTF2,RBMS3,BTN3A2,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNP1,HDAC2,IMPACT,PHKG2,SRAP,POU3F3,CD300A,ELF2,PHIP,PP2CA,SKP1,ANGPT4,RPL23,RFC5,SP100,ANXA2,PARN,MADD,SYK,CNOT1,WWTR1,ZBTB38,BRC4,ATF7,DVL2,YBX1,PTPRJ,TAF1,TICAM1,TANK,THAP3,CADM1,HSF1,MAX,EZH1,NRF1,SRPK2,SASH1,NCOA2,GBP5,QRICH1,ZP3,CHD6,MOB3A,GNA12,SH2D3A,AKTIP,INPP5F,TRIM37,MET,TBC1D10A,SNX1,TIMELESS,MALT1,SETD3,TRA2B,MLXIPL,CCT3,NEDD4L,PHB,PTPRC,EDA,CTCF,NR6A1,SPON2,TRAF3IP2,ATF6B,CREB1,RGMB,CLNK,BMP4,ABLIM3</p>
GO:0006796	phosphate-containing compound metabolic process	1.0442363168093072e-18	<p>NT5C1B,NT5C1B-RDH14,SUCLG2,ENPP1,LDB2,NRXN1,PRKCI,SLC30A1,MAP4K4,PDE4D,S1PR2,PDE7B,ADCY8,PDE8A,IL31RA,RPS6KA2,GK5,CTDSPL2,NRG3,LATS2,KSR2,PTGIS,PRKAG2,PRLR,MVP,ADCY7,KALRN,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,SAMHD1,FER,CASK,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,PIK3CD,CAMK1G,ADPGK,ROBO1,TOMIL1,HTB2B,CDKL5,TENM1,NADK2,INPP4B,TRAF6,ITPKB,DNAJA3,VAV2,GRK5,ABI1,ULK4,HSP90AA1,CDC6,TSSK1B,KNDCC1,DSCAM,MOCOS,FAM126A,STK38L,TRIO,AKAP13,DLG2,PTPRK,DAB1,ERC1,DGKI,PDE4A,MAST4,PTPN1,MGAT5,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,LIMK1,TLK1,ABR,OSBPL10,PMEPAP1,PTPRO,CDON,NTRK2,EP300,TPST2,PDGFB,TNKK,CCND3,STK39,INSR,PRKARIA,PIP4K2A,CAB39,PAK1,FBXW11,MAP3K4,PTPRD,PPIP5K1,B</p>

			<p>DNF,CDK14,LCK,ENTPD5,ECT2,MYO3B,SNX6,PIPOX,PPM1L,PTPRU,ERN2,DMD,SLC8A1,PRPS2,RIT2,CASS4,FYN,NF1,SMG7,PLCB1,LMTK2,PPP4R2,DGKH,NEIL2,BCR,CHI3L1,TTN,BMP2K,PAQR3,PIK3R2,NRG1,SH2D3C,ACYP1,CDK19,BDKRB1,BDKRB2,MAP2K1,FNIP1,PPP2CB,CSNK2A3,INPP4A,PPP5K2,CDKL2,LRGUK,ROR2,PRPSAP2,FHIT,PTPRT,ENTPD1,ACSBG1,PPPIR42,AK2,IPO5,MAD2L2,GALK2,CAPRIN2,CCNYL1,NME7,AK5,CERKL,GNAQ,ICK,HERC5,JAK2,FBXW7,LINC00473,ZFYVE28,SMG1,IMPDH1,HUNK,DPYS,IDNK,CDC42BPB,PHKA1,DHDDS,PDE2A,TTC7B,LAMTOR3,WNT11,TPST1,FIG4,NOX4,RPRD1B,CAMK2B,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SGK1,MYO3A,NSD1,PIBF1,BTRC,PTPRN2,AAK1,SLIT2,CORO1C,PTPDC1,TTBK2,SMAD6,ZNF675,SYNJ2,BMPER,DCLK1,ANKRD54,DAPK2,TNFRSF10B,DAPP1,DUSP22,TRRAP,DOCK3,FGF10,ADK,SMYD3,MAST2,ADCY2,EPHA4,RORA,HSD17B12,PRKCA,CD6,TNFSF11,SMG6,PPP3CA,CAMK4,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,PFAS,CDK11A,DYRK4,CDK11B,LEPR,FGF1,FOXK2,PRKAR2A,RIOK2,MYOCD,AJUBA,CHEK2,PPP1CB,SPDYA,HCK,AGPAT4,CAPN2,TBCK,PPP2R2B,CSPG4,CTDP1,BAZ1B,OBSN,NF2,FLT4,SGMS1,HDAC4,TNS3,SPTBN1,TPTE,SFRP1,PPP6R2,DGKB,SSH1,SMAD3,PTPRM,ABI2,PLA2G4C,OGDHL,SLC4A4,TAB1,UCK2,APP,PDGFRA,SLK,CCN2,HEG1,PPCS,CDK3,EYA2,BORA,IBTK,SBK3,ALPL,JAK1,FPGT-TNNI3K,TNNI3K,PEMT,LRP5,MTCP1,PTPRG,RCAN1,SPTBN4,ELOVL2,DRD1,CHUK,S100A12,NUDT10,PRKD1,DGKG,LRRC2,EREG,CCNY,MAPKAPK3,ATF2,RAF1,PTPN1,BMPR2,CAMK1D,BMPR1A,IDO2,BTBD10,PIK3R3,CDK12,SPAG9,FGF2,PPA2,PPM1F,ADCY5,NEDD9,PEAK1,SEMA4D,PTAFR,ADCYAP1R1,SLC5A8,PI4KA,PIK3C2B,PRKCG,OC90,DVL3,EIF4G1,EPHB3,PTPRE,CKS1B,DEPTOR,PKN3,TSG101,TERF2IP,PTPN13,PAFAH1B1,CMPK1,TRPC5,ME1,TNKS,TPK1,DAB2,BLM,CACUL1,LDLRAD4,SMG5,DLG3,WNK1,RELN,NEK10,TMEM68,GUCY1A2,PPP2R5C,SLC25A16,IQGAP1,MAP3K7,ALK,SLC8A2,INPP5D,TOPI,MBOAT1,XDH,PRKG1,ATP2B4,PACSN1,PAK3,SSH2,CAMTA1,PHOSPHO2,ADNP,MAPKAPK2,CDC42BP4,SCARB1,MARK1,CDK6,TFR3,UVRAG,EPHA5,ADCY9,RBKS,ADRBK1,EYA1,GNB3,SHPK,GHR,MNAT1,SNX9,ACACA,TRIM24,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,PKN2,SLC39A10,HYKK,PTPRQ,EPHB1,EPHA10,PTPN9,AXIN2,SARM1,PARD3,PTPN14,NUDT14,NUDT5,PIFO,DGKK,EPHA7,PTPR4,AGPAT3,ATG14,BCAR3,STK38,ACOT8,RBPMS,MAP3K13,RAPGEF3,PDXP,PTK7,RSRC1,N4BP2,SNCA,BMPR1B,MAGI2,NADK,HMGCS2,PTPRS,PRKAG1,CDKL1,SULT2A1,GGPS1,ADTRP,PLD1,OPRD1,HIPK1,RPTOR,BTK,MLLT1,IGF1,PLA2G4E,HTT,MAPK1,PTEN,SPRED2,BMP7,PIK3C3,LRRK2,ATP6V1A,MLYCD,ALDOC,PIGS,UNC119,ZBTB20,LILRB4,MORC3,SLC44A1,PKD2,EFNA5,NT5E,TADA2A,NT5DC4,ALPK3,PDGFC,PKIB,MTMR3,PPP2R3C,RPS6KC1,LPGAT1,ELOVL5,PLCL2,SIK3,BMP6,GPI,SERINC5,PNPLA3,C8ORF44-SGK3,RAPGEF2,MTHFD2L,VRK3,FAR1,AMPD1,ENPP3,MARK4,PRKAR2B,BPGM,DNAJC6,RHOA,ROR1,RQCD1,TF,CKMT1B,SH3KBP1,EPM2A,GSK3B,PLD2,DNAJC3,EEF2K,PPP1R16A,PTPRB,CDK13,STK32B,DUSP26,AGT,CCNJL,ELOVL3,PRKA2,ADAR,PITPNM2,STAT2,ZMPSTE24,FGGY,PTK2,PPCDC,PDE4B,TEC,CDK14A,MAP3K5,PRKD3,LMTK3,XVLB,CHKA,NCF1,TAOK2,SHC1,SLC44A3,ALDOA,PARP10,RPS6KB1,GUCY2F,CD44,ADAM8,RPS6KA5,CDS1,CSNK1A1,HUS1,NOS1,CCKR,RGS14,STK4,MARK3,EPHB2,SLC1A1,IL18,UBE2K,DLC1,PPARA,PDP1,PNPLA6,PHLPP1,MAGI3,LDHC,MOB3B,ACPI,PAX6,PRKCZ,FAM20C,ADORA2A,PPP1CC,RABGEF1,CCNG2,TYK2,UPB1,ANGPT1,EYA3,LRRK1,OSBPL8,NT5M,PPP1CA,RP1A,CDK5RAP1,CNTN1,PRKCQ,BRAF,HDAC2,HTR2C,IMPACT,PHKG2,PPP1R14A,CD300A,PHIP,CDKL3,PPP2CA,SLC26A2,ANGPT4,P1GU,PITPNM3,ADCY1,MADD,SYK,WWTR1,GT2F2H5,CIT,SLC44A5,DVL2,PTPRJ,TAF1,PFKFB4,HSF1,INPP5A,RNGT,T,SRPK2,SASH1,CEPT1,SULT2B1,VAV3,MOB3A,GNA12,SH2D3A,AKTIP,INPP5F,NUAK2,AXL,CD109,MET,CAMK2D,MALTI,PFKP,MLXIPL,PHKB,PHB,PTPRC,SH3GL2,TYRO3,MTMR12,ADCY10,CREB1,TNXX,EDNRA,HADHA,SLC25A13,BMP4</p>
GO:0051173	positive regulation of nitrogen compound metabolic process	2.771797209383728e-18	<p>POLDIP3,LDB2,NRXN1,ASPH,SLC3A1,DNMT1,SIPR2,SLC9A1,C6ORF89,PBX3,ADCY8,CBFB,PDE8A,IL31RA,PRDM12,MED26,WWC1,NRG3,ASH1L,NOS1AP,SCAF8,STOX2,PRKAG2,PRLR,PAGR1,HIVEP3,FTO,NPAS3,NTRK3,ARNT,EGLN2,FLT3,STAT5B,TOX,ENPP2,GRM5,CASK,MAP2K5,KITLG,LRP2,SP3,HDGF,EZR,ROBO1,TOM1L1,CHD7,HTR2B,MECOM,TACCI,TENM1,LMNA,TRAF6,DNAJA3,ABII,NHLH1,HSP90AA1,CDC6,KNDC1,CCDC22,AKAP13,GFII1B,RUNX1,DAB1,HMGN3,NRIP1,THRB,EFCAB7,PTPN11,CCT2,HDAC6,SERTAD2,DDBI,ADORA1,IKKB,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,CUL4B,ESR1,MAML3,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,ZNF76,FNTA,PDGFB,TNFK,CCND3,BRMS1,CHFR,HNF4G,INSR,FMN2,RERE,ASB5,TCF7L2,CAB39,PAK1,LITAF,FBXW11,ESRRB,MAP3K4,RNF144A,EGLN3,RBM20,TBRI,SAMD4A,BDNF,TFAP2A,PEG3,MEIS1,TRIM13,LCK,ENTPD5,ECT2,ZNF148,MTA3,TFDP2,ERN2,ATG10,SLC30A9,TOX3,LARP4B,USP13,KAT7,GSN,RBM14,MED12L,SATB2,RIT2,CASS4,FYN,MKRN2,ARNTL,PLCB1,MGMT,ARID4B,RWDD3,BRPF1,CHI3L1,PIK3R2,RANBP9,NRG1,SH2D3C,UBP1,BID,MAP2K1,FNIP1,MYH9,VGLL4,PPP3R1,HDAC5,CSRNP3,NFIA,RNF4,CSNK2A3,JDP2,ROR2,DCN,PCBD2,HNRNP1L,CDH13,CREBRF,COPS5,MAD2L2,CAPRIN2,CCNYL1,TERF2,SLX1B,NEUROD1,CCBE1,USP22,JAK2,FAM168A,FBXW7,OAZ2,SKAP1,UIMC1,ITC,HMLIP,BCL11B,PKNOX1,MLLT3,KLF15,CYFIP2,WNT11,MTA1,NOX4,RPRD1B,CDC62,ERCC8,PRKCD,TAB2,ACVR2A,RUNX2,CD4,TGFB1,BANP,SPSB4,NSD1,PIBF1,BTRC,NFATC3,CRADD,F2RL1,BCAS3,DNAJB2,TP73,ILF2,DISC1,BLID,ZFAND</p>

			<p>2A,CLN6,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,TNF RSF10B,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,FANCI,CAPN3,LUM,SMUR F2,EPHA4,RORA,AUTS2,CD6,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,P ARK2,SOD2,SMARCC1,IGF1R,PPARG,NGRN,AXIN1,MTF1,SREBF2,LEPR,FGF1,N PAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,AJUBA,CHEK2,SUPT3H,PRDM1 6,SPDYA,RAB3GAP2,CAPN2,TRIM8,CSPG4,FLT4,MEF2B,HDAC4,PAX2,PHF5A,TR ABD2B,SFRP1,MED13,ZNF395,FOXO3,NFIB,BCL2L13,SMAD3,RNFT2,WWP2,ARN T2,EBF3,RNF168,CASZ1,DCP1B,NEDD4,ESRRG,HOXD3,HOXD4,SLC4A4,TAB1,NF ATC1,CDC73,APP,SSBP3,DIP2B,ARIH1,YAP1,EYA2,SH3D19,BORA,NVL,LRP5,MT CP1,SOX2,TEAD1,PRICKLE1,ZNF521,ARID3A,CHUK,ESR2,S100A12,DCUN1D3,P RKD1,STAT1,ST18,ETV5,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,CCNY,ATF2,POU 2F2,TCF3,GRAMD4,RAF1,CELF4,CASP1,PTPN1,BMPR2,BMPRI1,IKZF4,PIK3R3, CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,PPM1F,NEDD9,AGBL3,SEMA4D,RORC, PTAFR,JARID2,DDX58,BRDT,RARB,PRKCG,NCOA1,AREL1,LMO7,DVL3,EIF2B5,E IF4G1,RBX1,TCF20,ATF3,LIN28B,SRSF5,CKS1B,PAWR,EBF2,MAML2,TSG101,TER F2IP,IDE,RFX2,PRDM15,COL4A3,DDAH1,HIP1,TRPC5,UBA2,GLI2,TNKS,WBP2N L,ERCC1,TNRC6B,BAG3,DAB2,BLM,CACUL1,MYSM1,DLG3,WNK1,HOXB3, SIN3A,RUVBL2,GMEB1,PELI1,IQGA1,MAP3K7,ZNF423,SP1,TRIM22,SLC8A2,TE AD4,HOXC13,SLC35A4,SRA1,UBE2V1,ADIRF,XDH,OVOL2,SNX5,NFATC2,BNC1,A TP2B4,NSF,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,PHF2,CE LF1,TFRC,WWOX,MEF2A,DCAF6,DCUN1D5,GPC3,EYA1,DIS3L2,TRPV1,HOXB3, HOXB4,HOXB5,TFEB,GHR,MNAT1,SNX9,ACTR2,HDAC1,SMOC2,TRIM24,PLCG2, ROCK1,PAXIP1,EGR2,RNF10,RYPB,AP3B1,NTRK1,KPNA6,TRIM44,SLC39A10,AXI N2,EPCAM,MUC1,AP3D1,CARM1,SNX33,ZNF836,SMARCA2,SP11,DNMT3B,EPHA 7,GLIS1,ATG14,BCAR3,ABCB7,RBPMS,CHURC1,CREB5,MAP3K13,RAPGEF3,SNC A,BMPRI1,MAGI2,PRIM2,PNPT1,USP50,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,RNF19 B,KMT2D,PRKAG1,CREM,KMT2C,ADTRP,PLD1,MACC1,MITF,OPRD1,RPTOR,NF IX,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,PUM1,PCBP2,ZNF780B,LRRK2,UNC 119,ZBTB20,RFC3,BAG6,PKD2,EFNA5,TADA2A,DAZL,PDGFC,NCOA3,PKIB,PPP2 R3C,WNT7A,NLRP1,UACA,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,MYCBP2, SH3RF2,WDR43,ATRX,PRMT2,RAPGEF2,SMO,VRRK3,TCF4,SOX30,TFE3,GRIN1,JA DE1,ARRDC4,RHOA,SPRTN,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,GSK3B,PR R16,DNAJC3,RDX,STAT6,CDK13,BOK,RNF144B,SUPT4H1,AGT,MEITL16,PRKAA2 ,PTK2,PBX1,TEC,EXOSC3,MAP3K5,CREBBP,DLX1,NCF1,TAOK2,SHC1,RNFT1,RP S6KB1,SP7,CD44,LARP4,ADAM8,CLDN4,RPS6KA5,ZNF484,CSNK1A1,PRDM2,NOS 1,ACTN4,MC1R,STK4,SLC1A1,EDRF1,IL18,UBE2K,DIS3,DLCL1,PPARA,PPP1R10,A RID5B,MOB3B,NOTCH4,CRX,PAX6,PRKCZ,ZC3HAV1,GRIN2B,CPEB1,NIPBL,YEA TS4,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,LRRK1,OSBPL8,ATF6,ETS1,MTF2,CDK5 RAP1,CNTN1,PRKCQ,BRAF,CSRN1,HDAC2,IMPACT,SRCAP,POU3F3,CD300A,E LF2,PHIP,PPP2CA,SKP1,ANGPT4,RFC5,SP100,PARN,MADD,WYK,CNOT1,WWTR1, ZBTB38,BRC42,ATF7,DVL2,YBX1,PTPRJ,TAF1,TICAM1,TANK,THAP3,HSF1,MAX, EZHI,NRF1,SASH1,NCOA2,QRICH1,ZP3,CHD6,MOB3A,GN12,SH2D3A,AKTIP,TR IM37,MET,TBC1D10A,SNX1,TIMELESS,MALT1,SETD3,TRA2B,MLXIP,CTCT3,NED D4L,PHB,PTPRC,CTCF,NR6A1,ATF6B,CREB1,RGMB,BMP4,ABLIM3</p>
GO:00 07010	cytoskeleton organization	4.04786914 0070285e- 18	<p>CLRN1,HOOK2,PRKCI,TACC2,S1PR2,SLC9A1,SPAG16,PDE4DIP,CLASP2,NOS1AP ,TUBA1C,IQCG,TLN2,EPB41,PHACTR1,FHOD3,MAPRE2,TJP1,UTRN,PHACTR2,N TRK3,SEMA5A,PLCE1,FER,ANK2,STAG2,EZR,TACCI,TENM1,LMNA,CTNNA3,ABI 1,ULK4,ITGB1,TRIOBP,ELMO2,GAS7,AKAP13,TTL5,PARD6G,CDC42EP3,XIRP2, MAST4,HDAC6,TBCEL,EPHA1,IKBKB,KIF18B,PEX14,DNAH2,LIMK1,ATP8A2,CEC R2,DNAI2,HOOK3,TNIK,MID1,FMN2,PRKAR1A,AFAP1,PAK1,FBXW11,FMNL2,PH ACTR4,ARHGAP6,ECT2,LRRC49,STARD9,DMD,GSN,RBM14,CASS4,NF1,DST,PCD H15,BCR,TTN,RANBP9,DCTN1,ARHGAP10,MYH9,FRMPD4,WDR92,NAVI,RNF4,P ARD3B,LRGUK,DOCK2,AUNIP,MAD2L2,TLE6,NCKAP1,ARL3,KIF2A,RANBP1,JAK 2,MYPN,SMC3,CROCC,CDC42BPB,PLS1,CYFIP2,WNT11,SIPIAL3,MKLN1,PRKCD ,PPM1E,TGFB1,LRCH3,PDLIM4,PIBF1,F2RL1,BCAS3,CELSR1,SLIT2,CORO1C,DIS C1,CEP135,KANK1,ANK1,TTBK2,SPAG17,PARVA,STRIP1,ANKFN1,FGF10,KANK4, ENAH,PPL,IQCJ- SCHIP1,RHPN2,MAST2,SVIL,CAPN3,SLC16A1,AUTS2,CTNNB1,MPRI1,PARK2,AXI N1,MYO1D,BFSP1,ADD2,NIN,TUBGCP6,AJUBA,HAUS4,CHEK2,PHLDB1,KRT6B, MYO1E,HCK,SORBS1,CAPN2,TBCK,OBSCN,NF2,SPTBN1,HEPACAM2,ELN,SFRP1 ,SSH1,SMAD3,ABI2,C10ORF90,SHANK1,ARHGEF18,PREX1,KPNB1,NAV3,RAB6C, PDGFRA,SLK,ADD3,MYO1F,SH3D19,BORA,SETD2,KIF24,SPTBN4,VILL,SYNE2,R ND3,VPS4A,ABLIM1,ATF2,RAF1,ABLIM2,PTPN1,USP33,DPYSL2,NLGN1,CTNNA2, RAB11A,CRMP1,PPM1F,NEDD9,ARMC2,GAS8,PAWR,CLIC4,RHOJ,PAFAH1B1,KI F3A,HIP1,CEP350,PADI6,TTL7,TNKS,RUFY3,PKHD1,DZIP1,IQGA1,EML4,MAC F1,ARHGAP12,MYO7A,CLASP1,GPM6B,PRKG1,TTL9,SYNE3,PACSIN1,SPTBN5,A CTL6B,PAK3,SSH2,DYX1C1,MAP1B,CDC42BPA,MARK1,AIF1L,UVRAG,EPHA5,M EF2A,PLS3,ZNF207,CALD1,FGD1,SNX9,DIAPH2,ACTR2,ROCK1,EPS8,CAPN10,G PR35,INSRR,MAP1A,PPP1R9A,ANK3,NCKAP5,PARD3,TRIM46,ARHGAP44,MCU,R ANBP10,CTNNA1,LIM1,TRDN,SHROOM3,NTMT1,FCHSD2,RAPGEF3,PDXP,SH3 BP1,PTK7,SNCA,HAUS3,CHMP3,HYDIN,CSRPI,RASA1,PKP2,KCTD13,HTT,DPYSL 3,MAPK1,ARHGEF17,TLL4,ZRANB1,SPAG5,CHMP5,ARHGAP25,PKD2,EFNA5,S HANK3,STMN4,AMOTL1,PPP2R3C,TBCD,BRWD3,MAP4,SIK3,MYCBP2,ATRX,PAR</p>

			<i>VB,SUN1,MARK4,RHOA,NDE1,TF,RHOBTB1,SHROOM1,CUL3,SH3KBP1,GSK3B,PLD2,RDX,FAM49B,KRT8,HDGFRP3,PRKAA2,CUL9,ESPNL,PTK2,CDC14A,IQGAP2,FAM171A1,CEP70,TAOK2,SHC1,ALDOA,PGM5,DNAJB6,FGD3,LARP4,PACSLN2,THSD7A,CSNK1A1,FGD4,RGS14,ACTN4,TUBB3,MARK3,SPEF1,THSD7B,TTL11,TMEFF2,GPSM2,DLCL1,EPB41L4B,CCDC6,PAX6,PRKCZ,SPECC1L,STAG1,PHLDB2,KLHL1,YEATS4,SHROOM4,EPB41L2,MAP2,NEBL,BRAF,DIAPH1,CAPN6,PHIP,CAMSA3,SRGAP2,FRMD5,CIT,BRCA2,NEB,MYO1A,CGNL1,EPB41L1,SKA2,SYNM,POC1B,NUAK2,TRIM37,MET,FMN1,MICAL3,SETD3,SPTAN1,EHD2,RASSF8,TNXB,CCDC170,ABLIM3</i>
GO:0034330	cell junction organization	4.6919483142519284e-18	<i>NRXN1,PRMT3,PRKCI,MAP4K4,SLC9A1,NEGR1,CLASP2,GRID2,CLDN18,NOS1AP,TLN2,MYOT,MAPRE2,NLGN4X,TJP1,KALRN,NTRK3,GRM5,LHFPL4,MARVELD3,ANK2,NRXN3,CDKL5,ROBO2,NFASC,DNAJA3,PCDH17,ZC4H2,DSCAM,PTPRK,ABCC8,ERC1,CDH10,ERC2,XIRP2,CACNB2,DOCK10,HDAC6,IKBKB,ERBB4,CDH12,PTPRO,NTRK2,FNTA,KIRREL3,CDH8,INSR,PTPRD,CNTN5,BDNF,AMIGO1,ARHGAP6,ECT2,LAMC1,TANC2,FYN,DST,SNCB,APOD,BCR,NTN1,DCTN1,NRG1,FRMPD4,LRFN5,NTNG1,NFIA,PCDHB16,CAPRIN2,CLDN16,RCC2,ZDHHC15,CLSTN2,CLDN1,WNT11,IL1RAPL1,CAMK2B,CLDN10,F2RL1,BCAS3,PDZRN3,SDK2,CORO1C,CTNND2,DISC1,PPFIBP2,DUSP22,LINGO2,CNTNAP2,IL1RAPL2,VMP1,EPHA4,PRKCA,CTNNB1,FCGR2B,ARHGAP22,IGF1R,DLG5,ADD2,AJUBA,SORBS1,NF2,SFRP1,DGKB,DNM3,SMAD3,CUX2,ABI2,SHANK1,NEDD4,NRP2,SLC6A1,APP,SLK,HEG1,NLGN2,GPC6,PLEKHA7,DRD1,SYBU,SHANK2,NLGN1,COL16A1,CTNNA2,LRRC4C,PPM1F,PEAK1,SEMA4D,EIF4G1,EPHB3,ARHGAP39,FBXO45,VCL,MYO9A,NLGN3,PAFAH1B1,PKHD1,SETD5,DLG3,RELN,MACF1,SLC8A2,STAU1,CLASP1,GP M6B,PAK3,ADNP,MAP1B,FLRT2,ACTR2,ROCK1,NTRK1,PKN2,ANK3,UNC13A,EPHB1,PAR3,ARHGAP44,EPHA7,PTPRA,PPFIA4,CTNNA1,SDK1,SLK,CTNNA2,CACNG2,WNT7B,PTPRS,CAST,HIPK1,PKP2,DSG1,PTEN,CLDN11,LRRK2,TMEM108,ITGAM,EFNA5,SHANK3,TBCD,WNT7A,BMP6,EXT1,RAPGEF2,CDH9,RHOA,SYNGAP1,GABRB3,RDX,SYN1,EEF2K,AGT,CDH20,PTK2,GAP43,ARVCF,TAOK2,CLDN4,EPHB2,SLC1A1,DLCL1,GRIN2B,PHLDB2,THSD1,KIFC3,LGI2,TNR,CAMSA3,NUMB,SLIT1,PTPRJ,GPM6A,COL4A5,SYNDIG1,TANC1,SHISA6</i>
GO:0031344	regulation of cell projection organization	1.788991714268238e-17	<i>CLRN1,ADAMTS16,NRXN1,PRKCI,NEGR1,SEMA3A,GRID2,TENM3,SEMA3D,TIAM2,KALRN,NTRK3,SEMA5A,TOX,ENPP2,PLCE1,FER,EZR,ROBO1,CDKL5,TENM1,ROBO2,ULK4,KNDC1,DSCAM,ARHGAP24,DAB1,CDC42EP3,MYO10,GOLGA4,LIMK1,ATP8A2,PTPRO,NTRK2,EP300,TENM2,TNIK,ATP8B1,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,DENND5A,DMD,RIT2,TANC2,FYN,FAT3,RTN4,RTN4R,NDRG4,PAQR3,NTN1,MAP2K1,NTNG1,TMEM30A,ROR2,UST,CAPRIN2,NCKAP1,RCC2,ZDHHC15,CROCC,LZTS1,PLS1,SEPT7,FIG4,KREMEN1,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,KEL,F2RL1,BCAS3,SLIT2,CORO1C,DISC1,CEP135,KANK1,EPHA4,AUTS2,CNR1,PPP3CA,MAG,FCGR2B,CDHR2,IGF1R,XK,DRAXIN,NIN,DCC,HDAC4,SFRP1,DNM3,CUX2,ABI2,NEDD4,DIP2B,YAP1,FSTL4,PTPRG,ISLR2,KIF24,SYNE2,PRKD1,PARP6,DGKG,SEMA6D,BMPR2,DPYSL2,CAMK1D,NLGN1,CTNNA2,RAB11A,CRMPI,LRRC4C,SEMA4D,PLXNA2,SPOCK1,DVL3,EPHB3,MYO9A,WNT3,PAFAH1B1,TRPC5,RUFY3,DAB2,DZIP1,RELN,DOCK11,MACF1,ALK,MBOAT1,PACSLN1,PAK3,ADNP,MAP1B,MPHOSPH9,MARK1,ACTR2,ELAVL4,EPH8,NTRK1,PTPN9,SARM1,TIRM46,CARM1,ARHGAP44,PIFO,CUX1,EPHA7,MAP3K13,PTK7,MAGI2,PTPRS,CDKL1,PLD1,RTN4RL1,CBFA2T2,HTT,DPYSL3,PTEN,BMP7,LRRK2,EFNA5,SHANK3,WNT7A,MAP4,RAPGEF2,MARK4,RHOA,SYNGAP1,ROR1,GSK3B,RDX,EEF2K,AGT,SNX3,GAP43,CD44,EPHB2,GRIN2B,MAP2,FBXO31,ATG3,CNTN1,BRAF,HDAC2,NOTO,TNR,CDKL3,SLIT1,DVL2,GRIP1,GPM6A,PLEKHM1,INPP5F,SEMA3C,NEDD4L</i>
GO:0044093	positive regulation of molecular function	4.059184180730585e-17	<i>NRXN1,ASPH,PRKCI,SLC3A1,MAP4K4,SLC9A1,C6ORF89,ADCY8,NRG3,NOS1AP,EPB41,TIAM2,MAPRE2,PRKAG2,PRLR,KALRN,NTRK3,FLT3,GRM5,FER,MAP2K5,KITLG,ANK2,XRCC4,ROBO1,TOMIL1,HTR2B,CDKL5,TENM1,TRAF6,DNAJA3,VA V2,ABI1,ITGB1,HSP90AA1,CDC6,ZC4H2,ARHGAP24,AKAP13,DAB1,ABCC8,ERC1,RGS6,CCT2,CACNB2,DOCK10,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,ABR,ESR1,NTRK2,EP300,RNF220,FNTA,PDGFB,CCND3,STK39,INSR,TCF7L2,CAB39,PAK1,MAP3K4,EGLN3,BDNF,AMIGO1,PHACTR4,TRIM13,ARHGAP6,LCK,ECT2,ARHGAP42,ERN2,DMD,GSN,JPH2,CASS4,FYN,NF1,LMTK2,RTN4R,BCR,CH13L1,NRG1,DOCK8,BID,MAP2K1,RAPGEF6,STIM1,PPP2CB,HDAC5,ROR2,COP5,RGS8,CAPRIN2,CCNYL1,TERF2,RCC2,NEUROD1,GNAQ,DENND1A,JAK2,TRAPP9,FBXW7,ARAP2,DOCK9,LAMTOR3,CYFIP2,WNT11,NOX4,SIPA1L3,PRKCD,TAB2,CD4,TGFB1,SGK1,PIBF1,BTRC,CRAADD,F2RL1,BCAS3,DNAJB2,CORO1C,BLID,CACNA1D,MTDH,FANK1,CLOCK,TNFRSF10B,RABGAP1L,DOCK3,FGF10,CAPN3,VMP1,EPHA4,TNFSF11,PPP3CA,CTNNB1,PARK2,ARHGAP22,IGF1R,PPARG,AXINI,GARNL3,IL18R1,ADD2,RYR2,FGF1,RGS10,MYOCD,TRIM5,AJUBA,CACNA1C,SPDYA,TBC1D14,TBCK,TRIM8,FLT4,HDAC4,SFRP1,ARHGAP29,BCL2L1,SMAD3,PSAP,D C P1B,PREX1,TAB1,APP,PDGFRA,AMFR,BORA,NVL,LRP5,MTCP1,CHUK,ESR2,SI00A12,DCUN1D3,PRKD1,ST18,EREG,CCNY,FXD2,ATF2,TCF3,GRAMD4,CARD16,CASP1,PTPN1,BMPR2,USP33,CAMK1D,BMPRI1,FGF2,PPM1F,NEDD9,SEMA4D,PTAFR,ADCYAP1R1,DDX58,DVL3,EIF4G1,EPHB3,CKS1B,EBF2,TERF2IP,MYO9A,IDE,CCL14,CCL15,NLGN3,COL4A3,NMUR2,HIP1,AKAP6,TNKS,CACUL1,DLG3,WNK1,RELN,NEK10,ABCB1,DOCK11,IQGAPI,MAP3K7,TRM2,ALK,SLC8A2,UBE2V1,XDH,RGS7,ATP2B4,ADNP,SCARB1,TFR,EPHA5,DCUN1D5,TBC1D5,GHR,MN</i>

			<p> <i>AT1, SNX9, HDAC1, PLCG2, ROCK1, INSRR, NTRK1, SLC39A10, ANK3, EPHB1, EPHA10, AXIN2, PIFO, EPHA7, TRDN, ATG14, STAC, BCAR3, TRPC6, MAP3K13, RAPGEF3, SH3BP1, SNCA, BMPR1B, CACNG2, MAGI2, PRIM2, TBC1D9, USP50, EIF3E, PRKAG1, RAS A1, OPRD1, RPTOR, BTK, TBC1D16, IGF1, HTT, MAPK1, PTEN, LRRK2, UNC119, RFC3, ITGAM, ARHGAP25, PKD2, EFNA5, SHANK3, PDGFC, NCOA3, PKIB, SGSM1, PPP2R3C, NLRP1, UACA, CRTC3, PLCL2, SERINC5, RAPGEF2, KCNC2, SMO, VRK3, PSEN2, GRIN1, ARRDC4, RHOA, ROR1, HSPD1, GSK3B, BOK, AGT, PTK2, MAP3K5, NCF1, TAOK2, PYGO2, CD44, ADAM8, SLC5A3, CLDN4, RPS6KA5, NOS1, RGS14, SIPA1L2, ACTN4, ARHGAP11A, STK4, MARK3, EPHB2, SLC1A1, IL18, LRRC52, DLCL1, ARID5B, GRTP1, PDP1, MOB3B, PAX6, PRKCZ, GRIN2B, KCTD7, ANGPT1, OSBPL8, TBC1D10C, CCL22, PRKCQ, HDAC2, CD300A, PPP2CA, SKP1, ANGPT4, DNAJC9, RFC5, SP100, ANXA2, PARN, SRGAP2, ADCY1, MADD, SYK, RAP1GAP2, CACNG3, DVL2, TAF1, TICAM1, TANK, HSF1, DHFR, SASH1, ASAP1, RALGAP1, VAV3, MOB3A, CAV2, GNAI2, AKTIP, AXL, TRIM37, MET, TBC1D10A, MALTI1, PHB, PTPRC, EDA, TYRO3, EDNRA, BMP4</i> </p>
GO:0048513	animal organ development	4.356071687392164e-17	<p> <i>CLRN1, DNAH11, RCN1, ENPPI, PRDX2, ADAMTS16, LDB2, NRXN1, RDH13, PRKCI, TAEC2, HLX, SLC9A1, NEGR1, PBX3, TRPS1, CBFB, CLASP2, SEMA3A, IL31RA, GRID2, RP S6KA2, TENM3, DOCK1, CLDN18, RYR1, NRG3, ASH1L, SEMA3D, PHACTR1, STO2, FHOD3, NLGN4X, DCHS2, UNC5C, ZSWIM6, PRLR, HIVEP3, FTO, UTRN, KALRN, SPRR2D, NTRK3, CBL, ARNT, ATRNL1, SEMA5A, FLT3, STAT5B, TOX, ATP2B2, PLCE1, MAP2K5, SPATA5, KITLG, SPNS2, NDUFV2, LRP2, PIK3CD, SP3, ANK2, OLFM1, MFAP5, MEGF10, ROBO1, CHD7, HTR2B, ITGB6, MECOM, TACCI, LMNA, TRAF6, ESRP1, ROBO2, ITPKB, DNAJA3, ABI1, ITGB1, TRIOBP, SLC24A3, PSMB7, KNDCC1, ZC4H2, KIF26B, DSCAM, KLHL12, AKAP13, TTL5, GF11B, RUNX1, DAB1, NRIP1, THRB, XIRP2, IMPG2, LAMA2, TCIRG1, PTPN11, DOCK10, ERBB4, ZNF609, ATP8A2, ACTG2, LARGE, CECR2, ESR1, MYO18B, NPHP3, ANKRD11, PTPRO, CDON, NTRK2, EP300, CELA1, MEGF9, DYM, HOOK3, PDGFB, KIRREL3, CSGALNACT1, TOB2, INSR, RERE, PRKARIA, ATP8B1, H2AFY2, LAMA3, TCF7L2, PIP4K2A, FBXW11, ESRRB, MAP3K4, BASP1, RBM20, SLC4A10, TBR1, STRC, TFAP2A, ATRN, AMIGO1, FANCA, TGIF2, NPRL3, PHACTR4, MEIS1, TENM4, LCK, MDM4, ZNF148, MYO3B, TFDPP2, LAMC1, PTPRU, MB, SKGD, DMD, CENPF, CRISPLD2, KAT7, WDR7, SLC8A1, PRPS2, GPR171, SATB2, PAFAH1B2, MACROD2, JPH2, FYN, ARNTL, ADAMTS9, NF1, PLCB1, MGMT, PCDH15, ARID4B, FAT3, RTN4, AFF2, RXFP1, CHRDL1, APOD, RTN4R, BCR, CHI3L1, CCDC141, TTN, NDRG4, BMP2K, ANKH, NTN1, EGFLAM, DCTN1, SLC4A5, NRG1, MAP2K1, MDF1, FNIP1, STIM1, VAX2, MYH9, MAD1L1, VGLL4, CNTN4, HDAC5, NTNG1, NF1A, ROR2, DCN, SLC39A14, PRPSAP2, LIN7A, DOCK2, PLXDC1, SOX13, ACSBG1, DMC1, EXOC4, MAD2L2, NLN, FOXN3, ANO6, ARL3, NEUROD1, CCBE1, JAK2, TRAPPC9, FBXW7, SYTI, ITCB, BCL11B, RBFOX1, TMC1, LRIG3, PKNOX1, CLDN1, MLLT3, PNPLA1, PLS1, TEX11, TCF7, PDE2A, KLF15, TBOX15, WNT11, IFT80, IMPP2L, NOX4, SIPA1L3, CACNA1H, SOX6, TAB2, ACVR2A, RUNX2, SEMA5B, CD4, TGFB1, PCSK5, PDLIM4, MYO3A, ZHX2, KEL, BTRC, F2RL1, RRGRIPL, CELSR1, SLIT3, SDK2, SLIT2, TP73, MUSTN1, CDH23, CORO1C, DISC1, LRRIC10, LAMC2, TTBK2, SMAD6, RXFP2, BNC2, CLOCK, TCF12, ZNF675, SMOC1, ETV6, SYNJ2, NELL1, PRRI4, TFAP2D, BMPER, BCL3, DCLK1, ANKRD54, PARVA, SLC17A7, SBNQ2, FGF10, CNTAP2, FBXL17, GREB1L, PPL, LOXL3, SVIL, CAPN3, SMURF2, EPHA4, RORA, PRKCA, TNFSF11, PPP3CA, NSUN2, MAG, CAMK4, UFL1, CTNBB1, SOD2, FCGR2B, SMARCC1, IGF1R, PPARG, DLG5, IL18R1, BFSP1, ADD2, OTC, XK, BRIP1, RYR2, DRAXIN, LEPR, FGF1, NIN, NR4A3, DCT, MYOCD, CACNA1C, GLG1, PHLDL1, MYO1E, CSMD1, DCC, CTDP1, MMP16, NF2, FLT4, MEF2B, BICC1, HDAC4, PAX2, ELN, SFRP1, FOXO3, ARL13B, NFIB, IFT122, SMAD3, PTPRM, ARNT2, NHS, ABI2, PSAP, NRP2, VANGL1, BTBD3, PREX1, HOXD3, HOXD4, TAB1, NFATC1, CDC73, APP, SSBP3, GSX2, PDGFRA, YAP1, HEG1, NLGN2, TNFRSF19, ALPL, LRP5, PTPRG, SLC9B2, SOX2, SETD2, PLAC1, GPC6, TTC39C, ADAMTS2, CHST11, TEAD1, PRICKLE1, RCAN1, VASH2, DRD1, FRS2, PALB2, SFMBT1, MMP2, TPH1, SYNE2, KDM6A, STAT1, SLC6A3, HNF4A, SHANK2, STRA6, EREG, ABLIM1, MYH15, DSCAML1, SEMA6D, ATF2, POU2F2, TCF3, RAF1, CELF4, ADAMTS12, BMPR2, DPYSL2, BMPR1A, APIB1, PABPC4, TSPAN12, CTNNA2, CERS3, EVC, MYB, FGF2, SEMA4D, SH3PXD2A, RORC, PLXNA2, FNDC3A, SETD1A, JARID2, KLHL3, ITGA11, RARB, NCOA1, GAS8, OC90, CHRDL, DVL3, EIF2B5, EPHB3, ATF3, FBXO45, MATN3, SRSF5, EBF2, ADAM20, ADAM21, TSG101, LAMB1, CLIC4, COL11A1, KCNQ1, WNT3, ADAMTS6, RHOJ, SUFU, TG, SCUBE2, PAFAH1B1, POLE, CNTFR, COL4A3, AKAP6, GLI2, SCUBE1, ERCC1, TPD52, COL19A1, DAB2, THEMIS, PKHD1, USH2A, LDLRAD4, MYSM1, DZIP1, RELN, SIN3A, RSPO2, CSF3R, DOCK11, CRELD1, IQGAP1, ZNF423, LUZP1, MYO7A, ALK, INPP5D, CLASP1, TEAD4, HOXC13, GPM6B, XDH, OVOL2, RBBP6, PRKG1, PAX7, RGS7, ATP2B4, ACTL6B, ASXL3, DYX1C1, ASGR2, MAPKAPK2, ARID4A, MARK1, CDK6, PHF2, CELF1, TYR, TFRC, EPHA5, WWOX, MEF2A, DROSHA, GPC3, ADRBK1, PLS3, PSMB2, EYA1, HOXB3, HOXB4, HOXB5, HOXB6, TFEB, GHR, MNAT1, FLRT2, FGD1, ELAVL4, HDAC1, PLCG2, ROCK1, NID1, PAXIP1, EGR2, AP3B1, PTPN2, NTRK1, ACO2, PTPRQ, EPHB1, PDE6A, AXIN2, EPCAM, TUB, JAG2, BCOR, AP3D1, AP2B1, ADAM19, SRD5A2, PIFO, SPI1, EPHA7, FDXP2, CTNNA1, FBXW4, BCAR3, ILDR2, SDK1, MST1, KAZN, ERCC3, PTK7, SMYD1, TTC9, BMPR1B, MAGI2, PNPT1, HEY2, RC3H1, COL13A1, HYDIN, WNT7B, HMGCS2, PTPRS, TLL2, ABCA12, MTF, SRSF6, HIPK1, PKP2, RTN4RL1, BTK, SGCZ, ZNRF3, IGF1, MAPK1, PTEN, MIB1, SPRED2, BMP7, SOX5, LHFPL5, LRRK2, MEGF11, BAG6, LILRB4, TMEM108, ITGAM, PKD2, SHANK3, ALPK3, PDGFC, NCOA3, PPP2R3C, WNT7A, ZBED6, PLCL2, KAT6A, SH3PXD2B, BMP6, IL17RD, SOS1, TSHR, EXTL1, ATRX, PRICKLE2, IKZF1, RAPGEF2, KCNC2, SMO, SUN1, BLOC1S3, CPT1A, MYLP</i> </p>

			<p>F, TNFRSF11B, BPGM, TFE3, GRIN1, ADAM29, RHOA, NDE1, ROR1, TF, ONECUT2, CU L3, NFKBID, GSK3B, STAT6, ACTA2, MLF1, CCDC14, CDK13, ALAS2, UPF2, CD27, BOK , SULF1, MTHFD1L, KRT8, AGT, ADAR, FBN2, ZMPSTE24, NDRG2, PTK2, PHEX, PBX1, CPE, TRPC4AP, COL9A1, DLX1, SLC29A1, UGT1A1, PYGO2, SHC1, ECE1, RPS6KB1, ST C2, SCEL, SETDB2, ALOX5, DNAJB6, MDGA2, SP7, CD44, ADAM8, CLDN4, PEX7, TBC1 D23, PLEKHA1, STK4, TCF25, TUBB3, SPEF1, EPHB2, SLC1A1, WLS, TMEFF2, CLPTM1 , IL18, DLC1, PPARA, ARID5B, CALCRL, PRRC2C, NOTCH4, SOBP, CRX, FBN1, PAX6, P RKCZ, FAM20C, GRIN2B, PHLDB2, KLHL1, NIPBL, UPB1, ASPN, ANGPT1, FHL2, LRRK 1, ATF6, SHROOM4, GCNT2, ETS1, PPP1CA, NEBL, CDK5RAP1, CNTN1, NCOR2, BRAF, CSRNPI, HDAC2, POU3F3, NOTO, SPINT2, TNFR, PPP2CA, ACAN, ATXN1, ANXA2, CR2, SRGAP2, TMEFF1, ADCY1, NUMB, SYK, WWTR1, SLIT1, ASB1, CIT, RADIL, BRCA2, DVL 2, NEB, PTPRJ, TAF1, RNF38, GPM6A, POTE, CADM1, HSF1, MAX, EZH1, ADAMTS7, B MP1, ZP3, CAV2, AXL, TNFSF9, CD109, MET, TIMELESS, UCHL5, ANKRD6, MALT1, TRA 2B, KDM2B, SEMA3C, PTPRC, EDA, GPR89A, TYRO3, VPS52, TRAF3IP2, CREB1, EDNR A, GNGT1, BMP4</p>
GO:00 51239	regulation of multicellular organismal process	4.39523822 14084724e- 17	<p>ENPPI, PRDX2, NRXN1, ASPH, PRKCI, MAP4K4, PDE4D, SIPR2, HLX, SLC9A1, PBX3, T RPS1, CBFb, CLASP2, SEMA3A, GRID2, SETD4, DOCK1, WWC1, CLDN18, NOS1AP, LAT S2, NOX5, EPB41, SEMA3D, PTH2R, TIAM2, KSR2, MAPRE2, NLGN4X, PTGIS, WWC3, TJ P1, PRLR, ADCY7, FTO, KALRN, NTRK3, ARNT, SEMA5A, STAT5B, TOX, ENPP2, ATP2B2 , GRM5, PLCE1, MARVELD3, MAP2K5, KITLG, PTPRR, LRP2, PIK3CD, ANK2, OLFM1, E ZR, ROBO1, CHD7, HTR2B, ITGB6, CDKL5, RYR3, LMNA, TRAF6, ESRP1, ROBO2, ITPKB , CTNNA3, ITGB1, HSP90AA1, CNIH2, MCC, DSCAM, GFIIIB, RUNX1, DAB1, OMA1, ABC C8, THRB, LAMA2, PTPN11, RBM19, CACNB2, HDAC6, GOLGA4, ADORA1, EPHA1, IKB KB, ERBB4, ADRA1D, LIMK1, ATP8A2, ESR1, NPHP3, PTPRO, CDON, NTRK2, CELA1, H OOK3, PDGFB, RIMS1, TOB2, BPI, STK39, INSR, H2AFY2, LAMA3, TCF7L2, CDH4, LITA F, ESRRB, PTPRD, BASP1, BDNF, TFAP2A, ATRN, AMIGO1, FANCA, KCNMA1, CHRM3, TGIF2, MEIS1, TENM4, IL5RA, VAMP7, ARHGAP42, RFTN1, NPLOC4, DMD, KAT7, SLC 8A1, GPR171, ARNTL, ADAMTS9, NF1, PLCB1, RTN4, APOD, RTN4R, BCR, PPP1R12B, S HISA9, CH3L1, BMP2K, ANKH, NTN1, NRG1, BDKRB2, MAP2K1, STIM1, VGLL4, HDAC 5, CMKLR1, TSPAN8, ROR2, DCN, SOX13, MAD2L2, TLE6, CAPRIN2, ANO6, NEUROD1, CCBE1, JAK2, FBXW7, KCNB2, CLSTN2, ITCH, MLIP, NPSR1, SCN4A, PLS1, TCF7, SEPT 7, ANXA4, WNT11, FIG4, KREMEN1, CACNA1H, IL1RAPL1, CAMK2B, PRKCD, SOX6, A CVR2A, RUNX2, SEMA5B, CD4, TGFBI, SGK1, PIBF1, DLGAP1, F2RL1, BCAS3, C9ORF 47, SLIT2, TP73, CORO1C, DISC1, KCNJ3, CACNA1D, MTDH, SMAD6, CLOCK, ZNF675, NELLI, SUCO, BPER, BCL3, ANKRD54, ADAM12, HOMER2, LINGO2, FGF10, LOXL3, MAST2, CAPN3, LUM, SMURF2, EPHA4, RORA, PRKCA, CNR1, CD6, TNFSF11, PPP3CA , MAG, CAMK4, UFL1, CTNNB1, FCGR2B, IGF1R, PPARG, DLG5, IL18R1, IL1RL1, CELF 2, CYBB, SCAMP5, KCNJ12, RYR2, DRAXIN, LEPR, FGF1, NIN, PROS1, NR4A3, NOL3, DC T, MYOCD, PER2, KIR2DL4, CACNA1C, GLG1, SCN3B, PHLDB1, PRDM16, CAPN2, DIO 2, GRM1, DCC, CTDP1, HS3ST5, NF2, FLT4, HDAC4, PAX2, SPTBN1, FCRP1, FOXO3, NFI B, SMAD3, CUX2, ITPR1, PTPRM, SHANK1, NRP2, DOCK4, ESRRG, NAV3, PRTG, CDC73 , APP, GSX2, PDGFRA, DIP2B, NOX1, YAP1, HEG1, RAB11FIP5, FSTL4, NLGN2, RNLS, A LPL, JAK1, ANGPTL4, TNNT3, PEMT, POLR3G, PTPRG, ISLR2, SLC9B2, SETD2, PRICK LE1, SPTBN4, VASH2, CHUK, FRS2, SFMBT1, MMP2, TPH1, PRKD1, STAT1, PARP6, SLC 6A3, HNF4A, EREG, SEMA6D, ATF2, POU2F2, CELF4, CARD16, CASP1, ADAMTS12, PO LA1, BMPR2, BMPRI1A, TSPAN12, NLGN1, RAB11A, MYB, FGF2, PPM1F, SEMA4D, ISM1 , PLXNA2, PTAFR, JARID2, DDX58, RAB11FIP3, RARB, SPEN, EHMT1, EPHB3, EBF2, VC L, KCNQ1, WNT3, ZNF322, RHOJ, TG, NLGN3, SCUBE2, PAFAH1B1, COL4A3, DDAH1, NMUR2, AKAP6, TRPC5, GLI2, RUFY3, MGLL, DAB2, LDLRAD4, MYSM1, WNK1, RELN, RSPO2, CSF3R, PELI1, IQGAP1, MAP3K7, APOLD1, ZNF423, SPI1, MACF1, SLC8A2, INP P5D, CLASP1, DSC2, TEAD4, GPM6B, XDH, LTBP1, OVOL2, SNX5, PRKG1, ATP2B4, TM EM2, PAK3, ADNP, MAPKAPK2, MAP1B, SCARB1, MARK1, CDK6, CELF1, TFRF, MEF2 A, DROSHA, ADRBK1, PTGER3, BRINP1, TRPV1, RNF216, HOXB3, GHR, FLRT2, ACTR2, LG14, HDAC1, SMOC2, ADIPOR2, PLCG2, ROCK1, C1QTNF1, PAXIP1, EGR2, RNF10, G PR35, AP3B1, PTPN2, NTRK1, KPNA6, EPHB1, AXIN2, PARD3, TRIM46, KCND3, BCOR, AP3D1, NETO1, CD84, CUX1, SPI1, EPHA7, CHRN4, CTNNA1, TRDN, MAP3K13, RAPG EF3, SH3BP1, MST1, CHID1, BMPR1B, USP50, HEY2, RC3H1, PTPRS, TRIP12, ADTRP, A BCA12, MITF, SRSF6, OPRD1, HIPK1, PKP2, BTK, IGF1, MAPK1, PTEN, SPRED2, BMP7, SOX5, PRCP, LRRK2, ZBTB20, BAG6, LILRB4, TMEM108, EFNA5, SHANK3, PDGFC, NC OA3, CUEDC2, PPP2R3C, WNT7A, NLRP1, PLCL2, GPR21, BMP6, GPI, IL17RD, SOS1, T SHR, WDR43, N4BP1, PDCD1LG2, RAPGEF2, SMO, TNFRSF11B, DECR1, TFE3, GRIN1, RHOA, SYNGAP1, TF, FAM19A4, HSPD1, NFKBID, GSK3B, ABCG8, STAT6, EEF2K, FA M49B, CD27, SULF1, TNFRSF8, AGT, ELOVL3, SYT7, FBN2, ZMPSTE24, NDRG2, PTK2, PDE4B, RIMS2, PBX1, TCP11, EXOSC3, DLX1, NCF1, SHC1, CD160, ECE1, RPS6KB1, ST C2, PRG3, ALOX5, ADAM8, SLC5A3, RPS6KA5, CXCL17, NOS1, RGS14, MC1R, STK4, EP HB2, SLC1A1, CLPTM1, IL18, HCAR2, PPARA, CALCRL, EPB41L4B, GPM3M3, NOTCH4, FBN1, PAX6, PRKCZ, ZC3H4V1, ATP1A3, CD96, FAM20C, ADORA2A, PPP1CC, RABGE F1, PHLDB2, OTUD7B, NIPBL, TMIGD2, ASPN, ANGPT1, IGF2BP3, GCNT2, ETS1, MAP 2, BTN3A2, FBXO31, PRKCQ, BRAF, HDAC2, HTR2C, TNFR, CDKL3, PPP2CA, ANGPT4, S P100, ANXA2, NUMB, SYK, CNOT1, WWTR1, SLIT1, ASB1, BRC42, PTPRJ, ATP2B3, TICA M1, CADM1, HSF1, PLEKHM1, SASH1, ADAMTS7, GBP5, SULT2B1, BMP1, ZP3, DLGAP 2, AXL, TNFSF9, CD109, MET, CAMK2D, CCR3, MALT1, SETD3, KDM2B, SEMA3C, PHB, PTPRC, SPON2, SYNDIG1, CREB1, SHISA6, CLNK, EDNR, PRAP1, BMP4</p>

GO:01 20035	regulation of plasma membrane bounded cell projection organization	5.18868092 25935036e-17	CLRN1, ADAMTS16, NRXN1, PRKCI, NEGR1, SEMA3A, GRID2, TENM3, SEMA3D, TIAM2, KALRN, NTRK3, SEMA5A, TOX, ENPP2, PLCE1, FER, EZR, ROBO1, CDKL5, TENM1, RBOO2, ULK4, KND1, DSCAM, ARHGAP24, DAB1, CDC42EP3, MYO10, GOLGA4, LIMK1, ATP8A2, PTPRO, NTRK2, EP300, TENM2, TNK1, ATP8B1, CDH4, PAK1, PTPRD, TBR1, BDNF, AMIGO1, DENND5A, DMD, RIT2, TANC2, FYN, FAT3, RTN4, RTN4R, NDRG4, PAQR3, NTN1, MAP2K1, NTNG1, TMEM30A, ROR2, UST, CAPRIN2, NCKAP1, RCC2, ZDHHC15, CROCC, LZTS1, PLS1, SEPT7, FIG4, KREMEN1, IL1RAPL1, CAMK2B, PRKCD, SEMA5B, KEL, F2RL1, BCAS3, SLIT2, CORO1C, DISC1, CEP135, KANK1, EPHA4, AUTS2, CNR1, PPP3CA, MAG, FCGR2B, CDHR2, IGF1R, XK, DRAXIN, NIN, DCC, HDAC4, SFRP1, DNM3, CUX2, ABI2, NEDD4, DIP2B, YAP1, FSTL4, PTPRG, ISLR2, KIF24, SYNE2, PRKD1, PARP6, DGKG, SEMA6D, BMPR2, DPYSL2, CAMK1D, NLGN1, CTNNA2, RAB11A, CRMP1, LRRC4C, SEMA4D, PLXNA2, SPOCK1, EPHB3, WNT3, PAFAH1B1, TRPC5, RUFY3, DAB2, DZIP1, RELN, DOCK11, MACF1, ALK, MBOAT1, PACSINI, PAK3, ADNP, MAP1B, MPHOSPH9, MARK1, ACTR2, ELAVL4, EPS8, NTRK1, PTPN9, SARM1, TRIM46, CARM1, ARHGAP44, CUX1, EPHA7, MAP3K13, PTK7, MAGI2, PTPRS, CDKL1, PLD1, RTN4RL1, CBFA2T2, HTT, DPYSL3, PTEN, BMP7, LRRK2, EFNA5, SHANK3, WNT7A, MAP4, RAPGEF2, MARK4, RHOA, SYNGAP1, ROR1, GSK3B, RDX, EEF2K, AGT, SNX3, GAP43, CD44, EPHB2, GRIN2B, MAP2, FBXO31, ATG3, CNTN1, BRAF, HDAC2, NOTO, TNF, CDKL3, SLIT1, GPM6A, PLEKHM1, INPP5F, SEMA3C, NEDD4L
GO:00 48589	developmental growth	3.00889375 6787155e-16	HLX, LLPH, CLASP2, SEMA3A, WWC1, LATS2, SEMA3D, NLGN4X, WWC3, PRLR, FTO, SEMA5A, RAD51B, STAT5B, OLFM1, EZR, CHD7, CDKL5, ITGB1, HSP90AA1, KIF26B, DSCAM, AKAP13, RUNX1, PTPN11, HDAC6, GOLGA4, ERBB4, LIMK1, ATP8A2, LARGE, ESR1, EP300, CELA1, RIMS1, INSR, PRKAR1A, CDH4, BASP1, SLC4A10, BDNF, ATRN, TENM4, DMD, PLCB1, PCDH15, RTN4, APOD, RTN4R, NDRG4, NTN1, NRG1, VGLL4, SYT1, PLS1, CYFIP2, WNT11, IFT80, SEMA5B, TGFB1, SLIT3, SLIT2, TP73, MUGSI1, DISC1, BNC2, ITSN2, DCLK1, FGF10, CAPN3, AUTS2, PPP3CA, MAG, CTNNA1, PARK2, CPQ, DRAXIN, LEPR, FGF1, NIN, CPNE6, DCC, CTDP1, SPG11, SFRP1, FOXO3, SMAD3, PSAP, SYT3, NRP2, APP, DIP2B, YAP1, HEG1, FSTL4, ISLR2, SOX2, CHST11, SPTBN4, PALB2, CPNE9, KDM6A, SLC6A3, STRA6, EREG, SEMA6D, ATF2, BMPR2, DPYSL2, BMPR1A, TAF8, SPAG9, RAB11A, EVC, FGF2, SEMA4D, JARID2, RARB, VCL, CLIC4, WNT3, NLGN3, PAFAH1B1, AKAP6, RASAL1, TRPC5, GLI2, ERCC1, RUFY3, WDTIC1, SIN3A, RSP02, EYS, IQGAP1, MACF1, RBBP6, ADNP, MAP1B, CELF1, GHR, UNC13A, TRIM46, EPHA7, MAP3K13, MST1, PTK7, BMPR1B, MAGI2, HEY2, WNT7B, PTPRS, KMT2D, TLL2, IGF1, PTEN, RAPHI, TMEM108, EFNA5, WNT7A, GPR21, SOS1, TSHR, EXT1, ATRX, PRMT2, SMO, SYT17, GSK3B, AGT, ZMPSTE24, RIMS2, TEC, GAP43, PYGO2, RPS6KB1, STC2, PLEKHA1, SCNN1B, STK4, PPARA, ARID5B, PRKCZ, NIPBL, MAP2, IMPACT, TNF, CDKL3, WWTR1, SLIT1, BRC42, ZP3, SEMA3C, NEDD4L, SH3GL2, CREB1, EDNRA, BMP4, CPNE1
GO:00 48585	negative regulation of response to stimulus	3.06555843 07168257e-16	ENPP1, PRDX2, NRXN1, PDE4D, SIPR2, HLX, ADCY8, PDE8A, CLASP2, SEMA3A, GRID2, WWC1, CTDSPL2, ASH1L, LATS2, SEMA3D, NLGN4X, PTGIS, WWC3, MYP, RGS7BP, CBL, SEMA5A, SUS4, GRM5, SAMHD1, FER, CASK, MARVELD3, MAP2K5, PTPRR, LRP2, ZNF536, DEPDC5, SH2D1A, EZR, ROBO1, TNFAIP8L1, HTR2B, MECOM, LMNA, ROBO2, DNAJA3, OXR1, ITGB1, PSMB7, MCC, CCDC22, ARHGAP24, DAB1, ABCC8, RGS6, HERC4, ADORA1, GPRASP1, ESR1, NPHP3, PMEPA1, PTPRO, RGS22, PDGFB, TCF7L2, PI4K2A, LITAF, FBXW1, PTPRD, BDNF, NPRL3, PHACTR4, UBR2, SNX6, ARHGAP42, PTPRU, NPLOC4, DMD, FYN, MKRN2, ARNTL, NF1, CHRD1, APOD, RTN4R, BCR, NDRG4, PAQR3, PIK3R2, RANBP9, NOMO3, NRG1, BDKRB2, BID, MDF1, FNIP1, MAD1L1, LRFN5, TMIM6, VGLL4, PPP2CB, TSPAN8, ROR2, DCN, CREBRF, SOX13, PTPRT, AUNIP, MAD2L2, TLE6, RGS8, TERF2, NEUROD1, RFFL, FBXW7, LINC00473, ITCH, MLIP, ZFYVE28, MLLT3, PDE2A, WNT11, IFT80, TRIM59, KREMEN1, PRKCD, RUNX2, SEMA5B, TGFB1, MMP28, IGSF1, PIBF1, BTRC, F2RL1, RPGRIP1L, SLIT3, SLIT2, KANK1, MMP26, SMAD6, CLOCK, ZNF675, BMPER, BCL3, DUSP22, NAIP, HOMER2, FGF10, RASA4, RAS4B, KCTD10, LOXL3, SMURF2, EPHA4, RORA, UFL1, CTNNA1, STK38, OTUD3, SH3BP1, S, IGF1R, PPARG, AXIN1, OTUB1, DLG5, IL1RL1, DRAXIN, LEPROT, PROS1, RGS10, NR4A3, NOL3, MYOCD, KIR2DL4, AJUBA, GLG1, CHEK2, UBQLN4, PRDM16, HCK, NF2, BICC1, TRABD2B, SFRP1, FOXO3, IFT122, SMAD3, ITPR1, WWP2, NEDD4, TXNDC12, NFATC1, PDGFRA, YAP1, HEG1, AMFR, SESN1, FSTL4, EYA2, SOX2, CHST11, PRICKLE1, RCAN1, ZNF653, DRD1, TMEM14A, STAT1, DGKG, SLC6A3, SHANK2, SEMA6D, GRAMD4, RAF1, CELF4, CARD16, PTPN1, ADAMTS12, GGT7, CTNNA2, PDE11A, FGF2, ADCY5, SEMA4D, MCTP1, DKK2, CHRDL, PTPRE, RBX1, ATF3, PAWR, DEPTOR, TSG101, CCD3, WNT3, SUFU, PAFAH1B1, PRDM15, DDAH1, RASAL1, GLI2, ERCC1, DAB2, PKHD1, UBR1, LDLRAD4, RUVBL2, ARHGAP12, INPP5D, CLASP1, XDH, LTBP1, OVOL2, SNX5, PRKG1, RGS7, ATP2B4, MASP1, GPR161, CDK6, RNF34, WWOX, CRIL, GFRAL, GPC3, ADRBK1, PSMB2, EYA1, TSPAN6, HDAC1, INVS, RECQL5, C1QTNF1, HIPK3, PTPN2, EIF3A, AXIN2, SARM1, MUC1, ARHGAP44, CD84, SPI1, CTNNA1, STK38, OTUD3, SH3BP1, S, NCA, MAGI2, HEY2, RC3H1, PTPRS, ZMYND11, TRIP12, ADTRP, RASA1, RTN4RL1, ZNF3, KCTD13, CBFA2T2, IGF1, HTT, PTEN, SPRED2, BMP7, RASA2, PCBP2, LRRK2, LILRB4, ARHGAP25, NTSE, RGS9, UACA, CRTCS, PLCL2, GPR21, IL17RD, SH3RF2, VRK3, ENPP3, SOX30, UBR5, GRB14, JADE1, RHOA, SYNGAP1, GRIN3A, RQCD1, ONECUT2, CUL3, GSK3B, STAT6, FAM49B, NECAB2, DUSP26, BOK, SULF1, RNF43, AGT, PRKAA2, ADR, FBN2, STAT2, NDRG2, PDE4B, VEPH1, APCDD1L, DLX1, CD160, RPS6KB1, ALOX5, CD44, CSNK1A1, CXCL17, PLEKHA1, RGS14, STK4, MARK3, EPHB2, DLCL1, PPARA, PPIR10, CALCRL, PHLPP1, ZNF366, FBN1, PRKCZ, CD96, ADORA2A, RABGEF1, PHLDB2, OTUD7B, ASPN, EYA3, FHL2, TBC1D10C, VWC2, RBMS3, NCOR2, PRKCQ, TNF, C

			D300A,PHIP,PPP2CA,SH3BP4,CR2,SYK,CNOT1,WWTR1,SLIT1,CIT,YBX1,PTPRJ,TANK,HSF1,CGNL1,CAV2,INPP5F,WIF1,CD109,MET,ANKRD6,SEMA3C,PHB,PTPRC,PBLD,TYR03,RNF213,ATF6B,SHISA6,TRAP1,PRAP1,BMP4,CPNE1
GO:0010975	regulation of neuron projection development	3.3913711848970854e-16	PRKCI,NEGR1,SEMA3A,GRID2,TENM3,SEMA3D,TIAM2,KALRN,NTRK3,SEMA5A,TOX,ROBO1,CDKL5,ROBO2,ULK4,KNDC1,DSCAM,DAB1,GOLGA4,LIMK1,ATP8A2,PTPRO,NTRK2,EP300,TNIK,CDH4,PAK1,PTPRD,TBR1,BDNF,AMIGO1,DENND5A,DMD,RIT2,TANC2,FYN,FAT3,RTN4,RTN4R,NDRG4,PAQR3,NTN1,MAP2K1,NTNG1,TMEM30A,ROR2,UST,CAPRIN2,ZDHHC15,LZTS1,FIG4,KREMEN1,IL1RAPL1,CAMK2B,SEMA5B,KEL,SLIT2,DISC1,KANK1,EPHA4,CNR1,PPP3CA,MAG,IGF1R,XK,D,RAXIN,NIN,DCC,SFRP1,DNM3,CUX2,ABI2,NEDD4,DIP2B,FSTL4,PTPRG,ISLR2,PRKD1,PARP6,DGKG,SEMA6D,BMPR2,DPYSL2,CAMK1D,NLGN1,CTNNA2,RAB11A,CRMP1,LRRRC4C,SEMA4D,PLXNA2,SPOCK1,EPHB3,WNT3,PAFAH1B1,TRPC5,RUFY3,DAB2,RELN,MACF1,ALK,MBOAT1,PACSIN1,PAK3,ADNP,MAP1B,MARK1,AC,TR2,ELAVL4,NTRK1,PTPN9,SARM1,TRIM46,CARM1,ARHGAP44,CUX1,EPHA7,MAP3K13,PTK7,MAGI2,PTPRS,RTN4RL1,CBFA2T2,DPYSL3,PTEN,BMP7,LRRK2,EFN A5,SHANK3,WNT7A,RAPGEF2,RHOA,SYNGAP1,ROR1,GSK3B,EEF2K,AGT,SNX3,EPHB2,MAP2,FBXO31,CNTN1,BRAF,HDAC2,TNR,CDKL3,SLIT1,INPP5F,SEMA3C,NEDD4L
GO:0010648	negative regulation of cell communication	7.619089021861706e-16	ENPPI,PRDX2,PDE4D,S1PR2,ADCY8,GRID2,WWC1,CTDSPL2,ASH1L,LATS2,NLG N4X,WWC3,MVP,RGS7BP,KALRN,CBL,GRM5,SAMHD1,MARVELD3,MAP2K5,PTPRR,LRP2,ZNF536,DEPDC5,SH2D1A,EZR,ROBO1,TNFAIP8L1,TRABD2B,MECOM,LMNA,DNAJA3,SLC24A2,ITGB1,PSMB7,MCC,PCDH17,CCDC22,ARHGAP24,DAB1,ABCC8,RGS6,DGKI,PTPN11,HERC4,ADORA1,GPRASP1,ESR1,NPH3,PMEPA1,PTPRO,RGS22,TCF7L2,PIP4K2A,LITAF,FBXW11,PTPRD,BDNF,NPRL3,PHACTR4,UBR2,SNX6,ARHGAP42,PTPRU,NPLOC4,DMD,MKRN2,ARNTL,NF1,CHRD,L1,APOD,NDRG4,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,BDKRB2,BID,MDF1,FNIP1,MAD1L1,TMBIM6,VGLL4,PPP2CB,ROR2,DCN,CREBRF,SOX13,PTPRT,MAD2L2,TLE6,RGS8,NEUROD1,RFFL,FBXW7,LINC00473,ITCH,ZFYVE28,MLLT3,PDE2A,WNT11,IFT80,TRIM59,KREMEN1,PRKCD,RUNX2,IGSF1,PIBF1,BTRC,F2RL1,GRK3,RPGRIPL1,SLIT3,SLIT2,KANK1,SMAD6,CLOCK,ZNF675,BMPER,BCL3,DUSP22,NAIP,HOMER2,FGF10,RASA4,RASA4B,KCTD10,SMURF2,EPHA4,RORA,PPP3CA,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,DRAXIN,LEPROT,RGS10,NOL3,MYOCD,AJUBA,GLG1,CHEK2,PRDM16,NF2,BICC1,TRABD2B,SFRP1,FOXO3,IFT122,SMAD3,ITPR1,WWP2,NEDD4,SLC6A1,TXNDC12,NFATC1,YAP1,HEG1,AMFR,RAB11FIP5,SESNI,FSTL4,EYA2,SOX2,CHST11,PRICKLE1,RCAN1,ZNF653,DRD1,TMEM14A,STAT1,DGKG,SHANK2,GRAMD4,RAF1,CELF4,CARD16,PTPN1,ADAMTS12,PDE11A,FGF2,DKK2,SORCS2,RAB11FIP3,CHRD,PTPRE,RBX1,ATF3,PAWR,D,EPTOR,TSG101,CCDC3,SUFU,PAFAH1B1,PRDM15,RASAL1,GLI2,DAB2,PKHD1,UBR1,LDLRAD4,RUVBL2,ARHGAP12,INPP5D,XDH,LTBPI,OVOL2,SNX5,RGS7,ATP2B4,ATAD1,ADNP,GPR161,RNF34,SORCS3,WWOX,GFRAL,GPC3,ADRBK1,PSMB2,EYA1,TSPAN6,HDAC1,INVS,HIPK3,GPR35,PTPN2,EIF3A,AXIN2,SARM1,MUC1,ARHGAP44,SPI1,CTNNA1,STK38,OTUD3,SH3BP1,SNCA,MAGI2,HEY2,PTPRS,ZMYND11,RASA1,ZNRF3,KCTD13,CBFA2T2,IGF1,HTT,PTEN,SPRED2,BMP7,RASA2,LRRK2,LILRB4,ARHGAP25,SHANK3,RGS9,UACA,CRTC3,PLCL2,GPR21,IL17RD,SH3RF2,VRK3,STXBP5L,SOX30,GRB14,JADE1,RHOA,SYNGAP1,RQCD1,ONECUT2,CUL3,GSK3B,FAM49B,NECAB2,DUSP26,BOK,SULF1,RNF43,AGT,PRKAA2,ADAR,FBN2,STAT2,NDRG2,PDE4B,VEPH1,APCDD1L,DLX1,CD160,RPS6KB1,CD44,CSNK1A1,PLEKHA1,RGS14,STK4,MARK3,EPHB2,DLC1,PPARA,PPP1R10,PHLPP1,SYTL4,ZNF366,FBN1,PRKCZ,RABGEF1,OTUD7B,ASPN,EYA3,FHL2,TBC1D10C,VWC2,RBMS3,NCOR2,PRKCQ,BRAF,TNR,CD300A,PHIP,PPP2CA,SH3BP4,CNOT1,WWTR1,GRK2,CIT,PTPRJ,TANK,CGNL1,CAV2,INPP5F,WIF1,CD109,MET,ANKRD6,PHB,PTPRC,PBLD,TYR03,RNF213,ATF6B,SHISA6,TRAP1,PRAP1,BMP4,CPNE1
GO:0016477	cell migration	9.46329616726348e-16	LDB2,GPC5,PRKCI,MAP4K4,S1PR2,SLC9A1,CLASP2,SEMA3A,DOCK1,WWC1,NR G3,ASTN2,SEMA3D,PHACTR1,MAPRE2,WWC3,TJP1,UNC5C,NTRK3,ATRNL1,SEMA5A,STAT5B,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR,SPNS2,PIK3CD,MEGF10,ROBO1,HTR2B,ITGB6,CDKL5,LMNA,CTNNA3,VAV2,ULK4,ITGB1,ELMO2,SRGAP3,MCC,SRGAP2B,ARHGAP24,PTPRK,DAB1,ABCC8,LAMA2,DACH1,PTPN11,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,GBF1,ZNF609,PTPRO,NTRK2,MEGF9,PDGFB,AVL9,KIRREL3,STK39,INSR,RERE,UNC5D,LAMA3,PAK1,ATRN,POMGNT2,FUT8,FMNL2,PHACTR4,LCK,LAMC1,PTPRU,SLC8A1,SATB2,DEPDC1B,CASS4,FYN,ADAMTS9,NF1,PLCB1,FAT3,RTN4,DPEP1,APOD,BCR,CCDC141,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,MYH9,HDAC5,NTNG1,NAV1,CMKLR1,ROR2,DCN,CDH13,PTPRT,NCKAP1,DEFA1B,CD99,RCC2,ANO6,KIF2A,RFFL,CCBE1,JAK2,FBXW7,BCL11B,CLDN1,CDC42BPB,WNT11,ASTN1,CAMK2B,PRKCD,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,CELSR1,SLIT2,CORO1C,RRAS2,DISC1,KANK1,LAMC2,TTBK2,BMPER,DCLK1,DAPK2,PARVA,DUSP22,FGF10,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11,PPP3CA,PIP5KL1,CTNNB1,SOD2,IGF1R,PPARG,DLG5,AD D2,FGF1,NR4A3,MYOCD,AJUBA,HCK,CSPG4,DCC,NF2,FLT4,HDAC4,SFRP1,FOXO3,ARL13B,SMAD3,PTPRM,ACKR2,ABI2,NRP2,PREX1,DOCK4,NAV3,APP,GSX2,PDGFRA,SLK,CEP85L,NOX1,LRP5,PTPRG,SETD2,GPC6,DRD1,MMP2,SYNE2,S100A12,PRKD1,RND3,SEMA6D,ADAMTS12,BMPR2,USP33,CAMK1D,BMPRI1A,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,ITGA11,PIK3C2B,SPOCK1,CHRD,EPHB3,FBXO45,PKN3,VC

			<p>L,LAMB1,CLIC4,RHOJ,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,RUFY3,DAB2,USH2A,LDLRAD4,MYSM1,WNK1,RELN,CSF3R,IQGAP1,SP1,MACF1,CLASP1,OVOL2,NFATC2,PRKG1,ATP2B4,PAK3,SSH2,DYX1C1,MAP1B,CDC42BP4,SCARB1,MARK1,GPC3,FLRT2,SMOC2,PLCG2,ROCK1,EPS8,PAXIP1,ABCC1,PKN2,TMIGD1,EPHB1,TRIM46,SP11,MCU,CTNNA1,L1MA1,SH3BP1,MST1,PTK7,MAGI2,ZEB2,ADTRP,MITF,KCTD13,IGF1,DPYSL3,MAPK1,PTEN,BMP7,PRCP,LRRK2,OSGIN1,ZRANB1,PDGFC,AMOTL1,WNT7A,GPI,SH3RF2,SOS1,EXT1,RAPGEF2,SMO,SUN1,RHOA,NDE1,ONECUT2,FAM19A4,CUL3,SH3KBP1,RDX,ACTA2,FAM49B,ITGBL1,SULF1,AGT,PTK2,PDE4B,TAOK2,RPS6KB1,GPR173,A NKSI1A,ITGAL,Alox5,CD44,ADAM8,CLDN4,CXCL17,PEX7,PLVAP,ACTN4,STK4,SPEF1,EPHB2,TMEFF2,XCR1,DLC1,ARID5B,EPB41L4B,GPSM3,ZMYND8,PAX6,PRKCZ,RABGEF1,PHLDB2,NIPBL,ANGPT1,OSBPL8,GCNT2,ETS1,BIN2,CCL22,FBXO31,PRKCQ,BRAF,DIAPH1,ATP8A1,POU3F3,TNR,CD300A,ANGPT4,CAMSP3,SP100,FAT2,SRGAP2,NUMB,SYK,SLIT1,FRMD5,RADIL,PTPRJ,GPM6A,SASH1,VAV3,ZP3,GNA12,AXL,MET,FMNLI,CCR3,SEMA3C,PTPRC,TYRO3,EDNRA,BMP4</p>
GO:0023057	negative regulation of signaling	1.1165852649432197e-15	<p>ENPP1,PRDX2,PDE4D,S1PR2,ADCY8,GRID2,WWC1,CTDSPL2,ASH1L,LATS2,NLG N4X,WWC3,MVP,RGS7BP,KALRN,CBL,GRM5,SAMHD1,MARVELD3,MAP2K5,PTPRR,LRP2,ZNF536,DEPDC5,SH2D1A,EZR,ROBO1,TNFAIP8L1,HTR2B,MECOM,LMNA,DNAJA3,SLC24A2,ITGB1,PSMB7,MCC,PCDH17,CCDC22,ARHGAP24,DAB1,ABCC8,RGS6,DGKI,PTPN11,HERC4,ADORA1,GPRASP1,ESR1,NPH3,PMEPA1,PTPRO,RGS22,TCF7L2,PIP4K2A,LITAF,FBXW11,PTPRD,BDNF,NPRL3,PHACTR4,UBR2,SNX6,ARHGAP42,PTPRU,NPLOC4,DMD,MKRN2,ARNTL,NF1,CHRD1,APOD,NDRG4,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,BDKRB2,BID,MDF1,FNIP1,MAD1L1,TMBIM6,VGLL4,PPP2CB,ROR2,DCN,CREBRF,SOX13,PTPRT,MAD2L2,MLE6,RGS8,NEUROD1,RFFL,FBXW7,LINC00473,ITCH,ZFYVE28,MLL2,CA, WNT11,IFT80,TRIM59,KREMEN1,PRKCD,RUNX2,IGSF1,PIBF1,BTRC,F2RL1,GRIK3,RPGRIPI1,SLIT3,SLIT2,KANK1,SMAD6,CLOCK,ZNF675,BMPER,BCL3,DUSP22,NAIP,HOMER2,FGF10,RASA4,RASA4B,KCTD10,SMURF2,EPHA4,RORA,PPP3CA,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,DRAXIN,LEPOT,RGS10,NOL3,MYOCD,AJUBA,GLG1,CHEK2,PRDM16,NF2,BICC1,TRABD2B,SFRP1,FOXO3,IFT122,SMAD3,ITPR1,WWP2,NEDD4,SLC6A1,TXNDC12,NFATC1,YAP1,HEG1,AMFR,RAB11FIP5,SESN1,FSTL4,EYA2,SOX2,CHST11,PRICKLE1,RCAN1,ZNF653,DRD1,TMEM14A,STAT1,DGKG,SHANK2,GRAMD4,RAF1,CELF4,CARD16,PTPN1,ADAMTS12,PDE11A,FGF2,DKK2,SORCS2,RAB11FIP3,CHRD,PTPRE,RBX1,ATF3,PAWR,D EPTOR,TSG101,CCDC3,SUFU,PAFAH1B1,PRDM15,RASAL1,GLI2,DAB2,PKHD1,UBR1,LDLRAD4,RUVBL2,ARHGAP12,INPP5D,XDH,LTBPI,OVOL2,SNX5,RGS7,ATP2B4,ATAD1,ADNP,GPR161,RNF34,SORCS3,WWOX,GFRAL,GPC3,ADRBK1,PSMB2,EYA1,TSPAN6,HDAC1,INVS,HIPK3,GPR35,PTPN2,EIF3A,AXIN2,SARM1,MUC1,ARHGAP44,SP11,CTNNA1,STK38,OTUD3,SH3BP1,SNCA,MAGI2,HEY2,PTPRS,ZMYND11,RASA1,ZNRF3,KCTD13,CBFA2T2,IGF1,HTT,PTEN,SPRED2,BMP7,RASA2,LRRK2,LILRB4,ARHGAP25,SHANK3,RGS9,UACA,CRTC3,PLCL2,GPR21,IL17RD,SH3RF2,VRK3,STXBPL,SOX30,GRB14,JADE1,RHOA,SYNGAP1,RQCD1,ONECUT2,CUL3,GSK3B,FAM49B,NECAB2,DUSP26,BOK,SULF1,RNF43,AGT,PRKAA2,ADAR,FBN2,STAT2,NDRG2,PDE4B,VEPH1,APCDD1L,DLX1,CD160,RPS6KB1,CD44,CSNK1A1,PLEKHA1,RGS14,STK4,MARK3,EPHB2,DLC1,PPARA,PPP1R10,PHLPP1,SYTL4,ZNF366,FBN1,PRKCZ,RABGEF1,OTUD7B,ASPN,EYA3,FHL2,TBC1D10C,VWC2,RBMS3,NCOR2,PRKCQ,BRAF,TNR,CD300A,PHIP,PPP2CA,SH3BP4,CNOT1,WWTRI,GRIK2,CIT,PTPRJ,TANK,CGNLI,CAV2,INPP5F,WIF1,CD109,MET,ANKRD6,PHB,PTPRC,PBLD,TYRO3,RNF213,ATF6B,SHISA6,TRAP1,PRAP1,BMP4,CPNE1</p>
GO:0060560	developmental growth involved in morphogenesis	2.7334162056036948e-15	<p>LLPH,CLASP2,SEMA3A,SEMA3D,SEMA5A,OLFM1,CDKL5,ITGB1,HSP90AA1,KIF26B,DSCAM,HDAC6,GOLGA4,LIMK1,ESR1,RIMS1,CDH4,BDNF,RTN4,RTN4R,NTN1,SYT1,CYFIP2,WNT11,SEMA5B,TGFB1,SLIT3,SLIT2,DISC1,ITSN2,DCLK1,FGF10,UTS2,MAG,CTNNB1,PARK2,DRAXIN,FGF1,NIN,CPNE6,DCC,SPG11,SFRP1,SYT3,NRP2,APP,DIP2B,YAP1,FSTL4,ISLR2,CPNE9,SEMA6D,BMPR2,DPYSL2,SPAG9,RAB11A,SEMA4D,VCL,WNT3,NLGN3,PAFAH1B1,RASAL1,TRPC5,RUFY3,SIN3A,IQGA P1,MACF1,ADNP,MAP1B,UNC13A,TRIM46,EPHA7,MAP3K13,MST1,PTK7,MAGI2,WNT7B,PTPRS,RAPH1,TMEM108,EFNA5,EXT1,SYT17,GSK3B,RIMS2,PRKCZ,MAP2,IMPACT,TNR,CDKL3,SLIT1,SEMA3C,NEDD4L,SH3GL2,EDNRA,BMP4,CPNE1</p>
GO:0048588	developmental cell growth	7.788142840315632e-15	<p>LLPH,CLASP2,SEMA3A,SEMA3D,SEMA5A,OLFM1,CDKL5,ITGB1,HSP90AA1,DSCAM,AKAP13,HDAC6,GOLGA4,LIMK1,RIMS1,CDH4,BDNF,RTN4,RTN4R,NTN1,SYT1,CYFIP2,SEMA5B,SLIT3,SLIT2,DISC1,ITSN2,DCLK1,AUTS2,MAG,CTNNB1,PARK2,DRAXIN,NIN,CPNE6,DCC,CTDP1,SPG11,SYT3,NRP2,APP,DIP2B,FSTL4,ISLR2,CPNE9,SEMA6D,BMPR2,DPYSL2,SPAG9,RAB11A,SEMA4D,VCL,WNT3,NLGN3,PAFAH1B1,AKAP6,RASAL1,TRPC5,RUFY3,SIN3A,IQGA P1,MACF1,ADNP,MAP1B,UNC13A,TRIM46,EPHA7,MAP3K13,MST1,PTK7,MAGI2,TI,PRMT2,SYT17,GSK3B,AGT,RIMS2,PPARA,PRKCZ,MAP2,IMPACT,TNR,CDKL3,SLIT1,SEMA3C,NEDD4L,SH3GL2,EDNRA,CPNE1</p>
GO:0009968	negative regulation of signal transduction	8.259926716251854e-15	<p>ENPP1,PRDX2,PDE4D,S1PR2,WWC1,CTDSPL2,ASH1L,LATS2,NLG N4X,WWC3,MVP,RGS7BP,CBL,GRM5,SAMHD1,MARVELD3,MAP2K5,PTPRR,LRP2,ZNF536,DEPD C5,SH2D1A,EZR,ROBO1,TNFAIP8L1,HTR2B,MECOM,LMNA,DNAJA3,ITGB1,PSMB7,MCC,CCDC22,ARHGAP24,DAB1,RGS6,HERC4,GPRASP1,ESR1,NPH3,PMEPA1,PTPRO,RGS22,TCF7L2,PIP4K2A,LITAF,FBXW11,PTPRD,BDNF,NPRL3,PHACTR4,UBR2,SNX6,ARHGAP42,PTPRU,NPLOC4,DMD,MKRN2,ARNTL,NF1,CHRD1,AP</p>

			<p>OD,NDRG4,PAQR3,PIK3R2,RANBP9,NOMO3,NRG1,BDKRB2,BID,MDF1,FNIP1,MAD1L1,TMBIM6,VGLL4,PPP2CB,ROR2,DCN,CREBRF,SOX13,PTPRT,MAD2L2,TLE6,RGS8,NEUROD1,RFFL,FBXW7,LINC00473,ITCH,ZFYVE28,MLL73,PDE2A,WNT11,IFT80,TRIM59,KREMEN1,PRKCD,RUNX2,IGSF1,PIBF1,BTRC,F2RL1,RPGRIPI1,SLIT3,SLIT2,KANK1,SMAD6,CLOCK,ZNF675,BMPER,BCL3,DUSP22,NAIP,HOMER2,FGF10,RASA4,RASA4B,KCTD10,SMURF2,EPHA4,RORA,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,DRAXIN,LEPROT,RGS10,NOL3,MYOC,D,AJUBA,GLG1,CHEK2,PRDM16,NF2,BICC1,TRABD2B,SFRP1,FOXO3,IFT122,SMAD3,ITPR1,WWP2,NEDD4,TXNDC12,NFATC1,YAP1,HEG1,AMFR,SESNI,FSTL4,EYA2,SOX2,CHST11,PRICKLE1,RCAN1,ZNF653,TMEM14A,STAT1,DGKG,SHANK2,GRAMD4,RAFI,CELF4,CARD16,PTPN1,ADAMTS12,PDE11A,FGF2,DKK2,CHRD,PTPRE,RBX1,ATF3,PAWR,DEPTOR,TSG101,CCDC3,SUFU,PAFAH1B1,PRDM15,RASAL1,GLI2,DAB2,PKHD1,UBR1,LDLRAD4,RUVBL2,ARHGAP12,INPP5D,XDH,LTBP1,OVOL2,SNX5,RGS7,ATP2B4,GPR161,RNF34,WWOX,GFRAL,GPC3,ADRBK1,PSMB2,EYAI,TSPAN6,HDAC1,INVS,HIPK3,PTPN2,EIF3A,AXIN2,SARM1,MUC1,ARHGAP44,SPII,CTNNA1,STK38,OTUD3,SH3BP1,SNCA,MAGI2,HEY2,PTPRS,ZMYND11,RASA1,ZNRF3,KCTD13,CBFA2T2,IGF1,HTT,PTEN,SPRED2,BMP7,RASA2,LRRK2,LILRB4,ARHGAP25,RGS9,UACA,CRTC3,PLCL2,GPR21,IL17RD,SH3RF2,VRK3,SOX30,GRB14,JADE1,RHOA,SYNGAP1,RQCD1,ONECUT2,CUL3,GSK3B,FAM49B,NECAB2,DUSP26,BOK,SULF1,RNF43,AGT,PRKAA2,ADAR,FBN2,STAT2,NDRG2,PDE4B,VEPH1,APCDD1L,DLX1,CD160,RPS6KB1,CD44,CSNK1A1,PLEKHA1,RGS14,STK4,MARK3,EPHB2,DLC1,PPARA,PPP1R10,PHLPP1,ZNF366,FBN1,PRKCZ,RABGEF1,OTUD7B,ASPEN,EYA3,FHL2,TBC1D10C,VWC2,RBMS3,NCOR2,PRKCQ,CD300A,PHIP,PPP2CA,SH3BP4,CNOT1,WWTR1,CIT,PTPRJ,TANK,CGNLI,CAV2,INPP5F,WIF1,CD109,MET,ANKRD6,PHB,PTPRC,PBLD,TYRO3,RNF213,ATF6B,SHISA6,TRAP1,PRAP1,BMP4,CPNE1</p>
GO:0048870	cell motility	1.0932566888605246e-14	<p>CLRN1,DNAH11,LDB2,GPC5,PRKCI,MAP4K4,SIPR2,SLC9A1,SPAG16,CLASP2,SEMA3A,DOCK1,WWC1,NRG3,ASH1L,IQCG,ASTN2,SEMA3D,PHACTR1,MAPRE2,WC3,TJP1,UNC5C,NTRK3,ATRNL1,SEMA5A,STAT5B,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR,SPNS2,PIK3CD,MEGF10,ROBO1,HTR2B,ITGB6,CDKL5,LMNA,CTNNA3,VAV2,ULK4,ITGB1,ELMO2,SRGAP3,MCC,SRGAP2B,ARHGAP24,PTPRK,DAB1,ABCC8,LAMA2,DACH1,PTPN11,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,GBF1,DNAH2,ZNF609,PTPRO,NTRK2,MEGF9,PDGFB,AVL9,KIRREL3,STK39,INSR,RERE,UNC5D,LAMA3,PAK1,CATSPER2,ATRN,POMGNT2,FUT8,FMNL2,PHACTR4,LCK,LAMC1,PTPRU,SLC8A1,SATB2,DEPDC1B,CASS4,FYN,ADAMTS9,NF1,PLCB1,DST,FAT3,RTN4,DPEP1,APOD,BCR,CCDC141,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,MAP2K1,MYH9,HDAC5,NTNG1,NAV1,CMKLR1,ROR2,DCN,CATSPEAR3,CDH13,PTPRT,CCNYL1,NCKAP1,DEFA1B,CD99,RCC2,ANO6,KIF2A,RFFL,TTL18,CCBE1,JAK2,FBXW7,BCL11B,DNAH14,CLDN1,CDC42BPB,WNT11,ASTN1,CAMK2B,PRKCD,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,CELSR1,SLIT2,CORO1C,RRAS2,DISC1,KANK1,LAMC2,TTBK2,BMPER,DCLK1,DAPK2,PARVA,DUSP22,FGF10,ENAH,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11,PPP3CA,PIP5K1,CTNNB1,SOD2,IGF1R,PPARG,DLG5,ADD2,FGF1,NR4A3,MYOC,D,AJUBA,HCK,CSPG4,DCN,NF2,FLT4,HDAC4,PTPE,SFRP1,FOXO3,ARL13B,SMAD3,PTPRM,ACKR2,AB12,NRP2,PREX1,DOCK4,NAV3,APP,GSX2,PDGFRA,SLK,CEP85L,NOX1,LRP5,PTPRG,SLC9B2,SETD2,GPC6,DRD1,MMP2,SYNE2,S100A12,PRKD1,RND3,SEMA6D,RAFI,ADAMTS12,BMPR2,USP33,CAMK1D,BMPRI1,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,ARMC2,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,ITGA11,PIK3C2B,SLC9B1,SPOCK1,GAS8,CHRD,EPHB3,FBXO45,PKN3,VCL,LAMB1,CLIC4,RHOJ,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,RUFY3,DAB2,USH2A,LDLRAD4,MYSM1,DZIP1,WNK1,RELN,CSF3R,IQGAP1,SPI,MACF1,CLASP1,SLC9C1,OVOL2,NFATC2,PRKG1,TTL9,ATP2B4,PAK3,SSH2,DYX1C1,MAP1B,CDC42BPA,SCARB1,MARK1,CDK6,GPC3,FLRT2,SLOC2,PLCG2,ROCK1,EPS8,PAXIP1,ABCC1,PKN2,TMIGD1,EPHB1,TRIM46,TEKT1,SPII,MCU,CTNNA1,LIMA1,SH3BP1,MST1,PTK7,MAGI2,ZEB2,ADTRP,PLD1,MITF,KCTD13,IGF1,DYSL3,MAPK1,PTEN,BMP7,PRCP,LRRK2,OSGIN1,ZRANB1,PDGFC,AMOTL1,WNT7A,NME8,GPI,SH3RF2,SOS1,EXT1,RAPGEF2,SMO,SUN1,RHOA,NDE1,TF,ONECUT2,FAM19A4,CUL3,SH3KBP1,PLD2,RDX,ACTA2,FAM49B,ITGB1,SULF1,AGT,PTK2,TPPP2,PDE4B,TAOK2,RPS6KB1,GPR173,ANKS1A,ITGAL,ALOX5,CD44,ADAM8,CLDN4,CXCL17,PEX7,PLVAP,ACTN4,STK4,SPEF1,EPHB2,TMEFF2,XCR1,DLC1,ARID5B,EPB41L4B,GPSM3,LDHC,ZMYND8,PAX6,PRKCZ,RABGEF1,PHLDB2,KLC3,NIPBL,ANGPT1,OSBPL8,GCNT2,ETS1,BIN2,CCL22,FBXO31,PRKCQ,BRAF,DIAPH1,ATP8A1,POU3F3,SPINT2,TNR,CD300A,ANGPT4,CAMSA3,SP100,FAT2,SRGAP2,NUMB,SYK,SLIT1,FRMD5,RADIL,DNAH3,PTPRJ,GPM6A,SASH1,VAV3,ZP3,GNAI2,INPP5F,AXL,MET,FMNL1,CCR3,SEMA3C,PTPRC,TYRO3,EDNRA,BMP4</p>
GO:0051674	localization of cell	1.0932566888605246e-14	<p>CLRN1,DNAH11,LDB2,GPC5,PRKCI,MAP4K4,SIPR2,SLC9A1,SPAG16,CLASP2,SEMA3A,DOCK1,WWC1,NRG3,ASH1L,IQCG,ASTN2,SEMA3D,PHACTR1,MAPRE2,WC3,TJP1,UNC5C,NTRK3,ATRNL1,SEMA5A,STAT5B,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR,SPNS2,PIK3CD,MEGF10,ROBO1,HTR2B,ITGB6,CDKL5,LMNA,CTNNA3,VAV2,ULK4,ITGB1,ELMO2,SRGAP3,MCC,SRGAP2B,ARHGAP24,PTPRK,DAB1,ABCC8,LAMA2,DACH1,PTPN11,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,GBF1,DNAH2,ZNF609,PTPRO,NTRK2,MEGF9,PDGFB,AVL9,KIRREL3,ST</p>

			<p>K39,INSR,RERE,UNC5D,LAMA3,PAK1,CATSPER2,ATRN,POMGNT2,FUT8,FMNL2,PHACTR4,LCK,LAMC1,PTPRU,SLC8A1,SATB2,DEPDC1B,CASS4,FYN,ADAMTS9,NF1,PLCB1,DST,FAT3,RTN4,DPEP1,APOD,BCR,CCDC141,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,MAP2K1,MYH9,HDAC5,NTNG1,NAV1,CMKLR1,ROR2,DCN,CATSPER3,CDH13,PTPRT,CCNYL1,NCKAP1,DEFA1B,CD99,RCC2,ANO6,KIF2A,RFFL,TTL1,L8,CCBE1,JAK2,FBXW7,BCL11B,DNAH14,CLDN1,CDC42BPB,WNT11,ASTN1,CAMK2B,PRKCD,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,CELSR1,SLIT2,CORO1C,RRAS2,DISC1,KANK1,LAMC2,TTBK2,BMPER,DCLK1,DAPK2,PARVA,DUSP22,FGF10,ENAH,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11,PPP3CA,PIP5K1L,CTNNB1,SOD2,IGF1R,PPARG,DLG5,ADD2,FGF1,NR4A3,MYOCD,AJUBA,HCK,CSPG4,DCN,NF2,FLT4,HDAC4,TPTE,SFRP1,FOXO3,ARL13B,SMAD3,PTPRM,ACKR2,ABI2,NRP2,PREX1,DOCK4,NAV3,APP,GSX2,PDGFRA,SLK,CEP85L,NOX1,LRP5,PTPRG,SLC9B2,SETD2,GPC6,DRD1,MMP2,SYNE2,S100A12,PRKD1,RND3,SEMA6D,RAFI1,DAMTS12,BMPR2,USP33,CAMK1D,BMPRI1A,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,PEAK1,SEMA4D,ARMC2,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,ITGA11,PIK3C2B,SLC9B1,SPOCK1,GAS8,CHRD,EPHB3,FBXO45,PKN3,VCL,LAMB1,CLIC4,RHOJ,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,RUFY3,DAB2,USH2A,LDLRAD4,MYSM1,DZIP1,WNK1,RELN,CSF3R,IQGAP1,SP1,MACF1,CLASP1,SLC9C1,OVOL2,NFATC2,PRKG1,TTL9,ATP2B4,PAK3,SSH2,DYX1C1,MAP1B,CDC42BPA,SCARB1,MARK1,CDK6,GPC3,FLRT2,SMOC2,PLCG2,ROCK1,EP88,PAXIP1,ABCC1,PKN2,TMIGD1,EPHB1,TRIM46,TEKT1,SP11,MCU,CTNNA1,LIMA1,SH3BP1,MST1,PTK7,MAGI2,ZEB2,ADTRP,PLD1,MITF,KCTD13,IGF1,DYSL3,MAPK1,PTEN,BMP7,PRCP,LRRK2,OSGIN1,ZRANB1,PDGFC,AMOTL1,WNT7A,NME8,GPI,SH3RF2,SOS1,EXT1,RAPGEF2,SMO,SUN1,RHOA,NDE1,TF,ONECUT2,FAM19A4,CUL3,SH3KBP1,PLD2,RDL3,ACTA2,FAM49B,ITGBL1,SULF1,AGT,PTK2,TPPP2,PDE4B,TAOK2,RPS6KB1,GPR173,ANKS1A,ITGAL,ALOX5,CD44,ADAM8,CLDN4,CXCL17,PEX7,PLVAP,ACTN4,STK4,SPEF1,EPHB2,TMEFF2,XCR1,DLC1,ARID5B,EPB41L4B,GPSM3,LDHC,ZMYND8,PAX6,PRKCZ,RABGEF1,PHLDB2,KLC3,NIPBL,ANGPT1,OSBPL8,GCNT2,ETSI,BIN2,CCL22,FBXO31,PRKCQ,BRAF,DIAPH1,ATP8A1,POU3F3,SPINT2,TNR,CD300A,ANGPT4,CAMSA3,SP100,FAT2,SRGAP2,NUMB,SYK,SLIT1,FRMD5,RAD1L,DNAH3,PTPRJ,GPM6A,SASH1,VAV3,ZP3,GNA12,INPP5F,AXL,MET,FMNL1,CCR3,SEMA3C,PTPRC,TYRO3,EDNRA,BMP4</p>
GO:0051094	positive regulation of developmental process	1.611014102795239e-14	<p>NRXN1,PRKCI,SIPR2,HLX,LLPH,CBFB,CLASP2,SEMA3A,GRID2,DOCK1,TIAM2,PTGIS,TJP1,KALRN,ARNT,SEMA5A,STAT5B,TOX,ENPP2,GRM5,KITLG,LRP2,PIK3CD,OLFM1,EZR,ROBO1,CHD7,CDKL5,LMNA,TRAF6,ROBO2,ITPKB,ITGB1,TRIOBP,ZC4H2,DSCAM,RUNX1,DAB1,RBM19,GOLGA4,EPHA1,ERBB4,LIMK1,ATP8A2,CDON,NTRK2,CELA1,PDGFB,RIMS1,INSR,H2AFY2,TCF7L2,CDH4,ESRRB,PTPRD,BASPI,BDNF,TFAP2A,AMIGO1,TGIF2,TENM4,ECT2,DMD,KAT7,SLC8A1,RBM4,CASS4,ARNTL,ADAMTS9,PLCB1,RTN4,CHI3L1,NTN1,NRG1,MAP2K1,STIM1,CMKLR1,ROR2,DCN,SOX13,MAD2L2,TLE6,CAPRIN2,BOC,ANO6,NEUROD1,CCBE1,ZDHHC15,JAK2,CLSTN2,SYT1,PLS1,WNT11,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,CD4,TGFB1,SLIT2,TP73,CORO1C,DISC1,MTDH,ITSN2,TCF12,NELL1,SUCO,BMPER,ANKRD54,ADAM12,LINGO2,FGF10,CAPN3,SMURF2,EPHA4,PRKCA,TNFSF11,MAG,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,DLG5,MSR1,CYBB,FGF1,NIN,DCT,MYOCD,KIR2DL4,CPNE6,PHLDB1,CAPN2,NF2,PAX2,SFRP1,FOXO3,SMAD3,CUX2,SHANK1,SYT3,PREX1,HOXD3,SSBP3,GSX2,YAP1,NLGN2,JAK1,ANGPTL4,LRP5,ISLR2,SLC9B2,SOX2,ZDHHC6,SPTBN4,VASH2,FRS2,TPH1,CPNE9,PTPRD,STAP1,ARP6,SLC6A3,ZBTB7C,TCF3,BMPR2,BMPRI1A,NLGN1,SPAG9,RAB11A,MYB,FGF2,NEDD9,SEMA4D,PLXNA2,SPEN,NCOA1,BLOC1S5,EEF1E1,DVL3,EIF4G1,EPHB3,PAWR,CCDC3,WNT3,ZNF322,P4HB,NLGN3,SCUBE2,PAFAH1B1,DDAH1,AKAP6,RASAL1,TRPC5,GLI2,RUFY3,DAB2,RELN,SIN3A,SP1,MACF1,ALK,INPP5D,CLASP1,TEAD4,GPM6B,ADIRF,OVOL2,NFATC2,BNC1,PACSIN1,PAK3,ADNP,MAP1B,CELF1,TFRC,BRINP1,HOXB4,GHR,FLRT2,ACTR2,ELAVL4,HDAC1,SMOC2,PAXIP1,EGR2,AP3B1,NTRK1,UNC13A,EPHB1,AXIN2,SH3GL3,AP3D1,CARM1,CUX1,MCU,MAP3K13,RAPGEF3,MST1,SMYD1,BMPRI1B,CD53,ZEB2,HEY2,WNT7B,HIPK1,BTK,IGF1,BMP7,SOX5,LILRB4,EFNA5,SHANK3,NCOA3,PPP2R3C,WNT7A,GPR21,BMP6,TSHR,RAPGEF2,SMO,TCF4,SYT17,TFE3,RHOA,NFKBID,GSK3B,STAT6,EEF2K,CD27,AGT,BLOC1S6,FBN2,BRINP3,RIMS2,EXOSC3,MAP3K5,DLX1,LBX2,RPS6KB1,ALOX5,SP7,ADAM8,CDS1,RGS14,STK4,EPHB2,IL18,PAX6,PRKCZ,FAM20C,PPP1CC,PHLDB2,NIPBL,TMIGD2,GCNT2,ETSI,VWC2,FBXO31,BRAF,HDAC2,HTR2C,IMPACT,CDKL3,ANGPT4,NUMB,SYK,WWTR1,DVL2,GRIPI,HSF1,SASH1,SULT2B1,BMPI,ZP3,AXL,TNFSF9,WIF1,CCR3,MALT1,SETD3,EHD2,KDM2B,NEDD4L,PTPRC,SYNDIG1,CREB1,BMP4,CPNE1</p>
GO:0006996	organelle organization	1.8525372609123947e-14	<p>CLRN1,HOOK2,ADAMTS16,BLZF1,NRXN1,PRKCI,MOV10L1,TACC2,DNMT1,SIPR2,SLC9A1,SPAG16,PDE4DIP,CLASP2,GRID2,RPS6KA2,KIF22,ASH1L,NOS1AP,TUBA1C,IQCG,TLN2,EPB41,PHACTR1,FHOD3,MAPRE2,TJP1,UTRN,SEC23B,PHACTR2,NTRK3,SEMA5A,RAD51B,TOX,PLCE1,FER,ANK2,STAG2,EZR,TOML1,CHD7,CDKL5,MECOM,TACC1,TENM1,CAMKMT,KIF5C,LMNA,CTNNA3,DNAJA3,ABI1,ULK4,ITGB1,TRIOBP,HSP90AA1,ELMO2,GAS7,CDC6,BCORL1,CDAN1,KLHL12,AKAP13,IFT43,TTL5,GF11B,PARD6G,OMA1,CDC42EP3,HMGN3,XIRP2,ITGB3BP,CLVS1,MAST4,TCIRG1,CCT2,HDAC6,TBCEL,EPHA1,IKKBK,KIF18B,PEX14,ERBB4,MRE11A,GBF1,DNAH2,LIMK1,TLK1,BRD8,ATP8A2,RAD54L2,TEX264,KAT6B,CECR</p>

			<p>2,ESR1,NPHP3,KANSL1,STX18,DNAI2,EP300,DYM,HOOK3,PDGFB,TNIK,MIDI1,C HFR,MSTO1,INSR,FMN2,RERE,PRKARIA,AFAP1,ATP8B1,H2AFY2,TCF7L2,PIP4K 2A,HPS1,JMJD1C,PAK1,FBXW11,MAP3K4,PTPRD,FANCA,TGIF2-C20ORF24,NPRL3,FMNL2,PHACTR4,UBR2,ARHGAP6,ECT2,NAV2,ACOX1,VAMP7,ERN2,LRRK49,NPLOC4,PYROXD2,STARD9,DMD,CENPF,PDS5A,KAT7,GSN,HFM1,RBM14,SATB2,HIRA,CASS4,NF1,PLCB1,DST,PCDH15,STX6,ARID4B,RTN4,AFF2,VT A1,BCR,BRPF1,TTN,RANBP9,DCTN1,SLC4A5,ARHGAP10,BID,MAP2K1,MYH9,F RMPD4,MAD1L1,PPP2CB,WDR92,HDAC5,NAV1,RNF4,SYNE1,PARD3B,LRGUK,D CN,SCFD1,DOCK2,PITPNB,AUNIP,DMC1,MAD2L2,TLE6,RAB27A,MTX3,NCKAP1, TERF2,TMED6,SLX1B,GOLPH3L,ARL3,DNAJC11,KIF2A,ICK,RAD51D,TLL8,PAR P11,RANBP1,USP22,ZDHHC15,JAK2,MYPN,FBXW7,SMC3,UIMC1,SYT1,CROCC,B BS12,SMG1,MLLT3,CDC42BPB,PLS1,TEX11,PDE2A,SEPT7,CYFIP2,CENPC,WNT1 1,IFT80,FIG4,MTA1,IMMP2L,SIPAIL3,MKLN1,PRKCD,PPM1E,TGFB1,BANP,LRC H3,PDLIM4,ATL2,NUP93,NSD1,PIBF1,ARMC1,F2RL1,BCAS3,RPGRIPI1,CELSR1,S LIT2,SYT13,CORO1C,DISC1,CEP135,KANK1,PTPDC1,GRPEL2,CLN6,ANK1,TTBK2 ,KDM4B,SPAG17,RNF212,PARVA,STRIP1,HNRNPC,TRRAP,ANKFN1,OIP5,YTHDF 1,FGF10,SMYD3,KANK4,ENAH,PPL,IQCJ-SCHIP1,RHPN2,MAST2,SVIL,CAPN3,SLC16A1,VMP1,PRKCA,AUTS2,SMG6,GATA D2B,UFLI,TRAK1,CTNNB1,MPRIIP,PARK2,SOD2,SMARCC1,TSNARE1,PPARG,NG RN,AXIN1,MYO1D,BFSP1,ADD2,BRIP1,CENPP,SREBF2,NDUFA9,LEPROT,NIN,W DR45B,TUBGCP6,NOL3,RIOK2,ESCO1,AJUBA,HAUS4,CHEK2,PHLDB1,KRP6B,U BQLN4,PRDM16,MYO1E,SPDYA,HCK,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TBC K,ANKFY1,CTDP1,BAZ1B,OBSCN,NF2,SMC2,HDAC4,SPTBN1,HEPACAM2,ELN,S PG11,SFRP1,ARL13B,IFT122,SSH1,SMAD3,WIP1,MTBP,VPS39,RNF168,EMG1,AB I2,C10ORF90,GRIK5,SHANK1,ARHGEF18,PREX1,PLA2G4C,KPNB1,NAV3,RAB6C, USP49,PDGFRA,SLK,ADD3,KANSL2,YAP1,MYO1F,TEN1,NLGN2,VDAC1,EYA2,SH 3D19,BORA,LRP5,SOX2,SETD2,ZDHHC6,KIF24,TTC39C,SPTBN4,TMEM14A,SFMB T1,VILL,SYNE2,KDM6A,GTTF2F2,PRKD1,RND3,SHPRH,VPS4A,EREG,TCTN3,ABLI M1,PITRM1,ATF2,TMEM237,RAF1,ABLIM2,SMIM20,PTPN1,USP33,DPSYL2,NLGN 1,CTNNA2,MORC2,RAB11A,CRMP1,MYB,PPM1F,NEDD9,ARMC2,CDC27,HELQ,E EA1,SETD1A,YMEIL1,JARID2,RILPL1,BRD1,CHCHD6,PIK3C2B,BLOC1S5,EHMT1 ,GAS8,AP2M1,ANAPCS,TRAPPC11,PAWR,TSG101,TERF2IP,WDR90,CLIC4,KCNQ1 ,RFX2,C11ORF80,RHOJ,ZFYVE1,PAFAH1B1,KIF3A,HIP1,CEP350,PADI6,TLL7,T NKS,WBP2NL,ERCC1,RUFY3,BLM,PKHD1,TRAM2,MYSM1,SETD5,DZIP1,SMG5,D LG3,RELN,SIN3A,RUVBL2,IQGAP1,TMEM170A,SPATA18,EML4,ZNF423,MACF1,A RHGAP12,MYO7A,CLASPI,TOPI,GPM6B,CHD1L,PRKG1,TTL9,SYNE3,PACSN1, SPTBN5,ACTL6B,PAK3,HORMAD2,SSH2,TET1,DYX1C1,CEP41,ARID4A,MAP1B,C DC42BPA,MPHOSPH9,MARK1,PHF2,AIF1L,TFRC,UVRAG,EPHA5,MEF2A,DHX30 ,XRN1,PLS3,SATB1,ZNF207,CALD1,EYA1,DIS3L2,TFEB,CLEC16A,MNAT1,FGD1,S NX9,DIAPH2,RPGR,ACTR2,L3MBTL4,FAM174B,HDAC1,RECQL5,TCOT1,EPH8,SC MH1,CAPN10,GPR35,AP3B1,INSRR,ZFAND1,MAP1A,PPP1R9A,ANK3,UNC13A,AXI N2,NCKAP5,TMEM199,PARD3,GNL3L,TRIM46,TUB,TEKT1,BCOR,AP3D1,CARM1, ANXA8L1,NUDT5,ARHGAP44,SNX33,PIFO,SMARCA2,RAD51C,SP11,MCU,RANBP1 0,VPS16,CTNNA1,LIM1A,AIFM2,TRDN,ATG14,SHROOM3,ACOT8,NTMT1,FCHSD2 ,RAPGEF3,PDXP,SH3BP1,ERCC3,PTK7,SMYD1,SNCA,HAUS3,PNPT1,USP50,ZEB2 ,MCMBP,FOXJ3,SYT9,RC3H1,CHMP3,HYDIN,RNF103-CHMP3,PTPRS,ZMYND11,KMT2D,CDKL1,RAB5B,KMT2C,CSRPI,RASA1,CABIN1, PKP2,VPS41,KCTD13,TROVE2,IGF1,STX8,ATF7IP,HTT,DPSYL3,MAPK1,PTEN,AR HGEF17,BMP7,ATXN2,PIK3C3,TLL4,RAB30,LRRK2,SEPT6,ZRANB1,SPAG5,CHM P5,RFC3,BAG6,CHAF1B,IFT81,TMEM108,ARHGAP25,PKD2,EFNA5,HSF2BP,SHA NK3,STMN4,AMOTL1,ATP8B4,PKIB,MTMR3,PPP2R3C,TBCD,TMCC1,SNAP23,BR WD3,MAP4,NME8,CEP89,KAT6A,MTIF2,SH3PXD2B,RHOT1,SIK3,MYCBP2,EXT1,A TRX,IKZF1,PARVB,PNPLA3,SAMM50,GET4,SUN1,BLOC1S3,MARK4,SOX30,BBS9, RHOA,SYNGAP1,MCM3,NDE1,TF,ONECUT2,RHOBTB1,ESYT2,SHROOM1,CUL3,S H3KBP1,HSPD1,EPM2A,GSK3B,PLD2,RDX,FAM49B,CDK13,VAMP1,BOK,KRT8,S UPT4H1,HDGFRP3,PRKAA2,SYT7,BLOC1S6,CUL9,ESPNL,STAT2,ZMPSTE24,PTK 2,PEX5L,SNX3,TOMM5,CDC14A,GAP43,SEC16B,TIMM44,IQGAP2,FAM171A1,CE P70,TAKO2,PYGO2,SHC1,NDUFS2,ALDOA,PARP10,YLPM1,RSBN1,PGM5,SETDB2 ,CPLX2,DNAJB6,FGD3,LARP4,ARFGAP3,PACSN2,CDS1,THSD7A,CSNK1A1,HUS1 ,FGD4,PEX7,RGS14,ACTN4,COG4,TUBB3,ZFAND6,MARK3,SPEF1,THSD7B,TLL1 1,TMEFF2,TEX12,MFSB8,ASF1B,GPSM2,DLC1,PPP1R10,ABCD3,MCOLN1,EPB41 L4B,SLC25A33,SMARCAL1,CCDC6,PRRC2C,PAX6,PRKCZ,SPECC1L,STAG1,WDR8 3OS,PHLDB2,KLC3,KLHL1,NIPBL,YEATS4,PHF20,PACS2,EYA3,MBTD1,SHROOM 4,EPB41L2,ETS1,HACLI,ARHGAP21,MAP2,MTF2,BIN2,STPG1,KIFC3,NEBL,ATG3, PRKCQ,MDN1,BRAF,DIAPH1,HDAC2,SRAP,CAPN6,NOTO,HIGD2A,PHIP,EMC3, DNAJC9,FAM149B1,RFC5,CAMSAP3,SP100,VTI1A,ANXA2,CHCHD3,PARN,PRMT7 ,SRGAP2,WIP2,SQLE,CNOT1,WWTR1,FRMD5,CIT,RAB2A,SEC31B,UBAP2L,BRCA 2,HRK,MORC1,NEB,MYO1A,EZH1,SRPK2,ATP10B,PLEKHM1,ASAP1,MCM8,CGNL 1,VAV3,CHD6,EPB41L1,MTFR2,CAV2,SKA2,SYNM,AKTIP,EPIS15,POC1B,NUAK2,T RIM37,CENPK,MET,FMNL1,MICAL3,BRD9,SETD3,INO80C,SPTAN1,CCDC136,EH D2,KDM2B,THEM4,TRAPPC8,CCT3,UQCC1,NDI1,PHB,CTCF,RNF213,CREB1,RA SSF8,TNXB,CCDC170,EDNRA,PRAP1,STXBP6,BMP4,ABLIM3</p>
GO:00	actin filament-	2.22839135	<p>CLRN1,PRKCI,PDE4D,SIPR2,SLC9A1,CLASP2,NOS1AP,EPB41,PHACTR1,FHOD3,</p>

30029	based process	2101679e-14	<i>TJPI,UTRN,PHACTR2,WIPF3,NTRK3,SEMA5A,FER,ANK2,EZR,TENM1,CTNNA3,A BII,ITGB1,TRIOBP,ELMO2,GAS7,AKAP13,CDC42EP3,XIRP2,CACNB2,ADORA1,E PHA1,IKBKB,LIMK1,TNIK,FMN2,PRKAR1A,PAK1,FMNL2,PHACTR4,ARHGAP6,E CT2,SGCD,DMD,GSN,CASS4,NF1,PCDH15,BCR,TTN,MYH9,FRMPD4,DOCK2,MA D2L2,TLE6,NCKAPI,JAK2,MYPN,CDC42BPB,PLS1,CYFIP2,WNT11,MKLN1,PRKC D,PPM1E,TGFB1,PDLIM4,F2RL1,BCAS3,CELSR1,SLIT2,CORO1C,KCNJ3,KANK1, CACNA1D,PARVA,STRIP1,FGF10,KANK4,ENAH,RHPN2,SVIL,CAPN3,AUTS2,MPR IP,PARK2,MYO1D,ADD2,RYR2,CACNA1C,SCN3B,MYO1E,HCK,SORBS1,TBCK,OB SCN,NF2,SPTBN1,ELN,SFRP1,SSH1,SMAD3,ABI2,SHANK1,ARHGEF18,PRES1,PD GFRA,ADD3,MYO1F,SPTBN4,VILL,SYNE2,RND3,VPS4A,ABLIM2,PTPN1,CTNNA2, PPM1F,NEDD9,PAWR,KCNQ1,RHOJ,PAFAH1B1,HIP1,RUFY3,IQGAP1,ARHGAP1 2,MYO7A,CLASP1,DSC2,GPM6B,PRKG1,PACIN1,SPTBN5,PAK3,SSH2,CDC42BP A,AIF1L,EPHA5,MEF2A,PLS3,CALD1,FGD1,SNX9,DIAPH2,ACTR2,ROCK1,EPS8,C APN10,INSRR,PPP1R9A,KCND3,ARHGAP44,MCU,CTNNA1,LIMA1,ACAP2,SHROO M3,FCHSD2,RAPGEF3,PDXP,SH3BP1,PTK7,CSRPI,RASA1,PKP2,KCTD13,DYPSL 3,ARHGEF17,ARHGAP25,EFNA5,SHANK3,AMOTL1,EPDR1,PARVB,MYLPP,RHOA, TF,RHOB1,SHROOM1,CUL3,SH3KBP1,RDX,ACTA2,FAM49B,KRT8,ESPRL,PDE 4B,IQGAP2,FAM171A1,TAOK2,SHC1,ALDOA,PGM5,DNAJB6,FGD3,PACIN2,THS D7A,FGD4,ACTN4,THSD7B,TMEFF2,DLC1,EPB41L4B,SPCC1L,PHLDB2,KLHL1, SHROOM4,EPB41L2,NEBL,BRAF,DIAPH1,SRGAP2,SCN1A,FRMD5,CIT,NEB,MYO 1A,CGNL1,EPB41L1,NUAK2,MET,FMNL1,MICAL3,CAMK2D,SETD3,SPTAN1,EHD 2,NEDD4L,TNXB,ABLIM3</i>
GO:00 31399	regulation of protein modification process	2.60097580 18573292e- 14	<i>ENPPI,NRXN1,PRMT3,SLC3A1,PDE4D,DNMT1,SIPR2,C6ORF89,ADCY8,PDE8A, IL31RA,PRDM12,NRG3,NOS1AP,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,ARNT,FL T3,ENPP2,GRM5,PLCE1,FER,MAP2K5,KITLG,ROBO1,TMIL1,HTRB2,TENM1,L MNA,TRAF6,ITPKB,DNAJA3,OXR1,ABI1,HSP90AA1,CDC6,KNDC1,AKAP13,DAB1, PTPN11,MGAT5,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,LIMK1,PMEPAI ,PTPRO,CDON,NTRK2,EP300,FNTA,PDGFB,TNIK,CCND3,BRMS1,CHFR,INSR,PR KAR1A,CAB39,PAK1,MAP3K4,BDNF,ECT2,SNX6,ERN2,DMD,ATG10,KAT7,SLC8A 1,RIT2,CASS4,FYN,ARNTL,NF1,RWDD3,CHI3L1,TTN,PAQR3,NRG1,SH2D3C,BDKR B1,BDKRB2,FRY,MAP2K1,FNIP1,JDPI2,ROR2,WDR70,PTPRT,IPO5,MAD2L2,CAPR IN2,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ITCH,ZFYVE28,KLF15,WNT11,MTA1,NO X4,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,SPSB4,NSD1,PIBF1,BTRC,DNAJB2, SLIT2,CORO1C,KDM4B,SMAD6,ZNF675,BMPER,ANKRD54,TNFRSF10B,DUSP22, DOCK3,FGF10,SMYD3,FANCI,CAPN3,EPHA4,AUTS2,CD6,TNFSF11,PIP5KL1,UF L1,CTNNB1,PARK2,PPARG,AXIN1,PRKAR1B,OTUB1,LEPR,FGF1,PRKAR2A,MYO CD,PER2,AJUBA,CHEK2,SPDYA,RAB3GAP2,CSPG4,NF2,FLT4,HDAC4,TRABD2B, SFRP1,PPP6R2,MTBP,TAB1,APP,CCNI2,DIP2B,HEG1,BORA,IBTK,LRP5,MTCP1,P RICKLE1,RCAN1,SPTBN4,DRD1,S100A12,DCUN1D3,PRKD1,EREG,CCNY,ATF2,R AF1,PTPN1,BMPR2,BMPRI4,PIK3R3,CDK12,SPAG9,MYB,FGF2,PPM1F,NEDD9,S EMA4D,JARID2,PRKCG,DVL3,EIF4G1,RBX1,CKS1B,DEPTOR,TSG101,TERF2IP,P TPN13,TRPC5,UBA2,DAB2,BLM,CACUL1,LDLRAD4,SETD5,DLC3,WNK1,RELN,N EK10,SIN3A,RUVBL2,PELI1,IQGAP1,MAP3K7,SLC8A2,XDH,ATP2B4,TET1,CAMTA 1,ADNP,TFRC,UVRAG,DCUN1D5,GHR,MNAT1,SNX9,PLCG2,ROCK1,PAXIP1,HIP K3,PTPN2,NTRK1,TRIM44,SLC39A10,AXIN2,PARD3,GNL3L,MUC1,BCOR,SPI1,DN MT3B,EPHA7,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPRI1B, MAGI2,PRKAG1,TRIP12,ADTRP,OPRD1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,S PRE2,BMP7,LRRK2,TMEM59,UNC119,LILRB4,PKD2,EFNA5,TAD4A,PDGFC,P KIB,PPP2R3C,PLCL2,BMP6,MYCBP2,SH3RF2,N4BP1,ATRX,RAPGEF2,VRK3,PRK AR2B,UBR5,ARRDC4,RHOA,SPRTN,RQCD1,CUL3,EPM2A,GSK3B,DNAJC3,EEF2K ,IWS1,PPP1R16A,PTPRB,AGT,CCNJL,PRKAA2,ADAR,STAT2,ZMPSTE24,PTK2,TEC ,MAP3K5,NCF1,TAOK2,SYGO2,SHC1,PARP10,CD44,ADAM8,RPS6KA5,HUS1,NOS 1,RGS14,STK4,EPHB2,SLC1A1,IL18,UBE2K,DLC1,MOB3B,PAX6,PRKCZ,ADORA2 A,RABGEF1,CCNG2,NIPBL,ANGPT1,LRRK1,OSBPL8,MTF2,CDK5RAP1,CNTN1,BR AF,HDAC2,IMPACT,CD300A,PHIP,PPP2CA,SKP1,ANGPT4,RPL23,MADD,SYK,WW TR1,DVL2,PTPRJ,TAF1,TICAM1,TANK,HSF1,SASH1,MOB3A,GNA12,SH2D3A,AKT1 P,INPP5F,CD109,CAMK2D,MALT1,MLXIPL,PHB,PTPRC,CTCF,SH3GL2,TNXB,BM P4</i>
GO:00 51049	regulation of transport	5.49609858 637286e-14	<i>ENPPI,NRXN1,ASPH,PRKCI,PDE4D,SLC9A1,ADCY8,CLASP2,WWC1,CTDSPL2,N OS1AP,EPB41,DPP6,PRKAG2,CLCN1,UTRN,KALRN,CBL,RAB4B,RAB4B- EGLN2,KCNQ5,GRM5,FER,CASK,KCNIP4,ANK2,EZR,NRXN3,CHD7,SLC26A6,TEN M1,NKAIN2,ITGB1,CNIH2,NKAIN3,ABCC8,HMGN3,DGKI,STXBP4,EFCAB7,TCIRG 1,PTPN11,KCNS3,NETO2,CACNB2,ADORA1,ATP8A2,KCNJ16,GRM7,DPP10,FRM D4A,STX18,PDGFB,CACNA1B,RIMS1,STK39,INSR,ATP8B1,TCF7A2,CAB39,MYOM 1,CATSPER2,AMIGO1,KCNMA1,CHRM3,KCNRG,ECT2,TMC2,VAMP7,DMD,SLC8A 1,RBM4,RIT2,JPH2,FYN,ARNTL,NF1,APOD,BCR,SHISA9,TTN,NDRG4,ICAI,BMP2 K,PIK3R2,CACNA1E,NRG1,SLC43A2,BDKRB1,MAP2K1,KCNIP1,STIM1,NALCN,T MBIM6,TMEM30A,SCFD1,CATSPER3,DOCK2,CDH13,CREBRF,FGF14,IPO5,RAB2 7A,RAB3C,GOLPH3L,ANO6,NEUROD1,JAK2,FBXW7,KCNB2,OAZ2,SYTI,NPSR1,S CN4A,TMC1,ATP9A,KLF15,KCNC4,MKLN1,CACNA1H,IL1RAPL1,CAMK2B,PRKC D,CD4,TGFB1,SGK1,KEL,JPH3,CLDN10,F2RL1,BCAS3,AAK1,CADPS2,SYT13,C12 ORF4,KCNJ3,CACNA1D,CACNA2D3,CHRM1,CLOCK,KCNH1,HOMER2,SLC17A7, FGF10,STXBP5,KCNH7,CAPN3,SLC16A1,VMP1,CNR1,TNFSF11,PPP3CA,NSUN2,</i>

			<p>CTNNB1, PARK2, FCGR2B, PPARG, PRKAR1B, CYBB, SCAMP5, ANXA13, SREBF2, KCNJ12, RYR2, KCNA6, LEPR, LEPROT, NR4A3, RIOK2, PER2, CACNA1C, SCN3B, HCK, SORBS1, RIMS4, ANKFY1, SFRP1, DNMT3, SMAD3, WWP2, GRIK5, SHANK1, SYT3, NEDD4, SLC6A1, APP, BET1L, NOX1, RAB11FIP5, NLGN2, VDAC1, LRP5, SLC9B2, SETD2, SPTBN4, DRD1, TMEM14A, SERGEF, PRKD1, HNF4A, VPS4A, FXYD2, FXYD6, FXYD26, FXYD2, KCNG4, RASGRF2, PTPN1, CAMK1D, NLGN1, RAB11A, PPM1F, ADCY5, MCTP1, PTAFR, ADCYAP1R1, ABCA13, RAB11FIP3, PRKCG, AP2M1, FBXL20, TSG101, CLIC4, KCNQ1, SUFU, NLGN3, KIF3A, HIP1, AKAP6, BTBD9, RUFY3, STON2, DAB2, WNK1, RELN, ABCB1, KCNQ2, CLASP1, EEPD1, APBB3, TPCN1, GPM6B, CLIC5, AHNK, SNX5, RGS7, ATP2B4, NSF, PACSINI, ATAD1, MAP1B, SCARB1, KCNAB2, EPHA5, MEF2A, SYT12, CACNA1A, GPC3, SGIP1, STOM, ADRBK1, TBC1D5, PTGER3, TRPV1, C2, PLCG2, ROCK1, C1QTNF1, GAPVD1, CAPN10, GPR35, ZFAND1, ANK3, PTPN14, TRIM46, TUBB3, H3GL3, KCND3, CACNG8, AP2B1, NETO1, ARHGAP44, SNX33, CD84, SPI1, CHRN4, MUCU, TRDN, STAC, TRPC6, RAB15, RAPGEF3, SNCA, CACNG2, MAGI2, SYT9, CHMP3, RAB5B, ADTRP, ABCA12, PLD1, OPRD1, PKP2, XPO4, SLC4A8, IGF1, PLA2G4E, HTT, MAPK1, PTEN, MIB1, SCN8A, ATXN2, PIK3C3, LRRK2, SPAG5, UNC119, CNIH3, ITGAM, PKD2, EFNA5, SHANK3, BEST3, WNT7A, ZBED6, DNAJC1, BMP6, ANO1, KCNC2, SMO, STXBP5L, CPT1A, PSEN2, SYT17, DNAJC6, UBR5, GRIN1, RHOA, GRIN3A, TF, EPM2A, GSK3B, ABCG8, RDX, SYN1, EEF2K, IWS1, NECAB2, MCTP2, SCN9A, BOK, AGT, SYT7, ZMPSTE24, SNX3, PDE4B, RIMS2, SEC16B, CD160, KCNJ15, RPS6KB1, STC2, ALOX5, CPLX2, ADAM8, PACSIN2, NOS1, ACTN4, EPHB2, SLC1A1, WLS, LRRK2, NKA1, KCNC2, PPARA, SYTL4, PRKCZ, ADORA2A, KCTD7, PPP1CC, RABGEF1, ANGPT1, CADPS, OSBPL8, MAP2, ATG3, CNTN1, BRAF, DIAPH1, HTR2C, ATP8A1, CD300A, SP100, ANXA2, KCND2, RAB27B, NUP214, ADCY1, NUMB, SYK, SCN1A, MYRIP, CACNG3, ANKRD13A, PTPRJ, SLC10A1, ZP3, KCNQ3, INPP5F, AXL, SESTD1, CAMK2D, KCNJ6, EHD2, NEDD4L, PTPRC, GPR89A, CREB1, SHISA6, EDNRA, PRAP1, STXBP6, BMP4, ABLIM3</p>
GO:0051246	regulation of protein metabolic process	9.655302892875581e-14	<p>POLDIP3, ENPP1, NRXN1, ASPH, PRMT3, SLC3A1, PDE4D, DNMT1, S1PR2, C6ORF8, ADCY8, PDE8A, IL131RA, RPS6KA2, PRDM12, NRG3, NOS1AP, LATSD2, PRKAG2, PRLR, MYP, FTO, NTRK3, CBL, ARNT, EGLN2, FLT3, ENPP2, GRM5, PLCE1, FER, MAP2K5, KIF14, LRP2, EIF4G3, EZR, ROBO1, TOM1L1, HTR2B, PSMD1, TENM1, LMNA, TRAF6, ITPKB, DNAJA3, OXR1, AB11, HSP90AA1, CDC6, KNDCC1, CCDC22, AKAP13, RUNX1, DAB1, PTPN11, MGAT5, HDAC6, DDB1, ADORA1, EPHA1, IKKB, ERBB4, MRE11A, LIMK1, CUL4B, PMEP1, PTPRO, CDON, NTRK2, TNRC6A, EP300, ZYG11B, FNTA, PDGFB, TNF, CCND3, BRMS1, CHFR, INSR, FMN2, PRKAR1A, ASB5, TCF7L2, CAB39, PAK1, FBXW11, MAP3K4, RNF144A, EGLN3, SAMD4A, BDNF, LCK, MDM4, ECT2, SNX6, CST2, PTCDD3, ERN2, DMD, ATG10, LARP4B, USP13, KAT7, SLC8A1, GSN, RBM4, RIT2, CASS4, FYN, MKRN2, ARNTL, NF1, PLCB1, MGMT, RTN4, DPEP1, APOD, RWDD3, CH13L1, TTN, PAQR3, RANBP9, NRG1, SH2D3C, BDKRB1, BDKRB2, BID, FRY, MAP2K1, FNIP1, MYH9, VGLL4, CSNK2A3, JDP2, ITIH2, ROR2, CREBRF, FHIT, WDR70, PTPRT, IPO5, MAD2L2, CAPRN2, CCN1, GNAQ, RFFL, CCBE1, HERC5, JAK2, FBXW7, OAZ2, ITCH, ZFYVE28, KLF15, CYFIP2, WNT11, MTA1, NOX4, QKI, PRKCD, TAB2, ACVR2A, CD4, PPM1E, TGFB1, BANP, SPSB4, NSD1, PIBF1, BTRC, CRADD, DNAJB2, SLIT2, ITIH4, CORO1C, DISC1, BLID, ZFAND2A, CLN6, KDM4B, SMAD6, ZNF675, NELL1, BMPEP, TIMP2, BCL3, ANKRD54, TNFRSF10B, DUSP22, NAIP, DOCK3, YTHDF1, FGF10, SMYD3, FANCI, CAPN3, SMURF2, EPHA4, AUTS2, CD6, TNFSF11, UBQLN3, PIP5K1I, UFL1, CTNNB1, PARK2, SMARCC1, PPARG, NGRN, AXIN1, PRKAR1B, OTUB1, LRPPRC, LEPR, FGF1, PROS1, NO13, PRKAR2A, MYOCD, PER2, AJUBA, GLG1, CHEK2, UBQLN4, SPDYA, CSTL1, RAB3GAP2, DIO2, CSPG4, NF2, FLT4, HDAC4, PAX2, SECISBP2L, TRABD2B, SFRP1, PPP6R2, FOXO3, BCL2L13, SSH1, SYNCRIP, SMAD3, RNFT2, WWP2, SIMC1, MTBP, DCP1B, NEDD4, TAB1, APP, RBM8A, CCN2, DIP2B, ARIH1, HEG1, SH3D19, BORA, IBTK, LRP5, MTCPI, SOX2, PRICKLE1, RCAN1, SPTBN4, DRD1, S100A12, DCUN1D3, PRKD1, ST18, ERG, CCNY, ATF2, GRAMD4, RAF1, CELF4, CARD16, CASP1, PTPN1, BMPR2, VBP1, BMPR1A, PIK3R3, CDK12, SPAG9, MYB, FGF2, PPM1F, NEDD9, AGBL4, SEMA4D, PTAFR, JARID2, DDX58, PRKCG, SPOCK1, ARL1, DVL3, EIF2B5, EIF4G1, PSMD2, RBX1, CKS1B, PAWR, AGO3, DEPTOR, FBXL20, TSG101, DESI1, TERF2IP, IDE, SUFU, PTPN13, COL4A3, HIP1, PADI6, TRPC5, UBA2, TNRC6B, DAB2, BLM, CACUL1, LDLRAD4, SETD5, DLG3, WNK1, RELN, NEK10, SIN3A, RUVBL2, PELI1, IQGAP1, MAP3K7, SPI1, SLC8A2, SLC35A4, XDH, ATP2B4, NSF, TET1, CAMTA1, DYX1C1, ADNP, CELF1, RNF34, TFRC, UVRAG, DCUN1D5, GPC3, XRN1, DIS3L2, GHR, MNAT1, SNX9, ELAVL4, HDAC1, PLCG2, ROCK1, PAXIP1, HIPK3, RYBP, PTPN2, NTRK1, TRIM44, MAP1A, SLC39A10, AXIN2, PARD3, GNL3L, MUC1, BCOR, ANXA8L1, SNX33, CD84, LPA, SPI1, DNMT3B, EPHA7, ATG14, EIF3H, BCAR3, STK38, ACOT8, RBPMS, RENBP, MAP3K13, RAPGEF3, SNCA, BMPR1B, MAGI2, PNPT1, USP50, RC3H1, EIF3E, RNF19B, PRKAG1, PSMF1, CAST, TRIP12, ADTRP, PLD1, OPRD1, RPTOR, MLLT1, IGF1, HTT, MAPK1, PTEN, SPRED2, BMP7, ATXN2, PUM1, LRRK2, TMEM59, UNC119, BAG6, LILRB4, PKD2, EFNA5, TADA2A, DAZL, PDGFC, SERPINA3, SERPINA4, SERPINA5, PKIB, PPP2R3C, WNT7A, NLRP1, UACA, DNAJC1, PLCL2, MTIF2, BMP6, MYCBP2, GPI, SH3RF2, N4BP1, ATRX, DPH6, RAPGEF2, VRK3, PRKAR2B, UBR5, GRIN1, ARRDC4, RHOA, SPRTN, RQCD1, CUL3, HSPD1, EPM2A, GSK3B, PRR16, DNAJC3, RDX, EEF2K, IWS1, PPP1R16A, PTPRB, NECAB2, CD27, BOK, RNF144B, AGT, METTL16, CCNJL, PRKAA2, ADAR, STAT2, ZMPSTE24, PTK2, SNX3, TEC, EXOSC3, MAP3K5, NCF1, TAOK2, PYGO2, SHC1, PARP10, RNFT1, RPS6KB1, PRG3, SERPINB1, DNAJB6, CD44, LARP4, ADAM8, CLDN4, RPS6KA5, CSNK1A1, HUS1, NOS1, RGS14, STK4, EPHB2, SLC1A1, IL18, MFSD8, UBE2K, DIS3, DLCL1, CPEB4, MOB3B, PAX6, PRKC</p>

			Z,ADORA2A,GRIN2B,RABGEF1,CCNG2,CPEB1,NIPBL,COL28A1,ANGPT1,LRRK1,OSBPL8,IGF2BP3,PPP1CA,MTF2,CDK5RAP1,CNTN1,BRAF,HDAC2,IMPACT,SPIN T2,CD300A,PHIP,PPP2CA,SKP1,ANGPT4,RPL23,ANXA2,PARN,MADD,SYK,CNOT1,WWTR1,DVL2,MTRF1,YBX1,PTPRJ,TAF1,EIF4E3,TICAM1,TANK,HSF1,DHFR,ETF1,SASH1,EEFSEC,MOB3A,GNAI2,SH2D3A,AKTIP,INPP5F,CD109,TBC1D10A,CAM K2D,SNX1,UCHL5,MALT1,SERPINE3,MLXIPL,NEDD4L,PHB,PTPRC,CTCF,SH3GL 2,TNXB,TRAP1,BMP4
GO:00 07267	cell-cell signaling	1.04053022 28102364e-13	GPC5,NRXN1,SIPR2,PDE7B,ADCY8,GRID2,RPS6KA2,NRG3,LATS2,NLGN4X,GRM 8,KALRN,SEMA5A,LRRFIP2,GRM5,CASK,ANK2,SH2D1A,NRXN3,CHD7,HTR2B,SL C24A2,GRK5,ITGB1,PSMB7,CNIH2,MCC,PCDH17,KLHL12,DLG2,ABCC8,ERC1,H MGN3,DGKI,STXBP4,ERC2,GABRA3,LAMA2,TCIRG1,PTPN11,CACNB2,DDDB1,SV2 B,ADORA1,ADRA1D,ABR,NPHP3,GRM7,PTPRO,NTRK2,CELA1,RNF220,PDGFB,C ACNA1B,RIMS1,TNKK,CDH8,USP46,TCF7L2,USP34,FBXW11,PTPRD,SLC6A10,BD NF,CDK14,CHRM3,GRIK4,VAMP7,PTPRU,RIT2,DEPDC1B,FYN,ARNTL,NF1,PLCB 1,SNCB,BCR,SHISA9,ICA1,CACNA1E,NRG1,SLC16A10,MDF1,VAX2,DAGLA,VGLL4 ,CNTN4,NTNG1,ROR2,ZDHHC3,LIN7A,SYN2,SOX13,FGF14,PCDHB16,EXOC4,MA D2L2,TLE6,RGS8,CAPRIN2,CCNYL1,NEUROD1,GNAQ,CLSTN2,SYT1,L ZTS1,SLC1A4,MLLT3,TCF7,KLF15,KCNC4,WNT11,IFT80,KREMEN1,ILIRAPL1,CA MK2B,PCSK5,PDLIM4,BTRC,JPH3,DLGAP1,PTPRN2,F2RL1,GRIK3,CELSR1,GAB RR3,CADPS2,GABRB1,SYT13,GPR176,CTNND2,DISC1,KCNJ3,KANK1,CACNA1D, CHRM1,CLOCK,PLCB4,SLC17A7,YTHDF1,FGF10,STXBP5,SLC16A1,SMURF2,EP HA4,CNRI,TNFSF11,PPP3CA,CTNNB1,PARK2,PPARG,AXIN1,PRKAR1B,RYR2,DR AXIN,RGS10,PER2,CACNA1C,CPNE6,SCN3B,GRM1,RIMS4,DCC,BICC1,TRABD2B, SPG11,SFRP1,FOXO3,DGKB,TRHDE,SMAD3,CUX2,GRIK5,SLC16A2,SHANK1,SYT 3,VANG1,SLC6A1,NFATC1,CDC73,APP,YAP1,AMFR,RAB11FIP5,NLGN2,LRP5,SL C9B2,SOX2,GPC6,PRICKLE1,DRD1,GLRA2,ESR2,KDM6A,SLC6A3,HNF4A,SHANK 2,EREG,CCNY,TMEM237,RAF1,CELFG,RASGRF2,NLGN1,FGF2,LRRC4C,GRIK1,A DCY5,MCTP1,DKK2,SORCS2,RAB11FIP3,PRKCG,GRIA2,DVL3,ECE2,RBX1,FBXL2 0,KCNQ1,WNT3,CCL15,NLGN3,PAFAH1B1,PRDM15,NMUR2,BTBD9,GLI2,TNKS,D AB2,WNK1,RELN,RUVBL2,RSPO2,KCNQ2,ZNF423,MACF1,SLC8A2,STAU1,P2RX6, ATAD1,ADNP,MAP1B,MARK1,EPHA5,SORCS3,WWOX,GABRG3,SYT12,CACNA1A, GPC3,ADRBK1,PSMB2,TRPV1,ELAVL4,HDAC1,INVS,PLCG2,C1QTNF1,EGR2,RNF 10,CAPN10,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,AXIN2,CACNG8,NETO1,SR D5A2,HTR1D,CHRN4,MCU,PTPRA,FBXW4,GABRA6,ILDR2,FCHSD2,PTK7,SNCA ,CACNG2,GRM4,MAGI2,ZEB2,SYT9,WNT7B,PTPRS,ABCA12,MITF,PKP2,BTK,ZNR F3,KCTD13,SLC4A8,MAPK1,PTEN,LRRK2,ZRANB1,UNC119,TMEM108,ITGAM,PK D2,EFNA5,SHANK3,AMOTL1,WNT7A,ZBED6,SNAP23,CEP89,PLCL2,BMP6,ANO1, TSHR,EXT1,PRICKLE2,GABRR2,RAPGEF2,SMO,PRKAR2B,STXBP5L,CPT1A,SYT17 ,SOX30,UBR5,GRIN1,JADE1,RHOA,SYNGAP1,VIPR2,GRIN3A,ROR1,CUL3,SH3KBP 1,EPM2A,GABRB3,GSK3B,SYN1,MCTP2,SULF1,RNF43,AGT,PRKAA2,SYT7,BLOC1 S6,HRH4,NDRG2,PHEX,SNX3,RIMS2,CPE,APCDD1L,SLC29A1,PYGO2,LBX2,SEEL ,ALOX5,CPLX2,PACIN2,CSNK1A1,GRID1,NOS1,RGS14,STK4,SPDEF1,EPHB2,SLC1 A1,WLS,IL18,DTNA,HCAR2,SYTL4,PRKCZ,ADORA2A,GRIN2B,CADPS,TBL1X,LRR K1,PPP1CA,RBMS3,CCL22,BRAF,HTR2C,TNR,PPP2CA,KCND2,FCRL2,ADCY1,SY K,WWTR1,GRIK2,MYRIP,CACNG3,DVL2,DLGAP2,KCNQ3,TNFSF9,WIF1,ANKRD6 ,RPH3A,EDA,RNF213,CREB1,SHISA6,EDNRA,BMP4
GO:00 19219	regulation of nucleobase-containing compound metabolic process	1.33474147 89210667e-13	ENPPI1,PRDX2,LDB2,ASPH,PRKCI,SLC30A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8, MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SC AF8,STOX2,PTGIS,PRKAG2,WWC3,PAGR1,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,ST AT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EZR,I KZF2,CHD7,MECOM,TACCI,TENM1,LMNA,TRAF6,ESRP1,DNAJA3,NHLH1,HSP9 0AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRI P1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,MYT1, IKBKB,PEX14,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,P CBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDG FB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,FMN2,RERE ,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZN F709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,RBM20,TBR1,SAMD4A,TFA P2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ENTPD5,ZNF148,MTA3,SNX6,TFDP2,ER N2,C1D,AFF3,DMD,CENPF,SLC30A9,TOX3,LARP4B,USP13,KAT7,ZNF667,KHDRB S2,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,MGMT,ARID4 B,PPP4R2,AFF2,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2, TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NFIA,RNF4,JDP 2,CMKLR1,ROR2,DCN,PCBD2,HNRNPLL,CDH13,CREBRF,TRDMT1,SOX13,WDR 70,AUNIP,COP55,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,TERF2,SLX1B,ZNF2 86A,FOXN3,NEUROD1,USP22,JAK2,FAM168A,TRAPPC9,SKAP1,UIMC1,ITCH,MLI P,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,AN XA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,QKI,CCDC62,ERCC8,PRKCD,SOX 6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,B TRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FA NK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,S ND1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,CAPN

			<p>3,LUM,SMURF2,RORA,HIVEP2,PRKCA,AUTS2,TNFSF11,SMG6,PPP3CA,NSUN2,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DAC H2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,AXIN1,OTUB1,IL18R1,CIPC,MTF1,CELF2,CBX5,BRIP1,LRPPRC,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,UBQLN4,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,ZCCHC17,CELF5,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CA SZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,SLC4A4,ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,RBM8A,YAP1,TEN1,EYA2,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,PRKD1,STAT1,CELF6,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,RAFI1,CELF4,ZNF766,CARD16,SRRM4,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,PABPC4,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,PRKCG,SIN3B,NCOA1,EHMT1,LMO7,DVL3,TCF20,ATF3,LIN28B,SRSF5,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,C RYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SI N3A,RUVBL2,COMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,FASTKD5,HOXC13,APBB3,SRA1,UBE2V1,ADIRF,AHNAK,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,MAPKAPK2,ARID4A,CDK6,PHF2,CELF1,TFR,EPHA5,WWOX,MEF2A,DCAF6,DROSXA,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,RBM12B,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,PAXIP1,ZNF713,EGR2,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,AXIN2,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SP11,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,RBPMS,CHURC1,CREB5,MAP3K13,SMYD1,SNCA,BMPR1B,PRIM2,PNPT1,ZEB2,FOXJ3,HEY2,RC3H1,ZMYND11,KMTD2,PRKAG1,CREM,KMT2C,TRIP12,DFFA,RASA1,MACC1,MITF,SRSF6,OPRD1,RPTOR,NFIX,BTK,MLLT1,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ASCC1,SMO,RALY,TCF4,SOX30,TFE3,UBR5,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,IWS1,RBBP8,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,POLH,PRKAA2,STAT2,ZMPSTE24,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2,IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,YLPM1,DPRX,SETDB2,DNAJB6,SP7,ADAM8,PS6K45,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,DIS3,PPARA,PPP1R10,ARID5B,SMARCA1,NOTCH4,CRTYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3HAV1,ADORA2A,CPEB1,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,EYA3,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,MBNL3,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,TRIM29,PARN,ADCY1,RBM42,SYK,CNOT1,RBM39,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAF1,TICAM1,THAP3,HSF1,MAX,SAP130,EZH1,NRF1,SRPK2,NCOA2,WDR18,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,TRA2B,KDM2B,M LXIPL,CCT3,PHB,PTPRC,EDA,ZNF555,CTCF,NR6A1,TRAF3IP2,ATF6B,CREB1,RGMB,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0016358	dendrite development	2.6216539784641236e-13	<p>PRMT3,LLPH,SEMA3A,PHACTRI,KALRN,CDKL5,ABII,ITGB1,KNDC1,DSCAM,DAB1,DOCK10,HDAC6,TNIK,RERE,PTPRD,TANC2,FYN,FAT3,NTN1,CAPRIN2,ZDHH C15,LZTS1,IL1RAPL1,CAMK2B,CTNND2,DISC1,LAMC2,DCLK1,EPHA4,PPP3CA,D LG5,DCC,DNM3,CUX2,ABI2,SHANK1,NEDD4,BTBD3,APP,FSTL4,NLGN2,PARP6,DGKG,CAMK1D,NLGN1,CTNNA2,SEMA4D,EPHB3,PAFAH1B1,TRPC5,RELN,ALK,PRKG1,PACSINI,ACTL6B,PAK3,MAP1B,MARK1,MEF2A,ACTR2,ELAVL4,MAP1A,EPHB1,SARM1,CARM1,ARHGAP44,CUX1,SDK1,PTPRS,PTEN,BMP7,LRRK2,SHANK3,WNT7A,RAPGEF2,RHOA,SYNGAPI,GRIN3A,GSK3B,EEF2K,TAOK2,EPHB2,KLHL1,MAP2,FBXO31,HDAC2,CDKL3,SRGAP2,TMEFF1,GRIPI,ASAPI,NEDD4L</p>
GO:0016192	vesicle-mediated transport	3.0794658208255997e-13	<p>ENPPI,HOOK2,BLZF1,NRXN1,PRKCI,CD302,LY75,CLASP2,DOCK1,LRP1B,NLGN4X,KALRN,SEC23B,CBL,RAB4B,RAB4B-EGLN2,ENPP2,FER,CASK,CCDC93,LRP2,PIK3CD,ANK2,EZR,MEGF10,NRXN3,HT R2B,VAV2,ITGB1,ELMO2,CNIH2,PCDH17,CCDC22,KLHL12,ERC1,NCF4,DGKI,ER C2,CACNB2,CYTH3,GOLGA4,ADORA1,GPRASP1,SORCS1,GBF1,LIMK1,CECR2,ST X18,HOOK3,VPS45,RIMS1,SNX2,INSR,FMN2,PIP4K2A,HPS1,PAK1,SFT2D1,SNX6,CHML,VAMP7,AP3S1,TMPRSS15,DENND5A,GSN,RIT2,FYN,ADAMTS9,NCF2,LMT K2,STX6,SNCB,MAL2,VTA1,BCR,NDRG4,BMP2K,DCTN1,NRG1,MAP2K1,MYH9,SCFD2,LIN7A,SCFD1,SYN2,DOCK2,CDH13,PITPNB,COPS5,EXOC4,RAB27A,RAB3C,COG8,TMED6,GOLPH3L,ANO6,ARL3,DENND1A,SYN3,SYTI,ATP9A,DENND2A,CT</p>

			<p>AGE6,MKLNI,CACNA1H,IL1RAPL1,PRKCD,TGFB1,F2RL1,AAK1,ZFYVE9,CADPS2,SYT13,CORO1C,C12ORF4,ANK1,RAB11FIP4,ITSN2,SYNJ2,DCLK1,RABGAP1L,SLC17A7,STXBP5,PLIN3,LOXL3,SNX8,CNR1,CD6,PPP3CA,TRAK1,CTNNB1,PARK2,FCGR2B,HSPA6,TSNARE1,IGF1R,PPARG,PRKAR1B,MYO1D,MSR1,SYTL5,SCAMP5,ANXA13,LEPR,LEPROT,PROS1,NR4A3,SCARA3,CPNE6,MYO1E,HCK,TBC1D14,MRC2,RIMS4,ANKFY1,SPTBN1,AP3B2,SPG11,CCDC91,DNM3,RAB6A,ACKR2,WIP1I,VPS39,GRIK5,SYT3,NEDD4,VPS53,RAB6C,APP,BET1L,RAB11FIP5,NLGN2,SCRN1,LRP5,SEC22C,SLC9B2,SPTBN4,DRD1,TPH1,PRKD1,VPS4A,MAPKAPK3,PTPN1,USP33,DPYSL2,CAMK1D,APIB1,NLGN1,ATP9B,SNX16,SPAG9,RAB11A,EPG5,MCTP1,PTAFR,HHIPL1,EEA1,ABCA13,RAB11FIP3,PRKCG,TXNDC5,AP2M1,TRAPPC11,LMBRD1,FBXL20,TSG101,RHOJ,NLGN3,KIF3A,HIP1,BTBD9,ENTHD1,STON2,DAB2,XKR4,FAM91A1,MACF1,ARHGAP12,MYO7A,CLASPI,TPCN1,SNX5,NSF,PACSIN1,ASGR2,ATAD1,MAPKAPK2,SCARB1,TFRC,UVRAG,SYT12,FNBP1,GPC3,SGIP1,ADRBK1,TBC1D5,CLEC16A,GHR,PRSS12,SNX9,ARL5A,C2,PLCG2,ROCK1,GAPVD1,AP3B1,ANK3,UNC13A,TUB,SH3GL3,CACNG8,AP3D1,AP2B1,ANXA8L1,ARHGAP44,HEATR5A,SNX33,CD84,CUX1,SP1I,VPS16,ACAP2,ATG14,FCHSD2,RAB15,SH3BP1,SNCA,CACNG2,MAGI2,SYT9,CHMP3,RAB5B,OSBPL1A,ABCA12,PLD1,BTK,VPS41,SLC4A8,PLA2G4E,STX8,HTT,MAPK1,PTEN,MIB1,ATXN2,PIK3C3,LRRK2,UNC119,CHMP5,CNIH3,LILRB4,TMEM108,ITGAM,ARHGAP25,NSG2,MIA2,TMCC1,WNT7A,SNAP23,RABEP1,STXBP5L,SYT17,SOX30,DNAJC6,GRIN3A,TF,RHOBTB1,ESYT2,FAM19A4,CUL3,SH3KBP1,GSK3B,PLD2,RDX,SYN1,EEF2K,NECAB2,VAMP1,SYT7,BLOC1S6,PTK2,LAT2,SNX3,EXOC6B,RIMS2,COPG2,SEC16B,CD160,ITGAL,CPLX2,ARFGAP3,PACSIN2,MON2,TBC1D23,COG4,EPHB2,SLC1A1,CALCRL,SYTL4,ADORA2A,RABGEF1,GPR107,ANGPT1,CADPS,TBC1D10C,CFI,NUMB,ATG3,BRAF,CLTB,CD300A,SH3BP4,VT1A,ANXA2,RAB27B,ITSN1,ADCY1,NUMB,SYK,RAB2A,SEC31B,CACNG3,ANKRD13A,GRIP1,PTPRJ,ERGIC1,CNIH4,PLEKHM1,FCHO1,VAV3,ZP3,CAV2,AKTIP,EPS15,INPP5F,TMPRSS3,AXL,REPS2,MET,TBC1D10A,MICAL3,SNX1,EHD2,TRAPPC8,NEDD4L,PTPRC,SH3GL2,TYRO3,SPON2,SYNDIG1,VPS52,CLNK,STXBP6,CPNE1</p>
GO:0070887	cellular response to chemical stimulus	3.7585758658740223e-13	<p>ENPPI,PRDX2,NRXN1,ASPH,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,IL31RA,RPS6KA2,PTGFR,CLDN18,CTDSPL2,RYR1,LATS2,NREP,PTGIS,TJP1,UNC5C,PLRL,PAGR1,ADCY7,NTRK3,CBL,ARNT,EGLN2,SEMA5A,FLT3,STAT5B,GRM5,SAMHD1,FER,CASK,MAP2K5,LRP2,PIK3CD,HDGF,EZR,ROBO1,SLC26A6,HTR2B,ITGB6,RYR3,LMNA,GOT1,LPO,TRAF6,ROBO2,ITPKB,DNAJA3,OXR1,ERCC6L2,ELMO2,CD6C,PSMB7,DLG2,PTPRK,ABCC8,HMGN3,NRIP1,DNAJB14,THRB,STXBP4,PD4A,IL17RB,TCIRG1,PTPN11,HDAC6,MSRA,ADAMTS3,IKBKB,ERBB4,GBF1,BRD8,ESR1,PMEP41,PTPRO,NTRK2,EP300,CPNE4,FNT4,PDGFB,CCND3,ALOX5AP,BP1,STK39,INSR,FMN2,PIP4K2A,CAB39,PAK1,LITAF,ESRRB,EGLN3,BDNF,TFAP2A,AMIGO1,CHRM3,FUT8,UBR2,MDM4,IL5RA,ECT2,SNX6,ERN2,LSP1,AP3S1,DMD,SLC8A1,GSN,SATB2,FYN,ARNTL,NF1,PLCB1,MGMT,RTN4,RXFPI,DMEP1,CHRD,L1,BCR,RWDD3,CHI3L1,PIK3R2,NTN1,CDK19,BDKRB2,DOCK8,TMBIM6,PPP2CB,HDAC5,CMKLR1,ROR2,DCN,SLC39A14,CREBRF,PTPRT,COP5,IPO5,RGS8,DEFA1B,DEFA3,PTGER2,STIP1,ANO6,NEUROD1,GNAQ,RFFL,CCEB1,JAK2,FBXW7,SYT1,CLDN1,TCF7,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,NOX4,LCOR,CACNA1H,IL1RAPL1,CCDC62,ADAM23,PRKCD,SOX6,ACVR2A,RUNX2,CD4,PPM1E,TGFB1,SGK1,MMP28,BTRC,PTPRN2,F2RL1,BCAS3,SLIT3,ZFYVE9,SLIT2,GABRB1,SYT13,HPK,KANK1,ZFAND2A,MTDH,CHRM1,SMAD6,RXFP2,CLOCK,ZNF675,KCNH1,BMPER,DAPK2,PARVA,DUSP22,NAIP,SBNO2,FGF10,RASA4,RASA4B,SMYD3,IL1RAPL2,GLP2R,ADCY2,CAPN3,SLC16A1,SMURF2,EPHA4,RORA,PRKCA,CD6,TNFSF11,PPP3CA,HBE1,NFYB,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,HSPA6,SMARCC1,IGF1R,PPARG,AXIN1,IL18R1,IL1RL1,MTF1,MSR1,CYBB,BRIP1,RYR2,LEPR,LEPROT,FGF1,RGS10,NR4A3,NOL3,MYOCD,TRIM5,AJUBA,CPNE6,LYR2,CHKE2,PRDM16,HCK,SORBS1,CAPN2,FLT4,HDAC4,PAX2,SFRP1,FOXO3,TPH2,SSH1,SYNCRIP,SMAD3,CUX2,ACKR2,GRIK5,SYT3,IFNAR1,NEDD4,NRP2,PREX1,DOCK4,ESRRG,TAB1,CDC73,APP,PDGFRA,AOC2,NOX1,YAP1,AMFR,RAB11FIP5,SESNI,TNFRSF19,A1PL,JAK1,LRP5,SLC9B2,GNG2,CHST11,DRD1,GLRA2,CHUK,FRS2,MMP2,ESR2,SI00A12,CPNE9,PRKD1,STAT1,STI8,ETV5,HNF4A,EREG,ATF2,RAF1,EPHX1,CARD16,CASPI,PTPN1,ADAMTS12,BMPR2,CAMK1D,BMPRI4,TSPAN12,NLGN1,COL16A1,PIK3R3,EPG5,FGF2,BACH1,PPM1F,ADCY5,RORC,PTAFR,JARID2,DDX58,RARB,NCOA1,EEF1E1,CHRD,PTPRE,ATF3,SHOC2,SRSF5,PAWR,ACAA1,CCDC3,CLIC4,IDE,KCNQ1,RFX2,WNT3,P4HB,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,CNTFR,TRPA1,DDAH1,AKAP6,RASAL1,NR2C1,IRS4,GLI2,NEO1,PXDNL,WDT1,DAB2,BLM,UBR1,LDLRAD4,WNK1,SIN3A,RUVBL2,CSF3R,IQGA1,MAP3K7,ZNF423,SP1,ALK,GSTM3,STAU1,SRA1,XDH,LTBP1,OVOL2,SNX5,ATP2B4,PACRG,PAK3,DYX1C1,MAPKAPK2,MAP1B,COL4A6,SCARB1,ATP6V0A2,TFR,C,EPHA5,WWOX,MEF2A,SYT12,CACNA1A,GPC3,XRN1,ADRBK1,PSMB2,BRINP1,SHPK,TRPV1,GHR,FLRT2,ACTR2,ACACA,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,EGR2,CAPN10,GPR35,ACAP1,PTPN2,INSRR,NTRK1,TRIM44,ZFAND1,ANK3,EPHB1,AXIN2,TMEM199,CARM1,HTR1D,SP1I,MCU,PTPRA,CTNNA1,AIFM2,ACAP2,LRRC8C,LRRC8D,LY86,BCAR3,CHURC1,RAB15,RAPGEF3,PDXP,MST1,PTK7,SNCA,BMPRI1B,MAGI2,PNPT1,ZEB2,SYT9,RC3H1,WNT7B,HMGCS2,KMT2D,SULT2A1,SPPL2A,ADTRP,ABCA12,OPRD1,HIPK1,NUGGC,RPTOR,BTK,TROVE2,IGF1,STX8,DPYSL3,MAPK1,PTEN,SPRED2,BMP7,SOX5,PRCP</p>

			,LRRK2,ATP6V1A,GNA14,ZBTB20,CHMP5,BAG6,LILRB4,TMEM108,IPCEFI,IL11R A,NSG2,PKD2,EFNA5,AOX1,PDGFC,NCOA3,WNT7A,ZBED6,NME8,GLDC,GPR21, BMP6,NFE2L1,ANO1,IL17RD,SOS1,TSHR,EXT1,PDGCD1LG2,ATRX,PNPLA3,PRMT2 ,RPGFE2,ABCG2,KCNC2,SMO,CPT1A,SYT17,UBR5,GRB14,GRIN1,RHOA,RQCD1 ,TF,ONECUT2,FAM1944,CUL3,HSPD1,ITPR2,GABRB3,GSK3B,RDX,STAT6,EEF2K ,BOK,SULF1,KRT8,AGT,PRKAA2,SYT7,ADAR,FBN2,STAT2,BRINP3,HRH4,PTK2,P HEX,PDE4B,VEPH1,MAP3K5,CREBBP,DLX1,FMOD,PCSK6,NCF1,SLC29A1,UGT1 A1,UGT1A10,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9,SHC1 ,NDUFS2,RPS6KB1,STC2,GPR173,ALOX5,CD44,ADAM8,RPS6KA5,CXCL17,NOS1, PLEKHA1,PLVAP,ACTN4,SCNN1B,ZFAND6,EPHB2,SLC1A1,SIGMAR1,XCR1,IL18, TPMT,UBE2K,PPARA,ARID5B,CALCRL,MCOLN1,SLC25A33,CPEB4,GPSM3,ZNF3 66,CYP2C18,CYP2C19,FBN1,PAX6,PRKCZ,ATP1A3,FAM20C,RABGEF1,CPEB1,TY K2,ASPN,ANGPT1,OSBPL8,ATF6,GCNT2,VWC2,MTF2,BIN2,CCL22,NCOR2,PRKC Q,BRAF,DIAPH1,HDAC2,HTR2C,IMPACT,SPINT2,PHIP,ANGPT4,RPL23,SH3BP4,S P100,KCND2,ADCY1,SYK,CNOT1,YBX1,PTPRJ,TAF1,TICAM1,TANK,UCN2,A3GAL T2,HSF1,MAX,DHFR,SASH1,NCOA2,ADAMTS7,GBP5,QRICH1,VAV3,CHD6,CIB2,C AV2,UGGT1,AXL,CD109,DENND4C,MET,CAMK2D,CCR3,TIMELESS,MALTI1,PFKP ,TRA2B,MLXIPL,PHB,PTPRC,EDA,PBLD,SH3GL2,SPON2,ADCY10,TRAF3IP2,ATF 6B,CREB1,RGMB,TRAP1,EDNRA,NGGT1,BMP4,CPNE1
GO:00 51252	regulation of RNA metabolic process	6.80376557 1201209e- 13	ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8, MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SC AF8,STOX2,PTGIS,WWC3,PAGR1,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TO X,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EZR,IKZF2,CH D7,MECOM,TACCI,TENM1,TRAF6,ESRP1,DNAJA3,NHLH1,PSMB7,TSC22D3,ZC4 H2,CCDC22,GFI1B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCA7,ITGB3BP ,DACH1,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BR D8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CEL A1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,Z NF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JM JD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASP1,RB M20,TBR1,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,A FF3,DMD,CENPF,SLC30A9,TOX3,LARP4B,USP13,KAT7,ZNF667,KHDRBS2,RBM1 4,RBM4,MED12L,SATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,AFF2,RWDD3, BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB ,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN, PCBD2,HNRNPPL,CDH13,CREBRF,TRDMT1,SOX13,COPS5,MAD2L2,TLE6,CAPRIN 2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,UI MC1,ITCH,MLIP,BCL11B,RBFOX1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,T BX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,QKI,CCDC62,PRKCD,SOX6,ACV R2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,N FATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,M YTIL,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SNDI1,D USP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,SMYD3,LOXL3,CAPN3,LRR,SUMU RF2,RORA,HIVEP2,PRKCA,AUTS2,TNFSF11,PPP3CA,NSUN2,NFYB,MAGEA4,KLF 12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMA RCC1,KLF17,PPARG,AXIN1,IL18R1,CIPC,MTF1,CELF2,CBX5,BRIP1,LRRPRC,SRE BF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,A JUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,Z BTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO 3,NFIB,SP4,ZCCHC17,CELF5,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRB OX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3 ,HOXD4,ZNF114,KTI12,NFATC1,CDC73,APP,SSBP3,GSX2,RBM8A,YAP1,LRP5,PO LR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,C HUK,SFMBT1,ZNF584,ESR2,S100A12,PRKD1,STAT1,CELF6,ST18,ETV5,RHOXF2B, TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,RBFOX3,ATF2,POU2F2,TCF3,ZNF73 0,RAF1,CELF4,ZNF766,CARD16,SRRM4,BMPR2,CAMK1D,BMPRI1,ZKSCAN1,PA BPC4,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3 ,PPM1F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,R HOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DV L3,TCF20,ATF3,LIN28B,SRSF5,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRY M,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169- SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,T NRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SIN3A,R UVBL2,COMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,FAST KD5,HOXC13,APBB3,SRA1,UBE2V1,ADIRF,AHNAK,OVOL2,SNX5,NFATC2,PAX7,B NCI,ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,MAPKAPK2,ARID4A,C DK6,PHF2,CELF1,TFRC,EPHA5,WWOX,MEF2A,DCAF6,DROSHA,SATB1,PSMB2,E YAI,GATAD2A,DIS3L2,TRPV1,RBM12B,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MN AT1,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,TRIM24,PLCG2,ROCK1,SCMH1,P AXIP1,ZNF713,EGR2,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,AXIN2,E PCAM,ZNF425,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF 836,SMARCA2,CUX1,SPII,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,RBPMS,

			<p>CHURC1, CREB5, MAP3K13, SMYD1, SNCA, BMP1B, PRIM2, PNPT1, ZEB2, FOXJ3, H EY2, RC3H1, ZMYND11, KMT2D, CREM, KMT2C, RASA1, MACC1, MITF, SRSF6, OPRD1, RPTOR, NFIX, BTK, MLLT1, CBFA2T2, IGF1, MLXIP, ATF7IP, PTEN, BMP7, MXI1, PUM 1, SOX5, CIR1, PCBP2, ZNF780A, ZNF780B, ZBTB20, LILRB4, PKD2, ZNF652, KCTD1, RI PPLY1, RCOR3, TADA2A, DAZL, NCOA3, ZNF146, ZNF565, WNT7A, ZBED6, BRWD3, CR TC3, ARNTL2, KAT6A, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, NFE2L1, WDR43, ZN F30, ATRX, IKZF1, PRMT2, ASCC1, SMO, RALY, TCF4, SOX30, TFE3, GRIN1, JADE1, RH OA, ROR1, RQCD1, TF, ONECUT2, CUL3, TFEC, STAT6, MLF1, IWS1, RBBP8, CDK13, D USP26, ZNF362, NACC2, SUPT4H1, ZNF354A, AGT, HDGFRP3, METTL16, STAT2, ZMP STE24, PBX1, EXOSC3, MAP3K5, TCFL5, CREBBP, DLX1, GTF2IRD2, NCF1, SHC1, ZNF 813, Lbx2, PARP10, DPRX, SETDB2, DNABJ6, SP7, ADAM8, RPS6KA5, ZNF484, ZNF93, PRDM2, NOS1, ZNF44, MED15, RGS14, ACTN4, MC1R, TCF25, ZNF282, EDRF1, IL18, DI S3, PPARG, ARID5B, SMARCA11, NOTCH4, ZMYND8, ZNF366, CRX, PAX6, PRKCZ, ZC3 HAV1, ADORA2A, CPEB1, OTUD7B, NIPBL, YEATS4, PHF20, ZNF143, BRF1, TBL1X, FH L2, MBTD1, ATF6, ZBTB5, ZNF708, IGF2BP3, ETS1, MTF2, TAGLN3, NCOR2, PRKCQ, C SRNP1, HDAC2, IMPACT, SRCAP, POU3F3, NOTO, MBNL3, ZKSCAN5, ELF2, PHIP, PP P2CA, RPL23, ATXN1, SP100, ZNF347, ZNF415, TRIM29, PARN, ADCY1, RBM42, SYK, CN OT1, RBM39, WWTR1, GTF2H5, NFXL1, ZBTB38, BRCA2, ATF7, DVL2, MORC1, YBX1, T AF1, TICAM1, THAP3, HSF1, MAX, SAP130, EZH1, NRF1, SRPK2, NCOA2, QRICH1, ZP3, CHD6, RNF2, ZNF554, MYEF2, TRIM37, MET, ZNF461, CAMK2D, TIMELESS, BRD9, MA LT1, SETD3, TRAF2B, KDM2B, MLXIPL, PHB, EDA, ZNF555, CTCF, NR6A1, TRAF3IP2, AT F6B, CREB1, RGM, EBF4, ZNF511, BMP4, ABLIM3</p>
GO:19 90138	neuron projection extension	6.82068404 2697838e- 13	<p>LLPH, CLASP2, SEMA3A, SEMA3D, SEMA5A, OLFM1, CDKL5, ITGB1, HSP90AA1, DSC AM, GOLGA4, LIMK1, RIMS1, CDH4, RTN4, RTN4R, NTN1, SYT1, CYFIP2, SEMA5B, SLIT 3, SLIT2, DISC1, ITSN2, DCLK1, AUTS2, MAG, CTNNB1, PARK2, DRAXIN, CPNE6, SPG1 1, SYT3, NRP2, DIP2B, ISLR2, CPNE9, SEMA6D, BMPR2, DPYSL2, SPAG9, RAB11A, SEM A4D, VCL, WNT3, NLGN3, PAFAH1B1, RASAL1, TRPC5, RUFY3, SIN3A, IQGAP1, MACF 1, ADNP, MAP1B, UNC13A, TRIM46, MAP3K13, PTPRS, RAP1, TMEM108, SYT17, GSK 3B, RIMS2, PRKCZ, MAP2, IMPACT, TNF, CDKL3, SLIT1, SEMA3C, NEDD4L, SH3GL2, E DNRA, CPNE1</p>
GO:00 30036	actin cytoskeleton organization	9.59562250 8125728e- 13	<p>CLRN1, PRKC1, SIPR2, SLC9A1, CLASP2, NOS1AP, EPB41, PHACTR1, FHOD3, TJPI, U TRN, PHACTR2, NTRK3, SEMA5A, FER, EZR, TENM1, CTNNA3, ABI1, ITGB1, TRIOBP, E LMO2, GAS7, AKAP13, CDC42EP3, XIRP2, EPHA1, IKBKB, LIMK1, TNK1, FMN2, PRKAR 1A, PAK1, FMNL2, PHACTR4, ARHGAP6, ECT2, DMD, GSN, CASS4, NF1, PCDH15, BCR, TTN, MYH9, FRMPD4, DOCK2, MAD2L2, TLE6, NCKAP1, JAK2, MYPN, CDC42BPB, PLS 1, CYFIP2, WNT11, MKLN1, PRKCD, PPM1E, TGFB1, PDLIM4, F2RL1, BCAS3, CELSR1, SLIT2, CORO1C, KANK1, PARVA, STRIP1, FGF10, KANK4, ENAH, RHPN2, SVIL, CAPN3 ,AUTS2, MPRIP, PARK2, MYO1D, ADD2, MYO1E, HCK, SORBS1, TBCK, OBSCN, NF2, SP TBN1, ELN, SFRP1, SSH1, SMAD3, ABI2, SHANK1, ARHGEF18, PREX1, PDGFR4, ADD3, MYO1F, SPTBN4, VILL, RND3, VPS4A, ABLIM2, PTPN1, CTNNA2, PPM1F, NEDD9, PAW R, RHOJ, PAFAH1B1, HIP1, RUFY3, IQGAP1, ARHGAP12, MYO7A, CLASP1, GPM6B, PR KG1, PACSIN1, SPTBN5, PAK3, SSH2, CDC42BPA, AIF1L, EPHA5, MEFA2A, PLS3, CALD 1, FGD1, SNX9, DIAPH2, ACTR2, ROCK1, EPS8, CAPN10, INSRR, PPP1R9A, ARHGAP44, MCU, CTNNA1, LIMA1, SHROOM3, FCHSD2, RAPGEF3, PDXP, SH3BP1, PTK7, CSRP1, RASA1, KCTD13, DPYSL3, ARHGEF17, ARHGAP25, EFNA5, SHANK3, AMOTL1, PARVB ,RHOA, TF, RHOB, TBI, SHROOM1, CUL3, SH3KBP1, RDX, FAM49B, KRT8, ESPNL, IQG AP2, FAM171A1, TAOK2, SHC1, ALDOA, PGM5, DNABJ6, FGD3, PACSIN2, THSD7A, FG D4, ACTN4, THSD7B, TMEFF2, DLCL1, EPB41L4B, SPECC1L, PHLD2, KLHL1, SHROO M4, EPB41L2, NEBL, BRAF, DIAPH1, FRMD5, CIT, NEB, MYO1A, CGNL1, EPB41L1, NU AK2, MET, FMNL1, MICAL3, SETD3, SPTAN1, EHD2, TNXB, ABLIM3</p>
GO:00 06811	ion transport	1.00012874 97797018e- 12	<p>SLC39A11, ENPP1, RTBDN, NRXN1, ASPH, SLC30A1, PDE4D, SLC9A1, FAM155A, GRI D2, CHERP, SLC25A17, CACHD1, RYR1, NOS1AP, NOX5, EPB41, DPP6, CLCN1, SLC35 F3, UTRN, ATP2B2, KCNQ5, GRM5, CASK, KCNIP4, LRP2, SLC38A11, ANK2, SLC9A9, C HD7, SLC26A6, HTR2B, RYR3, SLC24A2, NKAIN2, ITGB1, SLC24A3, CNH2, NKAIN3, SL C22A8, CNGB1, FLVCR2, ABCC8, GABRA3, TCIRG1, KCNS3, NIPAL2, NETO2, CACNB2, ADORA1, CNNM1, KCNJ16, GRM7, DPP10, NTRK2, PDGFB, CACNA1B, STK39, ATP8B1 ,PLLP, CAB39, ZDHHC13, SLC20A2, SLC4A10, CATSPER2, GLTP, AMIGO1, KCNMA1, CHRM3, GRIK4, KCNRG, LCK, TMC2, SLC12A8, VAMP7, SLC6A16, RHCE, MICU3, DM D, SLC30A9, SLC8A1, JPH2, FYN, NF1, SLC16A6, LMTK2, SLC25A21, SLC5A6, SLC2A14, SHISA9, ANKH, CACNA1E, SLC4A5, KCNN3, CNNM2, SLC43A2, BDKRB1, BDKRB2, KC NIP1, SLC35A2, SLC01A2, STIM1, NALCN, TMBIM6, SLC39A14, CATSPER3, FGF14, CL DN16, ANO6, KCNB2, SYT1, NPSR1, ABCC2, SCN4A, TMC1, SLC1A4, SLC5A9, SLC9A7, C CNC4, CLCA2, CACNA1H, CAMK2B, CD4, TGFB1, SGK1, KEL, JPH3, CLDN10, GRIK3, G ABRB1, GABRB1, SYT13, CDH23, KCNJ3, CACNA1D, ABCC11, CACNA2D3, ANO4, XPR 1, CHRM1, ANO3, KCNH1, HOMER2, SLC17A7, KCNH7, CAPN3, SLC16A1, VMP1, CNR1 ,ANO2, TNFSF11, PPP3C4, CTNNB1, PARK2, COX8A, TMEM63C, TRPM1, CYBB, KCNJ 12, RYR2, KCNA6, NDUFA9, NOL3, PER2, CACNA1C, SCN3B, GRM1, ATP10D, ITPR1, W WP2, GRIK5, PSAP, SLC16A2, SHANK1, SYT3, NEDD4, SLC44A, SLC6A1, KCNK1, APP, N OX1, SFXN5, NLGN2, VDACL1, IBTK, SLC9B2, SPTBN4, GRIA3, DRD1, GLRA2, PRKD1, SL C6A3, FXYD2, FXYD6, FXYD6- FXYD2, SLC16A12, KCNG4, RASGRF2, NLGN1, FGF2, GRIK1, PTAFR, ADCYAP1R1, KL HL3, MRS2, SLC5A8, SLC9B1, GRIA2, OC90, SLC35D1, ATP6V0B, CLIC4, KCNQ1, TG, N LGN3, TRPA1, TRPM3, NMUR2, AKAP6, TRPC5, WNK1, RELN, ABCB1, KCNQ2, SLC22A</p>

			3,SLC47A1,SLC8A2,SLC9C1,TPCN1,GPM6B,CLIC5,AHNAK,RGS7,ATP2B4,NSF,SLCO4A1,P2RX6,ATP6V0A2,KCNAB2,TFRC,GABRG3,SYT12,CACNA1A,STOM,TRPV1,SLC38A6,PLCG2,GPR35,ABCC1,SLC39A10,ANK3,ATP13A3,KCND3,CACNG8,SLC9C2,NETO1,CD84,CHRN4,MCU,TRDN,GABRA6,LRR8C8,LRR8C8D,STAC,TRPC6,ABCB7,SLC41A2,SLC48A1,ATP13A5,SNCA,CACNG2,SLC39A9,SYT9,CNGA3,SLC22A10,CLCC1,OPRD1,PKP2,BTK,SLC4A8,HTT,SLC30A7,SCN8A,LHFPL5,ATP6V1A,CNIH3,SLC44A1,TMCO1,PKD2,SHANK3,BEST3,STEAP4,SNAP23,ANO1,ANO8,SERINC5,GABRR2,ABCG2,KCNC2,SLC6A14,PSEN2,SYT17,GRIN1,RHOA,GRIN3A,TF,ITPR2,EPM2A,GABRB3,EMB,SCN9A,AGT,SYT7,ZMPSTE24,HEPHL1,PEX5L,PDE4B,COX5A,TRPC4AP,SLC25A42,SLC29A1,UGT1A3,SLC44A3,KCNJ15,SLC5A10,STC2,SLC5A3,CLDN4,GRID1,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCNN1B,COX6A1,EPHB2,SLC1A1,XCR1,LRR52,NKAIN1,ABCD3,CALCRL,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B,SLC25A26,SLCO2B1,GRIA4,CNTN1,DIAPH1,HTR2K1,ATP8A1,TMEM163,UOCR10,SLC26A2,ANXA2,KCND2,ATP6V0A1,SYK,GRIK2,SCN1A,SLC44A5,CACNG3,SLC10A1,ATP2B3,GPM6A,SLC13A3,SLC5A4,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,GPR89A,SHISA6,EDNRA,SLC25A13
GO:0043549	regulation of kinase activity	1.0431542402185251e-12	LDB2,NRXN1,ADCY8,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,FLT3,GRM5,PLCE1,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,DNAJA3,VAV2,AB11,HSP90AA1,CDC6,AKAP13,DAB1,ADORA1,EPHA1,ERBB4,MRE11A,PTPRO,NTRK2,PDGFB,CCND3,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,ECT2,SNX6,ERN2,SLC8A1,CASS4,NF1,LMTK2,CH13L1,TTN,PAQR3,PIK3R2,NRFP1,MAP2K1,ROR2,PTPRT,IPO5,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ZFYVE28,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,CD4,PPM1E,TGFB1,PIBF1,CORO1C,ZNF675,ANKRD54,TNFRSF10B,DUSP22,DOCK3,SMYD3,EPHA4,TNFSF11,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,FGF1,PRKAR2A,MYOC,DJUBA,SPDYA,NF2,FLT4,SFRP1,TAB1,APP,PDGFRA,CCN2,HEG1,BORA,IBTK,LRP5,MTCP1,S100A12,PRKD1,EREG,CCNY,PTPN1,BMPR2,BMPRI1A,PIK3R3,CDK12,FGF2,PPM1F,NEDD9,DVL3,EPHB3,CKS1B,DEPTOR,TSG101,DAB2,BLM,CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,ATP2B4,ADNP,UVRAG,EPHA5,GHR,MNAT1,SNX9,HIPK3,PTPN2,INSRR,NTRK1,EPHB1,EPHA10,AXIN2,PIFO,EPHA7,ATG14,STK38,MAP3K13,SNCA,BMPRI1B,PRKAG1,RPTOR,MLLT1,IGF1,HTT,PTEN,BMP7,LRRK2,UNC119,LILRB4,PKD2,EFNA5,PDGFC,PKIB,PPP2R3C,RAPGEF2,PRKAR2B,RHOA,ROR1,EPM2A,PTPRB,AGT,CCNJL,ADAR,PTK2,MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,GCKR,RGS14,STK4,EPHB2,SLC1A1,IL18,MOB3B,PRKCZ,ADORA2A,CCNG2,ANGPT1,OSBPL8,CDK5RAP1,CD300A,PPP2CA,ANGPT4,MADD,SYK,WWTR1,DVL2,PTPRJ,SASH1,VAV3,MOB3A,AXL,MET,MALT1,PHB,PTPRC,TYRO3,TNXB,BMP4
GO:0051056	regulation of small GTPase mediated signal transduction	1.214675892252613e-12	MAP4K4,TLAM2,MAPRE2,KALRN,CBL,PLEKHG4B,PLCE1,KITLG,ROBO1,ITPKB,VAV2,ITGB1,SRGAP3,TRIO,ARHGAP24,AKAP13,DGKI,CYTH3,GBF1,ABR,CDON,ARHGAP6,ECT2,ARHGAP42,RIT2,NF1,RTN4,RTN4R,BCR,NRG1,ARHGAP10,DOCK8,RALGPS2,PPP2CB,DOCK2,ARHGAP32,RALGPS1,DENND1A,ARHGAP23,SIP1IL3,F2RL1,SLIT2,KANK1,DOCK3,FGF10,RASA4,RASA4B,ARHGEF28,KCTD10,AUTS2,ARHGAP22,GARNL3,P2RY10,ARHGAP31,OBSCN,ARHGAP29,ARHGEF18,PREX1,HEG1,RAF1,RASGRF2,DENND4A,ADCYAP1R1,ARHGAP39,SHOC2,MYO9A,FAM13A,RASAL1,RELN,ARHGAP12,P2RY8,FGD1,EPH8,GPR35,NTRK1,DNMBP,ARHGAP44,ARHGEF3,SH3BP1,RASA1,KCTD13,IGF1,ARHGEF17,RASA2,ARHGAP25,FAM13B,SOS1,SYNGAP1,CUL3,RDX,FAM49B,ARHGAP15,FGD3,FGD4,SIP1IL2,ARHGAP11A,EPHB2,DLC1,RABGEF1,DENND4B,ARHGAP21,ITSN1,SRGAP2,MADD,ARHGAP19,RAP1GAP2,RALGAP1,CGNL1,VAV3,DENND4C,MET
GO:0051649	establishment of localization in cell	1.373770641003123e-12	POLDIP3,ZDHHHC14,HOOK2,NRXN1,ASPH,PRKCI,PDE4D,SLC9A1,FAM155A,ADCY8,CLASP2,CHERP,WWC1,KIF22,CTDSPL2,RYR1,NOS1AP,TUBA1C,NOX5,ANP32A,NLGN4X,SEC23B,LTV1,SNX31,CBL,FAM53A,FER,CASK,CCDC93,PIK3CD,TNPO3,ANK2,EZR,NRXN3,TOM1L1,CHD7,HTR2B,TENM1,RYR3,KIF5C,LMNA,SRP72,SLC24A2,ITGB1,HSP90AA1,CNIH2,PCDH17,CCDC22,KLHL12,AKAP13,DLG2,IFT43,MYO10,ERC1,HMGN3,AFTPH,DGKI,STXBP4,ERC2,EFCAB7,TCIRG1,PTPN11,CACNB2,HDAC6,ADORA1,GPRASP1,PEX14,GBF1,TLK1,STX18,HOOK3,VPS45,RIMS1,SNX2,FMN2,TCF7L2,PIP4K2A,FBXW11,LCK,ECT2,SNX6,CHML,VAMP7,RFTN1,SHFM1,AP3S1,NPLOC4,DENND5A,DMD,CENPF,RANBP17,SLC8A1,RBM4,TANC2,JPH2,FYN,NF1,SMG7,DST,LMTK2,STX6,SNCB,GOLGA2P5,APOD,VTG1,BCR,NDRG4,PIK3R2,NTN1,DCTN1,NRG1,BDKRB1,BID,MAP2K1,MYH9,MAD1L1,TMBIM6,TME30A,PARD3B,SCFD2,ZDHHHC3,SLC39A14,LIN7A,SCFD1,SYN2,CREBRF,COP5,E,XOC4,IPO5,MAN1A1,TLE6,RAB27A,TERF2,TMED6,ARL3,NEUROD1,IPO11,ICK,RANBP1,DENND1A,ZDHHHC15,JAK2,FBXW7,OAZ2,SYN3,SYT1,NPSR1,BBS12,SNAP25-AS1,SMG1,DYNC11I,ATP9A,DENND2A,KPNA3,CTAGE6,CENPC,IMMP2L,PRKCD,TGFB1,NUP93,PIBF1,JPH3,PTPRN2,F2RL1,BCAS3,ZFYVE9,CADPS2,CORO1C,C12ORF4,KCNJ3,CACNA1D,ZFAND2A,GRPEL2,ANK1,CLMN,CHRM1,RAB11FIP4,ITSN2,SYNJ2,BCL3,DCLK1,ANKRD54,RABGAP1L,ANKFN1,SLC17A7,FGF10,STXBP5,CAPN3,SNX8,CNR1,SMG6,PPP3C4,NSUN2,TRAK1,CTNNB1,PARK2,RN7SL832P,FCGR2B,TSNARE1,AXIN1,PRKAR1B,MYO1D,TRPM1,SYTL5,LRPPRC,SREBF2,RYR2,LEPROT,PROS1,NR4A3,NOL3,RIOK2,PER2,CACNA1C,MYO1E,HCK,TBC1D14,RAB3GAP2,TBCK,RIMS4,ANKFY1,AP3B2,SPG11,CCDC91,IFT122,RANBP3,DNM3,SMA D3,ITPR1,RAB6A,WIP1,VPS39,GRIK5,PSAP,NEDD4,KPNB1,VPS53,SLC6A1,RAB6C,SEC61B,THOC3,APP,BET1L,RAB11FIP5,MYO1F,NLGN2,EYA2,SSR2,IBTK,LRP5,

			<p>SEC22C,SLC9B2,SETD2,ZDHHC6,PRICKLE1,DRD1,TMEM14A,TPH1,SYNE2,PRKDI,OSBPL2,SYBU,SLC6A3,VPS4A,PITRM1,ATF2,RAF1,PTPN1,AP1B1,NLGN1,SNX16,SPAG9,RAB11A,EPG5,IPO9,FGF2,RAB24,ADCY5,AGBL4,MCTP1,XPO6,PTAFR,ADCYAP1R1,EEA1,ABCA13,RILPL1,SORCS2,RAB11FIP3,PRKCG,BLOC1S5,AP2M1,TNPO1,TRAPPC11,TECPR2,FBXL20,TSG101,DESII,KCNQ1,SUFU,NLGN3,PAFAH1B1,KIF3A,TRPA1,AKAP6,BTBD9,RUFY3,STON2,DAB2,PKHD1,TRAM2,DZIP1,SMG5,SLC22A3,SLC25A16,EML4,FAM91A1,MYO7A,SLC8A2,CLASP1,TPCN1,GPM6B,SNX5,ATP2B4,NSF,SYNE3,PACINI,SPTBN5,ATAD1,NXT2,MAP1B,EPHA5,SYT12,S TOM,TBC1D5,TRPV1,CLEC16A,SNX9,RPGR,ARL5A,ACTR2,PLCG2,ROCK1,EGR2,CAPN10,AP3B1,KPNA6,ZFAND1,MAP1A,ANK3,UNC13A,SNUPN,PARD3,PTPN14,T RIM46,TUB,KCND3,CACNG8,AP3D1,KIF3C,AP2B1,ANXA8L1,ARHGAP44,HEATR5 A,SNX33,CD84,SP11,CHRN4,VPS16,ACAP2,TRDN,ATG14,RAPGEF3,RSRC1,SNCA ,CACNG2,GRM4,TBC1D9,SYT9,CHMP3,RNF103-CHMP3,PRKAG1,RAB5B,ABCA12,PLD1,BTK,TBC1D16,XPO4,VPS41,SLC4A8,PLA2 G4E,STX8,HTT,MAPK1,PTEN,PIK3C3,NUP88,LRRK2,SPAG5,CHMP5,IFT81,TMEM 108,ITGAM,NSG2,PKD2,EFNA5,MIA2,SGSM1,STEAP4,TMCC1,WNT7A,ZBED6,ZC3 H11A,SNAP23,MAP4,POM121C,RHOT1,ANO1,SAMM50,SUN1,LSG1,BLOCIS 3,STXBP5L,CPT1A,DNAJC6,UBR5,GRIN1,GRIN3A,NDE1,CUL3,HSPD1,ITPR2,EPM 2A,GSK3B,PLD2,RDX,SYN1,IWS1,UPF2,MCTP2,BOK,AGT,SYT7,ADAR,BLOC1S6,Z MPSTE24,LAT2,PEX5L,SNX3,EXOC6B,RIMS2,TOMM5,COPG2,SEC16B,TIMM44,G TF2IRD2,NCF1,SLC29A1,TAOK2,CD160,ZDHHC23,CPLX2,ARFGAP3,MON2,NOS1 ,PEX7,GCKR,TBC1D23,RGS14,ACTN4,STK4,ZFAND6,SLC1A1,WLS,XCR1,GPSM2,P PP1R10,ABCD3,GRTP1,MCOLN1,KPNA4,SYTL4,PAX6,PRKCZ,ADORA2A,GRIN2B, PPP1CC,RABGEF1,KLC3,ANGPT1,CADPS,HACLI,TBC1D10C,ARHGAP21,MAP2,S TPG1,ATG3,BRAF,DIAPH1,HTR2C,SIL1,CLTB,CD300A,RPL23,ATXN1,CAMSAP3,S P100,VTI1A,ANXA2,RAB27B,ITSN1,NUP214,ADCY1,NUMB,SYK,SLIT1,MYRIP,RAB 2A,SEC31B,CACNG3,GRIP1,ERGIC1,MYO1A,CNIH4,PLEKHM1,HGSNAT,MLPH,A KTIP,EPS15,INPP5F,REPS2,TBC1D10A,CAMK2D,SNX1,MALT1,ZDHHC11,ZDHHC 11B,EHD2,THEM4,TRAPPC8,NDCC1,PTPRC,RPH3A,RAB28,SYNDIG1,VPS52,TRAF3 IP2,SGTB,CLNK,SLC25A13,BMP4,ABLIM3</p>
GO:0051338	regulation of transferase activity	1.4023391870652485e-12	<p>LDB2,NRXN1,ADCY8,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,FLT3,GRM5, PLCE1,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,DNAJA3,VAV2,AB I1,HSP90AA1,CDC6,AKAP13,DAB1,CCT2,ADORA1,EPHA1,ERBB4,MRE11A,LIMK1 ,PTPRO,NTRK2,PDGFB,CCND3,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,E CT2,SNX6,ERN2,SLC8A1,CASS4,NF1,LMTK2,CHI3L1,TTN,P4QR3,PIK3R2,NRG1,M AP2K1,ROR2,PTPRT,IPO5,MAD2L2,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ZFYVE2 8,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,CD4,PPM1E,TGFB1,PIBF1,BTRC,CORO1 C,ZNF675,ANKRD54,TNFRSF10B,DUSP22,DOCK3,SMYD3,EPHA4,TNFRSF11,SMG 6,CTNNB1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,FGF1,PRKAR2A,MYOCD,AJUB A,SPDYA,NF2,FLT4,SFRP1,TAB1,APP,PDGFRA,CCN2,HEG1,TEN1,BORA,IBTK,N VL,LRP5,MTCPI1,S100A12,DCUN1D3,PRKD1,EREG,CCNY,PTPN1,BMPR2,BMPRI A,PIK3R3,CDK12,FGF2,PPM1F,NEDD9,DVL3,EPHB3,CKS1B,DEPTOR,TSG101,TN KS,DAB2,BLM,CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2 ,ATP2B4,ADNP,UVRAG,EPHA5,DCUN1D5,GHR,MNAT1,SNX9,HIPK3,PTPN2,INSR R,NTRK1,EPHB1,EPHA10,AXIN2,PIFO,EPHA7,ATG14,STK38,MAP3K13,SNCA,BM PR1B,PRIM2,PRKAG1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,BMP7,LRRK2,UNC 119,RFC3,LILRB4,PKD2,EFNA5,PDGFC,PKIB,PPP2R3C,SERINC5,RAPGEF2,PRK AR2B,ARRDC4,RHOA,ROR1,EPM2A,GSK3B,PTPRB,AGT,CCN1L,ADAR,BORA,IBTK,M AP3K5,NCF1,TAOK2,UGT1A1,UGT1A10,UGT1A4,SHC1,CD44,ADAM8,GCKR,RGS14, STK4,EPHB2,SLC1A1,IL18,MOB3B,PRKCZ,ADORA2A,CCNG2,ANGPT1,OSBPL8,C DK5RAP1,PRKCQ,CD300A,PPP2CA,SKP1,ANGPT4,RPL23,RFC5,PARN,MADD,SY K,WWTR1,DVL2,PTPRJ,SASH1,VAV3,MOB3A,AXL,MET,MALT1,PHB,PTPRC,TYRO 3,TNXXB,BMP4</p>
GO:0007264	small GTPase mediated signal transduction	1.561296285805527e-12	<p>MAP4K4,DNMT1,DOCK1,TIAM2,KSR2,MAPRE2,KALRN,CBL,PLEKHG4B,RAB4B,R AB4B-EGLN2,PLCE1,KITLG,ROBO1,NUCB1,ITPKB,DNAJA3,VAV2,ITGB1,SRGAP3,KND C1,TRIO,ARHGAP24,AKAP13,DAB1,CDC42EP3,DGKI,DOCK10,CYTH3,GBF1,LIM K1,ABR,CDON,PHACTR4,RASGEF1B,ARHGAP6,ECT2,CHML,ARHGAP42,RIT2,NF 1,RTN4,RTN4R,BCR,NTN1,NRG1,ARHGAP10,SH2D3C,DOCK8,RAPGEF6,RALGPS 2,PPP2CB,DOCK2,CDH13,ARHGAP32,NCKAP1,RALGPS1,ARL3,DENND1A,DOCK 9,ARHGAP23,SIPA1L3,F2RL1,CELSR1,SLIT2,RRAS2,KANK1,DOCK3,FGF10,RASA4 ,RASA4B,ARHGAP28,KCTD10,AUTS2,ARHGAP22,GARNL3,P2RY10,ARHGAP31,OB SCN,RGL1,ARHGAP29,ABI2,ARHGAP18,PREX1,DOCK4,KPNB1,RAB6C,HEG1,PR KD1,RND3,RAF1,RASGRF2,DENND4A,FGF2,ADCYAP1R1,ARHGAP39,SHOC2,MY O9A,RHOJ,FAM13A,RASAL1,RELN,DOCK11,ARHGAP12,P2RY8,FGD1,ROCK1,EP S8,GPR35,NTRK1,DNMBP,ARHGAP44,ARHGAP4,BCAR3,RAB15,RAPGEF3,SH3BP 1,USP50,PLD1,RASA1,KCTD13,IGF1,ARHGAP17,RASA2,RAB30,ARHGAP25,FAM1 3B,RHOT1,SOS1,RAPGEF2,RHOA,SYNGAP1,RHOBTB1,CUL3,PLD2,RDX,FAM49B, ARHGAP15,FGD3,FGD4,SIPA1L2,ARHGAP11A,EPHB2,GPSM2,DLC1,RABGEF1,D ENND4B,ARHGAP21,ITSN1,SRGAP2,MADD,ARHGAP19,RAP1GAP2,RALGAP1A,C GNL1,VAV3,GNA12,SH2D3A,DENND4C,MET</p>
GO:19	cell surface	1.84511473	<p>GPC5,NRXN1,SIPR2,GRID2,LATS2,NLGN4X,SEMA5A,LRRFIP2,GRK5,PSMB7,MC C,KLHL12,DGKI,DDBI,ADORA1,NPHP3,PTPRO,CELA1,RNF220,RIMS1,TNIK,TCF</p>

05114	receptor signaling pathway involved in cell-cell signaling	13622103e-12	7L2, USP34, FBXW11, CDK14, PTPRU, DEPDC1B, ARNTL, MDF1, VAX2, VGLL4, ROR2, S OX13, MAD2L2, TLE6, CAPRIN2, CCNYL1, GNAQ, MLLT3, TCF7, KLF15, WNT11, IFT80, KREMEN1, BTRC, CELSR1, CTNND2, DISC1, KANK1, FGF10, SMURF2, PPP3CA, CTNN B1, PARK2, AXIN1, DRAXIN, BICC1, TRABD2B, SFRP1, FOXO3, SMAD3, CUX2, GRIK5, S HANK1, VANG1, NFATC1, CDC73, APP, YAP1, AMFR, NLGN2, LRP5, SOX2, GPC6, PRC KLE1, GLRA2, KDM6A, CCNY, TMEM237, CELF4, NLGN1, FGF2, DKK2, DVL3, RBX1, WNT3, NLGN3, PRDM15, GLI2, TNKS, DAB2, WNK1, RELN, RUVBL2, RSP02, ZNF423, M ACF1, SLC8A2, P2RX6, MARK1, WWOX, GPC3, PSMB2, TRPV1, HDAC1, INVS, PLCG2, A XIN2, NETO1, CHRN4, FBXW4, PTK7, SNCA, MAGI2, ZEB2, WNT7B, MTF, ZNRF3, PTE N, LRRK2, ZRANB1, TMEM108, ITGAM, PKD2, SHANK3, AMOTL1, WNT7A, EXT1, PRIC KLE2, SMO, SOX30, UBR5, GRIN1, JADE1, RHOA, ROR1, CUL3, EPM2A, GSK3B, SULF1, RNF43, PRKAA2, NDRG2, SNX3, RIMS2, CPE, APCDD1L, SLC29A1, PYGO2, LBX2, SCEL , CSNK1A1, STK4, SPEF1, WLS, PRKCZ, ADORA2A, GRIN2B, TBL1X, LRRK1, PPP1CA, R BMS3, PPP2CA, WWTR1, GRIK2, DVL2, WIF1, ANKRD6, EDA, RNF213, SHISA6, EDNRA, BMP4
GO:00 32268	regulation of cellular protein metabolic process	2.47323012 66042e-12	POLDIP3, ENPP1, NRXN1, ASPH, PRMT3, SLC3A1, PDE4D, DNMT1, SIPR2, C6ORF8 9, ADCY8, PDE8A, IL31RA, PRDM12, NRG3, NOS1AP, LAT52, PRKAG2, PRLR, MVP, FTO , NTRK3, CBL, ARNT, FLT3, ENPP2, GRM5, PLCE1, FER, MAP2K5, KITLG, LRP2, EIF4G3 , EZR, ROBO1, TOM1L1, HTR2B, TENM1, LMNA, TRAF6, ITPKB, DNAJA3, OXR1, ABI1, H SP90AA1, CDC6, KND1, CCDC22, AKAP13, DAB1, PTPN11, MGAT5, HDAC6, ADORA 1, EPHA1, IKBK, ERBB4, MRE11A, LIMK1, PMEP1, PTPRO, CDON, DNAJB2, SLIT2, ITIH4 , EP300, ZYG11B, FNTA, PDGFB, TNK1, CCND3, BRMS1, CHFR, INSR, PRKAR1A, CAB39, PAK1, FBXW11, MAP3K4, RNF144A, EGLN3, SAMD4A, BDNF, LCK, ECT2, SNX6, CST2, PTC3, ERN2, DMD, ATG10, LARP4B, USP13, KAT7, SLC8A1, GSN, RBM4, RIT2, CASS4, FYN, MKRN2, ARNTL, NF1, DPEP1, RWDD3, CH13L1, TTN, PAQR3, NRG1, SH2D3C, BD KRB1, BDKRB2, BID, FRY, MAP2K1, FNIP1, MYH9, VGLL4, JDP2, ITIH2, ROR2, FHIT, W DR70, PTPRT, IPO5, MAD2L2, CAPRIN2, CCNYL1, GNAQ, RFFL, CCBE1, HERC5, JAK2, FBXW7, ITCH, ZFYVE28, KLF15, CYFIP2, WNT11, MTA1, NOX4, QKI, PRKCD, TAB2, AC VR2A, CD4, PPM1E, TGFB1, SPSB4, NSD1, PIBF1, BTRC, CRADD, DNAJB2, SLIT2, ITIH4 , CORO1C, DISC1, BLID, ZFAND2A, CLN6, KDM4B, SMAD6, ZNF675, NELL1, BMPER, TI MP2, BCL3, ANKRD54, TNFRSF10B, DUSP22, NAIP, DOCK3, YTHDF1, FGF10, SMDY3, FANCI, CAPN3, EPHA4, AUTS2, CD6, TNFSF11, UBQLN3, PIP5K1, UFL1, CTNNB1, PA RK2, SMARCC1, PPARG, NGRN, AXIN1, PRKAR1B, OTUB1, LRPPRC, LEPR, FGF1, PRO S1, NOL3, PRKAR2A, MYOCD, PER2, AJUBA, GLG1, CHEK2, UBQLN4, SPDYA, CSTL1, R AB3GAP2, DIO2, CSPG4, NF2, FLT4, HDAC4, PAX2, SECISBP2L, TRABD2B, SFRP1, PP P6R2, FOXO3, BCL2L13, SSH1, SYNCRIP, SMAD3, RNFT2, SIMC1, MTBP, DCP1B, TAB1, APP, RBM8A, CCNI2, DIP2B, ARIH1, HEG1, SH3D19, BORA, IBTK, LRP5, MTCPI1, PRICK LE1, RCAN1, SPTBN4, DRD1, S100A12, DCUN1D3, PRKD1, ST18, EREG, CCNY, ATF2, G RAMD4, RAF1, CELF4, CARD16, CASP1, PTPN11, BMPR2, BMPRI1, PIK3R3, CDK12, SP AG9, MYB, FGF2, PPM1F, NEDD9, AGBL4, SEMA4D, PTAFR, JARID2, PRKCG, SPOCK1 , DVL3, EIF2B5, EIF4G1, RBX1, CKS1B, AGO3, DEPTOR, TSG101, DESI1, TERF2IP, SUF U, PTPN13, COL4A3, HIP1, PADI6, TRPC5, UBA2, TNRC6B, DAB2, BLM, CACUL1, LDLR AD4, SETD5, DLG3, WNK1, RELN, NEK10, SIN3A, RUVBL2, PELI1, IQGAP1, MAP3K7, SL C8A2, SLC35A4, XDH, ATP2B4, TET1, CAMTA1, DYX1C1, ADNP, CELF1, RNF34, TFR, UVRAG, DCUN1D5, GPC3, XRN1, DIS3L2, GHR, MNAT1, SNX9, ELAVL4, PLCG2, ROCK 1, PAXIP1, HIPK3, RYBP, PTPN2, NTRK1, TRIM44, MAP1A, SLC39A10, AXIN2, PARD3, G NL3L, MUC1, BCOR, ANXA8L1, SNX33, LPA, SPI1, DNMT3B, EPHA7, ATG14, EIF3H, BC AR3, STK38, RBPM5, RENBP, MAP3K13, RAPGEF3, SNCA, BMPRI1, MAGI2, PNPT1, US P50, RC3H1, EIF3E, RNF19B, PRKAG1, PSMF1, CAST, TRIP12, ADTRP, PLD1, OPRD1, R PTOR, MLLT1, IGF1, HTT, MAPK1, PTEN, SPRED2, BMP7, ATXN2, PUM1, LRRK2, TME M59, UNC119, BAG6, LILRB4, PKD2, EFNA5, TADA2A, DAZL, PDGFC, SERPINA3, SERP IN4, SERPINA5, PKIB, PPP2R3C, WNT7A, NLRP1, UACA, DNAJC1, PLCL2, MTF2, BM P6, MYCBP2, GPI, SH3RF2, N4BP1, ATRX, DPH6, RAPGEF2, VRK3, PRKAR2B, UBR5, G RIN1, ARRDCA, RHOA, SPRTN, RQCD1, CUL3, HSPD1, EPM2A, GSK3B, PRR16, DNAJC 3, RDX, EEF2K, IWS1, PPP1R16A, PTPRB, CD27, BOK, RNF144B, AGT, METTL16, CCNJ L, PRKAA2, ADAR, STAT2, ZMPSTE24, PTK2, TEC, EXOSC3, MAP3K5, NCF1, TAOK2, PY GO2, SHC1, PARP10, RNFT1, RPS6KB1, PRG3, SERPINB11, DNAJB6, CD44, LARP4, AD AM8, CLDN4, RPS6KA5, CSNK1A1, HUS1, NOS1, RGS14, STK4, EPHB2, SLC1A1, IL18, M FSD8, UBE2K, DIS3, DLC1, CPEB4, MOB3B, PAX6, PRKCZ, ADORA2A, GRIN2B, RABGE F1, CCNG2, CPEB1, NIPBL, COL28A1, ANGPT1, LRRK1, OSBPL8, IGF2BP3, PPP1CA, M TF2, CDK5RAP1, CNTN1, BRAF, HDAC2, IMPACT, SPINT2, CD300A, PHIP, PPP2CA, SK P1, ANGPT4, RPL23, ANXA2, PARN, MADD, SYK, CNOT1, WWTR1, DVL2, MTRF1, YBX1, PTPRJ, TAF1, EIF4E3, TICAM1, TANK, HSF1, DHFR, ETF1, SASH1, EEFSEC, MOB3A, G NA12, SH2D3A, AKTIP, INPP5F, CD109, TBC1D10A, CAMK2D, UCHL5, MALTI, SERPI NE3, MLXIPL, PHB, PTPRC, CTCF, SH3GL2, TNXB, TRAP1, BMP4
GO:00 10556	regulation of macromolecule biosynthetic process	3.05772073 54622652e-12	POLDIP3, ENPP1, PRDX2, LDB2, ASPH, PRKCI, SLC3A1, DNMT1, HLX, SLC9A1, PBX 3, ADCY8, MED13L, TRPS1, CBFB, PDE8A, ZNF823, IL31RA, PRDM12, MED26, WWC1, A SH1L, SCAF8, STOX2, PTGIS, WWC3, PAGR1, HIVEP3, FTO, NPAS3, ARNT, LRRFIP2, ST AT5B, TOX, GRM5, ZNF566, FER, CASK, MAP2K5, MAPK10, ZNF536, SP3, HDGF, EIF4G 3, EZR, IKZF2, CHD7, MECOM, TACC1, TENM1, TRAF6, DNAJA3, NHLH1, HSP90AA1, C DC6, PSMB7, TSC22D3, ZC4H2, CCDC22, CDAN1, GF11B, PTPRK, RUNX1, ERC1, HMG N3, NRIP1, THR, EFCAB7, ITGB3BP, DACH1, ZNF569, CCT2, ORC2, HDAC6, SERTAD 2, MYT1, IKBK, PEX14, ERBB4, ZNF609, BRD8, KAT6B, HIF3A, SNIP1, ESRI1, MIER1, PC

			<p>BP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGF B,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR 1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZN F799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,TBR1,SAMD4A,TFAP2A,CDK14,FAN CA,PEG3,ZIM2,TGIF2,TGIF2-</p> <p>C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,PTCD3,ERN2 ,CID,AFF3,DMD,CENPF,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RB M14,RBM4,MED12L,SATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BR PF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,P PP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,C DH13,CREBRF,SOX13,COPS5,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,TERF2, ZNF286A,FOXN3,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,SMC3,UIMC1,ITCH,M LIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11, MTA1,KLF8,NOX4,LCOR,RPRD1B,QK1,CCDC62,PRKCD,SOX6,ACVR2A,RUNX2,C D4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1, BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6, BCL2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BMD3,SNDD1,HNRNP C,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,CAPN3,LUM,SMURF2,ROR A,HIVEP2,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD 2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPAR G,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,ANKRD17,BRIP1,LRPPRC,SREBF2,CDK 11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZN F626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,RAB3GAP2,TRIM8 ,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SEC ISBP2L,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SYNCRIP,SMAD3,CUX2,WWP2,A RNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NED D4,ESRRG,HOXD3,HOXD4,ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,RBM 8A,NOX1,YAP1,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1, ZNF653,ZNF521,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,PRKDI,S TAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,PO U2F2,TCF3,ZNF730,RAF1,CELF4,ZNF766,CARD16,BMPR2,CAMK1D,BMPRI1,ZK SCAN1,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD 3,PPM1F,TICRR,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,S P140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,L MO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG1 01,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCD C169-</p> <p>SOHLH2,SOHLH2,ZNF354C,TCEA3,PADI6,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,E RCC1,TNRC6B,GLIS3,WDT1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,R ELN,SIN3A,RUVBL2,COMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK TEAD4,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,RB BP6,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARI D4A,CDK6,PHF2,CELF1,TFRC,EPHA5,WWOX,MEF2A,DCAF6,XRN1,SATB1,PSMB 2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,A CTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1 ,PAXIP1,ZNF713,EGR2,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCA M,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,Z NF836,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,EIF3H,BCA R3,JAZF1,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,SMYD1,SNCA,BMPRI1B,PRI M2,PNPT1,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,ZMYND11,KMT2D,CREM,KMT2C,PL D1,MACC1,MITF,OPRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,CBFA2T2,IG F1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZN F780A,ZNF780B,LRRK2,TMEM59,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,KCTD1,RI PPLY1,RCOR3,TADA2A,DAZL,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRW D3,CRTC3,DNAJC1,ARNTL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF 15,NFE2L1,WDR43,ZNF30,ATRX,DPH6,IKZF1,PRMT2,ASCC1,SMO,RALY,TCF4,SO X30,TFE3,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,GSK3B,P RR16,DNAJC3,STAT6,MLF1,RBBP8,NECAB2,CDK13,DUSP26,ZNF362,NACC2,SUP T4H1,ZNF354A,AGT,HDGFRP3,METTL16,STAT2,ZMPSTE24,PBX1,EXOSC3,MAP3 K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,RPS6KB1 ,DPRX,PRG3,SETDB2,DNAJB6,SP7,LARP4,ADAM8,RPS6KA5,ZNF484,ZNF93,PRD M2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,TMEFF2,IL 18,DIS3,PPARA,ARID5B,SMARCA1,CPEB4,NOTCH4,ZMYND8,ZNF366,CRX,PAX6 ,PRKCZ,ADORA2A,CPEB1,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X, FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,PPP1CA,MTF2,TAGLN3,CDK5 RAPI,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRAP,POU3F3,NOTO,ZKSCAN5, ELF2,PHIP,PPP2CA,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,TRIM29,PARN,D ONSON,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2, MORC1,MTRF1,YBX1,TAF1,EIF4E3,TICAM1,THAP3,HSF1,MAX,SAP130,DHFR,EZ H1,ETF1,NRF1,NCOA2,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF 2,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALTI,SETD3,KDM2B,MLXIP L,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ATF6B,CREB1,RGMB,TRAP1,EBF4,ZNF5 11,BMP4,ABLIM3</p>
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GO:0042325	regulation of phosphorylation	3.1074059974566237e-12	ENPP1,LDB2,NRXN1,SLC3A1,PDE4D,SIPR2,ADCY8,PDE8A,IL31RA,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,FER,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,ITPKB,DNAJA3,VAI2,ABI1,HSP90AA1,CDC6,KNDC1,DSCAM,AKAP13,DAB1,PTPN11,HDAC6,ADORA1,EPHA1,IKBK,ERBB4,MRE11A,PMEPA1,PTPRO,CDON,NTRK2,EP300,PDGFB,TNIP,CCND3,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,BDNF,ENTPD5,ECT2,SNX6,ERN2,DMD,SLC8A1,RET2,CASS4,FYN,NF1,LMTK2,CHI3L1,TTN,PAQR3,PIK3R2,NRG1,SH2D3C,BDKRB1,BDKRB2,MAP2K1,FNIP1,ROR2,PTPRT,IPO5,MAD2L2,CAPRIN2,CNYL1,GN4Q,HERC5,JAK2,FBXW7,ZFYVE28,LAMTOR3,WNT11,NOX4,PRKCD,TA B2,ACVR2A,CD4,PPM1E,TGFB1,NSD1,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,BM PER,ANKRD54,TNFRSF10B,DUSP22,DOCK3,FGF10,SMYD3,EPHA4,CD6,TNFSF11,PIP5K1I,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,LEPR,FGF1,PRKAR2A,MYOC D,AJUBA,CHEK2,SPDYA,CSPG4,NF2,FLT4,HDAC4,SFRP1,SLC4A4,TAB1,APP,PD GFRA,CCN2,HEG1,BORA,IBTK,LRP5,MTCP1,SPTBN4,DRD1,S100A12,PRKD1,ER EG,CCNY,ATF2,RAF1,PTPN1,BMPR2,BMPRI1A,BTBD10,PIK3R3,CDK12,SPAG9,FG F2,PPM1F,NEDD9,SEMA4D,DVL3,EIF4G1,EPHB3,CKS1B,DEPTOR,TSG101,TERF 2IP,PTPN13,TRPC5,DAB2,BLM,CACUL1,LDLRAD4,DLG3,WNT11,NEK1,NEK10,IQ GAP1,MAP3K7,ALK,SLC8A2,XDH,ATP2B4,ADNP,TFR3,UVRAG,EPHA5,GHR,MNA T1,SNX9,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,EPHB1,EPHA10,AXIN2,PAR D3,P1FO,EPHA7,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPRI B,PRKAG1,ADTRP,OPRD1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP 7,LRRK2,UNC119,ZBTB20,LILRB4,PKD2,EFNA5,TADA2A,PDGFC,PKIB,PPP2R3C, PLCL2,BMP6,RAPGEF2,PRKAR2B,RHOA,ROR1,RQCD1,TF,EPH2A,DNAJC3,EEF2 K,PTPRB,AGT,CCN1,PRKAA2,ADAR,STAT2,PTK2,TEC,MAP3K5,NCF1,TAOK2,SH C1,CD44,ADAM8,RPS6KA5,HUS1,NOS1,GCKR,RGS14,STK4,EPHB2,SLC1A1,IL18, UBE2K,PPARA,MOB3B,PAX6,PRKCZ,ADORA2A,RABGEF1,CCNG2,ANGPT1,LRRK 1,OSBPL8,CDK5RAP1,CNTN1,BRAF,HDAC2,IMPACT,PPP1R14A,CD300A,PHIP,P PP2CA,ANGPT4,MADD,SYK,WWTR1,DVL2,PTPRJ,HSF1,SASH1,VAI3,MOB3A,SH2 D3A,AKTIP,INPP5F,AXL,CD109,MET,MALTI,MLXIPL,PHB,PTPRC,SH3GL2,TYRO 3,TNXB,BMP4
GO:0009887	animal organ morphogenesis	3.3350068505609647e-12	CLRN1,DNAH11,ADAMTS16,RDH13,PRKCI,HLX,PBX3,SEMA3A,TENM3,RYR1,NR G3,ASH1L,ATRNL1,LRP2,SP3,OLFM1,MFAP5,ROBO1,CHD7,HTR2B,ITGB6,TRAF6 ,ROBO2,TRIOBP,PSMB7,KIF26B,DSCAM,THRB,XIRP2,IMP2,LAMA2,CTIRG1,ER BB4,ATP8A2,ACTG2,ESR1,NPHP3,ANKRD11,CDON,NTRK2,EP300,CELA1,MEGF9 ,CSGALNACT1,INSR,LAMA3,FBXW11,BASPI,SLC4A10,TBR1,STRC,TFAP2A,ATRN, PHACTR4,MEIS1,MDM4,MYO3B,LAMC1,SATB2,NF1,PCDH15,FAT3,RTN4,BCR,TT N,NDRG4,NTN1,EGFLAM,NRG1,MAP2K1,MDF1,STIM1,VAX2,NTNG1,ROR2,DCN, EXOC4,FOXN3,NEUROD1,FBXW7,BCL11B,LRIG3,MLLT3,PLS1,TBX15,WNT11,IFT 80,SOX6,ACVR2A,RUNX2,TGFB1,MYO3A,ZHX2,BTRC,RPGRIP1L,CELSR1,SLIT3,S DK2,SLIT2,CDH23,LAMC2,SMAD6,PARVA,FGF10,GREB1L,SMURF2,TNFSF11,CT NNB1,SMARCC1,DLG5,RYR2,FGF1,GLG1,CSMD1,MMP16,NF2,PAX2,ELN,SFRP1, FOXO3,ARL13B,NFIB,IFT122,SMAD3,PTPRM,ABI2,NRP2,VANG1,HOXD3,HOXD 4,TAB1,GSX2,PDGFRA,YAP1,HEG1,ALPL,LRP5,SETD2,GPC6,TTC39C,CHST11,PR ICKLE1,FRS2,PALB2,MMP2,KDM6A,STAT1,STRA6,EREG,ABLIM1,DSCAM1,ATF 2,BMPR2,BMPRI1A,TSPAN12,CTNNA2,FGF2,KLHL3,RARB,DVL3,LAMB1,COL11A1 ,KCNQ1,SUFU,SCUBE2,PAFAH1B1,GLI2,DAB2,PKHD1,USH2A,RSP02,MYO7A,H OXC13,OVOL2,ASXL3,WWOX,GPC3,PSMB2,EYA1,HOXB3,HOXB4,HOXB5,HOXB6, GHR,FLRT2,FGD1,HDAC1,AP3B1,PTPRQ,EPHB1,AXIN2,JAG2,BCOR,CTNNA1,BC AR3,SDK1,MST1,PTK7,BMPRI1B,MAGI2,HEY2,COL13A1,WNT7B,SRSF6,HIPK1,PK P2,ZNRF3,MAPK1,PTEN,MIB1,BMP7,SOX5,LHFPL5,LRRK2,MEGF11,PKD2,SHAN K3,PDGFC,WNT7A,BMP6,SOS1,TSHR,EXT1,PRICKLE2,SMO,MYL6P,TNFRSF11B, RHOA,ROR1,ONECUT2,CUL3,STAT6,ACTA2,SULF1,MTHFD1L,AGT,FBN2,ZMPST E24,PTK2,PHOX,PBX1,CPE,COL9A1,DLX1,SETDB2,PEX7,PLEKHA1,SPEF1,EPHB 2,SLC1A1,TMEFF2,DLG1,PPARA,ARID5B,SOBP,CRX,FBN1,PAX6,FAM20C,NIPBL, ASPN,FHL2,BRAF,CSRNPI,HDAC2,NOTO,ACAN,TMEFF1,SYK,WWTR1,SLIT1,DVL 2,BMP1,UCHL5,ANKRD6,KDM2B,SEMA3C,EDA,EDNRA,NG2I,BMP4
GO:0050804	modulation of chemical synaptic transmission	3.886812577237111e-12	NRXN1,SIPR2,ADCY8,GRID2,NRG3,NLGN4X,GRM8,GRM5,CASK,NRXN3,SLC24A2 ,ITGB1,CNIH2,PCDH17,ERC1,DGKI,ERC2,LAMA2,CACNB2,ADORA1,ABR,GRM7, NTRK2,CACNA1B,RIMS1,USP46,PTPRD,SLC4A10,BDNF,GRIK4,FYN,NF1,PLCB1, BCR,SHISA9,CNTN4,NTNG1,ROR2,ZDHHC3,JAK2,SYN3,CLSTN2,SYT1,LZTS1,CAM K2B,JPH3,DLGAP1,GRIK3,DISC1,PLCB4,YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA, PARK2,PRKAR1B,GRM1,RIMS4,DCC,DGKB,CUX2,GRIK5,SHANK1,SLC6A1,APP,N LGN2,DRD1,SHANK2,CELF4,RASGRF2,NLGN1,LRR4C4,GRIK1,MCTP1,SORCS2,P RKCG,FBXL20,NLGN3,BTBD9,RELN,SLC8A2,STAU1,ATAD1,ADNP,MAP1B,SORCS 3,SYT12,CACNA1A,ELAVL4,EGR2,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CAC NG8,NETO1,CHRN4,PTPRA,SNCA,CACNG2,GRM4,PTPRS,KCTD13,SLC4A8,MAP K1,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,PLCL2,RAPGEF2,PRKAR2B,STXBP5 L,GRIN1,SYNGAP1,GRIN3A,GSK3B,SYN1,MCTP2,AGT,SYT7,RIMS2,CPLX2,PACSI N2,GRID1,RGS14,EPHB2,SLC1A1,PRKCZ,ADORA2A,GRIN2B,BRAF,TNR,ADCY1,G RIK2,CACNG3,DLGAP2,SHISA6
GO:0040007	growth	4.745928962149846e-	ENPP1,HLX,LLPH,SLC9A1,CLASP2,SEMA3A,WWC1,NRG3,LATS2,SEMA3D,NLGN 4X,WWC3,PRLR,FTO,EGLN2,SEMA5A,RAD51B,STAT5B,PLCE1,MAP2K5,OLFM1,E ZR,CHD7,CDKL5,ITGB1,HSP90AA1,KIF26B,DSCAM,AKAP13,RUNX1,IL17RB,PTP

		12	<p><i>NR11,HDAC6,GOLGA4,SERTAD2,ERBB4,LIMK1,BRD8,ATP8A2,LARGE,ESR1,EP300,CELA1,RIMS1,INSR,PRKAR1A,CDH4,BASPI,SLC4A10,BDNF,ATRN,TENM4,RFTN1,DMD,PLCB1,PCDH15,RTN4,APOD,RTN4R,NDRG4,NTN1,NRG1,BDKRB1,VGLL4,CSNK2A3,MAD2L2,CAPRN2,SYT1,ITCH,PLS1,CYFIP2,WNT11,IFT80,SEMA5B,TGFB1,SGK1,DNAJB2,SLIT3,SLIT2,TP73,MUSTN1,DISC1,BNC2,ITSN2,ENOX2,DCLK1,FGF10,CAPN3,AUTS2,PPP3CA,GNG4,MAG,CTNNB1,PARK2,CDHR2,PPARG,CPQ,CDK11A,CDK11B,DRAXIN,LEPR,FGF1,NIN,MYOCD,CPNE6,BRMS1L,DCC,CTDP1,SPG11,SFRP1,FOXO3,MUC12,SMAD3,PSAP,SYT3,NRP2,CDC73,APP,DIP2B,YAP1,HEG1,FSTL4,ISLR2,SOX2,CHST11,SPTBN4,PALB2,ESR2,DCUN1D3,CPNE9,KDM6A,SLC6A3,HNF4A,STRA6,EREG,SEMA6D,ATF2,BMPR2,DPYSL2,BMPR1A,TAF8,SPAG9,RAB11A,EVC,FGF2,PPM1F,NEDD9,SEMA4D,JARID2,RARB,SPOCK1,EIF4G1,TSG101,VCL,CLIC4,WNT3,NLGN3,PAFAH1B1,AKAP6,RASAL1,TRPC5,GLI2,ERCC1,RUFY3,WDTC1,DAB2,SIN3A,RUVBL2,RSPQ2,EYS,IQGAP1,MACF1,RBBP6,ADNP,MAP1B,CELF1,DCUN1D5,GPC3,GHR,UNC13A,TRIM46,SMARCA2,EPHA7,MAP3K13,MST1,PTK7,BMPR1B,MAGI2,PNPT1,HEY2,WNT7B,PTPRS,KMT2D,TLL2,RP TOR,IGF1,PTEN,OSGIN1,EBAG9,RAPH1,TMEM108,EFNA5,WNT7A,GPR21,SOS1,TSHR,EXT1,ATRX,PRMT2,SMO,SYT17,JADE1,RHOA,EPM2A,GSK3B,ZMPSTE24,RIMS2,TEC,GAP43,TAOK2,PYGO2,SHC1,RPS6KB1,STC2,PLEKHA1,SCNN1B,STK4,PPARA,ARID5B,SLC25A33,PRKCZ,NIPBL,YEATS4,MAP2,PRKCQ,IMPACT,TNR,CDKL3,PPP2CA,SH3BP4,WWTR1,SLIT1,BRC42,PTPRJ,ZP3,CAMK2D,KDM2B,SEMA3C,NEDD4L,PHB,SH3GL2,CREB1,EDNRB,BMP4,CPNE1</i></p>
GO:0099177	regulation of trans-synaptic signaling	4.795084714962361e-12	<p><i>NRXN1,SIPR2,ADCY8,GRID2,NRG3,NLGN4X,GRM8,GRM5,CASK,NRXN3,SLC24A2,ITGB1,CNIH2,PCDH17,ERC1,DGKI,ERC2,LAMA2,CACNB2,ADORA1,ABR,GRM7,NTRK2,CACNA1B,RIMS1,USP46,PTPRD,SLC4A10,BDNF,GRIK4,FYN,NF1,PLCB1,BCR,SHISA9,CNTN4,NTNG1,ROR2,ZDHHC3,JAK2,SYN3,CLSTN2,SYT1,LZTS1,CAMK2B,JPH3,DLGAP1,GRIK3,DISC1,PLCB4,YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA,PARK2,PRKAR1B,GRM1,RIMS4,DCC,DGKB,CUX2,GRIK5,SHANK1,SLC6A1,APP,NLGN2,DRD1,SHANK2,CELF4,RASGRF2,NLGN1,LRR4C4,GRIK1,MCTP1,SORCS2,PRKCG,FBXL20,NLGN3,BTBD9,RELN,SLC8A2,STAU1,ATAD1,ADNP,MAP1B,SORCS3,SYT12,CACNA1A,ELAVL4,EGR2,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CACNG8,NETO1,CHRN4,PTPR4,SNC4,CACNG2,GRM4,PTPRS,KCTD13,SLC4A8,MAPK1,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,PLCL2,RAPGEF2,PRKAR2B,STXBP5L,GRIN1,SYNGAP1,GRIN3A,GSK3B,SYN1,MCTP2,AGT,SYT7,RIMS2,CLPX2,PACSI N2,GRID1,RGS14,EPHB2,SLC1A1,PRKCZ,ADORA2A,GRIN2B,BRAF,TNR,ADCY1,GRIK2,CACNG3,DLGAP2,SHISA6</i></p>
GO:0045595	regulation of cell differentiation	5.838672773267638e-12	<p><i>ENPPI1,PRDX2,PRKCI,DNMT1,SIPR2,HLX,TRPS1,CBFB,CLASP2,SEMA3A,DOCK1,CLDN18,SEMA3D,NREP,TIAM2,PRLR,FTO,KALRN,NTRK3,ARNT,SEMA5A,STAT5B,TOX,GRM5,KITLG,LRP2,ZNF536,OLFM1,MEGF10,ROBO1,CHD7,CDKL5,TRAF6,ESRP1,ROBO2,ITPKB,ITGB1,TRIOBP,PSMB7,ZC4H2,DSCAM,TRIO,RUNX1,DAB1,ABCC8,TCIRG1,PTPN11,HDAC6,GOLGA4,IKBKB,LIMK1,NPH3,CDON,NTRK2,CELA1,HOOB3,PDGFB,TOB2,H2AFY2,TCF7L2,CDH4,ESRRB,PTPRD,BDNF,TFAP2A,AMIGO1,FANCA,TGIF2,MEIS1,TENM4,ECT2,DMD,KAT7,RBM4,GPR171,CASS4,ARNTL,ADAMTS9,NF1,PLCB1,RTN4,RTN4R,NTN1,NRG1,MAP2K1,FNIP1,CNTN4,HDAC5,JDP2,CMKLRL,ROR2,SOX13,MAD2L2,CAPRN2,NLGN2,CC2,BOC,NEUROD1,JAK2,FBXW7,ITCH,BBS12,BCL11B,RBFOX1,TCF7,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,ZHX2,NFATC3,C9ORF47,SLIT2,TP73,CORO1C,DISC1,KANK1,SMAD6,CLOCK,TCF12,ZNF675,SMOC1,NELL1,SUCO,ANKRD54,FGF10,LOXL3,CAPN3,EPHA4,RORA,PRKCA,TNFSF11,PPP3CA,NSUN2,MAG,CAMK4,UFL1,CTNNB1,SOD2,FCGR2B,PPARG,AXIN1,MSR1,ANKRD17,ANKRD26,DRAXIN,NIN,DCT,MYOCD,PER2,GLG1,PHLDB1,DCC,CTDP1,NF2,HDAC4,PAX2,SFRP1,FOXO3,SMAD3,CUX2,CASZ1,PREX1,HOXD3,NFATC1,PRTG,CDC73,APP,GSX2,PDGFRA,DIP2B,YAP1,FSTL4,LRP5,ISLR2,SLC9B2,SOX2,PRICKLE1,FRS2,TPH1,PRKDI,STAT1,PARP6,ZBTB7C,EREG,SEMA6D,TCF3,RAF1,ADAMTS12,BMPR2,DPYSL2,BMPR1A,NLGN1,CDK12,TAF8,SPAG9,RAB11A,MYB,FGF2,NEDD9,SEMA4D,RORC,PLXNA2,SETD1A,RARB,SPEN,NCOA1,BLOC1S5,CHRD,EIF4G1,CCDC3,VCL,WNT3,P4HB,SUFU,SCUBE2,PAFAH1B1,AKAP6,TRPC5,GLI2,RUFY3,DAB2,USH2A,LDLRAD4,RELN,SIN3A,CSF3R,APOLD1,MACF1,ALK,INPP5D,CLASP1,SRA1,ADIRF,XDH,OVOL2,NFATC2,BNC1,PAK3,ADNP,MAP1B,MARK1,CDK6,DROSHA,PSMB2,EYA1,BRINP1,GNB3,TRPV1,HOXB3,HOXB4,GHR,ACTR2,HDAC1,ROCK1,EGR2,RNF10,AP3B1,PTPN2,EPHB1,AXIN2,TRIM46,SH3GL3,AP3D1,CARM1,CUX1,SP11,EPHA7,CTNNA1,GLIS1,MAP3K13,SMYD1,BMPR1B,ZEB2,HEY2,RC3H1,WNT7B,PTPRS,ABCA12,MITF,SRSF6,PKP2,BTK,IGF1,MAPK1,PTEN,MIB1,SPRED2,BMP7,SOX5,LRRK2,LILRB4,EFNA5,SHANK3,NCOA3,PPP2R3C,WNT7A,ZBED6,BMP6,IL17RD,SOS1,RAPGEF2,SMO,TCF4,TFE3,RHOA,SYNGAP1,NFKBID,GSK3B,EEF2K,CDK13,CD27,AGT,BLOC1S6,FBN2,BRINP3,PTK2,PBX1,TCP11,MAP3K5,TCFL5,DLX1,ALOX5,SP7,ADAM8,CDS1,RGS14,ACTN4,STK4,EPHB2,CLPTM1,IL18,PPARA,NOTCH4,FBN1,PAX6,PRKCZ,FAM20C,PPP1CC,PHLDB2,GCNT2,ETS1,VWC2,MAP2,FBXO31,CDK5RAP1,BRAF,HDAC2,HTR2C,IMPACT,TNR,MBNL3,CDKL3,PPP2CA,NUMB,SYK,WWTR1,SLIT1,YBX1,PLEKHB2,HSF1,ADAMTS7,SULT2B1,AXL,TNFSF9,WIF1,CD109,MALTI1,SETD3,SEMA3C,PTPRC,CREB1,BMP4,CPNE1</i></p>
GO:0007167	enzyme linked receptor protein	8.893811871406031e-	<p><i>ENPPI1,NRXN1,GP6,CLASP2,IL31RA,CTDSPL2,NRG3,LATS2,NREP,PRLR,MVP,KALRN,NTRK3,CBL,ARNT,FLT3,STAT5B,PLCE1,FER,PTPRR,LRP2,PIK3CD,ROBO1,ITGB6,NAV2,ABII,SAMD12,TRIO,PTPRK,ANKS1B,STXBP4,GFRA2,PTPN11,ADORA</i></p>

	signaling pathway	12	<p>1,ADAMTS3,EPHA1,ERBB4,PMEP1,NTRK2,EP300,FNTA,PDGFB,CCND3,INSR,PI P4K2A,PAK1,PTPRD,BDNF,TGIF2,FUT8,LCK,SHC4,SNX6,PPM1L,PTPRU,AP3S1, RBM14,CASS4,FYN,NF1,PLCB1,LMTK2,RTN4,CHRD,APOD,NDRG4,PIK3R2,NO MO3,NRG1,BDKRB2,ROR2,DCN,SLC39A14,CDH13,PTPRT,CCBE1,JAK2,FBXW7,Z FYVE28,SH2D6,CYFIP2,PRKCD,ACVR2A,RUNX2,CD4,TGFB1,NUP93,IGSF1,ZFYV E9,KANK1,SMAD6,BMPER,DUSP22,FGF10,ARHGEF28,SMURF2,EPHA4,CTNNB1, SMARCC1,IGF1R,PPARG,AXIN1,LEPROT,FGF1,NR4A3,MYOCD,GLG1,PRDM16,M YO1E,HCK,SORBS1,CSPG4,FLT4,SPTBN1,SFRP1,SMAD3,NEDD4,NRP2,TAB1,PD GFRA,FSTL4,MUC20,PTPRG,CHST11,FRS2,MMP2,PRKD1,HNF4A,EREG,MAPKA PK3,ATF2,RAF1,PTPN1,ADAMTS12,BMPR2,BMP1A,TSPAN12,PIK3R3,FGF2,NE DD9,DOK6,CHRD,EPHB3,PTPRE,SHOC2,TSG101,IDE,COL4A3,HIP1,IRS4,NEO1, DAB2,LDLRAD4,IQGA1,MAP3K7,ZNF423,ALK,XDH,LTBP1,OVOL2,SNX5,PAK3, MAPKAPK2,COL4A6,EPHA5,GFRAL,GPC3,GHR,FLRT2,SMOC2,PTPN2,INSRR,NT RK1,EPHB1,EPHA10,SPI1,EPHA7,PTPRA,BCAR3,RBPMS,CHURC1,SNCA,BMPR1B ,MAGI2,ZEB2,RASA1,IGF1,MAPK1,SPRED2,BMP7,TMEM108,EFNA5,BTBD11,PD GFC,GPR21,BMP6,IL17RD,SOS1,EXT1,RAPGEF2,GRB14,ROR1,RQCD1,TF,ONEC UT2,GSK3B,STAT6,SULF1,AGT,FBN2,PTK2,VEPH1,CREBBP,DLX1,PCSK5, NCF1,SHC1,RPS6KB1,GUCY2F,ANKS1A,RPS6KA5,PLEKHA1,RGS14,EPHB2,PPAR A,ARID5B,FBN1,PRKCZ,FAM20C,RABGEF1,ASP,ANGPT1,OSBPL8,GCNT2,VWC 2,PRKCQ,BRAF,CSRN1,PHIP,ANGPT4,SYK,WWTR1,PTPRJ,CAV2,COL4A5,AXL,R EPS2,CD109,MET,PBLD,TYRO3,RGMB,CLNK,BMP4</p>
GO:00 33036	macromolecule localization	1.04011123 67034777e- 11	<p>CD247,POLDIP3,DNAH11,ZDHHHC14,ENPP1,HOOK2,BLZF1,GPC5,NRXN1,ASPH, PRKCI,SLCO3A1,ADCY8,CLASP2,GRID2,CLDN18,CTDPSL2,SLC25A17,LATS2,LRP 1B,ASTN2,EPB41,DPP6,MAPRE2,TJP1,MVP,FTO,PITPNC1,SEC23B,SNX31,RAB4B, RAB4B- EGLN2,STAT5B,LHFPL4,FAM53A,MARVELD3,CCDC93,KCNIP4,SPNS2,CEP128,L RP2,TNPO3,HDGF,ANK2,EZR,XRCC4,TOM1L1,TENM1,KIF5C,LMNA,SRP72,AFM, NFASC,DNAJA3,ITGB1,HSP90AA1,APOL4,MCC,CCDC22,FAM126A,CDAN1,CNGB 1,DLG2,PTPRK,ABCC8,ERC1,HMGN3,AFTPH,NRIP1,STXBP4,IMP2,EFCA87,TCI RG1,PTPN1,CCT2,CACNB2,HDAC6,GOLGA4,ADORA1,IKBKB,PEX14,ERBB4,GB F1,TLK1,ATP8A2,OSBPL10,ESR1,DPP10,FRMD4A,STX18,FNTA,HOOK3,VPS45,RI MSI,TNIK,SNX2,MID1,FMN2,ATP8B1,H2AFY2,TCF7L2,PIP4K2A,SCAMP4,MYOMI ,SPTSSA,BDNF,GLTP,SFT2D1,ECT2,SNX6,CHML,VAMP7,SPNS3,PTPRU,RFTN1,S HFM1,AP3S1,NPLOC4,DMD,CENPF,RANBP17,ATG10,KAT7,PRELID2,GSN,RIT2,F YN,ARNTL,ADAMTS9,NF1,SMG7,LMTK2,STX6,RTN4,GOLGA2P5,APOD,VTA1,BCR ,TTN,ICA1,PAQR3,PIK3R2,KLHL21,BDKRB2,BID,MDF1,SLCO1A2,RAPGEF6,MYH 9,MAD1L1,TMEM30A,SYNE1,PAR3B,SCFD2,ZDHHHC3,LIN7A,SCFD1,PITPNB,CR EBRF,EXOC4,IPO5,MAN1A1,RAB27A,MTX3,RAB3C,COG8,TERF2,TMED6,GOLPH 3L,RCC2,ANO6,ARL3,NEUROD1,IPO11,PARP11,DENND1A,ZDHHHC15,JAK2,FBX W7,KCNB2,OAZ2,SKAP1,STARD6,CROCC,SNAP25- AS1,ABCC2,SMG1,RBFOX1,ATP9A,PLS1,DENND2A,SEPT7,TTC7B,LAMTOR3,KPN A3,CTAGE6,WNT11,IFT80,VPS13B,IMMP2L,QKI,PRKCD,CD4,TGFB1,BANP,PCSK 5,NUP93,PIBF1,PTPRN2,F2RL1,BCAS3,DNAJB2,CELSR1,AAK1,CADPS2,CORO1C, DISC1,CEP135,ZFAND2A,ABCC11,GRPEL2,ANO4,ANK1,TTBK2,CHRM1,CLOCK,A NO3,BCL3,DCLK1,RABGAP1L,FGF10,CNTNAP2,CIZ1,SMYD3,STXBP5,PLIN3,CAP N3,SLC16A1,VMP1,SNX8,CNR1,TNFSF11,SMG6,PPP3CA,NSUN2,UFL1,TRAK1,CT NN1,PARK2,RN7SL832P,TSNARE1,PPARG,DLG5,MYO1D,MSR1,SYTL5,APOL3,S CAMP5,ANXA13,LRRP3C,SREBF2,RYR2,LEPROT,NIN,WDR45B,AGAP1,TRIM5,PE R2,AJUBA,SCN3B,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,OBSCN,NF2,SPTBN 1,AP3B2,SFRP1,ARL13B,CCDC91,IFT122,RANBP3,ATP10D,SNX14,SMAD3,RAB6A, WWP2,WIP1,MTBP,VPS39,GRIK5,PSAP,LZTFL1,SHANK1,NEDD4,ARHGEF18,PL A2G4C,KPNB1,VPS53,RAB6C,SEC61B,THOC3,BET1L,RBM8A,YAP1,HEG1,RAB11F IP5,NLGN2,SSR2,BORA,NVL,JAK1,LRP5,SEC22C,SLC9B2,SETD2,ZDHHHC6,GPC6, CHST11,PRICKLE1,SPTBN4,DRD1,RFT1,SERGEF,PRKD1,OSBPL2,TAF3,HNF4A,S TRA6,VPS4A,PITRM1,ATF2,RAF1,PTPN1,AP1B1,NLGN1,ATP9B,SNX16,TAF8,RAB1 1A,IPO9,RAB24,PPM1F,ADCY5,XPO6,ABCA13,RILPL1,SORCS2,RAB11FIP3,SLC5A 8,TANGO6,GAS8,OC90,AP2M1,TNPO1,TECPR2,LMBRD1,TSG101,DES1,VCL,TER F2IP,ANKS4B,KCNQ1,SUFU,ZFYVE1,PAFAH1B1,KIF3A,ATG4C,NMUR2,HIP1,AK AP6,CEP350,PADI6,TRPC5,TNKS,RUFY3,DAB2,XKR4,TRAM2,USH2A,DZIP1,SMG 5,DLG3,RELN,SIN3A,RUVBL2,ABCB1,FAM91A1,PLEKHF2,APOLD1,ZNF423,TRIM 22,MACF1,MYO7A,EEPDI,APBB3,NBEAL1,GPM6B,LTBP1,SNX5,ATP2B4,NSF,PAC RG,SYNE3,PACIN1,ATAD1,NXT2,CEP41,SCARB1,KCNAB2,TFR3,EPHA5,GPC3,S TOM,TBC1D5,SNX9,RPGR,ARL5A,ROCK1,C1QTNF1,EGR2,GAPVD1,CAPN10,ABC C1,AP3B1,LRBA,PTPN2,KPNA6,ZFAND1,MAP1A,ANK3,PTPN9,SNUPN,AXIN2,PAR D3,GNL3L,PTPN14,TRIM46,TUB,CACNG8,AP3D1,AP2B1,ARHGAP44,HEATR5A,S NX33,LPA,SPI1,MCU,VPS16,CTNNA1,LIMA1,STAC,ILDR2,SHROOM3,FCHSD2,RA B15,RAPGEF3,ERCC3,CACNG2,MAGI2,TBC1D9,PNPT1,SYT9,HEY2,CHMP3,RAB5 B,OSBPL1A,ADTRP,ABCA12,PKP2,TBC1D16,XPO4,VPS41,STX8,IFFO1,BMP 7,ATXN2,PIK3C3,NUP88,LRRK2,SEPT6,TMEM59,SPAG5,UNC119,CHMP5,BAG6,L ILRB4,MORC3,ITGAM,PKD2,EFNA5,SHANK3,MIA2,SERPINA5,ATP8B4,SGSM1,W NT7A,ZBED6,ZC3H11A,SNAP23,DNAJC1,RABEP1,SH3PXD2B,POM121C,BMP6,M YCBP2,ANO1,ATRX,PLIN2,SAMM50,RAPGEF2,SMO,GET4,SUN1,LSG1,BLOC1S3, MARK4,STXBP5L,CPT1A,UBR5,ARRDC4,BBS9,SYNGAP1,ESYT2,HSPD1,TSPAN33,</p>

			<p>EPM2A,GSK3B,ABCG8,RDX,IWS1,CCDC14,NECAB2,UPF2,AGT,PRKAA2,SYT7,ADAR,BLOC1S6,FBN2,PITPNM2,PEX5L,SNX3,EXOC6B,RIMS2,TOMM5,COPG2,CPE,SEC16B,STOML1,TIMM44,CHKA,GTF2IRD2,NCF1,TAOK2,RPS6KB1,ZDHHHC23,ITGAL,ALOX5,DNAJB6,ADAM8,SLC5A3,ARFGAP3,PACSIN2,CDS1,MON2,PEX7,GCKR,PLEKHA1,ACTN4,COG4,STK4,ZFAND6,EPHB2,SLC1A1,WLS,SIGMAR1,GPSM2,HCAR2,PPARA,PPP1R10,ABCD3,GRTP1,CALCRL,MCOLN1,STEAP3,KNPA4,SYTL4,FBN1,PAX6,PRKCZ,ADORA2A,RABGEF1,WDR83OS,PHLDB2,OTUD7B,NIPBL,ANGPT1,CADPS,PACS2,FRMPD1,OSBPL8,IGF2BP3,EPB41L2,SLCO2B1,HACL1,TBC1D10C,ATG3,BRAF,DIAPH1,SIL1,TNS4,ATP8A1,CLTB,EMC3,SKP1,FAM149B1,RPL23,SH3BP4,CAMSAP3,SP100,VTI1A,ANXA2,TRIM29,PARN,PIGU,RAB27B,ITSN1,NUP214,PITPNM3,WIPI2,NUMB,SQLE,SYK,WWTR1,GRIK2,MYRIP,RAB2A,SEC31B,BRCA2,CACNG3,DVL2,YBX1,ANKRD13A,GRIPI,SLC10A1,OSBP2,HSF1,CNIH4,ANKRD13C,ATP10B,PLEKHM1,GBP5,MCM8,CGNL1,MLPH,RAB37,AKTIP,EPS15,DENND4C,TBC1D10A,NBEA,SNX1,ZDHHHC11,ZDHHHC11B,EHD2,TRAPPC8,CCT3,NEDD4L,NDC1,RPH3A,GPR89A,CTCF,RAB28,RNF213,SYNDIG1,TSPAN5,VPS52,TRAF3IP2,SGTB,SHISA6,EDNRA,NGGT1,PRAP1,BMP4,ABLIM3</p>
GO:0043085	positive regulation of catalytic activity	1.0898925163235999e-11	<p>NRXN1,ASPH,MAP4K4,C6ORF89,ADCY8,NRG3,NOS1AP,TIAM2,MAPRE2,PRKAG2,PRLR,KALRN,NTRK3,FLT3,GRM5,MAP2K5,KITLG,XRCC4,ROBO1,TOMI1L,HTR2B,CDKL5,TENM1,TRAF6,DNAJA3,NAV2,ABI1,ITGB1,HSP90AA1,CDC6,ARHGAP24,AKAP13,DAB1,RGS6,CCT2,DOCK10,ADORA1,EPAH1,ERBB4,MRE11A,ABR,ESR1,NTRK2,FNTA,PDGFRB,CCND3,INSR,CAB39,PAK1,MAP3K4,EGFLR1,ACTR4,ARHGAP6,LCK,ECT2,ARHGAP42,ERN2,GSN,CASS4,FYN,NF1,LMTK2,RTN4R,BCR,CHI3L1,NRG1,DOCK8,BID,MAP2K1,RAPGEF6,STIM1,ROR2,RGS8,CCNYL1,TERF2,RC2,GNAQ,DENND1A,JAK2,FBXW7,ARAP2,DOCK9,LAMTOR3,CYFIP2,WNT11,NORX4,SIPAIL3,PRKCQ,TAB2,CD4,TGFB1,PIBF1,BTRC,CRAD3,DFRL1,BCAS3,CORO1C,BLID,CACNA1D,TNFRSF10B,RABGAP1L,DOCK3,EPAH4,TNFSF11,CTNNB1,ARHGAP22,IGF1R,PPARG,AXIN1,GARNL3,FGF1,RGS10,AJUBA,CACNA1C,SPDYA,TBC1D14,TBCK,FLT4,SFRP1,ARHGAP29,BCL2L13,SMAD3,PSAP,DCP1B,PREX1,TAB1,APP,PDGFRA,BORA,NVL,MTCPI,S100A12,DCUN1D3,PRKDI,ST18,EREG,CCNY,GRAMD4,CASP1,PTPN1,BMPR2,BMPRI1A,FGF2,PPM1F,NEDD9,SEMA4D,PTAFR,ADCYAP1R1,DVL3,EPHB3,CKS1B,MYO9A,CCL14,CCL15,COL4A3,NMUR2,HIP1,TNKS,CACUL1,DLG3,WNK1,RELN,NEK10,DOCK11,IQGAP1,MAP3K7,ALK,SLC8A2,XDH,RGS7,ATP2B4,ADNP,SCARB1,EPAH5,DCUN1D5,TBC1D5,GHR,MNAT1,SNX9,ROCK1,INSRR,NTRK1,SLC39A10,EPHB1,EPAH10,AXIN2,PIFO,EPAH7,ATG14,BCAR3,MAP3K13,RAPGEF3,SH3BP1,SNCA,BMPRI1B,MAGI2,PRIM2,TBC1D9,USP50,PRKAG1,RASA1,RPTOR,TBC1D16,IGF1,MAPK1,PTEN,LRRK2,UNC119,RFC3,ITGAM,ARHGAP25,PKD2,EFNA5,PDGFC,PKIB,SGSM1,PPP2R3C,NLRP1,UACA,SERINC5,RAPGEF2,VKRF3,PSEN2,GRIN1,ARRDC4,RHOA,ROR1,HSPD1,GSK3B,BOK,AGT,PTK2,MAP3K5,NCF1,TAOK2,CD44,ADAM8,SLC5A3,CLDN4,NOS1,RGS14,SIPAIL2,ARHGAP11A,STK4,EPHB2,SLC1A1,IL18,DLCL1,GRTP1,PDP1,MOB3B,PRKCZ,GRIN2B,ANGPT1,OSBPL8,TBC1D10C,CCL22,PRKCQ,CD300A,PPP2CA,SKP1,ANGPT4,RFC5,PARN,SRGAP2,MADD,SYK,RAP1GAP2,DVL2,TANK,HSF1,DHFR,SASH1,ASAP1,RALGAP1,NAV3,MOB3A,CAV2,GNA12,AXL,MET,TBC1D10A,MALT1,PHB,PTPRC,TYRO3,EDNRA</p>
GO:0007411	axon guidance	1.4786693665678427e-11	<p>NRXN1,SEMA3A,SEMA3D,MYOT,UNC5C,KALRN,SEMA5A,NRXN3,ROBO1,KIF5C,ROBO2,NFASC,DSCAM,TRIO,LAMA2,EPAH1,PTPRO,UNC5D,LAMA3,CDH4,TBRI1,BDNF,FYN,CCDC141,ADAMTSL1,NTN1,CNTN4,BOC,MYPN,BCL11B,SLAH1,SEMA5B,SLIT3,SLIT2,LAMC2,YTHDF1,ENAH,EPAH4,DRAXIN,DCC,CNTN6,NFIB,PTPRM,NRP2,PRTG,APP,DSCAML1,SEMA6D,BMPR2,USP33,DYSL2,CRMP1,SEMA4D,PLXNA2,EPHB3,WNT3,GLI2,NEO1,RELN,EPAH5,FLRT2,EGR2,NTRK1,EPHB1,EPAH10,EPAH7,PTK7,BMPRI1B,BMP7,EFNA5,MYCBP2,SOS1,EXT1,SMO,EMB,PTK2,GAP43,ECE1,RPS6KA5,TUBB3,EPHB2,PAX6,PRKCQ,TNR,TMEFF1,SLIT1,SEMA3C,NCAM1,EDNRA</p>
GO:0009888	tissue development	1.6356056823161933e-11	<p>CLRN1,ENPPI,ADAMTSL1,LDB2,PDE4D,S1PR2,HLX,SLC9A1,TRPS1,CLASP2,SEMA3A,IL31RA,RYR1,ASH1L,ASTN2,SEMA3D,FHOD3,TJPI,UNC5C,PRLR,HIVEP3,FTO,SPRR2D,ATRNL1,SEMA5A,RAD51B,STAT5B,TOX,KITLG,NDUFV2,LRP2,PIK3CD,OLFM1,EZR,MEGF10,ROBO1,CHD7,HTR2B,ITGB6,LMNA,TRAF6,ESRP1,ROBO2,ABI1,ITGB1,TRIOBP,SLC24A3,PSMB7,KIF26B,ARHGAP24,KLHL12,AKAP13,RUNX1,THRB,XIRP2,LAMA2,TCIRG1,PTPN11,IKBKB,ERBB4,ACTG2,CECR2,ESR1,MYO18B,NPHP3,PTPRO,CDON,EP300,MEGF9,RNF220,PDGFRB,CSGALNACT1,INSR,PRKARIA,H2AFY2,LAMA3,TCF7L2,PAK1,BASP1,STRC,TFAP2A,ATRN,NPRL3,PHACTR4,TENM4,MDM4,LAMC1,SGCD,DMD,CENPF,SLC8A1,SATB2,JPH2,ARNTL,ADAMTS9,NF1,PLCB1,MGMT,PCDH15,ARID4B,RTN4,RXFP1,BCR,CHI3L1,TTN,NDRG4,BMP2K,ANKH,NTN1,EGFLAM,SLC4A5,NRG1,MAP2K1,STIM1,VAX2,VGLL4,NTNG1,ROR2,SLC39A14,EXOC4,MAD2L2,NLN,ANO6,NEUROD1,ACTL8,COL12A1,JAK2,BCL11B,RBFOX1,TMC1,CLDN1,MLLT3,PNPLA1,PLS1,PDE2A,KLF15,ANXA4,WNT11,IFT80,NOX4,SIPAIL3,SOX6,ACVR2A,RUNX2,SEMA5B,TGFB1,KEL,BTRC,F2RL1,C9ORF47,RPGRIPL,CELSR1,SLIT2,TP73,MUSTN1,CDH23,CORO1C,LRRIC10,LAMC2,SMAD6,BNC2,CLOCK,NELL1,BMPER,SBNO2,FGF10,FBXL17,GREB1L,PPL,L OXL3,SVIL,SMURF2,EPAH4,TNFSF11,PPP3CA,NSUN2,CTNNB1,CDHR2,PPARG,AXIN1,DLG5,BFSP1,XK,RYR2,FGF1,DCT,MYOCD,AJUBA,GLG1,PHLDB1,KRT6B,MYO1E,CSMD1,HCK,CTDPI,NF2,HDAC4,PAX2,ELN,SFRP1,ARL13B,NFIB,IFT122,SMAD3,ABI2,PSAP,NRP2,VANGLI1,HOXD3,CDC73,SSBP3,PDGFRA,YAP1,HEG1,TN</p>

			FRSF19,VDAC1,EYA2,ALPL,LRP5,BDH2,SOX2,SETD2,GPC6,CHST11,PRICKLE1,RCAN1,FRS2,PALB2,MMP2,KDM6A,STAT1,HNF4A,STRA6,EREG,MYH15,SEMA6D,ATF2,ADAMTS12,BMPR2,BMPRI1,CERS3,EVC,FGF2,SEMA4D,RORC,PLXNA2,FND C3A,JARID2,RILPL1,KLHL3,RARB,OC90,CHRD,DVL3,ATF3,MATN3,EBF2,TSG101,VCL,LAMB1,CLIC4,MYO9A,COL11A1,KCNQ1,WNT3,SUFU,SCUBE2,PAFAH1B1,AKAP6,GLI2,SCUBE1,COL19A1,DAB2,PKHD1,USH2A,LDLRAD4,MYSM1,DLG3,RSP O2,CRELD1,IQGAP1,APOLD1,LUZP1,ARHGAP12,MYO7A,GSTM3,CLASP1,HOXC 13,GPM6B,XDH,OVOL2,RBBP6,BNC1,ASGR2,GPR161,ARID4A,MARK1,CDK6,MEF 2A,GPC3,PSMB2,EYA1,HOXB3,HOXB4,HOXB5,GHR,HDAC1,ROCK1,PAXIP1,EGR 2,AP3B1,NTRK1,PTPRQ,EPHB1,AXIN2,EPCAM,JAG2,BCOR,PIFO,SP11,EPHA7,FB XW4,SHROOM3,RAPGEF3,SH3BP1,MST1,KAZN,ERCC3,PTK7,SMYD1,BMPRI1B,M AGI2,HEY2,HYDIN,WNT7B,HMGCS2,PTPRS,TLL2,ABCA12,CSRPI,SRSF6,PKP2,BT K,SGCZ,ZNRF3,CBFA2T2,IGF1,MAPK1,PTEN,MIB1,SPRED2,BMP7,SOX5,LHFPL5 ,ALDOC,ITGAM,PKD2,SHANK3,RIPPLY1,ALPK3,NCOA3,WNT7A,ZBED6,SH3PXD 2B,BMP6,GPI,IL17RD,SOS1,EXT1,ATRX,PRICKLE2,IKZF1,RAPGEF2,SMO,CPT1A,MYLPF,RHOA,ROR1,ONECUT2,GSK3B,RDX,STAT6,ACTA2,SULF1,MTHFD1L,KRT 8,AGT,FBN2,ZMPSTE24,PHEX,PBX1,TRPC4AP,PYGO2,ECE1,LBX2,RP56KBP1,STC 2,PGM5,SCEL,SETDB2,ALOX5,CD44,STK4,TUBB3,SPEF1,WLS,TMEFF2,DLC1,PP ARA,ARID5B,NOTCH4,PAX6,FAM20C,COL22A1,PHLDB2,ASPN,FHL2,GCNT2,PPP 1CA,NEBL,HDAC2,POU3F3,NOTO,SPINT2,PPP2CA,ACAN,CAMSAP3,TMEFF1,W WTR1,RADIL,BRCA2,DVL2,NEB,YBX1,ADAMTS7,SULT2B1,BMP1,CAV2,CD109,ME T,TIMELESS,ANKRD6,KDM2B,SEMA3C,PTPRC,EDA,VPS52,CREB1,EDNRA,BMP4
GO:0050808	synapse organization	1.678645815875542e-11	NRXN1,PRMT3,NEGR1,GRID2,NOS1AP,MYOT,NLGN4X,KALRN,NTRK3,GRM5,LH FPL4,NRXN3,CDKL5,ROBO2,NFASC,DNAJA3,PCDH17,ZC4H2,DSCAM,ERC1,ERC 2,CACNB2,DOCK10,HDAC6,ERBB4,PTPRO,NTRK2,FNTA,KIRREL3,CDH8,INSR,P TPRD,CNTN5,BDNF,AMIGO1,TANC2,FYN,SNCB,NTN1,DCTN1,NRG1,FRMPD4,LR FN5,NTNG1,NFIA,PCDHB16,CAPRIN2,ZDHHHC15,CLSTN2,IL1RAPL1,CAMK2B,PD ZRN3,SDK2,CTNND2,DISC1,PPFIBP2,LINGO2,IL1RAPL2,EPHA4,CTNNB1,FCGR2 B,ARHGAP22,IGF1R,DLG5,ADD2,DGKB,DNM3,CUX2,ABI2,SHANK1,NEDD4,NRP 2,SLC6A1,APP,NLGN2,GPC6,DRD1,SYBU,SHANK2,NLGN1,CTNNA2,LRR4C4,SEM A4D,EIF4G1,EPHB3,ARHGAP39,FBXO45,NLGN3,PAFAH1B1,SETD5,DLG3,RELN,SLC8A2,STAU1,PAK3,ADNP,MAP1B,FLRT2,ACTR2,NTRK1,ANK3,UNC13A,EPHB1, ARHGAP44,EPHA7,PPF1A4,SDK1,SNCA,CACNG2,WNT7B,PTPRS,CAST,PTEN,LRR K2,TMEM108,ITGAM,EFNA5,SHANK3,WNT7A,RHOA,SYNGAP1,GABRB3,SYN1,EE F2K,GAP43,EPHB2,SLC1A1,GRIN2B,LGI2,TNR,SLIT1,GPM6A,COL4A5,SYNDIG1,T ANCI,SHISA6
GO:0033554	cellular response to stress	1.7417017951964385e-11	PRDX2,MAP4K4,SLC9A1,ADCY8,PDE8A,SEMA3A,CALR3,C12ORF49,KIF22,PMS1, NREP,PTGIS,PRKAG2,PAGRI,FTO,CBL,ARNT,EGLN2,RAD51B,SAMHD1,FER,MA RVELD3,MAP2K5,MAPK10,DEPDC5,ZSWIM7,EZR,XRCC4,MECOM,LMNA,TRAF6, OXR1,ULK4,ERCC6L2,HSP90AA1,PSMB7,PTPRK,OMA1,DNAJB14,STXBP4,PTPN1 1,HDAC6,DDBI1,MSRA,IKBKB,MRE11A,TLK1,TEX264,HIF3A,CUL4B,PNRC6A,EP3 00,TNIK,MIDI1,STK39,FMN2,CAB39,PAK1,MAP3K4,EGLN3,FANCA,FUT8,NPRL3,T RIM13,MDM4,ECT2,ERN2,CDC45,SHFM1,NPLOC4,ATG10,SLC30A9,PDS5A,USP1 3,KAT7,SLC8A1,RBM4,MACROD2,FYN,ARNTL,NF1,PLCB1,MGMT,PPP4R2,RTN4, APOD,NEIL2,RTN4R,RWDD3,PIK3R2,SH2D3C,BDKRB2,BID,MAP2K1,FNIP1,TMBI M6,PPP2CB,ROR2,CREBRF,WDR70,AUNIP,COPS5,FGF14,DMC1,MAD2L2,MAN1 A1,TERF2,SLX1B,FOXN3,TMEM117,RAD51D,JAK2,FAM168A,FBXW7,SMC3,UIMC 1,ITCH,SMG1,MTA1,KREMEN1,IMMP2L,CLPB,ERCC8,PRKCD,SGK1,ASCC2,POL K,CRADD,F2RL1,DNAJB2,TP73,XPR1,CLOCK,ZNF675,BCL3,TNFRSF10B,DUSP22 ,NAIP,TRRAP,FGF10,SH3RF3,FANCI,CAPN3,EPHA4,RORA,TNFSF11,UBQLN3,MA G,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,HSPA6,IGF1R,PPARG,AXIN1,MACROD1, OTUB1,CBX5,CYBB,SCAMP5,BRIP1,SREBF2,TDP1,FGF1,NR4A3,BDR45B,NOL3,K IR2DL4,AJUBA,CHEK2,UBQLN4,SPDYA,BAZ1B,FLT4,PAX2,SFRP1,ST8SIA1,FOXO 3,SMAD3,RNFT2,ITPRI,WIP1,RNF168,NEDD4,TXNDC12,SEC61B,APP,PDGFR4,N OX1,YAP1,AMFR,SESN1,CDK3,TNFRSF19,EYA2,SETD2,CHUK,ERLIN1,PALB2,M MP2,PRKD1,ETV5,SHPRH,ATF2,RASGRF2,CARD16,PTPNI,POLA1,BMPR2,USP33 ,BMPRI1A,MORC2,BACH1,TICRR,HELQ,CHCHD6,PIK3C2B,PRKCG,EEF1E1,EEF1 E1-BLOC1S5,ALKBH3,EIF2B5,EIF4G1,RBX1,ATF3,FBXO45,STT3B,PAWR,TERF2IP,A NKS4B,WDR59,P4HB,ZFYVE1,PAFAH1B1,POLE,TRPA1,DDAH1,EDEM3,ERCC1,B LM,SIN3A,RUVBL2,PPP2R5C,SPATA18,MAP3K7,GSTM3,STAU1,DSC2,EEPDI,SLC 35A4,UBE2V1,XDH,NFATC2,RBBP6,CHD1L,PACRG,APEX2,MAPKAPK2,MAP1B,C DK6,RNF34,UVRAG,NFRKB,DCUN1D5,GFRAL,PSMB2,EYA1,TRPV1,TFEB,CLEC1 6A,MNAT1,ACTR2,ELAVL4,RECQL5,PAXIP1,HIPK3,ABCC1,PTPNI,EPHB1,MAN1 B1,AXIN2,MUC1,RAD51C,SP11,CTNNA1,AIFM2,ATG14,LRR8C8,LRR8D,STAC,M AP3K13,MST1,ERCC3,SNCA,POLN,PNPT1,RNF103,RNF103-CHMP3,WNT7B,PTPRS,ZMYND11,PRKAG1,TRIP12,OPRD1,HIPK1,RPTOR,RTN4R L1,BTK,VPS41,MAPK1,PTEN,SPRED2,IFFO1,BMP7,PIK3C3,LRRK2,RFC3,BAG6,C HAF1B,TMCO1,PKD2,HSF2BP,SEL1L2,MTMR3,WNT7A,NME8,KAT6A,NFE2L1,AN O1,SH3RF2,ATRX,ASCC1,GET4,UBR5,RHOA,SPRTN,MCM3,CUL3,TFEC,HSPD1,G SK3B,DNAJC3,STAT6,EEF2K,RBBP8,CD27,BOK,NACC2,AGT,POLH,PRKAA2,ZMP STE24,RNF121,GAP43,MAP3K5,CREBBP,NCF1,SLC29A1,TAOK2,PARP10,RNFT1,S TC2,ALOX5,DNAJB6,CD44,ADAM8,HUS1,PLEKHA1,RGS14,MC1R,SLC1A1,SIGMA

			<p><i>R1,TEX12,DNAJC7,PPARA,PPP1R10,SMARCA1,PHLPP1,MAGI3,CPEB4,CPEB1,KIN,NIPBL,EYA3,ATF6,PPP1CA,FBXO31,BRAF,HDAC2,IMPACT,TNR,UBE2E2,ANGPT4,ARHGEF6,RFC5,SP100,REV3L,KCND2,DONSON,WIP2,GRIK2,GTFF2H5,ZBTB38,BRC4,YBX1,TAI1,TANK,HSF1,MAX,DHFR,SASH1,MCM8,QRICH1,VAI3,CHD6,SH2D3A,UGGT1,MYEF2,INPP5F,NUAK2,AXL,MET,RAD9B,TIMLESS,UCHL5,ANKRD6,INO80C,EXD2,ATF6B,LIG1,SGTB,TRAP1,EDNRA,GNGT1,PRAP1,BMP4</i></p>
GO:0060322	head development	1.80291686834093e-11	<p><i>NRXN1,ASPH,TACC2,NEGR1,PBX3,SEMA3A,GRID2,NRG3,PHACTR1,NLGN4X,UNC5C,ZSWIM6,SEMA5A,TOX,ATP2B2,SPATA5,LRP2,ROBO1,CHD7,TACC1,ROBO2,ITGB1,KNDC1,DAB1,PTPN11,ERBB4,ANKRD11,CDON,NTRK2,EP300,HOOK3,KIRREL3,REER,H2AFY2,FBXW11,BASP1,SLC4A10,TBR1,ATRN,AMIGO1,MEIS1,ZNF148,DMD,CENPF,CRISPLD2,SLC8A1,SATB2,PAFAH1B2,MACROD2,FYN,NF1,PLCB1,RTN4,AFF2,APOD,RTN4R,BCR,CCDC141,NDRG4,NRG1,MAP2K1,VAX2,CNTN4,NEUROD1,TRAPPC9,SYT1,BCL11B,IMMP2L,SOX6,TGFB1,RPGRIP1L,SLIT2,DISC1,TTBK2,SYNJ2,TFAP2D,DCLK1,SLC17A7,FGF10,CNTNAP2,RORA,PPP3CA,MAG,CNNB1,FCGR2B,IGF1R,AXIN1,DLG5,PFAS,DRAXIN,NIN,DCT,NF2,PAX2,SFRP1,FOXO3,ARL13B,NFIB,DDX10,ARNT2,NRP2,BTBD3,APP,SSBP3,GSX2,PDGFRA,NLGN2,PTPRG,SOX2,SETD2,DRD1,FRS2,MMP2,SYNE2,SLC6A3,SHANK2,DSCAM1,SEMA6D,ATF2,RAF1,DPYSL2,BMPR1A,CTNNA2,FGF2,PLXNA2,SETD1A,RARB,GAS8,EIF2B5,EPHB3,FBXO45,LAMB1,WNT3,PAFAH1B1,GLI2,RELN,SIN3A,ZNF423,ALK,PRKG1,RSF7,ATP2B4,CDK6,CELFI,EPHA5,HOXB3,MNAT1,ELAVL4,HDAC1,EGR2,EPHB1,SRD5A2,EPHA7,FOXP2,CTNNA1,HYDIN,WTN7B,HMGCS2,PTPRS,RTN4RL1,MAPK1,PTEN,BMP7,LRRK2,BAG6,TMEM108,ITGAM,IL11RA,SHANK3,WNT7A,SOS1,EXT1,ATRX,RAPGEF2,KCNC2,SMO,SUN1,GRIN1,RHOA,NDE1,GSK3B,CCDC14,BOK,NDRG2,PBX1,DLX1,PYGO2,TBC1D23,PLEKHA1,EPHB2,SLC1A1,WLS,DLCI,ARID5B,PAX6,GRIN2B,KLHL1,NIPBL,SHROOM4,CDKRAP1,CNTN1,BRAF,CSRN1,POU3F3,TNR,ATXN1,SRGAP2,ADCY1,NUMB,SLIT1,BCR2,TAI1,POTEE,CADMI,EZHI,AXL,UCHL5,TRA2B,KDM2B,TYRO3,CREB1,EDNRA,BMP4</i></p>
GO:0097485	neuron projection guidance	1.993648954605532e-11	<p><i>NRXN1,SEMA3A,SEMA3D,MYOT,UNC5C,KALRN,SEMA5A,NRXN3,ROBO1,KIF5C,ROBO2,NFASC,DSCAM,TRIO,LAMA2,EPHA1,PTPRO,UNC5D,LAMA3,CDH4,TBR1,BDNF,FYN,CCDC141,ADAMTSL1,NTN1,CNTN4,BOC,MYPN,BCL11B,SLAH1,SEMA5B,SLIT3,SLIT2,LAMC2,YTHDF1,ENAH,EPHA4,DRAXIN,DCC,CNTN6,NFIB,PTPRM,NRP2,PTTG,APP,DSCAM1,SEMA6D,BMPR2,USP33,DPYSL2,CRMP1,SEMA4D,PLXNA2,EPHB3,WNT3,GLI2,NEO1,RELN,EPHA5,FLRT2,EGR2,NTRK1,EPHB1,EPHA10,EPHA7,PTK7,BMPR1B,BMP7,EFNA5,MYCBP2,SOS1,EXT1,SMO,EMB,PTK2,GAP43,ECE1,RPS6KA5,TUBB3,EPHB2,PAX6,PRKCQ,TNR,TMEFF1,SLIT1,SEMA3C,NCAM1,EDNRA</i></p>
GO:0034329	cell junction assembly	2.6551326248932206e-11	<p><i>NRXN1,MAP4K4,SLC9A1,NEGR1,CLASP2,GRID2,CLDN18,TLN2,NLGN4X,TJPI,NTRK3,LHFPL4,MARVELD3,ANK2,NRXN3,ROBO2,PCDH17,DSCAM,PTPRK,CDH10,IKBKB,ERBB4,CDH12,PTPRO,NTRK2,KIRREL3,CDH8,PTPRD,CNTN5,BDNF,AMIGO1,ARHGAP6,ECT2,LAMC1,DST,APOD,BCR,NTN1,NRG1,LRFN5,PCDH16,CLDN16,RCC2,CLSTN2,CLDN1,WNT11,IL1RAPL1,CLDN10,BCAS3,SDK2,CORO1C,CTNND2,DUSP22,LINGO2,CNTNAP2,IL1RAPL2,VMP1,PRKCA,CTNNB1,DLG5,ADD2,AJUBA,SORBS1,SFRP1,DNM3,SMAD3,CUX2,APP,SLK,HEG1,NLGN2,GPC6,DRD1,SHANK2,NLGN1,COL16A1,PPM1F,PEAK1,SEMA4D,EIF4G1,EPHB3,FBXO45,VCL,MYO9A,NLGN3,SETD5,MACF1,CLASP1,GPM6B,ADNP,MAP1B,FLRT2,ROCK1,NTRK1,PKN2,EPHB1,PARD3,EPHA7,PTPRA,CTNNA1,SDK1,SH3BP1,SNCA,PTPRS,HIPK1,PKP2,DSG1,PTEN,CLDN11,EFNA5,SHANK3,TBCD,WNT7A,RAPGEF2,CDH9,RHOA,GABRB3,EEF2K,AGT,CDH20,PTK2,GAP43,ARVCF,TAOK2,CLDN4,EPHB2,DLCL1,PHLDB2,THSD1,LGI2,CAMSAP3,SLIT1,PTPRJ,GPM6A,SYNDIG1</i></p>
GO:0001932	regulation of protein phosphorylation	3.78995734296513e-11	<p><i>ENPP1,NRXN1,SLC3A1,PDE4D,SIPR2,ADCY8,PDE8A,IL31RA,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,FLT3,ENPP2,GRM5,PLCE1,FER,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,ITPKB,DNAJA3,ABI1,HSP90AA1,CDC6,KND1,AKAP13,DAB1,PTPN11,HDAC6,ADORA1,EPHA1,ERBB4,MRE11A,PMEP1,PTPRO,CDON,NTRK2,PDGF,TDK,CCND3,INSR,PRKAR1A,CAB39,PAK1,MAP3K4,BDNF,ECT2,SNX6,ERN2,DMD,SLC8A1,RIT2,CASS4,FYN,NF1,CH13L1,TTN,PAQR3,NRG1,SH2D3C,BDKRB1,BDKRB2,MAP2K1,FNIP1,ROR2,PTPRT,IPO5,MAD2L2,CAPRIN2,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ZFYVE28,WNT11,NOX4,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,NSD1,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,BMPER,ANKRD54,TNFRSF10B,DUSP22,DOCK3,FGF10,SMYD3,EPHA4,CD6,TNFRSF11,P1P5KL1,PARK2,PPARG,AXIN1,PRKAR1B,LEPR,FGF1,PRKAR2A,MYOCD,AJUBA,CEHEK2,SPDYA,CSPG4,NF2,FLT4,SFRP1,TAB1,APP,CCNI2,HEG1,BORA,IBTK,LRP5,MTCP1,SPTBN4,DRD1,S100A12,PRKD1,EREG,CCNY,ATF2,RAF1,PTPN1,BMPR2,BMPR1A,PIK3R3,CDK12,SPAG9,FGF2,PPM1F,NEDD9,SEMA4D,DVL3,EIF4G1,CKS1B,DEPTOR,TSG101,TERF2IP,PTPN13,TRPC5,DAB2,BLM,CACUL1,LDLRAD4,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,SLC8A2,XDH,ATP2B4,ADNP,TFR3,UVRAG,GHR,MNAT1,SNX9,PLCG2,HIPK3,PTPN2,NTRK1,AXIN2,PARD3,EPHA7,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPR1B,PRKAG1,ADTRP,OPRD1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,LRRK2,UNC119,LILRB4,PKD2,EFNA5,TADA2A,PDGFC,PKIB,PPP2R3C,PLCL2,BMP6,RAPGEF2,PRKAR2B,RHOA,RQCD1,EPM2A,DNAJC3,EEF2K,PTPRB,AGT,CCNJL,ADAR,STAT2,PTK2,TEC,MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,RPS6KA5,HUS1,NOS1,RGS14,STK4,EPHB2,SLC1A1,IL18,UBE2K,MOB3B,PAX6,PRKCZ,ADORA2A,RABGEF1,CCNG2,ANGPT1,LRRK1,OSBPL8,CDK5RAP1,CNTN1,BRAF,HDAC2,IMPACT,CD300A,PH</i></p>

			IP,PPP2CA,ANGPT4,MADD,SYK,WWTR1,DVL2,PTPRJ,HSF1,SASH1,MOB3A,SH2D3A,AKTIP,INPP5F,CD109,MALT1,MLXIPL,PHB,PTPRC,SH3GL2,TNXB,BMP4
GO:0048519	negative regulation of biological process	4.067282416802779e-11	ENPPI,PRDX2,LDB2,NRXN1,ASPH,B4GALNT2,PRMT3,PRKCI,MOV10L1,MAP4K4,PDE4D,DNMT1,S1PR2,HLX,TMBIM4,SLC9A1,ADCY8,TRPS1,CBFB,PDE8A,CLASP2,SEMA3A,IL31RA,GRID2,RPS6KA2,PRDM12,PTGFR,CHERP,WWC1,CLDN18,CTD SPL2,RYR1,NRG3,ASH1L,LATS2,ASTN2,SEMA3D,SCAF8,FHOD3,NLGN4X,PTGIS,PRKAG2,WWC3,TJP1,NUDT6,PRLR,MVP,ADCY7,FTO,RGS7BP,KALRN,NTRK3,CBL,SEMA5A,SUSD4,STAT5B,EXD1,GRM5,SAMHD1,ZNF566,FER,CASK,MARVELD3,MAP2K5,KITLG,PTPRR,LRP2,ZNF536,SP3,DEPDC5,HDGF,ANK2,OLFM1,SH2D1A,EZR,ROBO1,MALRD1,TOM1L1,TNFAIP8L1,CHD7,HTR2B,MECOM,MIR1185-1,TENM1,RYR3,LMNA,TRAF6,ROBO2,ITPKB,DNAJA3,OXR1,SLC24A2,GRK5,AB11,TGB1,TRIOBP,SLC24A3,CDC6,PSMB7,TSC22D3,CNIH2,SRGAP3,MCC,PCDH17,CDC22,DSCAM,SRGAP2B,CDAN1,TRIO,ARHGAP24,GF11B,PTPRK,RUNX1,DAB1,OMA1,ABCC8,NRIP1,RGS6,DGKI,THRB,MIR105-2,MIR767,DACH1,PTPN11,HERC4,MGAT5,ORC2,HDAC6,SERTAD2,DDDB1,ADORA1,GPRASP1,EPHA1,IKBKB,PEX14,ERBB4,GBE1,MRE11A,LIMK1,ATP8A2,KAT6B,SNIP1,ESR1,NPHP3,GRM7,MIER1,PCBP3,PMEP1,PTPRO,TRNC6A,FRMD4A,EP300,CELA1,TENM2,RGS22,HOOK3,PDGFB,CCND3,TOB2,MID1,ZNF19,BRMS1,CHFR,SCML4,BPI,STK39,FMN2,RERE,PRKAR1A,ATP8B1,H2AFY2,TCF7L2,PIP4K2A,CAB39,PAK1,LITAF,FBXW11,ESRRB,PTPRD,BASP1,TBR1,SAMD4A,BDNF,TAP24,KCNMA1,PEG3,ZIM2,TGIF2,NPRL3,PHACTR4,MEIS1,CNCRG,TRIM13,UBR2,ARHGAP6,LCK,MDM4,ZNF148,MTA3,SNX6,TFDP2,ARHGAP42,CST2,PTPRU,ERN2,CDC45,C1D,NPLOC4,DENND5A,DMD,CENPF,TOX3,PDS5A,LARP4B,KAT7,SLC8A1,GSN,RBM14,RBM4,GPR171,SATB2,RIT2,HIRA,JPH2,FYN,MKRN2,ARNTL,ADAMTS9,NF1,SMG7,PLCB1,MGMT,SNCB,FAT3,RTN4,AFF2,DPEP1,CHRD1,APOD,RTN4R,BCR,NDRG4,PAQR3,IFI30,PIK3R2,RANBP9,NTN1,NOMO3,NRG1,ARHGAP10,SLC43A2,UBP1,BDKRB1,BDKRB2,DOCK8,BID,MIR600HG,FRY,MAP2K1,MDFI,FNIP1,VAX2,MYH9,MAD1L1,LRFN5,TMBIM6,VGLL4,PPP2CB,CNTN4,HDAC5,RBM5,ZNF692,JDP2,CMKLR1,ITIH2,TSPAN8,ROR2,DCN,SCFD1,CDH13,CREBRF,TRDMT1,SOX13,FHIT,PTPRT,AUNIP,COPS5,IPO5,MAD2L2,TLE6,RGS8,CAPRIN2,TERF2,SLX1B,FOXN3,RCC2,CERKL,NEUROD1,GNAQ,RFFL,JAK2,YTHDC2,FBXW7,LINC00473,OAZ2,UIMC1,ITCH,MLIP,NPSR1,ZFYVE28,BBS12,ABCC2,LZTS1,BCL11B,SMG1,MLLT3,ATP9A,TEX11,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,IFT80,TRIM59,FIG4,MTA1,KREMEN1,KLF8,NOX4,LCOR,IL1RAPL1,PRKCD,SOX6,TAB2,RUNX2,SEMA5B,PPM1E,TGFB1,BANP,MMP28,NSD1,IGSF1,PIBF1,ZHX2,KEL,BTRC,DUS2,NFATC3,JPH3,CRADD,MIR153-2,F2RL1,BCAS3,C9ORF47,GRIK3,CDYL2,RPGRIP1L,DNAJB2,SLIT3,CC2D1B,MIR218-1,SLIT2,TP73,ITIH4,HP,CORO1C,SAP18,KANK1,MTDH,CLMN,TTBK2,FANK1,MYT1L,KDM4B,MMP26,SMAD6,ZNF398,CLOCK,ZNF675,ETV6,NELL1,TFAP2D,BMPER,TIMP2,BCL3,DCLK1,SND1,DUSP22,NAIP,HNRNPC,HOMER2,SBNO2,YTHDF1,FGF10,RASA4,RASA4B,SMYD3,KANK4,KCTD10,IQCJ-SCHIP1,LOXL3,RHPN2,SVIL,CAPN3,SMURF2,EPHA4,RORA,PRKCA,CNR1,SMG6,PPP3CA,NSUN2,GNG4,MAGEA4,MAG,KLF12,GATAD2B,PIP5K1L,UFL1,CTNNB1,PARK2,SOD2,METTL13,FCGR2B,SMARCC1,CDHR2,IGF1R,PPARG,AXIN1,PRKAR1B,OTUB1,DLG5,IL18R1,IL1RL1,ADD2,CIPC,MSR1,CBX5,ANKRD17,SCAMP5,BRIP1,ANXA13,ANKRD26,LRPPRC,SREBF2,RYR2,DRAXIN,LEPR,LEPROT,PROS1,RGS10,NPAT,NR4A3,FOXK2,NOL3,PRKAR2A,MYOCD,TRIM5,PER2,KIR2DL4,KIR3DL2,AJUBA,CACNA1C,GLG1,CHEK2,UBQLN4,PRDM16,HCK,CSTL1,TBC1D14,TRIM8,BRMS1L,DCC,CTDP1,HS3ST5,BAZ1B,NF2,FLT4,BICC1,HDAC4,PAX2,SPTBN1,TPT,E,TRABD2B,SFRP1,FOXO3,NFIB,ZCCHC17,IFT122,DNM3,SSH1,SYNCRIP,SMAD3,CUX2,ITPR1,PTPRM,WWP2,SIMC1,MTBP,RNF168,SLC16A2,LZTF1,SHANK1,DCP1B,MIER3,NEDD4,ARHGEF18,DOCK4,NAV3,SLC6A1,TXNDC12,NFATC1,PRTG,CDC73,APP,PDGFRA,ADD3,RBM8A,DIP2B,YAP1,HEG1,AMFR,RAB11FIP5,SESN1,TEN1,FSTL4,VDAC1,EYA2,RNLS,IBTK,ANGPTL4,LRP5,PTPRG,SOX2,KIF24,CHST11,PRICKLE1,RCAN1,ZNF653,SPTBN4,DRD1,TMEM14A,ERLIN1,FRS2,PALB2,SFMBT1,VILL,MMP2,SERGEF,TPH1,ESR2,DCUN1D3,PRKD1,STAT1,ST18,DGKG,ETV5,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,SHANK2,VPS4A,EREG,SEMA6D,ATF2,TCF3,GRAMD4,RAF1,CELF4,CARD16,PTPN1,ADAMTS12,GGT7,BMPR2,VBP1,CAMK1D,BMPR1A,PABPC4,NLGN1,BTBD10,CTNNA2,IKZF4,CDK12,SPAG9,MORC2,CRMP1,PDE11A,MYB,FGF2,BACH1,MXD3,PPM1F,TICRR,ADCY5,AGBL4,BEND5,SEMA4D,ISM1,NFX1,RORC,MCTP1,PLXNA2,ADCYAP1R1,YME1L1,JARID2,DKK2,SORCS2,RAB11FIP3,PHC2,RARB,SPEN,PRKCG,SIN3B,SPOCK1,AREL1,EEF1E1,TXNDC5,EHMT1,GAS8,AP2M1,CHRD,EIF4G1,PTPRE,RBX1,ATF3,LIN28B,LINC00461,PAWR,AGO3,DEPTOR,DLEC1,TSG101,CCDC3,VCL,TERF2IP,CLIC4,CRYM,KCNQ1,WNT3,SUFU,MAGEA11,PTPN13,PAFAH1B1,PRDM15,CNTFR,COL4A3,TRPA1,DDAH1,AKAP6,RASAL1,NR2C1,TRPC5,GLI2,TNKS,ERCC1,RUFY3,TNRC6B,GLIS3,WDTC1,DAB2,BLM,PKHD1,USH2A,UBR1,LDLRAD4,SMG5,DLG3,WNK1,SIN3A,RUVBL2,RSP02,PELI1,PPP2R5C,CFDP1,IQGAP1,ZNF423,TRIM22,ARHGAP12,ALK,INPP5D,CLASP1,FASTKD5,SRA1,TPCN1,GPM6B,XDH,LTBP1,OVOL2,SNX5,NFATC2,PRKG1,PAX7,RGS7,ATP2B4,PACRG,PACSIN1,SPTBN5,ASXL3,MASP1,SSH2,TEIT,ATAD1,ADNP,GPR161,MAPKAPK2,ARID4A,MAP1B,MPHOSPH9,MARK1,CDK6,PHF2,CELF1,RNF34,TFRC,SORCS3,WWOX,MEF2A,CRIL,MIR1226,DROSHA,GFR

			<p>AL,GPC3,XRN1,ADRBK1,SATB1,PSMB2,ZNF207,EYA1,GATAD2A,PTGER3,BRINP1,DIS3L2,TRPV1,RNF216,TSPAN6,HOXB3,HOXB4,MIR10A,CLEC16A,GHR,MNAT1,L3MBTL4,ELAVL4,HDAC1,INVS,RECQL5,TRIM24,PLCG2,ROCK1,EPS8,SCMH1,C1QTNF1,HIPK3,RNF10,RYBP,GPR35,PTPN2,NTRK1,TRIM44,MAP1A,TMIGD1,SLC39A10,EIF3A,ANK3,EPHB1,PTPN9,AXIN2,SARM1,EPCAM,PARD3,ZNF425,GNL3L,MUC1,PTPN14,TRIM46,SH3GL3,BCOR,CARM1,AP2B1,ANXA8L1,ARHGAP44,SNX33,CD84,LP4,SMARCA2,CUX1,MIR1302-10,SP11,DNMT3B,EPAH7,FOXP2,CTNNA1,LIMA1,AIFM2,PSPC1,GLIS1,SFMBT2,TRDN,ATG14,EIF3H,JAZF1,STK38,ABCB7,ACOT8,RENBP,OTUD3,RAPGEF3,SH3BP1,MST1,SMYD1,CHID1,SNCA,BMPR1B,MAGI2,PNPT1,ZEB2,HEY2,RC3H1,EIF3E,PTPRS,ZMYND11,CREM,PSMF1,TLL2,CAST,TRIP12,DFFA,ADTRP,ABCA12,RASA1,MITF,SRSF6,OPRD1,NUGGC,PKP2,RTN4RL1,NFIX,BTK,MIR383,ZNRF3,KCTD13,MLLT1,CBFA2T2,IGF1,ATF7IP,HTT,DYSL3,MAPK1,PTEN,MIB1,UGTF2K,FAM49B,PTPRB,RBBP8,NECAB2,CDK13,UPF2,CD27,DUSP26,TAPBPL,BOK,RNF144B,SULF1,NACC2,RNF43,SUPT4H1,TNFRSF8,AGT,HDGFRP3,METTL16,PRKAA2,ADAR,FBN2,STAT2,ZMPSTE24,BRINP3,NDRG2,PTK2,UPK3B,SNX3,PDE4B,PBX1,EXOSC3,VEPH1,TCFL5,CREBBP,UTP20,APCDD1L,DLX1,TAOK2,UGT1A1,UGT1A10,UGT1A4,UGT1A8,SHC1,CD160,PARP10,RPS6KB1,STC2,GPR173,PRG3,SERPINB11,SETDB2,ALOX5,DNAJB6,CD44,ADAM8,PACSIN2,RPS6KA5,ZNF93,CSNK1A1,HUS1,MIR346,PRDM2,CXCL17,NOS1,GCKR,PLEKHA1,RGS14,ACTN4,MC1R,STK4,TCF25,ZFAND6,ZNF282,MARK3,SPEF1,EPHB2,SLC1A1,TMEFF2,XCR1,IL18,HCAR1,HCAR2,DIS3,DLC1,PPARA,PPP1R10,ARID5B,CALCRL,MCOLN1,SMARCA1,PHLPP1,CPEB4,NOTCH4,SYTL4,ZMYND8,ZNF366,FBN1,PAX6,PRKCZ,ZC3HAV1,CD96,ADOA2A,GRIN2B,RABGEF1,CPEB1,PHLDB2,OTUD7B,NIPBL,COL28A1,ASPN,ANGPT1,TBL1X,EYA3,FHL2,LRRK1,MBTD1,OSBPL8,ZBTB5,IGF2BP3,GCNT2,ETS1,TBC1D10C,VWC2,GRIA4,MAP2,MTF2,RBMS3,TAGLN3,FBXO31,ATG3,CDK5RAP1,NCOR2,PRKCQ,BRAF,DIAPH1,HDAC2,HTR2C,IMPACT,MIR1912,POU3F3,SPINT2,TNR,MBNL3,HIGD2A,CD300A,ELF2,PHIP,CDKL3,PPP2CA,ANGPT4,RPL23,SH3BP4,ATXN1,CAMSAP3,SP100,ANXA2,TRIM29,PARN,CR2,DONSON,SRGAP2,NUMB,RBM42,SYK,CNOT1,WWTR1,GRIK2,SLIT1,ASB1,FRMD5,CIT,ZBTB38,BRC42,MORC1,YBX1,ANKRD13A,PTPRJ,TAF1,TANK,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,INP5A,MIR663B,SRPK2,ASAP1,NCOA2,ADAMTS7,SULT2B1,CGNL1,ZP3,RNF12,ZNF554,CAV2,GNA12,MYEF2,INPP5F,NUAK2,AXL,TRIM37,WIF1,CD109,MET,SESTD1,CAMK2D,RAD9B,TIMELESS,UCHL5,ANKRD6,MALT1,SERPINE3,SPTAN1,KDM2B,MLXIPL,SEMA3C,NEDD4L,PHB,PTPRC,ZNF555,CTCF,PBLD,SH3GL2,TYRO3,NR6A1,RNF213,TRAF3IP2,ATF6B,CREB1,SHISA6,TRAP1,CLNK,PRAP1,STXBP6,BMP4,CPNE1</p>
GO:0006355	regulation of transcription, DNA-templated	6.186948329460267e-11	<p>ENPPI,PRDX2,LDB2,ASPH,PRKCI,SLC30A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,WWC3,AGRI1,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EZR,IKZF2,CHD7,MECOM,TACCI,TENM1,TRAF6,DNAJA3,NHLH1,PSMB7,TSC22D3,ZC4H2,CCDC22,GFI1B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKARIA,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASPI,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,AFF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,MED12L,SATB2,RII2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COPS5,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JA K2,TRAPP9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SND1,DUSP22,TRRAP,SBNO2,FGF10,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL3,SMARCC1,KLF17,PPARG,AXIN1,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,</p>

			<p>TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SF RP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBO X1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4, ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,YAP1,LRP5,POLR3G,ZNF787,SO X2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,SFMBT1,ZN F584,ESR2,S100A12,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,Z BTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,ZNF766,CARD16,BMPR2, CAMK1D,BMPRI1A,ZKSCAN1,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71, POU6F2,BACH1,MXD3,PPM1F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,P TAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NC OA1,EHMT1,LMO7,DVL3,TCF20,ATF3,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF 2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169- SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,LRCC1, GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SIN3A,RUVBL2,C OMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB 3,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL 3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,TFRG,EPHA5,WWOX,MELF2A ,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TF EB,MNAT1,ACTR2,L3MBTL4,HDAC1,RECQL5,TRIM24,PLCG2,SCMH1,PAXIP1,ZN F713,EGR2,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425, MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF780B,ZBTB20,LILRB4,P KD2,ZNF652,KCTD1,RIPPLY1,RCOR3,TADA2A,NCOA3,ZNF146,ZNF565,WNT7A,Z BED6,BRWD3,CRTC3,ARNTL2,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NF E2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ASCC1,SMO,RALY,TCF4,SOX30,TFE3,G RIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MFL1,RBBP8, CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,STAT2,ZMPS TE24,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,LBX2, PARP10,DPRX,SETDB2,DNAJB6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,N OS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,PPARA,ARI D5B,SMARCA11,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,OTUD7 B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708 ,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3, NOTO,ZKSCAN5,ELF2,PHIP,PPP2C4,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM 29,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRC4,ATF7,DVL2,MOR C1,YBX1,TAF1,TICAM1,THAP3,HSF1,MAX,SAP130,EZH1,NRF1,NCOA2,QRICH1,Z P3,CHD6,RNF2,ZNF554,MYEF2,TRIM37,MET,ZNF461,CAMK2D,ZNF443,ZNF490,Z NF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASP1,TBR1,TFAP2A,CDK14,FAN CA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,A FF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,MED12L,SATB2,RI T2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MA P2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF6 92,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COPS5, MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JA K2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,P DE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,A CVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTR C,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK 1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SND 1,DUSP22,TRRAP,SBNO2,FGF10,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIV EP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TR AK1,CTNNB1,PARK2,SOD2,DACH2,METTL3,SMARCC1,KLF17,PPARG,AXIN1,IL 18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOX K2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK, TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SF RP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBO X1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,</p>
GO:20 01141	regulation of RNA biosynthetic process	6.46554234 9358198e- 11	<p>ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8, MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SC AF8,STOX2,PTGIS,WWC3,PAGR1,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GR M5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EZR,IKZF2,CHD7,M ECOM,TACCI,TENM1,TRAF6,DNAJA3,NHLH1,PSMB7,TSC22D3,ZC4H2,CCDC22, GFI1B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACHI,ZNF 569,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HI F3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF 220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,I NSR,RERE,PRKARIA,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,TIMEF43,ZNF490,Z NF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASP1,TBR1,TFAP2A,CDK14,FAN CA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,A FF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,MED12L,SATB2,RI T2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MA P2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF6 92,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COPS5, MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JA K2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,P DE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,A CVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTR C,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK 1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SND 1,DUSP22,TRRAP,SBNO2,FGF10,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIV EP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TR AK1,CTNNB1,PARK2,SOD2,DACH2,METTL3,SMARCC1,KLF17,PPARG,AXIN1,IL 18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOX K2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK, TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SF RP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBO X1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,</p>

			<p>ZNF114, KTI12, NFATC1, CDC73, APP, SSBP3, GSX2, YAP1, LRP5, POLR3G, ZNF787, SOX2, SETD2, TEAD1, PRICKLE1, ZNF653, ZNF521, ARID3A, ZNF761, CHUK, SFMBT1, ZNF584, ESR2, S100A12, PRKD1, STAT1, ST18, ETV5, RHOXF2B, TAF3, PLAGL1, HNF4A, ZBTB7C, TASP1, EREG, ATF2, POU2F2, TCF3, ZNF730, RAF1, ZNF766, CARD16, BMPR2, CAMK1D, BMPR1A, ZKSCAN1, IKZF4, CDK12, CAND2, DENND4A, MYB, FGF2, ZNF71, POU6F2, BACH1, MXD3, PPM1F, GLI4, ZFP41, BEND5, SEMA4D, NFX1, RORC, ELP3, PTAFR, SP140, SP140L, RHOXF2, JARID2, DDX58, BRDT, PHC2, RARB, SPEN, SIN3B, NCOR1, EHMT1, LMO7, DVL3, TCF20, ATF3, CKS1B, PAWR, EBF2, MAML2, TSG101, TERF2IP, CRYM, RFX2, ZNF322, SUFU, MAGEA11, PRDM15, ZNF670, ZNF695, CCDC169, SOHLH2, SOHLH2, ZNF354C, TCEA3, ZNF704, NR2C1, GLI2, TNKS, WBP2NL, ERCC1, GLIS3, WDT1, ZNF664, DAB2, BLM, PKHD1, MYSM1, SETD5, RELN, SIN3A, RUVBL2, COMMD6, GMEB1, PELI1, MAP3K7, ZNF423, SP1, TRIM22, ALK, TEAD4, HOXC13, APBB3, SRA1, UBE2V1, ADIRF, OVOL2, SNX5, NFATC2, PAX7, BNC1, ATP2B4, ACTL6B, ASXL3, TET1, CAMTA1, CCPG1, ADNP, ARID4A, CDK6, PHF2, TERC, EPHA5, WWOX, MEF2A, DCAF6, SATB1, PSMB2, EYA1, GATAD2A, TRPV1, HOXB3, HOXB4, HOXB5, HOXB6, TFEB, MNAT1, ACTR2, L3MBTL4, HDAC1, RECQL5, TRIM24, PLCG2, SCMH1, PAXIP1, ZNF713, EGR2, RNF10, RYBP, AP3B1, PTPN2, NTRK1, KPNA6, TRIM41, EPCAM, ZNF425, MUC1, PTPN14, BCOR, AP3D1, ZNF41, CARM1, ZNF383, ZNF616, ZNF836, SMARCA2, CUX1, SP11, DNMT3B, FOXF2, PTPN1, GLIS1, SFMBT2, JAZF1, RBPM5, CHURC1, CREB5, MAP3K13, SMYD1, SNCA, BMPR1B, PRIM2, ZEB2, FOXJ3, HEY2, ZMYND11, KMT2D, CREM, KMT2C, MACC1, MITF, OPRD1, RPTOR, NFIX, BTK, MLLT1, CBF42T2, IGF1, MLXIP, ATF7IP, PTEN, BMP7, MXI1, SOX5, CIR1, PCBP2, ZNF780A, ZNF780B, ZBTB20, LILRB4, PKD2, ZNF652, KCTD1, RIPPLY1, RCOR3, TADA2A, NCOA3, ZNF146, ZNF565, WNT7A, ZBED6, BRWD3, CRT3, ARNTL2, KAT6A, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, NFE2L1, WDR43, ZNF30, ATRX, IKZF1, PRMT2, ASCC1, SMO, RALY, CTF4, SOX3, TFE3, GRIN1, JADE1, RHOA, ROR1, RQCD1, TF, ONECUT2, CUL3, TFEC, STAT6, MLF1, RBBP8, CDK13, DUSP26, ZNF362, NACC2, SUPT4H1, ZNF354A, AGT, HDGFRP3, STAT2, ZMPSTE24, PBX1, MAP3K5, TCFL5, CREBBP, DLX1, GTF2IRD2, NCF1, SHC1, ZNF813, LBX2, PARP10, DPRX, SETDB2, DNABJ6, SP7, ADAM8, RPS6KA5, ZNF484, ZNF93, PRDM2, NOS1, ZNF44, MED15, RGS14, ACTN4, MC1R, TCF25, ZNF282, EDRF1, IL18, PPARG, ARID5B, SMARCA1, NOTCH4, ZMYND8, ZNF366, CRX, PAX6, PRKCZ, ADORA2A, OTUD7B, NIPBL, YEATS4, PHF20, ZNF143, BRF1, TBL1X, FHL2, MBTD1, ATF6B, ZBTB5, ZNF708, ETS1, MTF2, TAGLN3, NCOR2, PRKCQ, CSRN1, HDAC2, IMPACT, SRCAP, POU3F3, NOTO, ZKSCAN5, ELF2, PHIP, PPP2CA, RPL23, ATXN1, SP100, ZNF347, ZNF415, TRIM29, ADCY1, SYK, CNOT1, WWTR1, GTF2H5, NFXL1, ZBTB38, BRC4, ATF7, DVL2, MORC1, YBX1, TAF1, TICAM1, THAP3, HSF1, MAX, SAP130, EZH1, NRX1, NCOA2, QRI1, ZP3, CHD6, RNF2, ZNF554, MYEF2, TRIM37, MET, ZNF461, CAMK2D, TIMELESS, BRD9, MALTI, SETD3, KDM2B, MLXIP, PHB, EDA, ZNF555, CTCF, NR6A1, ATF6B, CREB1, RGM, EBF4, ZNF511, BMP4, ABLIM3</p>
GO:0045859	regulation of protein kinase activity	6.548248045301779e-11	<p>NRXN1, ADCY8, NRX3, LAT52, PRKAG2, PRLR, MVP, NTRK3, CBL, FLT3, GRM5, PLCE1, MAP2K5, KITLG, ROBO1, TOM1L1, HTR2B, TENM1, TRAF6, DNAAJ3, AB11, HSP90AA1, CDC6, AKAP13, DAB1, ADORA1, EPHA1, PTPRO, PDGFB, CCND3, INSR, PRKAR1A, CAB39, PAK1, MAP3K4, ECT2, SNX6, ERN2, SLC8A1, CASS4, NF1, CHI3L1, TTN, PAQR3, NRX1, MAP2K1, ROR2, PTPRT, IPO5, CCNYL1, GNAQ, HERC5, JAK2, FBXW2, ZFYVE28, WNT11, NOX4, PRKCD, TAB2, CD4, PPM1E, TGFB1, PIBF1, CORO1C, ZNF675, ANKRD54, TNFRSF10B, DUSP22, DOCK3, SMYD3, EPHA4, TNFSF11, PPARG, AXIN1, PRKAR1B, FGF1, PRKAR2A, MYOCD, AJUBA, SPDYA, NF2, SFRP1, TAB1, APP, CCN2, HEG1, BOR1, IRTK, LRP5, MTCP1, S100A12, EREG, CCNY, PTPN1, BMPR2, BMPR1A, CDK12, FGF2, PPM1F, NEDD9, DVL3, CKS1B, DEPTOR, TSG101, DAB2, BLM, CACUL1, DLG3, WNK1, RELN, NEK10, IQGAP1, MAP3K7, SLC8A2, ATP2B4, ADNP, UVRAG, GHR, MNAT1, SNX9, HIPK3, PTPN2, AXIN2, STK38, MAP3K13, SNCA, BMPR1B, PRKAG1, RPTOR, MLLT1, IGF1, HTT, PTEN, BMP7, LRRK2, UNC119, LILRB4, PKD2, EFNA5, PDGFC, PKIB, PPP2R3C, RAPGEF2, PRKAR2B, RHOA, EPM2A, PTPRB, AGT, CCNJL, ADAR, PTK2, MAP3K5, NCF1, TAOK2, SHC1, ADAM8, RGS14, STK4, EPHB2, SLC1A1, IL18, MOB3B, PRKCZ, ADORA2A, CCNG2, ANGPT1, OSBP18, CDK5RAP1, CD300A, PPP2CA, ANGPT4, MADD, SYK, WWTR1, DVL2, PTPRJ, SASH1, MOB3A, MALTI, PHB, PTPCR, TNXB, BMP4</p>
GO:0045935	positive regulation of nucleobase-containing compound metabolic process	6.61346904646165e-11	<p>LDB2, ASPH, SLC9A1, PBX3, CBFB, IL31RA, MED26, WWC1, ASH1L, SCAF8, STOX2, PAGR1, HIVEP3, FTO, NPAS3, ARNT, STAT5B, TOX, CASK, MAP2K5, SP3, HDGF, CHD7, MCOM, TACC1, TRAF6, NHLH1, HSP90AA1, GF11B, RUNX1, HMGN3, NRIP1, THRB, EFAB7, CCT2, SERTAD2, IKBKB, ERBB4, MRE11A, ZNF609, BRD8, KAT6B, ESR1, MAML3, CDON, TNRC6A, EP300, CELA1, ZNF76, PDGFB, HNF4G, INSR, FMN2, RERE, TCF7L2, LITAF, FBXW11, ESRRB, MAP3K4, RBM20, TBR1, SAMD4A, TFAP2A, PEG3, MEIS1, TRIM13, ENTPD5, ZNF148, MTA3, TFDP2, SLC30A9, TOX3, KAT7, RBM14, MED12L, SATB2, RIT2, MKRN2, ARNTL, PLCB1, MGMT, ARID4B, BRPF1, PIK3R2, UBPI, MAP2K1, PPP3R1, HDAC5, CSRN3, NFIA, RNF4, ROR2, DCN, PCBD2, HNRNPLL, CDH13, CREBRF, COPS5, MAD2L2, CAPRN2, TERF2, SLX1B, NEUROD1, USP22, JAK2, FAM168A, SKAP1, UIMC1, MLIP, BCL11B, PKNOX1, MLLT3, KLF15, WNT11, MTA1, NOX4, RPRD1B, CCD62, ERCC8, PRKCD, ACVR2A, RUNX2, CD4, TGFB1, BANP, NSD1, BTIC, NFATC3, FZRL1, BCAS3, TP73, ILF2, MTDH, FANK1, SMAD6, ZNF398, CLOCK, TCF12, ETV6, TFAP2D, BCL3, SBNQ2, YTHDF1, FGF10, CIZ1, SMYD3, CAPN3, LUM, RORA, AUTS2, TNFSF11, PPP3CA, NFYB, KLF12, CAMK4, CTNNB1, PARK2, SMARCC1, IGF1R, PPARG, AXIN1, MTF1, SREBF2, FGF1, NPAT, NR4A3, FOXK2, RIOK2, MYOCD, TRIM5, PER2, CHEK2, SUPT3H, PRDM16, TRIM8, MEF2B, HDAC4, PAX2, PHF5A, SFRP1, MED13, ZNF395, FO</p>

			<p>XO3,NFIB,SMAD3,WWP2,ARNT2,EBF3,RNF168,CASZ1,DCP1B,ESRRG,HOXD3,HOXD4,SLC4A4,NFATC1,CDC73,APP,SSBP3,YAP1,EYA2,NVL,LRP5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18,ETV5,PLAGL1,HNF4A,ZBTB7C,TASPI,ATF2,POU2F2,TCF3,RAF1,CELF4,BMPR2,BMPRI1A,IKZF4,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,DDX58,BRDT,RARB,PRKCG,NCOA1,LMO7,DVL3,TCF20,ATF3,LIN28B,SRSF5,EBF2,MAML2,TSG101,RF2,PRDM15,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,DAB2,BLM,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HOXC13,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ARID4A,PHF2,CELF1,TFRC,WWOX,MEF2A,DCAF6,EYA1,DIS3L2,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,SMOC2,TRIM24,ROCK1,PAXIP1,EGR2,RNF10,RYPB,AP3B1,KPNA6,TRIM44,EPCAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SP11,GLIS1,RBPMS,CHURC1,CREB5,BMPRI1B,PRIM2,PNPT1,ZEB2,FOXJ3,HEY2,RC3H1,KMT2D,CREM,KMT2C,MACC1,MITF,RPTOR,NFIX,IGF1,MLXIP,ATF7IP,MAPK1,BMP7,PUM1,PCBP2,ZNF780B,ZBTB20,RFC3,PKD2,TADA2A,NCOA3,PKIB,WNT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,WDR43,ATRX,PRMT2,SMO,TCF4,SOX30,TFE3,GRIN1,JADE1,RQCD1,TF,ONECUT2,TFEC,STAT6,CDK13,SUPT4H1,AGT,METTL16,PRKAA2,PBX1,EXOSC3,MAP3K5,CREBBP,DLX1,NCF1,SHC1,SP7,RPS6KA5,ZNF484,PRDM2,NOS1,ACTN4,MICR,EDRF1,IL18,DIS3,PPARA,PPP1R10,ARID5B,NOTCH4,CRX,PAX6,ZC3HAV1,CPEB1,NIPBL,YEATS4,ZNF143,BRF1,TBL1X,EYA3,ATF6,ETS1,MTF2,PRKCQ,CSRNP1,HDAC2,SRAP,POU3F3,ELF2,PHIP,RFC5,SP100,PARN,CNOT1,WWTRI,ZNF2B3,8,BRCA2,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,TRIM37,MET,TIMELESS,SETD3,TRA2B,MLXIPL,CCT3,PHB,PTPRC,CTCF,NR6A1,ATF6B,CREB1,RGMB,BMP4,ABLIM3</p>
GO:1903506	regulation of nucleic acid-templated transcription	6.621098957375006e-11	<p>ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,WWC3,PAGRI,HIVEP3,NP453,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EZR,IKZF2,CHD7,MECOM,TACCI,TENM1,TRAF6,DNAJA3,NHLH1,PSMB7,TSC22D3,ZC4H2,CCDC22,GF11B,PTPRK,RUNX1,ERC1,HMG3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKARIA,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASP1,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,AF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,MED12L,SATB2,RII2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF92,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COP55,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JA2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLL2,TSZH2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYTIL,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SND1,DUSP22,TRRAP,SBNO2,FGF10,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXINI,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTU12,NFATC1,CDC73,APP,SSBP3,GSX2,YAP1,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,ZNF766,CARD16,BMPR2,CAMK1D,BMPRI1A,ZKSCAN1,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,TCF20,ATF3,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRYM,RF2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SIN3A,RUVBL2,COMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,TFRC,EPAH5,WWOX,MEF2A,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,HDAC1,RECQL5,TRIM24,PLCG2,SCMH1,PAXIP1,ZNF713,EGR2,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,</p>

			<p>CUX1, SPI1, DNMT3B, FOXP2, PSPC1, GLIS1, SFMBT2, JAZF1, RBPMS, CHURC1, CREB5, MAP3K13, SMYD1, SNCA, BMPR1B, ZEB2, FOXJ3, HEY2, ZMYND11, KMT2D, CREM, KMT2C, MACC1, MITF, OPRD1, RPTOR, NFIX, BTK, MLLT1, CBFA2T2, IGF1, MLXIP, A TF7IP, PTEN, BMP7, MXI1, SOX5, CIR1, PCBP2, ZNF780A, ZNF780B, ZBTB20, LILRB4, P KD2, ZNF652, KCTD1, RIPPLY1, RCOR3, TADA2A, NCOA3, ZNF146, ZNF565, WNT7A, Z BED6, BRWD3, CRTC3, ARNTL2, KAT6A, ZKSCAN7, ZNF197, ZNF660, BMP6, TAF15, NF E2L1, WDR43, ZNF30, ATRX, IKZF1, PRMT2, ASCC1, SMO, RALY, TCF4, SOX30, TFE3, G RINI, JADE1, RHOA, ROR1, RQCD1, TF, ONECUT2, CUL3, TFEC, STAT6, MLF1, RBBP8, CDK13, DUSP26, ZNF362, NACC2, SUPT4H1, ZNF354A, AGT, HDGFRP3, STAT2, ZMPST E24, PBX1, MAP3K5, TCF5, CREBBP, DLX1, GTF2IRD2, NCF1, SHC1, ZNF813, LBX2, PARP10, DPRX, SETDB2, DNAJB6, SP7, ADAM8, RPS6KA5, ZNF484, ZNF93, PRDM2, N OSI, ZNF44, MED15, RGS14, ACTN4, MC1R, TCF25, ZNF282, EDRF1, IL18, PPARA, ARI D5B, SMARCA11, NOTCH4, ZMYND8, ZNF366, CRX, PAX6, PRKCZ, ADORA2A, OTUD7 B, NIPBL, YEATS4, PHF20, ZNF143, BRF1, TBL1X, FHL2, MBTD1, ATF6, ZBTB5, ZNF708 ,ETS1, MTF2, TAGLN3, NCOR2, PRKCQ, CSRN1, HDAC2, IMPACT, SRCAP, POU3F3, NOTO, ZKSCAN5, ELF2, PHIP, PPP2CA, RPL23, ATXN1, SP100, ZNF347, ZNF415, TRIM 29, ADCY1, SYK, CNOT1, WWTR1, GTF2H5, NFXL1, ZBTB38, BRCA2, ATF7, DVL2, MOR C1, YBX1, TAF1, TICAM1, THAP3, HSF1, MAX, SAP130, EZH1, NRF1, NCOA2, QRICHI, Z P3, CHD6, RNF2, ZNF554, MYEF2, TRIM37, MET, ZNF461, CAMK2D, TIMELESS, BRD9, MALT1, SETD3, KDM2B, MLXIPL, PHB, EDA, ZNF555, CTCF, NR6A1, ATF6B, CREB1, R GMB, EBF4, ZNF511, BMP4, ABLIM3</p>
GO:0071310	cellular response to organic substance	6.772802716229501e-11	<p>ENPPI, PRDX2, NRXN1, PRKCI, PDE4D, DNMT1, SLC9A1, ADCY8, PDE8A, IL31RA, RP S6KA2, PTGFR, CLDN18, CTDSP2, RYR1, LATS2, NREP, PTGIS, TJPI, PRLR, PAGRI, A DCY7, NTRK3, CBL, ARNT, EGLN2, FLT3, STAT5B, GRM5, SAMHD1, FER, CASK, MAP2K 5, LRP2, PIK3CD, HDGF, EZR, ROBO1, SLC26A6, HTR2B, ITGB6, RYR3, GOT1, TRAF6, R OBO2, DNAJA3, CDC6, PSMB7, PTPRK, ABCC8, HMGN3, NRIP1, DNAJB14, THRB, STX BP4, IL17RB, TCIRG1, PTPN11, HDAC6, ADAMTS3, IKKB, ERBB4, BRD8, ESRI, PMEP A1, NTRK2, EP300, FNTA, PDGFB, CCND3, BPI, STK39, INSR, PIP4K2A, PAK1, LITAF, ES RRB, BDNF, AMIGO1, CHRM3, FUT8, UBR2, IL5RA, SNX6, ERN2, LSP1, AP3S1, DMD, SL C8A1, GSN, SATB2, FYN, ARNTL, NF1, PLCB1, MGMT, RXFP1, CHRDL1, BCR, CHI3L1, P IK3R2, CDK19, DOCK8, TMBIM6, PPP2CB, HDAC5, CMKLR1, ROR2, DCN, SLC39A14, CREBRF, PTPRT, COPS5, IPO5, RGS8, DEFA1B, DEFA3, PTGER2, STIP1, NEUROD1, R FFL, CCBE1, JAK2, CLDN1, TCF7, PDE2A, KLF15, LAMTOR3, CYFIP2, WNT11, NOX4, L COR, CACNA1H, IL1RAPL1, CCDC62, ADAM23, PRKCD, SOX6, ACVR2A, RUNX2, CD4, TGFB1, SGK1, BTRC, PTPRN2, F2RL1, BCAS3, SLIT3, ZFYVE9, SLIT2, GABRB1, KANK1, MTDH, CHRM1, SMAD6, RXFP2, CLOCK, ZNF675, BPER, DUSP22, NAIP, SBNO2, FG F10, SMYD3, IL1RAPL2, GLP2R, ADCY2, SLC16A1, SMURF2, EPHA4, RORA, PRKCA, C D6, TNFSF11, PPP3CA, NFYB, UFL1, CTNNB1, PARK2, SOD2, FCGR2B, HSPA6, SMARC C1, IGF1R, PPARG, AXIN1, IL18R1, IL1RL1, MSRI, CYBB, BRIPI, RYR2, LEPR, LEPROT, FGF1, NR4A3, NOL3, MYOC, TRIM5, GLG1, CHEK2, PRDM16, HCK, SORBS1, CAPN2, FLT4, HDAC4, PAX2, SFRP1, FOXO3, SSH1, SYNERIP, SMAD3, CUX2, ACKR2, GRIK5, IF NARI, NEDD4, NRP2, ESRRG, TAB1, CDC73, APP, PDGFRA, YAP1, AMFR, RAB11FIP5, S ESN1, TNFRSF19, ALPL, JAK1, LRP5, SLC9B2, GNG2, CHST11, DRD1, GLRA2, CHUK, F RS2, MMP2, ESR2, PRKD1, STAT1, ST18, HNF4A, EREG, ATF2, RAF1, CARD16, CASP1, P TPN1, ADAMTS12, BMPR2, BMPR1A, TSPAN12, COL16A1, PIK3R3, EPG5, FGF2, ADCY 5, RORC, PTAFR, JARID2, DDX58, RARB, NCOA1, EEFE1E1, CHRD, PTPRE, ATF3, SHOC 2, SRSF5, CCDC3, IDE, KCNQ1, RFX2, WNT3, P4HB, CCL14, CCL15, PAFAH1B1, CNTFR ,TRPA1, AKAP6, NR2C1, IRS4, GLI2, NEO1, WDTCL1, DAB2, BLM, UBR1, LDLRAD4, WNK 1, SIN3A, RUVBL2, CSF3R, IQGAP1, MAP3K7, ZNF423, SP1, ALK, SRA1, XDH, LTBP1, OV OL2, SNX5, ATP2B4, PACRG, PAK3, DYX1C1, MAPKAPK2, MAP1B, COL4A6, SCARB1, T FRC, EPHA5, WWOX, CACNA1A, GPC3, XRN1, PSMB2, BRINP1, SHPK, TRPV1, GHR, FL RT2, ACTR2, ACACA, ELAVL4, HDAC1, RECQL5, SMOC2, TRIM24, ADIPOR2, PLCG2, R OCK1, EPS8, EGR2, CAPN10, GPR35, ABCC1, PTPN2, INSR, NTRK1, TRIM44, AXIN2, C ARM1, HTRID, SPI1, PTPRA, CTNNA1, ACAP2, LY86, BCAR3, CHURC1, RAB15, RAPGE F3, PDXP, PTK7, SNCA, BMPR1B, MAGI2, PNPT1, ZEB2, RC3H1, WNT7B, HMGC2, KM T2D, SPPL2A, ADTRP, ABCA12, OPRD1, HIPK1, NUGGC, RPTOR, BTK, TROVE2, IGF1, STX8, DPYSL3, MAPK1, SPRED2, BMP7, SOX5, PRCP, LRRK2, GNA14, ZBTB20, CHMP5, BAG6, LILRB4, TMEM108, IL11RA, NSG2, PKD2, EFNA5, PDGFC, NCOA3, WNT7A, ZBE D6, GLDC, GPR21, BMP6, ANO1, IL17RD, SOS1, TSHR, EXT1, PDCC1LG2, PNPLA3, PR MT2, RAPGEF2, SMO, CPT1A, UBR5, GRB14, RHOA, RQCD1, ONECUT2, CUL3, HSPD1, ITPR2, GABRB3, GSK3B, RDX, STAT6, EEFE2K, BOK, SULF1, KRT8, AGT, PRKAA2, ADAR ,FBN2, STAT2, BRINP3, HRH4, PTK2, PHEX, PDE4B, VEPH1, MAP3K5, CREBBP, DLX1, FMOD, PCSK6, SLC29A1, UGT1A1, SHC1, RPS6KB1, STC2, GPR173, CD44, RPS6KA5, N OSI, PLVAP, ACTN4, SCNN1B, ZFAND6, EPHB2, SLC1A1, XCR1, IL18, UBE2K, PPARA, ARID5B, CALCRL, SLC25A33, CPEB4, ZNF366, FBN1, PAX6, PRKCZ, ATP1A3, FAM20C, RABGEF1, CPEB1, TYK2, ASPN, ANGPT1, OSBPL8, ATF6, GCNT2, VWC2, MTF2, CCL22 ,NCOR2, PRKCQ, DIAPH1, HDAC2, HTR2C, IMPACT, SPINT2, PHIP, RPL23, SH3BP4, S P100, ADCY1, SYK, CNOT1, YBX1, PTPRJ, TAF1, TICAM1, TANK, UCN2, HSF1, MAX, SAS H1, NCOA2, ADAMTS7, GBP5, QRICHI, CIB2, CAV2, UGGT1, AXL, CD109, DENND4C, C CR3, TIMELESS, MALT1, PFKP, TRA2B, MLXIPL, PHB, PTPRC, EDA, PBLD, SH3GL2, SP ON2, TRAF3IP2, ATF6B, CREB1, RGM, EDNRA, BMP4, CPNE1</p>
GO:00	transmembrane	7.23311520	<p>SLC39A11, ENPPI, SLC35E3, NRXN1, ASPH, PRKCI, SLC30A1, PDE4D, SLC9A1, FAM1 55A, GRID2, CHERP, SLC35E1, SLC25A17, CACHD1, RYR1, NOS1AP, NOX5, DPP6, SLC</p>

55085	transport	1061069e-11	<p>14A2,PRKAG2,CLCN1,UTRN,RAB4B,ATP2B2,KCNQ5,GRM5,KCNIP4,SPNS2,LRP2,SLC38A11,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,ITGB1,SLC24A3,PSMB7,CNIH2,SLC22A8,CNGB1,FLVCR2,ABCC8,STXBPA,GABRA3,TCIRG1,PTPN11,KCNS3,NIPAL2,NETO2,CACNB2,SV2B,PEX14,CNNM1,KCNJ16,DPP10,CYB561A3,CACNA1B,STK39,INSR,ATP8B1,CAB39,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,AMIGO1,KCNMA1,CHRM3,GRIK4,KCNRG,LCK,TMC2,TMEM144,SLC12A8,SPNS3,SLC6A16,RHCE,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,SLC16A6,SLC25A21,SLC5A6,SLC2A14,BCR,SHISA9,ANKH,CACNA1E,SLC4A5,KCNS3,CNNM2,SLC16A10,SLC43A2,BDKRB1,KCNIP1,SLC35A2,SLCO1A2,STIM1,NALCN,TMEM30A,SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,OAZ2,NPSR1,ABCC2,SCN4A,TMC1,SLC1A4,SLC5A9,SLC9A7,KLF15,KCNC4,CLCA2,CYB561D1,CACNA1H,SLC35F1,TGFB1,KEL,JPH3,GRIK3,GABRR3,GABRB1,KCNJ3,CACNA1D,ABCC11,CACNA2D3,GRPEL2,ANO4,XPR1,ANO3,KCNH1,SLC17A7,KCNH7,CAPN3,SLC16A1,VMP1,ANO2,COX8A,TMEM63C,TRPM1,CYBB,KCNJ12,RYR2,KCNA6,NR4A3,NOL3,PER2,CACNA1C,SCN3B,SLC35E4,SORBS1,GRM1,ATP10D,ITPR1,WWP2,GRIK5,SLC16A2,SHANK1,NEDD4,SVOPL,SLC35F4,SLC4A4,SLC6A1,SEC61B,KCNK1,APP,NOX1,SFXN5,NLGN2,VDAC1,IBTK,SLC9B2,GRIA3,DRD1,GLRA2,PRKD1,SLC6A3,SLC2A6,FXND2,FXND6,SLC16A12,KCNG4,RASGRF2,NLGN1,FGF2,GRIK1,PTAFR,ABCA13,MRS2,SLC5A8,SLC9B1,GRIA2,SLC35D1,ATP6V0B,CLIC4,KCNQ1,SLC2A11,NLGN3,TRPA1,TRPM3,AKAP6,TRPC5,TRAM2,WNK1,RELN,ABCB1,KCNQ2,SLC22A3,SLC25A16,SLC47A1,SLC8A2,SLC9C1,SLC35A4,TPCN1,CLIC5,AHNAK,RGS7,ATP2B4,SLC39A9,P2RX6,SCARB1,ATP6V0A2,KCNAB2,GABRG3,MEF2A,CACNA1A,GPC3,STOM,PSMB2,TRPV1,SLC38A6,PLCG2,CAPN10,GPR35,ABCC1,SLC39A10,ANK3,ATP13A3,KCND3,CACNG8,SLC9C2,NETO1,CHRN4,MCU,TRDN,GABRA6,LRR8C,LRR8D,STAC,TRPC6,ABCB7,SLC41A2,ATP13A5,SNCA,CACNG2,PNPT1,OCA2,SLC39A9,CNCA3,SLC22A10,ABCA12,SLC4A8,IGF1,HTT,SLC7A14,SLC30A7,SCN8A,ATP6V1A,CNIH3,SLC44A1,TMCO1,PKD2,SHANK3,ANO1,ANO8,GABRR2,ABCG2,KCNC2,SLC6A14,BLOC1S3,CPT1A,PSEN2,GRIN1,GRIN3A,HSPD1,ITPR2,EPM2A,GABRB3,ABC8,EMB,SCN9A,AGT,ZMPSTE24,PEX5L,PDE4B,COX5A,SLC25A51,TRPC4AP,TIMM44,SLC25A42,SLC29A1,SLC44A3,KCNJ15,RPS6KB1,SLC5A10,SLC5A3,GRID1,PKD1L1,SLC25A18,COX5B,NOS1,PEX7,ACTN4,SCNN1B,COX6A1,EPHB2,SLC1A1,XCR1,LRR52,MFSD8,ABCD3,MCOLN1,SLC25A33,ATP1A3,GRIN2B,OSBPL8,SLC25A26,SLC2B1,GRIA4,BRAF,DIAPH1,HTR2C,ATP8A1,TMEM163,UQCRI0,SLC26A2,ANXA2,KCND2,ATP6V0A1,SLC18B1,GRIK2,SCN1A,SLC44A5,CACNG3,SLC10A1,ATP2B3,PTPM6A,SLC13A3,SLC2A12,SLC5A4,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,GPR89A,SHISA6,EDNRA,SLC25A13</p>
GO:0051174	regulation of phosphorus metabolic process	8.17555337923619e-11	<p>ENPP1,LDB2,NRXN1,SLC3A1,PDE4D,SIPR2,ADCY8,PDE8A,IL31RA,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,FER,MAP2K5,KITLG,ROBO1,TOML1,HTR2B,TENM1,TRAF6,ITPKB,DNAJA3,VAV2,ABI1,HSP90A1,CDC6,KND1,DSCAM,AKAP13,DAB1,PTPN11,MGAT5,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,PMEP1,PTPRO,CDON,NTRK2,EP300,PDGFB,TNIK,CCND3,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,BDNF,ENTPD5,ECT2,SNX6,ERN2,DMD,SLC8A1,RIT2,CASS4,FYN,NF1,SMG7,LMTK2,CH13L1,TTN,PAQR3,PIK3R2,NRG1,SH2D3C,BDKRB1,BDKRB2,MAP2K1,FNIP1,ROR2,PTPR,PPP1R42,IP05,MAD2L2,CAPRIN2,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ZFYVE28,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,NSD1,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,BMPER,ANKRD54,TNFRSF10B,DUSP22,DOCK3,FGF10,SMYD3,EPHA4,CD6,TNFSF11,SMG6,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,LEPR,FGF1,PRKAR2A,MYOCD,AJUBA,CHEK2,SPDYA,CAPN2,CSPG4,NF2,FLT4,HDAC4,SFRP1,PPP6R2,SMAD3,SLC4A4,TAB1,APP,PDGFRA,CNN2,HEG1,BORA,IBTK,LRP5,MTCP1,RCAN1,SPTBN4,DRD1,S100A12,PRKD1,EREG,CCNY,ATF2,RAFI,PTPN1,BMPR2,BMPRI1,BTBD10,PIK3R3,CDK12,SPAG9,FGF2,PPM1F,NEDD9,SEMA4D,PTAFR,ADCYAP1R1,DVL3,EIF4G1,EPHB3,CKS1B,DEPTOR,TSG101,TERF2IP,PTPN13,TRPC5,DAB2,BLM,CACUL1,LDLRAD4,SMG5,DLG3,WNK1,RELN,EK10,IQGAP1,MAP3K7,ALK,SLC8A2,XDH,ATP2B4,CAMTA1,ADNP,SCARB1,TFRC,UVRAG,EPHA5,GNB3,GHR,MNAT1,SNX9,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,SLC39A10,EPHB1,EPHA10,AXIN2,PARD3,PIFO,EPHA7,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPRI1,MAGI2,PRKAG1,ADTRP,OPRD1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,LRRK2,UNC119,ZBTB20,LILRB4,PKD2,EFNA5,TADA2A,PDGFC,PKIB,MTMR3,PPP2R3C,PLCL2,BMP6,RAPGEF2,VRK3,PRKAR2B,RHOA,ROR1,RQCD1,TF,EPM2A,GSK3B,DNAJC3,EEF2K,PPP1R16A,PTPRB,AGT,CCNJL,PRKAA2,ADAR,STAT2,PTK2,TEC,MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,RPS6KA5,HUS1,NOS1,GCKR,RGS14,STK4,EPHB2,SLC1A1,IL18,UBE2K,DLC1,PPARA,MOB3B,PAX6,PRKCZ,FAM20C,ADORA2A,RABGEF1,CCNG2,ANGPT1,LRRK1,OSBPL8,CDK5RAP1,CNTN1,BRAF,HDAC2,HTR2C,IMPACT,PPP1R14A,CD300A,PHIP,PPP2CA,ANGPT4,MADD,SYK,WWTR1,DVL2,PTPRJ,HSF1,SASH1,VAV3,MOB3A,GNA12,SH2D3A,AKTIP,INPP5F,AXL,CD109,MET,MALT1,MLXIPL,PHB,PTPRC,SH3GL2,TYRO3,TNXB,BMP4</p>
GO:0040012	regulation of locomotion	8.707747052340582e-11	<p>LDB2,MAP4K4,SIPR2,CLASP2,SEMA3A,DOCK1,NRG3,SEMA3D,PHACTR1,MAPRE2,TJP1,UNC5C,NTRK3,SEMA5A,ENPP2,GRM5,FER,MARVELD3,MAP2K5,KITLG,PTPRR,PIK3CD,ROBO1,LMNA,ROBO2,ULK4,ITGB1,SRGA3,MCC,DSAM,SRGA2B,PTPRK,ABCC8,LAMA2,DACH1,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,ZNF609,PTPRO,PDGFB,STK39,INSR,UNC5D,LAMA3,PAK1,TBRI,PTPRU,SLC</p>

			<p>8A1,CASS4,ADAMTS9,NF1,PLCBI,RTN4,DPEP1,APOD,BCR,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,HDAC5,NTNG1,CMKLR1,ROR2,DCN,CDH13,PTPRT,CD99,RCC2,ANO6,KIF2A,RFFL,CCBE1,JAK2,FBXW7,CLDN1,WNT11,CAMK2B,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,SLIT2,CORO1C,RRAS2,KANK1,LAMC2,TTBK2,CHRM1,BMPER,DAPK2,DUSP22,YTHDF1,FGF10,SMURF2,EPHA4,PRKCA,PPP3CA,PIP5KL1,SOD2,IGF1R,PPARG,DLG5,FGF1,NR4A3,MYOCD,AJUBA,NF2,FLT4,HDAC4,SFRP1,FOXO3,SMAD3,PTPRM,NRP2,DOCK4,NAV3,APP,GSX2,PDGFRA,SLK,PTPRG,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,RAF1,BMPR2,CAMK1D,BMPR1A,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,CHRD,VCL,LAMB1,CLIC4,WNT3,RHOJ,RUFY3,DAB2,LDLRAD4,MYSM1,WNK1,RELN,SP1,MACF1,CLASP1,PRKG1,ATP2B4,PAK3,SSH2,SCARB1,CDK6,FLRT2,SMOC2,PLCG2,ROCK1,PTPN2,PKN2,TMIGD1,HTR1D,SPH1,MCU,CTNNA1,SH3BP1,MST1,SNCA,MAGI2,ADTRP,MITF,IGF1,DPYSL3,MAPK1,BMP7,PRCP,LRRK2,OSGIN1,PDGFC,AMOTL1,WNT7A,MYCBP2,GPI,SH3RF2,TSHR,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,FAM49B,SULF1,AGT,PTK2,TPPP2,RPS6KB1,GPR173,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,TMEFF2,DLC1,EPB41L4B,GPSM3,ZMYND8,PAX6,ADORA2A,RABGEF1,PHLDB2,NIPBL,ANGPT1,OSBPL8,GCNT2,ETSI,FBXO31,BRAF,DIAPH1,ATP8A1,SPINT2,CD300A,ANGPT4,CAMSAP3,SP100,SRGAP2,NUMB,SLIT1,FRMD5,PTPRJ,SASH1,ZP3,GNA12,INPP5F,MET,SEMA3C,PTPRC,BMP4</p>
GO:0099536	synaptic signaling	9.289218374991936e-11	<p>NRXN1,SIPR2,PDE7B,ADCY8,GRID2,RPS6KA2,NRG3,NLGN4X,GRM8,GRM5,CASK,NRXN3,HTR2B,SLC24A2,ITGB1,CNIH2,PCDH17,DLG2,ERC1,DGKI,ERC2,GABRA3,LAMA2,CACNB2,SV2B,ADORA1,ABR,GRM7,NTRK2,CACNA1B,RIMS1,CDH8,USP46,PTPRD,SLC4A10,BDNF,CHRM3,GRIK4,RIT2,FYN,NF1,PLCBI,SNCB,BCR,SHISA9,CACNA1E,NRG1,DAGLA,CNTN4,NTNG1,ROR2,ZDHHC3,LIN7A,SYN2,PCDHB16,EXOC4,RGS8,GNAQ,JAK2,SYN3,CLSTN2,SYT1,LZTS1,SLC1A4,KCNC4,IL1RAPL1,CAMK2B,PDLIM4,JPH3,DLGAP1,PTPRN2,GRIK3,GABRR3,CADPS2,GABRB1,GPR176,DISC1,CHRM1,PLCB4,SLC17A7,YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA,CTNNB1,PARK2,PRKAR1B,RGS10,CPNE6,GRM1,RIMS4,DCC,SPG11,DGKB,CUX2,GRK5,SHANK1,SLC6A1,APP,NLGN2,DRD1,GLRA2,SLC6A3,SHANK2,CELF4,RASGRF2,NLGN1,LRRK4C,GRIK1,MCTP1,SORCS2,PRKCG,GRIA2,FBXL20,NLGN3,PAFAH1B1,BTBD9,RELN,KCNQ2,SLC8A2,STAU1,P2RX6,ATAD1,ADNP,MAP1B,SORCS3,GABRG3,SYT12,CACNA1A,ADRBK1,TRPV1,ELAVL4,EGR2,RNF10,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CACNG8,NETO1,HTR1D,CHRN4,PTPRA,GABRA6,FCHSD2,SNCA,CACNG2,GRM4,SYT9,PTPRS,KCTD13,SLC4A8,MAPK1,PTEN,LRRK2,UNC119,TMEM108,SHANK3,WNT7A,SNAP23,CEP89,PLCL2,EXT1,GABRR2,RAPGEF2,PRKAR2B,STXBP5L,GRIN1,SYNGAP1,GRIN3A,GABRB3,GSK3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,HRH4,RIMS2,SLC29A1,CPLX2,PACSLN2,GRID1,NOS1,RGS14,EPHB2,SLC1A1,DTNA,PRKCZ,ADORA2A,GRIN2B,CADPS,BRAF,HTR2C,TNR,KCND2,ADCY1,GRIK2,CACNG3,DLGAP2,KCNQ3,RPH3A,SHISA6</p>
GO:0019220	regulation of phosphate metabolic process	1.1115695246836619e-10	<p>ENPP1,LDB2,NRXN1,SLC3A1,PDE4D,SIPR2,ADCY8,PDE8A,IL31RA,NRG3,LATS2,PRKAG2,PRLR,MVP,NTRK3,CBL,ARNT,FLT3,ENPP2,GRM5,PLCE1,FER,MAP2K5,KITLG,ROBO1,TOML1,HTR2B,TENM1,TRAF6,ITPKB,DNAJA3,VAV2,ABAI,HSP90AA1,CDK6,KND1,DSCAM,AKAP13,DAB1,PTPN11,MGAT5,HDAC6,ADORA1,EPHA1,IKBKB,ERBB4,MRE11A,PMEP1,PTPRO,CDON,NTRK2,EP300,PDGFB,TNIK,CCND3,INSR,PRKAR1A,PIP4K2A,CAB39,PAK1,MAP3K4,BDNF,ENTPD5,ECT2,SNX6,ERN2,DMD,SLC8A1,RIT2,CASS4,FYN,NF1,SMG7,LMTK2,CH13L1,TTN,PAQR3,PIK3R2,NRG1,SH2D3C,BDKRB1,BDKRB2,MAP2K1,FNIP1,ROR2,PTPRT,PPP1R42,IPPO5,MAD2L2,CAPRIN2,CCNYL1,GNAQ,HERC5,JAK2,FBXW7,ZFYVE28,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,ACVR2A,CD4,PPM1E,TGFB1,NSD1,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,BMPER,ANKRD54,TNFRSF10B,DUSP22,DOCK3,FGF10,SMYD3,EPHA4,CD6,TNFSF11,SMG6,PIP5KL1,PARK2,IGF1R,PPARG,AXIN1,PRKAR1B,LEPR,FGF1,PRKAR2A,MYOCD,AJUBA,CHEK2,SPDYA,CAPN2,CSPG4,NF2,FLT4,HDAC4,SFRP1,PPP6R2,SMAD3,SLC4A4,TAB1,APP,PDGFRA,CCN2,HEG1,BORA,IBTK,LRP5,MTCP1,RCAN1,SPTBN4,DRD1,S100A12,PRKD1,EREG,CCNY,ATF2,RAF1,PTPN1,BMPR2,BMPR1A,BTBD10,PIK3R3,CDK12,SPAG9,FGF2,PPM1F,NEDD9,SEMA4D,PTAFR,ADCYAP1R1,DVL3,EIF4G1,EPHB3,CKS1B,DEPTOR,TSG101,TERF2IP,PTPN13,TRPC5,DAB2,BLM,CACUL1,LDLRAD4,SMG5,DLG3,WNK1,RELN,NK10,IQGAP1,MAP3K7,ALK,SLC8A2,XDH,ATP2B4,CAMTA1,ADNP,SCARB1,TFRC,UVRAG,EPHA5,GNB3,GHR,MNAT1,SNX9,PLCG2,ROCK1,HIPK3,PTPN2,INSRR,NTRK1,SLC39A10,EPHB1,EPHA10,AXIN2,PARD3,PIFO,EPHA7,ATG14,BCAR3,STK38,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPR1B,MAGI2,PRKAG1,ADTRP,OPRD1,RPTOR,MLLT1,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,LRRK2,UNC119,ZBTB20,LILRB4,PKD2,EFNA5,TADA2A,PDGFC,PKIB,MTMR3,PPP2R3C,PLCL2,BMP6,RAPGEF2,VRK3,PRKAR2B,RHOA,ROR1,RQCD1,TF,EPM2A,GSK3B,DNAJC3,EEF2K,PPP1R16A,PTPRB,AGT,CCNJL,PRKAA2,ADAR,STAT2,PTK2,TEC,MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,RPS6KA5,HUS1,NOS1,GCKR,RGS14,STK4,EPHB2,SLC1A1,IL18,UBE2K,DLC1,PPARA,MOB3B,PAX6,PRKCZ,ADORA2A,RABGEF1,CCNG2,ANGPT1,LRRK1,OSBPL8,CDK5RAP1,CNTN1,BRAF,HDAC2,HTR2C,IMPACT,PPP1R14A,CD300A,PHIP,PPP2C4,ANGPT4,MADD,SYK,WWTR1,DVL2,PTPRJ,HSF1,SASH1,VAV3,MOB3A,GNA12,SH2D3A,AKTIP,INPP5F,AXL,CD109,MET,MALT1,MLXIPL,PHB,PTPRC,SH3GL2,TYRO3,TNKB,BMP4</p>
GO:00	regulation of	1.25428112	<p>POLDIP3,ENPP1,PRDX2,LDB2,ASPH,PRMT3,PRKCI,SLC3A1,DNMT1,HLX,SLC9</p>

31326	cellular biosynthetic process	19437656e-10	<p> <i>AI,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,NOS1AP,SCAF8,STOX2,PTGIS,WWC3,PAGRI,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRAM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EIF4G3,EZR,IKZF2,MALRD1,CHD7,HTR2B,MECOM,TACCI,TENM1,TRAFA6,DNAJA3,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,CDAN1,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,DDBI,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,COLA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,MJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,TBR1,SAMD4,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C200RF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,PTCD3,ERN2,CID,AFF3,DMD,CENPF,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,FYN,MKRN2,ARNTL,PLCB1,ARID4B,RWD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NF1A,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COPS5,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,TERF2,ZNF286A,FOXN3,NEUROD1,USP22,JAK2,TRAPPC9,FBXW7,SKAP1,SMC3,UMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,QKI,CCDC62,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,TFAP2D,BCL3,SNR1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,ANKRD17,BRIP1,LRRPPRC,SREBF2,CDK11A,CDK11B,LEPR,FGF1,NPAT,NR4A3,FOXK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTI12,NFATC1,CDC73,APP,SSBP3,GSX2,RBM8A,YAP1,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,ERLIN1,SFMBT1,ZNF584,ESR2,S100A12,PRKD1,STAT1,STI8,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAFI1,CELF4,ZNF766,CARD16,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,IKZF4,CDK12,CAND2,DEND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TCRR,GLI4,ZFCR,BENF5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,DDAH1,ZNF354C,TCEA3,PADI6,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,RELN,SIN3A,RUVBL2,COMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,TRCFR,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,SCARB1,CDK6,PHF2,CELF1,TFRC,EPHA5,WWOX,MEF2A,DCAF6,XRNF1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,PAXIP1,ZNF713,EGR2,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SPI1,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,EIF3H,BCAR3,JAZF1,ABC7,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,SMYD1,SNCA,BMPR1B,PRIM2,PNPT1,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,ZMYND11,KMT2D,CREM,KMT2C,PLD1,MACC1,MTF,OPRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,TMEM59,ZBTB20,RF3,LILRB4,PKD2,ZNF652,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,LPGAT1,CRTC3,DNAJC1,ARNTL2,ELOVL5,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,RALY,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,GSK3B,PRR16,DNAJC3,STAT6,MLF1,RBBP8,NFECAB2,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,STAT2,ZMPSTE24,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,RPS6KB1,STC2,DPRX,PRG3,SETDB2,DNAJB6,SP7,LARP4,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,DIS3,PPARA,ARID5B,SMARCA1,CPEB4,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,CPEB1,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MTBD1,ATF6,ZBTB5,ZNF708,IGF2BP3,ETSI,PPP1CA,MTF2,TAGLN3,CDK5RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,HT </i> </p>
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			R2C,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,TRIM29,PARN,DONSON,ADCY1,SYK,CNOT1,WWT R1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,MTRF1,YBX1,TAI1,EIF4E3,TICAM1,THAP3,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,NRF1,NCOA2,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ATF6B,CREB1,RGMB,TRAP1,EBF4,ZNF511,BMP4,ABLIM3
GO:0033674	positive regulation of kinase activity	1.3909236799501242e-10	NRXN1,ADCY8,NRG3,PRKAG2,PRLR,NTRK3,FLT3,GRM5,MAP2K5,KITLG,ROBO1,TOML1,HTF2B,TENM1,TRAF6,VAV2,ABI1,HSP90AA1,CDC6,AKAP13,DAB1,ADORA1,EPHA1,ERBB4,MRE11A,NTRK2,PDGFB,CCND3,INSR,CAB39,PAK1,MAP3K4,ECT2,ERN2,CASS4,LMTK2,CHI3L1,NRG1,MAP2K1,ROR2,CCNYL1,JAK2,FBXW7,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,CD4,TGFB1,PIBF1,TNFRSF10B,DOCK3,EPHA4,TNFRSF11,IGF1R,AXIN1,FGF1,AJUBA,SPDYA,FLT4,TAB1,PDGFRA,BORA,MTCPI,S100A12,PRKD1,EREG,CCNY,PTPN1,BMPR2,BMPRI1A,FGF2,NEDD9,DVL3,EPHB3,CKS1B,CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,ATP2B4,ADNP,EPHA5,GHR,MNAT1,SNX9,INSRR,NTRK1,EPHB1,EPHA10,AXIN2,P1FO,EPHA7,ATF14,MAP3K13,SNCA,BMPRI1B,PRKAG1,LRRK2,UNC119,PKD2,EFNA5,PDGFC,PPP2R3C,RAPGEF2,RHOA,ROR1,AGT,PTK2,MAP3K5,NCF1,TAOK2,CD44,ADAM8,STK4,EPHB2,SLC1A1,IL18,MOB3B,PRKCZ,ANGPT1,OSBPL8,CD300A,PPP2CA,ANGPT4,MADD,SYK,DVL2,SASH1,VAV3,MOB3A,AXL,MET,MALT1,PHB,PTPRC,TYRO3
GO:0099537	trans-synaptic signaling	1.5451618668284143e-10	NRXN1,SPR2,PDE7B,ADCY8,GRID2,RPS6KA2,NRG3,NLGN4X,GRM8,GRM5,CASK,NRXN3,HTF2B,SLC24A2,ITGB1,CNIH2,PCDH17,DLG2,ERC1,DGKI,ERC2,GABRA3,LAMA2,CACNB2,SV2B,ADORA1,ABR,GRM7,NTRK2,CACNA1B,RIMS1,CDH8,USP46,PTPRD,SLC4A10,BDNF,CHRM3,GRIK4,RIT2,FYN,NF1,PLCB1,SNCB,BORA,SHISA9,CACNA1E,DAGLA,CNTN4,NTNG1,ROR2,ZDHHC3,LIN7A,SYN2,PCDHB16,EXO4,JAK2,SYN3,CLSTN2,SYT1,LZTS1,SLC1A4,KCNC4,IL1RAPL1,CAMK2B,PDLIM4,JPH3,DLGAP1,PTPRN2,GRIK3,GABRR3,CADPS2,GABRB1,GPR176,DISC1,CHRM1,PLCB4,SLC17A7,YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA,CTNNB1,PARK2,PRKAR1B,CPNE6,GRM1,RIMS4,DCC,SPG11,DGKB,CUX2,GRIK5,SHANK1,SLC6A1,APP,NLGN2,DRD1,GLRA2,SLC6A3,SHANK2,CELF4,RASGRF2,NLGN1,LRRK4,C,GRK1,MCTP1,SORCS2,PRKCG,GRIA2,FBXL20,NLGN3,PAFAH1B1,BTBD9,RELN,KCNQ2,SLC8A2,STAU1,P2RX6,ATAD1,ADNP,MAP1B,SORCS3,GABRG3,SYT12,CACNA1A,TRPV1,ELAVL4,EGR2,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CACNG8,NETO1,HTF1D,CHRN4,PTPRA,GABRA6,FCHSD2,SNCA,CACNG2,GRM4,SYT9,PTPRS,KCTD13,SLC4A8,MAPK1,PTEN,LRRK2,UNC119,TMEM108,SHANK3,WNT7A,SNAP23,CEP89,PLCL2,EXT1,GABRR2,RAPGEF2,PRKAR2B,STXBP5L,GRIN1,SYNGAP1,GRIN3A,GABRB3,GSK3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,HRH4,RIMS2,SLC29A1,CPLX2,PACSIN2,GRID1,NOS1,RGS14,EPHB2,SLC1A1,DTNA,PRKCZ,ADORA2A,GRIN2B,CADPS,BRAF,HTF2C,TNR,KCND2,ADCY1,GRIK2,CACNG3,DLGAP2,KCNQ3,RPH3A,SHISA6
GO:0009889	regulation of biosynthetic process	1.7707255364732847e-10	POLDIP3,ENPP1,PRDX2,LDB2,ASPH,PRMT3,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,NOS1AP,SCAF8,STOX2,PTGIS,WWC3,PAGR1,HIVEP3,FTO,NPAS3,ARNT,LRRFP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,EIF4G3,EZR,IKZF2,MALRD1,CHD7,HTF2B,MECOM,TACCI,TENM1,TRAF6,DNAJA3,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,CDAN1,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,DDI1,MYT1,IKBK,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASPI,TBR1,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDIP2,PTCD3,ERN2,C1D,AFF3,DMD,CENPF,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,FYN,MKRN2,ARNTL,PLCB1,ARID4B,RWD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COPS5,MAD2L2,TLE6,RAB27A,CAPRIN2,ZNF418,NLN,PHF20L1,TERF2,ZNF286A,FOXN3,NEUROD1,USP22,JAK2,TRAPPC9,FBXW7,SKAPI,SMC3,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLL3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,QKI,CCDC62,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,SUCO,TFAP2D,BCL3,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL3,SMARCC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,IL18R1,CIPC,MFT1,CBX5,ANKRD17,BRIP1,LRRPRC,SREBF2,CDK11A,CDK11B,LEPR,FGF1,NPAT,NR4A3,FOXK2,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,RAB3GAP2,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB

			<p>8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,SFRP1,MEDI3,ZNF395,FOXO3,NFIB,SP4,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KT112,NFATC1,CDC73,APP,SSBP3,GSX2,RBM8A,NOX1,YAP1,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,ERLIN1,SFMBT1,ZNF584,ESR2,S100A12,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,CEL4,ZNF766,CARD16,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,IKZF4,CDK12,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TTCRR,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,CKS1B,PAWR,EBF2,AGO3,MAML2,TS G101,CCDC3,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,DDAH1,ZNF354C,TCEA3,PADI6,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,RELN,SIN3A,RUVBL2,COMMDD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,SCARB1,CDK6,PHF2,CELFI,TFRCE,EPHA5,WWOX,MEF2A,DCAF6,XRNI,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,GLIS1,SFMBT2,EIF3H,BCAR3,JAZF1,ABCB7,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,SMYD1,SNCA,BMPR1B,PRIM2,PNPT1,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,ZMYND11,KMT2D,CREM,KMT2C,PLD1,MACC1,MITF,OPRD1,NUGGC,RPTOR,NF1X,BTK,KCTD13,MLLT1,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,TMEM59,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,LPGAT1,CRTC3,DNAJC1,ARNTL2,ELOVL5,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,RALY,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,GSK3B,PRR16,DNAJC3,STAT6,MLF1,RB8P8,NECAB2,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HGDFRP3,METTL16,STAT2,ZMPSTE24,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTFF2,IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,RPS6KB1,STC2,DPRX,PRG3,SETDB2,ALOX5,DNAJB6,SP7,LARP4,ADAM8,SLC5A3,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,TMEFF2,IL18,DIS3,P PARA,ARID5B,SLC25A33,SMARCAL1,CPEB4,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,CPEB1,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,PPP1CA,MTF2,TAGLN3,CDK5,RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,HTR2C,IMPACT,SRCA,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,TRIM29,PARN,DONSON,ADCY1,SYK,CNOT1,WWTR1,GTFF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,MTRF1,YBX1,TAF1,EIF4E3,TICAM1,THAP3,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,NRF1,NCOA2,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ATF6B,CREB1,RGMB,TRAP1,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0007169	transmembrane receptor protein tyrosine kinase signaling pathway	2.332114652275598e-10	<p>ENPPI,NRXN1,CLASP2,IL31RA,NRG3,PRLR,MVP,KALRN,NTRK3,CBL,ARNT,FLT3,STAT5B,PLCE1,FER,PTPRR,PIK3CD,ROBO1,VAV2,ABII,SAMD12,ANKS1B,STXBP4,GFRA2,PTPN11,ADORA1,ADAMTS3,EPHA1,ERBB4,NTRK2,PDGFB,CCND3,INSR,PIP4K2A,PAK1,BDNF,LCK,SHC4,SNX6,AP3S1,CASSA,FYN,NF1,PLCB1,LMTK2,RTN4,APOD,NDRG4,PIK3R2,NRG1,BDKRB2,ROR2,DCN,SLC39A14,CDH13,PTPRT,CCBE1,JAK2,FBXW7,ZFYVE28,SH2D6,CYFIP2,PRKCD,RUNX2,CD4,KANK1,FGF10,ARHGEF28,EPHA4,CTNBNB1,SMARCC1,IGF1R,LEPROT,FGF1,NR4A3,MYOCD,MYOIE,HCK,SORBS1,CSPG4,FLT4,NEDD4,NRP2,PDGFRA,FSTL4,MUC20,PTPRG,FRS2,MMP2,PRKD1,HNF4A,EREG,MAPKAPK3,RAF1,PTPN1,ADAMTS12,TSPAN12,PIK3R3,FGF2,NEDD9,DOK6,EPHB3,PTPRE,SHOC2,TSG101,IDE,COL4A3,HIP1,IRS4,IQGAP1,ALK,XDH,SNX5,PAK3,MAPKAPK2,COL4A6,EPHA5,GFRAL,GHR,FLRT2,SMOC2,PTPN2,INSRR,NTRK1,EPHB1,EPHA10,EPHA7,PTPRA,BCAR3,CHURC1,SNCA,RASA1,IGF1,MAPK1,TMEM108,EFNA5,PDGFC,GPR21,SOS1,EXT1,RAPGEF2,GRB14,ROR1,RQCD1,GSK3B,STAT6,SULF1,AGT,PTK2,NCF1,SHC1,RPS6KB1,ANKS1A,RPS6KA5,PLEKHA1,RGS14,EPHB2,ARID5B,PRKCZ,FAM20C,RABGEF1,ANGPT1,OSBPL8,PRKCQ,BRAF,CSRNP1,PHIP,ANGPT4,SYK,PTPRJ,CAV2,COL4A5,AXL,REPS2,MET,TYRO3,CLNK</p>
GO:0006812	cation transport	2.4837390042857737e-10	<p>SLC39A11,NRXN1,ASPH,PDE4D,SLC9A1,FAM155A,CHERP,SLC25A17,CACHD1,RYR1,NOS1AP,NOX5,EPB41,DPP6,SLC35F3,UTRN,ATP2B2,KCNQ5,CASK,KCNIP4,LRP2,SLC38A11,ANK2,SLC9A9,CHD7,HTR2B,RYR3,SLC24A2,NKAIN2,ITGB1,SLC24A3,CNIH2,NKAIN3,CNGB1,FLVCR2,ABCC8,TCIRG1,KCNS3,NIPAL2,NETO2,CACNB2,ADORA1,KCNJ16,DPP10,PDGFB,CACNA1B,STK39,CAB39,ZDHHC13,SLC20A</p>

			2,SLC4A10,CATSPER2,AMIGO1,KCNMA1,KCNRG,LCK,TMC2,SLC12A8,VAMP7,SLC6A16,RHCE,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,LMTK2,SLC5A6,SHISA9,CACNA1E,SLC4A5,KCNN3,CNNM2,SLC43A2,BDKRB1,KCNIP1,STIM1,NALCN,TMBIM6,SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,SYT1,NPSR1,SCN4A,TMC1,SLC1A4,SLC5A9,SLC9A7,KCNC4,CACNA1H,CAMK2B,CD4,TGFB1,SGK1,KEL,JP H3,SYT13,CDH23,KCNJ3,CACNA1D,CACNA2D3,KCNH1,HOMER2,SLC17A7,KCNH7,CAPN3,VMP1,CNR1,PPP3CA,CTNNB1,PARK2,COX8A,TMEM63C,TRPM1,KCNJ12,RYR2,KCNA6,NDUFA9,NOL3,CACNA1C,SCN3B,ATP10D,ITPR1,WWP2,SHANK1,SYT3,NEDD4,SLC4A4,SLC6A1,KCNK1,APP,NLGN2,VDAC1,IBTK,SLC9B2,SPTBN4,DRD1,PRKD1,SLC6A3,FXVD2,FXVD6,KCNG4,RASGRF2,NLGN1,FGF2,ADCYAP1R1,KLHL3,MRS2,SLC5A8,SLC9B1,ATP6V0B,KCNQ1,NLGN3,TRPA1,TRPM3,NMUR2,AKAP6,TRPC5,WNK1,RELN,KCNQ2,SLC22A3,SLC47A1,SLC8A2,SLC9C1,TPCN1,GPM6B,AHNAK,RGS7,ATP2B4,NSF,P2RX6,ATP6V0A2,KCNAB2,TRFR,SYT12,CACNA1A,STOM,TRPV1,SLC38A6,PLCG2,GPR35,SLC39A10,ANK3,ATP13A3,KCND3,CACNG8,SLC9C2,NETO1,CD84,MCU,TRDN,STAC,TRPC6,ABCB7,SLC41A2,SLC48A1,ATP13A5,SNCA,CACNG2,SLC39A9,SYT9,CNGA3,OPRD1,PKP2,BTK,SLC4A8,HTT,SLC30A7,SCN8A,ATP6V1A,CNIH3,SLC44A1,TMCO1,PKD2,SHANK3,ANO1,ANO8,GABRR2,ANO1,SERINC5,KCNC2,SLC6A14,PSEN2,SYT17,GRIN1,RHOA,GRIN3A,TF,ITPR2,EPM2A,SCN9A,AGT,SYT7,ZMPSTE24,HEPPL1,PEX5L,PDE4B,COX5A,TRPC4A,P,SLC25A42,SLC29A1,SLC44A3,KCNJ15,SLC5A10,STC2,SLC5A3,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCNN1B,COX6A1,EPHB2,SLC1A1,XCR1,LRRC52,NKAIN1,CALCRL,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B,SLC25A26,CNTN1,DIAPH1,HTR2C,ATP8A1,TMEM163,UQCRI0,ANXA2,KCND2,ATP6V0A1,SYK,SCN1A,SLC4A5,CACNG3,SLC10A1,ATP2B3,GPM6A,SLC13A3,SLC5A4,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,SHISA6,EDNRA
GO:0051347	positive regulation of transferase activity	2.502882729194088e-10	NRXN1,ADCY8,NRG3,PRKAG2,PRLR,NTRK3,FLT3,GRM5,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,VAV2,AB11,HSP90AA1,CDC6,AKAP13,DAB1,CCT2,ADORA1,EPHA1,ERBB4,MRE11A,NTRK2,PDGFB,CCND3,INSR,CAB39,PAK1,MAP3K4,ECT2,ERN2,CASS4,LMTK2,CHI3L1,NRG1,MAP2K1,ROR2,CCNYL1,JAK2,FBXW7,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,CD4,TGFB1,PIBF1,BTRC,TNFRSF10B,DOCK3,EPHA4,TNFSF11,CTNNB1,IGF1R,AXIN1,FGF1,AJUBA,SPDYA,FLT4,TAB1,PDGFRA,BORA,NVL,MTCP1,S100A12,DCUN1D3,PRKD1,EREG,CCNY,PTPN1,BMPR2,BMPRI1A,FGF2,NEDD9,DVL3,EPHB3,CKS1B,TNKS,CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,ATP2B4,ADNP,EPHA5,DCUN1D5,GHR,MNAT1,SNX9,INSRR,NTRK1,EPHB1,EPHA10,AXIN2,P1FO,EPHA7,ATG14,MAP3K13,SNCA,BMPRI1B,PRIM2,PRKAG1,RPTOR,IGF1,MAPK1,PTEN,LRRK2,UNC119,ROF3,PKD2,EFNA5,PDGFC,PKIB,PPP2R3C,SERINC5,RAPGEF2,ARRDC4,RHOA,ROF1,AGT,PTK2,MAP3K5,NCF1,TAOK2,CD44,ADAM8,STK4,EPHB2,SLC1A1,IL18,MOB3B,PRKCZ,ANGPT1,OSBPL8,PRKCQ,CD300A,PPP2CA,SKP1,ANGPT4,RFC5,PARN,MADD,SYK,DVL2,SASH1,VAV3,MOB3A,AXL,MET,MALTI,PHB,PTPRC,TYRO3
GO:0034220	ion transmembrane transport	2.5095008381161527e-10	SLC39A11,NRXN1,ASPH,PDE4D,SLC9A1,FAM155A,GRID2,CHERP,SLC25A17,CACHD1,RYR1,NOS1AP,NOX5,DPP6,CLCN1,UTRN,ATP2B2,KCNQ5,GRM5,KCNIP4,LRP2,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,ITGB1,SLC24A3,CNIH2,SLC22A8,CNGB1,ABCC8,GABRA3,TCIRG1,KCNS3,NIPAL2,NETO2,CACNB2,KCNJ16,DPP10,CACNA1B,STK39,ATP8B1,CAB39,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,AMIGO1,KCNMA1,CHRM3,GRIK4,KCNRG,LCK,TMC2,SLC12A8,SLC6A16,RHCE,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,SLC25A21,SLC5A6,SHISA9,ANKH,CACNA1E,SLC4A5,KCNN3,CNNM2,SLC43A2,BDKRB1,KCNIP1,STIM1,NALCN,SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,NPSR1,SCN4A,TMC1,SLC1A4,SLC9A7,KCNC4,CLCA2,CACNA1H,TGFB1,KEL,JPH3,GRIK3,GABRR3,GABRR1,KCNJ3,CACNA1D,CACNA2D3,ANO4,XPR1,ANO3,KCNH1,SLC17A7,KCNH7,CAPN3,SLC16A1,VMP1,ANO2,COX8A,TMEM63C,TRPM1,CYBB,KCNJ12,RYR2,KCNA6,NOL3,PER2,CACNA1C,SCN3B,GRM1,ATP10D,ITPR1,WWP2,GRIK5,SHANK1,NEDD4,SLC4A4,SLC6A1,KCNK1,APP,NOX1,SFXN5,NLGN2,VDAC1,IBTK,SLC9B2,GRIA3,DRD1,GLRA2,PRKD1,SLC6A3,FXVD2,FXVD6,SLC16A12,KCNG4,RASGRF2,NLGN1,FGF2,GRIK1,PTAFR,MRS2,SLC5A8,SLC9B1,GRIA2,SLC35D1,ATP6V0B,CLIC4,KCNQ1,NLGN3,TRPA1,TRPM3,AKAP6,TRPC5,WNK1,RELN,ABCB1,KCNQ2,SLC47A1,SLC8A2,SLC9C1,TPCN1,CLIC5,AHNAK,RGS7,ATP2B4,P2RX6,ATP6V0A2,KCNA B2,GABRG3,CACNA1A,STOM,TRPV1,PLCG2,GPR35,ABCC1,SLC39A10,ANK3,ATP13A3,KCND3,CACNG8,SLC9C2,NETO1,CHRN4,MCU,TRDN,GABRA6,LRRC8C,LRRC8D,STAC,TRPC6,ABCB7,SLC41A2,ATP13A5,SNCA,CACNG2,CNGA3,SLC4A8,HTT,SLC30A7,SCN8A,ATP6V1A,CNIH3,TMCO1,PKD2,SHANK3,ANO1,ANO8,GABRR2,KCNC2,SLC6A14,PSEN2,GRIN1,GRIN3A,ITPR2,EPM2A,GABRR3,EMB,SCN9A,AGT,ZMPSTE24,PEX5L,PDE4B,COX5A,TRPC4A,SLC25A42,KCNJ15,SLC5A10,GRID1,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCNN1B,COX6A1,EPHB2,SLC1A1,XCR1,LRRC52,MCOLN1,ATP1A3,GRIN2B,SLC25A26,GRIA4,DIAPH1,HTR2C,ATP8A1,TMEM163,UQCRI0,SLC26A2,ANXA2,KCND2,ATP6V0A1,GRIK2,SCN1A,CACNG3,ATP2B3,GPM6A,SLC13A3,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,GPR89A,SHISA6,EDNRA,SLC25A13
GO:0018209	peptidyl-serine modification	3.309682358903556e-10	NRXN1,PRKCI,PDE4D,RPS6KA2,LATS2,NTRK3,CAMK1G,TENM1,HSP90AA1,TSSK1B,STK38L,MAST4,HDAC6,IKBKB,TLK1,NTRK2,PDGFB,STK39,CAB39,PAK1,BDNF,DMD,LMTK2,PAQR3,EGFLAM,SH2D3C,BDKRB2,FNIP1,GALNT16,CSNK2A3,DCN,MAD2L2,CAPRIN2,SMG1,PRKCD,SGK1,NSD1,TTBK2,DCLK1,SMYD3,MAST2,PR

			KCA,CAMK4,AXINI,DYRK4,CHEK2,APP,MTCPI,SPTBN4,DRD1,CHUK,PRKD1,M APKAPK3,RAF1,CAMK1D,PPM1F,PRKCG,EIF4G1,PKN3,TERF2IP,TNKS,WNK1,T OPI,ATP2B4,MAPKAPK2,MARK1,TFRC,ADRBK1,ROCK1,HIPK3,PKN2,BCAR3,ST K38,NTMT1,MAP3K13,RAPGEF3,SNCA,OPRD1,HIPK1,RPTOR,MAPK1,PTEN,LRR K2,MORC3,PLCL2,VRK3,RQCD1,EPM2A,GSK3B,STK32B,PRKAA2,RPS6KB1,GALN T13,CD44,RPS6KA5,CSNK1A1,NOS1,STK4,MARK3,SLC1A1,PRKCZ,ANGPT1,PRKC Q,BRAF,SYK,TAF1,SRPK2,SH2D3A,GALNT4,INPP5F,CAMK2D,MLXIPL
GO:00 30334	regulation of cell migration	3.31821152 60434347e- 10	LDB2,MAP4K4,S1PR2,CLASP2,SEMA3A,DOCK1,NRG3,SEMA3D,PHACTR1,MAPR E2,TJP1,UNC5C,NTRK3,SEMA5A,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR ,PIK3CD,ROBO1,LMNA,ULK4,ITGB1,SRGAP3,MCC,SRGAP2B,PTPRK,ABCC8,LA MA2,DACH1,MGAT5,DOCK10,HDAC6,ADORA1,EPHA1,ERBB4,ZNF609,PDGFB,S TK39,INSR,UNC5D,LAMA3,PAK1,PTPRU,SLC8A1,CASS4,ADAMTS9,NF1,PLCB1,R TN4,DPEP1,APOD,BCR,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,HDAC5,NTNG1,CM KLRI,ROR2,DCN,CDH13,PTPRT,CD99,RCC2,ANO6,KIF2A,RFFL,CCBE1,JAK2,FB XW7,CLDN1,WNT11,CAMK2B,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,SLIT2 ,CORO1C,RRAS2,KANK1,LAMC2,TTBK2,BMPER,DAPK2,DUSP22,FGF10,SMURF2 ,EPHA4,PRKCA,PPP3CA,PIP5KL1,SOD2,IGF1R,PPARG,DLG5,FGF1,NR4A3,MYO CD,AJUBA,NF2,FLT4,HDAC4,SFRP1,FOXO3,SMAD3,PTPRM,NRP2,DOCK4,NAV3, APP,GSX2,PDGFRA,SLK,PTPRG,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,BMPR2,CA MK1D,BMPRI4,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D, MCTP1,ELP3,PLXNA2,PTAFR,DDX58,CHRD,VCL,LAMB1,CLIC4,ACTA2,STAU1,DA B2,LDLRAD4,MYSM1,WNK1,RELN,SP1,MACF1,CLASP1,PRKG1,ATP2B4,PAK3,SS H2,SCARB1,FLRT2,SMOC2,PLCG2,ROCK1,TMIGD1,SP11,MCU,SH3BP1,MST1,MA GI2,ADTRP,MITF,IGF1,DPYSL3,MAPK1,PTEN,BMP7,PRCP,OSGIN1,PDGFC,AMO TL1,WNT7A,GPI,SH3RF2,RAPGEF2,SMO,RHOA,ONECUT2,CHRM1,PLCB4,SLC17A7, ULF1,AGT,PTK2,RPS6KB1,GPR173,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4, EPHB2,TMEFF2,DLC1,EPB41L4B,GPSM3,ZMYND8,PAX6,RABGEF1,PHLDB2,NIP BL,ANGPT1,OSBPL8,GCNT2,ETS1,FBXO31,BRAF,DIAPH1,ATP8A1,CD300A,ANGP T4,CAMSAP3,SP100,SRGAP2,NUMB,FRMD5,PTPRJ,SASH1,ZP3,GNA12,MET,SEM A3C,PTPRC,BMP4
GO:00 07268	chemical synaptic transmission	3.59395642 09462613e- 10	NRXN1,S1PR2,PDE7B,ADCY8,GRID2,RPS6KA2,NRG3,NLGN4X,GRM8,GRM5,CAS K,NRXN3,HTR2B,SLC24A2,ITGB1,CNIH2,PCDH17,DLG2,ERC1,DGKI,ERC2,GABR A3,LAMA2,CACNB2,SV2B,ADORA1,ABR,GRM7,NTRK2,CACNA1B,RIMS1,CDH8,US P46,PTPRD,SLC4A10,BDNF,CHRM3,GRIK4,RIT2,FYN,NF1,PLCB1,SNCB,BCR,SHI SA9,CACNA1E,CNTN4,NTNG1,ROR2,ZDHHC3,LIN7A,SYN2,PCDHB16,EXOC4,JAK 2,SYN3,CLSTN2,SYT1,LZTS1,SLC1A4,KCNC4,CAMK2B,PDLIM4,JPH3,DLGAP1,PT PRN2,GRIK3,GABRR3,CADPS2,GABRB1,GPR176,DISC1,CHRM1,PLCB4,SLC17A7, YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA,CTNNB1,PARK2,PRKAR1B,CPNE6,GRM1 ,RIMS4,DCC,SPG11,DGKB,CUX2,GRIK5,SHANK1,SLC6A1,APP,NLGN2,DRD1,GLR A2,SLC6A3,SHANK2,CELF4,RASGRF2,NLGN1,LRRC4C,GRIK1,MCTP1,SORCS2,PR KCG,GRIA2,FBXL20,NLGN3,PAFAH1B1,BTBD9,RELN,KCNQ2,SLC8A2,STAU1,P2 RX6,ATAD1,ADNP,MAP1B,SORCS3,GABRG3,SYT12,CACNA1A,TRPV1,ELAVL4,EG R2,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CACNG8,NETO1,HTR1D,CHRN4,P TPRA,GABRA6,FCHSD2,SNCA,CACNG2,GRM4,SYT9,PTPRS,KCTD13,SLC4A8,MA PK1,PTEN,LRRK2,UNC119,TMEM108,SHANK3,WNT7A,SNAP23,CEP89,PLCL2,EX T1,GABRR2,RAPGEF2,PRKAR2B,STXBP5L,GRIN1,SYNGAP1,GRIN3A,GABRB3,GS K3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,HRH4,RIMS2,SLC29A1,CPLX2,PACSIN2,G RID1,RGS14,EPHB2,SLC1A1,DTNA,PRKCZ,ADORA2A,GRIN2B,CADPS,BRAF,HTR 2C,TNR,KCND2,ADCY1,GRIK2,CACNG3,DLGAP2,KCNQ3,RPH3A,SHISA6
GO:00 98916	anterograde trans-synaptic signaling	3.59395642 09462613e- 10	NRXN1,S1PR2,PDE7B,ADCY8,GRID2,RPS6KA2,NRG3,NLGN4X,GRM8,GRM5,CAS K,NRXN3,HTR2B,SLC24A2,ITGB1,CNIH2,PCDH17,DLG2,ERC1,DGKI,ERC2,GABR A3,LAMA2,CACNB2,SV2B,ADORA1,ABR,GRM7,NTRK2,CACNA1B,RIMS1,CDH8,US P46,PTPRD,SLC4A10,BDNF,CHRM3,GRIK4,RIT2,FYN,NF1,PLCB1,SNCB,BCR,SHI SA9,CACNA1E,CNTN4,NTNG1,ROR2,ZDHHC3,LIN7A,SYN2,PCDHB16,EXOC4,JAK 2,SYN3,CLSTN2,SYT1,LZTS1,SLC1A4,KCNC4,CAMK2B,PDLIM4,JPH3,DLGAP1,PT PRN2,GRIK3,GABRR3,CADPS2,GABRB1,GPR176,DISC1,CHRM1,PLCB4,SLC17A7, YTHDF1,STXBP5,EPHA4,CNR1,PPP3CA,CTNNB1,PARK2,PRKAR1B,CPNE6,GRM1 ,RIMS4,DCC,SPG11,DGKB,CUX2,GRIK5,SHANK1,SLC6A1,APP,NLGN2,DRD1,GLR A2,SLC6A3,SHANK2,CELF4,RASGRF2,NLGN1,LRRC4C,GRIK1,MCTP1,SORCS2,PR KCG,GRIA2,FBXL20,NLGN3,PAFAH1B1,BTBD9,RELN,KCNQ2,SLC8A2,STAU1,P2 RX6,ATAD1,ADNP,MAP1B,SORCS3,GABRG3,SYT12,CACNA1A,TRPV1,ELAVL4,EG R2,NTRK1,MAP1A,PPP1R9A,UNC13A,EPHB1,CACNG8,NETO1,HTR1D,CHRN4,P TPRA,GABRA6,FCHSD2,SNCA,CACNG2,GRM4,SYT9,PTPRS,KCTD13,SLC4A8,MA PK1,PTEN,LRRK2,UNC119,TMEM108,SHANK3,WNT7A,SNAP23,CEP89,PLCL2,EX T1,GABRR2,RAPGEF2,PRKAR2B,STXBP5L,GRIN1,SYNGAP1,GRIN3A,GABRB3,GS K3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,HRH4,RIMS2,SLC29A1,CPLX2,PACSIN2,G RID1,RGS14,EPHB2,SLC1A1,DTNA,PRKCZ,ADORA2A,GRIN2B,CADPS,BRAF,HTR 2C,TNR,KCND2,ADCY1,GRIK2,CACNG3,DLGAP2,KCNQ3,RPH3A,SHISA6
GO:00 97435	supramolecular fiber organization	3.81021435 2300162e- 10	CLRN1,HOOK2,PRKCI,SLC9A1,PDE4DIP,CLASP2,PHACTR1,FHOD3,TJP1,SEMA5 A,FER,MFAP5,EZR,TENM1,CTNNA3,ABI1,ITGB1,TRIOBP,ELMO2,GAST,AKAP13,C DC42EP3,XIRP2,COL14A1,HDAC6,ADAMTS3,EPHA1,KIF18B,LIMK1,HOOK3,MID 1,FMN2,PRKAR1A,PAK1,ARHGAP6,DMD,GSN,CASS4,NF1,DST,PCDH15,TTN,RAN BP9,TLI1,DCTN1,BID,MAD2L2,TLE6,NCKAP1,ARL3,KIF2A,COL12A1,JAK2,MYPN

			,PLS1,CYFIP2,WNT11,SLAH1,PRKCD,PPM1E,F2RL1,SLIT2,COLGALT1,CORO1C,KANK1,TTBK2,COL24A1,KANK4,ENAH,LOXL3,RHPN2,SVIL,CAPN3,LUM,MPRIP,PARK2,AXIN1,MYO1D,BFSP1,ADD2,NIN,TUBGCP6,MYO1E,HCK,SORBS1,OBSCN,NF2,SPTBN1,ELN,SFRP1,SSH1,SMAD3,THSD4,ABI2,SHANK1,ARHGEF18,PREX1,KPNB1,NAV3,APP,PDGFRA,SLK,ADD3,MYO1F,KIF24,ADAMTS2,SPTBN4,VILL,RND3,VBP1,COL16A1,CTNNA2,RAB11A,PPM1F,NEDD9,PAWR,COL11A1,PAFAH1B1,ADAMTS14,COL4A3,HIP1,RUFY3,ARHGAP12,MYO7A,CLASPI,PACSIN1,SPTBN5,PAK3,SSH2,MAP1B,COL4A6,AIF1L,MEF2A,PLS3,ZNF207,CALD1,SNX9,DIAPH2,ACTR2,ROCK1,EPSS8,MAP1A,PPP1R9A,PTPRQ,NCKAP5,MCU,CTNNA1,LIMAI,TRDN,SHROOM3,FCHSD2,RAPGEF3,PDXP,SH3BP1,SNCA,COL13A1,TLL2,CSRNP1,RAS A1,PKP2,KCTD13,DYSL3,ARHGAP25,SHANK3,STMN4,TBCD,EXT1,RHOA,NDE1,TF,RHOBTB1,SHROOM1,CUL3,SH3KBP1,RDX,FAM49B,KRT8,HDGFRP3,ESPNL1,QGAP2,FAM171A1,FMOD,COL21A1,ALDOA,PGM5,DNAJB6,SPEF1,TMEFF2,DLC1,PHLDB2,SHROOM4,MAP2,NEBL,BRAF,DIAPH1,ACAN,CAMSAP3,CIT,NEB,MYO1A,BMP1,CGNL1,COL4A5,MET,MICAL3,SPTAN1,TNXB
GO:0051254	positive regulation of RNA metabolic process	3.820991234350505e-10	LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,SCAF8,STOX2,PAGR1,HIVEP3,FTO,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,CHD7,MECOM,TACC1,TRAF6,NHLH1,GF11B,RUNX1,HMGN3,NRIP1,THRB,EFCAB7,SERTAD2,IKBKB,ERBB4,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,TNRC6A,EP300,CELA1,ZNF76,PDGFB,HNF4G,INSR,RERE,TCF7L2,LITAF,FBXW11,ESRRB,RBM20,TBR1,AMD4A,TFAP2A,PEG3,MEIS1,TRIM13,ZNF148,MTA3,TFPD2,SLC30A9,TOX3,KAT7,RBM14,MED12L,SATB2,RIT2,MKRN2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,CSRNP3,NFIA,RNF4,ROR2,DCN,PCBD2,HNRNPLL,CDH13,CREBRF,COPSS,MAD2L2,CAPRN2,NEUROD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLLT3,KLF15,WNT11,MTA1,RPRD1B,CCDC62,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,BTRC,NFATC3,F2RL1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,SBN02,YTHDF1,FGF10,SMYD3,CAPN3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,PPARG,AXIN1,MTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,RIOK2,MYOCD,TRIM5,PER2,CHEK2,SUPT3H,PRDM16,TRIM8,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARNT2,EBF3,CASZ1,DCP1B,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,LRP5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18,ETV5,PLAGL1,HNF4A,ZBTB7C,TASP1,ATF2,POU2F2,TCF3,RAF1,CELF4,BMPR2,BMPRI1,IKZF4,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,DDX58,BRDT,RARB,NCOA1,LMO7,DVL3,TCF20,ATF3,LIN28B,SRSF5,EBF2,MAML2,TSG101,RFX2,PRDM15,GLI2,TNKS,WBP2NL,ERRCC1,TNRC6B,GLIS3,DAB2,BLM,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HOXC13,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ARID4A,PHF2,CELF1,WWOX,MEF2A,DCAF6,EYA1,DIS3L2,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,TRIM24,ROCK1,CRX,PAX6,ZC3HAV1,CPEB1,NIPBL,YEATS4,ZNF143,BRF1,TBL1X,ATF6,ETS1,MTF2,CSRNP1,HDAC2,SRCAP,POU3F3,ELF2,PHIP,SP100,PARN,CNOT1,WWTR1,ZBTB38,BRC4,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,TRIM37,MET,SETD3,TRA2B,MLXIP,PHB,CTCF,NR6A1,ATF6B,CREB1,RGMB,BMP4,ABLIM3
GO:0019438	aromatic compound biosynthetic process	4.097855368354485e-10	ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLC30A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PAGRI,ADCY7,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTFC1,EZR,IKZF2,CHD7,MECOM,TACC1,TENM1,NADK2,TRAF6,GTFE2,DNAJA3,NHLH1,HSP90AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,GMDS,GF11B,PTPRK,RUNX1,ERIC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CC2,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFPD2,ERN2,C1D,AF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,PRPS2,MED12L,STATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,POLA2,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,COPSS,AK2,MAD2L2,TLE6,CAPRN2,ZNF418,PHF20L1,TERF2,ZNF286A,NME7,FOXN3,AK5,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,UI

			<p>MC1,ITCH,MLIP,BCL11B,IMPDH1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BCL3,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,FGF10,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXIN1,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,PFAS,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,DCT,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,CPOX,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,TPH2,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KT112,NFATC1,UCK2,CDC73,APP,SSBP3,GSX2,YAP1,PPCS,TEN1,NVLP,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,TPH1,ESR2,S100A12,GTTF2,GTTF21,SAT1,ST18,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,ZNF730,RAFI,ABLIM2,ZNF766,CARD16,POLA1,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,IDO2,IKZF4,CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POLR2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,CMPK1,ZNF704,NR2C1,MEI1,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,WDTC1,ZNF664,TPK1,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,RELN,SIN3A,RUVBL2,COMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SR11,UBE2V1,ADIRF,OVO L2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPGI,ADNP,ARID4A,CDK6,PHF2,TYR,TFRC,EPHA5,WWOX,MEF2A,ADCY9,DCAF6,XRN1,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,SCMH1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,ABC7,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN,PRIM2,ZEB2,FOXJ3,NADK,OCA2,HEY2,ZMYND11,KMT2D,CREM,KMT2C,MACC1,MITF,OPRD1,RPTOR,NFIX,BTK,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,MXI1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ATP6V1A,MLYCD,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,ELOVL5,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,RAPGEF2,ASCC1,MTHFD2L,SMO,RALY,AMPD1,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,RBBP8,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,ELOVL3,POLH,POLR2F,STAT2,ZMPSTE24,GTTF2E1,PPCDC,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCFI1,SHC1,ZNF813,ALDOA,LBX2,PARP10,DPRX,GUCY2F,PRG3,SETDB2,DNAJB6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,TEX12,PPARA,ARID5B,SLC25A33,SMARCA11,TAF2,LDHC,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,PAH,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAF1,TICAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,DHFR,EZH1,NRF1,NCOA2,QRIH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,EBF4,SLC25A13,ZNF511,BMP4,ABLIM3</p>
GO:0018105	peptidyl-serine phosphorylation	4.722979079886677e-10	<p>NRXN1,PRKCI,PDE4D,RPS6KA2,LATS2,NTRK3,CAMK1G,TENM1,HSP90AA1,TSSK1B,STK38L,MAST4,HDAC6,IKBKB,TLK1,NTRK2,PDGFB,STK39,CAB39,PAK1,BDNF,DMD,LMTK2,PAQR3,SH2D3C,BDKRB2,FNIP1,CSNK2A3,MAD2L2,CAPRIN2,SMG1,PRKCD,SGK1,NSD1,TTBK2,DCLK1,SMYD3,MAST2,PRKCA,CAMK4,AXIN1,DYRK4,CHEK2,APP,MTCP1,SPTBN4,DRD1,CHUK,PRKD1,MAPKAPK3,RAFI,CAMK1D,PPM1F,PRKCG,EIF4G1,PKN3,TERF2IP,TNKS,WNK1,TOPI,ATP2B4,MAPKAPK2,MARK1,TFRC,ADRBK1,ROCK1,HIPK3,PKN2,BCAR3,STK38,MAP3K13,RAPGEF3,SNCA,OPRD1,HIPK1,RPTOR,MAPK1,PTEN,LRRK2,MORC3,PLCL2,VRK3,RQCD1,EPM2A,GSK3B,STK32B,PRKAA2,RPS6KB1,CD44,RPS6KA5,CSNK1A1,NOS1,STK4,MARK3,SLC1A1,PRKCZ,ANGPT1,PRKCQ,BRAF,SYK,TAF1,SRPK2,SH2D3A,INPP5F,CAMK2D,MLXIPL</p>
GO:00	regulation of cell	4.86637745	DOCK1,EPB41,KALRN,ENPP2,EZR,CDKL5,TRIOBP,CDC42EP3,MYO10,RIMS1,PT

22604	morphogenesis	8622225e-10	<p>PRD,FMNL2,CASS4,FYN,MYH9,NTNG1,CAPRIN2,RCC2,SYTI,SEPT7,PALMD,MKL N1,IL1RAPL1,CAMK2B,CORO1C,KANK1,ITSN2,PARVA,STRIP1,EPHA4,PARK2,FB LIM1,CPNE6,HCK,CUX2,SYT3,ARHGEF18,PREX1,SH3D19,CPNE9,PARP6,RND3,S PAG9,NEDD9,SEMA4D,PLXNA2,DVL3,MYO9A,RHOJ,P4HB,PAFAH1B1,KIF3A,RA SAL1,DAB2,RELN,CFDP1,MACF1,AKAP2,SYNE3,PAK3,FGD1,ACTR2,EP58,DNMB P,UNC13A,COCH,CUX1,SHROOM3,MAP3K13,RASA1,ZRANB1,EFNA5,BRWD3,PA RVB,SYT17,RHOA,RHOBTB1,SH3KBP1,RDX,EEF2K,ZMPSTE24,PTK2,RIMS2,FAM 171A1,TAOK2,ALDOA,ARHGAP15,CD44,FGD3,LARP4,CLDN4,FGD4,ACTN4,DLC 1,FBXO31,BRAF,DIAPH1,PHIP,CDKL3,DVL2,GRIP1,GNA12,FMNL1,NEDD4L</p>
GO:00 06351	transcription, DNA-templated	4.99562049 5571218e-10	<p>ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8, MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31R4,PRDM12,MED26,WWC1,ASH1L,SC AF8,STOX2,PTGIS,WWC3,PAGR1,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GR M5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HMGF,GTFC3C1,EZR,IKZF2, CHD7,MECOM,TACC1,TENM1,TRAF6,GTf2E2,DNAJA3,NHLH1,PSMB7,TSC22D3, ZC4H2,CCDC22,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB 3BP,DACH1,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKKBK,PEX14,ERBB4,ZNF609 ,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CBLA1,TE NM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605 ,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C, ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASP1,TBR1,TF AP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,A FF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,MED12L,SATB2,RI T2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MA P2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC3,CSRNP3,ZNF6 92,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COP55, MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JA K2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSZH2,TCF7,P DE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1,CCDC62,SOX6,A CVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTR C,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK 1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BC L3,SND1,DUSP22,TRRAP,SBNO2,FGF10,POLR2J2,SMYD3,LOXL3,CAPN3,LUM,S MURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4, GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF1 7,PPARG,AXIN1,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1 ,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT 3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC 4,PAX2,PHF5A,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2, WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NED D4,ESRRG,HOXD3,HOXD4,ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,YAP 1,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A ,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,GTf2F2,PRKD1,STAT1,STI8,ETV 5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZN F730,RAF1,ABLIM2,ZNF766,CARD16,BMPR2,CAMK1D,BMPRI4,ZKSCAN1,IKZF4, CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1 F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2 ,JARID2,DDX58,BRD1,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POL R2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRYM,R FX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169- SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1, GLIS3,WDT1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SIN3A,RUVBL2,C OMMD6,GMEB1,PELI1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB 3,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL 3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,TFRC,EPHA5,WWOX,MEF2A ,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TF EB,MNAT1,ACTR2,L3MBTL4,HDAC1,RECQL5,TRIM24,PLCG2,SCMH1,PAXIP1,ZN F713,EGR2,HIPK3,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZN F425,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMAR CA2,CUX1,SPII,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JA2F1,RBPMS,CHURC1, CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPRI1,ZEB2,FOXJ3,HEY2,ZMYND11,K MT2D,CREM,KMT2C,MACC1,MITF,OPRD1,RPTOR,NFIX,BTK,MLLT1,TROVE2,CB FA2T2,IGF1,MLXIP,ATF7IP,PTEN,BMP7,MXI1,SOX5,CIR1,PCBP2,ZNF780A,ZNF7 80B,ZBTB20,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPLY1,RCOR3,TADA2A,NC OA3,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,KAT6A,ZKSCAN7,Z NF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ASCC1, SMO,RALY,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,C UL3,TFEC,STAT6,MLF1,RBBP8,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF35 4A,AGT,HDGFRP3,POLR2F,STAT2,ZMPSTE24,GTf2E1,PBX1,MAP3K5,TCFL5,CR EBBP,DLX1,GTf2IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,DPRX,SETDB2,DNAJB 6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACT N4,MC1R,TCF25,ZNF282,EDRF1,IL18,PPARA,ARID5B,SLC25A33,SMARCAL1,TAF 2,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,OTUD7B,NIPBL,YEATS</p>

			4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM29,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAF1,TICAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALTI,SETD3,KDM2B,MLXIPL,PHB,EDA,ZNF555,CTCF,NR6A1,ATF6B,CREB1,RGMB,EBF4,ZNF511,BMP4,ABLIM3
GO:0098609	cell-cell adhesion	5.156421946358689e-10	PRDX2,NRXN1,B4GALNT2,GP6,HLX,NEGR1,CBFB,GRID2,TENM3,CLDN18,ASTN2,TLN2,MYOT,NLGN4X,DCHS2,TJP1,PCDH9,STAT5B,FER,MAP2K5,EZR,MEGF10,NRXN3,ROBO1,TENM1,TRAF6,ROBO2,ITPKB,CTNNA3,DNAJA3,ITGB1,ELMO2,PCDH17,KIF26B,DSCAM,DLG2,RUNX1,DAB1,MYO10,CDH10,COL14A1,PTPN11,CDH12,TENM2,KIRREL3,CDH8,PRKARIA,UNC5D,LAMA3,CDH4,PTPRD,AMIGO1,CLDN12,PCDH7,TENM4,LCK,PTPRU,FYN,PCDH15,FAT3,NTN1,NRG1,DOCK8,MYH9,MAD1L1,LRFN5,CNTN4,NTNG1,CDH13,SOX13,PTPRT,PCDHB16,MAD2L2,CD99,CLDN16,JAK2,MYPN,SKAP1,CLSTN2,ITCH,CLDN1,MAG1,CYFIP2,ASTN1,IL1RAPL1,PRKCD,CD4,TGFB1,CLDN10,CELSR1,SDK2,CDH23,CTNND2,PARVA,DUSP2,LOXL3,VMP1,ZAN,PRKCA,CD6,TNFSF11,MAG,CTNNB1,FCGR2B,CDHR2,CADM3,DLG5,ADD2,FBLIM1,NR4A3,AJUBA,OBSCN,NF2,FOXO3,CNTN6,CDH26,PTPRM,PDGFRA,NLGN2,JAK1,SOX2,GPC6,PLEKHA7,DSCAML1,NLGN1,CTNNA2,MYB,LRRCA4,PPM1F,SEMA4D,PTAFR,FNDCA3,EPHB3,PAWR,VCLN,LAMB1,NLGN3,GLI2,LPP,COL19A1,PKHD1,DLG3,WNK1,PELI1,DSC2,PRKG1,TFR,ROCK1,C1QTNF1,AP3B1,PTPN2,ANK3,EPCAM,AP3D1,ADAM19,CD84,HMCN1,SP11,EPHA7,CTNNA1,SDK1,RC3H1,COL13A1,WNT7B,PTPRS,ADTRP,ABCA12,CSR1,PKP2,PCDH11X,DSG1,IGF1,CLDN11,BMP7,MEGF11,LILRB4,ITGAM,EFNA5,NTSE,BMP6,EXT1,PCD1LG2,CDH9,PAG1,RHOA,HSPD1,NFKBID,EMB,RDX,FAM49B,CD27,CDH20,PTK2,ARVCF,VEZT,SHC1,CD160,ITGAL,ALOX5,DNAJB6,CD44,ADAM8,CLDN4,PKD1L1,IL18,PPARA,NOTCH4,PRKCZ,ADORA2A,TMIGD2,PCDH10,GCNT2,ETS1,PPP1CA,KIFC3,PRKCQ,SPINT2,TNR,CD300A,CAMSAP3,ANXA2,FAT2,TRIM29,SYK,CADMI,FCHO1,ZP3,TNFSF9,VSIG10,MALT1,PTPRC,TYRO3,TNXX,STXBP6,BMP4
GO:0032774	RNA biosynthetic process	5.27204118064551e-10	ENPPI,PRDX2,LDB2,ASPH,PRKCI,SLCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,WWC3,PAGRI,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTTF3C1,EZR,IKZF2,CHD7,MECOM,TACC1,TENM1,TRAF6,GTTF2E2,DNAJA3,NHLH1,PSMB7,TSC22D3,ZC4H2,CCDC22,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKKBK,PEX14,ERBB4,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKARIA,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,BASPI,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFPD2,ERN2,C1D,AF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,BRMI4,MED12L,SATB2,RII2,HIRA,MKNR2,ARNTL,PLCB1,ARID4B,POLA2,RWDD3,RBPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PCBD2,CDH13,CREBRF,SOX13,COP5,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BCL3,SND1,DUSP22,TRRAP,SBNO2,FGF10,POLR2J2,SMYD3,LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXIN1,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SEMA3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,YAPI,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ARD3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,GTTF2F2,PRKD2,ILAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,ABLIM2,ZNF766,CARD16,POLA1,BMPR2,CAMK1D,BMPRI4,ZKSCAN1,IKZF4,CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POLR2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,ZNF354C,TCEA3,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,WDTC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,RELN,SIN3A,RUVBL2,C

			<p>3,SRAI,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,TFR3,EPAH5,WWOX,MEF2A,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,HDAC1,RECQL5,TRIM24,PLCG2,SCMH1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JA2F1,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,ZEB2,FOXJ3,HEY2,ZMYND11,KMT2D,CREM,KMT2C,MACC1,MITF,OPRD1,RPTOR,NFIX,BTK,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,PTEN,BMP7,MXI1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ZBTB20,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,RCOR3,TADA2A,NCOA3,ZNF146,ZNF565,WNT7A,ZBED6,BRD3,CRTC3,ARNTL2,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ATSC1,SMO,RALY,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,RBBP8,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,POLR2F,STAT2,ZMPSTE24,GTTF2E1,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,DPRX,SETDB2,DNAJB6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,PPARA,ARID5B,SLC25A33,SMARCA1,TAF2,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MTBD1,ATF6,ZBTB5,GTTF2E2,DNAJA3,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM29,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAF1,THCAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,EZH1,NRF1,NCOA2,QRICH1,ZP3,CTD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALTI,SETD3,KDM2B,MLXIP,PHB,EDA,ZNF555,CTCF,NR6A1,ATF6B,CREB1,RGMB,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0034654	nucleobase-containing compound biosynthetic process	5.554707638777302e-10	<p>ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLC30A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PAGR1,ADCY7,HIVEP3,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTAF3C1,EZR,IKZF2,CHD7,MECOM,TACC1,TENM1,NADK2,TRAF6,GTTF2E2,DNAJA3,NHLH1,HSP90AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,GMDS,GFI1B,PTPRK,RUNX1,ERIC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,AFF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,PRPS2,MED12L,STATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,POLA2,RWDD3,BRPF1,PIK3R2,NRGI1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,COPS5,AK2,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,TERF2,ZNF286A,NME7,FOXN3,AK5,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,UIMC1,ITCH,MLIP,BCL11B,IMPDH1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BCL3,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,FGF10,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXIN1,IL18R1,CIPC,MTF1,CBX5,BRIP1,SREBF2,PFAS,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTI12,NFATC1,UCK2,CDC73,APP,SSBP3,GSX2,YAP1,PPCS,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,GTTF2F2,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,ABLIM2,ZNF766,CARD16,POLA1,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,IDO2,IKZF4,CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POLR2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,MAML2,TSIG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CDC169-</p>

			<p>SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,CMPK1,ZNF704,NR2C1,ME1,GLI2,TNK S,WBP2NL,ERCC1,GLIS3,WDC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG 5,RELN,SIN3A,RUVBL2,COMMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16,MAP3K7,Z NF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SRA1,UBE2V1,ADIRF,OVOL2,SN X5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,AD NP,ARID4A,CDK6,PHF2,TFRC,EPA5,WWOX,MEF2A,ADCY9,DCAF6,XRN1,SATB 1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,A CTR2,L3MBTL4,ACACA,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,SCMH1,PAXIP1, ZNF713,EGR2,HIPK3,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM, ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF 836,SMARCA2,CUX1,SPII,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,RBPMS, CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN,PRIM2,ZEB2,FO XJ3,NADK,HEY2,ZMYND11,KMT2D,CREM,KMT2C,MACC1,MITF,OPRD1,RPTOR, NFIX,BTK,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,M XII,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ATP6V1A,MLYCD,ZBTB20,RFC3,LILRB 4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,NCOA3,PKIB,Z NF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,KOVL5,KAT6A,ZKSCAN7 ,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ASCC 1,MTHFD2L,SMO,RALY,AMPD1,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRNT,R ORI,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,RBBP8,CDK13,DUSP26,ZNF 362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,ELOVL3,POLH,POLR2F,STAT2,Z MPSTE24,GTf2E1,PPCDC,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,GTf2IRD2,NCF1 ,SHC1,ZNF813,ALDOA,LBX2,PARP10,DPRX,GUCY2F,SETDB2,DNAJB6,SP7,ADAM 8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TC F25,ZNF282,EDRF1,IL18,TEX12,PPARA,ARID5B,SLC25A33,MARCA1,TAF2,LDH C,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,OTUD7B,NIPBL,YEAT S4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,ETS1,MTF2,T AGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRAP,POU3F3,NOTO,ZKSCAN 5,ELF2,PHIP,PPP2CA,SLC26A2,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,REV3 L,TRIM29,PARN,ADCY1,SYK,CNOT1,WWTR1,GTf2H5,NFXL1,ZBTB38,BRCA2,ATF 7,DVL2,MORC1,YBX1,TAF1,TICAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,EZH1,NR F1,NCOA2,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,C AMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIP,CCCT3,PHB,EDA,ZNF555 ,CTCF,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,EBF4,SLC25A13,ZNF511,BMP4 ,ABLIM3</p>
GO:00 50770	regulation of axonogenesis	6.11619699 1327511e-10	<p>SEMA3A,SEMA3D,TIAM2,SEMA5A,ROBO1,CDKL5,ROBO2,DSCAM,DAB1,GOLGA 4,LIMK1,NTRK2,CDH4,PAK1,BDNF,AMIGO1,RTN4,RTN4R,NTN1,MAP2K1,UST,SE MA5B,KEL,SLIT2,DISC1,EPA4,MAG,XK,DRAKIN,NIN,DCC,DIP2B,FSTL4,ISLR2,S EMA6D,BMPR2,RAB11A,LRRC4C,SEMA4D,PLXNA2,EPHB3,WNT3,PAFAH1B1,TR PC5,RUFY3,MACF1,PAK3,ADNP,MAP1B,TRIM46,EPAH7,MAP3K13,PTPR,PTEN, EFNA5,WNT7A,SYNGAP1,GSK3B,EPHB2,MAP2,BRAF,TNR,CDKL3,SLIT1,SEMA3C</p>
GO:00 30001	metal ion transport	6.19573327 4045206e-10	<p>SLC39A11,ASPH,PDE4D,SLC9A1,FAM155A,CHERP,CACHD1,RYR1,NOS1AP,NOX5 ,EPB41,DPP6,UTRN,ATP2B2,KCNQ5,CASK,KCNIP4,LRP2,SLC38A11,ANK2,SLC9A 9,CHD7,HTR2B,RYR3,SLC24A2,NKAIN2,ITGB1,SLC24A3,NKAIN3,FLVCR2,ABCC8, KCNS3,NIPAL2,NETO2,CACNB2,ADORA1,KCNJ16,DPP10,PDGFRB,CACNA1B,STK 39,CAB39,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,AMIGO1,KCNMA1,KCNRG,LC K,TMC2,SLC12A8,SLC6A16,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,LMTK2,SLC 5A6,CACNA1E,SLC4A5,KCNN3,CNNM2,BDKRB1,KCNIP1,STIM1,NALCN,TMBIM6, SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,NPSR1,SCN4A,TMCI,SLC5A9 ,SLC9A7,KCNC4,CACNA1H,CAMK2B,CD4,TGFB1,SGK1,KEL,JPH3,CDH23,KCNJ3 ,CACNA1D,CACNA2D3,KCNH1,HOMER2,SLC17A7,KCNH7,CAPN3,VMP1,PPP3CA ,CTNNB1,TRPM1,KCNJ12,RYR2,KCNA6,NDUFA9,NOL3,CACNA1C,SCN3B,ITPR1, WWP2,NEDD4,SLC4A4,SLC6A1,KCNK1,VDAC1,IBTK,SLC9B2,SPTBN4,DRD1,PRK D1,SLC6A3,FXD2,FXD6,KCNG4,FGF2,ADCYAP1R1,KLHL3,MRS2,SLC5A8,SLC9 B1,KCNQ1,TRPA1,TRPM3,NMUR2,AKAP6,TRPC5,WNK1,KCNQ2,SLC8A2,SLC9C1, TPCN1,AHNAK,RGS7,ATP2B4,NSF,KCNAB2,TFRC,CACNA1A,STOM,TRPV1,SLC38 A6,PLCG2,GPR35,SLC39A10,ANK3,KCND3,CACNG8,SLC9C2,NETO1,CD84,MCU, TRDN,STAC,TRPC6,ABCB7,SLC41A2,SLC48A1,SNCA,CACNG2,SLC39A9,OPRD1,P KP2,SLC4A8,HTT,SLC30A7,SCN8A,TMCO1,PKD2,STEAP4,KCNC2,SLC6A14,PSEN 2,GRIN1,RHOA,GRIN3A,TF,ITPR2,EPM2A,SCN9A,AGT,ZMPSTE24,HEPHL1,PDE4 B,TRPC4AP,KCNJ15,SLC5A10,STC2,SLC5A3,PKD1L1,NOS1,ACTN4,SCNN1B,SLC1 A1,XCR1,LRRC52,NKAIN1,CALCRL,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B, CNTN1,DIAPH1,HTR2C,TMEM163,ANXA2,KCND2,SCN1A,CACNG3,SLC10A1,ATP 2B3,GPM6A,SLC13A3,SLC5A4,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC, EDNRA</p>
GO:00 10033	response to organic substance	6.42678401 5110434e-10	<p>ENPPI,PRDX2,NRXN1,ASPH,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,IL31 RA,RPS6KA2,PTGFR,CALR3,CLDN18,CTDSPL2,RYR1,LATS2,NREP,PTGIS,TJP1,P RLR,PAGR1,ADCY7,NTRK3,CBL,ARNT,EGLN2,FLT3,STAT5B,GRM5,SAMHD1,FER, CASK,MAP2K5,LRP2,PIK3CD,HDGF,ANK2,EZR,ROBO1,SLC26A6,HTR2B,ITGB6,R YR3,GOT1,TRAF6,ROBO2,DNAJA3,ITGB1,HSP90AA1,CDC6,PSMB7,PTPRK,ABCC 8,HMGN3,NRIP1,DNAJB14,THRB,STXBP4,IL17RB,TCIRG1,PTPN11,HDAC6,ADAM TS3,IKBKB,ERBB4,BRD8,ESR1,PMEPA1,NTRK2,EP300,FNTA,PDGFB,CACNA1B,C CND3,USP46,BPI,STK39,INSR,TCF7L2,PIP4K2A,CAB39,PAK1,LITAF,ESRRB,BDN</p>

			<p>F,AMIGO1,KCNMA1,CHRM3,FUT8,TRIM13,UBR2,HLC5,IL5RA,SNX6,PTPRU,RFTN1,ERN2,LSP1,AP3S1,NPLOC4,AFF3,DMD,USP13,KAT7,SLC8A1,GSN,RBM14,SATB2,FYN,ARNTL,NF1,PLCB1,MGMT,RXFP1,CHRD1,BCR,CHI3L1,PIK3R2,CDK19,BDKRB1,DOCK8,TMBIM6,PPP2CB,HDAC5,CMKLR1,ROR2,DCN,SLC39A14,CDH13,CREBRF,TRDMT1,PTPRT,ACSBG1,COPS5,IPO5,MAN1A1,RGS8,DEF1B,DEF43,F5,PTGER2,STIP1,NEUROD1,GNAQ,RFFL,CCBE1,JAK2,YTHDC2,CLDN1,TCF7,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,NOX4,LCOR,CACNA1H,IL1RAPL1,CCDC62,ADAM23,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,CD4,TGFB1,SGK1,BTRC,PTPRN2,F2RL1,BCAS3,DNAJB2,SLIT3,ZFYVE9,SLIT2,TP73,ITIH4,GABRB1,KANK1,MTDH,CHRM1,SMAD6,RXFP2,CLOCK,ZNF675,BCKDHB,BMPER,TIMP2,DUSP22,NAIP,HOMER2,SBNO2,FGF10,SMYD3,IL1RAPL2,GLP2R,ADCY2,SLC16A1,SMURF2,EPHA4,RORA,PRKCA,CNR1,CD6,TNFSF11,PPP3CA,HBE1,NFYB,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,HSPA6,SMARCC1,IGF1R,PPARG,AXIN1,IL18R1,IL1RL1,MSR1,CYBB,OTC,BRIP1,SREBF2,RYR2,LEPR,LEPROT,FGF1,RGS10,NR4A3,NOL3,MYOCD,TRIM5,GLG1,CHEK2,PRDM16,HCK,SORBS1,CAPN2,DIO2,FLT4,HDAC4,PAX2,CPOX,SFRP1,FOXO3,TPH2,SSH1,SYNCRIP,SMAD3,RNFT2,CUX2,ACKR2,GRIK5,IFNAR1,NEDD4,NRP2,ESRRG,TAB1,SLC6A1,SEC61B,CDC73,APP,PDGFRA,YAP1,AMFR,RAB11FIP5,SESNI,TNFRSF19,RNLS,ALPL,JAK1,LRP5,SLC9B2,GNG2,SOX2,SEDT2,CHST11,DRD1,GLRA2,CHUK,ERLIN1,FRS2,MMP2,ESR2,PRKD1,STAT1,ST18,SLC6A3,HNF4A,STRA6,EREG,MAPKAPK3,ATF2,RAF1,EPHX1,CARD16,CASP1,PTPN1,ADAMTS12,GGT7,BMPR2,BMPRI1A,TSPAN12,COL16A1,PIK3R3,EPG5,FGF2,ADCY5,RORC,PTAFR,ADCYAP1R1,JARID2,DDX58,RARB,PRKCG,NCOA1,EEF1E1,CHRD,EIF2B5,PTPRE,ATF3,SHOC2,SRSF5,STT3B,CCDC3,IDE,KCNQ1,RF2X,WNT3,P4HB,CCL14,CCL15,PAFAH1B1,CNTFR,COL4A3,TRPA1,AKAP6,NR2C1,EDEM3,IRS4,ME1,GLI2,NEO1,ERCC1,WDTC1,DAB2,BLM,UBR1,LDLRAD4,WNK1,SIN3A,RUVBL2,CSF3R,PELI1,IQGAP1,MAP3K7,ZNF423,SP1,ALK,GSTM3,SRB1,XDH,LTBP1,OVOL2,SNX5,RGS7,ATP2B4,PACRG,PAK3,DYX1C1,P2RX6,ADNP,MAPKAPK2,MAP1B,COL4A6,SCARB1,TYR,TFRC,EPHA5,WWOX,CACNA1A,GPC3,XRN1,ADRBK1,PSMB2,BRINP1,SHPK,TRPV1,GHR,FLRT2,ACTR2,ACACA,ELAVL4,HDAC1,RECQL5,C2,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,EGR2,CAPN10,GPR35,ABC1,PTPN2,INSRR,NTRK1,TRIM44,MAN1B1,AXIN2,SARM1,CARM1,SRD5A2,HTR1D,SP11,PTPRA,CTNNA1,ACAP2,LY86,BCAR3,ILDR2,CHURC1,RAB15,RAPGEF3,SDK1,PDXP,PTK7,SNCA,BMPRI1B,MAGI2,PNPT1,ZEB2,RC3H1,RNF103,RNF103-CHMP3,CNGA3,WNT7B,HMGCS2,KMT2D,SPPL2A,ADTRP,ABCA12,SRSF6,OPRD1,HIPK1,NUGGC,RPTOR,BTK,DSG1,TROVE2,IGF1,STX8,DPSYL3,MAPK1,SPRED2,BMP7,PIK3C3,SOX5,PRCP,LRRK2,GNA14,ZBTB20,CHMP5,RFC3,BAG6,LILRB4,PMEM108,IL11RA,NSG2,PKD2,EFNA5,SELIL2,PDGFC,NCOA3,WNT7A,ZBED6,NLRP1,GLDC,GPR21,BMP6,ANO1,GPI,IL17RD,SOS1,TSHR,EXT1,PDGCD1LG2,ATRX,PLIN2,PNPLA3,PRMT2,RAPGEF2,KCNC2,SMO,GET4,PRKAR2B,CPT1A,TNFRSF11B,SOX30,UBR5,GRB14,GRIN1,RHOA,GRIN3A,RQCD1,ONECUT2,CUL3,HSPD1,ITPR2,GABRB3,GSK3B,DNAJC3,RDX,STAT6,EEF2K,FAM49B,CD27,BOK,SULF1,KRT8,AGT,PRKAA2,ADAR,FBN2,STAT2,BRINP3,HRH4,PTK2,PHFX,RNF121,PDE4B,VEP H1,MAP3K5,CREBBP,DLX1,FMOD,PCSK6,SLC29A1,UGT1A1,SHC1,RNFT1,RPS6K B1,STC2,GPR173,CD44,CLDN4,RPS6KA5,NOS1,GCKR,PLVAP,ACTN4,SCNN1B,ZF AND6,EPHB2,SLC1A1,XCR1,IL18,UBE2K,PPARA,ABCD3,ARID5B,CALCRL,SLC25 A33,TAF2,CPEB4,ZNF366,FBN1,PAX6,PRKCZ,ATP1A3,CD96,FAM20C,ADORA2A,GRIN2B,RABGEF1,CPEB1,TYK2,ASPN,ANGPT1,FHL2,OSBPL8,ATF6,GCNT2,VWC 2,MTF2,CCL22,NCOR2,PRKCQ,DIAPH1,HDAC2,HTR2C,IMPACT,SPINT2,PHIP,PP P2CA,RPL23,SH3BP4,SP100,ADCY1,SQLE,SYK,CNOT1,YBX1,PTPRJ,SLC10A1,TAF 1,TICAM1,TANK,UCN2,HSF1,MAX,DHFR,SASH1,NCOA2,ADAMTS7,GBP5,QRICH1 ,CIB2,CAV2,UGGT1,AXL,CD109,DENND4C,CCR3,TIMELESS,MALTI,PFKP,TRA2B ,MLXIPL,PHB,PTPRC,EDA,PBLD,SH3GL2,SPON2,TRAF3IP2,ATF6B,CREB1,RGMB ,SGTB,EDNRA,HADHA,BMP4,CPNE1</p>
GO:0071495	cellular response to endogenous stimulus	6.447936657781169e-10	<p>ENPPI,NRXN1,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,PTGFR,CTDSPL2,R YR1,LATS2,NREP,PRLR,PAGR1,NTRK3,CBL,EGLN2,FLT3,STAT5B,GRM5,FER,LRP 2,EZR,SLC26A6,HTR2B,ITGB6,RYR3,GOT1,ROBO2,CDC6,PTPRK,THRB,STXBP4,P TPN11,HDAC6,ERBB4,BRD8,ESR1,PMEP1A,NTRK2,EP300,FNTA,PDGFB,CCND3,I NSR,PIP4K2A,PAK1,ESRRB,BDNF,AMIGO1,CHRM3,FUT8,UBR2,SNX6,AP3S1,SLC 8A1,FYN,ARNTL,PLCB1,RXFP1,CHRD1,PIK3R2,HDAC5,ROR2,SLC39A14,IPO5,R GS8,DEF1B,DEF43,PTGER2,JAK2,CLDN1,PDE2A,KLF15,LAMTOR3,CACNA1H, PRKCD,SOX6,ACVR2A,RUNX2,TGFB1,SGK1,BCAS3,SLIT3,ZFYVE9,SLIT2,GABRB1 ,KANK1,CHRM1,SMAD6,RXFP2,CLOCK,BMPER,DUSP22,FGF10,SMYD3,GLP2R,S MURF2,EPHA4,UFL1,CTNNB1,PARK2,FCGR2B,SMARCC1,IGF1R,PPARG,AXIN1, CYBB,BRIP1,RYR2,LEPR,LEPROT,FGF1,NR4A3,MYOCD,GLG1,PRDM16,SORBS1, CAPN2,HDAC4,PAX2,SFRP1,FOXO3,SSH1,SMAD3,NEDD4,ESRRG,TAB1,APP,PDG FRA,YAP1,SESNI,GNG2,CHST11,DRD1,GLRA2,FRS2,MMP2,ESR2,STAT1,HNF4A,A TF2,PTPN1,ADAMTS12,BMPR2,BMPRI1A,COL16A1,PIK3R3,FGF2,ADCY5,PTAFR, RARB,NCOA1,CHRD,PTPRE,SHOC2,SRSF5,IDE,KCNQ1,AKAP6,NR2C1,IRS4,NEO1 ,WDTC1,DAB2,BLM,UBR1,LDLRAD4,SIN3A,IQGAP1,MAP3K7,ZNF423,SP1,ALK,SR A1,LTBP1,OVOL2,SNX5,ATP2B4,DYX1C1,MAP1B,COL4A6,WWOX,CACNA1A,GPC 3,XRN1,TRPV1,GHR,FLRT2,ACTR2,ACACA,ELAVL4,HDAC1,RECQL5,SMOC2,TRI M24,ADIPOR2,ROCK1,CAPN10,ABCC1,PTPN2,INSRR,NTRK1,CARM1,HTR1D,SP11 ,PTPRA,CTNNA1,ACAP2,BCAR3,CHURC1,RAB15,RAPGEF3,PDXP,SNCA,BMPRI1B,</p>

			<i>MAGI2,ZEB2,HMGCS2,KMT2D,ADTRP,RPTOR,IGF1,MAPK1,SPRED2,BMP7,SOX5,PRCP,LRRK2,GNAI4,CHMP5,TMEM108,NSG2,PKD2,EFNA5,PDGFC,NCOA3,WN T7A,GPR21,BMP6,ANO1,IL17RD,TSHR,EXT1,PNPLA3,PRMT2,RAPGEF2,UBR5,GR B14,RHOA,RQCD1,ONECUT2,ITPR2,GABRB3,GSK3B,RDX,STAT6,EEF2K,SULF1,A GT,PRKAA2,FBN2,ZMPSTE24,HRH4,PTK2,PHEX,PDE4B,VEPH1,CREBBP,DLX1,F MOD,PCSK6,UGT1A1,SHC1,RPS6KB1,GPR173,CD44,SCNN1B,EPHB2,SLC1A1,PP ARA,SLC25A33,CPEB4,ZNF366,FBN1,PRKCZ,ATP1A3,FAM20C,CPEB1,ASPN,OSB PL8,GCNT2,VWC2,NCOR2,PRKCQ,DIAPH1,HDAC2,HTR2C,IMPACT,SPINT2,PHIP ,RPL23,SH3BP4,CNOT1,TAF1,UCN2,HSF1,MAX,NCOA2,ADAMTS7,CIB2,CAV2,CD 109,DENND4C,TIMELESS,PHB,PBLD,SH3GL2,RGMB,EDNRA,BMP4</i>
GO:00 51270	regulation of cellular component movement	7.40091281 3234606e-10	<i>DNAH11,LDB2,MAP4K4,PDE4D,SIPR2,CLASP2,SEMA3A,DOCK1,NRG3,SEMA3D, PHACTR1,MAPRE2,TJP1,UNC5C,NTRK3,SEMA5A,ENPP2,FER,MARVELD3,MAP2 K5,KITLG,PTPRR,PIK3CD,ANK2,ROBO1,LMNA,CTNNA3,ULK4,ITGB1,CNIH2,SRG AP3,MCC,SRGAP2B,PTPRK,ABCC8,LAMA2,DACH1,MGAT5,DOCK10,HDAC6,AD ORA1,EPHA1,ERBB4,ZNF609,PTPRO,PDGFB,STK39,INSR,UNC5D,LAMA3,PAK1,T BR1,PTPRU,SLC8A1,CASS4,ADAMTS9,NF1,PLCB1,RTN4,DPEP1,APOD,BCR,NDR G4,NTN1,NRG1,BDKRB1,DOCK8,HDAC5,NTNG1,CMKLR1,RORC,ADH13,PT PRT,CD99,RCC2,ANO6,KIF2A,RFFL,CCBE1,JAK2,FBXW7,CLDN1,WNT11,CAMK2 B,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,SLIT2,CORO1C,RRAS2,KANK1,LA MC2,TTBK2,BMPER,DAPK2,DUSP22,YTHDF1,FGF10,SMURF2,EPHA4,PRKCA,PP P3CA,PIP5KL1,SOD2,IGF1R,PPARG,DLG5,RYR2,FGF1,NR4A3,MYCB1,AJUBA,CA CNA1C,NF2,FLT4,HDAC4,SFRP1,FOXO3,SMAD3,PTPRM,NRP2,DOCK4,NAV3,AP P,GSX2,PDGFRA,SLK,PTPRG,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,RAF1,BMPR2 ,CAMK1D,BMPR1A,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA 4D,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,CHRD,VCL,LAMB1,CLIC4,RHOJ,KIF3A, RUFY3,DAB2,PKHD1,LDLRAD4,MYSM1,WNK1,RELN,SP1,MACF1,CLASP1,DSC2, PRKG1,ATP2B4,PAK3,SSH2,SCARB1,CDK6,FLRT2,SMOC2,PLCG2,ROCK1,PKN2, TMIGD1,TRIM46,SPI1,MCU,CTNNA1,SH3BP1,MST1,MAGI2,ADTRP,MITF,PKP2,I GF1,DPYSL3,MAPK1,PTEN,BMP7,PRCP,OSGIN1,PDGFC,AMOTL1,WNT7A,MYCB P2,GPI,SH3RF2,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,FAM49B,SULF1 ,AGT,PTK2,TPPP2,PDE4B,RPS6KB1,GPR173,ADAM8,CLDN4,CXCL17,PLVAP,ACT N4,STK4,EPHB2,TMEFF2,DLCL1,EPB41L4B,GPSM3,ZMYND8,PAX6,RABGEF1,PHL DB2,NIPBL,ANGPT1,OSBPL8,GCNT2,ETS1,MAP2,FBXO31,BRAF,DIAPH1,ATP8A1 ,SPINT2,CD300A,ANGPT4,CAMSAP3,SP100,SRGAP2,NUMB,FRMD5,PTPRJ,SASHI ,ZP3,GNAI2,INPP5F,MET,CAMK2D,SEMA3C,PTPRC,BMP4</i>
GO:19 02680	positive regulation of RNA biosynthetic process	8.03526167 8670152e-10	<i>LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,SCAF8,STOX2,PA GR1,HIVEP3,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,CHD7,MECOM,TA CCI1,TRAF6,NHLH1,GF11B,RUNX1,HMGN3,NRIP1,THRB,EFCAB7,SERTAD2,IKBK B,ERBB4,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,EP300,CELA1,ZNF76,PDGFB ,HNF4G,INSR,RERE,TCF7L2,LITAF,FBXW11,ESRRB,TBR1,TFAP2A,PEG3,MEIS1,T RIM13,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,KAT7,RBM14,MED12L,SATB2,RII2, MKRN2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,C SRNP3,NF1A,RNF4,ROR2,DCN,PCBD2,CDH13,CREBRF,COPPS5,MAD2L2,CAPRN2 ,NEUROD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLLT3,KLF15,WNT11,MT A1,RPRD1B,CCDC62,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,BTRC,NFATC3,F2 RL1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2 D,BCL3,SBNO2,FGF10,SMYD3,CAPN3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFY B,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,PPARG,AXIN1,MTF1,SRBEF2,FGF1, NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,CHEK2,SUPT3H,PRDM16,TRIM8,MEF 2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARN T2,EBF3,CASZ1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,LRP5,S OX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18,ETV5,PLAGL1,HNF 4A,ZBTB7C,TASP1,ATF2,POU2F2,TCF3,RAF1,BMPR2,BMPR1A,IKZF4,CDK12,CA ND2,MYB,FGF2,ZNF71,BACH1,RORC,DDX58,BRDT,RARB,NCOA1,LMO7,DVL3,T CF20,ATF3,EBF2,MAML2,TSG101,RFX2,PRDM15,GLI2,TNKS,WBP2NL,ERCC1,GL IS3,DAB2,BLM,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HOX C13,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,TET1,CAM TA1,CCPG1,ARID4A,PHF2,WWOX,MEF2A,DCAF6,EYA1,HOXB3,HOXB4,HOXB5,T FEB,ACTR2,HDAC1,TRIM24,PAXIP1,EGR2,RNF10,RBYB,AP3B1,KPNA6,TRIM44,E PCAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SPI1,GLIS1,RBPMS,CHURC1,CR EB5,BMPR1B,PRIM2,ZEB2,FOXJ3,HEY2,KMT2D,CREM,KMT2C,MACC1,MITF,RP TOR,NFIX,IGF1,MLXIP,ATF7IP,BMP7,PCBP2,ZNF780B,PKD2,TADA2A,NCOA3,W NT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,WDR43,ATRX,PRMT2,SMO,TC F4,SOX30,TFE3,GRIN1,JADE1,RQCD1,TF,ONECUT2,TFEC,STAT6,CDK13,SUPT4 H1,AGT,PBX1,MAP3K5,CREBBP,DLX1,NCF1,SHC1,SP7,RPS6KA5,ZNF484,PRDM2 ,NOS1,ACTN4,MC1R,EDRF1,IL18,PPAR4,ARID5B,NOTCH4,CRX,PAX6,NIPBL,YEA TS4,ZNF143,BRF1,TBL1X,ATF6,ETS1,MTF2,CSRNP1,HDAC2,SRCAP,POU3F3,ELF 2,PHIP,SP100,WWTR1,ZBTB38,BRCA2,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1, NRF1,NCOA2,QRICH1,ZP3,CHD6,TRIM37,MET,SETD3,MLXIPL,PHB,CTCF,NR6A 1,ATF6B,CREB1,RGMB,BMP4,ABLIM3</i>
GO:00 72359	circulatory system development	9.50482264 8122226e-	<i>DNAH11,NRXN1,DNMT1,SLC9A1,RPS6KA2,RYR1,NOX5,FHOD3,PTGIS,TJP1,NTR K3,SEMA5A,ENPP2,PLCE1,MAP2K5,NDUFV2,LRP2,PIK3CD,ANK2,OLFM1,NRXN 3,ROBO1,CHD7,HTR2B,LMNA,ROBO2,VAV2,ITGB1,ARHGAP24,AKAP13,RUNX1,A</i>

		10	BCC8,XIRP2,PTPN11,EPHA1,ERBB4,HIF3A,MYO18B,NPHP3,NTRK2,EP300,CELA1,PDGFB,INSR,PRKAR1A,TCF7L2,BASP1,RBM20,NPRL3,MEIS1,TENM4,MDM4,TFDP2,MB,SGCD,SLC8A1,JPH2,ADAMTS9,NF1,RTN4,APOD,CH3L1,TTN,NDRG4,NRGI,UBP1,MAP2K1,STIM1,MYH9,VGLL4,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,PDE2A,WNT11,IMMP2L,NOX4,QKI,SOX6,TAB2,TGFB1,PCSK5,PDLIM4,NFATC3,BCAS3,RPGRIP1L,SLIT3,SLIT2,TP73,LRR10,MTDH,SMAD6,BMPER,PARVA,ADAM12,FGF10,GREB1L,RORA,PRKCA,CTNNB1,SOD2,ARHGAP22,IGF1R,PPARG,ANKRD17,CYBB,RYR2,LEPR,FGF1,MYOCD,CACNA1C,MYO1E,CSPG4,CTDP1,FLT4,BICC1,ELN,SFRP1,ARL13B,IFT122,SMAD3,PTPRM,NRP2,TAB1,NEATC1,PDGFRA,NOX1,YAP1,HEG1,JAK1,ANGPTL4,LRP5,SETD2,PRICKLE1,VASH2,FRS2,MMP2,KDM6A,PRKD1,STAT1,STRA6,EREG,ATF2,BMPR2,BMPRI1,APIB1,TSN1,PIK3R3,FGF2,ISM1,JARID2,RARB,EPHB3,CLIC4,COL11A1,KCNQ1,ADAMTS6,RHOJ,SUFU,COL4A3,DDAH1,AKAP6,GLI2,SCUBE1,DMB1,CRELD1,APOLD1,SP1,LUZP1,XDH,OVOL2,NFATC2,ATP2B4,TMEM2,DYX1C1,MEF2A,GPC3,ADRBK1,CALD1,EYA1,HOXB3,MNAT1,FLRT2,SMOC2,ADIPOR2,ROCK1,PAXIP1,EPHB1,AXIN2,PTPN14,BCOR,AP2B1,P1FO,SP11,RAPGEF3,PTK7,SMYD1,HEY2,WNT7B,ADTAP,RASA1,HIPK1,PKP2,SGCZ,IGF1,MAPK1,PTEN,MIB1,BMP7,PRCP,BN2,ALPK3,AMOTL1,WNT7A,SH3PXD2B,SOS1,EXT1,RAPGEF2,SMO,RHOA,ACTA2,PTPRB,SULF1,AGT,ZMPSTE24,PTK2,SHB,CPE,SHC1,CD160,ECE1,SETDB2,ALOX5,ADAM8,THSD7A,CXCL17,STK4,TCF25,EPHB2,SLC1A1,IL18,DLC1,PPARA,CALCRL,NOTCH4,FBN1,PAX6,COL22A1,NIPBL,TMIGD2,ANGPT1,FHL2,ETS1,NEBL,NOTO,ANGPT4,ACAN,SP100,ANXA2,SYK,DVL2,NEB,SRPK2,SASH1,VAV3,CCR3,SEMA3C,RNF213,TRAF3IP2,CREB1,EDNRA,BMP4
GO:0045893	positive regulation of transcription, DNA-templated	1.064358907878083e-9	LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,SCAF8,STOX2,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,CHD7,MECOM,TACC1,TRAF6,NHLH1,GF11B,RUNX1,HMG3,NR1P1,THRB,EFCAB7,SERTAD2,IKBK,ERBB4,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,EP300,CELA1,ZNF76,PDGFB,HNF4G,INSR,RERE,TCF7L2,LITAF,FBXW11,ESRRB,TBR1,TFAP2A,PEG3,MEIS1,TN13,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,KAT7,RBM14,MED12L,SATB2,RIT2,MKRN2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,CSRNP3,NF1A,RNF4,ROR2,DCN,PCBD2,CDH13,CREBRF,COP5,MAD2L2,CAPRN2,NEUROD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLL3,KLF15,WNT11,MTA1,NRPRD1B,CCDC62,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,RBM5,PLAGL1,HR1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,SBNO2,FGF10,SMYD3,CAPN3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,PPARG,AXIN1,MTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,CHEK2,SUP3H,PRDM16,TRIM8,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARN2,EBF3,CASZ1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,LRP5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18B,TF15,PLAGL1,HNF4A,ZBTB7C,TASP1,ATF2,POU2F2,TCF3,RAF1,BMPR2,BMPRI1,IKZF4,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,DDX58,BRDT,RARB,NCOA1,LMO7,DVL3,TCF20,ATF3,EBF2,MAML2,TSG101,RFK2,PRDM15,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,DAB2,BLM,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HGFC13,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ARID4A,PHF2,WWOX,MEF2A,DCAF6,EYA1,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,TRIM24,PAXIP1,EGR2,RNF10,RBYP,AP3B1,KPNA6,TRIM44,ELCAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SP1,GLIS1,RBPM5,CHURC1,CREB5,BMPRI1,ZEB2,FOXJ3,HEY2,KMT2D,CREM,KMT2C,MACC1,MTF,RPTOR,NF1X,IGF1,MLXIP,ATF7IP,BMP7,PCBP2,ZNF780B,PKD2,TADA2A,NCOA3,WNT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,WDR43,ATRX,PRMT2,SMO,TCF4,SOX3,TFE3,GRIN1,JADE1,RQCD1,TF,ONECUT2,TFEC,STAT6,CDK13,SUP4H1,AGT,PBX1,MAP3K5,CREBBP,DLX1,NCF1,SHC1,SP7,RPS6KA5,ZNF484,PRDM2,NOS1,ACTN4,MC1R,EDRF1,IL18,PPARA,ARID5B,NOTCH4,CRX,PAX6,NIPBL,YEATS4,ZNF143,BRF1,TBL1X,ATF6,ETS1,MTF2,CSRNP1,HDAC2,SRAP,POU3F3,ELF2,PHIP,SP100,WWTR1,ZBTB38,BRCA2,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,TRIM37,MET,SETD3,MLXIPL,PHB,CTCF,NR6A1,ATF6B,CREB1,RGBB,BMP4,ABLIM3
GO:1903508	positive regulation of nucleic acid-templated transcription	1.064358907878083e-9	LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,SCAF8,STOX2,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,CHD7,MECOM,TACC1,TRAF6,NHLH1,GF11B,RUNX1,HMG3,NR1P1,THRB,EFCAB7,SERTAD2,IKBK,ERBB4,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,EP300,CELA1,ZNF76,PDGFB,HNF4G,INSR,RERE,TCF7L2,LITAF,FBXW11,ESRRB,TBR1,TFAP2A,PEG3,MEIS1,TN13,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,KAT7,RBM14,MED12L,SATB2,RIT2,MKRN2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,CSRNP3,NF1A,RNF4,ROR2,DCN,PCBD2,CDH13,CREBRF,COP5,MAD2L2,CAPRN2,NEUROD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLL3,KLF15,WNT11,MTA1,NRPRD1B,CCDC62,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,RBM5,PLAGL1,HR1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,SBNO2,FGF10,SMYD3,CAPN3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,PPARG,AXIN1,MTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,CHEK2,SUP3H,PRDM16,TRIM8,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARN2,EBF3,CASZ1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,LRP5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18B,TF15,PLAGL1,HNF4A,ZBTB7C,TASP1,ATF2,POU2F2,TCF3,RAF1,BMPR2,BMPRI1,IKZF4,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,DDX58,BRDT,RARB,NCOA1,LMO7,DVL3,TCF20,ATF3,EBF2,MAML2,TSG101,RFK2,PRDM15,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,DAB2,BLM,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HGFC13,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ARID4A,PHF2,WWOX,MEF2A,DCAF6,EYA1,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,TRIM24,PAXIP1,EGR2,RNF10,RBYP,AP3B1,KPNA6,TRIM44,ELCAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SP1,GLIS1,RBPM5,CHURC1,CREB5,BMPRI1,ZEB2,FOXJ3,HEY2,KMT2D,CREM,KMT2C,MACC1,MTF,RPTOR,NF1X,IGF1,MLXIP,ATF7IP,BMP7,PCBP2,ZNF780B,PKD2,TADA2A,NCOA3,WNT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,WDR43,ATRX,PRMT2,SMO,TCF4,SOX3,TFE3,GRIN1,JADE1,RQCD1,TF,ONECUT2,TFEC,STAT6,CDK13,SUP4H1,AGT,PBX1,MAP3K5,CREBBP,DLX1,NCF1,SHC1,SP7,RPS6KA5,ZNF484,PRDM2,NOS1,ACTN4,MC1R,EDRF1,IL18,PPARA,ARID5B,NOTCH4,CRX,PAX6,NIPBL,YEATS4,ZNF143,BRF1,TBL1X,ATF6,ETS1,MTF2,CSRNP1,HDAC2,SRAP,POU3F3,ELF2,PHIP,SP100,WWTR1,ZBTB38,BRCA2,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,TRIM37,MET,SETD3,MLXIPL,PHB,CTCF,NR6A1,ATF6B,CREB1,RGBB,BMP4,ABLIM3

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			<p> ATAD2B, PIP5KL1, LIX1L, WDFY3, UFL1, TRAK1, IDH2, CTNNB1, MPRIP, PARK2, SOD2, DACH2, METTL13, RN7SL832P, FCGR2A, FCGR2B, FCGR3A, FCGR3B, HSPA6, ARHGAP22, SMARCC1, TSNARE1, KLF17, CDHR2, IGF1R, PPARG, IARS2, NGRN, AXIN1, GARNL3, PRKAR1B, DNAH10, COX8A, MACROD1, OTUB1, CADM3, DLG5, IL18R1, IL1RL1, MYO1D, BFSPI, ADD2, CIPC, TMEM63C, MTF1, CPQ, MSR1, CELF2, CBX5, P2RY10, TRPM1, ANKRD17, CYBB, OTC, SYTL5, XK, CASKIN1, APOL3, SCAMP5, BRIPI, ANXA13, ANKRD26, CENPP, ECM2, LRPPRC, RSPRY1, SREBF2, AARS2, PFAS, TDP1, KCNJ12, RYR2, CDK11A, DYRK4, GALNT8, KCNA6, NDUF49, FBLIM1, CDK11B, DRAXIN, LEPR, LEPROT, FGF1, NIN, PROS1, RGS10, NPAT, NR4A3, DNHD1, FOXK2, WDR45B, TUBGCP6, NOL3, DCT, PRKAR2A, RIOK2, ESCO1, MPP6, MYOCD, OR52E6, OR52E8, OR52N1, TRIM5, PER2, KIR2DL1, KIR2DL4, KIR3DL1, KIR3DL2, AJUBA, HAUS4, CACNA1C, CPNE6, GLG1, ZNF626, ZNF737, SCN3B, CHEK2, SUPT3H, PHLDB1, KRT6B, UBQLN4, PRDM16, MYO1E, ASB8, PPP1CB, SPDYA, HCK, CSTL1, SLC35E4, SORBS1, TBC1D14, AGPAT4, RAB3GAP2, CAPN2, TBCK, 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NFATC1, RAB6C, SEC61B, ST3GAL3, KCNK1, PRTG, UCK2, CDC73, THOC3, APP, SSBP3, USP49, FIP1L1, GSX2, PDGFRA, AOC2, BET1L, ODF3, SLK, FCRL4, CEP85L, ADD3, RBM8A, CCNI2, DIP2B, KANSL2, NOX1, ARIH1, YAP1, HEG1, AMFR, ST6GALNAC5, RAB11FIP5, SFXN5, MYO1F, SESN1, PPCS, CDK3, TEN1, FSTL4, NLGN2, TNFRSF19, VDAC1, EYA2, SSR2, SH3D19, BORA, IBTK, SCRNI, SBK3, NVL, ALPL, JAK1, ANGPTL4, FPGT-TNNI3K, TNNI3K, PEMT, LRP5, MTCPI, MUC20, POLR3G, SEC22C, PTPRG, BDH2, ISLR2, SLC9B2, ZNF787, GNG2, SOX2, SETD2, ZDHHC6, GPC6, KIF24, TTC39C, ACBD5, ADAMTS2, CHST11, TEAD1, DEFB118, PRICKLE1, RCAN1, PLEKHA7, SSPN, ELAVL3, ZNF653, SPTBN4, GRIA3, VASH2, ZNF521, PAQR5, ELOVL2, DRD1, TMEM14A, GLRA2, ARID3A, ZNF761, CHUK, ERLIN1, FRS2, PALB2, RFT1, SFMBT1, VILL, MMP2, ZNF584, SERGEF, TPH1, ESR2, SYNE2, SI00A12, DCUN1D3, ER12, NUDT10, CPNE9, KDM6A, GTF2F2, PRKD1, STAT1, NAA25, CELF6, HEXA, PARP6, ST18, OSBPL2, DGKG, ETV5, SYBU, RHOF2B, RND3, SLC6A3, USP53, TAF3, MORN2, PLAGL1, HNF4A, ZBTB7C, LRRC2, TBCA, TASP1, SHANK2, SHPRH, CNTNAP3, STRA6, VPS4A, EREG, CCNY, TCTN3, ABLIM1, MAPKAPK3, MYOF, DSCAML1, FXYD2, FXYD6, RNU6-167P, PITRM1, SEMA6D, SLC16A12, RBFOX3, ATF2, POU2F2, TCF3, ZNF730, GRAMD4, TMEM237, KCNG4, RAF1, CELF4, RASGRF2, EPHX1, ABLIM2, SMIM20, ZNF766, ACOX2, CARD16, CASP1, PTPN1, ADAMTS12, PSMD11, RNU6-923P, SRRM4, POLA1, GGT7, BMPR2, USP33, DPYSL2, VBP1, CAMK1D, BMPRI4, ZKSCAN1, APIB1, IDO2, PABPC4, TSPAN12, NLGN1, BTBD10, COL16A1, CTNNA2, ATP9B, IKZF4, PIK3R3, CDK12, SNX16, TAF8, CAND2, CERS3, SPAG9, MORC2, DENND4A, RAB11A, CRMP1, EVC, PDE11A, EPG5, IPO9, MYB, FGF2, ZNF71, LRRC4C, POU6F2, PPA2, BACH1, GRIK1, OR6C70, MXD3, RAB24, PPM1F, UBE2R2, TICRR, ADCY5, GLI4, ZFP41, NEDD9, ABL4, BEND5, PEAK1, ADAMTS4, SEMA4D, SH3PXD2A, ARMC2, NFX1, CDC27, DOK6, HELQ, RORC, MCTP1, XPO6, ELP3, PLXNA2, PTAFR, POC1A, ADCYAP1R1, HIBADH, EEA1, FNDCA3, SP140, SP140L, SETD1A, RHOF2, YME1L1, ABCA13, JARID2, RILPL1, ANKDD1A, KLHL3, PLEKHO2, DDX58, DKK2, MRS2, SORCS2, RAB11FIP3, SLC5A8, BRDT, CHCHD6, PHC2, ITGA11, PI4KA, RARB, SPEN, PIK3C2B, PRKCG, SIN3B, SLC9B1, VIPR1, NCOA1, SPOCK1, AREL1, BLOC1S5, EE1F1E1, EE1F1E1-BLOC1S5, TXNDC5, TANGO6, GRIA2, EHMT1, GAS8, OC90, LMO7, UCHL3, ALKBH3, NMTM, AP2M1, CHRDL, DVL3, ECE2, EIF2B5, EIF4G1, EPHB3, POLR2H, PSMD2, SNORD66, PTPRE, RBX1, TCF20, RNU6-229P, SLC35D1, ANAPC5, ARHGAP39, TNPO1, ATF3, FBXO45, MUC16, TRAPPC11, LIN28B, TCEANC, TECPR2, AKR1D1, ATP6V0B, SHOC2, ZBTB80S, LMBRD1, SRSF5, STT3B, CKS1B, PAWR, TRMT61B, EBF2, AGO3, ACA1, DEPTOR, DLEC1, PKN3, FBXL20, MAML2, TSG101, DESH1, CCDC3, VCL, LAMB1, TERF2IP, WDR90, CLIC4, MYO9A, ANKS4B, CRYM, IDE, WDR59, COL11A1, KCNQ1, RFX2, WNT3, FKBP5, SUGP2, ADAMTS6, SLC2A11, C11ORF80, RCE1, B3GALNT1, ZNF322, RHOJ, P4HB, CCL14, CCL15, CCL15-CCL14, SUFU, TG, MAGEA11, SUMF1, NLGN3, PTPN13, CPSF4, PTC1, SCUBE2, ZFYVE1, PAFAH1B1, QPCTL, KIF3A, PRDM15, ZNF670, ZNF695, ADAMTS14, CCDC169-SOHLH2, SOHLH2, FAM13A, POLE, ATG4C, CNTFR, COL4A3, TRPA1, DDAH1, TRPM3, NMUR2, ZNF354C, HIP1, AKAP6, CEP350, RASAL1, TCEA3, PADI6, FDXR, CMPK1, ZNF704, BTBD9, CERS4, NR2C1, TRPC5, UBA2, EDEM3, IRS4, ME1, TLL7, GLI2, NEO1, TNKS, SCUBE1, WBP2NL, ERCC1, LPP, PXDN1, RUFY3, TNRC6B, GLIS3, GPR39, GLCE, WDC1, ALDH6A1, ZNF664, MRPS28, STON2, TPD52, MGLL, TPK1, C9, COL19A1, DAB2, THEMIS, BLM, PKHD1, XKR4, TRAM2, USH2A, UBR1, CACUL1, LDLRAD4, MYSM1, SET </p>
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			<p>D5,DZIPI,SMG5,DLG3,WNK1,GTPBP2,RELN,NEK10,SIN3A,RUVBL2,TMEM68,ABCBI,TYW1,PSMD7,OR5H2,OR5H6,OR5K4,RSPO2,COMMD6,GUCY1A2,JOSD1,CSF3R,KCNQ2,DOCK11,GMEB1,PEL1,SLC22A3,PPP2R5C,SLC25A16,CFDP1,IQGAPI,TMEM170A,SPATA18,COL6A5,SLC47A1,DCAF5,EMLA,FAM91A1,MAP3K7,APOLD1,DDX47,TAS2R41,ZNF423,SP1,OR56B1,TRIM22,MACF1,ZNRF1,ARHGAP12,MYO7A,ALK,SLC8A2,GSTM3,GSTM5,INPP5D,STAU1,TMPRSS12,CLASPI,DSC2,EEDP1,TEAD4,FASTKD5,HOXC13,UBOX5,SLC9C1,APBB3,SLC35A4,SRA1,TOPI,AGBL1,UBE2V1,MBOAT1,PADI3,TPCN1,GPM6B,ADIRF,CLIC5,XDH,AHNAK,LTPB1,OVOL2,SNORD17,SNX5,NFATC2,RBBP6,CHD1L,OR6C74,PRKG1,PAX7,RGS7,BNC1,TTL9,ATP2B4,NSF,PACRG,PARP12,SYNE3,GALNTL5,APEX2,PACSIN1,SPTBN5,ACTL6B,ASXL3,PAK3,HORMAD2,SLCO4A1,SSH2,TET1,HECTD4,MKRN3,CAMTA1,CCPG1,DYX1C1,P2RX6,PHOSPHO2,ASGR2,ATAD1,ADNP,GPR161,MAPKAPK2,NXT2,CEP41,ARID4A,MAP1B,UBE3C,C12ORF65,CDC42BPA,COLA46,MPHOSPH9,SCARB1,MARK1,CDK6,BCL7C,ATP6V0A2,PHF2,KCNAB2,CELF1,P2RY8,TYR,AIF1L,RNF34,TFRC,UVRAG,EPHA5,SORCS3,WWOX,GABRG3,ALG14,MEF2A,SYT12,CR1L,ADCY9,CACNA1A,DHX30,RBK5,NFRKB,DCAF6,DCUN1D5,DROSHA,FNBP1,GFRAL,GPC3,SGIP1,STOM,XRN1,ADRBK1,PLS3,SATB1,TBC1D5,PSMB2,ZNF207,CALD1,EYA1,GATAD2A,PTGER3,SCOC,BRINP1,CDCA3,DIS3L2,GNB3,SHPK,TRPV1,RBM12B,RNF216,TSPAN6,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,CLEC16A,GHR,MNAT1,SLC38A6,FLRT2,FGD1,PRSS12,SNX9,DIAPH2,RPGR,ARL5A,ACTR2,L3MBTL4,ACACA,ELAVL4,FAM174B,LGI4,HDAC1,HS6ST3,INVS,RECQL5,C2,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EP88,NID1,SCMH1,C1QTNF1,MRPS17,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,GAPVD1,CAPN10,GPR35,CUL2,ABCC1,AP3B1,PTPN2,INSRR,NTRK1,KPNA6,TRIM44,MYBPC2,ZFAND1,MAP1A,PKN2,PPP1R9A,TMIGD1,SLC39A10,EIF3A,ANK3,DNMBP,ACO2,HYKK,UNC13A,PTPRQ,EHHB1,MAN1B1,PDE6A,EPHA10,PTPN9,SNUPN,AXIN2,NCKAP5,SARM1,TMEM199,ATP13A3,EPCAM,PARD3,RCAN2,ZNF425,GNL3L,KRTCAP2,MUC1,PTPN14,TRIM46,TUB,DNAH12,FBXO39,SH3GL3,TEKT1,JAG2,KCND3,NUDT14,BCOR,CACNG8,AP3D1,ZNF41,KIF3C,MGAT4A,CARM1,SLC9C2,VWF,AP2B1,LDHB,NETO1,RBM26,ZNF383,PGBD5,ANXA8L1,NUDT5,ADAM19,ARHGAP44,DTD2,HEATR5A,SNX33,SRD5A2,PIFO,CAI4,FOLH1,CD84,CNTNAP5,HTR1D,LPA,ZNF616,ZNF836,SMARCA2,ARHGEF3,CUX1,HMCN1,RAD51C,SP11,DGKK,DNMT3B,EPHA7,LRRC47,CHRN4,FOX2,MCU,ANBP10,CUZD1,PTPRA,VPS16,AGPAT3,PPFLA4,CTNNA1,LIMA1,AIFM2,FBXW4,MRPS24,PSPC1,URGCP,ACAP2,GLIS1,SFMBT2,TRDN,ATG14,EIF3H,GABRA6,LRRRC8C,LRRRC8D,LY86,SNORA35,STAC,BCAR3,JAZF1,RNU6-799P,ILDR2,SHROOM3,STK38,TRPC6,ABC7,ACOT8,RBPM5,RENBP,SLC41A2,NTMT1,CHURC1,CREB5,FCHSD2,MAP3K13,OTUD3,RAB15,RAPGEF3,SDK1,ADAMTS17,PDXP,SH3BP1,MST1,RNU2-47P,KAZN,ATP13A5,ERCC3,PTK7,RSRC1,SMYD1,N4BP2,NHSL2,SNCA,BMPRI1B,H AUS3,POLN,CACNG2,CD53,GRM4,MAGI2,PRIM2,TBC1D9,USP42,PNPT1,USP50,ZEB2,DHRS4,MCMBP,CABLES1,FOXJ3,NADK,OCA2,SLC39A9,SYT9,HEY2,RC3H1,CHMP3,COL13A1,EIF3E,HYDIN,RNF103,RNF103-CHMP3,RNU6-640P,CNGA3,RNF19B,SLC22A10,WNT7B,HMGCS2,PTPRS,ADAMTSL3,ZMYND11,KMT2D,PRKAG1,CDKL1,CREM,PSMF1,RAB5B,OSBPL1A,KMT2C,SULT2A1,TLL2,UBE2QL1,CAST,TRIP12,DFFA,GGPS1,SPPL2A,ADTRP,ABCA12,GNG7,CSRPI,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,CABIN1,RBM45,HIPK1,NUGGC,PKP2,RPTOR,RTN4RL1,NFIX,BTK,SGCZ,SIGLEC9,PCDH11X,TBC1D16,XPO4,DSG1,VPS41,ZNRF3,ASPHD1,KCTD13,MLLT1,SLC4A8,TROVE2,ZZZ3,CBF42T2,IGF1,MLXIP,PLA2G4E,STX8,ATF7IP,CADM2,CTNBNL1,HTT,DPYSL3,LARS2,MAPK1,PTEN,ARHGEF17,CLDN11,MIB1,SLC7A14,SPRED2,IFFO1,SLC30A7,BMP7,SCN8A,PCMTD2,ATXN2,MXI1,PIK3C3,PUM1,RASA2,SOX5,CIR1,LHFPL5,NUP88,PCBP2,TLL4,PRCP,RAB30,ZNF780A,ZNF780B,LRRK2,ATP6V1A,MLYCD,OSGIN1,SEPT6,GNA14,MEGF11,TMEM59,ZRANB1,ALDOC,EBAG9,PIGS,SPAG5,UNC119,ZBTB20,CHMP5,CNH3,RAPH1,RFC3,BAG6,CHAF1B,LILRB4,MORC3,SLC44A1,IFT81,TMCO1,TMEM108,IPCEF1,ITGAM,ARHGAP25,GALT,IL11RA,MSRB3,NSG2,PKD2,ZNF652,BLVRA,EFNA5,HSF2BP,SHANK3,SRRM1,KCTD1,STMN4,RIPPLY1,SEL1L2,MIA2,NT5E,RCOR3,IDH3B,TADA2A,NT5DC4,DAZL,BTBD11,RGS9,ALPK3,AOX1,PDGFC,SERPINA3,SERPINA4,SERPINA5,SPTLC3,AMOTL1,ATP8B4,FAM13B,NCOA3,PKIB,MTMR3,ZNF146,ZNF565,HS2ST1,SGSM1,STEAP4,PPP2R3C,TBCD,TMCC1,WNT7A,ZBED6,ZC3H11A,SNAP23,BRWD3,NLRP1,PEPD,RPS6KC1,UACA,LPGAT1,MAP4,CRTC3,DNAJC1,EPDR1,GPR141,NME8,ARNTL2,CEP89,ELOVL5,GLDC,PLCL2,WDR5B,KAT6A,MTIF2,GPR21,RABEP1,SH3PXD2B,TTC28,POM121C,RHOT1,SIK3,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,ANO1,GPI,PDCCD2L,ANO8,IL17RD,SH3RF2,SNRNP40,SOS1,TSHR,WDR43,ZNF30,EXT1,DYI19L4,N4BP1,PDCCD1LG2,ATRX,DPH6,PRICKLE2,SERINC5,GABRR2,IKZF1,PARVB,PNPLA3,SAMM50,C8ORF44-SGK3,PRMT2,RAPGEF2,ASCC1,ABCG2,CDH9,KCNC2,MTHFD2L,RNU6ATAC31P,SMO,SLC6A14,VRK3,FARI,RALY,AMPD1,ENPP3,GET4,SUN1,LSG1,ACADSB,ALG9,BLOC1S3,FDXACB1,GEMIN7,MARK4,PRKAR2B,STXBPSL,DYI19L1,CPT1A,MYLPF,PSEN2,TCF4,TNFRSF11B,PAG1,GALNT10,SYT17,UBE2H,BPGM,DECRI,SOX30,DNAJC6,TFE3,UBR5,GRB14,GRIN1,JADE1,KCTD8,ARRDC4,BBS9,RHOA,SPRTN,WSB2,OR4M1,OR4N2,SYNGAP1,VIPR2,GRIN3A,MCM3,NDE1,ROR1,RQCD1,TF,ONECUT2,RHOBTB1,ESYT2,FAM19A4,SHROOM1,CKMT1B,CUL3,SH3KBP1,TFEC,H</p>
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			<p>SPD1,ITPR2,NFKBID,PCCA,TSPAN33,EPM2A,ESF1,GABRB3,GSK3B,ABCG8,PLD2,PRR16,DNAJC3,EMB,GNG12,RDX,STAT6,ACTA2,SYN1,MLF1,EEF2K,FAM49B,IW51,PPP1R16A,PTPRB,RBBP8,CCDC14,NECAB2,CDK13,PGGT1B,ALAS2,STK32B,UPF2,CD27,DUSP26,ITGBL1,MCTP2,SCN9A,TAPBP1,VAMP1,BOK,RNF144B,SULF1,MTHFD1L,ZNF362,KRT8,NACC2,RNF43,SUPT4H1,TNFRSF8,ZNF354A,AGT,HDGFRP3,METTL16,CCNJL,CDH20,ELOVL3,POLH,PRKAA2,SYT7,ADAR,BLOC1S6,CUL9,FBN2,POLR2F,ESPNL,PITPNM2,STAT2,ZMPSTE24,BRINP3,FGGY,HRH4,NDRG2,PTK2,TPPP2,ARMC8,UTF2E1,HEPHL1,LAT2,PEX5L,PHOX,PPCDC,RNF121,SNX3,EXOC6B,FREM3,PDE4B,RIMS2,COX5A,PBX1,TCP11,TEC,DCAF10,EXOSC3,FBXO10,SHB,SLC25A51,TOMM5,VEPH1,CDC14A,COPG2,GAP43,MAP3K5,RNU6-1056P,CPE,SEC16B,TCFL5,TRPC4AP,CREBBP,TIMM44,IQGAP2,PRKD3,FAM171A1,LMTK3,UTP20,XVLB,ACSS3,APCDD1L,ARVCF,COL9A1,DLX1,FMOD,INSL6,PCSK6,CHKA,COL21A1,SLC25A42,VEZT,CEP70,UTF2IRD2,NCF1,SLC29A1,TAOK2,UGT1A1,UGT1A10,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9,PYGO2,SHC1,NDUFS2,SLC44A3,ZNF813,ALDOA,ARHGAP15,CD160,ECE1,KCNJ15,LBX2,PARP10,PDXDC1,RNF11,RPS6KB1,SLC5A10,STC2,YLPM1,ZDHHC23,DPRX,KIF6,RSBN1,SF3A1,GALNT13,GPR173,GUCY2F,PGM5,PRG3,CALCEL,SERPINB11,SETDB2,ANKS1A,ITGAL,ALOX5,CPLX2,DNAJB6,FBXO28,MDGA2,SP7,CD44,FGD3,LARP4,ADAM8,DBT,FKBP14,MRPS6,NOL10,SLC5A3,ARFGAP3,CLDN4,PACSIN2,RPS6KA5,SNHG14,SNORD109B,SNORD115-16,SNORD115-19,SNORD115-35,SNORD115-48,SNORD115-5,SNRPN,ZNF484,BCL2L14,CDS1,MUC7,THSD7A,ZNF93,CSNK1A1,GRID1,HUS1,PKD1L1,PRDM2,SLC25A18,COX5B,CXCL17,FCRL6,FGD4,MON2,NOS1,PEX7,ZNF44,GCKR,TBC1D23,MED15,PLEKHA1,PLVAP,RGS14,SIPA1L2,ACTN4,ARHGAP11A,COG4,MC1R,SCNN1B,STK4,TCF25,TUBB3,ZFAND6,DRAM1,ZNF282,MARK3,SPEF1,THSD7B,COX6A1,EPHB2,GATC,SLC1A1,TTL11,WLS,EDRF1,MARCH8,SIGMAR1,TMEFF2,XCR1,BCO2,CLPTM1,FRMD4B,IL18,PCMT1,SDHD,TEX12,DTNA,LRRC52,MFSD8,ASF1B,TPMT,UBE2K,GPSM2,DNAJC7,HCAR1,HCAR2,HCAR3,DIS3,DLC1,FBXL13,PPARA,PPP1R10,ABCD3,ARID5B,GRTP1,PDP1,CALCR1,MCOLN1,PNPLA6,STEAP3,EPB41L4B,SLC25A33,SMARCA1,TAF2,PHLPP1,CCDC6,KPN4,MAGI3,PPIL6,PRRC2C,CPEB4,GPSM3,LDHC,MOB3B,NOTCH4,SYTL4,ZMYND8,ZNF366,ACP1,CRX,CYP2C18,CYP2C19,FBN1,RNF150,PAX6,PRKCZ,ZC3H4V1,ATP1A3,CD96,FAM20C,ADORA2A,SPECC1L,SPECC1L-ADORA2A,RBMS1,GRIN2B,KCTD7,MAN2B1,PAH,PPP1CC,RABGEF1,STAG1,WDR830S,CCNG2,COL22A1,CPEB1,PHLDB2,PLCXD2,TMEM161B,TYK2,OTUD7B,CNTN3,DENND4B,KIN,KLC3,KLHL1,NIPBL,TMIGD2,YEATS4,CNRI1,CNRI2,CNRI3,PCDH10,PHF20,THSD1,UPB1,ZNF143,ASPN,ANGPT1,BRF1,CADPS,PACS2,TBL1X,EYA3,FHL2,FRMPD1,LRRK1,MBTD1,OSBPL8,TRMT2B,ATF6,SHROOM4,ZBTB5,ZNF708,IGF2BP3,EPB41L2,L2HGDH,NT5M,SLC25A26,SLCO2B1,GCNT2,ETS1,HACL1,PP1CA,TBC1D10C,VWC2,ARHGAP21,GRIA4,MAP2,MTF2,RBMS3,BIN2,CCL22,STPG1,BTN3A2,KIFC3,NEBL,RPIA,TAGLN3,FBXO31,ATG3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,LGI2,MDN1,BRAF,CSRNP1,DIAPH1,HDAC2,HTR2C,IMPACT,SIL1,TNS4,ATP8A1,FKBP3,PHKG2,SRAP,CAPN6,POU3F3,NOTO,PPP1R14A,SPINT2,TNR,MBNL3,TMEM163,UBE2E2,ZKSCAN5,CLTB,HIGD2A,UQCRC1,UQCRC2,C18ORF25,CD300A,ELF2,IRAK1BP1,MOXD1,PHIP,CDKL3,EMC3,PPP2C4,SKP1,SLC26A2,ANGPT4,ARHGEF6,DNAJC9,FAM149B1,MAOA,MRPS16,RPL23,SH3BP4,RFC5,ACAN,ATXN1,CAMSAP3,DCDC1,SP100,ZNF347,ZNF415,OPN1LW,REV3L,VTI1A,ANXA2,CHCHD3,FAT2,SNTG1,TRIM29,KCND2,PARN,ATP6V0A1,PIGU,PRMT7,RAB27B,C1QTNF9,CR2,CRYZL1,DONSON,FCRL2,ITSN1,NUP214,PITPNM3,FARSB,SRGAP2,TMEFF1,WIP1,ADCY1,ALG2,MADD,NUMB,RBM42,SLC18B1,SQLE,SYK,CNOT1,MOGAT2,RBM39,WWTR1,ARHGAP19,CYP39A1,GRIK2,UTF2H5,SCN1A,SLIT1,ASB1,FRMD5,NFXL1,CIT,MYRIP,PAPOLB,RAB2A,RADIL,SEC31B,SLC44A5,UBAP2L,ZBTB38,BRCA2,HRK,RAP1GAP2,ALDH8A1,ATF7,CACNG3,DNAH3,DVL2,MORC1,MTRF1,NEB,YBX1,ANKRD13A,GRIPI,PTPRJ,SLC10A1,TAF1,ATP2B3,EIF4E3,GPRIN3,PPME1,TICAM1,RNF38,TANK,THAP3,ERGIC1,GPM6A,OSBP2,PFKFB4,RIMKLA,UCN2,GALNT7,ITGAE,MYO14,NSUN6,SNAPC3,TAC3,A3GALT2,PLEKHB2,SLC13A3,SLC2A12,CADM1,HSF1,MAX,SAP130,CNIH4,DHFR,EZH1,POP1,ANKRD30BL,ETF1,INPP5A,NRF1,RNGTT,SRPK2,ANKRD13C,ATP10B,PLEKHM1,SASH1,HGSNAT,ASAP1,NCOA2,ADAMTS7,CEPT1,RALGAP1,SLC5A4,GBP5,MCM8,SULT2B1,WDR18,BMP1,BMS1,CGNL1,EEFSEC,FCHO1,GEMIN6,QRICHI,VAV3,ZP3,CHD6,DLGA2,PCNA,PCNA2,PCNA3,PCNA4,PCNA5,PCNA6,PCNA7,PCNA8,PCNA9,PCNA10,PCNA11,PCNA12,PCNA13,PCNA14,PCNA15,PCNA16,PCNA17,PCNA18,PCNA19,PCNA20,PCNA21,PCNA22,PCNA23,PCNA24,PCNA25,PCNA26,PCNA27,PCNA28,PCNA29,PCNA30,PCNA31,PCNA32,PCNA33,PCNA34,PCNA35,PCNA36,PCNA37,PCNA38,PCNA39,PCNA40,PCNA41,PCNA42,PCNA43,PCNA44,PCNA45,PCNA46,PCNA47,PCNA48,PCNA49,PCNA50,PCNA51,PCNA52,PCNA53,PCNA54,PCNA55,PCNA56,PCNA57,PCNA58,PCNA59,PCNA60,PCNA61,PCNA62,PCNA63,PCNA64,PCNA65,PCNA66,PCNA67,PCNA68,PCNA69,PCNA70,PCNA71,PCNA72,PCNA73,PCNA74,PCNA75,PCNA76,PCNA77,PCNA78,PCNA79,PCNA80,PCNA81,PCNA82,PCNA83,PCNA84,PCNA85,PCNA86,PCNA87,PCNA88,PCNA89,PCNA90,PCNA91,PCNA92,PCNA93,PCNA94,PCNA95,PCNA96,PCNA97,PCNA98,PCNA99,PCNA100,PCNA101,PCNA102,PCNA103,PCNA104,PCNA105,PCNA106,PCNA107,PCNA108,PCNA109,PCNA110,PCNA111,PCNA112,PCNA113,PCNA114,PCNA115,PCNA116,PCNA117,PCNA118,PCNA119,PCNA120,PCNA121,PCNA122,PCNA123,PCNA124,PCNA125,PCNA126,PCNA127,PCNA128,PCNA129,PCNA130,PCNA131,PCNA132,PCNA133,PCNA134,PCNA135,PCNA136,PCNA137,PCNA138,PCNA139,PCNA140,PCNA141,PCNA142,PCNA143,PCNA144,PCNA145,PCNA146,PCNA147,PCNA148,PCNA149,PCNA150,PCNA151,PCNA152,PCNA153,PCNA154,PCNA155,PCNA156,PCNA157,PCNA158,PCNA159,PCNA160,PCNA161,PCNA162,PCNA163,PCNA164,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			SA6,TNXB,TRAP1,AFF4,CCDC170,CLNK,EBF4,EDNRA,NGGT1,HADHA,PRAP1,SLC25A13,STXBP6,ZNF511,BMP4,ABLM3,CASP12,CPNE1
GO:0018130	heterocycle biosynthetic process	1.0918870064896365e-9	ENPPI,PRDX2,LDB2,ASPH,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PAGR1,ADCY7,HIVEP3,NPAS3,ARNT,LRRFP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTFC1,EZR,IKZF2,CHD7,MECOM,TACCI,TENM1,NADK2,TRAF6,UTF2E2,DNAJA3,NHLH1,HSP90AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,MOCOS,GMDS,GFI1B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,CID,AF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,PRPS2,MED12L,STATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,POLA2,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,COPS5,AK2,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,TERF2,ZNF286A,NME7,FOXN3,AK5,NEUROD1,USP22,JAK2,TRAPP9,SKAP1,UMC1,ITCH,MLIP,BCL11B,IMPDH1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,NFATC3,POLK,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BCL3,NDI1,DUSP22,HNRNPC,TRRAP,SBNO2,FGF10,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXIN1,IL18R1,CIPIC,MTF1,CBX5,BRIP1,SREBF2,PFA5,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,CPOX,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,TPH2,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBXI,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTII2,NFATC1,UCK2,CDC73,APP,SSBP3,GSX2,YAP1,PPCS,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,TPH1,ESR2,S100A12,UTF2F2,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAFI,ABLM2,ZNF766,CARD16,POLA1,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,IDO2,IKZF4,CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,RARB,SPEIN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POLR2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,MAML2,TSG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,CMPK1,ZNF704,NR2C1,MEI,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,WDTC1,ZNF664,TPK1,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,RELN,SIN3A,RUVBL2,COMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SRA1,UBE2V1,ADIRF,OVO12,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,TFRC,EPAH5,WWOX,MEF2A,ADCY9,DCAF6,XRNI,ATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,HDAC1,RECL5,SMOC2,TRIM24,PLCG2,SCMH1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,ABC7,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN,PRIM2,ZEB2,FOXJ3,NADK,HEY2,ZMYND11,KMT2D,CREM,KMT2C,MACC1,MITF,OPRD1,RPTOR,NFIB,BTK,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,MXI1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ATP6V1A,MLYCD,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,ELOVL5,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,ASCC1,MTHFD2L,SMO,RALY,AMPD1,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,BBBP8,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,ELOVL3,POLH,POLR2F,STAT2,ZMPSTE24,UTF2E1,PPCDC,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,UTF2IRD2,NCF1,SHC1,ZNF813,ALDOA,LBX2,PARP10,DPRX,GUCY2F,PRG3,SETDB2,ALOX5,DNAJB6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,TEX12,PARA,ARID5B,SLC25A33,SMARCA1,TAF2,LDHC,NOTCH4,ZMYND8,ZNF366,CRX

			,PAX6,PRKCZ,ADORA2A,OTUD7B,NIPBL,YEATS4,PHF20,ZNF143,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,SLC26A2,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,ADCY1,SYK,CN OT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAFI1,TICAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,DHFR,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,EBF4,SLC25A13,ZNF511,BMP4,ABLIM3
GO:0008104	protein localization	1.179043935706782e-9	CD247,DNAH11,ZDHHC14,HOKK2,BLZF1,GPC5,NRXN1,ASPH,PRKCI,ADCY8,CLASP2,GRID2,CLDN18,CTDSPL2,LATS2,LRP1B,ASTN2,EPB41,DPP6,MAPRE2,TJP1,MVP,SEC23B,SNX31,RAB4B,RAB4B-EGLN2,LHFPL4,FAM53A,MARVELD3,CCDC93,KCNIP4,CEP128,LRP2,TNPO3,HDGF,ANK2,EZR,XRCC4,TOM1L1,TENM1,KIF5C,LMNA,SRP72,AFM,NFASC,DNAJA3,ITGB1,HSP90AA1,MCC,CCDC22,FAM126A,CDAN1,CNGB1,DLG2,PTPRK,ABCC8,ERC1,HMGN3,AFTPH,STXBP4,IMPG2,EFCAB7,TCIRG1,PTPN11,CCT2,CACNB2,HDAC6,GOLGA4,ADORA1,IKKBK,PEX14,ERBB4,GBF1,TLK1,ESR1,DPPI1,ICAI,PAD4A,STX18,FNTA,HOKK3,VPS45,RIMS1,TNIK,SNX2,MID1,FMN2,ATP8B1,H2AFY2,TCF7L2,SCAMP4,MYOM1,SPTSSA,BDNF,SFT2D1,ECT2,SNX6,CHML,VAMP7,PTPRU,FTN1,AP3S1,NPLOC4,DMD,CENPF,RANBP17,ATG10,KAT7,GSN,RIT2,FYN,ARNTL,ADAMTS9,NF1,LMTK2,STX6,RTN4,GOLGA2P5,APOD,VT41,BCR,TTN,ICAI,PAQR3,PIK3R2,KLHL21,BID,MDF1,RAPGEF6,MYH9,MAD1L1,TMEM30A,SYNE1,PARD3B,SCFD2,ZDHHHC3,LIN7A,SCFD1,CREBRF,EXOC4,IPO5,MAN1A1,RAB27A,MTX3,RAB3C,COG8,TERF2,TMED6,GOLPH3L,RCC2,ARL3,NEUROD1,IPO11,PARP11,DE NND1A,ZDHHHC15,JAK2,FBXW7,KCNB2,OAZ2,SKAP1,CROCC,SNAP25-AS1,PLS1,DENND2A,SEPT7,TTC7B,LAMTOR3,KPNA3,CTAGE6,WNT11,IFT80,VPS13B,IMMP2L,PRKCD,CD4,TGFB1,BANP,PCSK5,NUP93,PIBF1,PTPRN2,F2RL1,BCAS3,DNAJB2,CELSR1,AAK1,CADPS2,CORO1C,DISC1,CEP135,ZFAND2A,GRPEL2,ANK1,TTBK2,CHRM1,CLOCK,BCL3,DCLK1,RABGAP1L,FGF10,CNTNAP2,CIZ1,S MYD3,STXBP5,CAPN3,SLC16A1,VMP1,SNX8,CNR1,PPP3CA,UFL1,TRAK1,CTNNB1,PARK2,RN7SL832P,TSNARE1,PPARG,DLG5,MYO1D,MSR1,SYTL5,SCAMP5,ANX A13,SREBF2,RYR2,LEPROT,NIN,WDR45B,AGAP1,TRIM5,PER2,AJUBA,SCN3B,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,OBSN,NF2,SPTBN1,AP3B2,SFRP1,ARL13B,CCDC91,IFT122,RANBP3,SNX14,SMAD3,RAB6A,WWP2,WIP1,MTBP,VPS39,GRIK5,LZTFL1,SHANK1,NEDD4,ARHGEF18,KPNB1,VPS53,RAB6C,SEC61B,BET1L,YA P1,HEG1,RAB11FIP5,NLGN2,SSR2,BORA,NVL,JAK1,LRP5,SEC22C,SLC9B2,SETD2,ZDHHHC6,GPC6,PRICKLE1,SPTBN4,DRD1,SERGEF,PRKD1,TAF3,HNF4A,VPS4A,PITRM1,ATF2,RAF1,PTPN1,AP1B1,NLGN1,SNX16,TAF8,RAB11A,IPO9,RAB24,PPM1F,ADCY5,XPO6,RILPL1,SORCS2,RAB11FIP3,TANGO6,GAS8,AP2M1,TNPO1,TE CPR2,LMBRD1,TSG101,DES11,VCL,TERF2IP,ANKS4B,SUFU,PAFAH1B1,KIF3A,ATG4C,HIP1,AKAP6,CEP350,PAD16,TNKS,RUFY3,DAB2,TRAM2,USH2A,DZIP1,DLG3,RELN,SIN3A,RUVBL2,FAM91A1,PLEKHF2,ZNF423,TRIM22,MACF1,MYO7A,APBB3,NBEAL1,GPM6B,LTBP1,SNX5,ATP2B4,NSF,PACRG,SYNE3,PACSIN1,ATAD1,NXT2,CEP41,KCNAB2,TFR,EPHA5,GPC3,STOM,TBC1D5,SNX9,RPGR,ARL5A,ROCK1,EGR2,GAPVD1,CAPN10,AP3B1,LRBA,KPNA6,ZFAND1,MAP1A,ANK3,PTPN9,SNU PN,AXIN2,PARD3,GNL3L,PTPN14,TRIM46,TUB,CACNG8,AP3D1,AP2B1,ARHGAP44,HEATR5A,SNX33,SP11,MCU,VPS16,CTNNA1,STAC,ILDR2,SHROOM3,FCHSD2,RAB15,RAPGEF3,ERCC3,CACNG2,MAGI2,TBC1D9,SYT9,HEY2,CHMP3,RAPGEF2,SMO,GET4,S UN1,LSG1,BLOC1S3,MARK4,STXBP5L,CPT1A,UBR5,ARRDC4,BBS9,SYNGAP1,HS PD1,TSPAN33,EPM2A,GSK3B,RDX,CCDC14,NECAB2,AGT,PRKAA2,SYT7,ADAR,B LOC1S6,FBN2,PEX5L,SNX3,EXOC6B,RIMS2,TOMM5,COPG2,CPE,SEC16B,TIMM44,GTTF2IRD2,NCF1,TAOK2,ZDHHHC23,ITGAL,ALOX5,DNAJB6,ADAM8,SLC5A3,ARFGAP3,PACSIN2,MON2,PEX7,GCKR,PLEKHA1,ACTN4,COG4,STK4,ZFAND6,EPH B2,SLC1A1,WLS,GPSM2,HCAR2,PPP1R10,GRTPI,CALCRL,MCOLN1,STEAP3,KPN A4,SYTL4,FBN1,PAX6,PRKCZ,ADORA2A,RABGEF1,WDR83OS,PHLDB2,OTUD7B,NIPBL,ANGPT1,CADPS,PACS2,FRMPD1,OSBPL8,EPB41L2,HACL1,TBC1D10C,ATG3,BRAF,DIAPH1,SIL1,TNS4,CLTB,EMC3,SKP1,FAM149B1,RPL23,SH3BP4,CAMS AP3,SP100,VTI1A,TRIM29,PIGU,RAB27B,ITSN1,NUP214,WIP1,NUMB,SYK,WWTR1,GRIK2,MYRIP,RAB2A,SEC31B,BRCA2,CACNG3,DVL2,YBX1,ANKRD13A,GRIPI,CNIH4,ANKRD13C,PLEKHM1,GBP5,MCM8,CGNL1,MLPH,RAB37,AKTIP,EPS15,DE NND4C,TBC1D10A,NBEA,SNX1,ZDHHHC11,ZDHHHC11B,EHD2,TRAPPC8,CCT3,NE DD4L,NDC1,RPH3A,GPR89A,CTCF,RAB28,SYNDIG1,TSPAN5,VPS52,TRAF3IP2,S GTB,SHISA6,EDNRA,NGT1,BMP4,ABLIM3
GO:0016049	cell growth	1.4793833386135852e-9	ENPPI1,LLPH,SLC9A1,CLASP2,SEMA3A,NRG3,SEMA3D,EGLN2,SEMA5A,PLCE1,M AP2K5,OLFM1,CDKL5,ITGB1,HSP90AA1,DSCAM,AKAP13,IL17RB,HDAC6,GOLG A4,SERTAD2,LIMK1,RIMS1,CDH4,BDNF,RTN4,RTN4R,NTN1,NRG1,BDKRB1,VGL L4,CSNK2A3,MAD2L2,CAPRIN2,SYT1,ITCH,CYFIP2,WNT11,SEMA5B,TGFB1,SGK1,DNAJB2,SLIT3,SLIT2,DISC1,ITSN2,DCLK1,AUTS2,GNG4,MAG,CTNNB1,PARK2,C DHR2,PPARG,CDK11A,CDK11B,DRAXIN,NIN,MYOCD,CPNE6,DCC,CTDP1,SPG1

			<p>1,SFRP1,MUC12,SMAD3,SYT3,NRP2,CDC73,APP,DIP2B,FSTL4,ISLR2,ESR2,DCUN1D3,CPNE9,HNF4A,SEMA6D,BMPR2,DPYSL2,SPAG9,RAB11A,SEMA4D,SPOCK1,EIF4G1,TSG101,VCL,WNT3,NLGN3,PAFAH1B1,AKAP6,RASAL1,TRPC5,RUFY3,DA B2,SIN3A,IQGAP1,MACF1,ADNP,MAP1B,DCUN1D5,UNC13A,TRIM46,SMARCA2,E PHA7,MAP3K13,PTPRS,KMT2D,RPTOR,IGF1,OSGIN1,EBAG9,RAPH1,TMEM108,E FNA5,EXT1,PRMT2,SYT17,JADE1,RHOA,EPM2A,GSK3B,AGT,RIMS2,TAOK2,PPAR A,SLC25A33,PRKCZ,MAP2,PRKCQ,IMPACT,TNR,CDKL3,PPP2CA,SH3BP4,SLIT1, PTPRJ,CAMK2D,KDM2B,SEMA3C,NEDD4L,PHB,SH3GL2,EDNRA,CPNE1</p>
GO:0042221	response to chemical	1.739492151853541e-9	<p>ENPPI,PRDX2,NRXN1,ASPH,GSS,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,SEMA3A,IL31RA,TAS1R2,RPS6KA2,PTGFR,CALR3,CLDN18,CTDSPL2,RYR1,NRG3,LATS2,SEMA3D,MYOT,NREP,PTGIS,TJP1,UNC5C,OR5P2,OR5P3,PRLR,PAGRI,ADCY7,KALRN,NTRK3,CBL,ARNT,EGLN2,SEMA5A,FLT3,STAT5B,ENPP2,GRM5,SAMHD1,FER,CASK,MAP2K5,LRP2,PIK3CD,HDGF,ANK2,EZR,NRXN3,ROBO1,CHD7,SLC26A6,HTR2B,ITGB6,RYR3,KIF5C,LMNA,GOT1,LPO,TRAF6,ROBO2,NFASC,ITPKB,DNAJA3,OXR1,ERCC6L2,ITGB1,HSP90AA1,ELMO2,CDC6,PSMB7,SLC22A8,DSCAM,CNGB1,TRIO,DLG2,PTPRK,ABCC8,HMGN3,NRIP1,DNAJB14,THRB,STXBP4,PDE4A,LAMA2,IL17RB,TCIRG1,PTPN11,HDAC6,MSRA,ADAMTS1,EPHA1,IKKBK,ERBB4,GBF1,BRD8,ESR1,PMEPA1,PTPRO,NTRK2,EP300,CPNE4,FNTA,PDGFB,CACNA1B,CCND3,USP46,ALOX5AP,BPI,STK39,INSR,FMN2,UNC5D,LAMA3,TCF7L2,PIP4K2A,CDH4,CAB39,PAK1,LITAF,ESRRB,EGLN3,TBR1,BDNF,TFAP2A,AMIGO1,KCNMA1,CHRM3,FUT8,OR2T3,TRIM13,UBR2,HLC5,LCK,MDM4,IL5RA,ECT2,SNX6,CST2,PTPRU,RFTN1,ERN2,LSP1,AP3S1,NPLOC4,AFF3,DMD,CENPF,USP13,KAT7,SLC8A1,GSN,RBM14,RBM4,SATB2,FYN,ARNTL,NF1,PLCB1,MGMT,RTN4,RXFP1,DPEP1,CHRD1,APOD,BCR,RWDD3,CHI3L1,CCDC141,TTN,PIK3R2,ADAMTS1,NTN1,NRG1,CDK19,BDKRB1,BDKRB2,DOCK8,MAP2K1,STM1,TMBIM6,PPP2CB,CNTN4,HDAC5,OR6N2,RNF4,CMKLR1,ROR2,DCN,SLC39A14,SCFD1,DOCK2,CDH13,CREBRF,TRDMT1,PTPRT,ACSBG1,COP55,IPO5,MAN1A1,RGS8,DEFA1B,DEFA3,F5,PTGER2,STIP1,BOC,ANO6,NEUROD1,GNAQ,RFFL,CCBE1,JAK2,MYPN,YTHDC2,FBXW7,SYT1,BCL11B,CLDN1,TCF7,PDE2A,KLF15,LAMTOR3,CYFIP2,WNT11,NOX4,LCOR,CACNA1H,SIAH1,IL1RAPL1,CCDC62,ADAM23,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,SEMA5B,CD4,PPM1E,TGFB1,SGK1,MMP28,BTRC,PTPRN2,F2RL1,BCAS3,DNAJB2,SLIT3,ZFYVE9,SLIT2,TP73,ITIH4,GABRB1,SYT13,HP,OR9A4,KANK1,ZFAND2A,LAMC2,MTDH,CHRM1,OR51A7,OR51F2,OR51T1,SMAD6,RXFP2,CLOCK,ZNF675,BCKDHB,KCNH1,BMPER,TIMP2,DAPK2,PARVA,DUSP22,GPR52,NAIP,HOMER2,SBNO2,YTHDF1,FGF10,RASA4,RASA4B,SMYD3,ENAH,IL1RAPL2,GLP2R,ADCY2,CAPN3,SLC16A1,SMURF2,EPHA4,RORA,PRKCA,CNRI,CD6,TNFSF11,PPP3CA,HBE1,OR51B2,OR51B4,OR51I1,NFYB,UFL1,CTNNA1,PARK2,SOX2,FCGR2B,HSPA6,SMARCC1,IGF1R,PPARG,AXIN1,IL18R1,IL1RL1,MTF1,MSR1,CYBB,OTC,BRIP1,SREBF2,RYR2,DRAXIN,LEPR,LEPROT,FGF1,RGS10,NR4A3,NOL3,MYOCD,OR52E6,OR52E8,OR52N1,TRIM5,AJUBA,CPNE6,GLG1,CHEK2,PRDM16,HCK,SORBS1,CAPN2,DIO2,DCC,FLT4,HDAC4,PAX2,CPOX,SFRP1,FOXO3,TPH2,ARL13B,CNTN6,NFIB,SSH1,SYNCRIP,SMAD3,RNFT2,CUX2,PTPRM,ACKR2,GRIK5,SHANK1,SYT3,IFNAR1,OR14K1,NEDD4,NRP2,PREX1,DOCK4,ESRRG,TAB1,SLC6A1,RAB6C,SEC61B,CNK1,PRTG,CDC73,APP,PDGFRA,AOC2,NOX1,YAP1,AMFR,RAB11FIP5,SESNI,TNFRSF19,RNLS,ALPL,JAK1,LRP5,SLC9B2,GNG2,SOX2,SETD2,CST11,DRD1,GLRA2,CHUK,ERLIN1,FRS2,MMP2,ESR2,S100A12,CPNE9,PRKD1,STAT1,ST18,ETV5,SLC6A3,HNF4A,SHANK2,STRA6,EREG,MAPKAPK3,DSCAML1,SEMA6D,ATF2,RAF1,EPHX1,CARD16,CASP1,PTPN1,ADAMTS12,GGT7,BMPR2,USP33,DPYSL2,CAMK1D,BMPRI1A,TSPAN12,NLGN1,COL16A1,PIK3R3,CRMP1,EPG5,FGF2,BACH1,OR6C70,PPM1F,ADCY5,SEMA4D,RORC,PLXNA2,PTAFR,ADCYAP1R1,JARID2,DDX58,RARB,PRKCG,NCOA1,EEF1E1,CHRD,EIF2B5,EPHB3,PTPRE,RBX1,ATF3,SHOC2,SRSF5,STT3B,PAWR,ACAA1,CCDC3,CLIC4,IDE,KCNQ1,RFX2,WNT3,P4HB,CCL14,CCL15,CCL15-CCL14,PAFAH1B1,CNTRF,COL4A3,TRPA1,DDAH1,AKAP6,RASAL1,NR2C1,EDEM3,IRS4,ME1,GLI2,NEO1,ERCC1,PXDNL,WDC1,DAB2,BLM,UBR1,LDLRAD4,WNK1,RELN,SIN3A,RUVBL2,ABCB1,OR5H2,OR5H6,OR5K4,CSF3R,PELI1,IQGAP1,SLC47A1,MAP3K7,ZNF423,SP1,OR56B1,ALK,GSTM3,STAU1,SRA1,TOPI,XDH,LTBP1,OVOL2,SNX5,NFATC2,OR6C74,RGS7,ATP2B4,PACRG,PAK3,DYX1C1,P2RX6,ADNP,MAPKAPK2,MAP1B,COL4A6,SCARB1,ATP6V0A2,TYR,TFRC,EPHA5,WWOX,MEF2A,SYT12,CACNA1A,GPC3,XRN1,ADRBK1,PSMB2,BRINP1,SHPK,TRPV1,GHR,MNAT1,FLRT2,ACTR2,ACACA,ELAVL4,HDAC1,RECQL5,C2,SMOC2,TRIM24,ADIPOR2,PLCG2,ROCK1,EPS8,EGR2,CAPN10,GPR35,ABCC1,PTPN2,INSRR,NTRK1,TRIM44,ZFAND1,ANK3,EPHB1,MAN1B1,EPHA10,AXIN2,SARM1,TMEM199,CARM1,SRD5A2,HTR1D,SPI1,EPHA7,CHRN4,MCU,PTPRA,CTNNA1,AIFM2,ACAP2,LRRCS8C,LRRCS8D,LY86,BCAR3,ILDR2,CHURC1,RAB15,RAPGEF3,SDK1,PDXP,MST1,PTK7,RSRC1,SNCA,BMPRI1B,CACNG2,MAGI2,PNPT1,ZEB2,SYT9,RC3H1,RNF103,RNF103-CHMP3,CNGA3,WNT7B,HMGCS2,KMT2D,SULT2A1,SPPL2A,ADTRP,ABCA12,PLD1,SRSF6,OPRD1,HIPK1,NUGGC,RPTOR,BTK,DSG1,TROVE2,IGF1,STX8,DPYSL3,MAPK1,PTEN,SPRED2,BMP7,PIK3C3,SOX5,PRCP,LRRK2,ATP6V1A,GNAI4,ZBTB20,CHMP5,RFC3,BAG6,LILRB4,TMEM108,IPCEF1,IL11RA,NSG2,PKD2,EFNA5,SELIL2,AOX1,PDGFC,NCOA3,WNT7A,ZBED6,NLRP1,NME8,GLDC,GPR21,BMP6,MYCBP2,NFE2L1,ANO1,GPI,IL17RD,SOS1,TSHR,EXT1,PDCC1LG2,ATRX,PLIN2,PNP</p>

			<p>LA3,PRMT2,RAPGEF2,ABCG2,KCNC2,SMO,SLC6A14,GET4,BLOC1S3,PRKAR2B,CPT1A,TNFRSF11B,SYT17,SOX30,UBR5,GRB14,GRIN1,RHOA,OR4M1,OR4N2,GRIN3A,RQCD1,TF,ONECUT2,FAM19A4,CUL3,HSPD1,ITPR2,GABRB3,GSKB3,ABCG8,DNAJC3,EMB,RDX,STAT6,EEF2K,FAM49B,CD27,SCN9A,BOK,SULF1,KRT8,AGT,P RKA2,SYT7,ADAR,FBN2,STAT2,BRINP3,HRH4,PTK2,PHEX,RNF121,PDE4B,VEP H1,GAP43,MAP3K5,CREBBP,DLX1,FMOD,PCSK6,NCF1,SLC29A1,UGT1A1,UGT1 A10,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9,SHC1,NDUFS 2,ECE1,RNFT1,RPS6KB1,STC2,GPR173,ALOX5,CD44,ADAM8,CLDN4,RPS6KA5,C XCL17,NOS1,GCKR,PLEKHA1,PLVAP,ACTN4,SCNN1B,TUBB3,ZFAND6,EPHB2,SL C1A1,SIGMAR1,XCR1,IL18,TPMT,UBE2K,PPARA,ABCD3,ARID5B,CALCRL,MCOL N1,SLC25A33,TAF2,CPEB4,GPSM3,ZNF366,CYP2C18,CYP2C19,FBN1,PAX6,PRKC Z,ATP1A3,CD96,FAM20C,ADORA2A,GRIN2B,RABGEF1,CPEB1,TYK2,ASP,NANGP T1,FHL2,OSBPL8,ATF6,GCNT2,ETS1,PPP1CA,VWC2,MTF2,BIN2,CCL22,NCOR2,P RKQC,BRAF,DIAPH1,HDAC2,HTR2C,IMPACT,SPINT2,TNR,PHIP,PPP2CA,ANGPT 4,RPL23,SH3BP4,SP100,KCND2,TMEFF1,ADCY1,ALG2,SQLE,SYK,CNOT1,SLIT1,Y BX1,PTPRJ,SLC10A1,TAF1,TICAM1,TANK,UCN2,A3GALT2,HSF1,MAX,DHFR,SAS H1,NCOA2,ADAMTS7,GBP5,QRICH1,VAV3,CHD6,CIB2,CAV2,TSGT1,AXL,CD109, DENND4C,MET,CAMK2D,CCR3,TIMELESS,MALT1,PFKP,TRA2B,MLXIPL,SEMA3 C,NEDD4L,PHB,PTPRC,EDA,PBLD,SH3GL2,SPON2,ADCY10,NCAM1,TRAF3IP2,A TF6B,CREB1,RGMB,SGTB,TRAP1,EDNRA,GNGT1,HADHA,SLC25A13,BMP4,CPNE 1</p>
GO:0048638	regulation of developmental growth	1.8557971631442532e-9	<p>HLX,CLASP2,SEMA3A,WWC1,LATS2,SEMA3D,WWC3,FTO,SEMA5A,STAT5B,OLF M1,EZR,CHD7,CDKL5,DSCAM,RUNX1,GOLGA4,ERBB4,LIMK1,ATP8A2,RIMS1,IN SR,CDH4,BASP1,BDNF,ATRN,PLCB1,RTN4,RTN4R,NTN1,NRG1,VGLL4,SYT1,PLS1 ,SEMA5B,TP73,DISC1,ITSN2,CAPN3,MAG,PARK2,DRAXIN,CPNE6,DCC,CTDP1,SY T3,APP,DIP2B,YAP1,FSTL4,ISLR2,SPTBN4,CPNE9,SLC6A3,SEMA6D,BMPR2,DPYS L2,BMPRI1,SPAG9,RAB11A,FGF2,SEMA4D,JARID2,WNT3,PAFAH1B1,AKAP6,RA SAL1,TRPC5,RUFY3,SIN3A,MACF1,ADNP,MAP1B,CELFI,GHR,UNC13A,TRIM46,E PHA7,MAP3K13,HEY2,PTPRS,TLL2,IGF1,PTEN,EFNA5,GPR21,TSHR,SMO,SYT17, GSK3B,ZMPSTE24,RIMS2,RPS6KB1,STC2,STK4,PPARA,NIPBL,MAP2,TNR,CDKL3, SLIT1,ZP3,SEMA3C,NEDD4L,CREB1,BMP4</p>
GO:0009059	macromolecule biosynthetic process	1.977869143812523e-9	<p>POLDIP3,ZDHHIC14,ENPP1,PRDX2,LDB2,GPC5,ASPH,B4GALNT2,PRKCI,SLCO3 A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MGAT4C,MED13L,TRPS1,CBFB,PDE8A,ZN F823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,WWC3,PAGRI, HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,NOC3L,SAMHD1,ZNF566 ,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTFC1,EIF4G3,EZR,IKZF2,B3 GALT1,CHD7,MECOM,TACCI,TENM1,NMT2,TRAF6,GTFE2,DNAJA3,NHLH1,HS P90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,CDAN1,GFI1B,PTPRK,RUNX1,E RC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,MGAT5,CC72,ORC2 ,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,GBE1,DPY19L2,MRE11A,ZNF609,B RD8,KAT6B,HIF3A,SNIP1,LARGE,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP 300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,GALNTL6,CSGALNAC T1,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FU BP1,ATP8B1,H2AFY2,TCF7L2,ST6GALNAC3,JMJD1C,ZNF443,ZNF490,ZNF564,ZN F709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,ZDHHIC13,BASP1,TBR1,SAMD4A,T FAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,POMGNT2,FUT8,MEIS1,VRTN,TRIM13,MDM4,ENTPD5,ZNF148,MTA3, SNX6,TFDP2,PTCD3,ERN2,CDC45,C1D,AFF3,DMD,CENPF,ATG10,SLC30A9,TOX 3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA, DRG2,MKRN2,ARNTL,LINC01138,PLCB1,ARID4B,GXYLT2,POLA2,HS3ST2,B4GAL T6,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDFI,FNIP1,VAX2,GALNT16,TM BIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,GALNT18,JD P2,CMKLR1,ROR2,DCN,ZDHHIC3,PCBD2,CDH13,CREBRF,SOX13,UST,COPSS,MA D2L2,MAN1A1,TLE6,SRBD1,CAPRIN2,ZNF418,PHF20L1,PDF,TERF2,ZNF286A,FO XN3,NEUROD1,USP22,ZDHHIC15,JAK2,TRAPPC9,OAZ2,SKAP1,SMC3,UIMC1,ITC H,MLIP,BCL11B,PKNOX1,B3GALT5,MLLT3,TSHZ2,DHDDS,TCF7,PDE2A,KLF15,T BX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,QKI,CCDC62,PRKCD,SOX 6,ACVR2A,RUNX2,CD4,TGFB1,BANP,MRPL33,SGK1,NSD1,IGSF1,ZHX2,PKNOX2, ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,HS6ST2,CC2D1B,TP73,HHAT, SAP18,CDKAL1,ZBTB22,ILF2,TMTC1,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF39 8,TMTC2,CLOCK,CHST9,TCF12,ZNF675,RPL36,ETV6,PHRF1,TFAP2D,BCL3,EIF3 L,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,POLR2J2,SMYD3, LOXL3,CAPN3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,SMG6,PPP3CA,NFY B,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2 ,METTL13,SMARCC1,KLF17,PPARG,IARS2,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX 5,ANKRD17,BRIP1,LRP3,SREBF2,AARS2,CDK11A,GALNT8,CDK11B,FGF1,NPA T,NR4A3,FOXK2,WDR45B,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,C HEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,RAB3GAP2,TRIM8,DIO2,BRMS1L, ZBTB8A,ZBTB8B,CTDP1,HS3ST5,BAZ1B,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L ,SNAPC4,SFRP1,MED13,ST8SIA1,ZNF395,FOXO3,NFIB,SP4,SYNCRIP,SMAD3,CU X2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,WIP1,EBF3,RNF168,CASZ1,D CP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,GALNT14,KTI12,NFATC1,S T3GAL3,CDC73,APP,SSBP3,GSX2,RBM8A,NOX1,YAP1,ST6GALNAC5,TEN1,NVL,L</p>

			<p>RP5,POLR3G,ZNF787,SOX2,SETD2,ZDHHHC6,GPC6,CHST11,TEAD1,PRICKLE1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,RFT1,SFMBT1,ZNF584,ESR2,S100A12,UTF2F2,PRKDI,STAT1,HEXA,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,CELF4,ABLIM2,ZNF766,CARD16,POLA1,GGT7,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,PABPC4,IKZF4,CDK12,TAF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EEF1E1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,POLR2H,TCF20,ATF3,TCEANC,STT3B,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,TERF2IP,CRYM,RFX2,B3GALNT1,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,PADI6,ZNF704,NR2C1,EDEM3,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,GLCE,WDTCT1,ZNF664,MRPS28,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,GTPBP2,RELN,SIN3A,RUVBL2,COMMD6,GMEB1,PEL1,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SLC35A4,SR1,TOPI,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BCN1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,C12ORF65,CDK6,PHF2,CELF1,TFRC,EPHA5,WWOX,ALG14,MEF2A,DCAF6,GPC3,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ELAVL4,HDAC1,HS6ST3,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,MRPS17,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN1,NTRK1,KPNA6,TRIM44,EIF3A,MAN1B1,EPCAM,ZNF425,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,AP3D1,ZNF41,MGAT4A,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SP11,DNMT3B,LRRC47,FOXP2,MRPS24,PSPC1,GLIS1,SFMBT2,EIF3H,BCAR3,JAZF1,ACOT8,RBPM5,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN,PRIM2,PNPT1,ZEB2,MCMBP,FOXJ3,HEY2,RC3H1,EIF3E,ZMYND11,KMT2D,CREM,KMT2C,PLD1,MACC1,MITF,OPRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,LARS2,MAPK1,PTEN,BMP7,ATXN2,MXI1,PIK3C3,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,TMEM59,PIGS,ZBTB20,RFC3,CHAF1B,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,NCOA3,PKIB,ZNF146,ZNF565,HS2ST1,WNT7A,ZBED6,BRWD3,CRTC3,DNAJC1,ARNTL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,EXT1,DYPI9L4,ATRX,DPH6,IKZF1,PRMT2,ASCC1,SMO,RALY,ALG9,DYPI9L1,TCF4,GALNT10,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRNT,MCM3,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,EPM2A,GSK3B,PRR16,DNAJC3,STAT6,MLF1,EEF2K,RBBP8,NECAB2,CDK13,ALAS2,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,POLH,POLR2F,STAT2,ZMPSTE24,UTF2E1,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,UTF2IRD2,NCF1,SHC1,ZNF813,LBX2,PARP10,RPS6KB1,ZDHHHC23,DPRX,GALNT13,PRG3,SETDB2,DNAJB6,SP7,LARP4,ADAM8,MRPS6,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MCM215,RGS14,ACTN4,MCI1,TCF25,ZNF282,GATC,EDRF1,TMEFF2,IL18,TEX12,DIS3,PPARA,ARID5B,SLC25A33,SMARCA11,TAF2,CPEB4,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,RBMS1,CPEB1,OTUD7B,KIN,NIPBL,YEATS4,PHF20,ZNF143,ANGPT1,BRF1,TBL1X,FHL2,MTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,N7SM,GCNT2,ETS1,PPIC1,MTF2,TAGLN3,CDK5RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,PHKG2,SRAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,PPP2CA,MRPS16,RPL23,RFC5,ACAN,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,PIGU,DONSON,FARSB,WIPI2,ADCY1,ALG2,SYK,CNOT1,WWTR1,UTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DNL2,MORC1,MTRF1,YBX1,TAF1,EIF4E3,TICAM1,THAP3,GALNT7,SNAPC3,HSF1,MAX,SAP130,DHFR,EZH1,ETFI,NRF1,SRPK2,NCOA2,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,UGGT1,GALNT4,MYEF2,POC1B-GALNT4,TBP,ORC4,TRIM37,MET,ZNF461,CAMK2D,MRPL1,TIMELESS,BRD9,MALTI,SETD3,ZDHHHC11,ZDHHHC11B,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,EXD2,NR6A1,ATF6B,CREB1,LIG1,RGMB,TRAP1,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:0048813	dendrite morphogenesis	2.4163383591164583e-9	<p>PRMT3,SEMA3A,PHACTR1,KALRN,CDKL5,AB11,ITGB1,KNDC1,DSCAM,DOCK10,HDAC6,TNIK,RERE,PTPRD,TANC2,FYN,CAPRIN2,ZDHHHC15,LZTS1,IL1RAPL1,CAMK2B,CTNND2,DCLK1,EPHA4,PPP3CA,DNM3,CUX2,ABI2,SHANK1,NEDD4,BTB D3,PARP6,NLGN1,CTNNA2,SEMA4D,EPHB3,PAFAH1B1,TRPC5,RELN,PAK3,MEF2A,ACTR2,ELAVL4,EPHB1,SARM1,ARHGAP44,CUX1,PTEN,LRRK2,SHANK3,WNT7A,RAPGEF2,GSK3B,EEF2K,TAOK2,EPHB2,MAP2,FBXO31,CDKL3,NEDD4L</p>
GO:0007417	central nervous system development	2.642570653957871e-9	<p>NRXN1,TACC2,NEGR1,PBX3,SEMA3A,GRID2,NRG3,PHACTR1,NLGN4X,UNC5C,ZSWIM6,KALRN,NTRK3,SEMA5A,TOX,ATP2B2,SPATA5,LRP2,ROBO1,CHD7,TACC1,ROBO2,NHLH1,ITGB1,HSP90AA1,KNDC1,ZC4H2,TRIO,DAB1,PTPN11,ERBB4,CDON,NTRK2,HOKK3,KIRREL3,RERE,H2AFY2,FBXW11,BASPI,SLC4A10,TBR1,TFAP2A,ATRN,AMIGO1,MEIS1,TENM4,ZNF148,NAV2,DMD,CENPF,SLC8A1,GSN,SATB2,PAFAH1B2,MACROD2,FYN,NF1,PLCB1,RTN4,AFF2,APOD,B4GALT6,RTN4R,BCR,CCDC141,NDRG4,DCTN1,NRG1,MAP2K1,VAX2,CNTN4,ROR2,PLXDC1,SOX13,NCKAP1,NEUROD1,TRAPPC9,SYT1,BCL11B,IMMP2L,ADAM23,SOX6,TGFB1,RPGR,IPIL,CELSRI,SLIT2,TP73,GABRB1,DISC1,TTBK2,SYNJ2,TFAP2D,DCLK1,SLC17A7,FGF10,CNTNAP2,IL1RAPL2,LOXL3,EPHA4,RORA,PPP3CA,MAG,CTNNB1,PARK2,FCGR2B,IGF1R,PPARG,DLG5,MTF1,DRAXIN,NIN,DCT,DCC,NF2,PAX2,SFRP1,FoxO3,ARL13B,CNTN6,NFIB,ARNT2,NRP2,BTBD3,APP,SSBP3,GSX2,NLGN2,PTPRG,SOX2,SETD2,SPTBN4,DRD1,FRS2,SYNE2,SLC6A3,SHANK2,DSCAML1,SEMA6D,</p>

			<p>ATF2,DPYSL2,BMPRI1A,CTNNA2,FGF2,POU6F2,GRIK1,AGBL4,ELP3,PLXNA2,SETD1A,JARID2,RARB,SPOCK1,GAS8,CHRD,EIF2B5,EPHB3,FBXO45,LAMB1,WNT3,SUFU,PAFAH1B1,NMUR2,GLI2,RELN,SIN3A,ZNF423,ALK,PRKG1,RGS7,ATP2B4,ACTL6B,CDK6,CELF1,EPAH5,DHX30,TRPV1,HOXB3,MNAT1,ELAVL4,HDAC1,EGR2,EPHB1,SENTG2,SH3GL3,SRD5A2,EPAH7,FOXP2,CTNNA1,HYDIN,RNF103,WNT7B,HMGCS2,PTPRS,RTN4RL1,MAPK1,PTEN,BMP7,LRRK2,BAG6,TMEM108,ITGAM,PKD2,SHANK3,PDGFC,WNT7A,MYCBP2,SOS1,EXT1,ATRX,RAPGEF2,KCNC2,SMO,SUN1,GRIN1,RHOA,NDE1,ROR1,GSK3B,CCDC14,BOK,NDRG2,PBX1,DLX1,PYG02,MDGA2,TBC1D23,STK4,EPHB2,SLC1A1,WLS,DLC1,PAX6,ADORA2A,GRIN2B,KLHL1,NIPBL,SHROOM4,MAP2,TAGLN3,CDK5RAP1,CNTN1,HDAC2,POU3F3,NOTO,TNR,ACAN,ATXN1,SRGAP2,ADCY1,NUMB,SLIT1,BRCA2,TAF1,POTEE,CADM1,EZHI,AXL,UCLH5,TRA2B,KDM2B,SH3GL2,TYRO3,CREB1,BMP4</p>
GO:2000145	regulation of cell motility	4.41053137804538e-9	<p>LDB2,MAP4K4,SIPR2,CLASP2,SEMA3A,DOCK1,NRG3,SEMA3D,PHACTR1,MAPRE2,TJP1,UNC5C,NTRK3,SEMA5A,ENPP2,FER,MARVELD3,MAP2K5,KITLG,PTPRR,PIK3CD,ROBO1,LMNA,ULK4,ITGB1,SRGAP3,MCC,SRGAP2B,PTPRK,ABCC8,LAMA2,DACH1,MGAT5,DOCK10,HDAC6,ADORA1,EPAH1,ERBB4,ZNF609,PDGFB,STK39,INSR,UNC5D,LAMA3,PAK1,PTPRU,SLC8A1,CASSA,ADAMTS9,NF1,PLCB1,RTN4,DPEP1,APOD,BCR,NDRG4,NTN1,NRG1,BDKRB1,DOCK8,HDAC5,NTNG1,CMKLR1,ROR2,DCN,CDH13,PTPRT,CD99,RCC2,ANO6,KIF2A,RFFL,CBEB1,IAK2,FBXW7,CLDN1,WNT11,CAMK2B,SEMA5B,TGFB1,SGK1,MMP28,F2RL1,BCAS3,SLIT2,CORO1C,RRAS2,KANK1,LAMC2,TTBK2,BMPER,DAPK2,DUSP22,FGF10,SMURF2,EPAH4,PRKCA,PPP3CA,PIP5KL1,SOD2,IGF1R,PPARG,DLG5,FGF1,NR4A3,MYOCD,AJUBA,NF2,FLT4,HDAC4,SFRP1,FOXO3,SMAD3,PTPRM,NRP2,DOCK4,NAV3,APP,GSX2,PDGFRA,SLK,PTPRG,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,RAF1,BMPR2,CAMK1D,BMPRI1A,CTNNA2,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D,MCTP1,ELP3,PLXNA2,PTAFR,DDX58,CHRD,VCL,LAMB1,CLIC4,RHOJ,RUFY3,DAB2,LDLRAD4,MYSM1,WNK1,RELN,SP1,MACF1,CLASP1,PRKG1,ATP2B4,PAK3,SSH2,SCARB1,CDK6,FLRT2,SMOC2,PLCG2,ROCK1,PKN2,TMIGD1,SPH,MCU,CTNNA1,SH3BP1,MST1,MAGI2,ADTRP,MITF,IGF1,DPYSL3,MAPK1,PTEN,BMP7,PRCP,OSGIN1,PDGFC,AMOTL1,WNT7A,GPI,SH3RF2,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,FAM49B,SULF1,AGT,PTK2,TPPP2,RPS6KB1,GPR173,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,TMEFF2,DLC1,EPB41L4B,GPSM3,ZMYND8,PAX6,RABGEF1,PHLDB2,NIPBL,ANGPT1,OSBPL8,CENT2,ETS1,FBXO31,BRAF,DIAPH1,ATP8A1,SPINT2,CD300A,ANGPT4,CAMSAP3,SP100,SRGAP2,NUMB,FRMD5,PTPRJ,SASH1,ZP3,GNA12,INPP5F,MET,SEMA3C,PTPRC,BMP4</p>
GO:2000026	regulation of multicellular organismal development	4.826892982295191e-9	<p>ENPP1,PRDX2,NRXN1,PRKCI,SIPR2,HLX,TRPS1,CBFB,CLASP2,SEMA3A,GRID2,CLDN18,SEMA3D,TIAM2,PTGIS,TJP1,PRLR,KALRN,NTRK3,ARNT,SEMA5A,STAT5B,TOX,ENPP2,GRM5,KITLG,LRP2,PIK3CD,ROBO1,CHD7,CDKL5,TRAF6,ESRP1,ROBO2,ITPKB,ITGB1,DSCAM,GF11B,RUNX1,DAB1,ABCC8,LAMA2,PTPN11,RBM19,GOLGA4,EPAH1,IKBKB,ERBB4,LIMK1,NPHP3,NTRK2,CELA1,HOOK3,TOB2,INSRH2AFY2,LAMA3,CDH4,PTPRD,BASP1,BDNF,TFAP2A,AMIGO1,FANCA,TGIF2,MEIS1,TENM4,KAT7,SLC8A1,GPR171,ARNTL,ADAMTS9,NF1,PLCB1,RTN4,RTN4R,CH13L1,BMP2K,ANKH,NTN1,NRG1,MAP2K1,STIM1,VGLL4,ROR2,DCN,SOX13,TLE6,CAPRIN2,ANO6,CBEB1,FBXW7,CLSTN2,TCF7,SEPT7,WNT11,FIG4,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,SEMA5B,CD4,TGFB1,C9ORF47,SLIT2,TP73,DISC1,MTDH,ZNF675,NELL1,BMPER,ANKRD54,ADAM12,LINGO2,LOXL3,CAPN3,EPAH4,PRKCA,TNFSF11,PPP3CA,MAG,CAMK4,UFL1,CTNNB1,FCGR2B,PPARG,DLG5,CYBB,DRAXIN,FGF1,NIN,DCT,PER2,GLG1,PHLDB1,DCC,CTDP1,NF2,PAX2,SFRP1,FOXO3,SMAD3,CUX2,PTPRM,PRTG,CDC73,GSX2,DIP2B,YAP1,FSTL4,NLGN2,JAK1,ANGPTL4,ISLR2,SLC9B2,VASH2,PRKD1,STAT1,PARP6,HNF4A,SEMA6D,ATF2,ADAMTS12,BMPR2,BMPRI1A,TSPAN12,NLGN1,RAB11A,MYB,FGF2,SEMA4D,ISM1,PLXNA2,JARID2,RARB,SPEN,EHMT1,EPHB3,VCL,WNT3,RHOJ,TG,NLGN3,PAFAH1B1,COL4A3,DDAH1,AKAP6,TRPC5,GLI2,RUFY3,MYSM1,RELN,CSF3R,APOLD1,SP1,MACF1,INPP5D,CLASP1,GPM6B,XDH,OVOL2,ATP2B4,TMEM2,PAK3,ADNP,MAP1B,CDK6,DROSHA,BRINP1,HOXB3,FLRT2,ACTR2,LGI4,HDAC1,SMOC2,ROCK1,EGR2,RNF10,AP3B1,PTPN2,NTRK1,EPHB1,AXIN2,PARD3,TRIM46,BCOR,AP3D1,CUX1,SPH1,EPAH7,CTNNA1,MAP3K13,RAPGEF3,BMPRI1B,HEY2,RC3H1,PTPRS,TRIP12,ABCA12,MITF,SRSF6,HIPK1,BTK,IGF1,PTEN,SPRED2,BMP7,SOX5,BAG6,LILRB4,EFNA5,SHANK3,NCOA3,PPP2R3C,WNT7A,BMP6,SOS1,RAPGEF2,SMO,TFE3,RHOA,SYNGAP1,NFKBID,EEF2K,CD27,SULF1,AGT,FBN2,ZMPSTE24,DLX1,SHC1,CD160,ALOX5,ADAM8,RGS14,EPHB2,CLPTM1,IL18,PPARA,NOTCH4,FBN1,PAX6,PRKCZ,FAM20C,PPP1CC,PHLDB2,NIPBL,TMIGD2,ASPEN,ETS1,MAP2,FBXO31,BRAF,HDAC2,TNR,CDKL3,ANGPT4,SP100,NUMB,SYK,WWTR1,SLIT1,HSF1,SASH1,ADAMTS7,SULT2B1,BMP1,AXL,TNFSF9,CD109,CCR3,MALTI,SEMA3C,PTPRC,SYNDIG1,CREB1,BMP4</p>
GO:0007420	brain development	5.325954710638395e-9	<p>NRXN1,TACC2,NEGR1,PBX3,SEMA3A,GRID2,NRG3,PHACTR1,NLGN4X,UNC5C,ZSWIM6,SEMA5A,TOX,ATP2B2,SPATA5,LRP2,ROBO1,CHD7,TACC1,ROBO2,ITGB1,KND1,DAB1,PTPN11,ERBB4,CDON,NTRK2,HOKK3,KIRREL3,REPER,H2AFY2,FBXW11,BASP1,SLC4A10,TBR1,ATRN,AMIGO1,MEIS1,ZNF148,DMD,CENPF,SLC8A1,SATB2,PAFAH1B2,MACROD2,FYN,NF1,PLCB1,RTN4,AFF2,APOD,RTN4R,BCR,CCDC141,NDRG4,NRG1,MAP2K1,VAX2,CNTN4,NEUROD1,TRAPPC9,SYT1,BCL11B,I-MMP2L,SOX6,RPGRIP1L,SLIT2,DISC1,TTBK2,SYNJ2,TFAP2D,DCLK1,SLC17A7,FGF10,CNTNAP2,RORA,PPP3CA,MAG,CTNNB1,FCGR2B,IGF1R,DLG5,DRAXIN,NIPBL</p>

			<p>N,DC,T,NF2,PAX2,SFRP1,FOXO3,ARL13B,NFIB,ARNT2,NRP2,BTBD3,APP,SSBP3,G SX2,NLGN2,PTPRG,SOX2,SETD2,DRD1,FRS2,SYNE2,SLC6A3,SHANK2,DSCAML1, SEMA6D,ATF2,DPYSL2,BMPRI1A,CTNNA2,FGF2,PLXNA2,SETD1A,RARB,GAS8,EI F2B5,EPHB3,FBXO45,LAMB1,WNT3,PAFAH1B1,GLI2,RELN,SIN3A,ZNF423,ALK,P RKG1,RGS7,ATP2B4,CDK6,CELF1,EPHA5,HOXB3,MNAT1,ELAVL4,HDAC1,EGR2, EPHB1,SRD5A2,EPHA7,FOXP2,CTNNA1,HYDIN,WNT7B,HMGCS2,PTPRS,RTN4RL 1,PTEN,BMP7,LRRK2,BAG6,TMEM108,ITGAM,SHANK3,WNT7A,SOS1,EXT1,ATRX, RAPGEF2,KCNC2,SMO,SUN1,GRIN1,RHOA,NDE1,GSK3B,CCDC14,BOK,NDRG2, PBX1,DLX1,PYGO2,TBC1D23,EPHB2,SLC1A1,WLS,DLCL1,PAX6,GRIN2B,KLHL1,NI PBL,SHROOM4,CDK5RAP1,CNTN1,POU3F3,TNR,ATXN1,SRGAP2,ADCY1,NUMB, SLIT1,BRC42,TAF1,POTEE,CADM1,EZH1,AXL,UCHL5,TRA2B,KDM2B,TYRO3,CR EB1,BMP4</p>
GO:19 01362	organic cyclic compound biosynthetic process	6.82063806 2279643e-9	<p>ENPP1,PRDX2,LDB2,ASPH,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8, MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,SC AF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,PAGRI,ADCY7,HIVEP3,NP4S3,ARNT,LR RFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HD GF,GTF3C1,EZR,IKZF2,MALRD1,CHD7,MECOM,TACC1,TENM1,NADK2,TRAF6,G TF2E2,DNAJA3,NHLH1,HSP90AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,MOCOS,GM DS,GFI1B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACHI, ZNF569,CCT2,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,MRE11A,ZNF6 09,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1, TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF6 05,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1 C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP 1,TBR1,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,A FF3,DMD,CENPF,SLC30A9,TOX3,USP13,KAT7,ZNF667,RBM14,PRPS2,MED12L,S ATB2,RIT2,HIRA,MKRN2,ARNTL,PLCB1,ARID4B,POLA2,RWDD3,BRPF1,PIK3R2,N RG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5, CSRN3,ZNF692,NFIA,RNF4,JDP2,CMKLR1,ROR2,DCN,PRPSAP2,PCBD2,CDH13, CREBRF,SOX13,ACSBG1,COPPS5,AK2,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1, TERF2,ZNF286A,NME7,FOXN3,AK5,NEUROD1,USP22,JAK2,TRAPPC9,SKAP1,UI MC1,ITCH,MLIP,BCL11B,IMPDH1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,T BX15,ANXA4,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,CACNA1H,CCDC62,SOX6, ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BT RC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,CC2D1B,TP73,SAP18,ZBTB22,ILF2,MTD H,FANK1,MYTIL,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFA P2D,BCL3,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,FGF10,POLR2J2,ADK,SMYD3, LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,HIVEP2,HSD17B12,AUTS2,TNFSF11, SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,P ARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,AXIN1,IL18R1,CIP C,MTF1,CBX5,BRIP1,SREBF2,PFAS,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2 ,DCT,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HC K,TRIM8,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PHF5A,C POX,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,TPH2,NFIB,SP4,SMAD3,CUX2,WWP 2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,E SRRG,HOXD3,HOXD4,ZNF114,KTI12,NFATC1,UCK2,CDC73,APP,SSBP3,GSX2,YA P1,PPCS,TEN1,NVL,LRP5,POLR3G,ZNF787,SOX2,SETD2,UCF1,PRICKLE1,ZNF6 53,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,ERLIN1,SFMBT1,ZNF584,TPH1,ESR2, S100A12,GTF2F2,PRKD1,STAT1,ST18,OSBPL2,ETV5,RHOXF2B,SLC6A3,TAF3,PLA GL1,HNF4A,ZBTB7C,TASP1,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,ABLIM2,ZN F766,CARD16,POLA1,BMPR2,CAMK1D,BMPRI1A,ZKSCAN1,IDO2,IKZF4,CDK12,T AF8,CAND2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,ADCY5, GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,J ARID2,DDX58,SLC5A8,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DV L3,POLR2H,TCF20,ATF3,TCEANC,AKRID1,CKS1B,PAWR,EBF2,MAML2,TSG101,T ERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC16 9- SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,FDXR,CMPK1,ZNF704,NR2C1,ME1,GLI 2,TNKS,WBP2NL,ERCC1,GLIS3,WDTC1,ZNF664,TPK1,DAB2,BLM,PKHD1,MYSM1, SETD5,SMG5,RELN,SIN3A,RUVBL2,COMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16 ,MAP3K7,ZNF423,SP1,TRIM22,ALK,TEAD4,HOXC13,APBB3,SRA1,UBE2V1,ADIRF, OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1, CCPG1,ADNP,ARID4A,CDK6,PHF2,TYR,TFRC,EPHA5,WWOX,MEF2A,ADCY9,DC AF6,XRN1,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6, TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2, SCMHI,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6, TRIM44,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF 383,SRD5A2,ZNF616,ZNF836,SMARCA2,CUX1,SP11,DNMT3B,FOXP2,PSPC1,GLIS 1,SFMBT2,JAZF1,ABC87,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMY D1,SNCA,BMPRI1B,POLN,PRIM2,ZEB2,FOXJ3,NADK,OCA2,HEY2,HMGCS2,ZMYN D11,KMT2D,CREM,OSBPL1A,KMT2C,MACC1,MITF,OPRD1,PTOR,NFIX,BTK,ML LT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,MXI1,SOX5,CIR</p>

			<p>1,PCBP2,ZNF780A,ZNF780B,ATP6V1A,MLYCD,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRTC3,ARNTL2,ELOVL5,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,PRMT2,RAPGEF2,ASCC1,MTHFD2L,SMO,RALY,AMPD1,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,STAT6,MLF1,RBBP8,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,ELOVL3,POLH,PRKAA2,POLR2F,STAT2,ZMPSTE24,UTF2E1,PPCDC,PBX1,MAP3K5,TCFL5,CREBBP,DLX1,UTF2IRD2,NCF1,SHC1,ZNF813,ALDOA,LBX2,PARP10,DPRX,GUCY2F,PRG3,SETDB2,Alox5,DNAJB6,SP7,ADAM8,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EDRF1,IL18,TEX12,PPARA,ABCD3,ARID5B,SLC25A33,SMARCA1,TAF2,LDHC,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,PAH,OTUD7B,NIPBL,YEATS4,PRKDI1,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,ETS1,MTF2,TAGLN3,NCOR2,PRKCQ,CSRNPI,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,ADCY1,SQLE,SYK,CNOT1,WWTR1,CYP39A1,UTF2H5,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,YBX1,TAF1,TICAM1,THAP3,SNAPC3,HSF1,MAX,SAP130,DHFR,EZH1,NRF1,NCOA2,QRI CH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,EBF4,SLC25A13,ZNF511,BMP4,ABLIM3</p>
GO:0010557	positive regulation of macromolecule biosynthetic process	7.121109779052223e-9	<p>POLDIP3,LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,SCAF8,STOX2,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,CHD7,MFCOM,TACC1,TRAF6,NHLH1,HSP90AA1,GF11B,RUNX1,HMGN3,NRIP1,THRB,MEAB7,CCT2,SERTAD2,IKBKB,ERBB4,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,EP300,CELA1,ZNF76,PDGFB,HNF4G,INSR,RERE,TCF7L2,LITAF,FBXW11,ESRRB,MAP3K4,TBR1,SAMD4,TFAP2A,PEG3,MEIS1,TRIM13,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,LARP4B,KAT7,RBM14,MED12L,SATB2,RIT2,MKRN2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,CSRNP3,NFIA,RNF4,ROR2,DCN,PCBD2,CDH13,CREBRF,COPS5,MAD2L2,CAPRIN2,NEUROD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLLT3,KLF15,WNT11,MTA1,NOX4,RPRD1B,CCDC62,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,BTRC,NFATC3,F2RL1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ETV6,TFAP2D,BCL3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,CAPN3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SMARCC1,PPARG,NGRN,AXIN1,PTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,CHEK2,SUPT3H,PRDM16,SORBS1,TRIM8,MEF2B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARNT2,EBF3,CASZ1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,NOX1,YAP1,NVL,LRP5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR1,PRKD1,STAT1,ST18,ETV5,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,RAF1,BMPR2,BMPRI1A,IKZF4,CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,PTAFR,DDX58,BRDT,RARB,NCOA1,LMO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,PAWR,EBF2,MAML2,TSG101,RFX2,PRDM15,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,DAB2,BLM,MYSM1,SI N3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HOXC13,SLC35A4,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ARID4A,PHF2,WWOX,MEF2A,DCAF6,EYA1,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,SMOC2,TRIM24,PAXIP1,EGR2,RNF10,RYPB,AP3B1,KPNA6,TRIM44,EP CAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SP11,GLIS1,BCAR3,RBPMS,CHURCI,CREB5,BMPRI1B,PRIM2,ZEB2,FOXJ3,HEY2,EIF3E,KMT2D,CREM,KMT2C,PLD1,MACC1,MITF,RPTOR,NF1X,KCTD13,IGF1,MLXIP,ATF7IP,MAPK1,BMP7,PCBP2,ZNF780B,LRRK2,RFC3,PKD2,TADA2A,DAZL,NCOA3,PKIB,WNT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,TAF15,WDR43,ATRX,PRMT2,SMO,TCF4,SOX30,TFE3,GRI N1,JADE1,RHOA,RQCD1,TF,ONECUT2,TFEC,PRR16,DNAJC3,STAT6,CDK13,SUPT4H1,AGT,PBX1,MAP3K5,CREBBP,DLX1,NCF1,SHC1,RPS6KB1,SP7,LARP4,RPS6KA5,ZNF484,PRDM2,NOS1,ACTN4,MC1R,EDRF1,IL18,PPARA,ARID5B,NOTCH4,C RX,PAX6,NIPBL,YEATS4,ZNF143,BRF1,TBL1X,ATF6,ETS1,MTF2,CDK5RAP1,PRKCQ,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,ELF2,PHIP,RFC5,SP100,PARN,WWTR1,ZBTB38,BRCA2,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRI CH1,ZP3,CHD6,TRIM37,MET,SETD3,MLXIPL,CCT3,PHB,CTCF,NR6A1,ATF6B,CR EB1,RGMB,BMP4,ABLIM3</p>
GO:0051130	positive regulation of cellular component organization	8.19113864288807e-9	<p>CLRN1,NRXN1,PRKCI,MAP4K4,DNMT1,NEGR1,PDE4DIP,CLASP2,GRID2,TENM3,TIAM2,MAPRE2,KALRN,NTRK3,CBL,SEMA5A,TOX,ENPP2,PLCE1,FER,ROBO1,CDKL5,TENM1,ROBO2,HSP90AA1,DSCAM,RUNX1,CDC42EP3,ABCC8,CCT2,GOLGA4,EPHA1,MRE11A,LIMK1,ATP8A2,ESR1,NTRK2,STX18,EP300,TENM2,PDGFB,INSR,PIP4K2A,CDH4,PAK1,MAP3K4,PTPRD,BDNF,AMIGO1,DMD,GSN,RIT2,FYN,PLCB1,NDRG4,NTN1,DCTN1,NRG1,BID,MAP2K1,FNIP1,FRMPD4,MAD1L1,TMEM30A,ROR2,DCN,CAPRIN2,NCKAP1,TERF2,SLX1B,ANO6,ARL3,ZDHHC15,SKAPI,CLSTN2,SYT1,CROCC,CLDN1,SEPT7,WNT11,FIG4,IL1RAPL1,CAMK2B,PPM1E,F2RL1,BCAS3,SLIT2,COLGALT1,CORO1C,DISC1,CEP135,LINGO2,CNTNAP2,EPHA4,AUTS2,CNR1,PPP3CA,CTNNB1,PARK2,IGF1R,PPARG,DLG5,NIN,AJUBA,PHLDB1,HCK,RAB3GAP2,CAPN2,ANKFY1,NF2,HDAC4,TRABD2B,SFRP1,DNM3,SKAP3,CUX2,WIP1,ABI2,NAV3,APP,NOX1,NLGN2,VDAC1,LRP5,ISLR2,ZDHHC6,PRKD1,PA</p>

			<p>RP6, EREG, BMPR2, CAMK1D, NLGN1, COL16A1, MORC2, RAB11A, PPM1F, SEMA4D, CDC27, PLXNA2, ABCA13, AP2M1, DVL3, EIF4G1, EPHB3, ANAPC5, TSG101, WNT3, NLGN3, PAFAH1B1, KIF3A, HIP1, TRPC5, TNKS, ERCC1, RUFY3, DAB2, DZIP1, RELN, SIN3A, DOCK11, MACF1, ALK, CLASP1, NFATC2, PACSIN1, PAK3, ATAD1, ADNP, MAP1B, TFRC, UVRAG, GPC3, SGIP1, TBC1D5, FLRT2, SNX9, ACTR2, ELAVL4, PLCG2, ROCK1, EPS8, NTRK1, EPHB1, GNL3L, AP2B1, CUX1, MCU, ABCB7, FCHSD2, MAP3K13, RAPGEF3, PDXP, PTK7, SNCA, CD53, MAGI2, USP50, SYT9, CBFA2T2, IGF1, ATF7IP, HTT, DPYSL3, MAPK1, MIB1, BMP7, LRRK2, SPAG5, EFNA5, SHANK3, PKIB, WNT7A, ATRX, RAPGEF2, MARK4, RHOA, ROR1, TF, CUL3, GSK3B, EEF2K, BOK, AGT, TPPP2, SNX3, SETD2, EPHB2, GPSM2, PPP1R10, PHLDB2, ANGPT1, FBXO31, CNTN1, PRKCQ, BRAF, ATP8A1, PHIP, CDKL3, ANXA2, PARN, SYK, CNOT1, HRK, DVL2, GRIP1, PTPRJ, GPM6A, HSF1, PLEKHM1, ASAP1, GBP5, AXL, MET, EHD2, CCT3, NEDD4L, SYNDIG1, PRAP1</p>
GO:0051129	negative regulation of cellular component organization	8.406168700526965e-9	<p>NRXN1, CLASP2, SEMA3A, RPS6KA2, SEMA3D, SCAF8, FHOD3, TJPI, SEMA5A, TOM1L1, LMNA, ROBO2, TRIOBP, ARHGAP24, DAB1, OMA1, HDAC6, IKBKB, PMEP A1, PTPRO, EP300, MID1, ARHGAP6, DENND5A, CENPF, GSN, RBM14, RIT2, FYN, FAT3, RTN4, APOD, RTN4R, PAQR3, NTN1, MAD1L1, SCFD1, MAD2L2, TERF2, SLX1B, RCC2, KREMN1, PRKCD, SEMA5B, BCAS3, DNAJB2, SLIT2, CORO1C, KANK1, TTBK2, SMAD6, DUSP22, HNRNPC, KANK4, IQCJ-SCHIP1, RHPN2, SVIL, EPHA4, SMG6, PPP3CA, MAG, PARK2, PPARG, ADD2, SCAMP5, DRAXIN, NOL3, UBQLN4, DCC, BAZ1B, SPTBN1, DNM3, SSH1, MTBP, SHANK1, ARHGEF18, NAV3, ADD3, DIP2B, YAP1, TEN1, FSTL4, PTPRG, KIF24, SPTBN14, VILL, PRKD1, SEMA6D, RAF1, VBP1, NLGN1, CTNNA2, CRMP1, SEMA4D, MCTP1, SPOCK1, TERF2IP, WNT3, PAFAH1B1, TRPC5, TNKS, ERCC1, RUFY3, DAB2, LDLRAD4, CLASP1, PACSIN1, SPTBN5, SSH2, TET1, MAP1B, MPHOSPH9, PHF2, TFRC, XRN1, ZNF207, CLCE16A, MNAT1, ROCK1, EPS8, PTPN9, GNL3L, TRIM46, SH3GL3, CARM1, ARHGAP44, SNX33, EPHA7, LIMA1, RAPGEF3, SNCA, PTPRS, ADTRP, OPRD1, RTN4RL1, CBFA2T2, IGF1, DPYSL3, PTEN, BMP7, ATXN2, LRRK2, UNC119, SHANK3, TBCD, MAP4, BMP6, ATRX, RAPGEF2, RHOA, SYNGAP1, GSK3B, RDX, FAM49B, NECAB2, BOK, HDGFRP3, DNAJB6, PACSIN2, SPEF1, EPHB2, TMEFF2, DLC1, PRKCZ, GRIN2B, RABGEF1, PHLDB2, MAP2, HDAC2, IMPACT, TNFR, CD300A, CDKL3, CAMSAP3, SLIT1, ANKRD13A, HSF1, CGNL1, INPP5F, TRIM37, MET, SPTAN1, SEMA3C, PRAP1, BMP4</p>
GO:0009891	positive regulation of biosynthetic process	8.621898013909877e-9	<p>POLDIP3, LDB2, ASPH, SLC9A1, PBX3, CBFB, IL31RA, MED26, WWCI, ASH1L, NOS1AP, SCAF8, STOX2, PAGR1, HIVEP3, NPAS3, ARNT, STAT5B, CASK, MAP2K5, SP3, HDGF, CHD7, HTR2B, MECOM, TACC1, TRAF6, NHLH1, HSP90AA1, GF11B, RUNX1, HMGN3, NRIP1, THRB, EFCAB7, CCT2, SERTAD2, DDB1, IKBKB, ERBB4, ZNF609, BRD8, KAT6B, ESR1, MAML3, CDON, EP300, CELA1, ZNF76, PDGFB, HNF4G, INSR, RERE, TCF7L2, LITAF, FBXW11, ESRRB, MAP3K4, TBR1, SAMD4A, TFAP2A, PEG3, MEIS1, TRIM13, ZNF148, MTA3, TFDP2, SLC30A9, TOX3, LARP4B, KAT7, RBM14, MED12L, SATB2, RIT2, MKRN2, ARNTL, PLCB1, ARID4B, BRPF1, PIK3R2, UBP1, MAP2K1, PPP3R1, HDAC5, CSRNP3, NFIA, RN4, ROR2, DCN, PCBD2, CDH13, CREBRF, COPS5, MAD2L2, RAB27A, CAPRIN2, NEUROD1, USP22, JAK2, SKAP1, MLIP, BCL11B, PKNOX1, MLLT3, KLF15, WNT11, MTA1, NOX4, RPRD1B, CCDC62, PRKCD, ACVR2A, RUNX2, CD4, TGFB1, BANP, NSD1, BTRC, NFATC3, F2RL1, BCAS3, TP73, ILF2, MTDH, FANK1, SMAD6, ZNF398, CLOCK, TCF12, ETV6, SUCO, TFAP2D, BCL3, SBN2, YTHDF1, FGF10, CIZ1, SMYD3, CAPN3, LUM, RORA, AUTS2, TNFSF11, PPP3CA, NFYB, KLF12, CAMK4, CTNNA1, PARK2, SOD2, MARCC1, IGF1R, PPARG, NGRN, AXIN1, MTF1, SREBF2, FGF1, NPAT, NR4A3, FOXK2, MYOCD, TRIM5, PER2, AJUBA, CHEK2, SUPT3H, PRDM16, SORBS1, RAB3GAP2, CAPN2, TRIM8, MEF2B, HDAC4, PAX2, PHF5A, SFRP1, MED13, ZNF395, FOXO3, NFIB, SMA D3, WWP2, ARNT2, EBF3, CASZ1, ESRRG, HOXD3, HOXD4, NFATC1, CDC73, APP, SSBP3, NOX1, YAP1, NVL, LRP5, SOX2, TEAD1, ZNF521, ARID3A, CHUK, ESR2, PRKD1, STAT1, ST18, ETV5, PLAGL1, HNF4A, ZBTB7C, TASP1, EREG, ATF2, POU2F2, TCF3, RAF1, BMPR2, BMPR1A, IKZF4, CDK12, CAND2, MYB, FGF2, ZNF71, BACH1, RORC, PTAFA, DCYAPIR1, DDX58, BRDT, RARB, NCOA1, LMO7, DVL3, EIF2B5, EIF4G1, TCF20, ATF3, PAWR, EBF2, MAML2, TSG101, CCDC3, RFX2, PRDM15, DDAH1, GLI2, TNKS, WBP2N L, ERCC1, GLIS3, DAB2, BLM, MYSM1, SIN3A, RUVBL2, GMEB1, ZNF423, SPI1, TRIM22, TEAD4, HOXC13, SLC35A4, SRA1, UBE2V1, ADIRF, OVOL2, SNX5, NFATC2, BNC1, ACTL6B, ASXL3, PAK3, TET1, CAMTA1, CCPG1, ARID4A, SCARB1, PHF2, WWOX, MEF2A, DCAF6, EYA1, TRPV1, HOXB3, HOXB4, HOXB5, TFEB, ACTR2, HDAC1, SMOC2, TRIM24, PLCG2, PAXIP1, EGR2, RNF10, RYBP, AP3B1, PTPN2, KPNA6, TRIM44, EPCAM, MUC1, AP3D1, CARM1, ZNF836, SMARCA2, SPI1, GLIS1, BCAR3, ABCB7, RBPMS, CHURC1, CREB5, SNCA, BMPR1B, PRIM2, ZEB2, FOXJ3, HEY2, EIF3E, KMT2D, CREM, KMT2C, PLD1, MACC1, MITF, RPTOR, NFIX, KCTD13, IGF1, MLXIP, ATF7IP, MAPK1, BMP7, PCBP2, ZNF780B, LRRK2, ZBTB20, RFC3, PKD2, TADA2A, DAZL, NCOA3, PKIB, WNT7A, LPGAT1, CRT3, ARNTL2, ELOVL5, KAT6A, ZNF197, BMP6, TAF15, WDR43, ATRX, PRMT2, SMO, TCF4, SOX30, TFE3, GRIN1, JADE1, RHOA, RQCD1, TF, ONECUT2, TFEC, PRR16, DNAJC3, STAT6, CDK13, SUPT4H1, AGT, PBX1, MAP3K5, CREBBP, DLX1, NCF1, SHC1, RPS6KB1, SP7, LARP4, SLC5A3, RPS6KA5, ZNF484, PRDM2, NOS1, ACTN4, MC1R, EDRF1, IL18, PPARA, ARID5B, NOTCH4, CRX, PAX6, NIPBL, YEATS4, ZNF143, BRF1, TBLIX, ATF6, ETS1, MTF2, CDK5RAP1, PRKCQ, CSRNP1, HDAC2, HTR2C, IMPACT, SRCAP, POU3F3, ELF2, PHIP, RFC5, SP100, PARN, WWTR1, ZBTB38, BRCA2, ATF7, DVL2, YBX1, TICAM1, THAP3, HSF1, MAX, EZH1, NRF1, NCOA2, QRI1, ZP3, CHD6, TRIM37, MET, SETD3, MLXIP, CCT3, PHB, CTCF, NR6A1, ATF6B, CREB1, RGM B, BMP4, ABLIM3</p>
GO:00	positive regulation	1.13243039	NRXN1, SLC3A1, S1PR2, ADCY8, PDE8A, IL31RA, NRG3, PRKAG2, PRLR, NTRK3, ARN

42327	of phosphorylation	44557889e-8	<i>T,FLT3,ENPP2,GRM5,MAP2K5,KITLG,ROBO1,TOM1L1,HTR2B,TENM1,TRAF6,VA V2,ABI1,HSP90AA1,CDC6,KNDC1,DSCAM,AKAP13,DAB1,PTPN11,HDAC6,ADORA1,EPHA1,ERBB4,MRE11A,CDON,NTRK2,PDGFB,TNFR,CCND3,INSR,CAB39,PAK1,MAP3K4,BDNF,ENTPD5,ECT2,ERN2,CASS4,FYN,LMTK2,CH13L1,NRG1,SH2D3C,MAP2K1,FNIP1,ROR2,MAD2L2,CAPRIN2,CCNYL1,JAK2,FBXW7,LAMTOR3,WNT11,NOX4,PRKCD,TAB2,ACVR2A,CD4,TGFB1,PIBF1,TNFRSF10B,DOCK3,FGF10,SMYD3,EPHA4,CD6,TNFSF11,IGF1R,PPARG,AXIN1,LEPR,FGF1,AJUBA,CHEK2,SPDYA,CSPG4,FLT4,SLC4A4,TAB1,APP,PDGFRA,BORA,MTCPI,S100A12,PRKD1,EREG,CCNY,ATF2,RAF1,PTPN1,BMPR2,BMPR1A,BTBD10,PIK3R3,FGF2,NEDD9,SEMA4D,DVL3,EIF4G1,EPHB3,CKS1B,TERF2IP,TRPC5,DAB2,CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,ALK,SLC8A2,ATP2B4,ADNP,TFRC,EPHA5,GHR,MNAT1,SNX9,PLCG2,INSRR,NTRK1,EPHB1,EPHA10,AXIN2,P1FO,EPHA7,ATG14,BCAR3,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPR1B,PRKAG1,ADPR,OPRD1,RPTOR,IGF1,MAPK1,BMP7,LRRK2,UNC119,ZBTB20,PKD2,EFNA5,PDGFC,PPP2R3C,BMP6,RAPGEF2,RHOA,ROR1,RQCD1,TF,AGT,PRKAA2,PTK2,TEC,MAP3K5,NCF1,TAOK2,CD44,ADAM8,RPS6KA5,NOS1,STK4,EPHB2,SLC1A1,IL18,UBE2K,MOB3B,PRKCZ,ANGPT1,LRRK1,OSBP18,CNTN1,BRAF,HDAC2,CD300A,PPP2CA,ANGPT4,MADD,SYK,DVL2,PTPRJ,HSF1,SASH1,VAV3,MOB3A,SH2D3A,AKTIP,AXL,MET,MALT1,MLXIPL,PHB,PTPRC,TYRO3,BMP4</i>
GO:0031346	positive regulation of cell projection organization	1.2012751634556175e-8	<i>CLRN1,PRKCI,NEGR1,TENM3,TIAM2,KALRN,NTRK3,SEMA5A,TOX,ENPP2,PLCE1,ROBO1,CDKL5,TENM1,ROBO2,DSCAM,CDC42EP3,GOLGA4,LIMK1,ATP8A2,NTRK2,EP300,TENM2,CDH4,PTPRD,BDNF,AMIGO1,DMD,RIT2,FYN,NDRG4,NTN1,MAP2K1,TMEM30A,ROR2,CAPRIN2,NCKAP1,ZDHHC15,CROCC,SEPT7,FIG4,IL1RAPL1,CAMK2B,F2RL1,BCAS3,SLIT2,CORO1C,DISC1,CEP135,EPHA4,AUTS2,CNR1,IGF1R,NIN,HDAC4,DNM3,CUX2,ABI2,ISLR2,PRKD1,PARP6,BMPR2,PRKDI,NLGN1,RAB11A,SEMA4D,PLXNA2,DVL3,WNT3,PAFAH1B1,TRPC5,RUFY3,DZIP1,RELN,DOCK11,MACF1,ALK,PACSIN1,PAK3,ADNP,MAP1B,ACTR2,ELAVL4,EPS8,NTRK1,CUX1,MAP3K13,PTK7,MAGI2,CBFA2T2,HTT,DYSL3,BMP7,EFNA5,RAPGEF2,MARK4,ROR1,EEF2K,AGT,SNX3,FBXO31,CNTN1,BRAF,CDKL3,DVL2,GRIP1,GPM6A,PLEKHM1</i>
GO:0051172	negative regulation of nitrogen compound metabolic process	1.4361940014910841e-8	<i>ENPP1,LDB2,PRMT3,PDE4D,DNMT1,TRPS1,CBFB,PRDM12,WWC1,LATS2,SCAF8,PTGIS,PRKAG2,WWC3,MVP,FTO,NTRK3,CBL,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,OXR1,GF11B,PTPRK,RUNX1,NRIP1,THRB,DACH1,MGAT5,ORC2,HDAC6,EPHA1,IKBKB,PEX14,LIMK1,KAT6B,ESR1,MIER1,PCBP3,PMEP1,PTPRO,NTRK2,TNRC6A,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,FMN2,RERE,PRKAR1A,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASP1,TBR1,SAMD4A,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,CST2,ERN2,C1D,DMD,CENPF,LARP4B,KAT7,SLC8A1,RBM4,SATB2,HIRA,FYN,ARNTL,NF1,PLCB1,RTN4,DPEP1,APOD,PAQR3,NRG1,BDKRB1,BDKRB2,FRY,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JD2,ITIH2,CREBRF,TRDMT1,SOX13,FHIT,PTPRT,AUNIP,IPO5,MAD2L2,TLE6,CAPRIN2,TERF2,SLX1B,FOXN3,GNAQ,RFFL,UIMC1,MLIP,ZFYVE28,TCF7,PDE2A,KLF15,TBX15,WNT11,MTA1,KLF8,LCOR,PRKCD,SOX6,RUNX2,PPM1E,TGFB1,BANP,NSD1,PIBF1,ZHY2,BTRC,NFATC3,CDYL2,DNAJB2,CC2D1B,SLIT2,ITIH4,CORO1C,SAP18,MTDH,MYT1L,KDM4B,SAMD6,ZNF398,CLOCK,ZNF675,ETV6,NELL1,TIMP2,BCL3,DUSP22,NAIP,HNRNPC,SBNO2,YTHDF1,SMYD3,LOXL3,CAPN3,SMURF2,EPHA4,SMG6,PPP3CA,NSUN2,MAGEA4,KLF12,GATAD2B,PIP5KL1,UFL1,CTNNB1,PARK2,METTL13,SMARCC1,PPARG,AXIN1,PRKAR1B,OTUB1,CIPC,CBX5,LRRPC,SREBF2,PROS1,NR4A3,FOXK2,NOL3,PRKAR2A,MYOCD,PER2,AJUBA,GLG1,UBQLN4,PRDM16,CSTL1,BRMS1L,NF2,HDAC4,PAX2,SFRP1,FOXO3,NFIB,ZCCHC17,SYNCRIP,SMAD3,CUX2,WWP2,SIMC1,RNF168,DCP1B,MIER3,NEDD4,CDC73,APP,YAP1,HEG1,TEN1,I BTK,LRP5,SOX2,TERF2IP,ZNF653,SFMBT1,ESR2,DCUN1D3,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,RAF1,CELF4,CARD16,PTPN1,BMPR2,VBP1,IKZF4,SPAG9,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,PRKCG,SIN3B,SPOCK1,EHMT1,EIF4G1,ATF3,LIN28B,PAWR,AGO3,DEPTOR,TSG101,TERF2IP,CRYM,SUFU,MAGEA11,PTPN13,COL4A3,NR2C1,GLI2,TNKS,ERCC1,TNRC6B,GLIS3,WDTC1,DAB2,BLM,LDLRAD4,SIN3A,RUVBL2,ZNF423,TRIM22,XDH,OVOL2,NFATC2,ATP2B4,MAPKAPK2,ARID4A,CDK6,CELF1,RNF34,MZF2A,GPC3,XRN1,SATB1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,L3MBTL4,ELAVL4,HDAC1,RECQL5,TRIM24,ROCK1,SCMH1,HIPK3,RYBP,PTPN2,TRIM44,MAP1A,AXIN2,PARD3,ZNF425,GNL3L,MUC1,BCOR,ANXA8L1,CD84,LPA,SMARCA2,CUX1,SP11,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,JAZF1,STK38,ACOT8,RENBP,SMYD1,SNCA,PNPT1,ZEB2,HEY2,RC3H1,EIF3E,ZMYND11,CREM,PSMF1,CAST,TRIP12,DFFA,MITF,SRSF6,NFIX,MLLT1,CBFA2T2,IGF1,ATF7IP,PTEN,SPRED2,BMP7,MXI1,PUM1,CIR1,LRRK2,TMEM59,ZBTB20,BAG6,LILRB4,ITGAM,KCTD1,RIPPLY1,RCOR3,DAZL,SERPINA3,SERPINA4,SERPINA5,PKIB,ZBED6,DNAJC1,KAT6A,BMP6,TAF15,MYCBP2,GPI,SH3RF2,N4BP1,ATRX,IKZF1,PRMT2,SMO,PRKAR2B,SOX30,UBR5,RQCD1,CUL3,TFEC,EPH2A,GSX3B,DNAJC3,STAT6,PTPRB,RBBP8,CD27,DUSP26,NACC2,SUPT4H1,AGT,METTL16,PRKAA2,ADAR,ZMPSTE24,SNX3,EXOSC3,TCFL5,CREBBP,DLX1,SHC1,PARP10,PRG3,SERPINB1,SETDB2,DNAJB6,CD44,RPS6KA5,ZNF93,PRDM2,RGS14,TCF25,ZNF282,EPHB2,DIS3,PPARA,ARID5B,CPEB4,NOTCH4,ZMYND8,ZNF366,PAX6,PRKCZ,ADORA2A,RABGEF1,CPEB1,OTUD7B,NIPBL,COL28A1,ANGPT1,TBL1X,FHL2,LRRK1,MBTD1,ZB</i>

			<i>TB5,IGF2BP3,MTF2,TAGLN3,CDK5RAP1,NCOR2,HDAC2,IMPACT,POU3F3,SPINT2,CD300A,ELF2,PPP2CA,RPL23,ATXN1,SP100,ANXA2,TRIM29,PARN,RBM42,CNO T1,WWTR1,ZBTB38,MORC1,YBX1,PTPRJ,TAF1,HSF1,MAX,SAP130,DHFR,EZH1,N COA2,ZP3,RNF2,ZNF554,INPP5F,TRIM37,CD109,TIMELESS,UCHL5,SERPINE3,K DM2B,MLXIPL,PHB,PTPRC,ZNF555,CTCF,SH3GL2,NR6A1,TRAF3IP2,CREB1,BM P4</i>
GO:0031328	positive regulation of cellular biosynthetic process	1.6644730240675658e-8	<i>POLDIP3,LDB2,ASPH,SLC9A1,PBX3,CBFB,IL31RA,MED26,WWC1,ASH1L,NOSIAP,SCAF8,STOX2,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,CASK,MAP2K5,SP3,HDGF,C HD7,HTR2B,MECOM,TACC1,TRAF6,NHLH1,HSP90AA1,GF11B,RUNX1,HMGN3,N RIP1,THRB,EFCAB7,CCT2,SERTAD2,DDDB1,IKBKB,ERBB4,ZNF609,BRD8,KAT6B,E SR1,MAML3,CDON,EP300,CELA1,ZNF76,PDGFB,HNF4G,INSR,RERE,TCF7L2,LIT AF,FBXW11,ESRRB,MAP3K4,TBR1,SAMD4A,TFAP2A,PEG3,MEIS1,TRIM13,ZNF14 8,MTA3,TFDP2,SLC30A9,TOX3,LARP4B,KAT7,RBM14,MED12L,SATB2,RIT2,MKRN 2,ARNTL,PLCB1,ARID4B,BRPF1,PIK3R2,UBP1,MAP2K1,PPP3R1,HDAC5,CSRNP3, NFIA,RNF4,ROR2,DCN,PCBD2,CDH13,CREBRF,COP5,MAD2L2,CAPRN2,NEUR OD1,USP22,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,MLLT3,KLF15,WNT11,MTA1,NO X4,RPRD1B,CCDC62,PRKCD,ACVR2A,RUNX2,CD4,TGFB1,BANP,NSD1,BTRC,NF ATC3,F2RL1,BCAS3,TP73,ILF2,MTDH,FANK1,SMAD6,ZNF398,CLOCK,TCF12,ET V6,TFAP2D,BCL3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,CAPN3,LUM,RORA,AUTS 2,TNFSF11,PPP3CA,NFYB,KLF12,CAMK4,CTNNB1,PARK2,SOD2,SMARCC1,IGF1 R,PPARG,NGRN,AXIN1,MTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5 ,PER2,AJUBA,CHEK2,SUPT3H,PRDM16,SORBS1,RAB3GAP2,CAPN2,TRIM8,MEF2 B,HDAC4,PAX2,PHF5A,SFRP1,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARNT 2,EBF3,CASZ1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,NVL,LR P5,SOX2,TEAD1,ZNF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18,ETV5,PLAGL1, HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,RAF1,BMPR2,BMPRI1,IKZF4, CDK12,CAND2,MYB,FGF2,ZNF71,BACH1,RORC,PTAFR,ADCYAP1R1,DDX58,BRD T,RARB,NCOA1,LMO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,PAWR,EBF2,MAML2,TS G101,RFX2,PRDM15,DDAH1,GLI2,TNKS,WBP2NL,ERCC1,GLIS3,DAB2,BLM,MYS M1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TRIM22,TEAD4,HOXC13,SLC35A4,SRA1, UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,BNC1,ACTL6B,ASXL3,PAK3,TET1,CAMTA1 ,CCPG1,ARID4A,SCARB1,PHF2,WWOX,MEF2A,DCAF6,EYA1,TRPV1,HOXB3,HOX B4,HOXB5,TFEB,ACTR2,HDAC1,SMOC2,TRIM24,PAXIP1,EGR2,RNF10,RYBP,AP3 B1,PTPN2,KPNA6,TRIM44,EPCAM,MUC1,AP3D1,CARM1,ZNF836,SMARCA2,SP11, GLIS1,BCAR3,ABC87,RBPMS,CHURC1,CREB5,SNCA,BMPRI1B,PRIM2,ZEB2,FOXJ 3,HEY2,EIF3E,KMT2D,CREM,KMT2C,PLD1,MACC1,MITF,RPTOR,NFIX,KCTD13,I GF1,MLXIP,ATF7IP,MAPK1,BMP7,PCBP2,ZNF780B,RFC3,PKD2,TADA2A,DAZL,N COA3,PKIB,WNT7A,LPGAT1,CRTC3,ARNTL2,ELOVL5,KAT6A,ZNF197,BMP6,TAF1 5,WDR43,ATRX,PRMT2,SMO,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,RQCD1,TF, ONECUT2,TFEC,PRR16,DNAJC3,STAT6,CDK13,SUPT4H1,AGT,PBX1,MAP3K5,CR EBBP,DLX1,NCF1,SHC1,RPS6KB1,SP7,LARP4,RPS6KA5,ZNF484,PRDM2,NOS1,AC TN4,MC1R,EDRF1,IL18,PPARA,ARID5B,NOTCH4,CRX,PAX6,NIPBL,YEATS4,ZNF1 43,BRF1,TBL1X,ATF6,ETS1,MTF2,CDK5RAP1,PRKCQ,CSRNP1,HDAC2,HTR2C,IM PACT,SRCAP,POU3F3,ELF2,PHIP,RFC5,SP100,PARN,WWTR1,ZBTB38,BRCA2,AT F7,DVL2,YBX1,TICAM1,THAP3,HSF1,MAX,EZH1,NRF1,NCOA2,QRICH1,ZP3,CHD 6,TRIM37,MET,SETD3,MLXIPL,CCT3,PHB,CTCF,NR6A1,ATF6B,CREB1,RGMB,BM P4,ABLIM3</i>
GO:1901888	regulation of cell junction assembly	1.703121817309274e-8	<i>NRXN1,MAP4K4,SLC9A1,NEGR1,CLASP2,GRID2,TJP1,NTRK3,LHFPL4,ROBO2,IK BKB,NTRK2,PTPRD,BDNF,AMIGO1,ARHGAP6,APOD,NTN1,LRFN5,RCC2,CLSTN2 ,CLDN1,IL1RAPL1,BCAS3,CORO1C,DUSP22,LINGO2,CNTNAP2,IL1RAPL2,DLG5, SFRP1,SMAD3,CUX2,APP,SLK,NLGN2,GPC6,NLGN1,COL16A1,PPM1F,PEAK1,SE MA4D,EIF4G1,EPHB3,VCL,NLGN3,SETD5,MACF1,CLASPI,PGM6B,ADNP,FLRT2, ROCK1,NTRK1,EPHB1,EPHA7,PTPRA,SNCA,PTPRS,PTEN,EFNA5,WNT7A,RAPGE F2,RHOA,EEF2K,AGT,PTK2,EPHB2,DLC1,PHLDB2,CAMSAP3,SLIT1,PTPRJ,SYND IG1</i>
GO:000165	MAPK cascade	1.750909136710196e-8	<i>PRDX2,NRXN1,MAP4K4,PDE8A,SEMA3A,IL31RA,WWC1,ASH1L,NTRK3,FLT3,GR M5,PLCE1,MARVELD3,MAPK4,MAP2K5,KITLG,MAPK10,PTPRR,EZR,ROBO1,HTR 2B,MECOM,TENM1,TRAF6,ITPKB,ULK4,PSMB7,AKAP13,PTPN11,ADORA1,IKBK B,ERBB4,ADRA1D,CDON,NTRK2,PDGFB,TNIF,MID1,STK39,INSR,PAK1,MAP3K4, PPM1L,ERN2,DMD,RIT2,NF1,PLCB1,CHI3L1,NDRG4,PAQR3,PIK3R2,RANBP9,NR G1,SH2D3C,MAP2K1,ROR2,COP5,FGF14,JAK2,FBXW7,ITCH,NPSR1,LAMTOR3, NOX4,PRKCD,CD4,F2RL1,TP73,ZNF675,BMPER,DUSP22,NAIP,FGF10,RASA4,RA SA4B,SH3RF3,EPHA4,PRKCA,TNFSF11,CTNNB1,PARK2,FCGR2B,IGF1R,PPARG, AXIN1,FGF1,TRIM5,AJUBA,PPP1CB,CSPG4,GRM1,NF2,FLT4,SFRP1,SMAD3,TAB 1,APP,PDGFRA,NOX1,TNFRSF19,SOX2,FRS2,S100A12,MAPKAPK3,ATF2,RAF1,PT PN1,SPAG9,FGF2,DOK6,DVL3,RBX1,ATF3,RCE1,CCL14,CCL15,PAFAH1B1,PRD M15,DAB2,PKHD1,NEK10,IQGAP1,MAP3K7,ALK,XDH,PAK3,MAPKAPK2,MEF2A, GFRAL,PSMB2,GHR,PLCG2,ROCK1,C1QTNF1,HIPK3,PTPN2,NTRK1,EIF3A,EPHB 1,SP11,EPHA7,BCAR3,STK38,MAP3K13,GRM4,WNT7B,ZMYND11,RASA1,IGF1,MA PK1,PTEN,SPRED2,BMP7,LRRK2,LILRB4,SHANK3,PDGFC,WNT7A,SH3RF2,RAPG EF2,VRK3,SYNGAP1,ROR1,TF,ACTA2,NECAB2,CD27,DUSP26,AGT,HRH4,NDRG2, MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,CXCL17,PLVAP,RGS14,STK4,EPHB2,I L18,PHLPP1,MAG13,PRKCZ,PPP1CC,ANGPT1,GCNT2,TBC1D10C,CCL22,BRAF,H</i>

			TR2C,CD300A,ARHGEF6,MADD,SYK,GRIK2,DVL2,PTPRJ,HSF1,SASH1,CAV2,SH2D3A,ANKRD6,PHB,PTPRC,BMP4
GO:1901576	organic substance biosynthetic process	2.0981338757800087e-8	POLDIP3,ZDHHHC14,ENPP1,PRDX2,LDB2,GPC5,ASPH,B4GALNT2,PRMT3,GSS,PRKCI,SLC3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MGAT4C,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,GK5,MED26,WWC1,ASH1L,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,PAGR1,ADCY7,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,NOC3L,PLCE1,SAMHD1,ZNF566,FER,CASK,MAP2K5,MAPK10,SPNS2,PIK3CD,ZNF536,SP3,HDGF,GTFC3C1,EIF4G3,EZR,IKZF2,B3GALT1,MALRD1,CHD7,HTR2B,MECOM,TACC1,TENM1,NADK2,GOT1,NMT2,INPP4B,TRAF6,GTFC2E2,ITPKB,SCD5,DNAJA3,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,MOCOS,FAM126A,CDAN1,GMDS,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACHI,ZNF569,MGAT5,CCT2,ORC2,HDAC6,SERTAD2,DDB1,MYT1,IKBK8,PEX14,ERBB4,GBE1,DPY19L2,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,LARGE,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,GALNTL6,CSGALNACT1,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,ALOX5AP,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,PIP4K2A,ST6GALNAC3,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,ZDHHHC13,BASP1,SPTSSA,TBR1,PIIP5K1,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,POMGNT2,FUT8,MEIS1,VRTN,TRIM13,MDM4,ENTPD5,ZNF148,MTA3,SNX6,TFDP2,PPM1L,PTCD3,ERN2,CDC45,C1D,AFF3,DND,CENPF,ATG10,SLC30A9,CERS6,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,PRPS2,MED12L,SATB2,RIT2,HIRA,DRG2,MKRN2,ARNTL,LINC01138,PLCB1,ARID4B,GXYLT2,POLA2,DGKH,HS3ST2,B4GALT6,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDFI,FNIP1,VAX2,GALNT16,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ALDH3B2,ZNF692,NFIA,RNF4,GALNT18,JDP2,CMKLR1,INPP4A,PIIP5K2,ROR2,DCN,ZDHHHC3,SLC39A14,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,UST,COPS5,AK2,MAD2L2,MAN1A1,TLE6,SRBD1,CAPRIN2,ZNF418,NLN,PHF20L1,BBOX1,PDEF,TERF2,ZNF286A,NME7,FOXN3,AK5,CERKL,NEUROD1,USP22,ZDHHHC15,JAK2,TRAPP9,FBXW7,OAZ2,SKAP1,SMC3,UIMC1,ITCH,MLIP,BCL11B,SMG1,IMPDH1,PKNOX1,B3GALT5,MLLT3,TSHZ2,PNPLA1,DHDDS,TCF7,PDE2A,KLF15,TBX15,ANXA4,TTC7B,WNT11,FIG4,MTA1,KLF8,NOX4,LCOR,RPRD1B,CACNA1H,PKI,CDC62,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,MRPL33,SGK1,PCSK5,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,HS6ST2,CC2D1B,TP73,HHAT,SAP18,CDKAL1,ZBTB22,ILF2,TMTC1,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,TMTC2,CLOCK,CHST9,TCF12,ZNF675,RPL36,ETV6,SYNJ2,PHRF1,TFAP2D,BCL3,EIF3L,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,AGPS,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,PIP5K1L,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,IARS2,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,ANKRD17,OTC,BRIP1,LRPPRC,SREBF2,AARS2,PFAS,CDK11A,GALNT8,NDUFA9,CDK11B,LEPR,FGF1,NPAT,NR4A3,FOXK2,WDR45B,DCT,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SOBBS1,AGPAT4,RAB3GAP2,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,HS3ST5,BAZ1B,MEF2B,SGMS1,HDAC4,PAX2,PHF5A,CPOX,SECISBP2L,SNAPC4,SFRP1,MED13,ST8SIA1,ZNF395,FOXO3,DGKB,TPH2,NFIB,SP4,SYNCRIP,SMAD3,TYW1B,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,CYP4F11,ZNF777,WIP1,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,PLA2G4C,ESRRG,HOXD3,HOXD4,ZNF114,GALNT14,KTII2,NFATC1,ST3GAL3,UCK2,CDC73,APP,SSBP3,GSX2,RBM8A,NOX1,YAP1,ST6GALNAC5,PPCS,TEN1,NVL,PMT,LRP5,POLR3G,BDH2,ZNF787,SOX2,SETD2,ZDHHHC6,GPC6,CHST11,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,ERLIN1,RFT1,SFMBT1,ZNF584,TPH1,ESR2,S100A12,GTFC2F2,PRKD1,STAT1,HEXA,ST18,OSBPL2,DGKG,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,CELFG4,ABLIM2,ZNF766,CARD16,POLA1,GGT7,BMPR2,CAMK1D,BMPRIA,ZKSCAN1,IDO2,PABPC4,IKZF4,PIK3R3,CDK12,TAF8,CAND2,CERS3,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,PI4KA,RARB,SPEN,PIK3C2B,SIN3B,NCOA1,EEF1E1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,POLR2H,TCF20,ATF3,TCEANC,AKR1D1,STT3B,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,CCDC3,TERF2IP,CRYM,RFX2,B3GALNT1,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,POLE,ZNF354C,TCEA3,PADI6,FDXR,CMPK1,ZNF704,CERS4,NR2C1,EDEM3,ME1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,GLCE,WDTC1,ZNF664,MRPS28,MGLL,TPK1,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,GTBPB2,RELN,SIN3A,RUVBL2,TYW1,COMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16,MAP3K7,ZNF423,SP1,TRIM22,ALK,GSTM3,GSTM5,INPP5D,TEAD4,HOXC13,APBB3,SLC35A4,SRA1,TOPI,UBE2V1,MBOAT1,ADIRF,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,C12ORF65,SCARB1,CDK6,PHF2,CELFG1,TYR,TFRC,EPHA5,WWOX,ALG14,MEF2A,ADCY9,DCAF6,GPC3,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,ELAVL4,HDAC1,HS6ST3,REC

			<p>QL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,MRPS17,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EIF3A,MAN1B1,SARM1,EPCAM,ZNF425,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,AP3D1,ZNF41,MGAT4A,CARM1,ZNF383,SRD5A2,ZNF616,ZNF836,SMARCA2,CUX1,SP11,DNMT3B,LRR47,FOXP2,AGPAT3,MRPS24,PSPC1,GLIS1,SFMBT2,EIF3H,BCAR3,JAZF1,ABC B7,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,PO LN,PRIM2,PNPT1,ZEB2,MCMBP,FOXJ3,NADK,OCA2,HEY2,RC3H1,EIF3E,HMGCS2,ZMYND11,KMT2D,PRKAG1,CREM,OSBPL1A,KMT2C,GGPS1,PLD1,MACC1,MIT F,OPRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,LARS2,MAPK1,PTEN,BMP7,ATXN2,MXI1,PIK3C3,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,ATP6V1A,MLYCD,TMEM59,PIGS,ZBTB20,RFC3,CHAF1B,LILRB4,SLC44A1,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,DAZL,SPTLC3,NCOA3,PKIB,MTMR3,ZNF146,ZNF565,HS2ST1,WNT7A,ZBED6,BRWD3,LPGAT1,CRTC3,DNAJC1,ARNTL2,ELOVL5,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,GPI,WDR43,ZNF30,EXT1,DPIY19L4,ATRX,DPH6,SERINC5,IKZF1,PNPLA3,PRMT2,RAPGEF2,ASCC1,MTHFD2L,SMO,FAR1,RALY,AMPD1,ALG9,DPIY19L1,TCF4,GALNT10,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTN,MCM3,ROR1,RQCD1,TF,ONECUT2,CKMT1B,CUL3,TFEC,EPM2A,GSK3B,PLD2,PRR16,DNAJC3,STAT6,MLF1,EEF2K,RBBP8,NECAB2,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,ELOVL3,POLH,PRKAA2,POLR2F,PITPNM2,STAT2,ZMPSTE24,UTF2E1,PPCDC,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,PRKD3,XLYB,ACSS3,DLX1,CHKA,UTF2IRD2,NCF1,SHC1,SLC44A3,ZNF813,ALDOA,LBX2,PARP10,RPS6KB1,ZDHHC23,DPRX,GALNT13,GUCY2F,PRG3,SETDB2,ALOX5,DNAJB6,SP7,LARP4,ADAM8,MRPS6,RPS6KA5,ZNF484,CDS1,ZNF93,PRDM2,NOS1,PEX7,ZNF44,MED15,RGS14,ACTN4,MK1R,TCF25,ZNF282,GATC,SLC1A1,EDRF1,TMEFF2,IL18,TEX12,DIS3,PPARA,ABCD3,ARID5B,SLC25A33,SMARCA11,TAF2,CPEB4,LDHC,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,RBMS1,PAH,CPEB1,OTUD7B,KIN,NIPBL,YEATS4,PHF20,UPB1,ZNF143,ANGPT1,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,NT5M,GCNT2,ETS1,PPP1CA,MTF2,TAGLN3,CDK5RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,HTR2C,IMPACT,PHKG2,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,MRPS16,RPL23,RFC5,ACAN,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,PIGU,DONSON,PITPNM3,FARSB,WIP1,ADCY1,ALG2,SQLE,SYK,CNOT1,MOGAT2,WWTR1,CYP39A1,GTF2H5,NFXL1,SLC44A5,ZBTB38,BRCA2,ALDH8A1,ATF7,DVL2,MORC1,MTRF1,YBX1,TAF1,EIF4E3,TICAM1,THAP3,GALNT7,SNAPC3,A3GALT2,HSF1,MAX,SAP130,DHFR,EZH1,ETFI,NRF1,SRPK2,NCOA2,CEPT1,WDR18,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,UGGT1,GALNT4,MYEF2,POC1B-GALNT4,INPP5F,TBP,ORC4,TRIM37,MECR,MET,ZNF461,CAMK2D,MRLP1,TIMELSS,BRD9,MALT1,SETD3,ZDHHC11,ZDHHC11B,KDM2B,MLXIP1,CCT3,PHB,EDA,ZNF555,CTCF,EXD2,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,TRAP1,EBF4,SLC25A13,ZNF511,BMP4,ABLIM3</p>
GO:0031589	cell-substrate adhesion	2.2432745720921826e-8	<p>MAP4K4,SLC9A1,CLASP2,DOCK1,UTRN,ATRNLI,FER,CASK,ITGB6,ITGB1,TRIOBP,PTPRK,EPHA1,PTPRO,MEGF9,PDGFB,STRC,ATRN,ARGHAP6,LAMC1,DMD,CASS4,ADAMTS9,NF1,APOD,BCR,EGFLAM,NTNG1,CDH13,RCC2,JAK2,SKAP1,MKLN1,BCAS3,CORO1C,DISC1,KANK1,SMAD6,PARVA,DUSP22,OTOA,HSD17B12,CTNNB1,ECM2,AJUBA,SORBS1,NF2,SFRP1,SMAD3,PREX1,HOXD3,SLK,DEFB118,ADAMTS12,COL16A1,PPM1F,NEDD9,PEAK1,ITGA11,SPOCK1,EPHB3,VCL,LAMB1,P4HB,DAB2,PKHD1,USH2A,MACF1,CLASP1,GPM6B,CDK6,ROCK1,NID1,EPHB1,VWF,PTPRA,COL13A1,RASA1,PTEN,EFNA5,TBCD,EPDR1,PARVB,RHOA,ONECUT2,GSK3B,ITGBL1,PTK2,TAOK2,ITGAL,CD44,ACTN4,STK4,TMEFF2,DLC1,PRKCZ,CD96,PHLDB2,THSD1,ANGPT1,GCNT2,VWC2,BRAF,CAMSAP3,FAT2,SRGAP2,RADIL,PTPRJ,AXL,EDA,TYRO3,TNXB</p>
GO:0051240	positive regulation of multicellular organismal process	2.2714773880982437e-8	<p>PRDX2,NRXN1,PRKCI,PDE4D,HLX,SLC9A1,CBFB,SEMA3A,GRID2,SETD4,NOX5,PTH2R,TIAM2,KSR2,PTGIS,TJP1,PRLR,KALRN,ARNT,SEMA5A,STAT5B,TOX,GRM5,KITLG,LRP2,PIK3CD,OLFM1,EZR,ROBO1,CHD7,HTR2B,CDKL5,TRAF6,ROBO2,ITPKB,ITGB1,HSP90AA1,DSCAM,RUNX1,OMA1,ABCC8,PTPN11,RBM19,GOLGA4,EPHA1,ERBB4,ADRA1D,LIMK1,ATP8A2,CDON,NTRK2,CELA1,PDGFB,RIMS1,TOB2,H2AFY2,TCF7L2,CDH4,ESRRB,PTPRD,BASP1,BDNF,TFAP2A,AMIGO1,CHRM3,TENM4,VAMP7,RFTN1,SLC8A1,PLCB1,RTN4,CHI3L1,NTN1,NRG1,MAP2K1,STIM1,CMKLR1,ROR2,SOX13,MAD2L2,TLE6,CAPRIN2,ANO6,CCBE1,JAK2,CLSTN2,ITC H,PLS1,WNT11,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,CD4,TGFB1,PIBF1,F2RL1,SLIT2,TP73,DISC1,MTDH,NELL1,BMPER,BCL3,ADAM12,LINGO2,FGF10,LUM,SMURF2,EPHA4,RORA,PRKCA,CNR1,CD6,TNFSF11,PPP3CA,MAG,UFL1,CTNNB1,IGF1R,PPARG,DLG5,IL18R1,IL1RL1,CYBB,SCAMP5,RYR2,LEPR,FGF1,NIN,NR4A3,DCT,MYOCD,PER2,KIR2DL4,SCN3B,PRDM16,DIO2,FLT4,HDAC4,PAX2,SPTBN1,FOXO3,SMAD3,CUX2,ESRRG,APP,GSX2,NOX1,YAP1,HEG1,NLGN2,ALPL,JAK1,ANGPT4,EPHA4,POLR3G,ISLR2,SLC9B2,SETD2,SPTBN4,VASH2,CHUK,FRS2,PRKD1,STAT1,PARP6,SLC6A3,EREG,ATF2,POU2F2,CASP1,BMPR2,BMPR1A,NLGN1,RAB11A,MYB,FGF2,SEMA4D,PLXNA2,PTAFR,DDX58,SPEN,EHMT1,EPHB3,EBF2,KCNQ1,WNT3,ZNF322,NLGN3,SCUBE2,PAFAH1B1,DDAH1,AKAP6,TRPC5,GLI2,RUFY3,DAB2,RELN,PELI1,MAP3K7,SP1,MACF1,INPP5D,TEAD4,GPM6B,OVOL2,SNX5,PAK3,ADNP,MAPKAPK2,MAP1B,CELF1,TFRC,MEF2A,PTGER3,TRPV1,GHR,FLR</p>

			<p>T2,ACTR2,HDAC1,SMOC2,ADIPOR2,PLCG2,ROCK1,C1QTNF1,PAXIP1,EGR2,RNF10,AP3B1,NTRK1,KPNA6,EPHB1,AXIN2,PARD3,AP3D1,CD84,CUX1,CHRNA4,MAP3K13,RAPGEF3,MST1,BMPRI1B,USP50,HEY2,HIPK1,BTK,IGF1,BMP7,SOX5,LRRK2,ZBTB20,LILRB4,EFNA5,SHANK3,PDGFC,NCOA3,PPP2R3C,WNT7A,NLRP1,GPR21,BMP6,TSHR,SMO,DECRI,RHOA,HSPD1,NFKBID,STAT4,EEF2K,FAM49B,CD27,SULF1,TNFRSF8,AGT,ELOVL3,FBN2,PDE4B,RIMS2,EXOSC3,CD160,RPS6KB1,PRG3,ALOX5,ADAM8,CXCL17,RGS14,EPHB2,SLC1A1,IL18,HCAR2,GPSM3,PAX6,PRKCZ,ZC3HAV1,FAM20C,ADORA2A,PPP1CC,NIPBL,TMIGD2,GCNT2,ETS1,BTN3A2,FBXO31,PRKCQ,BRAF,HDAC2,TNR,CDKL3,ANGPT4,ANXA2,NUMB,SYK,WWTR1,PTPRJ,TICAM1,CADM1,HSF1,SASH1,GBP5,BMP1,ZP3,AXL,TNFSF9,CAMK2D,C CR3,MALTI,KDM2B,PHB,PTPRC,SPON2,SYNDIG1,CREB1,CLNK,PRAP1,BMP4</p>
GO:0009058	biosynthetic process	2.37529819786792e-8	<p>POLDIP3,ZDHHHC14,ENPP1,PRDX2,LDB2,GPC5,ASPH,B4GALNT2,PRMT3,GSS,PRKCI,SLCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MGAT4C,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,GK5,MED26,WWC1,ASH1L,NOS1AP,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,PAGR1,ADCY7,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,NOC3L,PLCE1,SAMHD1,ZNF566,FER,CASK,MAP2K5,MAPK10,SPNS2,PIK3CD,ZNF536,SP3,HDGF,GTFC1,EIF4G3,EGZ,IKZF2,B3GALT1,MALRD1,CHD7,HTR2B,MECOM,TACCI,TENM1,NADK2,GOT1,NMT2,INPP4B,TRAF6,GTFC2E2,ITPKB,SCD5,DNAJA3,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,MOCOS,FAM126A,CDAN1,GMD5,GF11B,PTPRK,RUNX1,ERIC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACHI,ZNF569,MGAT5,CCT2,ORC2,HDAC6,SERTAD2,DDBI,MYT1,ADAMTS3,IKBKB,PEX14,ERBB4,GBE1,DYI19L2,MRE11A,GBF1,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,LARGE,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CND3,GALNTL6,CSGALNACT1,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,ALOX5AP,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,PIP4K2A,ST6GALNAC3,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,ZDHC13,BASP1,SPTSSA,TBR1,PPIP5K1,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,POMGNT2,FUT8,MEIS1,VRTN,TRIM13,MDM4,ENTPD5,ZNF148,MTA3,SNX6,TFDP2,ACOX1,PPM1L,PTCD3,ERN2,CDC45,C1D,AFF3,DMD,CENPF,ATG10,SLC30A9,CERS6,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,PRPS2,MED12L,SATB2,RIT2,HIRA,DRG2,FYN,MKRN2,ARNTL,LINC01138,PLCB1,ARID4B,GXYLT2,POLA2,DGKH,HS3ST2,B4GALT6,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDF1,FNIP1,VAX2,DAGLA,GALNT16,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ALDH3B2,ZNF692,NFIA,RNF4,GALNT18,JDP2,CMKL1,INPP4A,PPIP5K2,ROR2,DCN,ZDHHHC3,SLC39A14,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,UST,COPS5,AK2,MAD2L2,MAN1A1,TLE6,RAB27A,SRBD1,CAPRN2,ZNF418,NLN,PHF20L1,BBOX1,PDF,TERF2,ZNF286A,NME7,FOXN3,AK5,CERKL,NEUROD1,USP22,ZDHHHC15,JAK2,TRAPPC9,FBXW7,OAZ2,SKAP1,SMC3,UMC1,ITC,H,MLIP,BCL11B,SMG1,IMPDPH1,PKNOX1,B3GALT5,MLLT3,TSHZ2,PNPLA1,DHDDS,TCF7,PDE2A,KLF15,TBX15,ANXA4,TTC7B,WNT11,FIG4,MTA1,KLF8,NOX4,LCOR,RPRD1B,CACNA1H,OKI,CCDC62,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,MRPL33,SGK1,PCSK5,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,HS6ST2,CC2D1B,TP73,HHAT,SAP18,CDKALI,ZBTB22,ILF2,TMTC1,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,TMTC2,CLOCK,CHST9,TCF12,ZNF675,RPL36,ETV6,SYNJ2,SUCO,PHRF1,TFAP2D,BCL3,EIF3L,SNDD1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF10,CIZ1,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,AGPS,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,IGF1R,PPARG,IARS2,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,ANKRD17,CYBB,OTC,BRIP1,LRPPRC,SREBF2,AARS2,PFAS,CDK11A,GALNT8,NDUF49,CDK11B,LEPR,FGF1,NPAT,NR4A3,FOXK2,WDR45B,DCT,ESCO1,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,AGPAT4,RAB3GAP2,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,HS3ST5,BAZ1B,MEF2B,SGMS1,HDAC4,PAX2,PHF5A,CPOX,SECISBP2L,SNAPC4,SFRP1,MED13,ST8SIA1,ZNF395,FOXO3,DGKB,TPH2,NFIB,SP4,SYNCRIP,SMAD3,TYW1B,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,CYP4F11,ZNF777,WIP1,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,PLA2G4C,ESRRG,HOXD3,HOXD4,ZNF114,GALNT14,KTI12,NFATC1,ST3GAL3,UCK2,CDC73,APP,SSBP3,GSX2,RBM8A,NOX1,YAP1,ST6GALNAC5,PPCS,TEN1,NVLP,PEMT,LRP5,POLR3G,BDH2,ZNF787,SOX2,SETD2,ZDHHHC6,GPC6,CHST11,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,ERLIN1,RFT1,SFMBT1,ZNF584,TPH1,ESR2,S100A12,GTFC2F2,PRKD1,STAT1,HEXA,ST18,OSBPL2,DGKG,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,ERE,ATF2,POU2F2,TCF3,ZNF730,RAF1,CELF4,ABLIM2,ZNF766,CARD16,POLA1,GGT7,BMPR2,CAMK1D,BMPRI1A,ZKSCAN1,IDO2,PABPC4,IKZF4,PIK3R3,CDK12,TAF8,CAND2,CERS3,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,PI4KA,RARB,SPEN,PIK3C2B,SIN3B,NCOA1,EEF1E1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,POLR2H,TCF20,ATF3,TCEANC,AKR1D1,STT3B,CKS1B,PAWR,EBF2,AGO3,MAML2,TSGL101,CCDC3,TERF2IP,CRYM,RFX2,B3GALNT1,ZNF322,SUFU,TG,MAGEA11,PRDM15,ZNF670,Z</p>

			<p>NF695,CCDC169-SOHLH2,SOHLH2,POLE,DDAH1,ZNF354C,TCEA3,PADI6,FDXR,CMPK1,ZNF704,CERS4,NR2C1,EDEM3,ME1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,GLCE,W DTC1,ZNF664,MRPS28,MGLL,TPK1,DAB2,BLM,PKHD1,TRAM2,MYSM1,SETD5,S MG5,GTPBP2,RELN,SIN3A,RUVBL2,TYW1,COMMD6,GUCY1A2,GMEB1,PELI1,SL C25A16,MAP3K7,ZNF423,SP1,TRIM22,ALK,GSTM3,GSTM5,INPP5D,TEAD4,HOXC I3,APBB3,SLC35A4,SRA1,TOPI,UBE2V1,MBOAT1,ADIRF,OVOL2,SNX5,NFATC2,R BBP6,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,AR ID4A,C12ORF65,SCARB1,CDK6,PHF2,CELF1,TYR,TFRC,EPHA5,WWOX,ALG14,M EF2A,ADCY9,DCAF6,GPC3,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1, HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,ELAVL4,H DAC1,HS6ST3,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,MRPS17,PAXIP1, ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EIF3A, MAN1B1,SARM1,EPCAM,ZNF425,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCO R,AP3D1,ZNF41,MGAT4A,CARM1,ZNF383,SRD5A2,ZNF616,ZNF836,SMARCA2,CU XI,SP11,DNMT3B,LRR47,FOXP2,AGPAT3,MRPS24,PSPC1,GLIS1,SFMBT2,EIF3H ,BCAR3,JAZF1,ABCY7,ACOT8,RBPMS,CHURC1,CREB5,MAPK13,ERCC3,L5,MYD1, SNCA,BMPRI1B,POLN,PRIM2,PNPT1,ZEB2,MCMBP,FOXJ3,NADK,OCA2,HEY2,RC 3H1,EIF3E,HMGCS2,ZMYND11,KMT2D,PRKAG1,CREM,OSBPL1A,KMT2C,GGPSI ,PLD1,MACC1,MITF,OPRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,TROVE2, CBFA2T2,IGF1,MLXIP,ATF7IP,LARS2,MAPK1,PTEN,BMP7,ATXN2,MXI1,PIK3C3, PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,ATP6V1A,MLYCD,TMEM59, PIGS,ZBTB20,RFC3,CHAF1B,LILRB4,SLC44A1,PKD2,ZNF652,HSF2BP,KCTD1,RIP PLY1,NT5E,RCOR3,TADA2A,DAZL,SPTLC3,NCOA3,PKIB,MTMR3,ZNF146,ZNF565 ,HS2ST1,WNT7A,ZBED6,BRWD3,LPGAT1,CRTC3,DNAJC1,ERCC3,L5,KAT6 A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,NFE2L1,GPI,WDR43,ZNF30,EX T1,DYP19L4,ATRX,DPH6,SERINC5,IKZF1,PNPLA3,PRMT2,RAPGEF2,ASCC1,MTH FD2L,SMO,FAR1,RALY,AMPD1,ALG9,DYP19L1,TCF4,GALNT10,SOX30,TFE3,GRI N1,JADE1,RHOA,SPRTN,MCM3,ROR1,RQCD1,TF,ONECUT2,CKMT1B,CUL3,TFE C,EPM2A,GSK3B,PLD2,PRR16,DNAJC3,STAT6,MLF1,EEF2K,RBBP8,NECAB2,CD K13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HGFRP 3,METTL16,ELOVL3,POLH,PRKAA2,POLR2F,PITPNM2,STAT2,ZMPSTE24,GTF2E 1,PPCDC,PBX1,EXOSC3,MAP3K5,TCFL5,CREBBP,PRKD3,XLYB,ACSS3,DLX1,CH KA,GTF2IRD2,NCF1,SHC1,SLC44A3,ZNF813,ALDOA,LBX2,PARP10,RPS6KB1,STC 2,ZDHHHC23,DPRX,GALNT13,GUCY2F,PRG3,SETDB2,ALOX5,DNAJB6,SP7,LARP4, ADAM8,MRPS6,SLC5A3,RPS6KA5,ZNF484,CDS1,ZNF93,PRDM2,NOS1,PEX7,ZNF4 4,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,GATC,SLC1A1,EDRF1,TMEFF2,IL1 8,TEX12,DIS3,PPARA,ABCD3,ARID5B,SLC25A33,SMARCA1,TAF2,CPEB4,LDHC, NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,RBMS1,PAH,CPEB1,OT UD7B,KIN,NIPBL,YEATS4,PHF20,UPB1,ZNF143,ANGPT1,BRF1,TBL1X,FHL2,MBT D1,ATF6,ZBTB5,ZNF708,IGF2BP3,NT5M,GCNT2,ETS1,PPP1CA,MTF2,TAGLN3,C DK5RAPI,NCOR2,PRKCQ,CSRNP1,HDAC2,HTR2C,IMPACT,PHKG2,SRCAP,POU3 F3,NOTO,ZKSCAN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,MRPS16,RPL23,RFC5, ACAN,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,PIGU,SONSON,PITPN M3,FARSB,WIP1,ADCY1,ALG2,SQLE,SYK,CNOT1,MOGAT2,WWTR1,CYP39A1,GT F2H5,NFXL1,SLC44A5,ZBTB38,BRC42,ALDH8A1,ATF7,DVL2,MORC1,MTRF1,YBX 1,TAF1,EIF4E3,TICAM1,THAP3,GALNT7,SNAPC3,A3GALT2,HSF1,MAX,SAP130,D HFR,EZH1,ETF1,NRF1,SRPK2,NCOA2,CEPT1,WDR18,EEFSEC,QRICH1,ZP3,CHD 6,RNF2,ZNF554,UGGT1,GALNT4,MYEF2,POC1B- GALNT4,INPP5F,TBP,ORC4,TRIM37,MECR,MET,ZNF461,CAMK2D,MRPL1,TIMEL ESS,BRD9,MALT1,SETD3,ZDHHHC11,ZDHHHC11B,KDM2B,MLXIPL,CCT3,PHB,EDA ,ZNF555,CTCF,EXD2,PBLD,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,TRAP1,EB F4,SLC25A13,ZNF511,BMP4,ABLIM3</p>
GO:0051640	organelle localization	2.4325647856291906e-8	<p>NRXN1,CLASP2,KIF22,LTV1,CBL,FER,PIK3CD,EZR,KIF5C,LMNA,ITGB1,CNIH2,P CDH17,KLHL12,DAB1,TCIRG1,HDAC6,PEX14,GBF1,HOK3,MSTO1,FMN2,FBXW 11,VAMP7,AP3S1,DMD,CENPF,TANC2,STX6,NDRG4,NTN1,DCTN1,SLC4A5,MYH9, MAD1L1,PARD3B,SCFD2,LIN7A,SYN2,COP5,EXOC4,TLE6,RAB27A,RAB3C,SYN3, SYT1,CROCC,DYNC111,ATP9A,CENPC,PIBF1,ARMCI,C12ORF4,CLMN,ANKFN1,F GF10,VMP1,TRAK1,CTNNB1,PARK2,TSNARE1,MYO1D,LRP1R,NR4A3,RIOK2,MY O1E,AP3B2,SPG11,RAB6A,WIP1,KPNB1,MYO1F,NLGN2,SYNE2,SYBU,VPS4A,NL G1,SPAG9,RAB11A,AGBL4,BLOC1S5,TSG101,PAFAH1B1,KIF3A,PKHD1,EML4,FA M91A1,MYO7A,CLASP1,NSF,SYNE3,MAP1B,MARK1,UVRAG,MEF2A,TFEB,ACTR2, AP3B1,UNC13A,PARD3,TRIM46,AP3D1,KIF3C,CD84,ATG14,RAB15,SNCA,BTK,ST X8,HTT,PTEN,IFFO1,NUP88,LRRK2,SPAG5,CHMP5,SNAP23,MAP4,RHOT1,SUN1, LSG1,BLOC1S3,PSEN2,NDE1,ESYT2,CUL3,SYN1,BLOC1S6,LAT2,EXOC6B,COPG2, SEC16B,CPLX2,ARFGAP3,TBC1D23,ACTN4,GPSM2,SYTL4,PAX6,PRKCZ,RABGEF 1,PACS2,ARHGAP21,MAP2,CD300A,RAB27B,SYK,SLIT1,MYO1A,PLEKHM1,MLPH, CAV2,SYNDIG1,CLNK</p>
GO:0044249	cellular biosynthetic process	2.517822626543307e-8	<p>POLDIP3,ZDHHHC14,ENPP1,PRDX2,LDB2,ASPH,B4GALNT2,PRMT3,GSS,PRKCI,S LCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MGAT4C,MED13L,TRPS1,CBFB,PDE 8A,ZNF823,IL31RA,PRDM12,MED26,WWC1,ASH1L,NOS1AP,SCAF8,STOX2,PTGIS, PRKAG2,WWC3,PAGRI,ADCY7,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX, GRM5,NOC3L,PLCE1,SAMHD1,ZNF566,FER,CASK,MAP2K5,MAPK10,SPNS2,PIK3</p>

			<p> CD,ZNF536,SP3,HDGF,UTF3C1,EIF4G3,EZR,IKZF2,B3GALT1,MALRD1,CHD7,HT R2B,MECOM,TACCI,TENM1,NADK2,GOT1,NMT2,INPP4B,TRAF6,UTF2E2,ITPKB, SCD5,DNAJA3,NHLH1,HSP90AA1,CDC6,PSMB7,TSC22D3,ZC4H2,CCDC22,MOCO S,FAM126A,CDAN1,GMD5,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EF CAB7,ITGB3BP,DACH1,ZNF569,MGAT5,CCT2,ORC2,HDAC6,SERTAD2,DDDB1,MY TI,IKKBK,PEX14,ERBB4,GBE1,DPY19L2,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SN IP1,LARGE,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZN F76,RNF220,ZNF471,PDGFB,CCND3,GALNTL6,CSGALNACT1,TOB2,ZNF19,ZNF2 3,BRMS1,ZNF605,ALOX5AP,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1 ,H2AFY2,TCF7L2,PIP4K2A,ST6GALNAC3,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF7 09,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,ZDHHC13,BASP1,SPTSSA,TBR1,SAM D4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,POMGNT2,FUT8,MEIS1,VRTN,TRIM13,MDM4,ENTPD5,ZNF148,MTA3, SNX6,TFDP2,ACOX1,PPM1L,PTCD3,ERN2,CDC45,C1D,AFF3,DMD,CENPF,ATG1 0,SLC30A9,CERS6,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,PRP S2,MED12L,SATB2,RIT2,HIRA,DRG2,FYN,MKRN2,ARNTL,LINC01138,PLCB1,ARID 4B,GXYLT2,POLA2,DGKH,B4GALT6,RWDD3,BRPF1,PIK3R1,NRG1,UBP1,MAP2K 1,MDF1,FNIP1,VAX2,DAGLA,GALNT16,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5, CSRNP3,ALDH3B2,ZNF692,NFIA,RNF4,GALNT18,JDP2,CMKLR1,INPP4A,ROR2,D CN,ZDHHC3,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,UST,COPSS,AK2, MAD2L2,MAN1A1,TFE6,SRBD1,CAPRIN2,ZNF418,PHF20L1,H,QK1,CCDC62,Z NF286A,NME7,FOXN3,AK5,CERKL,NEUROD1,USP22,ZDHHC15,IAK2,TRAPPC9, FBXW7,OAZ2,SKAP1,SMC3,UIMC1,ITCH,MLIP,BCL11B,SMG1,IMPDH1,PKNOX1, B3GALT5,MLLT3,TSHZ2,PNPLA1,DHDDS,TCF7,PDE2A,KLF15,TBX15,ANXA4,TTT 7B,WNT11,FIG4,MTA1,KLF8,NOX4,LCOR,RPRD1B,CACNA1H,QK1,CCDC62,PRCC D,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,MRPL33,SGK1,PCSK5,NSD1,IGSF1,PI BF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,HS6ST2,C C2D1B,TP73,HHAT,SAP18,CDKAL1,ZBTB22,ILF2,TMTC1,MTDH,FANK1,MYT1L,S MAD6,BNC2,ZNF398,TMTC2,CLOCK,CHST9,TCF12,ZNF675,RPL36,ETV6,SYNJ2,P HRF1,TFAP2D,BCL3,EIF3L,SND1,DUSP22,HNRNPC,TRRAP,SBNO2,YTHDF1,FGF 10,CIZ1,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,AGPS, HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK 4,GATAD2B,PIP5KL1,UFL1,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMA RCC1,KLF17,IGF1R,PPARG,IARS2,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,ANKR D17,CYBB,OTC,BRIP1,LRPPRC,SREBF2,AARS2,PFAS,CDK11A,GALNT8,NDUFAM9, CDK11B,LEPR,FGF1,NPAT,NR4A3,FOKK2,WDR45B,DCT,ESCO1,MYOCD,TRIM5, PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,SORBS1,A GPAT4,RAB3GAP2,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,HS3ST5 ,BAZ1B,MEF2B,SGMS1,HDAC4,PAX2,PHF5A,CPOX,SECISBP2L,SNAPC4,SFRP1,M ED13,ST8SLA1,ZNF395,FOXO3,DGKB,TPH2,NFIB,SP4,SYNCRIP,SMAD3,CUX2,W WP2,ARNT2,SBNO1,KRBOX1,ZNF662,CYP4F11,ZNF777,WIP1,EBF3,RNF168,CAS ZI,DCP1B,MIER3,NEDD4,PLA2G4C,ESRRG,HOXD3,HOXD4,ZNF114,GALNT14,K TH12,NFATC1,ST3GAL3,UCK2,CDC73,APP,SSBP3,GSX2,RBM8A,YAP1,ST6GALNA C5,PPCS,TEN1,NVL,PMT,LRP5,POLR3G,BDH2,ZNF787,SOX2,SETD2,ZDHHC6,C HST11,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,ERLIN 1,RFT1,SFMBT1,ZNF584,TPH1,ESR2,S100A12,UTF2F2,PRKDI,STAT1,ST18,OSBPL 2,DGKG,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI1,EREG,AT F2,POU2F2,TCF3,ZNF730,RAF1,CELF4,ABLIM2,ZNF767,CARD16,POLA1,GGT7,B MPR2,CAMK1D,BMPRI1,ZKSCAN1,IDO2,PABPC4,IKZF4,PIK3R3,CDK12,TAF8,C AND2,CERS3,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,TICRR ,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,ADCYAP1R1,SP1 40,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,PI4KA,RARB,SPEN,PIK3 C2B,SIN3B,NCOA1,EEF1E1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,POLR2H,TCF20, ATF3,TCEANC,AKR1D1,STT3B,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,TERF2 IP,CRYM,RFX2,B3GALNT1,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,C CDC169- SOHLH2,SOHLH2,POLE,DDAH1,ZNF354C,TCEA3,PADI6,FDXR,CMPK1,ZNF704, CERS4,NR2C1,EDEM3,ME1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,GLCE,W DTC1,ZNF664,MRPS28,MGLL,TPK1,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,GT PBP2,RELN,SIN3A,RUVBL2,COMMD6,GUCY1A2,GMEB1,PELI1,SLC25A16,MAP3 K7,ZNF423,SP1,TRIM22,ALK,GSTM3,GSTM5,INPP5D,TEAD4,HOXC13,APBB3,SLC 35A4,SRA1,TOPI,UBE2V1,MBOAT1,ADIRF,OVOL2,SNX5,NFATC2,RBBP6,PAX7,B NCI,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,C12ORF 65,SCARB1,CDK6,PHF2,CELF1,TYR,TFRC,EPA5,WWOX,ALG14,MEF2A,ADCY9, DCAF6,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOX B5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,ELAVL4,HDAC1,HS6ST3,RECQ L5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,MRPS17,PAXIP1,ZNF713,EGR2,HIPK3 ,RNF10,RYPB,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,EIF3A,MAN1B1,SARM1,EPCA M,ZNF425,GNL3L,KRTCAP2,MUC1,PTPN14,NUDT14,BCOR,AP3D1,ZNF41,MGAT 4A,CARM1,ZNF383,SRD5A2,ZNF616,ZNF836,SMARCA2,CUX1,SP1,DNMT3B,LRR C47,FOXP2,AGPAT3,MRPS24,PSPC1,GLIS1,SFMBT2,EIF3H,BCAR3,IAZF1,ABC7 ,ACOT8,RBPMS,CHURC1,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN, PRIM2,PNPT1,ZEB2,MCMBP,FOXJ3,NADK,OCA2,HEY2,RC3H1,EIF3E,HMGCS2,Z </p>
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			<p>MYND11,KMT2D,PRKAG1,CREM,OSBPL1A,KMT2C,GGPS1,PLD1,MACC1,MITF,O PRD1,NUGGC,RPTOR,NFIX,BTK,KCTD13,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP ,ATF7IP,LARS2,MAPK1,PTEN,BMP7,ATXN2,MXI1,PIK3C3,PUM1,SOX5,CIR1,PCB P2,ZNF780A,ZNF780B,ATP6V1A,MLYCD,TMEM59,PIGS,ZBTB20,RFC3,CHAF1B,LI LRB4,SLC44A1,PKD2,ZNF652,HSF2BP,KCTD1,RIPPLY1,NT5E,RCOR3,TADA2A,D AZL,SPTLC3,NCOA3,PKIB,MTMR3,ZNF146,ZNF565,HS2ST1,WNT7A,ZBED6,BRW D3,LPGAT1,CRTC3,DNAJC1,ARNTL2,ELOVL5,KAT6A,MIF2,ZKSCAN7,ZNF197,Z NF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,EXT1,DPY19L4,ATRX,DPH6,SERINC5 ,IKZF1,PNPLA3,PRMT2,RAPGEF2,ASCC1,MTHFD2L,SMO,FAR1,RALY,AMPD1,AL G9,DPY19L1,TCF4,GALNT10,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTN,MCM3,RO R1,RQCD1,TF,ONECUT2,CUL3,TFEC,EPM2A,GSK3B,PLD2,PRR16,DNAJC3,STAT 6,MLF1,EEF2K,RBBP8,NECAB2,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC 2,SUPT4H1,ZNF354A,AGT,HDGFRP3,METTL16,ELOVL3,POLH,PRKAA2,POLR2F, PITPNM2,STAT2,ZMPSTE24,GTTF2E1,PPCDC,PBX1,EXOSC3,MAP3K5,TCFL5,CRE BBP,PRKD3,ACSS3,DLX1,CHKA,GTTF2IRD2,NCF1,SHC1,SLC44A3,ZNF813,ALDOA ,LBX2,PARP10,RPS6KB1,STC2,ZDHHC23,DPRX,GALNT13,GUCY2F,PRG3,SETDB 2,ALOX5,DNAJB6,SP7,LARP4,ADAM8,MRPS6,RPS6KA5,ZNF484,CDS1,ZNF93,PRD M2,NOS1,PEX7,ZNF44,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,GATC,SLC1A 1,EDRF1,IL18,TEX12,DIS3,PPARA,ABCD3,ARID5B,SLC25A33,SMARCAL1,TAF2,C PEB4,LDHC,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ADORA2A,RBMS1,PA H,CPEB1,OTUD7B,KIN,NIPBL,YEATS4,PHF20,UPB1,ZNF143,ANGPT1,BRF1,TBL1 X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,NT5M,GCNT2,ETS1,PPP1CA,MTF 2,TAGLN3,CDK5RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,HTR2C,IMPACT,PHKG2,S RCAP,POU3F3,NOTO,ZKSCAN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,MRPS16,R PL23,RFC5,ACAN,ATXN1,SP100,ZNF347,ZNF415,REV3L,TRIM29,PARN,PIGU,D N SON,PITPNM3,FARSB,WIP1,ADCY1,ALG2,SYK,CNOT1,MOGAT2,WWTR1,CYP39 A1,GTTF2H5,NFXL1,SLC44A5,ZBTB38,BRCA2,ALDH8A1,ATF7,DVL2,MORC1,MTRF 1,YBX1,TAF1,EIF4E3,TICAM1,THAP3,GALNT7,SNAPC3,A3GALT2,HSF1,MAX,SAP 130,DHFR,EZH1,ETF1,NRF1,SRPK2,NCOA2,CEPT1,WDR18,EEFSEC,QRICH1,ZP3 ,CHD6,RNF2,ZNF554,UGGT1,GALNT4,MYEF2,POC1B- GALNT4,INPP5F,TBP,ORC4,TRIM37,MECR,MET,ZNF461,CAMK2D,MRPL1,TIMEL ESS,BRD9,MALT1,SETD3,ZDHHC11,ZDHHC11B,KDM2B,MLXIPL,CCT3,PHB,EDA ,ZNF555,CTCF,EXD2,NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,TRAP1,EBF4,SL C25A13,ZNF511,BMP4,ABLIM3</p>
GO:00 31324	negative regulation of cellular metabolic process	3.04348251 2244192e-8	<p>ENPP1,LDB2,PRMT3,PDE4D,DNMT1,TRPS1,CBFB,PRDM12,WWC1,LATS2,SCAF8, PTGIS,PRKAG2,WWC3,MVP,FTO,NTRK3,CBL,ZNF566,MAP2K5,ZNF536,SP3,HDG F,EZR,MALRD1,HTR2B,MECOM,TRAF6,DNAJA3,OXR1,CDC6,CDAN1,GF11B,PTP RK,RUNX1,NR1P1,THRB,DACH1,MGAT5,ORC2,HDAC6,EPAH1,IKBKB,PEX14,LIM K1,KAT6B,ESR1,MIER1,PCBP3,PMEP1,PTPRO,NTRK2,TNRC6A,EP300,CELA1,T ENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,PRKAR1A,NFATP8B1,H2A FY2,TCF7L2,PIP4K2A,FBXW11,BASP1,TBR1,SAMD4A,TFAP2A,PEG3,ZIM2,TGIF2, MDM4,ZNF148,MTA3,SNX6,TFDP2,CST2,ERN2,C1D,DMD,CENPF,PDS5A,LARP4B ,KAT7,SLC8A1,RBM4,SATB2,HIRA,FYN,ARNTL,NF1,PLCB1,RTN4,DPEP1,APOD,B CR,PAQR3,NRG1,BDKRB1,BDKRB2,FRY,MDF1,FNIP1,VAX2,TBIM6,VGLL4,HD C5,ZNF692,JDP2,ITIH2,SCFD1,CREBRF,TRDMT1,SOX13,FHIT,PTPRT,AUNIP,IPO 5,MAD2L2,TLE6,CAPRIN2,TERF2,SLX1B,FOXN3,GNAQ,RFFL,FBXW7,UIMC1,MLI P,ZFYVE28,LZTS1,SMG1,TCF7,PDE2A,KLF15,TBX15,WNT11,MTA1,KLF8,LCOR,P RKCD,SOX6,TAB2,RUNX2,PPM1E,TGFB1,NSD1,PIBF1,ZHX2,BTRC,NFATC3,CDY L2,DNAJB2,CC2D1B,SLIT2,ITIH4,HP,CORO1C,SAP18,MTDH,MYT1L,KDM4B,SMA D6,ZNF398,CLOCK,ZNF675,ETV6,NELL1,TIMP2,BCL3,DUSP22,NAIP,HNRNPC,SB NO2,YTHDF1,SMYD3,LOXL3,CAPN3,SMURF2,EPAH4,CNR1,SMG6,PPP3CA,NSUN 2,MAGEA4,KLF12,GATAD2B,PIP5KL1,UFL1,CTNNB1,PARK2,METTL13,SMARCC1 ,PPARG,AXIN1,PRKAR1B,OTUB1,CIPC,CBX5,LRPPRC,SREBF2,LEPR,PROS1,NPA T,NR4A3,FOXK2,NOL3,PRKAR2A,MYOCD,PER2,AJUBA,GLG1,UBQLN4,PRDM16, CSTL1,TBC1D14,BRMS1L,NF2,HDAC4,PAX2,SFRP1,FOXO3,NFIB,ZCCHC17,SYNC RIP,SMAD3,CUX2,WWP2,SIMC1,RNF168,DCP1B,MIER3,NEDD4,CDC73,APP,YAP 1,HEG1,TEN1,IBTK,LRP5,SOX2,PRICKLE1,ZNF653,ERLIN1,SFMBT1,ESR2,DCUN ID3,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,RAFI,CELF4,CARD16, PTPN1,BMPR2,IKZF4,SPAG9,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1, RORC,JARID2,PHC2,RARB,SPEN,PRKCG,SIN3B,SPOCK1,EHMT1,EIF4G1,ATF3,LI N28B,PAWR,AGO3,DEPTOR,TSG101,TERF2IP,CRYM,SUFU,MAGEA11,PTPN13,C OL4A3,NR2C1,GLI2,TNKS,ERCC1,TNRC6B,GLIS3,WDTIC1,DAB2,BLM,LDLRAD4,S IN3A,RUVBL2,IQGAP1,ZNF423,TRIM22,XDH,OVOL2,NFATC2,ATP2B4,MAPKAPK 2,ARID4A,CDK6,CELF1,RNF34,MEF2A,GPC3,XRN1,SATB1,GATAD2A,DIS3L2,TRP V1,HOXB3,HOXB4,CLEC16A,L3MBTL4,ELAVL4,HDAC1,RECQL5,TRIM24,ROCK1, SCMH1,HIPK3,RYBP,PTPN2,TRIM44,MAP1A,AXIN2,PARD3,ZNF425,GNL3L,MUC 1,BCOR,ANXA8L1,LPA,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFM BT2,ATG14,EIF3H,JAZF1,STK38,ABC7,ACOT8,RENBP,SMYD1,SNCA,PNPT1,ZEB 2,HEY2,RC3H1,EIF3E,ZMYND11,CREM,PSMF1,CAST,TRIP12,DFFA,MIF,SRSF6, NFIX,MLLT1,CBFA2T2,IGF1,ATF7IP,PTEN,SPRED2,BMP7,ATXN2,MXI1,PUM1,C1 R1,LRRK2,TMEM59,ZBTB20,BAG6,LILRB4,ITGAM,KCTD1,RIPPLY1,RCOR3,DAZL, SERPINA3,SERPINA4,SERPINA5,PKIB,ZBED6,DNAJC1,KAT6A,BMP6,TAF15,GPI,S H3RF2,N4BP1,ATRX,IKZF1,PRMT2,RAPGEF2,SMO,PRKAR2B,SOX30,UBR5,RHOA</p>

			<i>RQCD1, CUL3, TFEC, EPM2A, GSK3B, DNAJC3, STAT6, PTPRB, RBBP8, NECAB2, CD27, DUSP26, NACC2, SUPT4H1, AGT, METTL16, PRKAA2, ADAR, ZMPSTE24, EXOSC3, TCFL5, CREBBP, DLX1, UGT1A1, UGT1A10, UGT1A4, UGT1A8, SHC1, PARP10, PRG3, SERPINB11, SETDB2, DNAJB6, CD44, RPS6KA5, ZNF93, PRDM2, GCKR, RGS14, TCF25, ZNF282, EPHB2, DIS3, PPAR4, ARID5B, SMARCA11, CPEB4, NOTCH4, ZMYND8, ZNF366, PAX6, PRKCZ, ADORA2A, RABGEF1, CPEB1, OTUD7B, NIPBL, COL28A1, ANGPT1, TBL1X, FHL2, LRRK1, MBTD1, ZBTB5, IGF2BP3, MTF2, TAGLN3, CDK5RAP1, NCOR2, HDAC2, IMPACT, POU3F3, SPINT2, CD300A, ELF2, PPP2CA, RPL23, ATXN1, SP100, ANXA2, TRIM29, PARN, DONSON, RBM42, CNOT1, WWTR1, ZBTB38, BRC42, MORC1, YBX1, ANKRD13A, PTPRJ, TAF1, HSF1, MAX, SAP130, DHFR, EZH1, NCOA2, ZP3, RNF2, ZNF554, INPP5F, TRIM37, CD109, MET, TIMELESS, UCHL5, SERPINE3, KDM2B, MLXIPL, PHB, PTPRC, ZNF555, CTCF, SH3GL2, NR6A1, TRAF3IP2, CREB1, TRAP1, BMP4</i>
GO:0048675	axon extension	4.231823860436558e-8	<i>CLASP2, SEMA3A, SEMA3D, SEMA5A, OLFM1, CDKL5, ITGB1, HSP90AA1, DSCAM, GOLGA4, LIMK1, CDH4, RTN4, RTN4R, NTN1, SEMA5B, SLIT3, SLIT2, DISC1, DCLK1, AUTS2, MAG, DRAXIN, SPG11, NRP2, DIP2B, ISLR2, SEMA6D, BMPR2, DPYSL2, RAB11A, SEMA4D, VCL, WNT3, NLGN3, PAFAH1B1, TRPC5, RUFY3, SIN3A, MACF1, ADNP, MAP1B, TRIM46, MAP3K13, PTPRS, RAP1, GSK3B, MAP2, TNR, CDKL3, SLIT1, SEMA3C, EDNRA</i>
GO:0009719	response to endogenous stimulus	5.0129533085166376e-8	<i>ENPP1, NRXN1, PRKCI, PDE4D, DNMT1, SLC9A1, ADCY8, PDE8A, PTGFR, CTDSP2, RYR1, LATS2, NREP, PRLR, PAGR1, NTRK3, CBL, EGLN2, FLT3, STAT5B, GRM5, FER, LRP2, EZR, SLC26A6, HTR2B, ITGB6, RYR3, GOT1, ROBO2, ITGB1, CDC6, PTPRK, ABCC8, THRB, STXBPA, PTPN11, HDAC6, ERBB4, BRD8, ESR1, PMEP1, NTRK2, EP300, FNTA, PDGFB, CCND3, INSR, PIP4K2A, CAB39, PAK1, ESRRB, BDNF, AMIGO1, CHRM3, FUT8, UBR2, SNX6, PTPRU, AP3S1, SLC8A1, RBM14, FYN, ARNTL, PLCB1, RXFP1, CHRDL1, PIK3R2, HDAC5, ROR2, SLC39A14, CDH13, ACSBG1, IPO5, RGS8, ROR2, DEF41, PIK3R2, JAK2, CLDN1, PDE2A, KLF15, LAMTOR3, CACNA1H, PRKCD, SOX6, ACVR2A, RUXN2, TGFB1, SGK1, BCAS3, SLIT3, ZFYVE9, SLIT2, GABRB1, KANK1, CHRM1, SMAD6, RXFP2, CLOCK, BCKDHB, BMPER, TIMP2, DUSP22, FGF10, SMYD3, GLP2R, SMURF2, EPHA4, UFL1, CTNBN1, PARK2, FCGR2B, SMARCC1, IGF1R, PPARG, AXIN1, CYBB, OTC, BRIP1, SREBF2, RYR2, LEPR, LEPROT, FGF1, NR4A3, MYOCD, GLG1, PRDM16, SORBS1, CAPN2, HDAC4, PAX2, SFRP1, FOXO3, TPH2, SSH1, SMAD3, NEDD4, ESRRG, TAB1, APP, PDGFRA, YAP1, SESN1, ALPL, GNG2, CHST11, DRD1, GLRA2, FRS2, MMP2, ESR2, STAT1, HNF4A, EREG, ATF2, PTPN1, ADAMTS12, BMPR2, BMPR1A, COL16A1, PIK3R3, FGF2, ADCY5, PTAFR, RARB, NCOA1, CHRDL1, EIF2B5, PTPRE, SHOC2, SRSF5, IDE, KCNQ1, AKAP6, NR2C1, IRS4, ME1, NEO1, WDT1, DAB2, BLM, UBR1, LDLRAD4, SIN3A, IQGAP1, MAP3K7, ZNF423, SP1, ALK, GSTM3, SRA1, LTBP1, OVOL2, SNX5, ATP2B4, DYX1C1, MAP1B, COL4A6, WWOX, CACNA1A, GPC3, XRN1, TRPV1, GHR, FLRT2, ACTR2, ACACA, ELAVL4, HDAC1, RECQL5, C2, SMOC2, TRIM24, ADIPOR2, ROCK1, EGR2, CAPN10, ABCC1, PTPN2, INSR, NTRK1, CARM1, SRD5A2, HTR1D, SPI1, PTPRA, CTNNA1, ACAP2, BCAR3, CHURC1, RAB15, RAPGEF3, PDXP, SNCA, BMPR1B, MAGI2, PNPT1, ZEB2, CNGA3, WNT7B, HMGCS2, KMT2D, ADTRP, SRSF6, RPTOR, DSG1, IGF1, MAPK1, SPRED2, BMP7, SOX5, PRCP, LRRK2, GNA14, CHMP5, TMEM108, NSG2, PKD2, EFNA5, PDGFC, NCOA3, WNT7A, GPR21, BMP6, ANO1, GPI, IL17RD, TSHR, EXT1, PNPLA3, PRMT2, RAPGEF2, KCNC2, TNFRSF11B, SOX30, UBR5, GRB14, RHOA, RQCD1, ONECUT2, ITPR2, GABRB3, GSK3B, RDX, STAT6, EEF2K, SULF1, AGT, PRKAA2, FBN2, STAT2, ZMPSTE24, HRH4, PTK2, PHEX, PDE4B, VEPH1, CREBBP, DLX1, FMOD, PCSK6, UGT1A1, SHC1, RPS6KB1, STC2, GPR173, CD44, CLDN4, PKD1L1, NOS1, SCN11B, EPHB2, SLCA1A1, PPARA, SLC25A33, CPEB4, ZNF366, FBN1, PRKCZ, ATP1A3, FAM20C, CPEB1, ASPN, FHL2, OSBPL8, GCNT2, VWC2, NCOR2, PRKCQ, DIAPH1, HDAC2, HTR2C, IMPACT, SPINT2, PHIP, RPL23, SH3BP4, SYK, CNOT1, TAF1, TICAM1, UCN2, HSF1, MAX, NCOA2, ADAMTS7, CIB2, CAV2, CD109, DENND4C, TIMELESS, PHB, PBLD, SH3GL2, CREB1, RGM, EDNRA, HADHA, BMP4</i>
GO:0048639	positive regulation of developmental growth	7.070765002426305e-8	<i>HLX, SEMA5A, STAT5B, EZR, CHD7, CDKL5, DSCAM, GOLGA4, ERBB4, LIMK1, ATP8A2, RIMS1, INSR, CDH4, BASP1, BDNF, PLCB1, NTN1, NRG1, SYT1, PLS1, DISC1, ITSN2, CAPN3, PARK2, CPNE6, SYT3, YAP1, ISLR2, SPTBN4, CPNE9, SLC6A3, BMPR2, BMPR1A, RAB11A, FGF2, SEMA4D, WNT3, PAFAH1B1, AKAP6, RASAL1, TRPC5, RUFY3, MACF1, ADNP, MAP1B, CELF1, GHR, UNC13A, MAP3K13, HEY2, IGF1, EFNA5, GPR21, TSHR, SMO, SYT17, RIMS2, RPS6KB1, NIPBL, ZP3, NEDD4L, CREB1</i>
GO:0034765	regulation of ion transmembrane transport	7.178109931935118e-8	<i>NRXN1, ASPH, PDE4D, SLC9A1, NOS1AP, DPP6, CLCN1, UTRN, KCNQ5, GRM5, KCNIP4, ANK2, CHD7, ITGB1, CNIH2, ABCC8, TCIRG1, KCNS3, NETO2, CACNB2, KCNJ16, DPPI10, CACNA1B, STK39, CAB39, CATSPER2, AMIGO1, KCNMA1, CHRM3, KCNKG, TMC2, DMD, SLC8A1, JPH2, FYN, SHISA9, CACNA1E, SLC43A2, BDKRB1, KCNIP1, STIM1, ALCN, CATSPER3, FGF14, ANO6, KCNB2, NPSR1, SCN4A, TMCI, KCNC4, CACNA1H, TGFB1, KEL, JPH3, KCNJ3, CACNA1D, CACNA2D3, KCNH1, KCNH7, CAPN3, VMP1, CYBB, KCNJ12, RYR2, KCNA6, PER2, CACNA1C, SCN3B, WWP2, SHANK1, NEDD4, APP, NQX1, NLGN2, VDAC1, DRD1, PRKD1, FXYD2, FXYD6, KCNG4, RASGRF2, NLGN1, PTAFR, CLIC4, KCNQ1, NLGN3, AKAP6, WNK1, RELN, ABCB1, KCNQ2, TPCN1, CLIC5, AHNAK, RGS7, ATP2B4, KCNAB2, CACNA1A, STOM, PLCG2, GPR35, ANK3, KCND3, CACNG8, NETO1, TRDN, STAC, TRPC6, SNCA, CACNG2, HTT, SCN8A, CNIH3, PKD2, SHANK3, KCNC2, PSEN2, SCN9A, AGT, ZMPSTE24, PDE4B, KCNJ15, NOS1, ACTN4, EPHB2, LRRC52, DIAPH1, KCND2, SCN1A, CACNG3, KCNQ3, SESTD1, CAMK2D, KCNJ6, NEDD4L, GPR89A, SHISA6, EDNRA</i>
GO:00	regulation of	7.18697518	<i>POLDIP3, ENPP1, PRDX2, LDB2, NRXN1, ASPH, PRMT3, PRKCI, MOV10L1, SLC03A1,</i>

60255	macromolecule metabolic process	881273e-8	<p> <i>PDE4D,DNMT1,S1PR2,HLX,SLC9A1,C6ORF89,PBX3,ADCY8,MED13L,TRPS1,CBF B,PDE8A,ZNF823,IL31RA,RPS6KA2,PRDM12,SETD4,PTGFR,MED26,WWC1,NRG3, ASH1L,NOS1AP,LATS2,NOX5,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PRLR,MVP,PA GR1,ADCY7,HIVEP3,FTO,NPAS3,UBAP2,NTRK3,CBL,ARNT,EGLN2,LRRFIP2,FLT 3,STAT5B,TOX,ENPP2,EXD1,GRM5,PLCE1,ZNF566,FER,CASK,MAP2K5,KITLG,M APK10,LRP2,PIK3CD,ZNF536,SP3,HDGF,ANK2,EIF4G3,OLFM1,EZR,IKZF2,ROBO 1,TOM1L1,CHD7,HTR2B,PSMD1,ITGB6,MECOM,TACCC1,MIR1185- 1,TENM1,LMNA,TRAF6,ESRP1,ITPKB,DNAJA3,OXR1,ABI1,NHLH1,HSP90AA1,SLC 24A3,CDC6,PSMB7,TSC22D3,KNDC1,ZC4H2,CCDC22,CDAN1,CNGB1,AKAP13,G FII1B,PTPRK,RUNX1,DAB1,ABCC8,ERC1,HMGN3,NRIP1,THRB,MIR105- 2,MIR767,EFCAB7,ITGB3BP,TCIRG1,DACH1,PTPN11,ZNF569,MGAT5,CCT2,ORC 2,HDAC6,SERTAD2,DDB1,MYT1,ADORA1,EPAH1,IKBBK,PEX14,ERBB4,MRE11A, LIMK1,ZNF609,BRD8,KAT6B,ACTG2,HIF3A,SNIP1,CUL4B,ESR1,MIER1,PCBR3,P MEPA1,MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,TENM2,ZN F76,RNF220,ZNF471,FNTA,PDGFB,RIMS1,TNIK,CCND3,TOB2,ZNF19,ZNF23,BRM S1,CHFR,ZNF605,SCML4,BPI,HNF4G,INSR,FMN2,RERE,PRKAR1A,ASB5,FUBP1,A TP8B1,H2AFY2,TCF7L2,JMJD1C,CAB39,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799 ,PAK1,LITAF,FBXW11,ESRRB,MYOM1,MAP3K4,RNF144A,BASP1,EGLN3,RBM20,T BR1,SAMD4A,BDNF,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2- C20ORF24,FUT8,MEIS1,VRTN,TRIM13,LCK,MDM4,IL5RA,SHC4,ECT2,ZNF148,MT A3,SNX6,TFDP2,CST2,PTCD3,RFTN1,ERN2,C1D,NPLOC4,ZNF3,DMD,CENPF,AT G10,SLC30A9,TOX3,PDS5A,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2 ,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,CASS4,FYN,MKRN2,ARNTL,NF1,SMG7, PLCB1,MGMT,ARID4B,PPP4R2,RTN4,AFF2,DPEP1,APOD,RWDD3,BRPF1,CHI3L 1,TTN,PAQR3,PIK3R2,RANBP9,SLC4A5,NRG1,SH2D3C,UBP1,BDKRB1,BDKRB2,BI D,MIR600HG,FRY,MAP2K1,MDF1,FNIP1,VAX2,MYH9,TMBIM6,VGLL4,PPP2CB,P PP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NF1A,RNF4,CSNK2A3,JDP2,CMKLR1,ITIH 2,TSPAN8,ROR2,DCN,PCBD2,HNRNP1L,CDH13,CREBRF,TRDMT1,SOX13,FHIT, WDR70,PTPRT,AUNIP,COP5,IPO5,MAD2L2,TLE6,RAB27A,CAPRIN2,CCNYL1,ZN F418,PHF20L1,TERF2,SLX1B,ZNF286A,FOXN3,NEUROD1,GNAQ,RFFL,CCBE1,H ERC5,USP22,JAK2,FAM168A,TRAPPC9,FBXW7,OA22,SKAP1,SMC3,UIMC1,ITCH, MLIP,ZFYVE28,ABCC2,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSZH2,TCF7,P E2A,KLF15,TBX15,ANXA4,CYFIP2,WNT11,MTA1,KLF8,NOX4,LCOR,RPRD1B,MKL N1,QKI,CCDC62,ERCC8,PRKCD,SOX6,TAB2,ACVR2A,RUNX2,CD4,PPM1E,TGFB1 ,BANP,SGK1,SPSB4,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,CR ADD,MIR153-2,F2RL1,BCAS3,C9ORF47,CDYL2,DNAJB2,SLIT3,CC2D1B,MIR218- 1,SLIT2,TP73,ITIH4,CORO1C,SAP18,ZBTB22,ILF2,DISC1,BLID,ZFAND2A,CLN6,M TDH,FANK1,MYT1L,KDM4B,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6, NELLI,TFAP2D,BMPER,TIMP2,BCL3,ANKRD54,TNFRSF10B,SNDI,DUSP22,NAIP, HNRNPC,TRRAP,HOMER2,DOCK3,SBNO2,YTHDF1,FGF10,CIZ1,SMYD3,LOXL3, MAST2,FANCI,CAPN3,LUM,SMURF2,EPAH4,RORA,HIVEP2,PRKCA,AUTS2,CD6,T NFSF11,SMG6,PPP3C4,NSUN2,UBQLN3,NFYB,MAGEA4,KLF12,CAMK4,GATAD2 B,PIP5KL1,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,FCGR2B,SMAR CC1,KLF17,IGF1R,PPARG,NGRN,AXIN1,PRKAR1B,OTUB1,IL18R1,IL1RL1,CIPC, MTF1,MSR1,CELF2,CBX5,ANKRD17,CYBB,SCAMP5,BRIP1,LRPPRC,SREBF2,CDK 11A,CDK11B,LEPR,FGF1,PROS1,NPAT,NR4A3,FOKK2,NOL3,PRKAR2A,RIOK2,ES CO1,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,GLG1,ZNF626,ZNF737,CHEK2,SUPT3 H,UBQLN4,PRDM16,PPP1CB,SPDYA,HCK,CSTL1,SORBS1,RAB3GAP2,CAPN2,TRI M8,DIO2,CSPG4,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,ZUFSP,BAZ1B,NF2,FLT4,MEF 2B,HDAC4,PAX2,PHF5A,SECISBP2L,SPTBN1,TRABD2B,SFRP1,MED13,PPP6R2,Z NF395,FOXO3,NFIB,SP4,ZCCHC17,BCL2L13,SSH1,CELF5,SYNCRIP,SMAD3,RNFT 2,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,SIMC1,EBF3,MTBP,RNF1 68,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,NAV3,ZNF114,TAB1,KTI 12,NFATC1,CDC73,APP,SSBP3,GSX2,PDGFRA,RBM8A,CCNI2,DIP2B,NOX1,ARIH 1,YAP1,HEG1,TEN1,EYA2,SH3D19,BORA,IBTK,NVL,LRP5,MTCP1,POLR3G,ZNF78 7,SOX2,SETD2,TEAD1,PRICKLE1,RCAN1,ZNF653,SPTBN4,ZNF521,DRD1,ARID3A, ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,DCUN1D3,KDM6A,PRKD1,STAT1, CELF6,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,CCNY, RBFOX3,ATF2,POU2F2,TCF3,ZNF730,GRAMD4,RAF1,CELF4,ZNF766,CARD16,C ASP1,PTPN1,SRRM4,POLA1,BMPR2,VBPI,CAMK1D,BMPR1A,ZKSCAN1,PABPC4,I KZF4,PIK3R3,CDK12,CAND2,SPAG9,MORC2,DENND4A,MYB,FGF2,ZNF71,POU6 F2,BACH1,MXD3,PPM1F,TICRR,GLI4,ZFP41,NEDD9,AGBL4,BEND5,SEMA4D,NR X1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB ,SPEN,PRKCG,SIN3B,NCOA1,SPOCK1,AREL1,EHMT1,LMO7,AP2M1,DVL3,EIF2B5 ,EIF4G1,PSMD2,RBX1,TCF20,ATF3,LIN28B,SRSF5,LINC00461,CKS1B,PAWR,EBF2 ,AGO3,DEPTOR,FBXL20,MAML2,TSG101,DES1,CCDC3,TERF2IP,CRYM,IDE,KC NQ1,RFX2,WNT3,ZNF322,SUFU,MAGEA11,PTPN13,PRDM15,ZNF670,ZNF695,CC DC169- SOHLH2,SOHLH2,COL4A3,ZNF354C,HIP1,TCEA3,PADI6,ZNF704,NR2C1,TRPC5, UBA2,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTC1,ZNF664,DAB2,BLM,PK HD1,CACUL1,LDLRAD4,MYSM1,SETD5,SMG5,DLG3,WNK1,RELN,NEK10,SIN3A,R UVBL2,COMMD6,GMEB1,PELI1,IQGAP1,MAP3K7,ZNF423,SP1,TRIM22,ALK,SLC 8A2,INPP5D,TEAD4,FASTKD5,HOXC13,APBB3,SLC35A4,SRA1,TOPI1,UBE2V1,ADI </i> </p>
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			<p>RF,XDH,AHNAK,LTBP1,OVOL2,SNX5,NFATC2,RBBP6,PAX7,BNC1,ATP2B4,NSF,A CTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,DYX1C1,ATAD1,ADNP,MAPKAPK2,A RID4A,MARK1,CDK6,PHF2,CELF1,RNF34,TFRC,UVRAG,EPHA5,WWOX,MEF2A, MIR1226,DCAF6,DCUN1D5,DROSHA,GPC3,XRN1,SATB1,TBC1D5,PSMB2,EYA1,G ATAD2A,DIS3L2,GNB3,TRPV1,RBM12B,RNF216,HOXB3,HOXB4,HOXB5,HOXB6,M IR10A,TFEB,GHR,MNAT1,SNX9,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,SMOC 2,TRIM24,PLCG2,ROCK1,SCMH1,C1QTNF1,PAXIP1,ZNF713,EGR2,HIPK3,RNF10, RYBP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,MAP1A,SLC39A10,ANK3,AXIN2,EPC AM,PARD3,ZNF425,GNL3L,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383, ANXA8L1,ADAM19,SNX33,CD84,LPA,ZNF616,ZNF836,SMARCA2,CUX1,MIR1302- 10,SPH1,DNMT3B,EPHA7,FOXP2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,BCAR3,JAZ F1,STK38,ACOT8,RBPMS,RENBP,CHURC1,CREB5,MAP3K13,RAPGEF3,MST1,SM YD1,CHID1,SNCA,BMPR1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,FOXJ3,HEY2,RC3 H1,EIF3E,RNF19B,PTPRS,ZMYND11,KMT2D,PRKAG1,CREM,PSMF1,KMT2C,CAS T,TRIP12,DFFA,ADTRP,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,NUGGC,RPTO R,NFIX,BTK,MIR383,TBC1D16,KCTD13,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,A TF7IP,HTT,MAPK1,PTEN,SPRED2,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,CFBP2,Z NF780A,ZNF780B,LRRK2,TMEM59,UNC119,ZBTB20,CHMP5,RFC3,BAG6,LILRB4, PKD2,ZNF652,EFNA5,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,PDGFC,SERPINA3, SERPINA4,SERPINA5,NCOA3,PKIB,MTMR3,ZNF146,ZNF565,CUEDC2,PPP2R3C, WNT7A,ZBED6,BRWD3,NLRP1,UACA,CRTC3,DNAJC1,ARNTL2,PLCL2,KAT6A,MTI F2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,GPI,SH3RF2,WDR4 3,ZNF30,N4BP1,PDCD1LG2,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,VR K3,RALY,PRKAR2B,TCF4,AFF1,SOX30,TFE3,UBR5,GRIN1,JADE1,ARRDC4,RHOA, SPRTN,ROR1,RQC1,TF,ONECUT2,CUL3,TFEC,HSPD1,NFKBID,EPM2A,GSK3B, PRR16,DNAJC3,RDX,STAT6,ACTA2,MLF1,EEF2K,FAM49B,IWS1,PPP1R16A,PTPR B,RBBP8,NECAB2,CDK13,UPF2,CD27,DUSP26,BOK,RNF144B,SULF1,ZNF362,NA CC2,SUPT4H1,TNFRSF8,ZNF354A,AGT,HDGFRP3,METTL16,CCNJL,POLH,PRKA A2,ADAR,STAT2,ZMPSTE24,NDRG2,PTK2,UPK3B,SNX3,PDE4B,PBX1,TEC,EXOSC 3,MAP3K5,SEC16B,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,TAOK2,PYGO2,SHC1, ZNF813,CD160,ECE1,LBX2,PARP10,RNFT1,RPS6KB1,STC2,YLPM1,DPRX,PRG3,S ERPINB11,SETDB2,Alox5,DNAJB6,SP7,CD44,LARP4,ADAM8,CLDN4,RPS6KA5,Z NF484,ZNF93,CSNK1A1,HUS1,MIR346,PRDM2,CXCL17,NOS1,ZNF44,MED15,RGS 14,ACTN4,MC1R,STK4,TCF25,ZNF282,EPHB2,SLC1A1,EDRF1,TMEFF2,IL18,MFS D8,UBE2K,DIS3,DLC1,PPARA,PPP1R10,ARID5B,EPB41L4B,SMARCA1,CPEB4,G PSM3,MOB3B,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3H4V1,CD96,ADO RA2A,GRIN2B,PPP1CC,RABGEF1,CCNG2,CPEB1,OTUD7B,NIPBL,TMIGD2,YEAT S4,COL28A1,PHF20,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,FHL2,LRRK1,MBTD1,OS BPL8,ATF6,ZBTB5,ZNF708,IGF2BP3,GCNT2,ETS1,PPP1CA,MTF2,RBMS3,BTN3A2 ,TAGLN3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI,HDAC2,IMPACT,MIR 1912,PHKG2,SRCAP,POU3F3,NOTO,SPINT2,MBNL3,ZKSCAN5,CD300A,ELF2,PHI P,PPP2CA,SKP1,ANGPT4,RPL23,RFC5,ATXN1,SP100,ZNF347,ZNF415,ANXA2,TRI M29,PARN,PRMT7,DONSON,ADCY1,MADD,NUMB,RBM42,SYK,CNOT1,RBM39,W WTR1,GTTF2H5,ASB1,NFXL1,ZBTB38,BRC4,ATF7,DVL2,MORC1,HDAC1,YBX1,AN KRD13A,PTPRJ,SLC10A1,TAF1,EIF4E3,TICAM1,TANK,THAP3,CADMI,HSF1,MAX, SAP130,DHFR,EZH1,ETF1,MIR663B,NRF1,SRPK2,SASH1,NCOA2,GBP5,WDR18,E EFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MOB3A,GNA12,SH2D3A,AKTIP,MYEF2, INPP5F,AXL,TRIM37,CD109,MET,TBC1D10A,ZNF461,CAMK2D,SNX1,TIMPELESS, UCHL5,BRD9,MALT1,SERPINE3,SETD3,TRA2B,KDM2B,MLXIPL,CCT3,NEDD4L,P HB,PTPRC,EDA,ZNF555,CTCF,SH3GL2,NR6A1,SPON2,TRAF3IP2,TRIM60,ATF6B, CREB1,RGMB,TNXB,TRAP1,AFF4,CLNK,EBF4,ZNF511,BMP4,ABLIM3,CPNE1</p>
GO:00 07507	heart development	7.29061956 6890709e-8	<p>DNAH11,SLC9A1,RPS6KA2,RYR1,FHOD3,NTRK3,PLCE1,MAP2K5,NDUFV2,LRP2, ANK2,OLFM1,ROBO1,CHD7,HTR2B,LMNA,ROBO2,ITGB1,AKAP13,RUNX1,XIRP2, PTPN11,ERBB4,MYO18B,NPHP3,EP300,PDGFB,INSR,PRKARIA,BASPI,RBM20,N PRL3,TENM4,MDM4,TFDP2,MB,SGCD,SLC8A1,JPH2,ADAMTS9,NF1,RTN4,TTN,N DRG4,NRG1,MAP2K1,VGLL4,PDE2A,WNT11,NOX4,SOX6,TAB2,TGFB1,PCSK5,PD LIM4,RPGRIPI1,SLIT3,SLIT2,TP73,LRRK10,SMAD6,PARVA,GREB1L,CTNNB1,SO D2,IGF1R,PPARG,RYR2,MYOCD,CACNA1C,CTDP1,BICC1,ELN,ARL13B,IFT122,S MAD3,NRP2,TAB1,NFATC1,PDGFRA,YAP1,HEG1,SETD2,PRICKLE1,FRS2,MMP2, KDM6A,STRA6,ATF2,BMPR2,BMPR1A,APIB1,FGF2,JARID2,RARB,COL11A1,KCN Q1,ADAMTS6,SUFU,AKAP6,GLI2,SCUBE1,DZIP1,CRELD1,LUZP1,OVOL2,DYX1C 1,MEF2A,GPC3,ADRBK1,EYA1,MNAT1,FLRT2,ROCK1,AXIN2,BCOR,AP2B1,PIFO, PTK7,SMYD1,HEY2,PKP2,SGCZ,IGF1,MAPK1,PTEN,MIB1,BMP7,PKD2,ALPK3,SH 3PXD2B,SOS1,EXT1,SMO,AGT,ZMPSTE24,PTK2,CPE,SHC1,ECE1,SETDB2,STK4,T CF25,DLC1,PPARA,CALCRL,FBN1,NIPBL,FHL2,NEBL,NOTO,ACAN,DVL2,NEB,SE MA3C,TRAF3IP2,CREB1,EDNRA,BMP4</p>
GO:00 43408	regulation of MAPK cascade	7.36045512 7912465e-8	<p>PRDX2,NRXN1,MAP4K4,PDE8A,SEMA3A,WWC1,ASH1L,NTRK3,FLT3,GRM5,PLCE 1,MARVELD3,MAP2K5,KITLG,PTPRR,EZR,ROBO1,HTR2B,MECOM,TENM1,TRAF 6,ULK4,AKAP13,PTPN11,ADORA1,ERBB4,ADRA1D,CDON,NTRK2,PDGFB,TNIK, MID1,STK39,INSR,PAK1,MAP3K4,ERN2,DMD,RIT2,NF1,PLCB1,CH13L1,NDRG4,P AQR3,PIK3R2,RANBP9,NRG1,MAP2K1,ROR2,COPS5,JAK2,FBXW7,ITCH,NPSR1,L AMTOR3,NOX4,PRKCD,CD4,F2RL1,TP73,ZNF675,BMPER,DUSP22,NAIP,FGF10,S H3RF3,EPHA4,PRKCA,TNFSF11,CTNNB1,PARK2,FCGR2B,IGF1R,PPARG,AXIN1,</p>

			<p>FGF1, TRIM5, AJUBA, CSPG4, GRM1, NF2, FLT4, SFRP1, TAB1, APP, PDGFRA, NOX1, TNFRSF19, SOX2, FRS2, S100A12, RAF1, PTPN1, SPAG9, FGF2, DOK6, DVL3, ATF3, CCL14, CCL15, PAFAH1B1, PRDM15, DAB2, PKHD1, NEK10, IQGAP1, MAP3K7, ALK, XDH, PAK3, GFRAL, GHR, PLCG2, ROCK1, C1QTNF1, HIPK3, PTPN2, NTRK1, EIF3A, EPHB1, SPI1, EPHA7, BCAR3, STK38, MAP3K13, GRM4, WNT7B, ZMYND11, IGF1, MAPK1, PTE N, SPRED2, BMP7, LRRK2, LILRB4, PDGFC, WNT7A, SH3RF2, RAPGEF2, VRK3, SYNGA P1, ROR1, ACTA2, NECAB2, CD27, DUSP26, AGT, HRH4, NDRG2, MAP3K5, NCF1, TAO K2, SHC1, CD44, ADAM8, CXCL17, RGS14, STK4, EPHB2, PHLPP1, MAGI3, PRKCZ, AN GPT1, GCNT2, TBC1D10C, CCL22, BRAF, HTR2C, CD300A, MADD, SYK, GRIK2, DVL2, PTPRJ, SASH1, CAV2, ANKRD6, PHB, PTPRC, BMP4</p>
GO:0050767	regulation of neurogenesis	7.575571764350656e-8	<p>PRKCI, SEMA3A, SEMA3D, TIAM2, KALRN, NTRK3, SEMA5A, GRM5, LRP2, ROBO1, CHD7, CDKL5, ROBO2, DSCAM, DAB1, ABCC8, GOLGA4, LIMK1, NTRK2, HOOK3, CDH4, PTPRD, BDNF, AMIGO1, TENM4, ARNTL, NF1, RTN4, RTN4R, NTN1, MAP2K1, CAPRIN2, ILIRAPL1, CAMK2B, SEMA5B, TGFB1, SLIT2, TP73, DISC1, EPHA4, PPP3CA, MAG, UFL1, CTNNB1, PPARG, DRAXIN, NIN, DCT, PER2, DCC, NF2, CUX2, PRTG, GSX2, DIP2B, YAP1, FSTL4, ISLR2, PARP6, SEMA6D, BMPR2, BMPR1A, RAB11A, SEMA4D, PLXNA2, SPEN, WNT3, PAFAH1B1, TRPC5, RUFY3, RELN, MACF1, PAK3, ADNP, MAP1B, BRINP1, HOXB3, ACTR2, HDAC1, EGR2, RNF10, TRIM46, CUX1, EPHA7, CTNNA1, MAP3K13, HEY2, PTPRS, PTEN, BMP7, EFN45, SHANK3, WNT7A, RAPGEF2, SMO, SYNGAP1, EEF2K, DLX1, RGS14, EPHB2, PAX6, PPP1CC, MAP2, FBXO31, BRAF, HDAC2, TNR, CDKL3, NUMB, SLIT1, SEMA3C</p>
GO:0060284	regulation of cell development	7.905018524405166e-8	<p>PRKCI, S1PR2, SEMA3A, DOCK1, CLDN18, SEMA3D, TIAM2, KALRN, NTRK3, SEMA5A, GRM5, LRP2, ROBO1, CHD7, CDKL5, ROBO2, TRIOBP, DSCAM, DAB1, ABCC8, GOLGA4, IKBKB, LIMK1, NTRK2, HOOK3, CDH4, PTPRD, BDNF, AMIGO1, TENM4, CASS4, ARNTL, NF1, PLCB1, RTN4, RTN4R, NTN1, MAP2K1, CAPRIN2, RCO2, FBXW7, ILIRAPL1, CAMK2B, SEMA5B, TGFB1, C9ORF47, SLIT2, TP73, CORO1C, DISC1, KANK1, CLOCK, EPHA4, TNFSF11, PPP3CA, MAG, UFL1, CTNNB1, PPARG, DRAXIN, NIN, DCT, PER2, DCC, NF2, HDAC4, CUX2, PREX1, PRTG, GSX2, DIP2B, YAP1, FSTL4, ISLR2, SLC9B2, PARP6, SEMA6D, BMPR2, BMPR1A, RAB11A, NEDD9, SEMA4D, PLXNA2, SPEN, VCL, WNT3, P4HB, PAFAH1B1, TRPC5, RUFY3, DAB2, RELN, MACF1, BNC1, PAK3, ADNP, MAP1B, BRINP1, TRPV1, HOXB3, ACTR2, HDAC1, ROCK1, EGR2, RNF10, AXIN2, TRIM46, CUX1, EPHA7, CTNNA1, MAP3K13, HEY2, PTPRS, IGF1, PTEN, BMP7, LRRK2, EFN45, SHANK3, WNT7A, RAPGEF2, SMO, SYNGAP1, GSK3B, EEF2K, TCF11, DLX1, RGS14, ACTN4, EPHB2, FBN1, PAX6, PPP1CC, MAP2, FBXO31, BRAF, HDAC2, TNR, CDKL3, NUMB, SLIT1, SEMA3C, BMP4</p>
GO:0045937	positive regulation of phosphate metabolic process	7.957406667419123e-8	<p>NRXN1, SLC03A1, S1PR2, ADCY8, PDE8A, IL31RA, NRG3, PRKAG2, PRLR, NTRK3, ARNT, FLT3, ENPP2, GRM5, MAP2K5, KITLG, ROBO1, TOM1L1, HTR2B, TENM1, TRAF6, VAV2, ABI1, HSP90AA1, CDC6, KNDC1, DSCAM, AKAP13, DAB1, PTPN11, HDAC6, ADORA1, EPHA1, ERBB4, MRE11A, CDON, NTRK2, PDGFB, TNK1, CCND3, INSR, CAB39, PAK1, MAP3K4, BDNF, ENTPD5, ECT2, ERN2, CASS4, FYN, LMTK2, CHI3L1, NRG1, SH2D3C, MAP2K1, FNIP1, ROR2, MAD2L2, CAPRIN2, CCNYL1, JAK2, FBXW7, LAMTOR3, WNT1, NOX4, PRKCD, TAB2, ACVR2A, CD4, TGFB1, PIBF1, TNFRSF10B, DOCK3, FGF10, SMYD3, EPHA4, CD6, TNFSF11, IGF1R, PPARG, AXIN1, LEPR, FGF1, AJUBA, CHEK2, SPDYA, CAPN2, CSPG4, FLT4, SMAD3, SLC4A4, TAB1, APP, PDGFRA, BORA, MTCPI1, S100A12, PRKD1, EREG, CCNY, ATF2, RAF1, PTPN1, BMPR2, BMPR1A, BTBD10, PIK3R3, FGF2, NEDD9, SEMA4D, PTAFR, ADCYAP1R1, DVL3, EIF4G1, EPHB3, CKS1B, TERF2IP, TRPC5, DAB2, CACUL1, DLG3, WNK1, RELN, NEK10, IQGAP1, MAP3K7, ALK, SLC8A2, ATP2B4, CAMTA1, ADNP, TFRC, EPHA5, GHR, MNAT1, SNX9, PLCG2, ROCK1, INSRR, NTRK1, SLC39A10, EPHB1, EPHA10, AXIN2, PIFO, EPHA7, ATG14, BCAR3, RBPM5, MAP3K13, RAPGEF3, SNCA, BMPR1B, MAGI2, PRKAG1, ADTRP, OPRD1, RPTOR, IGF1, MAPK1, BMP7, LRRK2, UNC119, ZBTB20, PKD2, EFN45, PDGFC, PPP2R3C, BMP6, RAPGEF2, VRK3, RHOA, ROR1, RQCD1, TF, AGT, PRKAA2, PTK2, TEC, MAP3K5, NCF1, TAOK2, CD44, ADAM8, RPS6KA5, NOS1, STK4, EPHB2, SLC1A1, IL18, UBE2K, DLC1, PPARA, MOB3B, PRKCZ, ANGPT1, LRRK1, OSBPL8, CNTN1, BRAF, HDAC2, HTR2C, CD300A, PPP2CA, ANGPT4, MADD, SYK, DVL2, PTPRJ, HSF1, SASH1, VAV3, MOB3A, GNA12, SH2D3A, AKTIP, AXL, MET, MALTI, MLXIPL, PHB, PTPRC, TYRO3, BMP4</p>
GO:0010562	positive regulation of phosphorus metabolic process	7.957406667419123e-8	<p>NRXN1, SLC03A1, S1PR2, ADCY8, PDE8A, IL31RA, NRG3, PRKAG2, PRLR, NTRK3, ARNT, FLT3, ENPP2, GRM5, MAP2K5, KITLG, ROBO1, TOM1L1, HTR2B, TENM1, TRAF6, VAV2, ABI1, HSP90AA1, CDC6, KNDC1, DSCAM, AKAP13, DAB1, PTPN11, HDAC6, ADORA1, EPHA1, ERBB4, MRE11A, CDON, NTRK2, PDGFB, TNK1, CCND3, INSR, CAB39, PAK1, MAP3K4, BDNF, ENTPD5, ECT2, ERN2, CASS4, FYN, LMTK2, CHI3L1, NRG1, SH2D3C, MAP2K1, FNIP1, ROR2, MAD2L2, CAPRIN2, CCNYL1, JAK2, FBXW7, LAMTOR3, WNT1, NOX4, PRKCD, TAB2, ACVR2A, CD4, TGFB1, PIBF1, TNFRSF10B, DOCK3, FGF10, SMYD3, EPHA4, CD6, TNFSF11, IGF1R, PPARG, AXIN1, LEPR, FGF1, AJUBA, CHEK2, SPDYA, CAPN2, CSPG4, FLT4, SMAD3, SLC4A4, TAB1, APP, PDGFRA, BORA, MTCPI1, S100A12, PRKD1, EREG, CCNY, ATF2, RAF1, PTPN1, BMPR2, BMPR1A, BTBD10, PIK3R3, FGF2, NEDD9, SEMA4D, PTAFR, ADCYAP1R1, DVL3, EIF4G1, EPHB3, CKS1B, TERF2IP, TRPC5, DAB2, CACUL1, DLG3, WNK1, RELN, NEK10, IQGAP1, MAP3K7, ALK, SLC8A2, ATP2B4, CAMTA1, ADNP, TFRC, EPHA5, GHR, MNAT1, SNX9, PLCG2, ROCK1, INSRR, NTRK1, SLC39A10, EPHB1, EPHA10, AXIN2, PIFO, EPHA7, ATG14, BCAR3, RBPM5, MAP3K13, RAPGEF3, SNCA, BMPR1B, MAGI2, PRKAG1, ADTRP, OPRD1, RPTOR, IGF1, MAPK1, BMP7, LRRK2, UNC119, ZBTB20, PKD2, EFN45, PDGFC, PPP2R3C, BMP6, RAPGEF2, VRK3, RHOA, ROR1, RQCD1, TF, AGT, PRKAA2, PTK2, TEC, MAP3K5, NCF1, TAOK2, C</p>

			D44, ADAM8, RPS6KA5, NOS1, STK4, EPHB2, SLC1A1, IL18, UBE2K, DLC1, PPARA, MOB3B, PRKCZ, ANGPT1, LRRK1, OSBPL8, CNTN1, BRAF, HDAC2, HTR2C, CD300A, PPP2CA, ANGPT4, MADD, SYK, DVL2, PTPRJ, HSF1, SASH1, VAV3, MOB3A, GNAI2, SH2D3A, AKTIP, AXL, MET, MALTI, MLXIPL, PHB, PTPRC, TYRO3, BMP4
GO:0044087	regulation of cellular component biogenesis	8.22499987296928e-8	CLRN1, ADAMTS16, LDB2, NRXN1, MAP4K4, DNMT1, SLC9A1, NEGR1, PDE4DIP, CLASP2, GRID2, FHOD3, TJPI1, NTRK3, PLCE1, LHFPL4, FER, EZR, CDKL5, TENM1, ROBO2, TRIOBP, HSP90AA1, ARHGAP24, CDC42EP3, MYO10, PTPN11, HDAC6, EPHA1, IKBKB, LIMK1, ESR1, PMEPA1, NTRK2, STX18, EP300, TENM2, ATP8B1, PIP4K2A, PAK1, PTPRD, BDNF, AMIGO1, NPRL3, ARHGAP6, ECT2, GSN, RBM14, APOD, NTN1, DCTN1, NRG1, BID, FNIP1, LRFN5, RNF4, SCFD1, NCKAP1, TERF2, SLX1B, RCC2, ARL3, SKAP1, CLSTN2, CROCC, CLDN1, SEPT7, CYFIP2, WNT11, IL1RAPL1, PRKCD, PPM1E, F2RL1, BCAS3, DNAJB2, SLIT2, CORO1C, CEP135, KANK1, SMAD6, DUSP22, LINGO2, CNTNAP2, STXBP5, KANK4, IL1RAPL2, RHPN2, SVIL, PRKCA, AUTS2, PARK2, DLG5, ADD2, FB LIM1, NIN, AJUBA, PHLDB1, HCK, TBC1D14, RAB3GAP2, NF2, HDAC4, SPTBN1, ELN, T RABD2B, SFRP1, DNM3, SSH1, SMAD3, CUX2, WIP1, ABI2, C10ORF90, SHANK1, ARH GEF18, NAV3, APP, SLK, ADD3, YAP1, NLGN2, GPC6, KIF24, SPTBN4, VILL, SYNE2, VPS 4A, RAF1, NLGN1, COL16A1, MORC2, PPM1F, PAK1, SEMA4D, EIF4G1, EPHB3, TSG1 01, VCL, NLGN3, ERCC1, LDLRAD4, SETD5, DZIP1, SIN3A, DOCK11, MACF1, CLASP1, GPM6B, SPTBN5, PAK3, SSH2, TET1, ADNP, MAP1B, MPHOSPH9, PHF2, TFRC, FLRT2, SNX9, ACTR2, PLCG2, ROCK1, EPS8, NTRK1, EPHB1, GNL3L, ARHGAP44, EPHA7, PTP RA, ABCB7, FCHSD2, RAPGEF3, SNCA, USP50, PTPRS, CDKL1, PLD1, OPRD1, ATF7IP, HTT, DPYSL3, PTEN, BMP7, LRRK2, SPAG5, CHMP5, EFNA5, SHANK3, MTMR 3, TBCE, WNT7A, MAP4, RAPGEF2, MARK4, RHOA, GSK3B, RDX, EEF2K, FAM49B, AGT ,PRKAA2, PTK2, TPPP2, GAP43, PARP10, SETDB2, DNAJB6, EPHB2, TMEFF2, GPM5D, DLC1, PRKCZ, PHLDB2, MAP2, ATG3, BRAF, IMPACT, NOTO, CAMSAP3, SYK, CNOT1, SLIT1, HRK, PTPRJ, TICAM1, GPM6A, HSF1, PLEKHM1, ASAP1, GBP5, CGNL1, TRIM37 ,MET, SPTAN1, SYNDIG1, STXBP6
GO:0016055	Wnt signaling pathway	8.339196570084625e-8	GPC5, LATS2, SEMA5A, LRRFIP2, GRK5, PSMB7, MCC, KLHL12, DDB1, NPHP3, PTPR O, CELA1, RNF220, TNK1, TCF7L2, USP34, FBXW11, CDK14, PTPRU, DEPDC1B, ARNT L, MDF1, VAX2, VGLL4, ROR2, SOX13, MAD2L2, TLE6, CAPRIN2, CCNYL1, GNAQ, MLLT 3, TCF7, KLF15, WNT11, IFT80, KREMEN1, BTRC, CELSR1, CTNND2, DISC1, KANK1, F GF10, SMURF2, CTNNB1, PARK2, AXIN1, DRAXIN, BICC1, TRABD2B, SFRP1, FOXO3, S MAD3, VANGL1, NFATC1, CDC73, APP, YAP1, AMFR, LRP5, SOX2, GPC6, PRICKLE1, K DM6A, CCNY, TMEM237, FGF2, DKK2, DVL3, RBX1, WNT3, PRDM15, TNKS, DAB2, WN K1, RUVBL2, RSPO2, MACF1, MARK1, WWOX, GPC3, PSMB2, HDAC1, INVS, PLCG2, AX IN2, FBXW4, PTK7, MAGI2, ZEB2, WNT7B, MITF, ZNRF3, PTEN, LRRK2, ZRANB1, PKD2, AMOTL1, WNT7A, EXT1, PRICKLE2, SOX30, UBR5, JADE1, RHOA, ROR1, CUL3, EPM2A ,GSK3B, SULF1, RNF43, PRKAA2, NDRG2, SNX3, CPE, APCDD1L, PYGO2, LBX2, SCLE, CSNK1A1, STK4, SPEF1, WLS, TBL1X, LRRK1, PPP1CA, RBMS3, PPP2CA, WWTR1, DVL 2, WIF1, ANKRD6, EDA, RNF213, SHISA6, EDNRA
GO:0051960	regulation of nervous system development	9.978896570223035e-8	NRXN1, PRKCI, SEMA3A, GRID2, SEMA3D, TIAM2, KALRN, NTRK3, SEMA5A, GRM5, L RP2, ROBO1, CHD7, CDKL5, ROBO2, DSCAM, DAB1, ABCC8, GOLGA4, LIMK1, NPHP3, NTRK2, HOOK3, CDH4, PTPRD, BDNF, AMIGO1, TENM4, ARNTL, NF1, RTN4, RTN4R, N TN1, MAP2K1, CAPRIN2, CLSTN2, FIG4, IL1RAPL1, CAMK2B, SEMA5B, TGFB1, SLIT2, TP73, DISC1, LINGO2, EPHA4, PPP3CA, MAG, UFL1, CTNNB1, PPARG, DLG5, DRAXIN ,NIN, DCT, PER2, DCC, NF2, CUX2, PRTG, GSX2, DIP2B, YAP1, FSTL4, NLGN2, ISLR2, P ARP6, SEMA6D, BMPR2, BMPRI1A, NLGN1, RAB11A, SEMA4D, PLXNA2, SPEN, EPHB3, WNT3, TG, NLGN3, PAFAH1B1, TRPC5, RUFY3, RELN, MACF1, PAK3, ADNP, MAP1B, B RINP1, HOXB3, FLRT2, ACTR2, LGI4, HDAC1, EGR2, RNF10, NTRK1, EPHB1, PARD3, T RIM46, CUX1, EPHA7, CTNNA1, MAP3K13, HEY2, PTPRS, PTEN, BMP7, EFNA5, SHANK 3, WNT7A, RAPGEF2, SMO, SYNGAP1, EEF2K, DLX1, RGS14, EPHB2, PAX6, PPP1CC, M AP2, FBXO31, BRAF, HDAC2, TNF, CDKL3, NUMB, SLIT1, SEMA3C, SYNDIG1
GO:0010243	response to organonitrogen compound	1.1006182852847169e-7	ENPPI, ASPH, PRKCI, PDE4D, DNMT1, SLC9A1, ADCY8, CALR3, RYR1, FLT3, STAT5B, GRM5, FER, EZR, SLC26A6, HTR2B, RYR3, GOT1, ITGB1, CDC6, ABCC8, DNAJB14, STX BP4, PTPN11, NTRK2, CACNA1B, CCND3, INSR, PIP4K2A, AMIGO1, CHRM3, TRIM13, UBR2, HLCS, SNX6, AP3S1, NPLOC4, USP13, KAT7, SLC8A1, FYN, PLCB1, MGMT, PIK3 R2, TMBIM6, HDAC5, SLC39A14, CDH13, TRDMT1, IPO5, MAN1A1, RGS8, JAK2, PDE2 A, KLF15, LAMTOR3, PRKCD, TGFB1, DNAJB2, SLIT2, TP73, GABRB1, KANK1, CHRM1, BCKDHB, HOMER2, GLP2R, EPHA4, CNR1, PPP3CA, UFL1, CTNNB1, PARK2, FCGR2B ,SMARCC1, IGF1R, PPARG, CYBB, OTC, BRIP1, SREBF2, RYR2, LEPROT, NR4A3, SORBSI, CAPN2, SFRP1, FOXO3, SSH1, RNFT2, SLC6A1, SEC61B, APP, PDGFRA, AMFR, SES N1, RNLS, GNG2, DRD1, GLRA2, ERLIN1, MMP2, STAT1, SLC6A3, HNF4A, EREG, ATF2, PTPN1, COL16A1, PIK3R3, ADCY5, PTAFR, PRKCG, EIF2B5, PTPRE, SRSF5, STT3B, ID E, KCNQ1, AKAP6, EDEM3, IRS4, WDTIC1, BLM, UBR1, SIN3A, SP1, ALK, SNX5, RGS7, AT P2B4, P2RX6, MAP1B, COL4A6, TYR, CACNA1A, XRN1, PSMB2, TRPV1, GHR, ACTR2, EL AVL4, RECQL5, ROCK1, EGR2, CAPN10, ABCC1, PTPN2, INSRR, MAN1B1, CARM1, SRD 5A2, HTR1D, PTPRA, CTNNA1, BCAR3, RAB15, RAPGEF3, SDK1, PDXP, SNCA, PNPT1, R NF103, RNF103-CHMP3, CNGA3, HMGC2, ADTRP, SRSF6, RPTOR, IGF1, MAPK1, BMP7, PIK3C3, LRR K2, GNA14, CHMP5, BAG6, NSG2, PKD2, SEL1L2, PDGFC, NLRP1, GLDC, GPR21, ANO 1, GPI, TSHR, EXT1, PNPLA3, RAPGEF2, KCNC2, GET4, PRKAR2B, CPT1A, GRB14, GRI N1, RHOA, ITPR2, GABRB3, GSK3B, STAT6, EEF2K, AGT, STAT2, HRH4, PTK2, PHEX, RN F121, PDE4B, SHC1, RNFT1, RPS6KB1, STC2, GPR173, EPHB2, SLC1A1, PPARA, SLC25

			A33,CPEB4,FBN1,PRKCZ,ATP1A3,ADORA2A,CPEB1,OSBPL8,NCOR2,PRKCQ,DIA PH1,HDAC2,HTR2C,IMPACT,PHIP,RPL23,SH3BP4,SYK,TAI1,TICAM1,HSF1,MAX, DHFR,CIB2,CAV2,UGGT1,DENND4C,TIMELESS,CREB1,SGTB,EDNRA,HADHA
GO:00 23056	positive regulation of signaling	1.10309853 7731916e-7	PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDCL,SLC9A1,ADCY8,PDE8A,SEMA3A,CH ERP,WWC1,C12ORF49,NOS1AP,MAPRE2,PTGIS,PRLR,PAGRI,NTRK3,CBL,ARNT, SEMA5A,FLT3,GRM5,PLCE1,MAP2K5,KITLG,LRP2,PIK3CD,ROBO1,HTR2B,TENM 1,TRAF6,ROBO2,ITPKB,SLC24A2,ITGB1,HSP90AA1,PSMB7,CCDC22,AKAP13,DG KI,LAMA2,PTPN11,MGAT5,CACNB2,ADORA1,ADAMTS3,IKBKB,ERBB4,ADRA1D, MIER1,CDON,NTRK2,EP300,RNF220,PDGFB,RIMS1,TNIK,MIDI1,STK39,INSR,TCF 7L2,USP34,PAK1,LITAF,MAP3K4,ZDHHC13,BDNF,TRIM13,LCK,ECT2,VAMP7,ER N2,RIT2,DEPDC1B,CASS4,FYN,ARNTL,NF1,PLCB1,RTN4,RTN4R,RWDD3,CHI3L1, NDRG4,BMP2K,NRG1,BID,MAP2K1,FNIP1,ROR2,DCN,ZDHHC3,SLC39A14,CDH1 3,CAPRIN2,CCBE1,JAK2,FBXW7,CLSTN2,SYT1,NPSR1,MLLT3,LAMTOR3,CYFIP2, WNT11,NOX4,SLAH1,PRKCD,TAB2,ACVR2A,CD4,NUP93,PIBF1,CRADD,F2RL1,AA K1,TP73,DISC1,KANK1,MTDH,BMPER,TNFRSF10B,DUSP22,NAIP,YTHDF1,FGF1 0,IQCJ- SCHIP1,SH3RF3,LOXL3,SMURF2,EPHA4,PRKCA,AUTS2,CNR1,TNFSF11,CTNNB1, PARK2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,IL18R1,P2RY10,ANKRD17,APOL3,F GF1,MYOCD,TRIM5,AJUBA,SORBS1,TRIM8,CSPG4,GRM1,FLT4,SFRP1,CNTN6,S MAD3,CUX2,SHANK1,NEDD4,TAB1,CDC73,APP,GSX2,PDGFRA,NOX1,YAP1,NLG N2,TNFRSF19,SOX2,DRD1,CHUK,FRS2,S100A12,PRKD1,SHANK2,EREG,RAF1,RA SGRF2,CARD16,CASP1,PTPN1,BMPR2,BMPR1A,NLGN1,SPAG9,EVC,FGF2,SEMA 4D,DOK6,ADCYAP1R1,DKK2,PRKCG,EEF1E1,EEF1E1- BLOC1S5,GAS8,DVL3,ATF3,SHOC2,AGO3,TERF2IP,WDR59,WNT3,CCL14,CCL15, NLGN3,SCUBE2,PFAH1B1,PRDM15,HIP1,AKAP6,NR2C1,NEO1,TNKS,SCUBE1,D AB2,WNK1,RELN,NEK10,RSPO2,GUCY1A2,PELI1,IQGA1,MAP3K7,ZNF423,TRIM 22,MACF1,ALK,SLC8A2,STAUI,UBE2V1,XDH,SNX5,NSF,CAMTA1,P2RY8,TFRC,W WOX,SYT12,GFRAL,GPC3,PSMB2,TSPAN6,CLEC16A,GHR,SMOC2,PLCG2,ROCK1 ,C1QTNF1,CAPN10,GPR35,PTPN2,NTRK1,TRIM44,SLC39A10,JAG2,CACNG8,VWF ,NETO1,ARHGEF3,SPI1,CHRNA4,MCU,CTNNA1,LY86,BCAR3,RBPMS,MAP3K13,P TK7,SNCA,BMPR1B,CACNG2,GRM4,ZEB2,RC3H1,WNT7B,KMT2D,RPTOR,KCTD1 3,SLC4A8,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,PUM1,LRRK2,ZRANB1,TMEM1 08,PKD2,SHANK3,PDGFC,WNT7A,SIK3,BMP6,ANO1,SH3RF2,SOS1,RAPGEF2,SM O,UBR5,GRIN1,RHOA,ROR1,RQCD1,GSK3B,ACTA2,NECAB2,CD27,BOK,SULF1,N ACC2,AGT,PTK2,RIMS2,MAP3K5,CREBBP,NCF1,TAOK2,SHC1,ECE1,LBX2,SCEL, CD44,ADAM8,BCL2L14,CXCL17,RGS14,ACTN4,MC1R,STK4,EPHB2,SLC1A1,WLS,I L18,UBE2K,HCAR2,PRKCZ,ZC3HAV1,ADORA2A,GRIN2B,ANGPT1,TBL1X,LRRK1, OSBPL8,ATF6,GCNT2,PPP1CA,CCL22,BRAF,HTR2C,TNR,CD300A,PHIP,MAOA,R PL23,ANXA2,ADCY1,MADD,SYK,GRIK2,MYRIP,CACNG3,DVL2,PTPRJ,TICAM1,SA SH1,CAV2,INPP5F,AXL,MET,UCLH5,ANKRD6,MALTI,PHB,PTPRC,EDA,GPR89A, TSPAN5,TRAF3IP2,CREB1,BMP4,CPNE1
GO:01 98738	cell-cell signaling by wnt	1.15362632 17103031e- 7	GPC5,LATS2,SEMA5A,LRRFIP2,GRK5,PSMB7,MCC,KLHL12,DDDB1,NPHP3,PTPR O,CELA1,RNF220,TNIK,TCF7L2,USP34,FBXW11,CDK14,PTPRU,DEPDC1B,ARNT L,MDF1,VAX2,VGLL4,ROR2,SOX13,MAD2L2,TLE6,CAPRIN2,CCNYL1,GNAQ,MLLT 3,TCF7,KLF15,WNT11,IFT80,KREMEN1,BTRC,CELSR1,CTNND2,DISC1,KANK1,F GF10,SMURF2,CTNNB1,PARK2,AXIN1,DRAVIN,BICC1,TRABD2B,SFRP1,FOXO3,S MAD3,VANGL1,NFATC1,CDC73,APP,YAP1,AMFR,LRP5,SOX2,GPC6,PRICKLE1,K DM6A,CCNY,TMEM237,FGF2,DKK2,DVL3,RBX1,WNT3,PRDM15,TNKS,DAB2,WN K1,RUVBL2,RSPO2,MACF1,MARK1,WWOX,GPC3,PSMB2,HDAC1,INVS,PLCG2,AX IN2,FBXW4,PTK7,MAGI2,ZEB2,WNT7B,MITF,ZNRF3,PTEN,LRRK2,ZRANB1,PKD2, AMOTL1,WNT7A,EXT1,PRICKLE2,SOX30,UBR5,JADE1,RHOA,ROR1,CUL3,EPM2A ,GSK3B,SULF1,RNF43,PRKAA2,NDRG2,SNX3,CPE,APCDD1L,PGYGO2,LBX2,SCEL, CSNK1A1,STK4,SPEF1,WLS,TBL1X,LRRK1,PPP1CA,RBMS3,PPP2CA,WWTR1,DVL 2,WIF1,ANKRD6,EDA,RNF213,SHISA6,EDNRA
GO:00 07610	behavior	1.19557624 6334924e-7	DNAH11,NRXN1,NEGR1,PBX3,ADCY8,NLGN4X,KALRN,GRM5,NRXN3,CHD7,HTR 2B,OXRI,SLC24A2,ITGB1,PCDH17,DSCAM,DAB1,ABCC8,DGKI,THRB,DACHI,AD ORA1,ATP8A2,NTRK2,EP300,KIRREL3,USP46,INSR,SLC4A10,TBR1,BDNF,MEIS1, NAV2,FYN,NF1,PLCB1,PCDH15,AFF2,NDRG4,ANKH,DCTN1,NRG1,STRBP,VWA1, NPSR1,BBS12,FIG4,MTA1,ASTN1,SGK1,JPH3,CELSR1,CDH23,GPR176,CLN6,GPR 52,ANKFN1,HOMER2,YTHDF1,CNTNAP2,SLC16A1,EPHA4,CNR1,CAMK4,PARK2, SOD2,PRKAR1B,LEPR,NR4A3,CSMD1,CAPN2,GRM1,HDAC4,SPG11,CUX2,SHANK 1,SLC6A1,APP,AMFR,NLGN2,RCAN1,SPTBN4,DRD1,SLC6A3,SHANK2,STRA6,NLG N1,ADCY5,PRKCG,EIF4G1,FBXL20,KCNQ1,NLGN3,PFAH1B1,CNTFR,NMUR2,B TBD9,RELN,ALK,SLC8A2,ATAD1,ADNP,SORCS3,GFRAL,SGIP1,BRINP1,TRPV1,AC TR2,ELAVL4,LGI4,EPH2,EGR2,NTRK1,MAP1A,NETO1,HTR1D,CHRNA4,SDK1,SNC A,OPRD1,RPTOR,HTT,MAPK1,PTEN,PUM1,LRRK2,SHANK3,GPI,TSHR,EXT1,PRK AR2B,CPT1A,GRIN1,SYNGAP1,EPM2A,SCN9A,AGT,ZMPSTE24,RPS6KB1,GRID1,R GS14,MC1R,EPHB2,SLC1A1,PPARA,SOBP,PRKCZ,ADORA2A,GRIN2B,KLHL1,BRA F,HDAC2,HTR2C,ATP8A1,TNR,ATXN1,KCND2,ADCY1,GRIK2,SCN1A,MORC1,NC OA2,INPP5F,TANCI,CREB1
GO:00 34762	regulation of transmembrane	1.25455546 60829968e-	ENPPI,NRXN1,ASPH,PRKCI,PDE4D,SLC9A1,NOS1AP,DPP6,PRKAG2,CLCN1,UTR N,KCNQ5,GRM5,KCNIP4,ANK2,CHD7,SLC26A6,ITGB1,CNIH2,ABCC8,STXBP4,TC IRG1,PTPN11,KCNS3,NETO2,CACNB2,KCNJ16,DPP10,CACNA1B,STK39,INSR,CA

	transport	7	B39,CATSPER2,AMIGO1,KCNMA1,CHRM3,KCNRG,TMC2,DMD,SLC8A1,JPH2,FY N,SHISA9,CACNA1E,SLC43A2,BDKRBI,KCNIP1,STIM1,NALCN,CATSPER3,FGF14,ANO6,KCNB2,OAZ2,NPSR1,SCN4A,TMC1,KLF15,KCNC4,CACNA1H,TGFB1,KEL,JPH3,KCNJ3,CACNA1D,CACNA2D3,KCNH1,KCNH7,CAPN3,VMP1,CYBB,KCNJ12,RYR2,KCNA6,NR4A3,PER2,CACNA1C,SCN3B,SORBS1,WWP2,SHANK1,NEDD4,APP,NOX1,NLGN2,VDAC1,DRD1,PRKD1,FXD2,FXD6,KCNG4,RASGRF2,NLGN1,PTAFR,CLIC4,KCNQ1,NLGN3,AKAP6,WNK1,RELN,ABCB1,KCNQ2,TPCN1,CLIC5,AHNAK,RGS7,ATP2B4,KCNAB2,MEF2A,CACNA1A,GPC3,STOM,PLCG2,CAPN10,GP R35,ANK3,KCND3,CACNG8,NETO1,TRDN,STAC,TRPC6,SNCA,CACNG2,IGF1,HTT,SCN8A,CNIH3,PKD2,SHANK3,KCNC2,PSEN2,SCN9A,AGT,ZMPSTE24,PDE4B,KC NJ15,RPS6KB1,NOS1,ACTN4,EPHB2,LRRC52,OSBPL8,BRAF,DIAPH1,KCND2,SCN 1A,CACNG3,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,GPR89A,SHISA6,EDNRA
GO:0043269	regulation of ion transport	1.3633330680417653e-7	NRXN1,ASPH,PDE4D,SLC9A1,NOS1AP,EPB41,DPP6,CLCN1,UTRN,KCNQ5,GRM5,CASK,KCNIP4,ANK2,CHD7,NKAIN2,ITGB1,CNIH2,NKAIN3,ABCC8,TCIRG1,KCNS 3,NETO2,CACNB2,ADORA1,KCNJ16,GRM7,DPP10,PDGFB,CACNA1B,STK39,ATP 8B1,CAB39,CATSPER2,AMIGO1,KCNMA1,CHRM3,KCNRG,TMC2,VAMP7,DMD,SL C8A1,JPH2,FYN,SHISA9,CACNA1E,SLC43A2,BDKRBI,KCNIP1,STIM1,NALCN,TM BIM6,CATSPER3,FGF14,ANO6,KCNB2,SYT1,NPSR1,SCN4A,TMC1,KCNC4,CACNA 1H,CAMK2B,CD4,TGFB1,KEL,JPH3,CLDN10,SYT13,KCNJ3,CACNA1D,CACNA2D3,CHRM1,KCNH1,HOMER2,KCNH7,CAPN3,VMP1,CNRI,TNFSF11,CTNNB1,PARK2,CYBB,KCNJ12,RYR2,KCNA6,PER2,CACNA1C,SCN3B,WWP2,SHANK1,ADORA2A,CNT N1,DIAPH1,KCND2,SYK,SCN1A,CACNG3,SLC10A1,KCNQ3,SESTD1,CAMK2D,KC NJ6,NEDD4L,GPR89A,SHISA6,EDNRA
GO:0009790	embryo development	1.6067959134292532e-7	CLRN1,RCN1,DNMT1,HLX,PBX3,LMBR1,CLASP2,SEMA3A,STOX2,TJP1,ARNT,RA D51B,MAP2K5,KITLG,PTPRR,LRP2,SP3,MFAP5,CHD7,HTR2B,KIAA1217,TRAF6,A BII,ITGB1,TRIOBP,KLHL12,LAMA2,RBM19,ADAMTS3,ERBB4,ATP8A2,CECR2,MY O18B,NPHP3,CDON,EP300,RNF220,PDGFB,INSR,PRKAR1A,LAMA3,BASPI,STRC,TFAP2A,TGIF2,FUT8,PHACTR4,MEIS1,TENM4,MYO3B,AFF3,SATB2,HIRA,TANC2,NF1,PLCB1,PCDH15,RTN4,BCR,NDRG4,NTN1,MAP2K1,MDFI,VAX2,MYH9,ROR2,EXOC4,TLE6,TERF2,NEUROD1,COL12A1,USP22,LRIG3,PLS1,SEPT7,TBX15,WNT1 1,CCDC62,ACVR2A,RUNX2,TGFB1,PCSK5,MYO3A,C2ORF49,RPGRIP1L,CELSR1,CDH23,SMAD6,FGF10,LOXL3,NSUN2,CTNNB1,AXIN1,RYR2,NPAT,NR4A3,CACNA 1C,PHLDB1,MYO1E,CAPN2,MMP16,NF2,PAX2,SFRP1,ARL13B,IFT122,SMAD3,AR NT2,EMG1,NRP2,HOXD3,HOXD4,TAB1,CDC73,SSBP3,PDGFRA,YAPI,HEG1,EYA2,PEMT,LRP5,SOX2,SETD2,TTC39C,CHST11,TEAD1,PRICKLE1,VASH2,FRS2,PALB 2,MMP2,KDM6A,HNF4A,STRA6,DSCAML1,ATF2,CELF4,BMPR2,BMPRIA,TAF8,F GF2,AGBL4,SH3PXD2A,PLXNA2,RARB,NCOA1,EHMT1,CHRD,DVL3,LMBRD1,LA MB1,COL11A1,KCNQ1,WNT3,SUFU,PAFAH1B1,POLE,PADI6,GLI2,ERCC1,WDTTC 1,WNK1,SIN3A,RSP02,LUZP1,MYO7A,CLASPI,TEAD4,TOPI,OVOL2,RBBP6,TET1, GPR161,CELF1,ADCY9,GPC3,EYA1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,HDAC1,ROCK1,PTPRQ,AXIN2,JAG2,BCOR,PIFO,FBXW4,SHROOM3,ERCC3,PTK7,RAI2,H EY2,COL13A1,WNT7B,TRIP12,HIPK1,IGF1,MAPK1,MIB1,BMP7,CIR1,LHFPL5,TTL L4,BAG6,PKD2,SHANK3,RIPPLY1,PDGFC,WNT7A,ZBED6,GPI,SOS1,TSHR,EXT1,S MO,CUL3,RBBP8,SULF1,MTHFD1L,KRT8,FBN2,PBX1,CREBBP,DLX1,PCSK6,ECE 1,LBX2,SCEL,SETDB2,DNAJB6,HUS1,TBC1D23,STK4,EPHB2,WLS,ASF1B,DLCL1,S OBP,FBN1,PAX6,PHLDB2,OTUD7B,NIPBL,UPB1,ANGPT1,MBTD1,HDAC2,NOTO,SPINT2,CAMSAP3,CNOT1,BRCA2,DVL2,YBX1,ZP3,RNF2,GNA12,TRA2B,KDM2B,S EMA3C,VPS52,EDNRA,BMP4
GO:0019222	regulation of metabolic process	1.6160231729071815e-7	POLDIP3,ENPP1,PRDX2,LDB2,NRXN1,ASPH,PRMT3,PRKCI,MOV10L1,SLCO3A1,PDE4D,DNMT1,S1PR2,HLX,SLC9A1,C6ORF89,PBX3,ADCY8,MED13L,TRPS1,CBF B,PDE8A,ZNF823,IL31RA,RPS6KA2,PRDM12,SETD4,PTGFR,MED26,WWC1,FBXL 2,NRG3,ASH1L,NOS1AP,LATS2,NOX5,PTH2R,SCAF8,STOX2,KSR2,PTGIS,PRKAG2,WWC3,PRLR,MVP,PAGRI,ADCY7,HIVEP3,FTO,NPAS3,UBAP2,DCAF12,NTRK3,C BL,ARNT,EGLN2,LRRFIP2,FLT3,STAT5B,TOX,ENPP2,EXD1,GRM5,PLCE1,ZNF566,FER,CASK,MAP2K5,KITLG,MAPK10,LRP2,PIK3CD,ZNF536,SP3,DEPDC5,HDGF,ANK2,EIF4G3,OLFM1,EZR,IKZF2,ROBO1,MALRD1,TOM1L1,CHD7,HTR2B,PSMD 1,ITGB6,MECOM,TACCI,MIR1185-1,TENM1,LMNA,TRAF6,ESRP1,ITPKB,DNAJA3,OXR1,VAV2,ABII,NHLH1,ITGB1,H SP90AA1,SLC24A3,CDC6,PSMB7,TSC22D3,KNDCL1,ZC4H2,CCDC22,DSCAM,CDA N1,CNGB1,AKAP13,GF11B,PTPRK,RUNX1,DAB1,OMA1,ABCC8,ERCI,HMGN3,NRI P1,THRB,MIR105-2,MIR767,EFCAB7,ITGB3BP,TCIRG1,DACH1,PTPN11,ZNF569,MGAT5,CCT2,ORC 2,HDAC6,SERTAD2,DDI1,MYT1,ADORA1,EPHA1,IKBKB,PEX14,ERBB4,MRE11A, LIMK1,ZNF609,BRD8,KAT6B,ACTG2,HIF3A,SNIP1,CUL4B,ESR1,MIER1,PCBP3,P MEPA1,MAML3,PTPRO,CDON,NTRK2,TNRC6A,EP300,CELA1,ZYG11B,TENM2,ZN

			<p>,ZNF383,ANXA8L1,ADAM19,SNX33,PIFO,CD84,LPA,ZNF616,ZNF836,SMARCA2,CUX1,MIR1302-10,SPI1,DNMT3B,EPHA7,FOXP2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,BCAR3,JAZF1,STK38,ABC7,ACOT8,RBPMS,RENB,CHURC1,CREB5,MAP3K13,RAPGEF3,MST1,SMYD1,CHID1,SNCA,BMPRI1B,MAGI2,PRIM2,PNPT1,USP50,ZEB2,DHRS4,FOXJ3,HEY2,RC3H1,EIF3E,RNF19B,PTPRS,ZMYND11,KMT2D,PRKAG1,CREM,PSMF1,KMT2C,CAST,TRIP12,DDFA,ADTRP,PLD1,RASA1,MACC1,MITF,SRSF6,OPRD1,NUGGC,RPTOR,NFIX,BTK,MIR383,TBC1D16,KCTD13,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,HTT,MAPK1,PTEN,SPRED2,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,PRCP,ZNF780A,ZNF780B,LRRK2,ATP6V1A,MLYCD,TMEM59,UNC119,ZBTB20,CHMP5,RFC3,BAG6,LILRB4,ITGAM,PKD2,ZNF652,EFNA5,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,PDGFC,SERPINA3,SERPINA4,SERPINA5,NCOA3,PKIB,MTMR3,ZNF146,ZNF565,CUEDC2,PPP2R3C,WNT7A,ZBED6,BRWD3,NLRP1,UACA,LPGAT1,CRTC3,DNAJC1,ARNTL2,ELOVL5,PLCL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,GPI,SH3RF2,TSHR,WDR43,ZNF30,N4BP1,PDCD1LG2,ATRX,DPH6,IKZF1,PRMT2,RAPGEF2,ASCC1,SMO,VRK3,RALY,PRKAR2B,CPT1A,TCF4,AFF1,DECR1,SOX30,TFE3,UBR5,GETT1,JADE1,ARRDC4,RHOA,SPRTN,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,NFKBID,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,ACTA2,MLF1,EEF2K,FAM49B,IWS1,PPP1R16A,PTPRB,RBBP8,NECAB2,CDK13,UPF2,CD27,DUSP26,BOK,RNF144B,SULF1,ZNF362,NACC2,SUPT4H1,TNFRSF8,ZNF354A,AGT,HDGFRP3,METTL16,CCNJL,ELOVL3,POLH,PRKAA2,ADAR,STAT2,ZMPSTE24,NDRG2,PTK2,UPK3B,SNX3,PDE4B,PBX1,TEC,EXOSC3,MAP3K5,SEC16B,TCFL5,CREBBP,DLX1,GTTF2IR2,NCF1,TAOK2,UGT1A1,UGT1A10,UGT1A4,UGT1A8,PYGO2,SHC1,ZNF813,CD160,ECE1,LBX2,PARP10,RNF11,RPS6KB1,STC2,YLPM1,DPRX,PRG3,SERPINB1,SETDB2,ALOX5,DNAJB6,SP7,CD44,LARP4,ADAM8,SLC5A3,CLDN4,RPS6KA5,ZNF484,ZNF93,CSNK1A1,HUS1,MIR346,PRDM2,CXCL17,NOS1,ZNF44,GCKR,MED15,RGS14,ACTN4,MC1R,STK4,TCF25,DRAM1,ZNF282,EPHB2,SLC1A1,EDRF1,TMEFF2,BCO2,IL18,MFSD8,UBE2K,HCAR1,HCAR2,DIS3,DLC1,PPARA,PPP1R10,ARID5B,EPB41L4B,SLC25A3,SMARCA1,CPEB4,GPSM3,MOB3B,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3HAV1,CD96,FAM20C,ADORA2A,GRIN2B,PPP1CC,RABGEF1,CCNG2,CPEB1,OTUD7B,NIPBL,TMIGD2,YEATS4,COL28A1,PHF20,ZNF143,ANGPT1,BRF1,TBL1X,EYA3,FHL2,LRRK1,MBTD1,OSBPL8,ATF6,ZBTB5,ZNF708,IGF2BP3,GCNT2,ETS1,PPP1CA,MTF2,RBMS3,BTN3A2,TAGLN3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNPI,HDAC2,HTR2C,IMPACT,MIR1912,PHKG2,SRCAP,POU3F3,NOTO,PPPIR14A,SPINT2,MBNL3,ZKSCAN5,CD300A,ELF2,PHIP,PPP2CA,SKP1,ANGPT4,RL23,SH3BP4,RFC5,ATXN1,SP100,ZNF347,ZNF415,ANXA2,TRIM29,PARN,ATP6V0A1,PRMT7,DONSON,ADCY1,MADD,NUMB,RBM42,SYK,CNOT1,RBM39,WWTR1,GT2F2H5,ASB1,NFXL1,ZBTB38,BRC4,ATF7,DVL2,MORC1,MTRF1,YBX1,ANKRD13A,PTPRJ,SLC10A1,TAF1,EIF4E3,TICAM1,TANK,THAP3,CADM1,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,MIR663B,NRF1,SRPK2,SASH1,NCOA2,GBP5,WDR18,EEFSEC,QRICH1,VAV3,ZP3,CHD6,RNF2,ZNF554,MOB3A,GNA12,SH2D3A,AKTIP,MYEF2,INPP5F,AXL,TRIM37,CD109,MET,TBC1D10A,ZNF461,CAMK2D,SNX1,TIMELESS,UCHL5,BRD9,MALT1,SERPINE3,SETD3,TRA2B,KDM2B,MLXIP,CCCT3,NEDD4L,PHB,PTPRC,EDA,ZNF555,CTCF,SH3GL2,TYRO3,NR6A1,RNF213,SPON2,TRAF3IP2,TRIM60,ATF6B,CREB1,RGMB,TNXB,TRAP1,AFF4,CLNK,EBF4,ZNF511,BMP4,ABLIM3,CPNE1</p>
GO:0010647	positive regulation of cell communication	1.8299827271647618e-7	<p>PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDCL,SLC9A1,ADCY8,PDE8A,SEMA3A,CHERP,WWC1,C12ORF49,NOS1AP,MAPRE2,PTGIS,PRLR,PAGRI,NTRK3,CBL,ARNT,SEMA5A,FLT3,GRM5,PLCE1,MAP2K5,KITLG,LRP2,PIK3CD,ROBO1,HTR2B,TENM1,TRAF6,ROBO2,ITPKB,SLC24A2,ITGB1,HSP90AA1,PSMB7,CCDC22,AKAP13,DGKL,LAMA2,PTPN11,MGAT5,CACNB2,ADORA1,ADAMTS3,IKBKKB,ERBB4,ADRA1D,MIER1,CDON,NTRK2,EP300,RNF220,PDGFB,RIMS1,TNIK,MID1,STK39,INSR,TCF7L2,USP34,PAK1,LITAF,MAP3K4,ZDHHC13,BDNF,TRIM13,LCK,ECT2,VAMP7,ERN2,RIT2,DEPDC1B,CASS4,FYN,ARNTL,NF1,PLCB1,RTN4,RTN4R,RWDD3,CHI3L1,NDRG4,BMP2K,NRG1,BID,MAP2K1,FNIP1,ROR2,DCN,ZDHHC3,SLC39A14,CDH13,CAPRIN2,CCBE1,JAK2,FBXW7,CLSTN2,SYT1,NPSR1,MLLT3,LAMTOR3,CYFIP2,WNT11,NOX4,SLAH1,PRKCD,TAB2,ACVR2A,CD4,NUP93,PIBF1,CRADD,F2RL1,AAK1,TP73,DISC1,KANK1,MTDH,BMPER,TNFRSF10B,DUSP22,NAIP,YTHDF1,FGF10,IQCJ-SCHIP1,SH3RF3,LOXL3,SMURF2,EPHA4,PRKCA,AUTS2,CNR1,TNFSF11,CTNNB1,PARK2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,IL18R1,P2RY10,ANKRD17,APOL3,FGF1,MYOCD,TRIM5,AJUBA,SORBS1,TRIM8,CSPG4,GRM1,FLT4,SFRP1,CNTN6,SMAAD3,CUX2,SHANK1,NEDD4,TAB1,CDC73,APP,GSX2,PDGFRA,NOX1,YAP1,NLGN2,TNFRSF19,SOX2,DRD1,CHUK,FRS2,S100A12,PRKD1,SHANK2,EREG,RAF1,RASGRF2,CARD16,CASP1,PTPN1,BMPR2,BMPRI4,NLGN1,SPA9G,EVC,FGF2,SEMA4D,DOK6,ADCYAP1R1,DKK2,PRKCG,EEF1E1,EEF1E1-BLOC1S5,GAS8,DVL3,ATF3,SHOC2,AGO3,TERF2IP,WDR59,WNT3,CCL14,CCL15,NLGN3,SCUBE2,PAFAH1B1,PRDM15,HIP1,AKAP6,NR2C1,NEO1,TNKS,SCUBE1,DAB2,WNK1,RELN,NEK10,RSPO2,GUCY1A2,PEL1,IQGA1,MAP3K7,ZNF423,TRIM22,MACF1,ALK,SLC8A2,STAU1,UBE2V1,XDH,SNX5,CAMTA1,P2RY8,TFRC,WWOX,SYT12,GFRAL,GPC3,PSMB2,TSPAN6,CLEC16A,GHR,SMOC2,PLCG2,ROCK1,C1QTNF1,CAPN10,GPR35,PTPN2,NTRK1,TRIM44,SLC39A10,ANK3,JAG2,CACNG8,VW</p>

			<i>F,NETO1,ARHGEF3,SPI1,CHRN4,MCU,CTNNA1,TRDN,LY86,BCAR3,RBPMS,MAP3K13,PTK7,SNCA,BMPR1B,CACNG2,GRM4,ZEB2,RC3H1,WNT7B,KMT2D,RPTOR,KCTD13,SLC4A8,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,PUM1,LRRK2,ZRANB1,TMEM108,PKD2,SHANK3,PDGFC,WNT7A,SIK3,BMP6,ANO1,SH3RF2,SOS1,RAPGEF2,SMO,UBR5,GRIN1,RHOA,ROR1,RQCD1,GSK3B,ACTA2,NECAB2,CD27,BOK,SULF1,NACC2,AGT,PTK2,RIMS2,MAP3K5,CREBBP,NCF1,TAOK2,SHC1,LBX2,SCE1,CD44,ADAM8,BCL2L14,CXCL17,RGS14,ACTN4,MC1R,STK4,EPHB2,SLC1A1,WLS,IL18,UBE2K,HCAR2,PRKCZ,ZC3HAV1,ADORA2A,GRIN2B,ANGPT1,TBL1X,LRRK1,OSBPL8,ATF6,GCNT2,PPP1CA,CCL22,BRAF,HTR2C,TNR,CD300A,PHIP,MAOA,RPL23,ADCY1,MADD,SYK,GRIK2,MYRIP,CACNG3,DVL2,PTPRJ,TICAM1,SASH1,CAV2,AXL,MET,UCHL5,ANKRD6,MALTI,PHB,PTPRC,EDA,GPR89A,TSPAN5,TRAF3IP2,CREB1,BMP4,CPNE1</i>
GO:1902532	negative regulation of intracellular signal transduction	1.8506001684204953e-7	<i>PDE4D,WWC1,ASH1L,WWC3,MARVELD3,PTPRR,DEPDC5,EZR,TNFAIP8L1,MECOM,DNAJA3,ITGB1,CCDC22,ARHGAP24,ESR1,LITAF,FBXW11,NPRL3,UBR2,ARHGAP42,NPLOC4,DMD,MKRN2,ARNTL,NF1,PAQR3,PIK3R2,RANBP9,BDKRB2,BID,FNIP1,MAD1L1,TMBIM6,VGLL4,PPP2CB,RFFL,LINC00473,ITCH,PDE2A,TRIM59,PRKCD,F2RL1,SLIT2,KANK1,ZNF675,HOMER2,RASA4,RASA4B,KCTD10,EPHA4,ROA,PARK2,SOD2,IGF1R,PPARG,DLG5,NOL3,AJUBA,CHEK2,NF2,SFRP1,ITPR1,TXNDC12,HEG1,SESNI,RCAN1,STAT1,DGKG,SHANK2,PTPN1,PDE11A,ATF3,DEPTOR,PAFAH1B1,PRDM15,RASAL1,DAB2,PKHD1,UBR1,ARHGAP12,XDH,ATP2B4,RNF34,TSPAN6,HDAC1,HIPK3,PTPN2,EIF3A,MUC1,ARHGAP44,SPI1,STK38,OTUD3,SH3BP1,MAGI2,ZMYND11,RASA1,KCTD13,PTEN,SPRED2,BMP7,RASA2,LRRK2,LILRB4,ARHGAP25,UACA,SH3RF2,VRK3,RHOA,SYNGAP1,CUL3,GSK3B,FAM49B,DUSP26,AGT,PRKAA2,NDRG2,CD44,PLEKHA1,RGS14,MARK3,EPHB2,DLC1,PPARA,PPP1R10,PHLPP1,RABGEF1,OTUD7B,FHL2,TBC1D10C,CDP30A,PPP2CA,SH3BP4,CIT,PTPRJ,TANK,CGNL1,MET,PHB,PTPRC,TRAP1,PRAP1,BMP4,CPNE1</i>
GO:0008219	cell death	1.8959902496145583e-7	<i>PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,PDE8A,SEMA3A,IL31RA,GRID2,RPS6KA2,PTGFR,DOCK1,LATS2,NOX5,ANP32A,PTGIS,TJP1,UNC5C,PRLR,NTRK3,CBL,EGLN2,SEMA5A,FLT3,STAT5B,MAP2K5,KITLG,LRP2,PIK3CD,OLFM1,MEGF10,TNFAIP8L1,HTR2B,MECOM,LMNA,TRAF6,ROBO2,ITPKB,DNAJA3,OXR1,GRK5,ITGB1,HSP90AA1,ELMO2,TSC22D3,OMA1,THRB,ITGB3BP,TCIRG1,HDAC6,DBI,ADORA1,IKKBK,ERBB4,GBE1,MRE11A,HIF3A,CECR2,ESR1,NTRK2,EP300,BRMS1,DAP3,FMN2,UNC5D,PRUNE2,TCF7L2,ZNF443,PAK1,EGLN3,BDNF,TFAP2A,KCNMA1,PEG3,TRIM13,LCK,MDM4,SHC4,ECT2,SNX6,ERN2,C1D,TOX3,GSN,FYN,NF1,MGMT,SNCB,RTN4,DPEP1,CHI3L1,NTN1,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,FNIP1,TMBIM6,PPP2CB,WDR92,CSRNP3,RBM5,ZDHHC3,FHIT,COP55,NCKAP1,ANO6,CERKL,NEUROD1,TMEM117,RFFL,JAK2,FBXW7,ITCH,BCL11B,TEX11,ANXA4,CYFIP2,WNT11,KREMEN1,SLAH1,PRKCD,TGFB1,SGK1,DUS2,CRADD,SLIT3,SLIT2,TP73,HP,HPR,SAP18,RRAS2,BLID,MTDH,FANK1,SMAD6,ETV6,TFAP2D,BCL3,DAPK2,TNFRSF10B,NAIP,FGF10,SH3RF3,CAPN3,PRKCA,CNRI,MAGEA4,MAG,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,AXINI,DLG5,RYR2,CDK11A,CDK11B,DRAXIN,NR4A3,NOL3,MYOCD,KIR3DL2,CHEK2,HCK,CAPN2,PPP2R2B,DCC,NF2,FLT4,SGMS1,HDAC4,PAX2,SFRP1,FOXO3,BCL2L13,SMAD3,ITPR1,EVA1A,GRIK5,TXNDC12,CDC73,APP,SLK,NOX1,YAP1,NFTRF19,VDAC1,EYA2,ANGPT4,LRP5,CHST11,TMEM14A,FRS2,PALB2,MMP2,DCUN1D3,PRKD1,STAT1,USP53,PLAGL1,TCTN3,ATF2,GRAMD4,RAF1,ACO2,CARD16,CASP1,PTPN1,BMPR2,CAMK1D,BTBD10,CERS3,FGF2,PPM1F,SEMA4D,RORC,ADCYAP1R1,YME1L1,RILPL1,PLEKHO2,SLC5A8,RARB,PRKCG,NCOA1,AREL1,EEF1E1,TXNDC5,EIF2B5,EIF4G1,ATF3,PAWR,DEPTOR,P4HB,CNTFR,COL4A3,HIP1,TRPC5,GLI2,DAB2,PKHD1,XKR4,SIN3A,PELI1,PPP2R5C,CFDP1,MAP3K7,DDX47,ALK,INPP5D,SRA1,TOP1,PAX7,PACRG,PAK3,ADNP,BCL7C,CELF1,RNF34,TFRC,WWOX,MEF2A,CACNA1A,GFRAL,EYA1,PTGER3,BRINP1,TRPV1,RNF216,GHR,MNAT1,HDAC1,TRIM24,PLCG2,ROCK1,HIPK3,RYBP,CAPN10,CUL2,PTPN2,NTRK1,PKN2,TMIGD1,SLC39A10,EPHB1,AXIN2,SARM1,MUC1,JAG2,AP2B1,SPI1,EPHA7,CTNNA1,AIFM2,MST1,ERCC3,SNCA,BMPR1B,GRM4,USP42,HEY2,CHMP3,ZMYND11,CAST,DFFA,RASA1,MITF,SRSF6,HIPK1,NUGGC,BTK,IGF1,CTNNB1,HTT,MAPK1,PTEN,BMP7,LRRK2,OSGIN1,EBAG9,BAG6,ITGAM,WNT7A,ZBED6,NLRP1,UACA,RABEP1,RHOT1,GPI,SH3RF2,PRMT2,RAPGEF2,SMO,MARK4,PSEN2,TNFRSF11B,JADE1,RHOA,SYNGAP1,CUL3,SH3KBP1,HSPD1,GSK3B,DNAJC3,EEF2K,CD27,BOK,RNF144B,SULF1,KRT8,NACC2,TNFRSF8,AGT,PRKAA2,ADAR,ZMPSTE24,PTK2,FBXO10,SHB,MAP3K5,DLX1,NCF1,TAOK2,SHC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,DRAM1,SPEF1,SLC1A1,SIGMAR1,HCAR2,DLC1,PPARA,PPP1R10,STEAP3,PHLPP1,MAGI3,CPEB4,PRKCZ,ADORA2A,GRIN2B,ANGPT1,PACS2,EYA3,FHL2,ATF6,ETS1,PPP1CA,GRIA4,STPG1,ATG3,PRKCO,BRAF,CSRNP1,HDAC2,IMPACT,TNS4,POU3F3,HIGD2A,PHIP,PPP2CA,ANGPT4,ARHGEF6,SP100,MADD,SYK,GRIK2,CIT,BRCA2,HRK,TICAM1,CADM1,HSF1,MAX,INPP5A,SRPK2,ANKRD13C,QRICH1,VAV3,AKTIP,NUAK2,AXL,TNFSF9,MET,CAMK2D,MALTI,TRIM69,KDM2B,THEM4,PHB,PTPRC,TYRO3,ADCY10,TRAF3IP2,TRAP1,CLNK,EDNRA,NGGT1,PRAP1,BMP4,CASP12</i>
GO:0043087	regulation of GTPase activity	1.914748534269687e-7	<i>MAP4K4,TLAM2,MAPRE2,KALRN,NTRK3,CDKL5,VAV2,ITGB1,ARHGAP24,RGS6,DGKI,DOCK10,EPHA1,ABR,NTRK2,ARHGAP6,ECT2,ARHGAP42,NF1,RTN4R,BCR,DOCK8,RAPGEF6,SBF2,RGS8,RCC2,DENND1A,ARAP2,DOCK9,WNT11,SIPA1L3,F2RL1,BCAS3,CORO1C,RABGAP1L,RASA4,RASA4B,EPHA4,ARHGAP22,GARNL3,RG</i>

			<p><i>S10,AJUBA,TBC1D14,RAB3GAP2,TBCK,SFRP1,ARHGAP29,PREX1,NEDD9,SEMA4D,PLXNA2,DVL3,EPHB3,MYO9A,CCL14,CCL15,PAFAH1B1,RASAL1,WNK1,DOCK11,IQGAP1,ARHGAP12,PRKG1,RGS7,CCPG1,EPHA5,TBC1D5,FGD1,SNX9,GAPVD1,NTRK1,ARHGAP44,BCAR3,RAPGEF3,SH3BP1,TBC1D9,RASA1,TBC1D16,RASA2,LRRK2,ARHGAP25,EFNA5,SGSM1,RAPGEF2,SYNGAP1,GSK3B,RDX,PTK2,IQGA P2,ARHGAP15,FGD3,FGD4,RGS14,SIPA1L2,ARHGAP11A,GRTP1,TBC1D10C,CCL22,SH3BP4,SRGAP2,RAP1GAP2,DVL2,ASAP1,RALGAP1,VAV3,CAV2,MET,TBC1D10A</i></p>
GO:0045944	positive regulation of transcription by RNA polymerase II	2.1460061047753803e-7	<p><i>LDB2,SLC9A1,PBX3,CBFB,ASH1L,STOX2,PAGR1,ARNT,STAT5B,CASK,MAP2K5,S P3,HDGF,CHD7,MECOM,TRAF6,NHLH1,GFI1B,RUNX1,HMG N3,NRIP1,THRB,EF CAB7,IKBKB,ZNF609,BRD8,KAT6B,ESR1,MAML3,CDON,EP300,CELA1,ZNF76,HN F4G,TCF7L2,LITAF,ESRRB,TBR1,TFAP2A,PEG3,MEIS1,ZNF148,TFDP2,SLC30A9, TOX3,KAT7,RBM14,SATB2,RIT2,MKRN2,ARNTL,ARID4B,PIK3R2,UBP1,PPP3R1,H DAC5,CSRN P3,NFIA,RNF4,DCN,CDH13,CREBRF,COP5,CAPRIN2,NEUROD1,JA K2,SKAP1,MLIP,BCL11B,PKNOX1,KLF15,RPRD1B,CCDC62,ACVR2A,RUNX2,TGF B1,NFATC3,F2RL1,BCAS3,TP73,CLOCK,TCF12,ETV6,TFAP2D,BCL3,SBNO2,FGF1 0,SMYD3,LUM,RORA,AUTS2,TNFSF11,PPP3CA,NFYB,KLF12,CTNFB1,PARK2,SM ARCC1,PPARG,MTF1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,PRDM16,MEF 2B,HDAC4,PAX2,MED13,ZNF395,FOXO3,NFIB,SMAD3,WWP2,ARNT2,EBF3,CASZ 1,ESRRG,HOXD3,HOXD4,NFATC1,CDC73,APP,SSBP3,YAP1,LRP5,SOX2,TEAD1,Z NF521,ARID3A,CHUK,ESR2,PRKD1,STAT1,ST18,ETV5,PLA1G1,HNF4A,ZBTB7C,A TF2,POU2F2,TCF3,RAF1,BMPR2,BMPR1A,IKZF4,CDK12,MYB,FGF2,ZNF71,BAC H1,DDX58,RARB,NCOA1,LMO7,DVL3,TCF20,ATF3,EBF2,MAML2,RFX2,PRDM15, GLI2,TNKS,ERCC1,GLIS3,DAB2,MYSM1,SIN3A,RUVBL2,GMEB1,SP1,TEAD4,HOX C13,ADIRF,OVOL2,NFATC2,ASXL3,TET1,CAMTA1,CCPG1,ARID4A,WWOX,MEF2 A,DCAF6,EYA1,HOXB3,HOXB4,HOXB5,TFEB,ACTR2,HDAC1,PAXIP1,EGR2,RNF1 0,AP3B1,KPNA6,EPCAM,MUC1,AP3D1,ZNF836,SMARCA2,SP11,GLIS1,BMPR1B,Z EB2,FOXJ3,HEY2,KMT2D,CREM,KMT2C,MACC1,MITF,NFIX,IGF1,MLXIP,BMP7, PCBP2,ZNF780B,PKD2,NCOA3,WNT7A,CRTC3,ARNTL2,KAT6A,ZNF197,BMP6,AT RX,SMO,TCF4,SOX30,TFE3,GRIN1,ONECUT2,TFEC,STAT6,CDK13,SUPT4H1,PBX 1,CREBBP,DLX1,SP7,RPS6KA5,ZNF484,PRDM2,NOS1,MC1R,IL18,PPARA,NOTCH 4,CRX,PAX6,NIPBL,ZNF143,TBL1X,ATF6,ETS1,MTF2,CSRN P1,HDAC2,POU3F3,P HIP,SP100,WWTR1,ZBTB38,ATF7,DVL2,YBX1,THAP3,HSF1,MAX,EZH1,NRF1,NCO A2,CHD6,MET,SETD3,MLXIPL,NR6A1,ATF6B,CREB1,BMP4,ABLIM3</i></p>
GO:0051247	positive regulation of protein metabolic process	2.526835798449016e-7	<p><i>POLDIP3,NRXN1,ASPH,SLC3A1,DNMT1,SIPR2,C6ORF89,ADCY8,PDE8A,IL31RA ,PRDM12,NRG3,NOS1AP,PRKAG2,PRLR,NTRK3,ARNT,EGLN2,FLT3,ENPP2,GRM5 ,MAP2K5,KITLG,LRP2,EZR,ROBO1,TOM1L1,HTR2B,TENM1,LMNA,TRAF6,DNAJA 3,ABI1,HSP90AA1,CDC6,KND C1,CCDC22,AKAP13,DAB1,PTPN11,HDAC6,DDBI,A DORA1,ERBB4,MRE11A,CUL4B,CDON,NTRK2,ZYG11B,FNTA,PDGFB,TNIF,CCN D3,BRMS1,CHFR,INSR,ASB5,TCF7L2,CAB39,PAK1,FBXW11,MAP3K4,RNF144A,E GLN3,SAMD4A,BDNF,LCK,ECT2,ERN2,ATG10,LARP4B,USP13,KAT7,GSN,CASS4, FYN,MKRN2,ARNTL,PLCB1,RWDD3,CHI3L1,RANBP9,NRG1,SH2D3C,BID,MAP2K 1,FNIP1,MYH9,VGLL4,CSNK2A3,JDP2,ROR2,CREBRF,MAD2L2,CAPRIN2,CCNYL1 ,CCBE1,JAK2,FBXW7,OA2Z,ITCH,CYFIP2,WNT11,MTA1,NOX4,PRKCD,TAB2,ACV R2A,CD4,TGFB1,SPSB4,PIBF1,BTRC,CRADD,DNAJB2,DISC1,BLID,ZFAND2A,CLN 6,BCL3,TNFRSF10B,DOCK3,YTHDF1,FGF10,SMYD3,FANCI,CAPN3,SMURF2,EPH A4,AUTS2,CD6,TNFSF11,CTNNB1,PARK2,PPARG,NGRN,AXIN1,LEPR,FGF1,AJUB A,CHEK2,SPDYA,RAB3GAP2,CSPG4,FLT4,HDAC4,TRABD2B,BCL2L13,SMAD3,RN FT2,WWP2,NEDD4,TAB1,APP,DIP2B,ARIH1,SH3D19,BORA,MTCP1,PRICKLE1,S1 00A12,DCUN1D3,PRKD1,ST18,EREG,CCNY,ATF2,GRAMD4,RAF1,CASP1,PTPN1, BMPR2,BMPR1A,PIK3R3,MYB,FGF2,PPM1F,NEDD9,AGBL4,SEMA4D,PTAFR,JAR ID2,DDX58,AREL1,DVL3,EIF2B5,EIF4G1,RBX1,CKS1B,PAWR,TEF2IP,IDE,COL4 A3,HIP1,TRPC5,UBA2,DAB2,CACUL1,DLG3,WNK1,RELN,NEK10,RUVBL2,PELI1,I QGAP1,MAP3K7,SP1,SLC8A2,SLC35A4,XDH,ATP2B4,NSF,TET1,CAMTA1,ADNP,T FRC,DCUN1D5,GPC3,GHR,MNAT1,SNX9,PLCG2,PAXIP1,NTRK1,SLC39A10,AXIN 2,MUC1,SNX33,DNMT3B,EPHA7,ATG14,BCAR3,RBPMS,MAP3K13,RAPGEF3,SNC A,BMPR1B,MAGI2,USP50,EIF3E,RNF19B,PRKAG1,ADTRP,PLD1,OPRD1,RPTOR,I GF1,MAPK1,PTEN,BMP7,LRRK2,UNC119,BAG6,PKD2,EFNA5,DAZL,PDGFC,PPP 2R3C,WNT7A,NLRP1,UACA,BMP6,MYCBP2,SH3RF2,RAPGEF2,VRK3,GRIN1,ARR DC4,RHOA,SPRTN,RQCD1,CUL3,HSPD1,GSK3B,PRR16,DNAJC3,RDX,BOK,RNF1 44B,AGT,PRKAA2,PTK2,TEC,MAP3K5,NCF1,TAOK2,RNFT1,RPS6KB1,CD44,LARP 4,ADAM8,CLDN4,RPS6KA5,CSNK1A1,NOS1,STK4,SLC1A1,IL18,UBE2K,DLCL1,MO B3B,PRKCZ,GRIN2B,NIPBL,ANGPT1,LRRK1,OSBPL8,MTF2,CDK5RAP1,CNTN1,B RAF,HDAC2,IMPACT,CD300A,PPP2CA,SKP1,ANGPT4,MADD,SYK,DVL2,PTPRJ,T AF1,TICAM1,TANK,HSF1,SASH1,MOB3A,GNA12,SH2D3A,AKTIP,TBC1D10A,SNX1, MALT1,NEDD4L,PHB,PTPRC,BMP4</i></p>
GO:0045860	positive regulation of protein kinase activity	2.714679556835429e-7	<p><i>NRXN1,ADCY8,NRG3,PRKAG2,PRLR,NTRK3,FLT3,GRM5,MAP2K5,KITLG,ROBO1, TOM1L1,HTR2B,TENM1,TRAF6,ABI1,HSP90AA1,CDC6,AKAP13,DAB1,ADORA1,P DGFB,CCND3,INSR,CAB39,PAK1,MAP3K4,ECT2,ERN2,CASS4,CHI3L1,NRG1,MAP 2K1,ROR2,CCNYL1,JAK2,FBXW7,WNT11,NOX4,PRKCD,TAB2,CD4,TGFB1,PIBF1, TNFRSF10B,DOCK3,EPHA4,TNFSF11,AXIN1,FGF1,AJUBA,SPDYA,TAB1,BORA,M TCP1,S100A12,EREG,CCNY,PTPN1,BMPR2,BMPR1A,FGF2,NEDD9,DVL3,CKS1B, CACUL1,DLG3,WNK1,RELN,NEK10,IQGAP1,MAP3K7,SLC8A2,ATP2B4,ADNP,GH</i></p>

			<i>R,MNAT1,SNX9,AXIN2,MAP3K13,SNCA,BMPR1B,PRKAG1,RPTOR,IGF1,LRRK2,UNC119,PKD2,EFNA5,PDGFC,PPP2R3C,RAPGEF2,RHOA,AGT,PTK2,MAP3K5,NCF1,TAOK2,ADAM8,STK4,SLC1A1,IL18,MOB3B,PRKCZ,ANGPT1,OSBPL8,CD300A,PPP2CA,ANGPT4,MADD,SYK,DVL2,SASH1,MOB3A,MALTI,PHB,PTPRC</i>
GO:0031401	positive regulation of protein modification process	2.84352634 15698623e-7	<i>NRXN1,SLCO3A1,DNMT1,S1PR2,C6ORF89,ADCY8,PDE8A,IL131RA,PRDM12,NRG3,NOS1AP,PRKAG2,PRLR,NTRK3,ARNT,FLT3,ENPP2,GRM5,MAP2K5,KITLG,ROBO1,TOML1,HTR2B,TENM1,LMNA,TRAF6,DNAJA3,ABI1,HSP90AA1,CDC6,KNDC1,AKAP13,DAB1,PTPN11,HDAC6,ADORA1,ERBB4,MRE11A,CDON,NTRK2,FNTA,PDGFB,TNIF,CCND3,BRMS1,CHFR,INSR,CAB39,PAK1,MAP3K4,BDNF,ECT2,ERN2,ATG10,KAT7,CASS4,FYN,ARNTL,RWDD3,CHI3L1,NRG1,SH2D3C,MAP2K1,FNIP1,JD2P2,ROR2,MAD2L2,CAPRIN2,CCNYL1,JAK2,FBXW7,WNT11,MTA1,NOX4,PRKCD,TAB2,ACVR2A,CD4,TGFB1,SPSB4,PIBF1,BTRC,DNAJB2,TNFRSF10B,DOCK3,FGF10,SMYD3,FANCI,EPHA4,AUTS2,CD6,TNFSF11,CTNNB1,PARK2,PPARG,AXIN1,LEPR,FGF1,AJUBA,CHEK2,SPDYA,RAB3GAP2,CSPG4,FLT4,HDAC4,TRABD2B,TAB1,APP,DIP2B,BORA,MTCP1,PRICKLE1,S100A12,DCUN1D3,PRKD1,EREG,CCNY,ATF2,RAF1,PTPN1,BMPR2,BMPR1A,PIK3R3,MYB,FGF2,NEDD9,SEMA4D,JARID2,DVL3,EIF4G1,RBX1,CKS1B,TERF2IP,TRPC5,UBA2,DAB2,CACUL1,DLG3,WNK1,RELN,NEK10,RUVBL2,PELI1,IQGAP1,MAP3K7,SLC8A2,ATP2B4,TET1,CAMTA1,ADNP,TFR3,DCUN1D5,GHR,MNAT1,SNX9,PLCG2,PAXIP1,NTRK1,SLC39A10,AXIN2,MUC1,DNMT3B,EPHA7,ATG14,BCAR3,RBPMS,MAP3K13,RAPGEF3,SNCA,BMPR1B,MAGI2,PRKAG1,ADTRP,OPRD1,RPTOR,IGF1,MAPK1,PTEN,BMP7,LRRK2,UNC119,PKD2,EFNA5,PDGFC,PPP2R3C,BMP6,MYCBP2,RAPGEF2,VRK3,ARRDC4,RHOA,SPRNT,RQCD1,CUL3,AGT,PRKAA2,PTK2,TEC,MAP3K5,NCF1,TAOK2,CD44,DAM8,RPS6KA5,NOS1,STK4,SLC1A1,IL18,UBE2K,DLC1,MOB3B,PRKCZ,NIPBL,ANGPT1,LRRK1,OSBPL8,MTF2,CNTN1,BRAF,HDAC2,CD300A,PPP2CA,SKP1,ANGPT4,MADD,SYK,DVL2,PTPRJ,TICAM1,TANK,HSF1,SASH1,MOB3A,GNA12,SH2D3A,AKTIP,MALTI,PHB,PTPRC,BMP4</i>
GO:0006366	transcription by RNA polymerase II	3.13153059 93541517e-7	<i>LDB2,DNMT1,HLX,SLC9A1,PBX3,MED13L,TRPS1,CBFB,ZNF823,PRDM12,MED26,WWC1,ASH1L,SCAF8,STOX2,WWC3,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,TOX,ZNF566,CASK,MAP2K5,ZNF536,SP3,HDGF,EZR,IKZF2,CHD7,MECOM,TRAF6,GT2E2,DNAJA3,NHLH1,PSMB7,TSC22D3,GF11B,RUNX1,HMGN3,NRIP1,THRB,EFCA B7,DACH1,ZNF569,ORC2,MYT1,IKBKB,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,ZNF471,CCND3,ZNF19,ZNF23,BRMS1,ZNF605,HNF4G,PRKAR1A,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,ESRRB,TBR1,TFAP2A,PEG3,ZIM2,TGIF2,MEIS1,VRTN,MDM4,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,KAT7,ZNF667,RBM14,MED12L,SATB2,RIT2,HIRA,MKRN2,ARNTL,ARID4B,PIK3R2,UBP1,MDF1,FNIP1,VAX2,TMBIM6,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,DCN,CDH13,CREBRF,SOX13,COP5,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,JAK2,SKAP1,MLIP,BCL11B,PKNOX1,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,MTA1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,TGFB1,NSD1,ZHX2,PKNOX2,NFATC3,F2RL1,BCAS3,CC2D1B,TP73,SAP18,ZBTB22,MTDH,MYT1L,ZNF398,CLOCK,TCF12,ZNF675,ETV6,PHRF1,TFAP2D,BCL3,DUSP22,SBNO2,FGF10,POLR2J2,SMYD3,LUM,SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,GATAD2B,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,AXIN1,MTF1,CBX5,BRIP1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,ZNF626,ZNF737,SUPT3H,PRDM16,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HDAC4,PAX2,SNAPC4,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,ZNF662,ZNF777,EBF3,RNF168,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTII2,NFATC1,CDC73,APP,SSBP3,GSX2,YAP1,LRP5,ZNF787,SOX2,SETD2,TEAD1,ZNF653,ZNF521,ARID3A,ZNF761,CHUK,ZNF584,ESR2,GT2F2,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,ATF2,POU2F2,TCF3,ZNF730,RAF1,BMPR2,BMPR1A,ZKSCAN1,IKZF4,CDK12,TAF8,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,GLI4,ZFP41,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,POLR2H,TCF20,ATF3,PAWR,EBF2,MAML2,TSIG101,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,SOHLH2,ZNF354C,ZNF704,NR2C1,GLI2,TNKS,ERCC1,GLIS3,WDTC1,ZNF664,DAB2,MYSM1,SIN3A,RUVBL2,GMEB1,ZNF423,SP1,TEAD4,HOXC13,SRA1,ADIRF,OVOL2,NFATC2,PAX7,ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,WWOX,MEF2A,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,HDAC1,RECQL5,TRIM24,PAXIP1,ZNF713,EGR2,RNF10,RBYB,AP3B1,PTPN2,KPNA6,EPCAM,ZNF425,MUC1,BCOR,AP3D1,ZNF41,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SPII,DNMT3B,FOXP2,GLI1,JAZF1,CREB5,ERCC3,SNCA,BMPR1B,ZEB2,FOXJ3,HEY2,ZMYND11,KMT2D,CREM,KMT2C,MACC1,MTF,NFIX,CBFA2T2,IGF1,MLXIP,ATF7IP,BMP7,MXI1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ZBTB20,PKD2,ZNF652,HSF2BP,RIPPLY1,RCOR3,TADA2A,NCOA3,ZNF146,ZNF565,WNT4A,ZBED6,BRWD3,CRTC3,ARNTL2,KATF6A,ZKSCAN7,ZNF197,ZNF660,BMP6,NFE2L1,WDR43,ZNF30,ATRX,IKZF1,SMO,TCF4,SOX30,TFE3,GRIN1,RHOA,ONECUT2,CUL3,TFEC,STAT6,RBBP8,CDK13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,HDGFRP3,POLR2F,STAT2,GT2E1,PBX1,TCFL5,CREBBP,DLX1,GT2F2IRD2,ZNF813,LBX2,DPRX,SP7,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,MC1R,TCF25,ZNF282,IL18,PPARA,ARID5B,SMARCAL1,TAF2,NOTCH4,ZN</i>

			F366,CRX,PAX6,OTUD7B,NIPBL,PHF20,ZNF143,TBL1X,FHL2,ATF6,ZBTB5,ZNF708,ETSI1,MTF2,TAGLN3,NCOR2,CSRNP1,HDAC2,IMPACT,SRCAP,POU3F3,NOTO,ZKSCAN5,ELF2,PHIP,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM29,CNOT1,WWTR1,UTF2H5,NFXL1,ZBTB38,ATF7,DVL2,YBX1,TAF1,THAP3,SNAPC3,HSF1,MAX,SAPI30,EZH1,NRF1,NCOA2,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,SETD3,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,ATF6B,CREB1,EBF4,ZNF511,BMP4,ABLIM3
GO:0045892	negative regulation of transcription, DNA-templated	3.141972944783672e-7	LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,GF11B,PTPRK,RUNX1,NRIP1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASP1,TBRI,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,CENPF,KAT7,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,TLE6,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,SBNO2,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METT13,PPARG,AXIN1,CIPC,CBX5,SREBF2,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,MAD3,CUX2,WWP2,RNF168,MIER3,NEDD4,CDC73,YAP1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,ATF3,PAWR,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,GLIS3,WDTC1,DAB2,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ARID4A,CDK6,MEF2A,SATB1,GATAD2A,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TRIM24,SCMH1,RYBP,PTPN2,ZNF425,MUC1,BCOR,SMARCA2,CUX1,SP1,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JAZF1,SMYD1,SNCA,ZEB2,HEY2,ZMYND11,CREM,MITF,NF1X,CBFA2T2,ATF7IP,BMP7,MXI1,CIR1,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,SMO,SOX30,CUL3,TFEC,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,TCFL5,CREBBP,DLX1,SHC1,PARP10,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,PPARA,ARID5B,NOTCH4,ZMYND8,ZNF366,PAX6,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,CNOT1,WWTR1,ZBTB38,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,BMP4
GO:0050803	regulation of synapse structure or activity	3.174259350977586e-7	NRXN1,NEGR1,GRID2,KALRN,NTRK3,LHFPL4,CDKL5,ROBO2,PTPRO,NTRK2,CDH8,PTGFR,BDNF,AMIGO1,TANC2,FYN,NTN1,DCTN1,FRMPD4,LRFN5,CAPRIN2,ZDHHC15,CLSTN2,IL1RAPL1,CAMK2B,DISC1,SLC17A7,LINGO2,IL1RAPL2,EPHA4,FCGR2B,ARHGAP22,DLG5,DGKB,DNM3,CUX2,ABI2,NEDD4,NRP2,APP,NLGN2,GPC6,SHANK2,NLGN1,CTNNA2,SEMA4D,EIF4G1,EPHB3,NLGN3,PAFAH1B1,SETD5,RELN,PAK3,ADNP,FLRT2,ACTR2,NTRK1,EPHB1,ARHGAP44,EPHA7,SNCA,PTPNS,PTEN,LRRK2,EFNA5,SHANK3,WNT7A,RHOA,SYNGAP1,EEF2K,EPHB2,GRIN2B,SLIT1,GPM6A,SYNDIG1
GO:0006915	apoptotic process	3.439394278741443e-7	PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,SEMA3A,IL31RA,GRID2,RPS6KA2,PTGFR,BDNF,AMIGO1,TANC2,FYN,NTN1,DCTN1,FRMPD4,LRFN5,CAPRIN2,ZDHHC15,CLSTN2,IL1RAPL1,CAMK2B,DISC1,SLC17A7,LINGO2,IL1RAPL2,EPHA4,FCGR2B,ARHGAP22,DLG5,DGKB,DNM3,CUX2,ABI2,NEDD4,NRP2,APP,NLGN2,GPC6,SHANK2,NLGN1,CTNNA2,SEMA4D,EIF4G1,EPHB3,NLGN3,PAFAH1B1,SETD5,RELN,PAK3,ADNP,FLRT2,ACTR2,NTRK1,EPHB1,ARHGAP44,EPHA7,SNCA,PTPNS,PTEN,LRRK2,EFNA5,SHANK3,WNT7A,RHOA,SYNGAP1,EEF2K,EPHB2,GRIN2B,SLIT1,GPM6A,SYNDIG1

			<p>144B,SULF1,KRT8,NACC2,TNFRSF8,AGT,PRKAA2,ADAR,ZMPSTE24,PTK2,FBXO10,SHB,MAP3K5,DLX1,NCF1,TAOK2,SHC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,DRAM1,SLC1A1,SIGMAR1,HICAR2,DLC1,PPARA,PPP1R10,STEAP3,PHLPP1,MAGI3,CPEB4,PRKCZ,ADORA2A,ANGPT1,PACS2,EYA3,FHL2,ATF6,ETSI,PPP1CA,GRIA4,STPG1,ATG3,PRKCQ,BRAF,CSRNP1,HDAC2,TNS4,POU3F3,HIGD2A,PHIP,PPP2CA,ANGPT4,ARHGEF6,SP100,MADD,GRIK2,CIT,BRCA2,HRK,TICAM1,CADM1,HSF1,MAX,SRPK2,ANKRD13C,QRICH1,VAV3,AKTIP,NUAK2,AXL,TNFSF9,CAMK2D,MALT1,TRIM69,KDM2B,THEM4,PHB,PTPRC,TYRO3,ADCY10,TRAF3IP2,TRAP1,EDNRA,GNGLT1,PRAP1,BMP4,CASP12</p>
GO:0010558	negative regulation of macromolecule biosynthetic process	3.4977862465040943e-7	<p>ENPPI1,LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,FTO,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,CDC6,CDAN1,GF11B,PTPRK,RUNX1,NR1P1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,TNRC6A,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASPI,TBR1,SAMD4A,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,CID,CENPF,PDS5A,KAT7,RBM4,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,TLE6,CAPRN2,TERF2,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,HNRNPC,SBNO2,YTHDF1,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,CIPC,CBX5,SREBF2,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,SYNCRIP,SMAD3,CUX2,WWP2,RNF168,DCP1B,MIER3,NEDD4,CDC73,YAP1,TEN1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,ERE,ATF2,TCF3,CELF4,BMPR2,IKZF4,MYB,BACH1,MXD3,PPMIF,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,EIF4G1,ATF3,PAWR,AGO3,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,TNRC6B,GLIS3,WDTC1,DAB2,BLM,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ARID4A,CDK6,MEF2A,MEF2A,XRN1,SATB1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TRIM24,ROCK1,SCMH1,RYBP,PTPN2,ZNF425,GNL3L,MUC1,BCOR,SMARCA2,CUX1,SP11,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JAZF1,ACOT8,SMYD1,SNCA,PNPT1,ZEB2,HEY2,RC3H1,EIF3E,ZMYND11,CREM,MITF,NFIB,CBFA2T2,ATF7IP,BMP7,MX11,PUM1,CIR1,TMEM59,ZBTB20,LILRB4,KCTD11,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,SMO,SOX30,RQCD1,CUL3,TFEC,GSK3B,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,METTL16,EXOSC3,TCFL5,CREBBP,DLX1,SHC1,PARP10,PRG3,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,TMEFF2,DIS3,PPARA,ARID5B,SMARCA1,CPEB4,NOTCH4,ZMYND8,ZNF366,PAX6,CPEB1,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,IGF2BP3,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,PARN,DONSON,CNOT1,WWTR1,ZBTB38,BRCA2,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,DHFR,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,BMP4</p>
GO:1903507	negative regulation of nucleic acid-templated transcription	3.769186363441068e-7	<p>LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,GF11B,PTPRK,RUNX1,NR1P1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASPI,TBR1,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,CID,CENPF,KAT7,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,TLE6,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,SBNO2,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,CIPC,CBX5,SREBF2,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,SMAD3,CUX2,WWP2,RNF168,MIER3,NEDD4,CDC73,YAP1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,ERE,ATF2,TCF3,IKZF4,MYB,BACH1,MXD3,PPMIF,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,ATF3,PAWR,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,GLIS3,WDTC1,DAB2,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ARID4A,CDK6,MEF2A,SATB1,GATAD2A,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TRIM24,SCMH1,RYBP,PTPN2,ZNF425,MUC1,BCOR,SMARCA2,CUX1,SP11,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JAZF1,SMYD1,SNCA,ZEB2,HEY2,ZMYND11,CREM,MITF,NFIB,CBFA2T2,ATF7IP,BMP7,MX11,CIR1,ZBTB20,LILRB4,KCTD11,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,SMO,SOX30,CUL3,TFEC,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,TCFL5,CREBBP,DLX1,SHC1,PARP10,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,PPARA,ARID5B,NOTCH4,ZMYND8,ZNF366,PAX6,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,CNOT1,WWTR1,ZBTB38,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,BMP4</p>
GO:0016570	histone modification	3.78195656190767e-7	<p>DNMT1,C6ORF89,PRDM12,SETD4,ASH1L,PAGRI,MECOM,LMNA,HDAC6,DDDB1,BRD8,KAT6B,CUL4B,MIER1,KANSL1,EP300,BRMS1,JMJD1C,UBR2,HLCS,MTA3,KAT7,RBM14,ARID4B,BRPF1,HDAC5,JDP2,WDR70,PHF20L1,USP22,JAK2,UIMC1,</p>

			MTA1,PRKCD,TGFB1,NSD1,KDM4B,CLOCK,TRRAP,SMYD3,PRKCA,AUTS2,UFL1,CTNNB1,OTUB1,MYOCD,PER2,SUPT3H,PRDM16,BRMS1L,BAZ1B,HDAC4,RNF168,CDC73,USP49,KANSL2,EYA2,SETD2,DRD1,KDM6A,PRKD1,ATF2,MYB,PPM1F,SETD1A,JARID2,SIN3B,NCOA1,EHMT1,PADI6,MYSM1,SETD5,SIN3A,RUVBL2,MAP3K7,PADI3,ACTL6B,TET1,ARID4A,PHF2,EYA1,HDAC1,PAXIP1,RYBP,MUC1,BCOR,CARM1,SPI1,DNMT3B,NTMT1,SMYD1,SNCA,KMT2D,KMT2C,TRIP12,ZZZ3,LRRK2,RCOR3,TADA2A,NCOA3,WDR5B,KAT6A,ATRX,PRMT2,UBR5,JADE1,IWS1,PRKAA2,ZMPSTE24,CREBBP,PYGO2,SETDB2,RPS6KA5,PRDM2,NOS1,NIPBL,YEATS4,PHF20,TBL1X,EYA3,MTF2,HDAC2,SRCAP,SKP1,PRMT7,BRCA2,TAF1,EZH1,RNF27,TRIM37,CAMK2D,SETD3,KDM2B,PHB,CTCF
GO:1902679	negative regulation of RNA biosynthetic process	4.517138296614507e-7	LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,GFI1B,PTPRK,RUNX1,NRIP1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASP1,TBRI,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,CID,CENPF,KAT7,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDFI,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,TLE6,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,SBNO2,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,CIPC,CBX5,SREBF2,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,SAMD3,CUX2,WWP2,RNF168,MIER3,NEDD4,CDC73,YAP1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,ERE,ATF2,TCF3,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,TCF2,RARB,SPEN,SIN3B,EHMT1,ATF3,PAWR,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,GLIS3,WDTC1,DAB2,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ARID4A,CDK6,MEF2A,SATB1,GATAD2A,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TRIM24,SCMH1,RYBP,PTPN2,ZNF425,MUC1,BCOR,SMARCA2,CUX1,SPI1,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JAZF1,SMYD1,SNCA,ZEB2,HEY2,ZMYND11,CREM,MITF,NF1X,CBFA2T2,ATF7IP,BMP7,MXI1,CIR1,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,SMO,SOX30,CUL3,TFEC,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,TCFL5,CREBBP,DLX1,SHC1,PARP10,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,PPARA,ARID5B,NOTCH4,ZMYND8,ZNF366,PAX6,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,MTF2,CATGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,CNOT1,WWTR1,ZBTB38,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,BMP4
GO:0035249	synaptic transmission, glutamatergic	4.6975232664126435e-7	NRXN1,GRID2,GRM8,GRM5,CNIH2,DGKI,ADORA1,GRM7,CDH8,GRIK4,NF1,ROR2,SYT1,SLC1A4,GRIK3,DISC1,SLC17A7,CNR1,PARK2,GRM1,GRIK5,NLGN2,DRD1,NLGN1,GRIK1,GRIA2,NLGN3,RELN,ATAD1,NTRK1,UNC13A,CACNG8,CACNG2,GRM4,LRRK2,SHANK3,EXT1,GRID1,ADORA2A,TNR,GRIK2,CACNG3
GO:0012501	programmed cell death	4.7352894736150707e-7	PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,SEMA3A,IL31RA,GRID2,RPS6KA2,PTGFR,DOCK1,LATS2,NOX5,ANP32A,PTGIS,TJP1,UNC5C,PLRL,CBL,EGLN2,SEMA5A,FLT3,STAT5B,MAP2K5,KITLG,LRP2,PIK3CD,OLFM1,MEGF10,TNFAIP8L1,HTR2B,MECOM,LMNA,TRAF6,ROBO2,ITPKB,DNAJA3,OXR1,GRK5,ITGB1,HSP90AA1,ELMO2,TSC22D3,OMA1,THRB,ITGB3BP,TCIRG1,HDAC6,DDB1,ADORA1,IKBKB,ERBB4,GBE1,MRE11A,HIF3A,CECR2,ESR1,NTRK2,EP300,BRMS1,DAP3,FMN2,UNC5D,PRUNE2,TCF7L2,ZNF443,PAK1,EGLN3,BDNF,TFAP2A,KCNMA1,PEG3,LCK,MDM4,SHC4,ECT2,SNX6,ERN2,CID,TOX3,GSN,NF1,MGMT,SNCB,RTN4,DPEP1,CHI3L1,NTN1,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,FNIP1,TMBIM6,PPP2CB,WDR92,CSRNP3,RBM5,ZDHHC3,FHIT,COP5,NCKAP1,ANO6,CERKL,NEUROD1,TMEM117,RFFL,JAK2,FBXW7,ITCH,BCL11B,TEX11,ANXA4,CYFIP2,WNT11,KREMEN1,SHAH1,PRKCD,TGFB1,SGK1,CRADD,SLIT3,SLIT2,TP73,SAP18,BLID,MTDH,FANK1,SMAD6,ETV6,TFAP2D,BCL3,DAPK2,TNFRSF10B,NAIP,FGF10,SH3RF3,CAPN3,PRKCA,CNR1,MAGEA4,MAG,PIP5K1I,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,AXIN1,DLG5,RYR2,CDK11A,CDK11B,DRAXIN,NOL3,MYOCD,CHEK2,HCK,CAPN2,PPP2R2B,DCC,NF2,FLT4,SGMS1,HDAC4,PAX2,SFRP1,FOXO3,BCL2L13,SMAD3,ITPPI,EVA1A,GRIK5,TXNDC12,CDC73,APP,SLK,NOX1,YAP1,TNFRSF19,VDAC1,EYA2,ANGPTL4,LRP5,CHST11,TMEM14A,FRS2,PALB2,MMP2,DCUN1D3,PRKD1,STAT1,USP53,PLAGL1,TCTN3,ATF2,GRAMD4,RAF1,CARD16,CASP1,PTPN1,BMPR2,CAMK1D,CERS3,FGF2,PPM1F,SEMA4D,RORC,YME1L1,PLEKHO2,SLC5A8,RARB,PRKCG,NCOA1,AREL1,EEF1E1,TXNDC5,EIF2B5,ATF3,PAWR,DEPTOR,P4HB,CNTFR,COL4A3,HIP1,TRPC5,GLI2,DAB2,PKHDI,XKR4,SIN3A,PELI1,PPP2R5C,CFDP1,MAP3K7,DDX47,ALK,INPP5D,SRA1,TOPI,PAX7,PAK3,ADNP,BCL7C,RNF34,TFRC,WWOX,MEF2A,GFRAL,EYA1,TRPV1,RNF216,MNAT1,HDAC1,TRIM24,PLCG2,ROCK1,HIPK3,RYBP,CAPN10,CUL2,PTPN2,NTRK1,PKN2,TMIGD1,SLC39A10,SARM1,MUC1,JAG2,SPI1,EPHA7,CTNNA1,AIFM2,MST1,ERCC3,SNCA,BMPR1B,GRM4,USP42,HEY2,CHMP3,ZMYND11,CAST,DFFA,RASA1,MITF,SRSF6,HIPK1,NUGGC,BTK,IGF1,CTNNB1,HTT,MAPK1,PTEN,BMP7,LRRK2,OSGIN1,EBAG9,BAG6,ITGAM,WNT7A,NLRP1,UACA,RABEP1,RHOT1,GPI,SH3RF2,PRMT2,RAPGEF2,SMO,MARK4,PSEN2,TNFRSF11B,JADE1,RHOA,SYNGAP1,CUL3,SH3KBP1,HSPD1,GSK3B,DNAJC3,EEF2K,CD27,BOK,RNF144B,SULF1,KRT8,NACC2,TNFRSF8,A

			<p>GT,PRKAA2,ADAR,ZMPSTE24,PTK2,FBXO10,SHB,MAP3K5,DLX1,NCFI,TAOK2,S HC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,DR AM1,SLC1A1,SIGMAR1,HCAR2,DLC1,PPARA,PPP1R10,STEAP3,PHLPP1,MAGI3,C PEB4,PRKCZ,ADORA2A,ANGPT1,PACS2,EYA3,FHL2,ATF6,ETS1,PPP1CA,GRIA4,S TPG1,ATG3,PRKCQ,BRAF,CSRNPI,HDAC2,TNS4,POU3F3,HIGD2A,PHIP,PPP2CA ,ANGPT4,ARHGEF6,SP100,MADD,SYK,GRIK2,CIT,BRCA2,HRK,TICAM1,CADM1, HSF1,MAX,SRPK2,ANKRD13C,QRICH1,VAV3,AKTIP,NUAK2,AXL,TNFSF9,MET,C AMK2D,MALT1,TRIM69,KDM2B,THEM4,PHB,PTPRC,TYRO3,ADCY10,TRAF3IP2,T RAP1,EDNRA,GNGT1,PRAP1,BMP4,CASP12</p>
GO:00 06357	regulation of transcription by RNA polymerase II	4.82763929 8647801e-7	<p>LDB2,DNMT1,HLX,SLC9A1,PBX3,MED13L,TRPS1,CBFB,ZNF823,PRDM12,MED26 ,WWC1,ASH1L,SCAF8,STOX2,WWC3,PAGR1,HIVEP3,NPAS3,ARNT,STAT5B,TOX,Z NF566,CASK,MAP2K5,ZNF536,SP3,HDGF,EZR,IKZF2,CHD7,MECOM,TRAF6,DNA JA3,NHLH1,PSMB7,TSC22D3,GF11B,RUNX1,HMGN3,NRIP1,THRB,EFCAB7,DACH 1,ZNF569,ORC2,MYT1,IKBKB,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PC BP3,MAML3,CDON,EP300,CELA1,TENM2,ZNF76,ZNF471,CCND3,ZNF19,ZNF23,B RMS1,ZNF605,HNF4G,PRKAR1A,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF5 64,ZNF709,ZNF799,LITAF,ESRRB,TBR1,TFAP2A,PEG3,ZIM2,TGIF2,MEIS1,VRTN, MDM4,ZNF148,MTA3,TFDP2,SLC30A9,TOX3,KAT7,ZNF667,RBM14,MED12L,SATB 2,RIT2,HIRA,MKRN2,ARNTL,ARID4B,PIK3R2,UBP1,MDFI,FNIP1,VAX2,TMBIM6,P PP3R1,HDAC5,CSRNPI,ZNF692,NFIA,RNF4,JDP2,DCN,CDH13,CREBRF,SOX13,C OP55,MAD2L2,TLE6,CAPRIN2,ZNF418,PHF20L1,ZNF286A,FOXN3,NEUROD1,JA K2,SKAP1,MLIP,BCL11B,PKNOX1,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,MT A1,KLF8,LCOR,RPRD1B,CCDC62,SOX6,ACVR2A,RUNX2,TGFB1,NSD1,ZHX2,PKN OX2,NFATC3,F2RL1,BCAS3,CC2D1B,TP73,SAP18,ZBTB22,MTDH,MYT1L,ZNF398, CLOCK,TCF12,ZNF675,ETV6,BCL3,DUSP22,SBNO2,LGFX1,SMYD3,LUM, SMURF2,RORA,HIVEP2,AUTS2,TNFSF11,PPP3CA,NFYB,MAGEA4,KLF12,GATAD 2B,TRAK1,CTNBN1,PARK2,SOD2,DACH2,METTL13,SMARCC1,KLF17,PPARG,MT F1,CBX5,BRIP1,SREBF2,FGF1,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,ZNF62 6,ZNF737,SUP3H,PRDM16,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,HD AC4,PAX2,MED13,ZNF395,FOXO3,NFIB,SP4,SMAD3,CUX2,WWP2,ARNT2,ZNF662 ,ZNF777,EBF3,CASZ1,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KTI12,NFA TC1,CDC73,APP,SSBP3,GSX2,YAP1,LRP5,ZNF787,SOX2,TEAD1,ZNF653,ZNF521,A RID3A,ZNF761,CHUK,ZNF584,ESR2,PRKD1,STAT1,ST18,ETV5,RHOXF2B,TAFA3,P LAGL1,HNF4A,ZBTB7C,ATF2,POU2F2,TCF3,ZNF730,RAF1,BMPR2,BMPRI1,ZKS CAN1,IKZF4,CDK12,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,GLI4,ZFP41,SEMA 4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,RARB,SPEN, SIN3B,NCOA1,EHMT1,LMO7,DVL3,TCF20,ATF3,PAWR,EBF2,MAML2,TSG101,CN YM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,SOHLH2,ZNF354C, ZNF704,NR2C1,GLI2,TNKS,ERCC1,GLIS3,WDTC1,ZNF664,DAB2,MYSM1,SIN3A,R UVBL2,GMEB1,ZNF423,SP1,TEAD4,HOXC13,SRA1,ADIRF,OVOL2,NFATC2,PAX7, ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,CDK6,PHF2,WWO X,MEF2A,DCAF6,SATB1,PSMB2,EYA1,GATAD2A,TRPV1,HOXB3,HOXB4,HOXB5,H OXB6,TFEB,MNAT1,ACTR2,HDAC1,PAXIP1,ZNF713,EGR2,RNF10,RYBP,AP3B1,P TPN2,KPNA6,EPCAM,ZNF425,MUC1,BCOR,AP3D1,ZNF41,ZNF383,ZNF616,ZNF83 6,SMARCA2,CUX1,SP11,DNMT3B,FOXP2,GLIS1,JAZF1,CREB5,SNCA,BMPRI1B,ZE B2,FOXJ3,HEY2,KMT2D,CREM,KMT2C,MACC1,MITF,NFIX,CBFA2T2,IGF1,MLX1 P,ATF7IP,BMP7,MXII,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,ZBTB20,PKD2,ZNF6 52,RIPPLY1,RCOR3,TADA2A,NCOA3,ZNF146,ZNF565,WNT7A,ZBED6,BRWD3,CRT C3,ARNTL2,KAT6A,ZKSCAN7,ZNF197,ZNF660,BMP6,NFE2L1,ZNF30,ATRX,IKZF1, SMO,TCF4,SOX30,TFE3,GRIN1,RHOA,ONECUT2,CUL3,TFEC,STAT6,RBBP8,CDK 13,DUSP26,ZNF362,NACC2,SUPT4H1,ZNF354A,HDGFRP3,STAT2,PBX1,TCFL5,C REBBP,DLX1,GTTF2,ZNF813,LBX2,DPRX,SP7,RPS6KA5,ZNF484,ZNF93,PRD M2,NOS1,ZNF44,MED15,MC1R,TCF25,ZNF282,IL18,PPARA,ARID5B,SMARCA1,N OTCH4,ZNF366,CRX,PAX6,OTUD7B,NIPBL,PHF20,ZNF143,TBL1X,FHL2,ATF6,ZB TB5,ZNF708,ETS1,MTF2,TAGLN3,NCOR2,CSRNPI,HDAC2,IMPACT,SRAP,POU3 F3,NOTO,ZKSCAN5,ELF2,PHIP,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM29,CN OT1,WWTR1,GTTF2H5,NFXL1,ZBTB38,ATF7,DVL2,YBX1,TAF1,THAP3,HSF1,MAX,S API30,EZH1,NRF1,NCOA2,CHD6,RNF2,ZNF554,MYEF2,TRIM37,MET,ZNF461,CA MK2D,TIMELESS,BRD9,SETD3,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,ATF6 B,CREB1,EBF4,ZNF511,BMP4,ABLIM3</p>
GO:00 51253	negative regulation of RNA metabolic process	4.95479208 194149e-7	<p>LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,ZNF566,MAP2K5,ZNF5 36,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,GF11B,PTPRK,RUNX1,NRIP1,THRB,D ACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,EP300,CELA1,TENM2,PD GFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW1 1,BASP1,TBR1,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ER N2,CID,CENPF,LARP4B,KAT7,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDFI,FNIP1,V AX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,TRDMT1,SOX13,MAD2L2,TLE 6,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUN X2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF 398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,HNRNPC,SBNO2,LOXL3,CAPN3,SMURF 2,PPP3CA,NSUN2,MAGEA4,KLF12,GATAD2B,CTNBN1,PARK2,METTL13,PPARG, AXIN1,CIP2,CBX5,LRPPRC,SREBF2,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,P RDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,ZCCHC17,SYNCRIP,SMAD3,C</p>

			<p>UX2,WWP2,RNF168,MIER3,NEDD4,CDC73,YAP1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,CELF4,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,ATF3,LIN28B,PAWR,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,GLIS3,WDTC1,DAB2,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,MAPKAPK2,ARID4A,CDK6,MEF2A,SATB1,GATAD2A,TRPV1,HOXB3,HOXB4,L3MBTL4,ELAVL4,HDAC1,RECQL5,TRIM24,SCMH1,RYBP,PTPN2,AXIN2,ZNF425,MUC1,BCOR,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,SMYD1,SNCA,ZEB2,HEY2,ZMYND11,CREM,MITF,SRSF6,NFIX,CBFA2T2,ATF7IP,BMP7,MXI1,CIR1,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,DAZL,ZBED6,KAT6A,BMP6,TAF15,ATRX,IKZF1,PRMT2,SMO,SOX30,CUL3,TFEC,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,METTL16,ZMPSTE24,TCFL5,CREBBP,DLX1,SHC1,PARP10,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,PPARA,ARID5B,NOTCH4,ZMYND8,FCGR366,PAX6,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,PARN,RBM42,CNOT1,WTR1,ZBTB38,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,TRAF3IP2,CREB1,BMP4</p>
GO:0050807	regulation of synapse organization	5.205375472124855e-7	<p>NRXN1,NEGR1,GRID2,KALRN,NTRK3,LHFPL4,CDKL5,ROBO2,PTPRO,NTRK2,CDH8,PTPRD,BDNF,AMIGO1,TANC2,FYN,NTN1,DCTN1,FRMPD4,LRFN5,CAPRIN2,ZDHH15,CLSTN2,IL1RAPL1,CAMK2B,DISC1,LINGO2,IL1RAPL2,EPHA4,FCGR2B,ARHGAP22,DLG5,DGKB,DNM3,CUX2,ABI2,NEDD4,NRP2,APP,NLGN2,GPC6,SHANK2,NLGN1,CTNNA2,SEMA4D,EIF4G1,EPHB3,NLGN3,PAFAH1B1,SETD5,RELN,PAK3,ADNP,FLRT2,ACTR2,NTRK1,EPHB1,ARHGAP44,EPHA7,SNCA,PTPRS,PTEN,LRRK2,EFNA5,SHANK3,WNT7A,RHOA,EEF2K,EPHB2,GRIN2B,SLIT1,GPM6A,SYNDIG1</p>
GO:0007015	actin filament organization	5.549381679899406e-7	<p>CLRN1,PRKCI,SLC9A1,CLASP2,PHACTR1,FHOD3,TJPI,SEMA5A,FER,EZR,TENM1,CTNNA3,ABII,TRIOBP,ELMO2,GAS7,CDC42EP3,XIRP2,EPHA1,LIMK1,FMN2,PAK1,ARHGAP6,DMD,GSN,CASS4,PCDH15,TTN,MAD2L2,TLE6,NCKAP1,JAK2,PLS1,CYFIP2,WNT11,PRKCD,PPM1E,F2RL1,SLIT2,CORO1C,KANK1,KANK4,ENAH,RHPN2,SVIL,MPRIP,PARK2,MYO1D,ADD2,MYO1E,HCK,SORBS1,NF2,SPTBN1,ELN,SFRP1,SSH1,SMAD3,ABI2,SHANK1,ARHGEF18,PREX1,ADD3,MYO1F,SPTBN4,VILL,RND3,CTNNA2,PPM1F,NEDD9,PAWR,HIP1,RUFY3,ARHGAP12,MYO7A,CLASP1,PACSIN1,SPTBN5,PAK3,SSH2,AIF1L,PLS3,CALD1,SNX9,DIAPH2,ACTR2,ROCK1,EPAS8,PPP1R9A,MCU,CTNNA1,LIMA1,SHROOM3,FCHSD2,RAPGEF3,PDXP,SH3BP1,RASA1,KCTD13,DPYSL3,ARHGAP25,SHANK3,RHOA,TF,RHOBTB1,SHROOM1,CUL3,SH3KBP1,RDX,FAM49B,ESPNL,IQGA2,FAM171A1,ADPA,TMEFF2,DLCL1,PHLDB2,SHROOM4,NEBL,BRAF,DIAPH1,CIT,NEB,MYO1A,CGNL1,MET,MICAL3,SPTAN1</p>
GO:0009967	positive regulation of signal transduction	6.627065755070253e-7	<p>PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDCL,SLC9A1,PDE8A,SEMA3A,CHERP,WWC1,C12ORF49,NOS1AP,MAPRE2,PTGIS,PRLR,PAGRI,NTRK3,CBL,ARNT,SEMA5A,FLT3,GRM5,PLCE1,MAP2K5,KITLG,LRP2,PIK3CD,ROBO1,HTR2B,TENM1,TRAF6,ROBO2,ITPKB,ITGB1,HSP90AA1,PSMB7,CCDC22,AKAP13,DGKI,PTPN11,MGA15,ADORA1,ADAMTS3,IKBK,ERBB4,ADRA1D,MIER1,CDON,NTRK2,EP300,RNF20,PDGFB,RIMS1,TNIK,MID1,STK39,INSR,TCF7L2,USP34,PAK1,LITAF,MAP3K4,ZDHH13,BDNF,TRIM13,LCK,ECT2,ERN2,RIT2,DEPDC1B,CASS4,FYN,ARNTL,NF1,PLCB1,RTN4,RTN4R,RWDD3,CHI3L1,NDRG4,BMP2K,NRG1,BID,MAP2K1,FNIP1,ROR2,DCN,SLC39A14,CDH13,CAPRIN2,CCBE1,JAK2,FBXW7,NPSR1,MLLT3,LAMTOR3,CYFIP2,WNT11,NOX4,SHAH1,PRKCD,TAB2,ACVR2A,CD4,NUP93,P1BF1,CRADD,F2RL1,AAK1,TP73,DISC1,KANK1,MTDH,BMPER,TNFRSF10B,DUSP22,NAIP,FGF10,IQCJ-SCHIP1,SH3RF3,LOXL3,SMURF2,EPHA4,PRKCA,AUTS2,TNFSF11,CTNNB1,PARK2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,IL18R1,P2RY10,ANKRD17,APOL3,FGF1,MYOCD,TRIM5,AJUBA,SORBS1,TRIM8,CSPG4,GRM1,FLT4,SFRP1,CNTN6,SMAD3,CUX2,SHANK1,NEDD4,TAB1,CDC73,APP,GSX2,PDGFRA,NOX1,YAP1,NLGN2,TNFRSF19,SOX2,CHUK,FRS2,S100A12,PRKD1,EREG,RAF1,CARD16,CASP1,PTPN1,BMPR2,BMPRI1A,NLGN1,SPAG9,EVC,FGF2,SEMA4D,DOK6,ADCYAP1R1,DKK2,EEF1E1,EEF1E1-BLOC1S5,GAS8,DVL3,ATF3,SHOC2,AGO3,TERF2IP,WDR59,WNT3,CCL14,CCL15,NLGN3,SCUBE2,PAFAH1B1,PRDM15,HIP1,AKAP6,NR2C1,NEO1,TNKS,SCUBE1,DAB2,WNK1,RELN,NEK10,RSPO2,GUCY1A2,PELI1,IQGA1,MAP3K7,ZNF423,TRIM22,MACF1,ALK,UBE2V1,XDH,SNX5,CAMTA1,P2RY8,TFRC,WWOX,GFRAL,GPC3,PSMB2,TSPAN6,CLEC16A,GHR,SMOC2,PLCG2,ROCK1,C1QTNF1,GPR35,PTPN2,NTRK1,TRIM44,SLC39A10,JAG2,VWF,NETO1,ARHGEF3,SPI1,CTNNA1,LY86,BCAR3,RBPMS,MAP3K13,PTK7,BMPRI1B,GRM4,ZEB2,RC3H1,WNT7B,KMT2D,RPTOR,IGF1,HTT,PTEN,SPRED2,BMP7,PUM1,LRRK2,ZRANB1,TMEM108,PKD2,SHANK3,PDGFC,WNT7A,SIK3,BMP6,SH3RF2,SOS1,RAPGEF2,SMO,UBR5,GRIN1,RHOA,ROR1,RQCD1,ACTA2,NECAB2,CD27,BOK,SULF1,NACC2,AGT,PTK2,RIMS2,MAP3K5,CREBBP,NCF1,TAOK2,SHC1,LBX2,SCEL,CD44,ADAM8,BCL2L14,CXCL17,ACTN4,MC1R,STK4,WLS,IL18,UBE2K,PRKCZ,ZC3H4V1,ADORA2A,ANGPT1,TBL1X,LRRK1,OSBPL8,ATF6,GCNT2,PPP1CA,CCL22,BRAF,HTR2C,CD300A,PHIP,MAOA,RPL23,MADD,SYK,DVL2,PTPRJ,TICAM1,SASH1,CAV2,AXL,MET,UCLH5,ANKRD6,MALTI,PHB,PTPRC,EDA,GPR89A,TSPAN5,TRAF3IP2,BMP4,CPNE1</p>

GO:0071417	cellular response to organonitrogen compound	7.349087866736742e-7	ENPPI,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,RYR1,STAT5B,GRM5,FER,EZR,SLC26A6,HTR2B,RYR3,GOT1,CDC6,STXBP4,PTPN11,NTRK2,CCND3,INSR,PIP4K2A,AMIGO1,CHRM3,UBR2,SNX6,AP3S1,SLC8A1,FYN,PLCB1,PIK3R2,HDAC5,SLC39A14,IPO5,RGS8,JAK2,PDE2A,KLF15,LAMTOR3,PRKCD,TGFB1,SLIT2,GABRB1,KANK1,CHRM1,GLP2R,EPHA4,CTNNB1,PARK2,FCGR2B,SMARCC1,IGF1R,PPARG,CYBB,BRIP1,RYR2,LEPROT,NR4A3,SORBS1,CAPN2,SFRP1,FOXO3,SSH1,APP,PDGFR4,SESNI,GN2,DRD1,GLRA2,MMP2,STAT1,HNF4A,ATF2,PTPN1,COL16A1,PIK3R3,ADCY5,PTAFR,PTPRE,SRSF5,IDE,KCNQ1,AKAP6,IRS4,WDTCT1,BLM,UBR1,SIN3A,SP1,ALK,SNX5,ATP2B4,MAP1B,COL4A6,CACNA1A,XRN1,TRPV1,GHR,ACTR2,RECL5,ROCK1,CAPN10,ABCC1,PTPN2,INSRR,HTR1D,PTPR,CTNNA1,BCAR3,RAB15,RAPGEF3,PDXP,SNCA,HMGCS2,RPTOR,IGF1,MAPK1,LRRK2,GNA14,CHMP5,NSG2,PKD2,PDGFC,GPR21,ANO1,TSHR,PNPLA3,RAPGEF2,GRB14,ITPR2,GABRB3,GSK3B,STAT6,EEF2K,AGT,HRH4,PTK2,PDE4B,SHC1,RPS6KB1,GPR173,EPHB2,SLC1A1,SLC25A33,CPEB4,FBN1,PRKCZ,ATP1A3,CPEB1,OSBPL8,PRKCQ,DIAPH1,HDAC2,HTR2C,IMPACT,PHIP,RPL23,SH3BP4,TAF1,HSF1,MAX,CIB2,CAV2,DEND4C,TIMELESS,EDNRA
GO:0044271	cellular nitrogen compound biosynthetic process	7.456548810333709e-7	POLDIP3,ENPPI,PRDX2,LDB2,ASPH,GSS,PRKCI,SLCO3A1,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,PRDM12,MED26,WWCI,ASH1L,NOS1AP,SCAF8,STOX2,PTGIS,PRKAG2,WWC3,PAGRI,ADCY7,HIVEP3,FTO,NPAS3,ARNT,LRRFIP2,STAT5B,TOX,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,ZNF536,SP3,HDGF,GTFC3,EIF4G3,EZR,IKZF2,B3GALT1,CHD7,MECOM,TACCI,TENM1,NADK2,TRAF6,GTFC2,DNAJA3,NHLH1,HSP90AA1,PSMB7,TSC22D3,ZC4H2,CCDC22,GMDS,GF11B,PTPRK,RUNX1,ERC1,HMGN3,NRIP1,THRB,EFCAB7,ITGB3BP,DACH1,ZNF569,CCT2,ORC2,HDAC6,SERTAD2,MYT1,IKKB,PEX14,ERBB4,MRE11A,ZNF609,BRD8,KAT6B,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,ST6GALNAC3,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MAP3K4,BASP1,SPTSSA,TBR1,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,MEIS1,VRTN,TRIM13,MDM4,ZNF148,MTA3,SNX6,TFDP2,PTCD3,ERN2,C1D,AFF3,DMD,CENPF,SLC30A9,CERS6,TOX3,LARP4B,USP13,KAT7,ZNF667,RBM14,RBM4,PRPS2,MED12L,SATB2,RIT2,HIRA,DRG2,MKRN2,ARNTL,LINC01138,PLCB1,ARID4B,POLA2,B4GALT6,RWDD3,BRPF1,PIK3R2,NRG1,UBP1,MAP2K1,MDFI,FNIP1,VAX2,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,ZNF692,NFIA,RNF4,JDP2,CMKLRI,ROR2,DCN,PRPSAP2,PCBD2,CDH13,CREBRF,SOX13,ACSBG1,COP5,AK2,MAD2L2,TLE6,SRBD1,CAPRIN2,ZNF418,PHF20L1,BBOX1,PDF,TERF2,ZNF2864,NME7,FOXN3,AK5,NEUROD1,USP22,JAK2,TRAPPC9,OAZ2,SKAPI,UIMC1,ITCH,MLIP,BCL11B,IMPDI1,PKNOX1,MLLT3,TSHZ2,PNPLA1,TCF7,PDE2A,KLF15,TBX15,ANX4,WNT11,MTA1,KLF8,NOX4,LCOR,RPDR1B,QKI,CCDC6,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,MRPL33,SGK1,PCSK5,NSD1,IGSF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,POLK,F2RL1,BCAS3,CDYL2,CC2D1B,TPT3,SAP18,CDKAL1,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,RPL36,ETV6,PHRF1,TFAP2D,BCL3,SEI1,DUSP22,HNRNP,TRRAP,SBNO2,YTHDF1,FGF10,POLR2J2,ADK,SMYD3,LOXL3,ADCY2,CAPN3,LUM,SMURF2,RORA,HIVEP2,HSD17B12,AUTS2,TNFSF11,SMG6,PPP3CA,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL3,SMARCC1,KLF17,PPARG,IARS2,NGRN,AXIN1,IL18R1,CIPC,MTF1,CBX5,OTC,BRIP1,LRPPRC,SREBF2,AARS2,PFAS,CDK11A,CDK11B,FGF1,NPAT,NR4A3,FOXK2,MYOCD,TRIM5,PER2,AJUBA,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,HCK,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,BAZ1B,MEF2B,SGMS1,HDAC4,PAX2,PHF5A,CPOX,SECISBP2L,SNAPC4,SFRP1,MED13,ZNF395,FOXO3,TPH2,NFIB,SP4,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBNO1,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,ZNF114,KT112,NFATC1,ST3GAL3,UCK2,CDC73,APP,SSBP3,GSX2,RBM8A,YAP1,ST6GALNAC5,PPCS,TEN1,NVL,PEMT,LRP5,POLR3G,BDH2,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,ELOVL2,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,TPH1,ESR2,S100A12,GTFC2,PRKD1,STAT1,ST18,ETV5,RHOXF2B,SLC6A3,TAF3,PLAGL1,HNF4A,ZBTB7C,TASPI,EREG,ATF2,POU2F2,TCF3,ZNF730,RAF1,CELFG4,ABLIM2,ZNF766,CARD16,POLA1,GGT7,BMPR2,CAMK1D,BMPRI1,ZKSCAN1,IDO2,PABPC4,IKZF4,CDK12,TAF8,CAND2,CERS3,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,ADCY5,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,SLC5A8,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EEF1E1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,POLR2H,TCF20,ATF3,TCEANC,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,TERF2IP,CRYM,RFX2,ZNF322,SUFU,MAGEA11,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,POLE,DDAH1,ZNF354C,TCEA3,PADI6,CMPK1,ZNF704,CERS4,NR2C1,ME1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDTCT1,ZNF664,MRPS28,TPK1,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,GTPBP2,RELN,SIN3A,RUVBL2,COMMD6,GUCY1A2,GMEB1,PEL11,SLC25A16,MAP3K7,ZNF423,SP1,TRIM22,ALK,TAD4,HOXC13,APBB3,SLC35A4,SRA1,UBE2V1,ADIRF,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,PAK3,TET1,CAMTA1,CCPG1,ADNP,ARID4A,C12ORF65,CDK6,PHF2,CELFG1,TFRC,EPHA5,WWOX,MEF2A,ADCY9,DCAF6,XRN1,SA

			<p>TB1,PSMB2,EYA1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,MNAT1,ACTR2,L3MBTL4,ACACA,ELAVL4,HDAC1,RECQL5,SMOC2,TRIM24,PLCG2,ROCK1,SCMH1,MRPS17,PAXIP1,ZNF713,EGR2,HIPK3,RNF10,RYBP,AP3B1,PTP N2,NTRK1,KPNA6,TRIM44,EIF3A,EPCAM,ZNF425,GNL3L,MUC1,PTPN14,BCOR,A P3D1,ZNF41,CARM1,ZNF383,ZNF616,ZNF836,SMARCA2,CUX1,SP1,DNMT3B,L R RC47,FOXP2,MRPS24,PSPC1,GLIS1,SFMBT2,EIF3H,JAZF1,ABC7,RBPMS,CHUR CI,CREB5,MAP3K13,ERCC3,SMYD1,SNCA,BMPR1B,POLN,PRIM2,PNPT1,ZEB2,F OXJ3,NADK,HEY2,RC3H1,EIF3E,ZMYND11,KMT2D,CREM,KMT2C,PLD1,MACC1, MITF,OPRD1,RPTOR,NFIX,BTK,MLLT1,TROVE2,CBFA2T2,IGF1,MLXIP,ATF7IP,L ARS2,MAPK1,PTEN,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF7 80B,ATP6V1A,MLYCD,ZBTB20,RFC3,LILRB4,PKD2,ZNF652,HSF2BP,KCTD1,RIPP LY1,NT5E,RCOR3,TADA2A,DAZL,SPTLC3,NCOA3,PKIB,ZNF146,ZNF565,WNT7A,Z BED6,BRWD3,CRTC3,DNAJC1,ARNTL2,ELOVL5,KAT6A,MTIF2,ZKSCAN7,ZNF197, ZNF660,BMP6,TAF15,NFE2L1,WDR43,ZNF30,ATRX,DPH6,IKZF1,PRMT2,ASCC1, MTHFD2L,SMO,RALY,AMPD1,TCF4,SOX30,TFE3,GRIN1,JADE1,RHOA,SPRTR,RO RI,RQCD1,TF,ONECUT2,CUL3,TFEC,PRR16,DNAJC3,STAT6,MLF1,EEF2K,RBBP 8,CDK13,ALAS2,DUSP26,MTHFD1L,ZNF362,NACC2,SUPT4H1,ZNF354A,AGT,HD GFRP3,METTL16,ELOVL3,POLH,POLR2F,STAT2,ZMPSTE24,GTTF2E1,PPCDC,PB X1,EXOSC3,MAP3K5,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,ALD OA,LBX2,PARP10,RPS6KB1,DPRX,GUCY2F,PRG3,SETDB2,DNAJB6,SP7,LARP4,A DAM8,MRPS6,RPS6KA5,ZNF484,ZNF93,PRDM2,NOS1,ZNF44,MED15,RGS14,ACT N4,MC1R,TCF25,ZNF282,GATC,SLC1A1,EDRF1,IL18,TEX12,DIS3,PPARA,ARID5B, SLC25A33,SMARCA11,TAF2,CPEB4,LDHC,NOTCH4,ZMYND8,ZNF366,CRX,PAX6, PRKCZ,ADORA2A,PAH,CPEB1,OTUD7B,NIPBL,YEATS4,PHF20A,ZNF143,BRF1,TB LIX,FHL2,MTBD1,ATF6,ZBTB5,ZNF708,IGF2BP3,ETS1,PPF1CA,MTF2,TAGLN3,C DK5RAP1,NCOR2,PRKCQ,CSRNP1,HDAC2,IMPACT,SRAP,POU3F3,NOTO,ZKSC AN5,ELF2,MOXD1,PHIP,PPP2CA,SLC26A2,MRPS16,RPL23,RFC5,ATXN1,SP100,Z NF347,ZNF415,REV3L,TRIM29,PARN,FARSB,ADCY1,SYK,CNOT1,WWTR1,GTTF2H5 ,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,MTRF1,YBX1,TAF1,E1F4E3,TICAM1,T HAP3,SNAPC3,HSF1,MAX,SAP130,DHFR,EZH1,ETF1,NRF1,NCOA2,EEFSEC,QRIC H1,ZP3,CHD6,RNF2,ZNF554,MYEF2,TBP,TRIM37,MET,ZNF461,CAMK2D,MRLP1, TIMELESS,BRD9,MALTI,SETD3,KDM2B,MLXIPL,CCT3,PHB,EDA,ZNF555,CTCF, NR6A1,ADCY10,ATF6B,CREB1,LIG1,RGMB,TRAP1,EBF4,SLC25A13,ZNF511,BMP4 ,ABLIM3</p>
GO:00 18212	peptidyl-tyrosine modification	7.63220662 4740518e-7	<p>IL31RA,PRLR,MVP,NTRK3,CBL,FLT3,ENPP2,GRM5,FER,MAP2K5,KITLG,ABI1,PT PN11,ADORA1,EPHA1,ERBB4,NTRK2,TPST2,PDGFB,INSR,LCK,SNX6,CASS4,FYN, BCR,TTN,NRG1,MAP2K1,ROR2,JAK2,FBXW7,ZFYVE28,TPST1,NOX4,PRKCD,CD4, PIBF1,DUSP22,DOCK3,FGF10,EPHA4,IGF1R,DYRK4,HCK,CSPG4,BAZ1B,NF2,FL T4,SFRP1,ABI2,APP,PDGFRA,IBTK,JAK1,EREG,PTPN1,NEDD9,PEAK1,SEMA4D,E PHB3,TSG101,DLG3,RELN,ALK,ADNP,EPHA5,GHR,PLCG2,HIPK3,PTPN2,SNX6, NTRK1,EPHB1,EPHA10,EPHA7,HIPK1,BTK,IGF1,UNC119,LILRB4,EFNA5,PDGFC ,BMP6,ROR1,AGT,PTK2,TEC,LMTK3,NCF1,SHC1,CD44,EPHB2,IL18,PRKCZ,TYK2 ,ANGPT1,LRRK1,CNTN1,BRAF,HDAC2,CD300A,PPP2CA,ANGPT4,SYK,DVL2,PTP RJ,HSF1,INPP5F,AXL,MET,PTPRC,TYRO3</p>
GO:19 01701	cellular response to oxygen-containing compound	8.00397767 0674823e-7	<p>ENPP1,PRDX2,PRKC1,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,RPS6KA2,PTGFR,T JP1,ADCY7,NTRK3,STAT5B,GRM5,FER,EZR,SLC26A6,HTR2B,RYR3,GOT1,TRAF6, OXR1,ERCC6L2,CDK6,PTPRK,HMGN3,NRIP1,STXBP4,PTPN11,HDAC6,ESR1,NTR K2,PDGFB,CCND3,BPI,INSR,PIP4K2A,LITAF,AMIGO1,CHRM3,UBR2,ECT2,SNX6, AP3S1,SLC8A1,FYN,PLCB1,DPEP1,BCR,PIK3R2,CDK19,HDAC5,SLC39A14,IPO5,R GS8,DEFA1B,DEFA3,PTGER2,NEUROD1,GNAQ,JAK2,CLDN1,PDE2A,KLF15,LAM TOR3,WNT11,NOX4,LCOR,CCDC62,PRKCD,TGFB1,SGK1,PTPRN2,SLIT2,KANK1, MTDH,CHRM1,SBNO2,SMYD3,GLP2R,ADCY2,EPHA4,RORA,PRKCA,CD6,PPP3CA ,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF1R,PPARG,CYBB,BRIP1,RYR2,LEP ROT,RGS10,NR4A3,TRIM5,CHEK2,HCK,SORBS1,CAPN2,PAX2,SFRP1,FOXO3,SSH 1,GRIK5,CDC73,APP,PDGFRA,YAP1,RAB11FIP5,SESNI,LRP5,SLC9B2,GNG2,DRD 1,GLRA2,CHUK,MMP2,ESR2,PRKD1,STAT1,HNF4A,RAF1,CARD16,CASP1,PTPN1, COL16A1,PIK3R3,ADCY5,RORC,PTAFR,PTPRE,SRSF5,PAWR,IDE,KCNQ1,WNT3,T RPA1,AKAP6,IRS4,WDTC1,BLM,UBR1,SIN3A,RUVBL2,SP1,ALK,SNX5,ATP2B4,MA P1B,COL4A6,SCARB1,EPHA5,CACNA1A,XRN1,ADRBK1,BRINP1,SHPK,TRPV1,GH R,ACTR2,ACACA,RECQL5,TRIM24,PLCG2,ROCK1,CAPN10,ABCC1,PTPN2,INSRR, ZFAND1,HTRID,SP11,PTPRA,CTNNA1,LY86,BCAR3,RAB15,RAPGEF3,PDXP,PTK7 ,SNCA,WNT7B,HMGCS2,ABCA12,NUGGC,RPTOR,BTK,IGF1,MAPK1,BMP7,LRRK2 ,GNA14,ZBTB20,CHMP5,NSG2,PKD2,EFNA5,PDGFC,NCOA3,ZBED6,NME8,GPR2 1,BMP6,ANO1,TSHR,PDCD1LG2,PNPLA3,RAPGEF2,KCNC2,SMO,CPT1A,GRB14, RHOA,ITPR2,GSK3B,STAT6,EEF2K,AGT,PRKAA2,BRINP3,HRH4,PTK2,PHOX,PDE 4B,MAP3K5,NCF1,SLC29A1,UGT1A1,SHC1,RPS6KB1,GPR173,PLEKHA1,SCNN1B, EPHB2,SLC1A1,SIGMAR1,IL18,CALCLL,SLC25A33,CPEB4,FBN1,PRKCZ,ATP1A3, CPEB1,OSBPL8,PRKCQ,HDAC2,HTR2C,IMPACT,PHIP,PHIP,SH3BP4,ADCY1,TA F1,TICAM1,HSF1,MAX,DHFR,SASH1,CIB2,CAV2,AXL,DENND4C,MET,TIMELESS, MALTI,TRA2B,MLXIPL,SPON2,CREB1,TRAP1,EDNRA</p>
GO:00 09890	negative regulation of	8.05299209 7771361e-7	<p>ENPP1,LDB2,PRMT3,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,PTGIS,WWC3, FTO,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MALRD1,MECOM,TRAF6,DNAJA3, CDC6,CDAN1,GFI1B,PTPRK,RUNX1,NRIP1,THRB,DACH1,ORC2,HDAC6,PEX14,K</p>

	biosynthetic process		<p>AT6B,ESR1,MIER1,PCBP3,TNRC6A,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASPI,TBR1,SAMD4A,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,CE NPF,PDS5A,KAT7,RBM4,SATB2,HIRA,FYN,ARNTL,PLCB1,NRG1,MDF1,FNIP1,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,MLE6,CAPRIN2,TERF2,FOXN3,FBXW7,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,PIBF1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAPI8,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,HNRNPC,SBNO2,YTHDF1,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,CIPC,CBX5,SREBF2,LEPR,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,SYNCRIP,SMAD3,CUX2,WWP2,RNF168,DCP1B,MIER3,NEDD4,CDC73,YAP1,TEN1,SOX2,PRICKLE1,ZNF653,ERLIN1,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,CELF4,BMPR2,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,EIF4G1,ATF3,PAWR,AGO3,TSG101,CDC3,CRYM,SUFU,MAGEA11,NR2C1,GLI2,TNRC6B,GLIS3,WDC1,DAB2,BLM,SI N3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ATP2B4,ASXL3,ARID4A,CDK6,CELF1,MEF2A,XRN1,SATB1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TRIM24,ROCK1,SCMH1,RYBP,PTPN2,ZNF425,GNL3L,MUC1,BCOR,SMARCA2,CUX1,SP11,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,ABC7,ACO T8,SMYD1,SNCA,PNPT1,ZEB2,HEY2,RC3H1,EIF3E,ZMYND11,CREM,MITF,NFX,CBFA2T2,ATF7IP,BMP7,MXI1,PUM1,CIR1,TMEM59,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,RAPGEF2,SMO,SOX30,RHOA,RQCD1,CUL3,TFEC,GSK3B,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,METTL16,EXOSC3,TCFL5,CREBBP,DLX1,SHC1,PARP10,PRG3,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,TMEFF2,DIS3,PPARA,ARID5B,SMARCA1,CPEB4,NOTCH4,ZMYND8,ZNF366,PAX6,CPEB1,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,IGF2BP3,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,PARN,DONSON,CNOT1,WWTR1,ZBTB38,BRCA2,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,DHFR,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELES S,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,TRAP1,BMP4</p>
GO:1901700	response to oxygen-containing compound	8.341691144024979e-7	<p>ENPPI,PRDX2,ASPH,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,PDE8A,RPS6KA2,PTGFR,CLDN18,TJP1,ADCY7,NTRK3,CBL,STAT5B,GRM5,FER,EZR,SLC26A6,HTR2B,RYR3,GOT1,TRAF6,OXR1,ERCC6L2,CDC6,PTPRK,ABCC8,HMGN3,NRIP1,STXBPA,PTPN11,HDAC6,ESR1,NTRK2,PDGFB,CACNA1B,CCND3,USP46,BPI,INSR,TCF7L2,PIP4K2A,LITAF,AMIGO1,KCNMA1,CHRM3,UBR2,HLCS,ECT2,SNX6,AP3S1,DM D,KAT7,SLC8A1,FYN,PLCB1,MGMT,DPEP1,APOD,BCR,PIK3R2,CDK19,BDKRB1,TMBIM6,PPP2CB,HDAC5,SLC39A14,IPO5,MAN1A1,RGS8,DEFA1B,DEF43,F5,PTGER2,NEUROD1,GNAQ,JAK2,CLDN1,PDE2A,KLF15,LAMTOR3,WNT11,NOX4,LCOR,CCDC62,PRKCD,TAB2,TGFB1,SGK1,PTPRN2,SLIT3,GABRB1,HP,KANK1,MTDH,CHRM1,SMAD6,BCKDHB,HOMER2,SBNO2,FGF10,SMYD3,GLP2R,ADCY2,EPHA4,RORA,PRKCA,CNR1,CD6,PPP3CA,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,SMARCC1,IGF1R,PPARG,CYBB,OTC,BRIP1,RYR2,LEPROT,RGS10,NR4A3,TRIM5,CHEK2,HCK,SORBS1,CAPN2,DIO2,PAX2,SFRP1,FOXO3,SSH1,GRIK5,INFN1,SLC6A1,CDC73,APP,PDGFRA,YAP1,RAB11FIP5,SESN1,RNLS,ALPL,LRP5,SLC9B2,GN G2,DRD1,GLRA2,CHUK,MMP2,ESR2,PRKD1,STAT1,SLC6A3,HNF4A,STRA6,EREG,MAPKAPK3,ATF2,RAF1,CARD16,CASP1,PTPN1,GGT7,COL16A1,PIK3R3,ADCY5,RORC,PTAFR,ADCYAP1R1,EIF2B5,PTPRE,RBX1,SRSF5,PAWR,IDE,KCNQ1,WN T3,CO L4A3,TRPA1,AKAP6,EDEM3,IRS4,ME1,ERCC1,WDTC1,BLM,UBR1,SIN3A,RUVBL2,PELI1,SP1,ALK,SNX5,RGS7,ATP2B4,P2RX6,ADNP,MAPKAPK2,MAP1B,COL4A6,SCARB1,TYR,TFRC,EPHA5,CACNA1A,XRN1,ADRBK1,BRINP1,SHPK,TRPV1,GHR,ACTR2,ACACA,ELAVL4,RECQL5,C2,TRIM24,PLCG2,ROCK1,EPS8,EGR2,CAPN10,ABCC1,PTPN2,INSRR,NTRK1,ZFAND1,MAN1B1,SARM1,CARM1,SRD5A2,HTR1D,SPII,PTPR4,CTNNA1,LY86,BCAR3,ILDR2,RAB15,RAPGEF3,SDK1,PDXP,PTK7,SNC A,PNPT1,CNGA3,WNT7B,HMGCS2,ABCA12,SRSF6,NUGGC,RPTOR,BTK,DSG1,IGF1,MAPK1,BMP7,PIK3C3,LRRK2,GNA14,ZBTB20,CHMP5,NSG2,PKD2,EFNA5,PDGFC,NCOA3,WNT7A,ZBED6,NLRP1,NME8,GLDC,GPR21,BMP6,ANO1,GPI,TSHR,EXT1,PDCD1LG2,PNPLA3,RAPGEF2,KCNC2,SMO,CPT1A,GRB14,GRIN1,RHOA,G RIN3A,ITPR2,GSK3B,STAT6,EEF2K,CD27,KRT8,AGT,PRKAA2,STAT2,BRINP3,HRH4,PTK2,PHEX,PDE4B,MAP3K5,NCF1,SLC29A1,UGT1A1,SHC1,RPS6KB1,STC2,GP R173,CLDN4,NOS1,GCKR,PLEKHA1,SCNN1B,EPHB2,SLC1A1,SIGMAR1,IL18,PPA RA,CALCRL,SLC25A33,CPEB4,FBN1,PRKCZ,ATP1A3,CD96,GRIN2B,CPEB1,OSBP L8,NCOR2,PRKCQ,HDAC2,HTR2C,IMPACT,PHIP,RPL23,SH3BP4,SP100,ADCY1,S LC10A1,TAF1,TICAM1,HSF1,MAX,DHFR,SASH1,NCOA2,CIB2,CAV2,AXL,DENND4 C,MET,TIMELESS,MALT1,TRA2B,MLXIPL,SPON2,CREB1,TRAP1,EDNRA,HADHA</p>
GO:0098660	inorganic ion transmembrane transport	8.746559836790789e-7	<p>SLC39A11,ASPH,PDE4D,SLC9A1,FAM155A,CHERP,CACHD1,RYR1,NOS1AP,NOX5,DPP6,CLCN1,UTRN,ATP2B2,KCNQ5,GRM5,KCNIP4,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,ITGB1,SLC24A3,ABCC8,GABRA3,TCIRG1,KCNK3,NIPAL2,NETO2,CACNB2,KCNJ16,DPP10,CACNA1B,STK39,CAB39,ZDHHC13,SLC20A2,SLC4A10,CATSPER2,AMIGO1,KCNMA1,KCNRG,LCK,TMC2,SLC12A8,SLC6A16,RHCE,MICU3,DMD,SLC8A1,JPH2,FYN,SLC5A6,ANKH,CACNA1E,SLC4A5,KCNK3,CN NM2,BDKRB1,KCNIP1,STIM1,NALCN,SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,NPSR1,SCN4A,TMC1,SLC9A7,KCNC4,CACNA1H,TGFB1,KEL,JPH3,GAB</p>

			<p>RR3,GABRB1,KCNJ3,CACNA1D,CACNA2D3,ANO4,XPR1,ANO3,KCNH1,SLC17A7,KCNH7,CAPN3,VMP1,ANO2,COX8A,TRPM1,KCNJ12,RYR2,KCNA6,NOL3,CACNA1C,SCN3B,ITPR1,WWP2,NEDD4,SLC4A4,SLC6A1,KCNK1,VDAC1,IBTK,SLC9B2,DRD1,GLRA2,PRKD1,SLC6A3,FXYP2,FXYP6,KCNG4,FGF2,PTAFR,MRS2,SLC9B1,ATP6V0B,KCNQ1,TRPA1,TRPM3,AKAP6,TRPC5,WNK1,KCNQ2,SLC47A1,SLC8A2,SLC9C1,TPCN1,AHNAK,RGS7,ATP2B4,ATP6V0A2,KCNAB2,GABRG3,CACNA1A,STOM,TRPV1,PLCG2,GPR35,SLC39A10,ANK3,KCND3,CACNG8,SLC9C2,NETO1,MCU,TRDN,GABRA6,STAC,TRPC6,ABCB7,SLC41A2,SNCA,CACNG2,CNGA3,SLC4A8,HTT,SCN8A,ATP6V1A,TMCO1,PKD2,ANO1,GABRR2,KCNC2,SLC6A14,PSEN2,GRIN1,GRIN3A,ITPR2,GABRB3,SCN9A,PDE4B,COX5A,TRPC4AP,KCNJ15,SLC5A10,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCNN1B,COX6A1,SLC1A1,XCR1,LRRCS2,MCO1,ATP1A3,GRIN2B,DIAPH1,HTR2C,TMEM163,UQCRL1,SLC26A2,ANXA2,KCND2,ATP6V0A1,SCN1A,CACNG3,ATP2B3,GPM6A,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,EDNRA</p>
GO:0031327	negative regulation of cellular biosynthetic process	9.290959210856593e-7	<p>ENPPI1,LDB2,PRMT3,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,PTGIS,WWC3,FTO,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MALRD1,MECOM,TRAF6,DNAJA3,CDC6,CDAN1,GF11B,PTPRK,RUNX1,NRIP1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,TNRC6A,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASP1,TBR1,SAMD4A,TFAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TDFP2,ERN2,CID,CEPPE,PDS5A,KAT7,RBM4,SATB2,HIRA,FYN,ARNTL,PLCB1,NRG1,HNRNP,SBNO2,VAX2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,SOX13,MAD2L2,TLE6,CAPRN2,TERF2,FOXN3,FBXW7,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,PIBF1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,HNRNP,SBNO2,YTHDF1,LOXL3,CAPN3,SMURF2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,CIPC,CBX5,SREBF2,LEPR,NPAT,NR4A3,FOXK2,MYOCD,PER2,AJUBA,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,SYNCRIP,SMAD3,CUX2,WWP2,RNF168,DCP1B,MIER3,NEDD4,CDC73,YAP1,TEN1,SOX2,PRICKLE1,ZNF653,ERLIN1,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,ERE,ATF2,TCF3,CELF4,BMPR2,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,EIF4G1,ATF3,PAWR,AGO3,TSG101,CRYM,SUFU,MAGEA11,NR2C1,GLI2,TNRC6B,GLIS3,WDTC1,DAB2,BLM,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,ATP2B4,ARID4A,CDK6,CELF1,MEF2A,XRNI,SATB1,GATAD2A,DIS3L2,TRPV1,HOXB3,HOXB4,L3MBTL4,HDAC1,RECQL5,TIRM24,ROCK1,SCMH1,RYBP,PTPN2,ZNF425,GNL3L,MUC1,BCOR,SMARCA2,CUX1,SP11,DNMT3B,FOX2,PSPC1,GLIS1,SFMBT2,JAZF1,ACOT8,SMYD1,SNCA,PNT1,ZEB2,HEY2,RC3H1,EIF3E,ZMYND11,CREM,MITF,NFIF,CBFA2T2,ATF7IP,BMP7,MXI1,PUM1,CIR1,TMEM59,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,ZBED6,KAT6A,BMP6,ATRX,IKZF1,PRMT2,RAPGEF2,SMO,SOX30,RQCD1,CUL3,TFEC,GSKB,STAT6,RBBP8,DUSP26,NACC2,SUPT4H1,METTL16,EXOSC3,TCFL5,CREBBP,DLX1,SHC1,PARP10,PRG3,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,DIS3,PPARA,ARID5B,SMARCA1,CPEB4,NOTCH4,ZMYND8,ZNF366,PAX6,CPEB1,OTUD7B,NIPBL,TBL1X,FHL2,MTBD1,ZBTB5,IGF2BP3,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,RPL23,ATXN1,SP100,TRIM29,PARN,DONSON,CNOT1,WWTR1,ZBTB38,BRCA2,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,DHFR,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PHB,ZNF555,CTCF,NR6A1,CREB1,BMP4</p>
GO:0007215	glutamate receptor signaling pathway	0.0000010320778679458714	<p>GRID2,GRM8,GRM5,GRM7,GRIK4,FYN,PLCB1,DAGLA,GNAQ,GRIK3,HOMER2,TRPM1,GRM1,GRIK5,APP,GRIA3,GRIK1,GRIA2,GRM4,SHANK3,GRIN1,GRIN3A,NECAB2,GRID1,SLC1A1,CPEB4,GRIN2B,GRIA4,GRIK2</p>
GO:0031345	negative regulation of cell projection organization	0.0000010475697692432059	<p>NRXN1,SEMA3A,SEMA3D,SEMA5A,ARHGAP24,DAB1,PTPRO,DENND5A,RIT2,FYN,FAT3,RTN4,RTN4R,PAQR3,NTN1,KREMEN1,PRKCD,SEMA5B,SLIT2,KANK1,EPHA4,PPP3CA,MAG,DRAXIN,DCC,DNM3,DIP2B,YAP1,FSTL4,PTPRG,KIF24,SEMA6D,NLGN1,CRMP1,SEMA4D,SPOCK1,WNT3,PAFAH1B1,TRPC5,RUFY3,DAB2,MPHOSPH9,PTPN9,TRIM46,CARM1,ARHGAP44,EPHA7,PTPRS,RTN4RL1,CBFA2T2,DPSYL3,PTEN,LRRK2,MAP4,RAPGEF2,RHOA,SYNGAP1,EPHB2,GRIN2B,MAP2,HDAC2,TNR,CDKL3,SLIT1,INPP5F,SEMA3C</p>
GO:0032535	regulation of cellular component size	0.0000010601863290315574	<p>CLASP2,SEMA3A,SEMA3D,FHOD3,SEMA5A,FER,OLFM1,EZR,CDKL5,TENM1,VA2,TRIOBP,DSCAM,CDC42EP3,GOLGA4,LIMK1,CDH4,BDNF,KCNMA1,SLC12A8,GSN,RTN4,RTN4R,NTN1,NCKAP1,ANO6,PLS1,CYFIP2,PRKCD,SEMA5B,KEL,F2RL1,SLIT2,DISC1,KANK1,KANK4,SVIL,MAG,CDHR2,ADD2,XK,DRAXIN,HCK,DCC,SPBN1,ELN,SSH1,ADD3,DIP2B,FSTL4,ISLR2,SPTBN4,VILL,SEMA6D,BMPR2,DPSYL2,RAB11A,SEMA4D,AP2M1,DEPTOR,WNT3,PAFAH1B1,TRPC5,RUFY3,WDTC1,SIN3A,MACF1,SPTBN5,PAK3,SSH2,ADNP,MAP1B,GNB3,SNX9,EPSS,TRIM46,EPHA7,LIMA1,FCHSD2,MAP3K13,PDXP,SH3BP1,WNT7B,PTPRS,RASA1,RPTOR,PTEN,EFNA5,SHANK3,WNT7A,RHOA,GSKB,PRR16,RDX,FAM49B,PPP1CA,MAP2,TNR,CDKL3,SLIT1,CIT,RAP1GAP2,NEB,VAV3,SPTAN1,SEMA3C,CREB1</p>
GO:0009056	catabolic process	0.0000010834063829147746	<p>NT5C1B,ENPPI1,PRDX2,GPC5,PDE4D,PDE7B,PDE8A,ALDH4A1,RNASET2,GK5,CALR3,SLC25A17,FBXL2,PRKAG2,HPSE2,FTO,DCAF12,ACOXL,CBL,ARNT,EGLN2,ENPP2,PLCE1,SAMHD1,USP32,CH13L2,LRP2,DEPDC5,ADPGK,EZR,TOM1L1,HTR2B,PSMD1,GOT1,LPO,INPP4B,ITGB1,HSP90AA1,PSMB7,CCDC22,AMDHD1,OM</p>

			<p> <i>A1,DNAJB14,PDE4A,TCIRG1,HDAC6,DDBI,ADORA1,GPRASP1,ADAMTS3,TEX264,CUL4B,CECR2,ACAD11,FBXL18,TNRC6A,EP300,CELA1,ZYG11B,FBXL7,USP46,CHFR,INSR,FMN2,ASB5,PIP4K2A,USP34,FBXW11,RNF144A,SAMD4A,FUT8,NPRL3,TRIM13,UBR2,MDM4,ENTPD5,SNX6,PIPOX,ACOX1,ERN2,NPLOC4,ATG10,LARP4B,USP13,PAFAH1B2,FYN,MKRN2,ARNTL,ADAMTS9,SMG7,PLCB1,DMGDH,SLC25A21,FBXO21,DPEP1,NEIL2,VTAA1,CHI3L1,PIK3R2,BLVRB,NRG1,DAGLA,TMBIM6,VGLL4,PPP2CB,ALDH3B2,RNF4,CSNK2A3,UBE3D,SBF2,DCN,SCFD1,CREBRF,TRDMT1,FHIT,ENTPD1,EXOC4,MAD2L2,MAN1A1,FBXO9,RFFL,USP22,FBXW7,LINC00473,OAZ2,ITCH,USP12,ABCC2,LZTS1,SMG1,DPYS,IDNK,PNPLA1,PDE2A,SPSB1,HADHB,MTA1,WDFY4,SLAH1,ERCC8,PRKCD,TAB2,BANP,PLCXD3,SPSB4,MMIP28,TRIM65,ZHX2,ASCC2,BTRC,BCAS3,DNAJB2,RNF133,RNF148,HP,MGAM,DISC1,ZFAND2A,CPT1C,CLN6,MTDH,MMP26,CLOCK,PLCB4,BCKDHB,SYNJ2,NELL1,TIMP2,DAPK2,SND1,HNRNPC,YTHDF1,FBXL17,KCTD10,CAPN3,VMP1,SMURF2,EPHA4,PRKCA,CNR1,SMG6,NSUN2,HBE1,UBQLN3,UBQLNL,LIX1L,WDFY3,UFLL1,CTNNB1,PARK2,SMARCC1,AXIN1,CPQ,OTC,LRPPRC,RSRPY1,SREBF2,LEPR,FOXK2,WDR45B,TRIM5,CHEK2,UBQLN4,PPP1CB,TBC1D14,RAB3GAP2,CAPN2,TRIM8,DIO2,MRC2,MMP16,HDAC4,FOXO3,TRHDE,ZCCHC17,SYNX14,SYNCRIP,SMAD3,RNFT2,ITPR1,EVA1A,WWP2,CYP4F11,WIP11,VPS39,RNF168,PSAP,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SESN1,VDAC1,SH3D19,LRP5,BDH2,ACBD5,ADAMTS2,PRICKLE1,ERLIN1,MMP2,NUDT10,PRKD1,HEXA,SLC6A3,VPS4A,EPHX1,ACOX2,PTPN1,ADAMTS12,ATG41,GGT7,USP33,IDO2,PABPC4,EPG5,FGF2,RAB24,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PIK3C2B,PRKCG,AREL1,OC90,UCHL3,EIF4G1,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,TECPR2,AKR1D1,ATP6V0B,STT3B,AGO3,ACAA1,FBXL20,TSG101,DES11,CRYM,IDE,SUFU,ZFYVE1,PAFAH1B1,PNLIPRP1,ADAMTS14,ATG4C,DDAH1,EDEM3,PXDNL,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,MAP3K7,TRIM22,ZNRF1,ALK,GSTM3,FASTKD5,TPCN1,XDH,SNX5,RBPP6,ATP2B4,NSF,TMEM2,TET1,DYX1C1,MAPKAPK2,UBE3C,SCARB1,ATP6V0A2,CELF1,RNF34,UVRAG,RBKS,DROSHA,GPC3,XRN1,TBC1D5,PSMB2,SCOC,DIS3L2,RNF216,TFEB,CLEC16A,SNX9,ELAVL4,TRIM24,PLCG2,ROCK1,RYBP,CUL2,ABCC1,MAP1A,HYKK,MAN1B1,AXIN2,SARM1,TMEM199,FBXO39,NUDT5,SNX33,SRD5A2,CD84,VPS16,FBXW4,ATG14,EIF3H,ACOT8,RENB,PDPX,SNCA,USP42,PNPT1,USP50,RC3H1,CHMP3,EIF3E,RNF103,RNF103-CHMP3,RNF19B,PRKAG1,PSMF1,SULT2A1,TRIP12,DFFA,ADTRP,PLD1,RPTOR,VPS41,ZNRF3,KCTD13,IGF1,PLA2G4E,HTT,PTEN,MIB1,PIK3C3,PUM1,PCBP2,LRRK2,ATP6V1A,MLYCD,TMEM59,ZRANB1,ALDOC,ZBTB20,BAG6,SLC44A1,GALT,BLVRA,SEL1L2,NT5E,DAZL,MTMR3,PEPD,CRTC3,GLDC,PLCL2,TAF15,MYCBP2,GP1,SH3RF2,EXT1,N4BP1,PNPLA3,ENPP3,GET4,ACADSB,CPT1A,UBE2H,BPGM,DECRI,RQCD1,CUL3,PCCA,EPM2A,GSK3B,PLD2,DNAJC3,RDX,UPF2,BOK,RNF144B,RNF43,METTL16,PRKAA2,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,SNX3,PDE4B,EXOSC3,FBXO10,SEC16B,TRPC4AP,XVLB,UGT1A1,UGT1A4,ALDOA,ECE1,RNFT1,CD44,ADAM8,CSNK1A1,NOS1,PEX7,DRAM1,BCO2,MFSD8,UBE2K,HCA1,HCA2,DIS3,FBXL13,PPARA,ABCD3,MCOLN1,PNPLA6,CYP2C18,CYP2C19,RNF150,ZC3HAV1,PAH,PLCXD2,OTUD7B,UPB1,PACS2,TBL1X,ATF6,NT5M,SLCO2B1,HACL1,PPP1CA,FBXO31,ATG3,PHKG2,C18ORF25,MOXD1,SKP1,MAOA,RPL23,SH3BP4,ACAN,VTG1A,ANXA2,PARN,ATP6V0A1,WIP12,CNOT1,WWTR1,CYP39A1,ALDH8A1,YBX1,TAF1,TICAM1,HSF1,POP1,ETTF1,INPP5A,PLEKHM1,ADAMTS7,GNA12,UGGT1,MYEF2,INPP5F,MET,SNX1,UCHL5,MALT1,PFKP,MLXIPL,TRAPPC8,FBXL4,GNS,NEDD4L,PHB,RNF213,TRAF3IP2,SGTB,HADHA</i> </p>
GO:0030900	forebrain development	0.0000013202907348467394	<p> <i>TACC2,SEMA3A,NRG3,PHACTR1,ZSWIM6,SEMA5A,TOX,LRP2,ROBO1,CHD7,TAC1,ROBO2,DAB1,ERBB4,CDON,NTRK2,HOOK3,KIRREL3,SLC4A10,TBRI,DMD,SLC8A1,SATB2,FYN,NF1,PLCB1,RTN4,RTN4R,CCDC141,NRG1,VAX2,NEUROD1,TRAPPC9,BCL11B,RPGRIP1L,SLIT2,DISC1,DCLK1,FGF10,CNTNAP2,CTNNB1,IGF1R,DRAXIN,NIN,DCT,NF2,ARL13B,NFIB,NRP2,BTBD3,APP,GSX2,SOX2,SETD2,DRD1,FRS2,SYNE2,SLC6A3,BMPRI1A,FGF2,RARB,EIF2B5,EPHB3,FBXO45,LAMB1,PAFAH1B1,GLI2,RELN,SIN3A,ALK,PRKG1,ATP2B4,CDK6,CELF1,EPHA5,ELAVL4,HDAC1,SRD5A2,FOXP2,WNT7B,PTPRS,RTN4RL1,PTEN,LRRK2,TMEM108,ITGAM,SHANK3,WNT7A,EXT1,ATRX,RAPGEF2,KCNC2,SMO,SUN1,RHOA,NDE1,GSK3B,DLX1,EPHB2,DLC1,PAX6,POU3F3,TNR,SRGAP2,NUMB,SLIT1,EZH1,AXL,UCHL5,TRA2B,KDM2B,TYRO3,CREB1,BMP4</i> </p>
GO:0060627	regulation of vesicle-mediated transport	0.000001333319933894809	<p> <i>NRXN1,CLASP2,CBL,RAB4B,RAB4B-EGFN2,FER,CASK,EZR,NRXN3,DGKI,CACNB2,STX18,INSR,VAMP7,RIT2,BCR,NDRG4,BMP2K,NRG1,MAP2K1,SCFD1,DOCK2,CDH13,RAB27A,RAB3C,ANO6,SYT1,ATP9A,MKLN1,CACNA1H,IL1RAPL1,TGFB1,F2RL1,AAK1,CADPS2,SYT13,C12ORF4,SLC17A7,STXBP5,CNR1,PPP3CA,PARK2,FCGR2B,PPARG,PRKAR1B,SCAMP5,ANXA13,HCK,RIMS4,ANKFY1,GRIK5,SYT3,BET1L,DRD1,PRKD1,VPS4A,PTPN1,CAMK1D,NLGN1,RAB11A,MCTP1,PTAFR,ABCA13,PRKCG,AP2M1,FBXL20,TSG101,KIF3A,HIP1,BTBD9,STON2,DAB2,CLASP1,NSF,PACIN1,ATAD1,SCARB1,SYT12,GPC3,SGIP1,TBC1D5,C2,PLCG2,ROCK1,TUB,SH3GL3,AP2B1,ARHGAP44,SNX33,CD84,SP11,RAB15,SNCA,MAGI2,SYT9,CHMP3,RAB5B,PLD1,SLC4A8,PLA2G4E,MAPK1,MI1B1,ATXN2,LRRK2,UNC119,ITGAM,WNT7A,STXBP5L,SYT17,DNAJC6,GRIN3A,TF,SK3B,RDX,SYN1,EEF2K,NECAB2,SYT7,SNX3,RIMS2,CD160,CPLX2,PACSLN2,SYTL4,ADORA2A,RABGEF1,ANGPT1,CADPS,ATG3,BRAF,CD300A,ANXA2,RAB27B,AD</i> </p>

			<i>CY1,NUMB,SYK,ANKRD13A,PTPRJ,ZP3,INPP5F,AXL,EHD2,NEDD4L,PTPRC,STXBP6</i>
GO:0106027	neuron projection organization	0.0000015040537358831304	<i>PRMT3,KALRN,DOCK10,HDAC6,INSR,TANC2,FYN,DCTN1,CAPRIN2,ZDHHC15,PLS1,CAMK2B,CTNND2,EPHA4,FCGR2B,IGF1R,DNM3,CUX2,ABI2,SHANK1,APP,NLGN1,EPHB3,PAFAH1B1,RELN,PAK3,ACTR2,MAP1A,EPHB1,ARHGAP44,PTEN,LRRK2,SHANK3,WNT7A,GSK3B,EEF2K,EPHB2,ATP1A3,GRIN2B,TANC1</i>
GO:0060078	regulation of postsynaptic membrane potential	0.000001631576534738205	<i>NRXN1,SIPR2,GRID2,NLGN4X,RGS7BP,GRM5,DGKI,GABRA3,ADORA1,RIMS1,GRK4,GRK3,GABRB1,CHRM1,PPP3CA,GRM1,CUX2,GRK5,SHANK1,APP,NLGN2,G LRA2,CELF4,NLGN1,GRK1,NLGN3,RELN,SLC8A2,P2RX6,GABRG3,TRPV1,NETO1,CHRN4,GABRA6,SNCA,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,GABRR2,GRIN1,GRIN3A,GSK3B,RIMS2,SLC29A1,GRID1,PRKCZ,ADORA2A,GRIN2B,KCND2,GRIK2</i>
GO:0045934	negative regulation of nucleobase-containing compound metabolic process	0.0000016586582361685824	<i>LDB2,DNMT1,TRPS1,CBFB,PRDM12,WWC1,SCAF8,WWC3,ZNF566,MAP2K5,ZNF536,SP3,HDGF,EZR,MECOM,TRAF6,DNAJA3,GF11B,PTPRK,RUNX1,NRIP1,THRB,DACH1,ORC2,HDAC6,PEX14,KAT6B,ESR1,MIER1,PCBP3,EP300,CELA1,TENM2,PDGFB,CCND3,TOB2,ZNF19,BRMS1,SCML4,RERE,ATP8B1,H2AFY2,TCF7L2,FBXW11,BASP1,TBRI,TAP2A,PEG3,ZIM2,TGIF2,MDM4,ZNF148,MTA3,SNX6,TFDP2,ERN2,C1D,CENPF,LARP4B,KAT7,SATB2,HIRA,ARNTL,PLCB1,NRG1,MDF1,FNIP1,VA X2,TMBIM6,VGLL4,HDAC5,ZNF692,JDP2,CREBRF,TRDMT1,SOX13,AUNIP,MAD2L2,TLE6,TERF2,SLX1B,FOXN3,UIMC1,MLIP,TCF7,PDE2A,TBX15,WNT11,MTA1,KLF8,LCOR,SOX6,RUNX2,TGFB1,NSD1,ZHX2,BTRC,NFATC3,CDYL2,CC2D1B,SAP18,MTDH,MYT1L,ZNF398,CLOCK,ZNF675,ETV6,BCL3,DUSP22,HNRNPC,SBNO2,L OXL3,CAPN3,SMURF2,SMG6,PPP3CA,NSUN2,MAGEA4,KLF12,GATAD2B,CTNNB1,PARK2,METTL13,PPARG,AXIN1,OTUB1,CIPC,CBX5,LRPPRC,SREBF2,NPAT,NR A43,FOXK2,MYOCD,PER2,AJUBA,UBQLN4,PRDM16,BRMS1L,HDAC4,PAX2,SFRP1,FOXO3,NFIB,ZCCHC17,SYNCRIP,SMAD3,CUX2,WWP2,RNF168,MIER3,NEDD4,CDC73,YAP1,TEN1,SOX2,PRICKLE1,ZNF653,SFMBT1,ESR2,STAT1,ETV5,TAF3,PLAGL1,HNF4A,EREG,ATF2,TCF3,CELF4,BMPR2,IKZF4,MYB,BACH1,MXD3,PPM1F,BEND5,SEMA4D,NFX1,RORC,JARID2,PHC2,RARB,SPEN,SIN3B,EHMT1,ATF3,LIN 28B,PAWR,TSG101,TERF2IP,CRYM,SUFU,MAGEA11,NR2C1,GLI2,TNKS,ERCC1,G LIS3,WDTC1,DAB2,BLM,SIN3A,RUVBL2,ZNF423,TRIM22,OVOL2,NFATC2,MAPK A PK2,ARID4A,CDK6,MEF2A,XRN1,SATB1,GATAD2A,TRPV1,HOXB3,HOXB4,L3MBT L4,ELAVL4,HDAC1,RECQL5,TRIM24,SCMH1,RYBP,PTPN2,AXIN2,ZNF425,GNL3L,MUC1,BCOR,SMARCA2,CUX1,SPI1,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,JAZF1,SMYD1,SNCA,ZEB2,HEY2,ZMYND11,CREM,TRIP12,DFFA,MITF,SRSF6,NFIX,CB FA2T2,ATF7IP,BMP7,MXI1,CIR1,ZBTB20,LILRB4,KCTD1,RIPPLY1,RCOR3,DAZL,ZBED6,KAT6A,BMP6,TAF15,ATRX,IKZF1,PRMT2,SMO,SOX3,UBR5,CUL3,TFECS,TAT6,RBBP8,DUSP26,NACC2,SUPT4H1,METTL16,ZMPSTE24,TCFL5,CREBBP,DL X1,SHC1,PARP10,SETDB2,DNAJB6,RPS6KA5,ZNF93,PRDM2,TCF25,ZNF282,PPA RA,ARID5B,NOTCH4,ZMYND8,ZNF366,PAX6,OTUD7B,NIPBL,TBL1X,FHL2,MBTD1,ZBTB5,MTF2,TAGLN3,NCOR2,HDAC2,IMPACT,POU3F3,ELF2,STAT1,ATXN1,SP 100,TRIM29,PARN,RBM42,CNOT1,WWTR1,ZBTB38,MORC1,YBX1,TAF1,HSF1,MAX,SAP130,EZH1,NCOA2,ZP3,RNF2,ZNF554,TRIM37,TIMELESS,KDM2B,MLXIPL,PH B,ZNF555,CTCF,NR6A1,TRAF3IP2,CREB1,BMP4</i>
GO:0045597	positive regulation of cell differentiation	0.000001761727120597338	<i>PRKCI,SIPR2,HLX,CBFB,DOCK1,TIAM2,KALRN,ARNT,SEMA5A,STAT5B,TOX,GR M5,KITLG,LRP2,OLFM1,ROBO1,CDKL5,TRAF6,ROBO2,ITPKB,TRIOBP,ZC4H2,DS CAM,RUNX1,DAB1,GOLGA4,LIMK1,CDON,NTRK2,H2AFY2,TCF7L2,CDH4,PTPR D,BDNF,AMIGO1,TGIF2,TENM4,ECT2,DMD,KAT7,RBM4,CASSA,ARNTL,ADAMTS 9,PLCB1,NTN1,NRG1,MAP2K1,CMKLR1,ROR2,SOX13,CAPRIN2,BOC,NEUROD1,J AK2,IL1RAPL1,CAMK2B,SOX6,ACVR2A,RUNX2,CD4,TGFB1,SLIT2,TP73,DISC1,T CF12,NELL1,SUCO,ANKRD54,EPHA4,PRKCA,TNFSF11,MAG,UFL1,CTNNB1,SOD 2,PPARG,MSR1,NIN,DCT,MYOCD,NF2,PAX2,SFRP1,FOXO3,SMAD3,CUX2,PREX1,HOXD3,GSX2,YAP1,LRP5,ISLR2,SLC9B2,SOX2,TPH1,PRKD1,STAT1,PARP6,ZBTB7 C,TCF3,BMPR2,BMPR1A,SPAG9,RAB11A,MYB,FGF2,NEDD9,SEMA4D,PLXNA2,SP EN,NCOA1,BLOC1S5,EIF4G1,CCDC3,WNT3,P4HB,SCUBE2,PAFAH1B1,AKAP6,TR PC5,GLI2,RUFY3,DAB2,RELN,SIN3A,MACF1,INPP5D,ADIRF,OVOL2,BNC1,PAK3,ADNP,MAP1B,BRINP1,HOXB4,GHR,ACTR2,HDAC1,EGR2,AP3B1,AXIN2,SH3GL3,AP3D1,CARM1,CUX1,MAP3K13,SMYD1,BMPR1B,ZEB2,WNT7B,BTK,IGF1,BMP7,S OX5,LILRB4,EFNA5,SHANK3,NCOA3,PPP2R3C,BMP6,RAPGEF2,SMO,TCF4,TFE3, RHOA,NFKBID,GSK3B,EEF2K,CD27,AGT,BLOC1S6,FBN2,BRINP3,MAP3K5,DLX1, SP7,ADAM8,CDS1,RGS14,STK4,EPHB2,IL18,PAX6,PRKCZ,FAM20C,PPP1CC,GCN T2,ETS1,VWC2,FBXO31,BRAF,HDAC2,HTR2C,IMPACT,CDKL3,NUMB,SYK,WWTR 1,HSF1,SULT2B1,AXL,TNFSF9,WIF1,MALT1,SETD3,PTPRC,CREB1,BMP4,CPNE1</i>
GO:0006950	response to stress	0.0000018840700918492983	<i>PRDX2,F8,GSS,GP6,MAP4K4,SLC9A1,C6ORF89,LY75,ADCY8,PDE8A,CLASP2,SE MA3A,IL31RA,RNASET2,SETD4,PTGFR,CALR3,C12ORF49,KIF22,PMS1,RYR1,ASH 1L,NREP,PTGIS,PRKAG2,PAGR1,ADCY7,FTO,NTRK3,CBL,ARNT,EGLN2,RAD51B, SUSD4,STAT5B,SAMHD1,FER,CASK,MARVELD3,MAP2K5,MAPK10,PIK3CD,DEP DC5,ZSWIM7,SH2D1A,EZR,XRCC4,SLC26A6,ITGB6,MECOM,LMNA,LPO,TRAF6,D NAJA3,OXR1,VAV2,ULK4,ERCC6L2,ITGB1,HSP90AA1,PSMB7,TSC22D3,ARHGAP2 4,PTPRK,OMA1,ABCC8,DGKI,DNAJB14,STXBP4,IL17RB,TCIRG1,PTPN11,HDAC6, DDB1,ADORA1,MSRA,IKBK, MRE11A,TLK1,TEX264,HIF3A,CUL4B,ESR1,TNRC6A ,EP300,CELA1,PDGFB,TNFK,CDH8,USP46,MID1,ALOX5AP,BPI,STK39,FMN2,PLL P,JMJD1C,CAB39,PAK1,MAP3K4,EGLN3,ATRN,TTC4,FANCA,KCNMA1,FUT8,NPR</i>

GO:00 98655	cation transmembrane transport	0.00000208 6808302990 367	SLC39A11,NRXN1,ASPH,PDE4D,SLC9A1,FAM155A,CHERP,CACHD1,RYR1,NOS1A P,NOX5,DPP6,UTRN,ATP2B2,KCNQ5,KCNIP4,ANK2,SLC9A9,CHD7,HTR2B,RYR3, SLC24A2,ITGB1,SLC24A3,CNIH2,CNGB1,ABCC8,TCIRG1,KCNS3,NIPAL2,NETO2, CACNB2,KCNJ16,DPP10,CACNA1B,STK39,CAB39,ZDHHC13,SLC20A2,SLC4A10,C ATSPER2,AMIGO1,KCNMA1,KCNRG,LCK,TMC2,SLC12A8,SLC6A16,RHCE,MICU3 ,DMD,SLC30A9,SLC8A1,JPH2,FYN,SHISA9,CACNA1E,SLC4A5,KCNN3,CNNM2,SL C43A2,BDKRB1,KCNIP1,STIM1,NALCN,SLC39A14,CATSPER3,FGF14,CLDN16,AN O6,KCNB2,NPSR1,SCN4A,TMC1,SLC1A4,SLC9A7,KCNC4,CACNA1H,TGFB1,KEL,J PH3,KCNJ3,CACNA1D,CACNA2D3,KCNH1,SLC17A7,KCNH7,CAPN3,VMP1,COX8 A,TMEM63C,TRPM1,KCNJ12,RYR2,KCNA6,NOL3,CACNA1C,SCN3B,ITPR1,WWP2, SHANK1,NEDD4,SLC4A4,SLC6A1,KCNK1,APP,NLGN2,VDAC1,IBTK,SLC9B2,DRD 1,PRKD1,SLC6A3,FXD2,FXD6,KCNG4,RASGRF2,NLGN1,FGF2,MRS2,SLC9B1,A TP6V0B,KCNQ1,NLGN3,TRPA1,TRPM3,AKAP6,TRPC5,WNK1,RELN,KCNQ2,SLC4 7A1,SLC8A2,SLC9C1,TPCN1,AHNAK,RGS7,ATP2B4,P2RX6,ATP6V0A2,KCNAB2,CA CNA1A,STOM,TRPV1,PLCG2,GPR35,SLC39A10,ANK3,ATP13A3,KCND3,CACNG8, SLC9C2,NETO1,MCU,TRDN,STAC,TRPC6,ABCB7,SLC41A2,ATP13A5,SNCA,CACN G2,CNGA3,SLC4A8,HTT,SLC30A7,SCN8A,ATP6V1A,CNIH3,TMCO1,PKD2,SHANK3 ,ANO1,KCNC2,SLC6A14,PSEN2,GRIN1,GRIN3A,ITPR2,SCN9A,AGT,PEX5L,PDE4B, COX5A,TRPC4AP,KCNJ15,SLC5A10,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCN N1B,COX6A1,EPHB2,SLC1A1,XCR1,LRRCS2,MCOLN1,ATP1A3,GRIN2B,SLC25A26 ,DIAPH1,HTR2C,ATP8A1,TMEM163,UQCRI10,ANXA2,KCND2,ATP6V0A1,SCN1A,C ACNG3,ATP2B3,GPM6A,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,SHISA 6,EDNRA
GO:00 61387	regulation of extent of cell growth	0.00000220 4818647810 4547	CLASP2,SEMA3A,SEMA3D,SEMA5A,OLFM1,CDKL5,DSCAM,GOLGA4,LIMK1,CD H4,BDNF,RTN4,RTN4R,NTN1,SEMA5B,DISC1,MAG,DRAXIN,DCC,DIP2B,FSTL4,IS LR2,SEMA6D,BMPR2,DPYSL2,RAB11A,SEMA4D,WNT3,PAFAH1B1,TRPC5,RUFY3, SIN3A,MACF1,ADNP,MAP1B,TRIM46,EPHA7,MAP3K13,PTPRS,EFNA5,GSK3B,MA P2,TNR,CDKL3,SLIT1,SEMA3C
GO:00 99504	synaptic vesicle cycle	0.00000227 8223635940 9803	NRXN1,NLGN4X,CASK,NRXN3,PCDH17,DGKI,ERC2,CACNB2,RIMS1,SNCB,SYN2, DENND1A,SYN3,SYT1,CADPS2,ITSN2,SYNJ2,SLC17A7,STXBP5,CNR1,CTNNB1,PR KAR1B,RIMS4,DNM3,GRIK5,NLGN2,DRD1,NLGN1,ABCA13,PRKCG,AP2M1,FBXL 20,NLGN3,BTBD9,STON2,PACSIN1,SYT12,ROCK1,AP3B1,UNC13A,AP3D1,SNCA,S YT9,PLD1,SLC4A8,PTEN,LRRK2,WNT7A,SNAP23,STXBP5L,DNAJC6,GRIN3A,GSK3 B,PLD2,SYN1,SYT7,BLOC1S6,RIMS2,CPLX2,ADORA2A,CADPS,BRAF,RAB27B,ITS N1,ADCY1,SYNDIG1
GO:00 35295	tube development	0.00000259 8375225818 028	ADAMTS16,NRXN1,HLX,CLDN18,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,LR P2,PIK3CD,SP3,NRXN3,ROBO1,CHD7,ITGB6,TRAF6,ROBO2,VAV2,ITGB1,KIF26B, ARHGAP24,RUNX1,ABCC8,THRB,EPHA1,HIF3A,CECR2,ESR1,MYO18B,NPHP3,N TRK2,EP300,CELA1,RNF220,PAK1,BASP1,NPRL3,PHACTR4,MEIS1,SGCD,CRISPL D2,ADAMTS9,NF1,RTN4,RXFP1,APOD,CHI3L1,NDRG4,NTN1,UBP1,MAP2K1,STI MI,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,WNT11,QKI,TG FB1,PCSK5,BTRC,BCAS3,RPGRIP1L,CELSR1,SLIT2,MTDH,SMAD6,BMPER,PARV A,ADAM12,FGF10,GREB1L,LOXL3,EPHA4,RORA,PRKCA,CTNNB1,ARHGAP22,PP ARG,DLG5,CYBB,OTC,BRIP1,RYR2,LEPR,FGF1,MYOCD,MYO1E,CSMD1,CSPG4,F LT4,PAX2,SFRP1,ARL13B,NFIB,IFT122,SMAD3,PTPRM,NRP2,TAB1,SSBP3,PDGFR A,NOX1,YAP1,HEG1,JAK1,ANGPTL4,LRP5,SETD2,ADAMTS2,PRICKLE1,VASH2,M MP2,KDM6A,PRKD1,STAT1,STRA6,EREG,ATF2,ADAMTS12,BMPR2,BMPRI1,TSP AN12,PIK3R3,FGF2,ISM1,PLXNA2,KLHL3,RARB,CHRD,DVL3,EPHB3,CLIC4,KCN Q1,RHOJ,SUFU,COL4A3,DDAH1,GLI2,PKHD1,RSPO2,APOLD1,SP1,LUZP1,XDH, OVOL2,ATP2B4,TMEM2,GPR161,GPC3,CALD1,EYA1,HOXB3,SMOC2,ADIPOR2,R OCK1,PAXIP1,AP3B1,EPHB1,EPCAM,P1FO,SP11,EPHA7,SHROOM3,RAPGEF3,MS T1,PTK7,HEY2,WNT7B,HMGCS2,ADTRP,ABCA12,RASA1,SRSF6,HIPK1,CBEA2T2, MAPK1,PTEN,MIB1,BMP7,PRCP,BAG6,PKD2,SHANK3,PDGFC,AMOTL1,WNT7A,S OS1,EXT1,ATRX,RAPGEF2,SMO,RHOA,PTPRB,SULF1,MTHFD1L,AGT,PTK2,PHE X,PBX1,SHB,SHC1,CD160,ECE1,SETDB2,ALOX5,ADAM8,THSD7A,CXCL17,STK4,E PHB2,SLC1A1,IL18,DLC1,CALCRL,NOTCH4,PAX6,COL22A1,NIPBL,TMIGD2,ANG PT1,ETS1,PPP1CA,POU3F3,NOTO,SPINT2,ANGPT4,SP100,ANXA2,SYK,WWTR1,D VL2,SRPK2,SASH1,VAV3,MET,CCR3,TIMELESS,KDM2B,SEMA3C,EDA,RNF213,VP S52,CREB1,EDNRA,BMP4
GO:00 99003	vesicle-mediated transport in synapse	0.00000290 9024579054 3765	NRXN1,NLGN4X,CASK,NRXN3,PCDH17,DGKI,ERC2,CACNB2,RIMS1,SNCB,NRG1, SYN2,DENND1A,SYN3,SYT1,CADPS2,ITSN2,SYNJ2,SLC17A7,STXBP5,CNR1,CTNN B1,PRKAR1B,RIMS4,DNM3,GRIK5,NLGN2,DRD1,NLGN1,ABCA13,PRKCG,AP2M1, FBXL20,NLGN3,BTBD9,STON2,PACSIN1,ATAD1,SYT12,ROCK1,AP3B1,UNC13A,A P3D1,AP2B1,SNCA,SYT9,PLD1,SLC4A8,PTEN,LRRK2,WNT7A,SNAP23,STXBP5L,D NAJC6,GRIN3A,GSK3B,PLD2,SYN1,SYT7,BLOC1S6,RIMS2,CPLX2,ADORA2A,CAD PS,BRAF,RAB27B,ITSN1,ADCY1,NUMB,SYNDIG1
GO:19 01698	response to nitrogen compound	0.00000291 0908613575 4625	ENPP1,ASPH,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,CALR3,RYR1,FLT3,STAT5B, GRM5,FER,EZR,SLC26A6,HTR2B,RYR3,GOT1,ITGB1,CDC6,ABCC8,DNAJB14,STX BP4,PTPN11,NTRK2,CACNA1B,CCND3,INSR,PIP4K2A,AMIGO1,CHRM3,TRIM13, UBR2,HLC5,SNX6,RFTN1,AP3S1,NPLOC4,USP13,KAT7,SLC8A1,FYN,PLCB1,MGM T,DPEP1,PIK3R2,TMBIM6,HDAC5,SLC39A14,CDH13,TRDMT1,IPO5,MAN1A1,RGS 8,GNAQ,JAK2,PDE2A,KLF15,LAMTOR3,PRKCD,TGFB1,DNAJB2,SLIT2,TP73,GAB RB1,KANK1,CHRM1,BCKDHB,HOMER2,GLP2R,EPHA4,CNR1,PPP3CA,UFL1,CTN

			<p>NB1,PARK2,FCGR2B,SMARCC1,IGF1R,PPARG,CYBB,OTC,BRIP1,SREBF2,RYR2,L EPROT,RGS10,NR4A3,SORBS1,CAPN2,SFRP1,FOXO3,SSH1,RNFT2,SLC6A1,SEC61 B,APP,PDGFRA,AMFR,SESNI,RNLS,NGG2,DRD1,GLRA2,ERLIN1,MMP2,STAT1,SL C6A3,HNF4A,EREG,ATF2,PTPN1,COL16A1,PIK3R3,EPG5,ADCY5,PTAFR,DDX58, PRKCG,EIF2B5,PTPRE,SRSF5,STT3B,IDE,KCNQ1,AKAP6,EDEM3,IRS4,WDTIC1,BL M,UBR1,SIN3A,PELI1,SP1,ALK,GSTM3,SNX5,RGS7,ATP2B4,P2RX6,MAP1B,COL4A 6,TYR,CACNA1A,XRN1,ADRBK1,PSMB2,TRPV1,GHR,ACTR2,ELAVL4,RECQL5,RO CK1,EGR2,CAPN10,ABCC1,PTPN2,INSRR,MAN1B1,CARM1,SRD5A2,HTR1D,PTPR A,CTNNA1,BCAR3,RAB15,RAPGEF3,SDK1,PDXP,SNCA,PNPT1,RNF103,RNF103- CHMP3,CNGA3,HMGCS2,ADTRP,SRSF6,RPTOR,IGF1,MAPK1,BMP7,PIK3C3,LRR K2,GNA14,CHMP5,BAG6,NSG2,PKD2,SEL1L2,PDGFC,NLRP1,GLDC,GPR21,ANO 1,GPI,TSHR,EXT1,ATRX,PNPLA3,RAPGEF2,KCNC2,GET4,PRKAR2B,CPT1A,GRB1 4,GRIN1,RHOA,ITPR2,GABRB3,GSK3B,STAT6,EEF2K,AGT,STAT2,HHH4,ATRK2,PH EX,RNF121,PDE4B,MAP3K5,SHC1,RNFT1,RPS6KB1,STC2,GPR173,EPHB2,SLC1A 1,PPARA,SLC25A33,CPEB4,FBN1,PRKCZ,ATP1A3,ADORA2A,CPEB1,OSBPL8,NC OR2,PRKCQ,DIAPH1,HDAC2,HTR2C,IMPACT,PHIP,RPL23,SH3BP4,SYK,TAF1,TI CAM1,HSF1,MAX,DHFR,CIB2,CAV2,UGGT1,DENND4C,TIMELESS,CREB1,SGTB,E DNRA,HADHA</p>
GO:00 42391	regulation of membrane potential	0.00000310 9432394351 9157	<p>NRXN1,SIPR2,SLC9A1,GRID2,NOS1AP,NLGN4X,CLCN1,RGS7BP,GRM5,ANK2,CT NNA3,CNIH2,CNGB1,DGKI,GABRA3,CACNB2,ADORA1,NTRK2,RIMS1,KCNMA1,G RIK4,DMD,SLC8A1,BID,NALCN,DCN,GNAQ,SCN4A,CACNA1H,GRIK3,GABRR3,G ABRB1,KCNJ3,CACNA1D,CHRM1,KCNH1,KCNH7,CNR1,PPP3CA,PIP5KL1,PARK 2,SOD2,RYR2,CACNA1C,SCN3B,GRM1,RIMS4,CUX2,WWP2,GRIK5,SHANK1,NED D4,SLC4A4,KCNK1,APP,NLGN2,DRD1,GLRA2,USP53,CELF4,NLGN1,PPA2,GRIK1 ,KCNQ1,NLGN3,AKAP6,TRPC5,RELN,SLC8A2,DSC2,P2RX6,KCNAB2,GABRK3,TR PV1,GPR35,ANK3,KCND3,NETO1,CHRN4,TRDN,GABRA6,SNCA,CACNG2,OPRD 1,PKP2,SLC4A8,PTEN,SCN8A,LRRK2,GNA14,TMEM108,SHANK3,PPP2R3C,WNT7 A,GABRR2,KCNC2,GRIN1,GRIN3A,FAM19A4,GABRB3,GSK3B,SCN9A,BOK,ZMPST E24,RIMS2,SLC29A1,GRID1,BCO2,SLC25A33,PRKCZ,ATP1A3,ADORA2A,GRIN2B, KCTD7,KCND2,GRIK2,SCN1A,KCNQ3,CAMK2D,NEDD4L</p>
GO:00 32270	positive regulation of cellular protein metabolic process	0.00000315 8672030717 569	<p>POLDIP3,NRXN1,ASPH,SLC03A1,DNMT1,SIPR2,C6ORF89,ADCY8,PDE8A,IL31RA ,PRDM12,NRG3,NOS1AP,PRKAG2,PRLR,NTRK3,ARNT,FLT3,ENPP2,GRM5,MAP2 K5,KITLG,LRP2,EZR,ROBO1,TOM1L1,HTR2B,TENM1,LMNA,TRAF6,DNAJA3,ABI1 ,HSP90AA1,CDC6,KND1,CCDC22,AKAP13,DAB1,PTPN11,HDAC6,ADORA1,ERB B4,MRE11A,CDON,NTRK2,ZYG11B,FNTA,PDGFB,TNIK,CCND3,BRMS1,CHFR,INS R,CAB39,PAK1,FBXW11,MAP3K4,RNF144A,EGLN3,SAMD4A,BDNF,LCK,ECT2,ER N2,ATG10,LARP4B,USP13,KAT7,GSN,CASS4,FYN,MKRN2,ARNTL,RWDD3,CH13L1, NRG1,SH2D3C,BID,MAP2K1,FNIP1,MYH9,VGLL4,JDP2,ROR2,MAD2L2,CAPRIN2, CCNYL1,CCBE1,JAK2,FBXW7,CYFIP2,WNT11,MTA1,NOX4,PRKCD,TAB2,ACVR2A ,CD4,TGFB1,SPSB4,PIBF1,BTRC,CRADD,DNAJB2,DISC1,BLID,ZFAND2A,CLN6,B CL3,TNFRSF10B,DOCK3,YTHDF1,FGF10,SMYD3,FANCI,CAPN3,EPHA4,AUTS2,C D6,TNFSF11,CTNNB1,PARK2,PPARG,NGRN,AXIN1,LEPR,FGF1,AJUBA,CHEK2,S PDYA,RAB3GAP2,CSPG4,FLT4,HDAC4,TRABD2B,BCL2L13,SMAD3,RNFT2,TAB1, APP,DIP2B,ARIH1,SH3D19,BORA,MTCP1,PRICKLE1,S100A12,DCUN1D3,PRKD1, ST18,EREG,CCNY,ATF2,GRAMD4,RAF1,CASP1,PTPN1,BMPR2,BMPR1A,PIK3R3, MYB,FGF2,PPM1F,NEDD9,AGBL4,SEMA4D,PTAFR,JARID2,DVL3,EIF2B5,EIF4G1 ,RFX1,CKS1B,TERF2IP,COL4A3,HIP1,TRPC5,UBA2,DAB2,CACUL1,DLG3,WNK1,R ELN,NEK10,RUVBL2,PELI1,IQGAP1,MAP3K7,SLC8A2,SLC35A4,XDH,ATP2B4,TET 1,CAMTA1,ADNP,TFRC,DCUN1D5,GHR,MNAT1,SNX9,PLCG2,PAXIP1,NTRK1,SLC 39A10,AXIN2,MUC1,SNX33,DNMT3B,EPHA7,ATG14,BCAR3,RBPMS,MAP3K13,RA PGEF3,SNCA,BMPR1B,MAGI2,USP50,EIF3E,RNF19B,PRKAG1,ADTRP,PLD1,OPR D1,RPTOR,IGF1,MAPK1,PTEN,BMP7,LRRK2,UNC119,BAG6,PKD2,EFNA5,DAZL, PDGFC,PPP2R3C,WNT7A,NLRP1,UACA,BMP6,MYCBP2,SH3RF2,RAPGEF2,VRK3, GRIN1,ARRDC4,RHOA,SPRTN,RQCD1,CUL3,HSPD1,GSK3B,PRR16,DNAJC3,RDX, BOK,RNF144B,AGT,PRKAA2,PTK2,TEC,MAP3K5,NCF1,TAOK2,RNFT1,RPS6KB1, CD44,LARP4,ADAM8,CLDN4,RPS6KA5,CSNK1A1,NOS1,STK4,SLC1A1,IL18,UBE2 K,DLC1,MOB3B,PRKCZ,GRIN2B,NIPBL,ANGPT1,LRRK1,OSBPL8,MTF2,CDK5RA P1,CNTN1,BRAF,HDAC2,IMPACT,CD300A,PPP2CA,SKP1,ANGPT4,MADD,SYK,D VL2,PTPRJ,TAF1,TICAM1,TANK,HSF1,SASH1,MOB3A,GNA12,SH2D3A,AKTIP,TBC 1D10A,MALT1,PHB,PTPRC,BMP4</p>
GO:00 40008	regulation of growth	0.00000367 8808515537 8387	<p>ENPP1,HLX,SLC9A1,CLASP2,SEMA3A,WWC1,NRG3,LATS2,SEMA3D,WWC3,FTO, EGLN2,SEMA5A,STAT5B,PLCE1,MAP2K5,OLFM1,EZR,CHD7,CDKL5,DSCAM,RU NX1,IL17RB,GOLGA4,SERTAD2,ERBB4,LIMK1,BRD8,ATP8A2,RIMS1,INSR,CDH4, BASP1,BDNF,ATRN,RFTN1,PLCB1,RTN4,RTN4R,NTN1,NRG1,BDKRB1,VGLL4,CS NK2A3,MAD2L2,CAPRIN2,SYT1,ITCH,PLS1,WNT11,SEMA5B,TGFB1,SGK1,DNAJB 2,SLIT3,SLIT2,TP73,DISC1,ITSN2,ENOX2,CAPN3,GNG4,MAG,PARK2,CDHR2,PPA RG,CDK11A,CDK11B,DRAXIN,MYOCD,CPNE6,BRMS1L,DCC,CTDP1,SFRP1,MUC 12,SMAD3,SYT3,CDC73,APP,DIP2B,YAP1,FSTL4,ISLR2,SPTBN4,ESR2,DCUN1D3, CPNE9,SLC6A3,HNF4A,SEMA6D,BMPR2,DPYSL2,BMPR1A,SPAG9,RAB11A,FGF2, PPM1F,NEDD9,SEMA4D,JARID2,SPOCK1,EIF4G1,TSG101,WNT3,PAFAH1B1,AKA P6,RASAL1,TRPC5,RUFY3,DAB2,SIN3A,RUVBL2,MACF1,ADNP,MAP1B,CELF1,DC UN1D5,GPC3,GHR,UNC13A,TRIM46,SMARCA2,EPHA7,MAP3K13,PNPT1,HEY2,P TPRS,TLL2,RPTOR,IGF1,PTEN,OSGIN1,EBAG9,EFNA5,GPR21,TSHR,SMO,SYT17,J</p>

			<i>ADE1,RHOA,EPM2A,GSK3B,AGT,ZMPSTE24,RIMS2,GAP43,TAOK2,SHC1,RPS6KB1,STC2,STK4,PPARA,SLC25A33,NIPBL,YEATS4,MAP2,PRKCQ,TNR,CDKL3,PPP2CA,SH3BP4,SLIT1,PTPRJ,ZP3,CAMK2D,KDM2B,SEMA3C,NEDD4L,PHB,CREB1,BMP4</i>
GO:0044057	regulation of system process	0.000004277252362901933	<i>NRXN1,ASPH,PDE4D,SIPR2,SLC9A1,PBX3,SEMA3A,NOS1AP,EPB41,NLGN4X,FTO,ATP2B2,PLCE1,ANK2,RYR3,LMNA,CTNNA3,CNIH2,ABCC8,THRB,PTPN11,CACNB2,ADORA1,ADRA1D,PTPRO,PDGFB,RIMS1,STK39,KCNMA1,CHRM3,TENM4,ARHGAP42,DMD,SLC8A1,PPP1R12B,SHISA9,BDKRB2,NEUROD1,JAK2,KCNB2,MLIP,NPSR1,SCN4A,FIG4,CACNA1H,CAMK2B,SGK1,DLGAP1,F2RL1,KCNJ3,CACNA1D,FGF10,PRKCA,PPP3CA,MAG,PPARG,CELF2,KCNJ12,RYR2,NR4A3,NOL3,MYOCD,PER2,CACNA1C,SCN3B,GRM1,CTDP1,HDAC4,FOXO3,SMAD3,CUX2,ITPR1,SHANK1,DOCK4,APP,GSX2,NLGN2,RNLS,TNNI3K,SPTBN4,MMP2,CELF4,BMPR2,NLGN1,PTAFR,JARID2,KCNQ1,NLGN3,NMUR2,AKAP6,MGLL,DAB2,WNK1,RELN,SLC8A2,DSC2,SNX5,PRKG1,ATP2B4,MEF2A,ADRBK1,PTGER3,TRPV1,ROCK1,C1QTNF1,EGR2,RNF10,GPR35,PARD3,KCND3,NETO1,CHRN4,TRDN,HEY2,OPRD1,PKP2,IGF1,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,BMP6,GRIN1,RHOA,FAM19A4,ABCG8,AGT,ZMPSTE24,PDE4B,RIMS2,ECE1,RPS6KB1,NOS1,SLC1A1,PPARA,CALCRL,PRKCZ,ATP1A3,ADORA2A,HTR2C,TNR,ATP2B3,DLGAP2,CAMK2D,SETD3,SHISA6,EDNRA,PRAP1</i>
GO:1901699	cellular response to nitrogen compound	0.000004530793193534254	<i>ENPP1,PRKCI,PDE4D,DNMT1,SLC9A1,ADCY8,RYR1,STAT5B,GRM5,FER,EZR,SLC26A6,HTR2B,RYR3,GOT1,CDC6,STXBP4,PTPN11,NTRK2,CCND3,INSR,PIP4K2A,AMIGO1,CHRM3,UBR2,SNX6,AP3S1,SLC8A1,FYN,PLCB1,DPEP1,PIK3R2,HDAC5,SLC39A14,IPO5,RGS8,GNAQ,JAK2,PDE2A,KLF15,LAMTOR3,PRKCQ,TGFB1,SLIT2,GABRB1,KANK1,CHRM1,GLP2R,EPHA4,CTNNB1,PARK2,FCGR2B,SMARCC1,IGF1R,PPARG,CYBB,BRIP1,RYR2,LEPROT,RGS10,NR4A3,SORBS1,CAPN2,SFRP1,FOXO3,SSH1,APP,PDGFRA,SESN1,GNG2,DRD1,GLRA2,MMP2,STAT1,HNF4A,ATF2,PTPN1,COL16A1,PIK3R3,EPG5,ADCY5,PTAFR,DDX58,PTPRE,SRSF5,IDE,KCNQ1,AKAP6,IRS4,WDC1,BLM,UBR1,SIN3A,SP1,ALK,SNX5,ATP2B4,MAP1B,COL4A6,CACNA1A,XRN1,ADRBK1,TRPV1,GHR,ACTR2,RECQL5,ROCK1,CAPN10,ABCC1,PTPN2,INSRR,HTR1D,PTPRA,CTNNA1,BCAR3,RAB15,RAPGEF3,PDXP,SNCA,HMGCS2,RPTOR,IGF1,MAPK1,LRRK2,GNA14,CHMP5,NSG2,PKD2,PDGFC,GPR21,ANO1,TSHR,ATRX,PNPLA3,RAPGEF2,KCNC2,GRB14,ITPR2,GABRB3,GSK3B,STAT6,EEF2K,AGT,HRH4,PTK2,PDE4B,MAP3K5,SHC1,RPS6KB1,GPR173,EPHB2,SLC1A1,SLC25A33,CPEB4,FBN1,PRKCZ,ATP1A3,CPEB1,OSBPL8,PRKCQ,DIAPH1,HDAC2,HTR2C,IMPACT,PHIP,RPL23,SH3BP4,TAF1,HSF1,MAX,CIB2,CAV2,DENND4C,TIMLESS,EDNRA</i>
GO:0001558	regulation of cell growth	0.0000053666599794870605	<i>ENPP1,SLC9A1,CLASP2,SEMA3A,NRG3,SEMA3D,EGLN2,SEMA5A,PLCE1,MAP2K5,OLFM1,CDKL5,DSCAM,IL17RB,GOLGA4,SERTAD2,LIMK1,RIMS1,CDH4,BDNF,RTN4,RTN4R,NTN1,NRG1,BDKRB1,VGLL4,CSNK2A3,MAD2L2,CAPRN2,SYT1,ITCH,WNT11,SEMA5B,TGFB1,SGK1,DNAJB2,SLIT3,SLIT2,DISC1,ITSN2,GND4,MAG,PARK2,CDHR2,PPARG,CDK11A,CDK11B,DRAXIN,MYOCD,CPNE6,DCC,CTGPI1,SFRP1,MUC12,SMAD3,SYT3,CDC73,DIP2B,FSTL4,ISLR2,ESR2,DCUN1D3,CPNE9,HNF4A,SEMA6D,BMPR2,DPSYL2,SPAG9,RAB11A,SEMA4D,SPOCK1,EIF4G1,TSG101,WNT3,PAFAH1B1,AKAP6,RASAL1,TRPC5,RUFY3,DAB2,SIN3A,MACF1,ADNP,MAP1B,DCUN1D5,UNC13A,TRIM46,SMARCA2,EPHA7,MAP3K13,PTPRS,RPTOR,IGF1,OSGIN1,EBAG9,EFNA5,SYT17,JADE1,RHOA,EPM2A,GSK3B,AGT,RIMS2,TAOK2,PPARA,SLC25A33,MAP2,PRKCQ,TNR,CDKL3,PPP2CA,SH3BP4,SLIT1,PTPRJ,CAMK2D,KDM2B,SEMA3C,NEDD4L,PHB</i>
GO:00051656	establishment of organelle localization	0.000005367668966323385	<i>CLASP2,KIF22,LTV1,CBL,FER,PIK3CD,EZR,KIF5C,ITGB1,CNIH2,KLHL12,TCIRG1,HDAC6,PEX14,GBF1,HOKK3,FMN2,FBXW11,VAMP7,AP3S1,CENPF,TANC2,NTN1,DCTN1,MYH9,MAD1L1,PARD3B,LIN7A,COP5,EXOC4,TLE6,RAB27A,CROCC,DYNC11I,ATP9A,CENPC,PIBF1,C12ORF4,CLMN,ANKFN1,FGF10,TRAK1,CTNNB1,PARK2,MYO1D,LRPPRC,NR4A3,RIOK2,MYO1E,AP3B2,SPG11,RAB6A,WIP1,KPNB1,MYO1F,SYNE2,SYBU,VPS4A,NLGN1,RAB11A,AGBL4,BLOC1S5,TSG101,PAFAH1B1,KIF3A,PKHD1,EML4,FAM91A1,MYO7A,CLASP1,SYNE3,MAP1B,MARK1,ACTR2,AP3B1,PARD3,TRIM46,AP3D1,KIF3C,CD84,SNCA,BTK,HTT,NUP88,LRRK2,SPAG5,CHMP5,SNAP23,MAP4,RHOT1,SUN1,LSG1,BLOC1S3,STAT1,CUL3,BLOC1S6,LAT2,EXOC6B,COPG2,SEC16B,CPLX2,ARFGAP3,TBC1D23,ACTN4,GPSM2,PAX6,PRKCZ,RABGEF1,ARHGAP21,MAP2,CD300A,RAB27B,SYK,SLIT1,MYO1A,MLPH,CLNK</i>
GO:00060429	epithelium development	0.0000054718834348512265	<i>CLRN1,ADAMTS16,LDB2,PDE4D,SIPR2,CLASP2,SEMA3A,IL31RA,ASTN2,TJPI,PRLR,SPRR2D,RAD51B,STAT5B,LRP2,PIK3CD,EZR,ROBO1,CHD7,TRAF6,ESRP1,ROBO2,ABI1,TRIOBP,PSMB7,KIF26B,ARHGAP24,THRB,IKBKB,ERBB4,CECR2,ESR1,NPHP3,PTPRO,EP300,RNF220,PDGFB,H2AFY2,LAMA3,PAK1,BASP1,STRC,TFAP2A,PHACTR4,DMD,ARNTL,NF1,PLCB1,MGMT,PCDH15,ARID4B,RTN4,BCR,NDRG4,NTN1,SLC4A5,NRG1,MAP2K1,ROR2,NEUROD1,ACTL8,JAK2,BCL11B,TMCI,CLDN1,MLLT3,PNPLA1,PLS1,PDE2A,KLF15,ANXA4,WNT11,SIPA1L3,TGFB1,BTRC,F2RL1,C9ORF47,PGRIPI1,CELSR1,SLIT2,CDH23,SMAD6,CLOCK,BMPER,FGF10,GREB1L,PPL,LOXL3,SMURF2,EPHA4,TNFSF11,NSUN2,CTNNB1,CDHR2,PPARG,DLG5,BFSP1,RYR2,FGF1,AJUBA,MYO1E,CSMD1,NF2,PAX2,SFRP1,ARL13B,NFIB,IFT122,SMAD3,ABI2,PSAP,VANGL1,SSBP3,YAP1,HEG1,TNFRSF19,VDAC1,LRP5,BDH2,SETD2,GPC6,PRICKLE1,FRS2,PALB2,MMP2,KDM6A,STAT1,HNF4A,STRA6,EREG,ADAMTS12,BMPR2,BMPRIA,CERS3,FGF2,PLXNA2,FNDC3A,RILPL1,KLHL3,</i>

			RARB, CHRD, DVL3, TSG101, VCL, CLIC4, MYO9A, KCNQ1, WNT3, SUFU, PAFAH1B1, GLI2, SCUBE1, DAB2, PKHD1, USH2A, MYSM1, DLG3, RSPO2, IQGAP1, APOLD1, LUZ P1, ARHGAP12, MYO7A, GSTM3, CLASP1, HOXC13, XDH, OVOL2, RBBP6, GPR161, ARI D4A, CDK6, GPC3, PSMB2, EYA1, HOXB4, HOXB5, HDAC1, ROCK1, AP3B1, NTRK1, PT PRQ, AXIN2, EPCAM, JAG2, PIFO, EPHA7, SHROOM3, RAPGEF3, SH3BP1, MST1, KAZ N, ERCC3, PTK7, MAGI2, HEY2, HYDIN, WNT7B, PTPRS, ABCA12, SRSF6, ZNRF3, CBFA 2T2, MAPK1, PTEN, MIB1, SPRED2, BMP7, LHFPL5, ALDOC, PKD2, SHANK3, RIPPLY1, NCOA3, WNT7A, ZBED6, BMP6, SOS1, EXT1, ATRX, PRICKLE2, RAPGEF2, SMO, CPT1A ,RHOA, ROR1, ONECUT2, GSK3B, RDX, STAT6, ACTA2, SULF1, MTHFD1L, KRT8, AGT, ZMPSTE24, PBX1, TRPC4AP, PYGO2, ECE1, LBX2, SCEL, SETDB2, CD44, STK4, SPEF1, TMEFF2, DLC1, NOTCH4, PAX6, FAM20C, COL22A1, PHLDB2, PPP1CA, HDAC2, POU 3F3, NOTO, SPINT2, CAMSAP3, WWTR1, BRCA2, DVL2, SULT2B1, CD109, MET, TIMEL ESS, ANKRD6, KDM2B, SEMA3C, ED4, CREB1, EDNR4, BMP4
GO:00 03013	circulatory system process	0.00000551 7834708969 571	ADAMTS16, ASPH, SLC03A1, PDE4D, SLC9A1, SEMA3A, RPS6KA2, NOS1AP, TJP1, AT P2B2, LRP2, ANK2, CHD7, HTR2B, RYR3, CTNNA3, SLC24A3, SLC22A8, AKAP13, ABCC 8, THRB, CACNB2, ADORA1, ADRA1D, PTPRO, PDGFB, STK39, INSR, KCNMA1, CHRM 3, NAV2, ARHGAP42, SGCD, DMD, SLC8A1, GSN, FYN, SLC5A6, BCR, TTN, SLC4A5, BDK RB1, BDKRB2, F5, JAK2, ABCC2, SLC1A4, PDE2A, IMMP2L, NOX4, CACNA1H, SGK1, P CSK5, KEL, F2RL1, SLIT2, KCNJ3, CACNA1D, SLC16A1, CNR1, SOD2, PPARG, CELF2, K CNJ12, RYR2, LEPR, PER2, CACNA1C, SCN3B, HDAC4, ELN, TRHDE, SMAD3, ITPR1, SL C16A2, DOCK4, SLC4A4, SLC6A1, NOX1, YAP1, HEG1, PPCS, RNL3, TNIN3K, LRP5, SPT BN4, DRD1, MMP2, STAT1, MYOF, SLC16A12, BMPR2, PTAFR, KCNQ1, COL4A3, DDAH 1, WNK1, ABCB1, SLC22A3, SLC8A2, KLK2, DSC2, SNX5, PRKG1, ATP2B4, TFRC, MEF2 A, ADRBK1, GNB3, TRPV1, ROCK1, ABCC1, KCND3, HTR1D, LPA, TRDN, RENBP, HEY2, PKP2, SGCZ, SLC4A8, PRCP, SLC44A1, BMP6, EXT1, ABCG2, RHOA, ACTA2, AGT, ZMP STE24, PDE4B, SLC29A1, ECE1, SLC5A3, NOS1, PLVAP, SCNN1B, SLC1A1, PPARA, ATP 1A3, ADORA2A, ANGPT1, SLC02B1, ATP8A1, WWTR1, SCN1A, PTPRJ, ATP2B3, TAC3, S LC13A3, GNA12, CAMK2D, NEDD4L, SH3GL2, EDNR4
GO:00 01934	positive regulation of protein phosphorylation	0.00000555 4692100462 4	NRXN1, SLC03A1, S1PR2, ADCY8, PDE8A, IL31RA, NRG3, PRKAG2, PRLR, NTRK3, FLT 3, ENPP2, GRM5, MAP2K5, KITLG, ROBO1, TOM1L1, HTR2B, TENM1, TRAF6, ABI1, HS P90A1, CDC6, KNDIC1, AKAP13, DAB1, PTPN11, HDAC6, ADORA1, ERBB4, MRE11A, CDON, NTRK2, PDGFB, TNK1, CCND3, INSR, CAB39, PAK1, MAP3K4, BDNF, ECT2, ER N2, CASS4, FYN, CHI3L1, NRG1, SH2D3C, MAP2K1, FNIP1, ROR2, MAD2L2, CAPRIN2, CCNYL1, JAK2, FBXW7, WNT11, NOX4, PRKCD, TAB2, ACVR2A, CD4, TGFB1, PIBF1, T NFRSF10B, DOCK3, FGF10, SMYD3, EPHA4, CD6, TNFSF11, PPARG, AXIN1, LEPR, FG F1, AJUBA, CHEK2, SPDYA, CSPG4, FLT4, TAB1, APP, BORA, MTC1, S100A12, PRKD1, EREG, CCNY, ATF2, RAF1, PTPN1, BMPR2, BMP1A, PIK3R3, FGF2, NEDD9, SEMA4D, DVL3, EIF4G1, CKS1B, TERF2IP, TRPC5, DAB2, CACUL1, DLG3, WNK1, RELN, NEK10, IQGAP1, MAP3K7, SLC8A2, ATP2B4, ADNP, TFRC, GHR, MNAT1, SNX9, PLCG2, NTRK1 ,AXIN2, EPHA7, ATG14, BCAR3, RBPMS, MAP3K13, RAPGEF3, SNCA, BMPR1B, PRKA G1, ADTRP, OPRD1, RPTOR, IGF1, MAPK1, BMP7, LRRK2, UNC119, PKD2, EFNA5, PD GFC, PPP2R3C, BMP6, RAPGEF2, RHOA, RQCD1, AGT, PTK2, TEC, MAP3K5, NCF1, TA OK2, CD44, ADAM8, RPS6KA5, NOS1, STK4, SLC1A1, IL18, UBE2K, MOB3B, PRKCZ, AN GPT1, LRRK1, OSBPL8, CNTN1, BRAF, HDAC2, CD300A, PPP2CA, ANGPT4, MADD, SY K, DVL2, PTPRJ, HSF1, SASHI, MOB3A, SH2D3A, AKTIP, MALTI, PHB, PTPRC, BMP4
GO:00 10977	negative regulation of neuron projection development	0.00000563 8932724745 031	SEMA3A, SEMA3D, SEMA5A, DAB1, PTPRO, DENND5A, RIT2, FAT3, RTN4, RTN4R, PAQ R3, NTN1, KREMEN1, SEMA5B, KANK1, EPHA4, MAG, DRAXIN, DCC, DNMT3, DIP2B, FS TL4, PTPRG, SEMA6D, NLGN1, CRMP1, SEMA4D, SPOCK1, WNT3, PAFAH1B1, RUFY3, DAB2, PTPN9, TRIM46, CARM1, EPHA7, PTPRS, RTN4RL1, CBFA2T2, DPYSL3, PTEN, L RRK2, RHOA, SYNGAP1, EPHB2, MAP2, HDAC2, TNF, CDKL3, SLIT1, INPP5F, SEMA3C
GO:00 99173	postsynapse organization	0.00000578 8029885335 2965	NRXN1, PRMT3, GRID2, NOS1AP, NLGN4X, KALRN, NTRK3, LHFPL4, CDKL5, DNAJA3 ,DOCK10, HDAC6, FNTA, INSR, PTPRD, TANC2, FYN, FRMPD4, CAPRIN2, ZDHHC15, I L1RAPL1, CAMK2B, CTNND2, EPHA4, FCGR2B, ARHGAP22, IGF1R, DGKB, DNMT3, CU X2, ABI2, SHANK1, NRP2, NLGN2, NLGN1, EPHB3, ARHGAP39, NLGN3, PAFAH1B1, DL G3, RELN, PAK3, ACTR2, EPHB1, ARHGAP44, EPHA7, PTPRS, PTEN, LRRK2, TMEM108 ,SHANK3, WNT7A, SYNGAP1, EEF2K, GAP43, EPHB2, GRIN2B, TANC1, SHISA6
GO:00 30516	regulation of axon extension	0.00000606 1603927078 945	CLASP2, SEMA3A, SEMA3D, SEMA5A, OLFM1, CDKL5, DSCAM, GOLGA4, LIMK1, CD H4, RTN4, RTN4R, NTN1, SEMA5B, DISC1, MAG, DRAXIN, DIP2B, ISLR2, SEMA6D, BMP R2, DPYSL2, RAB11A, SEMA4D, WNT3, PAFAH1B1, TRPC5, RUFY3, SIN3A, MACF1, AD NP, MAP1B, TRIM46, MAP3K13, PTPRS, GSK3B, MAP2, TNF, CDKL3, SLIT1, SEMA3C
GO:00 08361	regulation of cell size	0.00000618 0161076969 658	CLASP2, SEMA3A, SEMA3D, SEMA5A, OLFM1, CDKL5, VAV2, DSCAM, GOLGA4, LIMK 1, CDH4, BDNF, KCNMA1, SLC12A8, RTN4, RTN4R, NTN1, ANO6, SEMA5B, KEL, DISC1, MAG, XK, DRAXIN, DCC, DIP2B, FSTL4, ISLR2, SEMA6D, BMPR2, DPYSL2, RAB11A, SE MA4D, DEPTOR, WNT3, PAFAH1B1, TRPC5, RUFY3, WDTIC1, SIN3A, MACF1, ADNP, M AP1B, GNB3, TRIM46, EPHA7, MAP3K13, PTPRS, RPTOR, PTEN, EFNA5, SHANK3, RHO A, GSK3B, PRR16, RDX, MAP2, TNF, CDKL3, SLIT1, RAP1GAP2, VAV3, SEMA3C, CREB1
GO:00 30155	regulation of cell adhesion	0.00000664 7728212826 715	PRDX2, B4GALNT2, GP6, MAP4K4, HLX, SLC9A1, CBFB, CLASP2, TENM3, DOCK1, TJP 1, PRLR, UTRN, SEMA5A, STAT5B, CASK, MAP2K5, MEGF10, TRAF6, ITPKB, DNAJA3, T RIOBP, KIF26B, DSCAM, RUNX1, DAB1, MYO10, LAMA2, PTPN11, CYTH3, EPHA1, PTP RO, PDGFB, PRKARIA, LAMA3, ARHGAP6, LCK, PTPRU, DMD, CASS4, FYN, NF1, APO D, EGFLAM, NRG1, DOCK8, MAD1L1, CDH13, SOX13, MAD2L2, RCC2, JAK2, SKAP1, IT CH, MAG11, APBB1IP, PRKCD, CD4, TGFB1, BCAS3, CORO1C, DISC1, KANK1, DUSP22 ,LOXL3, EPHA4, HSD17B12, PRKCA, CD6, TNFSF11, PPP3CA, FCGR2B, DLG5, ECM2,

			NR4A3,PPP1CB,NF2,SFRP1,FOXO3,SMAD3,PREX1,SLK,JAK1,SOX2,MMP2,COL16A1,MYB,PPM1F,NEDD9,PEAK1,SEMA4D,PLXNA2,PTAFR,SPOCK1,LMO7,CHRD,EPHB3,PAWR,VCL,P4HB,GLI2,DAB2,PKHD1,WNK1,PELI1,MACF1,CLASP1,GPM6B,PRKG1,CDK6,TFRC,ROCK1,NID1,C1QTNF1,AP3B1,PTPN2,ANK3,EPCAM,MUC1,JAG2,AP3D1,ADAM19,SPI1,EPHA7,PTPRA,RC3H1,ADTRP,ABCA12,RASA1,IGF1,PTEN,BMP7,LILRB4,EFNA5,TBCD,BMP6,PCD1LG2,PAG1,TFE3,RHOA,ONECUT2,HSPD1,NFKBID,GSK3B,RDX,FAM49B,CD27,DUSP26,PTK2,CD160,ALOX5,CD44,ADAM8,ACTN4,STK4,EPHB2,IL18,DLC1,PPARA,EPB41L4B,NOTCH4,PRKCZ,ADORA2A,PHLDB2,TMIGD2,ANGPT1,GCNT2,ETS1,VWC2,PRKCQ,BRAF,SPINT2,TNR,CD300A,PPP2CA,CAMSAP3,SYK,FRMD5,PTPRJ,FCHO1,VAV3,ZP3,TNFSF9,MALT1,PTPRC,BMP4
GO:0021537	telencephalon development	0.000007972028193081888	TACC2,SEMA3A,NRG3,PHACTR1,ZSWIM6,ROBO1,CHD7,TACC1,ROBO2,DAB1,ERBB4,CDON,NTRK2,KIRREL3,TBR1,DMD,SLC8A1,NF1,PLCB1,RTN4,RTNP4R,CCDC141,NRG1,NEUROD1,TRAPPC9,BCL11B,RPGRIPL,SLIT2,DISC1,CNTNAP2,CTNNB1,IGF1R,DRAXIN,NIN,NF2,ARL13B,NF1B,BTBD3,GSX2,DRD1,SYNE2,RARB,EIF2B5,EPHB3,FBXO45,LAMB1,PAFAH1B1,RELN,ALK,ATP2B4,CDK6,CELF1,EPHA5,HDAC1,SRD5A2,FOXP2,PTPRS,RTN4RL1,PTEN,LRRK2,TMEM108,SHANK3,EXT1,SMO,SUN1,RHOA,NDE1,GSK3B,DLX1,EPHB2,PAX6,POU3F3,TNR,SRGAP2,NUMB,SLIT1,EZHI,UCHL5,TRA2B,KDM2B,BMP4
GO:0044248	cellular catabolic process	0.000009508047358794415	NT5C1B,ENPP1,PRDX2,PDE4D,PDE7B,PDE8A,ALDH4A1,RNASET2,GK5,CALR3,SLC25A17,FBXL2,FTO,DCAF12,ACOXL,CBL,ARNT,ENPP2,SAMHD1,USP32,LRP2,DEPDC5,EZR,TOM1L1,HTR2B,PSMD1,GOT1,LPO,HSP90AA1,PSMB7,CCDC22,AMDHD1,OMA1,DNAJB14,PDE4A,TCIRG1,HDAC6,DDDB1,GPRASP1,TEX264,CUL4B,CECR2,ACAD11,FBXL18,TNRC6A,EP300,CELA1,ZYG11B,FBXL7,USP46,CHFR,INSR,PIP4K2A,USP34,FBXW11,RNF144A,SAMD4A,NPRL3,TRIM13,USP28,ENTPD5,SNX6,PIPOX,ACOX1,ERN2,NPLOC4,ATG10,LARP4B,USP13,PAFAH1B2,MKRN2,ARNTL,ADAMTS9,SMG7,PLCB1,DMGDH,SLC25A21,FBXO21,DPEP1,NEIL2,VTAI,PIK3R2,BLVRB,DAGLA,TMBIM6,VGLL4,PPP2CB,RNF4,UBE3D,SBF2,DCN,SCFD1,TRDMT1,FHIT,ENTPD1,EXOC4,MAN1A1,FBXO9,RFFL,USP22,FBXW7,LINC00473,ITCH,USP12,ABCC2,LZTS1,SMG1,DPYS,IDNK,PNPLA1,PDE2A,SPSB1,HADHB,MTA1,WDY4,SLAH1,ERCC8,PRKCD,TAB2,SPSB4,TRIM65,ZHX2,ASCC2,BTRC,BCAS3,DNAJB2,RNF133,RNF148,HP,MGAM,DISC1,ZFAND2A,CPT1C,CLN6,MTDH,CLOCK,BCKDH,NELL1,TIMP2,DAPK2,SND1,HNRNPC,YTHDF1,FBXL17,KCTD10,VMP1,SMURF2,EPHA4,PRKCA,CNR1,SMG6,NSUN2,HBE1,UBQLN3,UBQLNL,LIX1L,WDFY3,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,CPQ,OTC,LRRPRC,RSPRY1,SREBF2,LEPRA,FOXK2,WDR45B,TRIM5,CHEK2,UBQLN4,PPP1CB,TBC1D14,RAB3GAP2,CAPN2,TRIM8,DIO2,FOXO3,TRHDE,ZCCHC17,SNX14,SYNCRIP,RNF27,ITPR1,EVA1A,WWP2,CYP4F11,WIP11,VPS39,RNF168,PSAP,DCP1B,NEDD4,PLA2G4C,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SESNI,VDAC1,SH3D19,BDH2,ACBD5,PRICKLE1,ERLIN1,NUDT10,PRKD1,HEXA,SLC6A3,VPS4A,EPHX1,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,EPG5,RAB24,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PIK3C2B,PRKCG,AREL1,UCHL3,EIF4G1,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,TECPR2,AKR1D1,ATP6V0B,STT3B,AGO3,ACAA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,ZFYVE1,ATG4C,DDAH1,EDEM3,PXDNL,TRNC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,MAP3K7,TRIM22,ZNRF1,GSTM3,FASTKD5,TPCNI,XDH,SNX5,RBBP6,ATP2B4,TEI1,DYX1C1,MAPKAPK2,UBE3C,SCARB1,ATP6V0A2,CELF1,RNF34,UVRAG,DROSHA,XRN1,TBC1D5,PSMB2,SCOC,DIS3L2,RNF216,TFEB,CLEC16A,SNX9,ELAVL4,PLCG2,ROCK1,RYBP,CUL2,ABCC1,MAP1A,HYKK,MAN1B1,AXIN2,SARM1,TMEM199,FBXO39,NUDT5,SNX33,CD84,VPS16,FBXW4,ATG14,EIF3H,ACOT8,RENBP,PDXP,SNCA,USP42,PNPT1,USP50,RC3H1,CHMP3,EIF3E,RNF103,RNF103-CHMP3,RNF19B,PSMF1,SULT2A1,TRIP12,DFFA,ADTRP,RPTOR,VPS41,ZNRF3,KCTD13,IGF1,PLA2G4E,HTT,PTEN,MIB1,PIK3C3,PUM1,PCBP2,LRRK2,ATP6V1A,MLYCD,TMEM59,ZRANB1,ZBTB20,BAG6,GALT,BLVRA,SEL1L2,NT5E,DAZL,MTMR3,GLDC,TAF15,SH3RF2,N4BP1,PNPLA3,ENPP3,GET4,ACADSB,CPT1A,UBE2H,D ECR1,RQCD1,CUL3,PCCA,EPM2A,GSK3B,DNAJC3,RDX,UPF2,BOK,RNF144B,RNF43,METTL16,PRKAA2,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,PDE4B,EXOSC3,FBXO10,SEC16B,TRPC4AP,XVLB,UGT1A1,UGT1A4,ECE1,RNF11,ADAM8,CSNK1A1,NOS1,PEX7,DRAM1,BCO2,MFSD8,UBE2K,DIS3,FBXL13,PPARA,ABCD3,MCOLN1,PNPLA6,CYP2C18,CYP2C19,RNF150,ZC3H4V1,PAH,OTUD7B,UPB1,PACS2,TBL1X,ATF6,NT5M,SLCO2B1,HACL1,PPP1CA,FBXO31,ATG3,PHKG2,C18ORF25,MOXD1,SKP1,MAOA,RPL23,SH3BP4,VTI1A,ANXA2,PARN,ATP6V0A1,WIP12,CNOT1,WTR1,ALDH8A1,YBX1,TAF1,TICAM1,HSF1,POP1,ETF1,PLEKHM1,ADAMTS7,GNA12,UGGT1,MYEF2,INPP5F,MET,UCHL5,MALT1,MLXIPL,TRAPPC8,FBXL4,GNS,N EDD4L,RNF213,TRAF3IP2,SGTB,HADHA
GO:0060341	regulation of cellular localization	0.00001049571129648865	CD247,GPC5,NRXN1,ASPH,PRKCI,PDE4D,ADCY8,WWC1,CLDN18,CTDSPL2,LATS2,ASTN2,EPB41,FER,ANK2,EZR,CHD7,TENM1,LMNA,ITGB1,CNIH2,PCDH17,PAR6G,HMGN3,STXBP4,EFCAB7,PTPN11,CCT2,ERBB4,GBF1,PPP10,STX18,TCF7L2,BDNF,ECT2,VAMP7,DMD,KAT7,SLC8A1,GSN,RBM4,JPH2,FYN,NF1,RTN4,APOD,NDRG4,PIK3R2,BDKRB1,MAP2K1,MAD1L1,TMBIM6,TMEM30A,SCFD1,CREBRF,IPPO5,JAK2,FBXW7,OAZ2,CROCC,NPSR1,ATP9A,PLS1,PRKCD,TGFB1,JPH3,BCAS3,C12ORF4,TBKB2,CHRM1,DCLK1,CAPN3,NSUN2,CTNNB1,PARK2,ANXA13,SREBF2,RYR2,LEPROT,RIOK2,CACNA1C,SORBS1,TRIM8,NF2,SPTBN1,SMAD3,LZTF

			<p>LI, NEDD4, YAP1, RAB11FIP5, NLGN2, NVL, LRP5, SLC9B2, SETD2, GPC6, DRD1, PRK D1, VPS4A, PTPN1, NLGN1, ADCY5, ADCYAP1R1, GAS8, AP2M1, TSG101, SUFU, KIF3A, AKAP6, RUFY3, DAB2, DZIP1, SIN3A, GPM6B, ATP2B4, MAP1B, KCNAB2, TFRC, EPHA 5, GPC3, STOM, CAPN10, ZFAND1, MAP1A, ANK3, PTPN9, GNL3L, PTPN14, TRIM46, AP 2B1, ARHGAP44, SNX33, CD84, SPI1, CTNNA1, TRDN, STAC, RAPGEF3, SNCA, CACNG 2, CHMP3, ABCA12, XPO4, PLA2G4E, STX8, HTT, MAPK1, PTEN, LRRK2, TMEM59, SPA G5, LILRB4, ITGAM, PKD2, EFNA5, SHANK3, ZBED6, ANO1, SMO, MARK4, UBR5, GRIN 1, EPM2A, GSK3B, RDX, IWS1, NECAB2, SNX3, SEC16B, SLC5A3, NOS1, EPHB2, SLC1A1, GPSM2, PRKCZ, PPP1CC, RABGEF1, OTUD7B, ANGPT1, EPB41L2, MAP2, DIAPH1, C D300A, SP100, ANXA2, TRIM29, NUP214, NUMB, SYK, WWTR1, ANKRD13A, INPP5F, CA MK2D, EHD2, CCT3, NEDD4L, SHISA6, EDNRA, BMP4, ABLIM3</p>
GO:00 07163	establishment or maintenance of cell polarity	0.00001079 1017277535 34	<p>PRKCI, SLC9A1, CLASP2, WWC1, EZR, LMNA, ITGB1, HSP90AA1, KIF26B, DLG2, PARD 6G, TCIRG1, CYTH3, GBF1, FRMD4A, FBXW11, GSN, DST, DCTN1, DOCK8, MYH9, PAR D3B, LIN7A, DOCK2, UST, CDC42BPB, WNT11, SIPA1L3, BCAS3, RGRIP1L, KANK1, A NK1, PARVA, ANKFNI, FGF10, JGF1R, DLG5, RND3, CLIC4, MYO9A, PAFAH1B1, KIF3 A, RUFY3, PKHD1, DLG3, CLASP1, MAP1B, ACTR2, ROCK1, EPHB1, PARD3, CTNNA1, S H3BP1, PTK7, WNT7B, HTT, AMOTL1, WNT7A, MAP4, PARVB, RHOA, RHOB, RHOTB1, GSK3B, FAM49B, PTK2, FRMD4B, GPSM2, PAX6, PRKCZ, SPINT2, CAMSAP3, TRAF3IP 2</p>
GO:00 48646	anatomical structure formation involved in morphogenesis	0.00001138 4034615846 222	<p>NRXN1, RDH13, CLASP2, GRID2, NRG3, NOX5, FHOD3, PTGIS, TJP1, SEMA5A, ENPP2, MAP2K5, LRP2, PIK3CD, SP3, ANK2, OLFM1, NRXN3, ROBO1, ITGB6, TRAF6, ROBO2, V AV2, ABI1, ITGB1, KNDCC1, KIF26B, DSCAM, ARHGAP24, KLHL12, AKAP13, RUNX1, AB CC8, TCIRG1, PTPN11, EPHA1, ATP8A2, HIF3A, KLHL6, CECCR2, NPHP3, CDON, EP300, CELA1, PRKAR1A, ATP8B1, LAMA3, TBR1, TFAP2A, PHACTR4, MEIS1, TENM4, ADAM TS9, NF1, FAT3, RTN4, APOD, CH13L1, TTN, UBPI, MAP2K1, STIM1, MYH9, HDAC5, RO R2, DCN, CDH13, PLXDC1, EXOC4, COL12A1, CCBE1, MYPN, FBXW7, PKNOX1, WNT1 1, FIG4, CACNA1H, TGFB1, BCAS3, CELSR1, SDK2, SLIT2, MTDH, KCNH1, BMPEP, BC L3, PARVA, ADAM12, SBN2, FGF10, CAPN3, RORA, PRKCA, CTNNB1, ARHGAP22, PP ARG, AXIN1, CYBB, LEPR, FGF1, PHLDB1, CAPN2, CSPG4, OBSCN, NF2, FLT4, PAX2, S FRP1, NFIB, IFT122, SMAD3, PTPRM, NRP2, CDC73, SSBP3, PDGFRA, NOX1, YAP1, EY A2, JAK1, ANGPTL4, SOX2, SETD2, PRICKLE1, VASH2, FRS2, PALB2, MMP2, KDM6A, P RKD1, STAT1, STRA6, EREG, MYOF, ATF2, BMPR2, BMPRI4, TSPAN12, PIK3R3, FGF2, SH3PXD2A, ISM1, PLXNA2, DVL3, EPHB3, LAMB1, CLIC4, COL11A1, RFX2, WNT3, RH OJ, SUFU, PAFAH1B1, COL4A3, DDAH1, GLI2, ERCC1, RELN, APOLD1, SP1, LUZP1, C LASP1, TEAD4, OVOL2, NFATC2, ATP2B4, TMEM2, TET1, MEF2A, CALD1, EYA1, HOXB 3, HDAC1, SMOC2, ADIPOR2, ROCK1, EGR2, EPHB1, AXIN2, PTPN14, SHROOM3, RAP GEF3, SDK1, PTK7, CD53, HEY2, RC3H1, ADTRP, CSRP1, HIPK1, MAPK1, PTEN, MIB1, BMP7, PRCP, MEGF11, SHANK3, RIPPLY1, AMOTL1, WNT7A, GPI, EXT1, SMO, SOX30, RHOA, CUL3, PTPRB, SULF1, MTHFD1L, KRT8, AGT, FBN2, PTK2, SHB, SHC1, CD160, P GM5, ALOX5, ADAM8, THSD7A, CXCL17, NOS1, STK4, EPHB2, SLC1A1, WLS, IL18, DLC 1, PPARA, CALCRL, NOTCH4, PAX6, FAM20C, COL22A1, PHLDB2, TMIGD2, ANGPT1, FHL2, ETS1, NEBL, HDAC2, SPINT2, ANGPT4, SP100, ANXA2, SYK, CNOT1, DVL2, NEB, SRPK2, SASH1, VAV3, ZP3, CD109, CCR3, CCDC136, EHD2, KDM2B, SEMA3C, EDA, RN F213, TANC1, EDNRA, BMP4</p>
GO:00 07416	synapse assembly	0.00001297 4317906210 04	<p>NRXN1, NEGR1, GRID2, NLGN4X, NTRK3, LHFPL4, NRXN3, ROBO2, PCDH17, DSCAM, ERBB4, NTRK2, KIRREL3, PTPRD, CNTN5, BDNF, AMIGO1, NTN1, NRG1, LRFN5, PCD HB16, CLSTN2, IL1RAPL1, SDK2, LINGO2, IL1RAPL2, DLG5, ADD2, DNM3, CUX2, APP, NLGN2, GPC6, DRD1, SHANK2, NLGN1, SEMA4D, EIF4G1, EPHB3, FBXO45, NLGN3, S ETD5, ADNP, MAP1B, FLRT2, NTRK1, EPHB1, EPHA7, SDK1, SNCA, PTPN9, PTEN, EFN A5, SHANK3, WNT7A, GABRB3, EEF2K, GAP43, EPHB2, LGI2, SLIT1, GPM6A, SYNDIG1</p>
GO:00 70588	calcium ion transmembrane transport	0.00001548 2435657298 29	<p>ASPH, PDE4D, SLC9A1, FAM155A, CHERP, CACHD1, RYR1, NOS1AP, ATP2B2, ANK2, C HD7, HTR2B, RYR3, SLC24A2, SLC24A3, CACNB2, CACNA1B, CATSPER2, LCK, TMC2, MICU3, DMD, SLC8A1, JPH2, FYN, CACNA1E, BDKRB1, STIM1, NALCN, CATSPER3, AN O6, NPSR1, TMC1, CACNA1H, TGFB1, JPH3, CACNA1D, CACNA2D3, CAPN3, VMPI, TR PM1, RYR2, NOL3, CACNA1C, ITPR1, VDAC1, IBTK, DRD1, PRKD1, FGF2, TRPA1, TRP M3, AKAP6, TRPC5, SLC8A2, TPCN1, AHNAK, ATP2B4, CACNA1A, TRPV1, PLCG2, GPR 35, CACNG8, MCU, TRDN, STAC, TRPC6, SNCA, CACNG2, HTT, TMC01, PKD2, PSEN2, GRIN1, GRIN3A, ITPR2, PDE4B, TRPC4AP, PKD1L1, NOS1, XCR1, MCOLN1, GRIN2B, D IAPH1, HTR2C, ANXA2, CACNG3, ATP2B3, GPM6A, SESTD1, CAMK2D, PTPRC, EDNR A</p>
GO:00 34613	cellular protein localization	0.00001710 9070239143 25	<p>CD247, DNAH11, ZDHHC14, BLZF1, GPC5, NRXN1, ASPH, PRKCI, CLASP2, GRID2, CL DN18, CTDSP2, LATS2, ASTN2, EPB41, DPP6, MAPRE2, SEC23B, SNX31, LHFPL4, FA M53A, KCNIP4, TNPO3, HDGF, ANK2, EZR, XRCC4, TOM1L1, TENM1, KIF5C, LMNA, SR P72, NFASC, DNAJA3, ITGB1, HSP90AA1, FAM126A, CNGB1, DLG2, PTPRK, STXBPA, E FCAB7, TCIRG1, PTPN11, CCT2, CACNB2, HDAC6, GOLGA4, ADORA1, IKBKB, PEX14, ERBB4, GBF1, TLK1, ESRI, DPP10, STX18, FNTA, HOOK3, VPS45, RIMS1, TNK1, SNX2, M ID1, H2AFY2, TCF7L2, BDNF, ECT2, SNX6, CHML, PTPRU, RFTN1, AP3S1, NPLOC4, D MD, RANBP17, KAT7, GSN, RIT2, FYN, NF1, STX6, RTN4, GOLGA2P5, APOD, BCR, PAQR 3, PIK3R2, KLHL21, BID, RAPGEF6, TMEM30A, SYNE1, SCFD2, ZDHHC3, LIN7A, SCFD 1, IPO5, MAN1A1, RAB27A, RAB3C, TERF2, TMED6, GOLPH3L, RCC2, ARL3, IPO11, ZD HHC15, JAK2, FBXW7, KCNB2, OAZ2, SKAP1, CROCC, SNAP25- AS1, PLS1, SEPT7, TTC7B, LAMTOR3, KPNA3, WNT11, IFT80, IMPP2L, PRKCD, CD4, T GFB1, BANP, NUP93, PIBF1, BCAS3, CELSR1, DISC1, ZFAND2A, GRPEL2, ANK1, TTBK</p>

			2,CHRM1,BCL3,DCLK1,RABGAP1L,FGF10,CNTNAP2,CIZ1,CAPN3,SNX8,PPP3CA,TRAK1,CTNNA1,PARK2,RN7SL832P,TSNARE1,SYTL5,ANXA13,SREBF2,RYR2,LEPROT,WDR45B,AJUBA,SCN3B,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,OBSN,NF2,SPTBN1,AP3B2,ARL13B,IFT122,RANBP3,SMAD3,RAB6A,WIP1,MTBP,VPS39,GRK5,LZTFL1,NEDD4,KPNB1,RAB6C,SEC61B,YAP1,RAB11FIP5,NLGN2,SSR2,NV,SETD2,ZDHHC6,GPC6,PRICKLE1,SPTBN4,DRD1,PRKD1,TAF3,VPS4A,PITRM1,ATF2,PTPN1,AP1B1,NLGN1,SNX16,TAF8,RAB11A,IPO9,RAB24,XPO6,RILPL1,SORCS2,RAB11FIP3,GAS8,AP2M1,TNPO1,TECPR2,LMBRD1,TSG101,DES1,VCL,TERF2IP,SUFU,KIF3A,AKAP6,CEP350,PADI6,TNKS,RUFY3,DAB2,TRAM2,DZIP1,DLG3,RELN,SIN3A,RUVBL2,FAM91A1,ZNF423,MACF1,MYO7A,GPM6B,SNX5,ATP2B4,NSF,PACRG,SYNE3,PACSIN1,ATAD1,NXT2,KCNAB2,TFRC,GPC3,STOM,TBC1D5,SNX9,RPGR,ARL5A,ROCK1,EGR2,AP3B1,KPNA6,ZFAND1,MAP1A,ANK3,PTPN9,SNUPN,AXIN2,PARD3,GNL3L,PTPN14,TUB,CACNG8,AP3D1,AP2B1,ARHGAP44,SNX33,SPI1,VPS16,CTNNA1,STAC,RAB15,RAPGEF3,CACNG2,MAGI2,TBC1D9,HEY2,RAB5B,ABCA12,PKP2,TBC1D16,XPO4,VPS41,STX8,IFFO1,BMP7,PIK3C3,NUP88,LRRK2,SEPT6,TMEM59,SPAG5,BAG6,LILRB4,MORC3,ITGAM,SHANK3,MIA2,SGSM1,RABEP1,SH3PXD2B,POM121C,ATRX,SAMM50,RAPGEF2,SMO,GET3,SUN1,MARK4,UBR5,BBS9,SYNGAP1,HSPD1,TSPAN33,EPM2A,GSK3B,RDX,CCDC14,NECAB2,AGT,ADAR,PEX5L,EXOC6B,RIMS2,TOMM5,COPG2,CPE,SEC16B,TIMM44,GTTF2,IRD2,NCF1,TAOK2,ZDHHC23,ITGAL,DNAJB6,SLC5A3,ARFGAP3,PACSIN2,PEX7,GCKR,STK4,ZFAND6,EPHB2,SLC1A1,WLS,GPSM2,PPP1R10,GRTP1,KPNA4,SYTL4,PAX6,PRKCZ,RABGEF1,WDR83OS,OTUD7B,NIPBL,ANGPT1,PACS2,FRMPD1,OSBPL8,EPB41L2,HACL1,TBC1D10C,ATG3,BRAF,DIAPH1,SIL1,CLTB,EMC3,SKP1,FAM149B1,RPL23,SH3BP4,CAMSAP3,SP100,VTI1A,TRIM29,PIGU,RAB27B,ITSN1,NUP214,WIP2,NUMB,SYK,WYTR1,GRK2,MYRIP,SEC31B,BRCA2,CACNG3,DVL2,YBX1,ANKRD13A,GRIP1,ANKRD13C,GBP5,MCM8,MLPH,DENND4C,TBC1D10A,SNX1,ZDHHC11,ZDHHC11B,EHD2,TRAPPC8,CCT3,NEDD4L,RPH3A,CTCF,RAB28,SYNDIG1,TSPAN5,TRAF3IP2,SGTB,SHISA6,EDNRA,BMP4,ABLIM3
GO:0035239	tube morphogenesis	0.000017366977676456807	ADAMTS16,NRXN1,HLX,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,LRP2,PIK3CD,NRXN3,ROBO1,CHD7,TRAF6,VAV2,ITGB1,KIF26B,ARHGAP24,RUNX1,ABCC8,EPHA1,HIF3A,CECR2,ESR1,MYO18B,NPHP3,NTRK2,CELA1,PAK1,NPRL3,PHACTR4,MEIS1,SGCD,ADAMTS9,NF1,RTN4,APOD,CH13L1,NDRG4,NTN1,UBP1,STIM1,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,WNT11,QKI,TGFB1,BTRC,BCAS3,CELSR1,SLIT2,MTDH,BMPER,PARVA,ADAM12,FGF10,GREB1L,EPHA4,RORA,PRKCA,CTNNA1,ARHGAP22,PPARG,DLG5,CYBB,RYR2,LEPR,FGF1,MYOCD,MYO1E,CSMD1,CSPG4,FLT4,PAX2,SFRP1,ARL13B,NFIB,IFT122,SMAD3,PTPRM,NRP2,PDGFRA,NOX1,YAP1,HEG1,JAK1,ANGPTL4,LRP5,SETD2,PRICKLE1,VASH2,MMP2,KDM6A,PRKD1,STAT1,STRA6,EREG,ATF2,ADAMTS12,BMPR2,BMPRIA,TSPAN12,PIK3R3,FGF2,ISM1,KLHL3,DVL3,EPHB3,CLIC4,RHOJ,SUFU,COL4A3,DDAH1,GLI2,PKHD1,RSPO2,APOLD1,SP1,LUZP1,XDH,OVOL2,ATP2B4,TMEM2,GPC3,CALD1,EYA1,HOXB3,SMOC2,ADIPOR2,ROCK1,PAXIP1,EPHB1,SPI1,EPHA7,SHROOM3,RAPGEF3,MST1,PTK7,HEY2,WNT7B,ADTRP,RASA1,HIPK1,PTEN,MIB1,BMP7,PRCP,PKD2,SHANK3,AMOTL1,WNT7A,SOS1,EXT1,RAPGEF2,SMO,RHOA,PTPRB,SULF1,MTHFD1L,AGT,PTK2,PBX1,SHB,SHC1,CD160,SETDB2,ALOX5,ADAM8,THSD7A,CXCL17,STK4,EPHB2,SLC1A1,IL18,DLC1,CALCRL,NOTCH4,COL22A1,NIPBL,TMIGD2,ANGPT1,ETSI,PPP1CA,NOTO,SPINT2,ANGPT4,SP100,ANXA2,SYK,DVL2,SRPK2,SASH1,VAV3,MET,CCR3,TIMELESS,KDM2B,EDA,RNF213,EDNR4,BMP4
GO:0071277	cellular response to calcium ion	0.000019073652876948896	NRXN1,ASPH,ADCY8,RYR1,RYR3,ITPKB,CPNE4,ALOX5AP,ECT2,DPEP1,SYT1,SYT13,KCNH1,RASA4,RASA4B,CAPN3,CPNE6,SYT3,CPNE9,NLGN1,CLIC4,RASAL1,IQGAP1,MEF2A,SYT12,PLCG2,SYT9,PKD2,SYT17,EEF2K,PRKAA2,SYT7,MCOLN1,BRAF,ADCY1,CAMK2D,CPNE1
GO:0042330	taxis	0.000019366901840260233	NRXN1,SEMA3A,NRG3,SEMA3D,MYOT,UNC5C,KALRN,NTRK3,SEMA5A,ENPP2,FER,PIK3CD,NRXN3,ROBO1,KIF5C,ROBO2,NFASC,ELMO2,DSCAM,TRIO,LAMA2,EPHA1,GBF1,PTPRO,EP300,PDGFB,STK39,UNC5D,LAMA3,CDH4,TBR1,BDNF,LSP1,FYN,DPEP1,CCDC141,ADAMTSL1,NTN1,NRG1,MAP2K1,CNTN4,CMKLR1,DOCK2,CDH13,DEFA1B,BOC,ANO6,MYPN,BCL11B,SIAH1,PRKCD,SEMA5B,MMP28,F2RL1,SLIT3,SLIT2,LAMC2,DAPK2,PARVA,YTHDF1,FGF10,ENAH,EPHA4,TNFSF11,DRAXIN,FGF1,DCC,CNTN6,NFIB,SMAD3,PTPRM,ACKR2,NRP2,PREX1,DOCK4,PRTG,APP,PDGFRA,NLGN2,S100A12,PRKD1,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,CAMK1D,CRMP1,FGF2,PPM1F,SEMA4D,PLXNA2,PTAFR,EPHB3,WNT3,CCL14,CCL15,CCL15-CCL14,GLI2,NEO1,WNK1,RELN,CSF3R,EPHA5,FLRT2,SMOC2,EGR2,ABCC1,PTPN2,NTRK1,EPHB1,EPHA10,SPI1,EPHA7,MCU,MST1,PTK7,BMPRI1,PLD1,MAPK1,BMP7,EFNA5,MYCBP2,SOS1,EXT1,SMO,RHOA,FAM19A4,EMB,FAM49B,PTK2,PD4B,GAP43,ECE1,ALOX5,ADAM8,RPS6KA5,CXCL17,TUBB3,EPHB2,XCR1,GPSM3,PAX6,ANGPT1,BIN2,CCL22,PRKCQ,TNR,TMEFF1,SYK,SLIT1,PTPRJ,VAV3,MET,CER3,SEMA3C,NCAM1,EDNRA,BMP4
GO:0001944	vasculature development	0.000020908204263850006	NRXN1,DNMT1,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,LRP2,PIK3CD,NRXN3,ROBO1,CHD7,ROBO2,VAV2,ITGB1,ARHGAP24,RUNX1,ABCC8,EPHA1,HIF3A,MYO18B,NTRK2,CELA1,PDGFB,TCF7L2,NPRL3,MEIS1,SGCD,ADAMTS9,NF1,RTN4,APOD,CH13L1,UBP1,MAP2K1,STIM1,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,PDE2A,WNT11,IMMP2L,QKI,TGFB1,PCSK5,NFATC3,BCAS3,SLI

			<i>T2, MTDH, SMAD6, BMPER, PARV4, ADAM12, FGF10, RORA, PRKCA, CTNNB1, SOD2, ARHGAP22, PPARG, ANKRD17, CYBB, LEPR, FGF1, MYOCD, MYO1E, CSPG4, FLT4, SF RP1, PTPRM, NRP2, TAB1, NFATC1, PDGFRA, NOX1, YAP1, HEG1, JAK1, ANGPTL4, LR P5, SETD2, PRICKLE1, VASH2, MMP2, PRKD1, STAT1, STRA6, EREG, ATF2, BMPR2, BM PR1A, TSPAN12, PIK3R3, FGF2, ISM1, EPHB3, CLIC4, ADAMTS6, RHOF, SUFU, COL4A 3, DDAH1, APOLD1, SP1, LUZP1, XDH, OVOL2, NFATC2, ATP2B4, TMEM2, GPC3, CAL D1, EYA1, HOXB3, SMOC2, ADIPOR2, ROCK1, PAXIP1, EPHB1, PTPN14, AP2B1, SPI1, R APGEF3, PTK7, HEY2, WNT7B, ADTRP, RASA1, HIPK1, MAPK1, PTEN, MIB1, BMP7, PR CP, PKD2, AMOTL1, WNT7A, SOS1, RAPGEF2, SMO, RHOA, ACTA2, PTPRB, SULF1, AG T, PTK2, SHB, SHC1, CD160, ALOX5, ADAM8, THSD7A, CXCL17, STK4, EPHB2, SLC1A1, IL18, CALCRL, NOTCH4, PAX6, COL22A1, TMIGD2, ANGPT1, ETS1, ANGPT4, SP100, A NXA2, SYK, SRPK2, SASH1, VAV3, CCR3, SEMA3C, RNF213, EDNRA, BMP4</i>
GO:0051962	positive regulation of nervous system development	0.00002222975229950545	<i>NRXN1, NRXN1, GRID2, TIAM2, KALRN, SEMA5A, GRM5, LRP2, ROBO1, NOSDL5, ROBO 2, DSCAM, GOLGA4, LIMK1, NTRK2, CDH4, PTPRD, BDNF, AMIGO1, TENM4, NTN1, M AP2K1, CAPRN2, CLSTN2, IL1RAPL1, CAMK2B, TGFBI, SLIT2, TP73, DISC1, LINGO2, EPHA4, MAG, UFL1, CTNNB1, PPARG, DLG5, NIN, DCT, CUX2, GSX2, NLGN2, ISLR2, P ARP6, BMPR2, NLGN1, RAB11A, SEMA4D, PLXNA2, SPEN, EPHB3, WNT3, LCK, ECT2, ERN2, I AH1B1, TRPC5, RUFY3, RELN, MACF1, PAK3, ADNP, MAP1B, FLRT2, ACTR2, HDAC1, E GR2, NTRK1, EPHB1, CUX1, MAP3K13, EFN45, SHANK3, WNT7A, SMO, EEF2K, RGS14, EPHB2, PAX6, PPP1CC, FBXO31, BRAF, HDAC2, CDKL3, NUMB, SYNDIG1</i>
GO:1902533	positive regulation of intracellular signal transduction	0.00002390588194580805	<i>PRDX2, NRXN1, MAP4K4, SLC9A1, PDE8A, SEMA3A, CHERP, WWC1, NOS1AP, MAPRE 2, NTRK3, CBL, SEMA5A, FLT3, GRM5, PLCE1, MAP2K5, KITLG, LRP2, PIK3CD, ROBO1 ,HTR2B, TENM1, TRAF6, ITPKB, ITGB1, HSP90AA1, CCDC22, AKAP13, DGK1, PTPN11, ADORA1, IKBKB, ERBB4, ADRA1D, MIER1, CDON, NTRK2, EP300, PDGFB, TNK1, MID1 ,STK39, INSR, TCF7L2, PAK1, LITAF, MAP3K4, ZDHHC13, TRPM13, LCK, ECT2, ERN2, I IT2, CASS4, FYN, PLCB1, RTN4, RTN4R, CHI3L1, NDRG4, NRG1, BID, MAP2K1, FNIP1, R OR2, DCN, CDH13, JAK2, FBXW7, NPSR1, LAMTOR3, WNT11, NOX4, SIAH1, TAB2, CD4, F2RL1, TP73, MTDH, BMPER, TNFRSF10B, DUSP22, NAIP, FGF10, IQCJ- SCHIP1, SH3RF3, EPHA4, PRKCA, AUTS2, TNFSF11, CTNNB1, PARK2, FCGR2B, IGF1 R, AXIN1, DLG5, IL18R1, P2RY10, ANKRD17, APOL3, FGF1, TRIM5, AJUBA, TRIM8, CSP G4, GRM1, FLT4, NEDD4, TAB1, APP, PDGFRA, NOX1, TNFRSF19, SOX2, CHUK, FRS2, S100A12, PRKD1, RAF1, CARD16, CASP1, PTPN1, NLGN1, SPAG9, FGF2, SEMA4D, DO K6, ADCYAP1R1, EEF1E1, EEF1E1- BLOC1S5, DVL3, SHOC2, AGO3, TERF2IP, WDR59, CCL14, CCL15, HIP1, AKAP6, RELN ,NEK10, GUCY1A2, PELI1, IQGAP1, MAP3K7, TRIM22, ALK, UBE2V1, XDH, CAMTA1, P 2RY8, TFRC, GFRAL, TSPAN6, CLEC16A, GHR, PLCG2, ROCK1, C1QTNF1, GPR35, PTP N2, NTRK1, TRIM44, VWF, ARHGEF3, SPI1, BCAR3, MAP3K13, GRM4, RC3H1, WNT7B, RPTOR, IGF1, PTEN, SPRED2, PUM1, LRRK2, PDGFC, WNT7A, SIK3, SH3RF2, SOS1, RA PGEF2, RHOA, ROR1, ACTA2, NECAB2, CD27, BOK, NACC2, AGT, PTK2, MAP3K5, NCF 1, TAOK2, SHC1, CD44, ADAM8, CXCL17, ACTN4, MC1R, WLS, IL18, PRKCZ, ZC3HAV1, ANGPT1, LRRK1, OSBP1, GCNT2, CCL22, BRAF, HTR2C, RPL23, MADK, SYK, DVL2, P TPRJ, TICAM1, SASH1, CAV2, AXL, MET, ANKRD6, MALT1, PHB, PTPRC, EDA, GPR89A, TRAF3IP2, BMP4, CPNE1</i>
GO:0090066	regulation of anatomical structure size	0.00002456615226402257	<i>CLASP2, SEMA3A, SEMA3D, FHOD3, SEMA5A, FER, OLFM1, EZR, HTR2B, CDKL5, TEN M1, VAV2, TRIOBP, DSCAM, CDC42EP3, GOLGA4, ADORA1, ADRA1D, LIMK1, CDH4, BDNF, KCNMA1, CHRM3, SLC12A8, ARHGAP42, SLC8A1, GSN, RTN4, RTN4R, NTN1, B DKRB2, NCKAP1, ANO6, PLS1, CYFIP2, PRKCD, SEMA5B, KEL, F2RL1, SLIT2, DISC1, K ANK1, KANK4, SVIL, MAG, SOD2, CDHR2, ADD2, XK, DRAXIN, PER2, HCK, DCC, PAX2, SPTBN1, ELN, SSH1, DOCK4, ADD3, DIP2B, FSTL4, ISLR2, SPTBN4, DRD1, VILL, MMP2, SEMA6D, BMPR2, DPYSL2, RAB11A, SEMA4D, AP2M1, DEPTOR, WNT3, PAFAH1B1, T RPC5, RUFY3, WDTG1, SIN3A, MACF1, PRKG1, SPTBN5, PAK3, SSH2, ADNP, MAP1B, G NB3, SNX9, ROCK1, EPS8, TRIM46, HTR1D, EPHA7, LIM1, FCHSD2, MAP3K13, PDXP, SH3BP1, WNT7B, PTPRS, RASA1, RPTOR, PTEN, LRRK2, EFN45, SHANK3, WNT7A, EXT 1, RHOA, GSK3B, PRR16, RDX, ACTA2, FAM49B, AGT, ECE1, NOS1, SCNN1B, ADORA2A ,PPP1CA, MAP2, TNR, CDKL3, SLIT1, CIT, RAP1GAP2, NEB, VAV3, SPTAN1, SEMA3C, C REB1, EDNRA</i>
GO:0031400	negative regulation of protein modification process	0.000025775177842836137	<i>ENPPI1, PRMT3, PDE4D, DNMT1, LATS2, PRKAG2, MVP, NTRK3, CBL, DNAJA3, OXR1, MGAT5, EPHA1, IKBKB, LIMK1, PMEP1, PTPRO, PRKAR1A, SNX6, DMD, SLC8A1, FY N, NF1, PAQR3, BDKRB1, BDKRB2, FRY, PTPRT, IPO5, MAD2L2, GNAQ, ZFYVE28, KLF 15, PRKCD, PPM1E, PIBF1, DNAJB2, SLIT2, CORO1C, KDM4B, SMAD6, ZNF675, DUSP 22, SMYD3, CAPN3, PIP5KL1, UFL1, CTNNB1, PARK2, PPARG, PRKAR1B, OTUB1, PRK AR2A, MYOCD, PER2, NF2, SFRP1, HEG1, IBTK, LRP5, DCUN1D3, PTPN1, SPAG9, PPM 1F, SEMA4D, JARID2, PRKCG, EIF4G1, DEPTOR, TSG101, TERF2IP, PTPN13, LDLRAD 4, SIN3A, XDH, ATP2B4, ROCK1, HIPK3, PTPN2, TRIM44, PARD3, GNL3L, BCOR, SPI1, D NMT3B, ATG14, STK38, SNCA, TRIP12, MLLT1, PTEN, SPRED2, BMP7, LRRK2, TMEM59 ,LILRB4, PKIB, SH3RF2, N4BP1, PRKAR2B, UBR5, EPM2A, GSK3B, DNAJC3, PTPRB, A GT, PRKAA2, ADAR, PARP10, RGS14, EPHB2, PAX6, PRKCZ, ADORA2A, RABGEF1, AN GPT1, LRRK1, MTF2, CDK5RAP1, HDAC2, IMPACT, CD300A, PPP2CA, RPL23, WWTRI ,PTPRJ, TAF1, INPP5F, CD109, MLXIPL, PTPRC, SH3GL2, BMP4</i>
GO:0098662	inorganic cation transmembrane transport	0.000027754139752920966	<i>SLC39A11, ASPH, PDE4D, SLC9A1, FAM155A, CHERP, CACHD1, RYR1, NOS1AP, NOX5 ,DPP6, UTRN, ATP2B2, KCNQ5, KCNIP4, ANK2, SLC9A9, CHD7, HTR2B, RYR3, SLC24A 2, ITGB1, SLC24A3, ABCC8, TCIRG1, KCNS3, NIPAL2, NETO2, CACNB2, KCNJ16, DPP1 0, CACNA1B, STK39, CAB39, ZDHHC13, SLC20A2, SLC4A10, CATSPER2, AMIGO1, KCN</i>

			MA1,KCNRG,LCK,TMC2,SLC12A8,SLC6A16,RHCE,MICU3,DMD,SLC8A1,JPH2,FY N,CACNA1E,SLC4A5,KCNN3,CNNM2,BDKRBI,KCNIP1,STIM1,NALCN,SLC39A14,CATSPER3,FGF14,CLDN16,ANO6,KCNB2,NPSR1,SCN4A,TMC1,SLC9A7,KCNC4,CACNA1H,TGFB1,KEL,JPH3,KCNJ3,CACNA1D,CACNA2D3,KCNH1,SLC17A7,KCNH7,CAPN3,VMPI,COX8A,TRPM1,KCNJ12,RYR2,KCNA6,NOL3,CACNA1C,SCN3B,ITPR1,WWP2,NEDD4,SLC4A4,SLC6A1,KCNK1,VDAC1,IBTK,SLC9B2,DRD1,PRKD1,SLC6A3,FXDY2,FXDY6,KCNG4,FGF2,MRS2,SLC9B1,ATP6V0B,KCNQ1,TRPA1,TRPM3,AKAP6,TRPC5,WNK1,KCNQ2,SLC47A1,SLC8A2,SLC9C1,TPCN1,AHNAK,RGS7,ATP2B4,ATP6V0A2,KCNAB2,CACNA1A,STOM,TRPV1,PLCG2,GPR35,SLC39A10,ANK3,KCND3,CACNG8,SLC9C2,NETO1,MCU,TRDN,STAC,TRPC6,ABCB7,SLC41A2,SNC4,CACNG2,CNGA3,SLC4A8,HTT,SCN8A,ATP6V1A,TMCO1,PKD2,KCNC2,SLC6A14,PSEN2,GRIN1,GRIN3A,ITPR2,SCN9A,PDE4B,COX5A,TRPC4AP,KCNJ15,SLC5A10,PKD1L1,SLC25A18,COX5B,NOS1,ACTN4,SCNN1B,COX6A1,SLC1A1,XCRI,LRRC52,MCOLN1,ATP1A3,GRIN2B,DIAPH1,HTR2C,TMEM163,UQCRI0,ANXA2,KCNQ2,ATP6V0A1,SCN1A,CACNG3,ATP2B3,GPM6A,KCNQ3,SESTD1,CAMK2D,KCNJ6,NEDD4L,PTPRC,EDNRA
GO:0001568	blood vessel development	0.000028548811821188038	NRXN1,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,LRP2,PIK3CD,NRXN3,ROBO1,CHD7,ROBO2,VAV2,ITGB1,ARHGAP24,RUNX1,ABCC8,EPHA1,HIF3A,MYO18B,NTRK2,CELA1,PDGFB,TCF7L2,NPRL3,MEIS1,SGCD,ADAMTS9,NF1,RTN4,APOD,CHI3L1,UBP1,MAP2K1,STIM1,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,PDE2A,WNT11,QKI,TGFB1,PCSK5,BCAS3,SLIT2,PKDH,SMAD6,BMPER,PARVA,ADAM12,FGF10,RORA,PRKCA,CTNNB1,ARHGAP22,PPARG,ANKRD17,CYBB,LEPR,FGF1,MYOCD,MYO1E,CSPG4,FLT4,SFRP1,PTPRM,NRP2,TAB1,PDGFRA,NOX1,YAP1,HEG1,JAK1,ANGPTL4,LRP5,SETD2,PRICKLE1,VASH2,MMP2,PRKD1,STAT1,STRA6,EREG,ATF2,BMPR2,BMPRI1A,TSPAN12,PIK3R3,FGF2,ISM1,EPHB3,CLIC4,ADAMTS6,RHOJ,SUFU,COL4A3,DDAH1,APOLD1,SP1,LUZP1,XDH,OVOL2,ATP2B4,TMEM2,GPC3,CALD1,EYA1,HOXB3,SMOC2,ADIPOR2,ROCK1,PAXIP1,EPHB1,AP2B1,SPI1,RAPGEF3,PTK7,HEY2,WNT7B,ADTRP,RASA1,HIPK1,MAPK1,PTEN,MIB1,BMP7,PRCP,PKD2,AMOTL1,WNT7A,SOS1,RAPGEF2,SMO,RHOA,ACTA2,PTPRB,SULF1,AGT,PTK2,SHB,SHC1,CD160,ALOX5,ADAM8,THSD7A,CXCL17,STK4,EPHB2,SLC1A1,IL18,CALCRL,NOTCH4,PAX6,COL22A1,TMIGD2,ANGPT1,ETS1,ANGPT4,SP100,ANXA2,SYK,SRPK2,SASH1,VAV3,CCR3,SEMA3C,RNF213,EDNRA,BMP4
GO:0010941	regulation of cell death	0.000029811335691531447	PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,PDE8A,IL31RA,GRID2,RPS6KA2,PTGFR,LATS2,ANP32A,PTGIS,TJP1,UNC5C,PRLR,NTRK3,CBL,EGLN2,SEMA5A,FLT3,STAT5B,MAP2K5,KITLG,LRP2,PIK3CD,OLFM1,TNFAIP8L1,HTR2B,MECOM,LMNA,TRAF6,ITPKB,DNAJA3,OXR1,GRK5,ITGB1,HSP90AA1,TSC22D3,OMA1,HDAC6,DDB1,ADORA1,IKBKB,ERBB4,GBE1,MRE11A,ESR1,NTRK2,BRMS1,FMN2,TCF7L2,EGLN3,BDNF,TFAP2A,KCNMA1,TRIM13,LCK,MDM4,ECT2,SNX6,TOX3,GSN,FYN,NF1,MGMT,SNCB,RTN4,DPEP1,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,FNIP1,TMBIM6,CSRNP3,RBM5,COP5,ANO6,CERKL,NEUROD1,RFFL,JAK2,FBXW7,ITCH,BCL11B,TEX11,ANXA4,WNT11,SLAH1,PRKCD,TGFB1,SGK1,DUS2,CRADD,SLIT2,TP73,HP,HPR,SAP18,RRAS2,MTDH,FANK1,SMAD6,TFAP2D,BCL3,DAPK2,TNFRSF10B,NAIP,FGF10,CAPN3,PRKCA,CNR1,MAGEA4,MAG,PIP5KLL1,UFLL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,DLG5,DRAVIN,NR4A3,NOL3,MYOCD,KIR3DL2,CHEK2,HCK,CAPN2,DCC,NF2,FLT4,SGMS1,HDAC4,PAX2,SFRP1,FOXO3,BCL2L13,SMAD3,GRIK5,TXNDC12,CDC73,SLK,NOX1,YAP1,VDAC1,EYA2,ANGPTL4,LRP5,CHST11,TMEM14A,FRS2,PALB2,MMP2,DCUNID3,PRKD1,STAT1,TCTN3,ATF2,RAFI,ACOX2,CARD16,CASP1,PTPN1,CAMK1D,BTBD10,FGF2,SEMA4D,RORC,ADCYAP1R1,YME1L1,RILPL1,RARB,PRKCG,NCOA1,AREL1,EEF1E1,TXNDC5,EIF2B5,EIF4G1,ATF3,PAWR,DEPTOR,P4HB,CNTFR,HIP1,GLI2,DAB2,PKHD1,SIN3A,PELI1,CFDP1,ALK,INPP5D,SRA1,PAX7,PACRG,PAK3,ADNP,CELF1,RNF34,TFRC,WWOX,GFRAL,EYA1,TRPV1,GHR,MNAT1,HDAC1,TRIM24,PLCG2,ROCK1,HIPK3,RYBP,CAPN10,PTPN2,NTRK1,TMIGD1,SLC39A10,EPHB1,AXIN2,SARM1,MUC1,AP2B1,EPHA7,CTNNA1,AIFM2,MST1,ERCC3,SNC4,BMPRI1B,GRM4,USP42,HEY2,ZMYND11,CAST,DFFA,RASA1,MITF,SRSF6,NUGGC,BTK,IGF1,CTNNB1,HTT,PTEN,BMP7,LRRK2,OSGIN1,BAG6,ITGAM,WNT7A,ZBED6,NLRP1,GPI,SH3RF2,PRMT2,RAPGEF2,SMO,MARK4,PSEN2,RHOA,SYNGAP1,HSPD1,GSK3B,DNAJC3,EEF2K,CD27,BOK,RNF144B,NACC2,TNFRSF8,AGT,PRKAA2,ADAR,PTK2,FBXO10,MAP3K5,DLX1,SHC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,SPEF1,SLC1A1,SIGMAR1,HCAR2,DLCL1,PPARA,PPP1R10,PHLPPI,CPEB4,PRKCZ,ADORA2A,GRIN2B,ANGPT1,EYA3,FHL2,ATF6,ETS1,PPP1CA,GRIA4,STPG1,PRKCQ,BRAF,HDAC2,IMPACT,POU3F3,HIGD2A,PHIP,ANGPT4,SP100,MADD,SYK,GRIK2,HRK,HSF1,INPP5A,SRPK2,ANKRD13C,QRICHI,VAV3,NUAK2,AXL,TNFRSF9,MET,CAMK2D,MALT1,KDM2B,PHB,PTPRC,TYRO3,ADCY10,TRAP1,CLNK,PRAP1,BMP4,CASP12
GO:0070727	cellular macromolecule localization	0.000030847987952146786	CD247,DNAH11,ZDHHC14,BLZF1,GPC5,NRXN1,ASPH,PRKCI,CLASP2,GRID2,CLDN18,CTDSP2,LATS2,ASTN2,EPB41,DPP6,MAPRE2,SEC23B,SNX31,LHFPL4,FAM53A,KCNIP4,TNPO3,HDGF,ANK2,EZR,XRCC4,TOM1L1,TENM1,KIF5C,LMNA,SRP72,NFASC,DNAJA3,ITGB1,HSP90AA1,FAM126A,CNGB1,DLG2,PTPRK,STXBP4,EFCA7,TCIRG1,PTPN11,CCT2,CACNB2,HDAC6,GOLGA4,ADORA1,IKBKB,PEX14,ERBB4,GBF1,TLK1,ESR1,DPP10,STX18,FNTA,HOKK3,VPS45,RIMS1,TNIK,SNX2,MID1,H2AFY2,TCF7L2,BDNF,ECT2,SNX6,CHML,PTPRU,RFTN1,AP3S1,NPLOC4,D

			MD,RANBP17,KAT7,GSN,RIT2,FYN,NF1,STX6,RTN4,GOLGA2P5,APOD,BCR,PAQR3,PIK3R2,KLHL21,BID,RAPGEF6,TMEM30A,SYNE1,SCFD2,ZDHHHC3,LIN7A,SCFD1,IPO5,MAN1A1,RAB27A,RAB3C,TERF2,TMED6,GOLPH3L,RCC2,ARL3,IPO11,ZDHHHC15,JAK2,FBXW7,KCNB2,OAZ2,SKAP1,CROCC,SNAP25-AS1,PLS1,SEPT7,TTC7B,LAMTOR3,KPNA3,WNT11,IFT80,IMMP2L,PRKCD,CD4,TGFB1,BANP,NUP93,PIBF1,BCAS3,CELSR1,DISC1,ZFAND2A,GRPEL2,ANK1,TTBK2,CHRM1,BCL3,DCLK1,RABGAP1L,FGF10,CNTNAP2,CIZ1,CAPN3,SNX8,PPP3CA,TRAK1,CTNNB1,PARK2,RN7SL832P,TSNARE1,SYTL5,ANXA13,SREBF2,RYR2,LEPROT,WDR45B,AJUBA,SCN3B,SORBS1,TBC1D14,RAB3GAP2,TBCK,TRIM8,OBSN,NF2,SPTBN1,AP3B2,ARL13B,IFT122,RANBP3,SMAD3,RAB6A,WIP1,MTBP,VPS39,GRIK5,LZTFL1,NEDD4,KPNB1,RAB6C,SEC61B,YAP1,RAB11FIP5,NLGN2,SSR2,NVL,SETD2,ZDHHHC6,GPC6,PRICKLE1,SPTBN4,DRD1,PRKD1,TAF3,VPS4A,PITRM1,ATF2,PTPN1,AP1B1,NLGN1,SNX16,TAF8,RAB11A,IPO9,RAB24,XPO6,RILPL1,SORCS2,RAB11FIP3,GAS8,AP2M1,TNPO1,TECPR2,LMBRD1,TSG101,DES1,VCL,TERF21P,SUFU,KIF3A,AKAP6,CEP350,PADI6,TNKS,RUFY3,DAB2,TRAM2,DZ1P1,DLG3,RELN,SIN3A,RUVBL2,FAM91A1,ZNF423,MACF1,MYO7A,GPM6B,SNX5,ATP2B4,NSF,PACRG,SYNE3,PACSIN1,ATAD1,NXT2,KCNAB2,TFRC,GPC3,STOM,TBC1D5,SNX9,RPGR,ARL5A,ROCK1,EGR2,AP3B1,KPNA6,ZFAND1,MAP1A,ANK3,PTPN9,SUNP,AXIN2,PARD3,GNL3L,PTPN14,TUB,CACNG8,AP3D1,AP2B1,ARHGAP44,SNX33,SPI1,VPS16,CTNNA1,STAC,RAB15,RAPGEF3,CACNG2,MAGI2,TBC1D9,HEY2,RAB5B,ABCA12,PKP2,TBC1D16,XPO4,VPS41,STX8,IFFO1,BMP7,PIK3C3,NUP88,LRRK2,SEPT6,TMEM59,SPAG5,BAG6,LILRB4,MORC3,ITGAM,SHANK3,MIA2,SGSM1,RABEP1,SH3PXD2B,POM121C,ATRX,SAMM50,RAPGEF2,SMO,GET4,SUN1,MARK4,UBR5,BBS9,SYNGAP1,HSPD1,TSPAN33,EPM2A,GSK3B,RDX,CCDC14,NECAB2,AGT,ADAR,PEX5L,EXOC6B,RIMS2,TOMM5,COPG2,CPE,SEC16B,TIMM44,GT21RD2,NCF1,TAOK2,ZDHHHC23,ITGAL,DNAJB6,SLC5A3,ARFGAP3,PACSIN2,PEX7,GCKR,STK4,ZFAND6,EPHB2,SLC1A1,WLS,GPSM2,PPP1R10,GRTP1,KPNA4,SYTL4,PAX6,PRKCZ,RABGEF1,WDR83OS,OTUD7B,NIPBL,ANGPT1,PACS2,FRMPD1,OSBPL8,EPB41L2,HACL1,TBC1D10C,ATG3,BRAF,DIAPH1,SIL1,CLTB,EMC3,SKP1,FAM149B1,RPL23,SH3BP4,CAMSAP3,SP100,VTI1A,TRIM29,PIGU,RAB27B,ITSN1,NUP214,WIP2,NUMB,SYK,WWTR1,GRIK2,MYRIP,SEC31B,BRCA2,CACNG3,DVL2,YBX1,ANKRD13A,GRIPI,ANKRD13C,GBP5,MCM8,MLPH,DENND4C,TBC1D10A,SNX1,ZDHHHC11,ZDHHHC1B,EHD2,TRAPPC8,CCT3,NEDD4L,RPH3A,CTCF,RAB28,SYNDIG1,TSPAN5,TRAF3IP2,SGTB,SHISA4,EDNRA,BMP4,ABLIM3
GO:0097479	synaptic vesicle localization	0.00003226905236286558	NRXN1,KIF5C,CNIH2,PCDH17,AP3S1,LIN7A,SYN2,RAB27A,SYN3,CTNNB1,PARK2,AP3B2,SPG11,NLGN2,NLGN1,BLOC1S5,AP3B1,TRIM46,AP3D1,SNCA,PTEN,LRRK2,BLOC1S3,SYN1,BLOC1S6,MAP2,SYNDIG1
GO:0048598	embryonic morphogenesis	0.00003321338104586205	CLRN1,HLX,LMBR1,CLASP2,MAP2K5,LRP2,SP3,MFAP5,CHD7,HTR2B,TRAF6,ITGB1,TRIOBP,ATP8A2,CECR2,NPHP3,CDON,PRKAR1A,LAMA3,STRC,TFAP2A,TGIF2,PHACTR4,TENM4,MYO3B,AFF3,SATB2,HIRA,PCDH15,BCR,NDRG4,NTN1,MDFI,VAX2,ROR2,EXOC4,NEUROD1,COL12A1,LRIG3,PLS1,TBX15,WNT11,ACVR2A,RUNX2,TGFB1,MYO3A,C2ORF49,RPGRIP1L,CELSR1,CDH23,FGF10,CTNNB1,AXIN1,RYR2,NR4A3,CACNA1C,PHLDB1,MMP16,NF2,PAX2,SFRP1,ARL13B,IFT122,SMAD3,HOXD3,HOXD4,CDC73,PDGFRA,YAP1,EYA2,LRP5,SOX2,SETD2,TTC39C,CHST11,PRICKLE1,FRS2,MMP2,KDM6A,HNF4A,STRA6,DSCAML1,BMPR2,BMP1A,FGF2,RARB,NCOA1,DVL3,LMBRD1,LAMB1,COL11A1,KCNQ1,WNT3,SUFU,GLI2,WNK1,RSPO2,LUZP1,MYO7A,CLASP1,OVOL2,GPC3,EYA1,HOXB3,HOXB4,HOXB5,HOXB6,HDAC1,ROCK1,PTPRQ,JAG2,FBXW4,SHROOM3,PTK7,WNT7B,HIPK1,MAPK1,MIB1,BMP7,LHFPL5,PKD2,SHANK3,WNT7A,GPI,SOS1,TSHR,EXT1,SMO,CUL3,SULF1,MTHFD1L,FBN2,PBX1,CREBBP,ECE1,LBX2,SETDB2,DNAJB6,STK4,EPHB2,WLS,DLCL1,SOBP,FBN1,PAX6,PHLDB2,NIPBL,HDAC2,NOTO,SPINT2,DVL2,YBX1,RNF2,GNA12,KDM2B,EDNRA,BMP4
GO:0006935	chemotaxis	0.0000373858500209178	NRXN1,SEMA3A,NRG3,SEMA3D,MYOT,UNC5C,KALRN,NTRK3,SEMA5A,ENPP2,FER,PIK3CD,NRXN3,ROBO1,KIF5C,ROBO2,NFASC,ELMO2,DSCAM,TRIO,LAMA2,EPHA1,GBF1,PTPRO,PDGFB,STK39,UNC5D,LAMA3,CDH4,PTF1,BDNF,LSP1,FYN,DPEP1,CCDC141,ADAMTSL1,NTN1,NRG1,MAP2K1,CNTN4,CMKLR1,DOCK2,CDH13,DEFA1B,BOC,ANO6,MYPN,BCL11B,SLAH1,PRKCD,SEMA5B,MMP28,F2RL1,SLIT3,SLIT2,LAMC2,DAPK2,PARVA,YTHDF1,FGF10,ENAH,EPHA4,TNFSF11,DRAXIN,FGF1,DCC,CNTN6,NFIB,SMAD3,PTPRM,ACKR2,NRP2,PREX1,DOCK4,PTG,APP,PDGFRA,S100A12,PRKD1,DSCAML1,SEMA6D,BMPR2,USP33,DPYSL2,CAMK1D,CRMP1,FGF2,PPM1F,SEMA4D,PLXNA2,PTAFR,EPHB3,WNT3,CCL14,CCL15,CCL15-CCCL14,GLI2,NEO1,WNK1,RELN,CSF3R,EPHA5,FLRT2,SMOC2,EGR2,ABCC1,PTPN2,NTRK1,EPHB1,EPHA10,SPI1,EPHA7,MCU,MST1,PTK7,BMP1B,PLD1,MAPK1,BMP7,EFNA5,MYCBP2,SOS1,EXT1,SMO,RHOA,FAM19A4,EMB,FAM49B,PTK2,PD4B,GAP43,ECE1,ALOX5,ADAM8,RPS6KA5,CXCL17,TUBB3,EPHB2,XCR1,GPSM3,PAX6,ANGPT1,BIN2,CCL22,PRKCQ,TNR,TMEFF1,SYK,SLIT1,PTPRJ,VA3,MET,CR3,SEMA3C,NCAM1,EDNRA,BMP4
GO:0051336	regulation of hydrolase activity	0.000037969055929549446	ASPH,MAP4K4,C6ORF89,TIAM2,MAPRE2,KALRN,NTRK3,MAP2K5,ROBO1,HTR2B,CDKL5,DNAJA3,VA2,ITGB1,ARHGAP24,RGS6,DGKI,MGAT5,DOCK10,EPHA1,IKBKB,ABR,ESR1,NTRK2,FNTA,EGLN3,ARHGAP6,LCK,ECT2,ARHGAP42,CST2,GSN,FYN,NF1,MGMT,DPEP1,RTN4R,BCR,DOCK8,BID,FNIP1,RAPGEF6,TMBIM6,SBF2

			<p> <i>JTH2,SLC39A14,PPP1R42,RGS8,TERF2,RCC2,GNAQ,RFFL,DENND1A,JAK2,ARA P2,DOCK9,CYFIP2,WNT11,SIPA1L3,PRKCD,PCSK5,CRADD,F2RL1,BCAS3,ITIH4, CORO1C,BLID,TIMP2,RABGAP1L,NAIP,RASA4,RASA4B,EPHA4,ARHGAP22,PPAR G,GARNL3,LEPR,PROS1,RGS10,NOL3,AJUBA,CSTL1,TBC1D14,RAB3GAP2,TBCK, PAX2,SFRP1,PPP6R2,ARHGAP29,BCL2L13,SMAD3,SIMC1,PSAP,PRESX1,APP,PDG FRA,ANGPTL4,SOX2,RCAN1,PRKD1,ST18,GRAMD4,RAF1,CARD16,CASP1,FGF2, PPM1F,NEDD9,SEMA4D,PLXNA2,PTAFR,ADCYAP1R1,SPOCK1,DVL3,EPHB3,MY O9A,CCL14,CCL15,PAFAH1B1,COL4A3,NMUR2,HIP1,RASAL1,WNK1,DOCK11,IQ GAP1,ARHGAP12,XDH,PRKG1,RGS7,CCPG1,RNF34,EPHA5,GPC3,TBC1D5,FGD1 ,SNX9,HDAC1,ROCK1,GAPVD1,NTRK1,SLC39A10,ANXA8L1,ARHGAP44,LPA,EPH A7,BCAR3,RENNP,RAPGEF3,SH3BP1,SNCA,MAGI2,TBC1D9,USP50,PSMF1,CAST, DFFA,RASA1,TBC1D16,HTT,RASA2,LRRK2,ARHGAP25,EFNA5,SERPINA3,SERPIN A4,SERPINA5,SGSM1,NLRP1,UACA,GPI,RAPGEF2,VRK3,GRIN1,RHOA,SYNGAP1, HSPD1,EPM2A,GSK3B,RDX,CD27,BOK,AGT,PTK2,MAP3K5,IQGAP2,PCSK6,ARH GAP15,SERPINB11,DNAJB6,CD44,FGD3,CLDN4,FGD4,NOS1,RGS14,SIPA1L2,AR HGAP11A,SLC1A1,DLCL1,GRTP1,PRKCZ,ADORA2A,GRIN2B,COL28A1,TBC1D10C, CCL22,SPINT2,CD300A,SH3BP4,ANXA2,SRGAP2,SYK,RAP1GAP2,DVLA2,TANK,HS F1,ASAP1,RALGAP1,VAV3,CAV2,GNA12,CD109,MET,TBC1D10A,CAMK2D,UCH L5,MALTI,SERPINE3,PHB,PTPRC,EDNRA </i> </p>
GO:00 60996	dendritic spine development	0.00003907 1470544910 394	<p> <i>PRMT3,LLPH,KALRN,DOCK10,HDAC6,TANC2,CAPRIN2,ZDHC15,CAMK2B,CTN ND2,DISC1,EPHA4,DLG5,DNM3,CUX2,ABI2,SHANK1,FSTL4,NLGN2,NLGN1,EPH B3,PAFAH1B1,RELN,PAK3,ACTR2,EPHB1,ARHGAP44,SDK1,PTPRS,PTEN,LRRK2, SHANK3,WNT7A,GRIN3A,EEF2K,EPHB2,HDAC2,SRGAP2,ASAP1 </i> </p>
GO:00 03008	system process	0.00003984 2902241164 38	<p> <i>CLRN1,DNAH11,ADAMTS16,NRXN1,ASPH,SLCO3A1,PDE4D,PDCL,SIPR2,SLC9A1 ,PBX3,ADCY8,SPAG16,SEMA3A,GRID2,TASIR2,RPS6KA2,PRDM12,RYR1,NOS1AP, EPB41,MYOT,NLGN4X,TJP1,GRM8,OR5P2,OR5P3,CLCN1,FTO,UTRN,KALRN,ATP 2B2,GRM5,PLCE1,LHFPL4,LRP2,ANK2,EZR,NRXN3,CHD7,SLC26A6,HTR2B,RYR3, LMNA,LPO,NFASC,CTNNA3,SLC24A2,ITGB1,TRIOBP,SLC24A3,CNIH2,SLC22A8,C NGB1,AKAP13,ABCC8,DGKI,THRB,PDE4A,GABRA3,IMP2,PTPN11,CACNB2,AD ORA1,ADRA1D,ATP8A2,GRM7,PTPRO,NTRK2,EP300,PDGFB,RIMS1,STK39,INSR, ATP8B1,HPS1,MYOM1,CNTN5,SLC4A10,TBR1,STRC,BDNF,TFAP2A,KCNMA1,CH RM3,OR2T3,TENM4,PKHD1L1,TMC2,MYO3B,NAV2,ARHGAP42,CST2,SGCD,DMD ,SLC8A1,GSN,FYN,NF1,PLCB1,PCDH15,AFF2,SLC5A6,BCR,PPP1R12B,SHISA9,TT N,NDRG4,DCTN1,SLC4A5,BDKRB1,BDKRB2,VAX2,OR6N2,PPIP5K2,LHFPL3,F5,C LDN16,NEUROD1,CCBE1,JAK2,KCNB2,MLIP,NPSR1,ABCC2,SCN4A,RBFOX1,TM C1,SLC1A4,PLS1,PDE2A,KLF15,FIG4,IMMP2L,NOX4,CACNA1H,CAMK2B,SEMA5 B,SGK1,PCSK5,MYO3A,KEL,JPH3,DLGAP1,F2RL1,SLIT2,GABRR3,GABRB1,CDH2 3,OR9A4,KCNJ3,CACNA1D,CLN6,CHRM1,OR51A7,OR51F2,OR51T1,OTOGL,ANKF N1,HOMER2,OTOA,YTHDF1,FGF10,CNTNAP2,RHPN2,SLC16A1,LUM,PRKCA,CN R1,PPP3CA,OR51B2,OR51B4,OR51I1,MAG,CAMK4,PARK2,SOD2,PPARG,IGDCC3, AXIN1,PRKAR1B,TMEM63C,CELF2,TRPM1,KCNJ12,RYR2,GABRR3,MYO9A,CRYM ,COL11A1,KCNQ1,NLGN3,PAFAH1B1,COL4A3,TRPA1,DDAH1,TRPM3,NMUR2,AK AP6,BTBD9,MGLL,DAB2,USH2A,SETD5,WNK1,RELN,NEK10,ABCB1,ORSH2,OR5 H6,OR5K4,EYS,SLC22A3,TAS2R41,OR56B1,MYO7A,SLC8A2,CLK2,DSC2,CLIC5,SN X5,OR6C74,PRKG1,ATP2B4,CAMTA1,P2RX6,ATAD1,ADNP,SCARB1,TYR,TFRF,SO RCS3,GABRG3,MEF2A,ADRBK1,CALD1,EYA1,PTGER3,BRINP1,GNB3,TRPV1,RPG R,ACTR2,ELAVL4,ROCK1,C1QTNF1,EGR2,RNF10,GPR35,ABCC1,AP3B1,NTRK1,M YBPC2,MAP1A,ANK3,PTPRQ,EPHB1,PDE6A,PARD3,TUB,JAG2,KCND3,CACNG8, NETO1,COCH,HTR1D,LPA,HMCN1,CHRN4,LIM1,TRDN,GABRA6,STAC,RENNP, SNCA,CACNG2,HEY2,CNGA3,OPRD1,PKP2,SGCZ,SLC4A8,IGF1,HTT,MAPK1,PTE N,SCN8A,LHFPL5,PRCP,LRRK2,UNC119,SLC44A1,TMEM108,SHANK3,RGS9,SERP INA3,WNT7A,BMP6,MYCBP2,ANO1,GPI,EXT1,GABRR2,ABCG2,PRKAR2B,MYLPF, GRIN1,BBS9,RHOA,OR4M1,OR4N2,SYNGAP1,GRIN3A,ROR1,FAM19A4,EPM2A,GA BRB3,GSK3B,ABCG8,ACTA2,SCN9A,SULF1,ZNF354A,AGT,ESPNL,ZMPSTE24,PDE 4B,RIMS2,CDC14A,SLC29A1,UGT1A7,ALDOA,ECE1,RPS6KB1,GUCY2F,SLC5A3,C LDN4,NOS1,PLVAP,RGS14,MC1R,SCNN1B,EPHB2,SLC1A1,DTNA,HCAR2,PPARA, CALCRL,SOBP,CRX,PAX6,PRKCZ,ATP1A3,ADORA2A,GRIN2B,NIPBL,ANGPT1,TB L1X,EYA3,ATF6,SHROOM4,SLCO2B1,KIFC3,BRAF,DIAPH1,HDAC2,HTR2C,MYO M3,ATP8A1,POU3F3,TNR,ATXN1,OPN1LW,VTI1A,KCND2,ADCY1,MOGAT2,WWT R1,GRIK2,SCN1A,CACNG3,PTPRJ,ATP2B3,MYO1A,TAC3,SLC13A3,DLGAP2,GNA1 2,SYNM,INPP5F,TMPRSS3,CAMK2D,SETD3,NEDD4L,PBLD,SH3GL2,TANCI,CREB 1,SHISA6,EDNRA,PRAP1,BMP4 </i> </p>
GO:00 48584	positive regulation of response to stimulus	0.00004246 5246319005 24	<p> <i>CD247,PRDX2,GPC5,NRXN1,PRKCI,MAP4K4,PDE4D,PDCL,HLX,SLC9A1,PDE8A, SEMA3A,SETD4,CHERP,WWC1,C12ORF49,NOS1AP,MAPRE2,PTGIS,PRLR,PAGRI ,NTRK3,CBL,ARNT,SEMA5A,FLT3,SUSD4,STAT5B,GRM5,PLCE1,MAP2K5,KITLG,L RP2,PIK3CD,SH2D1A,EZR,ROBO1,HTR2B,TENM1,TRAF6,ROBO2,ITPKB,VAV2,IT </i> </p>

			<p>GB1,HSP90AA1,PSMB7,CCDC22,DSCAM,AKAP13,DGKI,PTPN11,MGAT5,HDAC6,ADORA1,ADAMTS3,IKBKB,ERBB4,ADRA1D,LIMK1,KLHL6,MIER1,CDON,NTRK2,EP300,RNF220,PDGFB,RIMS1,TNIK,MID1,ALOX5AP,STK39,INSR,FMN2,TCF7L2,USP34,PAK1,LITAF,MAP3K4,ZDHC13,BDNF,TRIM13,LCK,ECT2,VAMP7,RFTN1,ERN2,USP13,RBM14,RIT2,DEPDC1B,CASS4,FYN,ARNTL,NF1,PLCBI,MGMT,RTN4,RTN4R,RWDD3,CHI3L1,NDRG4,BMP2K,NRG1,CDK19,BID,MAP2K1,FNIP1,CMKLR1,ROR2,DCN,SLC39A14,CDH13,MAD2L2,CAPRIN2,ANO6,CCBE1,JAK2,FAM168A,FBXW7,SKAP1,UIMC1,NPSR1,CLDN1,MLLT3,PDE2A,LAMTOR3,CYFIP2,WNT11,NOX4,SLAH1,ERCC8,PRKCD,TAB2,ACVR2A,CD4,NUP93,PIBF1,CRADD,F2RL1,AAK1,SLIT2,TP73,DISC1,KANK1,MTDH,CLOCK,BMPER,DAPK2,TNFRSF10B,DUSP22,NAIP,FGF10,IQCJ-SCHIP1,SH3RF3,LOXL3,SMURF2,EPHA4,PRKCA,AUTS2,CNR1,TNFSF11,PPP3CA,CCLNBI,PARK2,FCGR2B,IGF1R,PPARG,AXIN1,DLG5,IL18R1,IL1RL1,P2RY10,ANKRD17,APOL3,FGF1,NR4A3,MYOCD,TRIM5,KIR2DL4,AJUBA,HCK,SORBS1,TRIM8,CSPG4,GRM1,FLT4,SFRP1,FOXO3,CNTN6,SMAD3,RNF22,CUX2,RNF168,CIS,SHANK1,NEDD4,TAB1,CDC73,APP,GSX2,PDGFRA,NOX1,YAP1,NLGN2,TNFRSF19,EYA2,POLR3G,SOX2,CHUK,FRS2,S100A12,PRKD1,EREG,AKAP6,NR2C1,NEO1,CASP1,PTPN1,BMPR2,CAMK1D,BMPRI1,NLGN1,SPAG9,EVC,MYB,FGF2,PPM1F,SEMA4D,DOK6,PTAFR,ADCYAP1R1,DDX58,DKK2,PRKCG,EEF1E1,EEF1E1-BLOC1S5,GAS8,DVL3,EIF2B5,ATF3,SHOC2,PAWR,AGO3,TERF2IP,WDR59,WNT3,CCL14,CCL15,NLGN3,SCUBE2,PAFAH1B1,PRDM15,HIP1,AKAP6,NR2C1,NEO1,TNKS,SCUBE1,C9,DAB2,THEMIS,WNK1,RELN,NEK10,SIN3A,RSPO2,GUCY1A2,PEL1,IQGAP1,MAP3K7,ZNF423,TRIM22,MACF1,ALK,INPP5D,UBE2V1,XDH,SNX5,NFATC2,PAK3,MASPI,CAMTA1,P2RY8,TFRC,WWOX,CRIL,GFRAL,GPC3,PSMB2,EYA1,PTGER3,TSPAN6,CLC16A,GHR,ACTR2,C2,CFB,SMOC2,PLCG2,ROCK1,C1QTNF1,PAXIP1,GPR35,ABCC1,PTPN2,NTRK1,TRIM44,SLC39A10,JAG2,VWF,NETO1,COCH,ARHGEF3,SPI1,MCU,CTNNA1,PSPC1,LY86,BCAR3,RBPM5,MAP3K13,PTK7,SNCA,BMPRI1B,GRM4,ZEB2,RC3H1,WNT7B,KMT2D,RPTOR,BTK,IGF1,HTT,MAPK1,PTEN,SPRED2,BMP7,PUM1,LRRK2,ZRANB1,BAG6,LILRB4,TMEM108,ITGAM,PKD2,SHANK3,PDGFC,WNT7A,PLCL2,SIK3,BMP6,SH3RF2,SOS1,RAPGEF2,SMO,UBR5,GRIN1,RHOA,ROR1,RQCD1,HSPD1,NFKBID,PLD2,STAT6,ACTA2,FAM49B,NECAB2,CD27,BOK,SULF1,NACC2,AGT,PTK2,LAT2,PDE4B,RIMS2,TEC,EXOSC3,MAP3K5,CREBBP,NCF1,TAOK2,SHC1,CD160,LBX2,RNFT1,SCEL,CD44,ADAM8,CLDN4,BCL2L14,CXCL17,PLEKHA1,ACTN4,MC1R,STK4,WLS,IL18,UBE2K,GPSM3,PRKCZ,ZC3HAV1,ADORA2A,RABGEF1,ANGPT1,TBL1X,EYA3,LRRK1,OSBPL8,ATF6,GCNT2,ETS1,PPP1CA,CFI,CCL22,BTN3A2,PRKCQ,BRAF,HTR2C,CD300A,PHIP,MAOA,RPL23,CR2,MADD,SYK,DVL2,PTPRJ,TICAM1,CADM1,SASH1,GBP5,FCHOD1,VAV3,ZP3,CAV2,AXL,MET,TIMELESS,UCHL5,ANKRD6,MALTI,PHB,PTPRC,EGA4,GPR89A,TSPAN5,TRAF3IP2,CLNK,BMP4,CPNE1</p>
GO:0042592	homeostatic process	0.000044953291188089396	<p>CLRN1,ENPP1,PRDX2,LDB2,ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,IL31RA,PTGFR,CHERP,CLDN18,RYR1,NOX5,PTH2R,KSR2,TJP1,PRLR,FTO,ACOXL,ARNT,EGLN2,FLT3,STAT5B,ATP2B2,GRM5,PLCE1,KITLG,SPNS2,PIK3CD,SP3,ANK2,MALRD1,SLC9A9,CHD7,SLC26A6,HTR2B,ITGB6,RYR3,GOT1,TRAF6,ITPKB,DNAJA3,SLC24A2,ITGB1,SLC24A3,TSC2D3,CCDC22,CNGB1,OMA1,ABCC8,HMGK3,STXBP4,LAMA2,TCIRG1,PTPN11,CACNB2,DOCK10,DDDB1,ADORA1,GPRASP2,ADRA1D,CNNM1,LARGE,ESR1,NPHP3,CYB561A3,STK39,INSR,TCF7L2,ESRRB,SLC4A10,CLDN12,KCNMA1,LCK,SLC12A8,ACOX1,LAMC1,MB,SGCD,MICU3,DMD,SLC30A9,KAT7,SLC8A1,JPH2,FYN,ARNTL,NF1,PCDH15,RTN4,BCR,PIK3R2,DCTN1,SLC4A5,CNNM2,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,DCN,SLC39A14,PTGER2,CLDN16,ANO6,NEUROD1,JAK2,FBXW7,CROCC,NPSR1,BBS12,PKNOX1,CLDN1,SLC9A7,PNPLA1,KLF15,NOX4,ACVR2A,TGFB1,KEL,JPH3,PTPRN2,F2RL1,C9ORF47,DNAJB2,CDH23,DISC1,CLN6,XPRI,TMTC2,ZNF675,ANKRD54,HOMER2,CAPN3,SLC16A1,RORA,PRKCA,CNR1,TNFSF11,PPP3CA,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,IL18R1,MTF1,P2RY10,TRPM1,OTC,XK,SREBF2,RYR2,LEPR,NR4A3,FOXK2,NOL3,PER2,CACNA1C,SCN3B,PRDM16,CSMD1,DIO2,GRM1,PAX2,MED13,FOXO3,SMAD3,ITPR1,ACKR2,GRIK5,ESRRG,SLC4A4,APP,PDGFRA,NOX1,YAP1,RAB11FIP5,IBTK,ALPL,ANGPTL4,PEMT,LRP5,BDH2,SLC9B2,DRD1,PRKD1,STAT1,HNF4A,RAF1,ACOX2,FGF2,ADCY5,ADCYAP1R1,KLHL3,SLC9B1,EHMT1,EIF4G1,EBF2,VCL,TERF2IP,CLIC4,IDE,KCNQ1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,BTBD9,TRPC5,NEO1,WDTC1,PKHD1,USH2A,WNK1,SIN3A,DOCK11,ZNF423,ALK,SLC8A2,INPP5D,STAU1,SLC9C1,TPCN1,SNX5,ATP2B4,ASGR2,ADNP,ARID4A,SCARB1,CDK6,ATP6V0A2,P2RY8,TFRC,EPHA5,CACNA1A,SGIP1,PTGER3,GNB3,TRPV1,HOXB6,CACA,TRIM24,ADIPOR2,PLCG2,C1QTNF1,GPR35,AP3B1,PTPN2,MAP1A,SLC39A10,ANK3,TMEM199,ATP13A3,TUB,AP3D1,SLC9C2,SPI1,MCU,LIMA1,TRDN,LRRC8D,ILDR2,TRPC6,ABC7,ATP13A5,SNCA,RC3H1,WNT7B,ABCA12,SGCZ,SLC4A8,HTT,MAPK1,SLC30A7,PRCP,LRRK2,ATP6V1A,ZBTB20,TMCO1,PKD2,EFN5,SHANK3,PDGFC,SERPINA3,STEAP4,PPP2R3C,ZBED6,CRTC3,PLCL2,GPR21,RHOT1,BMP6,GPI,SOS1,TSHR,EXT1,IKZF1,PNPLA3,SMO,RALY,STXBP5L,TNFRSF11B,BPGM,DECR1,TFE3,GRIN1,TF,ITPR2,ABCG8,STAT6,ALAS2,BOK,AGT,ELOVL3,PRKAA2,ADAR,FGGY,HRH4,HEPHL1,PDE4B,CREBBP,SLC29A1,ALDOA,STC2,ALOX5,ADAM8,CLDN4,NOS1,GCKR,SCNN1B,SLC1A1,XCR1,IL18,UBE2K,HCAR2,MCOLN1,STEAP3,PAX6,ATP1A3,ADORA2A,GRIN2B,KCTD7,ANGPT1,PACS2,LRRK1,GCNT2,ETS1,DIAPH1,HTR2C,POU3F3,ATP6V0A1,SYK,WWTR1,CYP39A1,GRIK2,U</p>

			<i>BAP2L,ATP2B3,POTEE,HSF1,PLEKHM1,CIB2,CAV2,POC1B,CA12,TMPRSS3,AXL,MET,CAMK2D,CCR3,NBEA,TRA2B,MLXIPL,NEDD4L,PTPRC,GPR89A,PBLD,SH3GL2,TYRO3,TRAF3IP2,EDNRA,BMP4</i>
GO:0043410	positive regulation of MAPK cascade	0.00006219 8648338095 86	<i>PRDX2,NRXN1,PDE8A,SEMA3A,WWC1,NTRK3,FLT3,GRM5,PLCE1,MAP2K5,KITLG,ROBO1,HTR2B,TENM1,TRAF6,AKAP13,PTPN11,ADORA1,ERBB4,ADRA1D,CDO N,NTRK2,PDGFB,TNIK,MID1,STK39,INSR,PAK1,MAP3K4,ERN2,RIT2,PLCB1,CHI3L1,NDRG4,NRG1,MAP2K1,ROR2,JAK2,FBXW7,NPSR1,LAMTOR3,NOX4,CD4,F2RL1,TP73,BMPER,DUSP22,NAIP,FGF10,SH3RF3,EPHA4,PRKCA,TNFSF11,CTNBNB1,FCGR2B,IGF1R,AXIN1,FGF1,TRIM5,AJUBA,CSPG4,GRM1,FLT4,TAB1,APP,PDGFR,RA,NOX1,TNFRSF19,SOX2,FRS2,S100A12,RAF1,PTPN1,SPAG9,FGF2,DOK6,DVL3,CCL14,CCL15,NEK10,IQGAP1,MAP3K7,ALK,XDH,GFRAL,GHR,PLCG2,ROCK1,C1QTNF1,NTRK1,SP11,BCAR3,MAP3K13,GRM4,WNT7B,IGF1,PTEN,LRRK2,PDGFC,WNT7A,SH3RF2,RAPGEF2,ROR1,ACTA2,NECAB2,CD27,MAP3K5,NCF1,TAOK2,SHC1,CD44,ADAM8,CXCL17,PRKCZ,ANGPT1,GCNT2,CCL22,BRAF,HTR2C,MADD,SYK,DVL2,PTPRJ,SASH1,CAV2,ANKRD6,PHB,PTPRC,BMP4</i>
GO:0098815	modulation of excitatory postsynaptic potential	0.00006220 0821729818 77	<i>NRXN1,S1PR2,NLGN4X,RIMS1,CUX2,SHANK1,APP,NLGN2,CELF4,NLGN1,NLGN3,RELN,SLC8A2,NETO1,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,GRIN1,RIMS2,PRKCZ</i>
GO:0050773	regulation of dendrite development	0.00006292 9493630172 19	<i>KALRN,CDKL5,KNDCC1,TNIK,PTPRD,FAT3,CAPRIN2,ZDHHC15,LZTS1,IL1RAPL1,CAMK2B,EPHA4,PPP3CA,DCC,CUX2,NEDD4,PARP6,DGKG,CAMK1D,SEMA4D,PAFAH1B1,TRPC5,RELN,ALK,PACSIN1,PAK3,MARK1,ACTR2,ELAVL4,SARM1,CARMI,CUX1,BMP7,RAPGEF2,RHOA,GSK3B,EEF2K,FBXO31,CDKL3,NEDD4L</i>
GO:0071900	regulation of protein serine/threonine kinase activity	0.00006475 1561572425 1	<i>NRXN1,LATS2,PRKAG2,NTRK3,FLT3,MAP2K5,KITLG,ROBO1,HTR2B,TENM1,TRA F6,CDC6,AKAP13,PDGFB,CCND3,INSR,PRKARIA,CAB39,PAK1,MAP3K4,ERN2,SLC8A1,NF1,PAQR3,MAP2K1,ROR2,IPO5,CCNYL1,HERC5,NOX4,PRKCD,TGFB1,ZNF675,EPHA4,TNFSF11,PPARG,AXIN1,PRKAR1B,FGF1,PRKAR2A,MYOCD,AJUBA,SPDYA,SFRP1,TAB1,CCNI2,HEG1,LRP5,MTCP1,S100A12,CCNY,PTPN1,BMPR2,BMPR1A,CDK12,FGF2,DVL3,CKS1B,TSG101,DAB2,BLM,NEK10,MAP3K7,SLC8A2,ATP2B4,UVRAG,GHR,MNAT1,HIPK3,STK38,MAP3K13,SNCA,BMPR1B,PRKAG1,RP TOR,HTT,PTEN,BMP7,LRRK2,PKD2,PDGFC,PKIB,RAPGEF2,PRKAR2B,RHOA,AGT,CCNJL,MAP3K5,TAOK2,ADAM8,RGS14,STK4,CCNG2,CDK5RAP1,CD300A,PPP2CA,SYK,DVL2,PTPRJ,SASH1,PTPRC,TNXB,BMP4</i>
GO:0001933	negative regulation of protein phosphorylation	0.00008559 1688003437 62	<i>ENPPI,PDE4D,LATS2,PRKAG2,MVP,NTRK3,CBL,DNAJA3,EPHA1,PMPEA1,PTPR O,PRKARIA,SNX6,DMD,SLC8A1,NF1,PAQR3,BDKRB1,BDKRB2,PTPRT,IPO5,GNAQ,ZFYVE28,PRKCD,PPM1E,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,DUSP22,SMYD3,PIP5KL1,PARK2,PPARG,PRKAR1B,PRKAR2A,MYOCD,NF2,SFRP1,HEG1,IBTK,LRP5,PTPN1,SPAG9,PPM1F,SEMA4D,EIF4G1,DEPTOR,TSG101,TERF2IP,PTPN13,LDLRAD4,XDH,HIPK3,PTPN2,PARD3,ATG14,STK38,SNCA,MLLT1,PTEN,SPRED2,BMP7,LRRK2,LILRB4,PKIB,PRKAR2B,EPM2A,DNAJC3,PTPRB,AGT,ADAR,RGS14,EPHB2,PAX6,PRKCZ,ADORA2A,RABGEF1,ANGPT1,LRRK1,CDK5RAP1,IMPACT,CD300A,PPP2CA,WWTR1,PTPRJ,INPP5F,CD109,MLXIPL,PTPRC,SH3GL2,BMP4</i>
GO:0051648	vesicle localization	0.00010458 6575474142 98	<i>NRXN1,CLASP2,KIF5C,CNIH2,PCDH17,KLHL12,TCIRG1,GBF1,FBXW11,AP3S1,TANC2,LIN7A,SYN2,COPS5,EXOC4,RAB27A,SYN3,DYNC11,ATN9A,TRAK1,CTNNB1,PARK2,MYO1D,MYO1E,AP3B2,SPG11,WIP1,MYO1F,NLGN2,VPS4A,NLGN1,RAB11A,BLOC1S5,TSG101,PAFAH1B1,KIF3A,FAM91A1,MYO7A,CLASP1,AP3B1,TRIM46,AP3D1,SNCA,HTT,PTEN,LRRK2,SNAP23,BLOC1S3,NDE1,CUL3,SYN1,BLOC1S6,EXOC6B,SEC16B,ARFGAP3,TBC1D23,ACTN4,PRKCZ,MAP2,RAB27B,MYO1A,MLPH,SYNDIG1</i>
GO:0006897	endocytosis	0.00011482 5926434515 03	<i>ENPPI,HOOK2,LY75,DOCK1,LRP1B,NLGN4X,CBL,RAB4B,RAB4B-EGFN2,ENPP2,LRP2,ANK2,EZR,MEGF10,HTR2B,ITGB1,SNX2,INSR,VAMP7,TMPRSS15,GSN,RIT2,SNCB,BMP2K,NRG1,MYH9,DOCK2,CDH13,ANO6,DENND1A,SYT1,ATP9A,MKLN1,F2RL1,AAK1,ZFYVE9,ITSN2,SYNJ2,RABGAP1L,SLC17A7,LOXL3,CD6,PPP3CA,FCGR2B,PPARG,MSR1,SCAMP5,SCARA3,MYO1E,MRC2,ANKFY1,DNM3,ACKR2,NEDD4,APP,NLGN2,LRP5,SLC9B2,PRKD1,MAPKAPK3,PTPN1,USP33,DPSYL2,NLGN1,ATP9B,MCTP1,HHIPL1,EEA1,ABCA13,AP2M1,LMBRK1,TSG101,RHOJ,NLGN3,KIF3A,HIP1,BTBD9,ENTHD1,STON2,DAB2,XKR4,ARHGAP12,TPCN1,SNX5,PACSIN1,ASGR2,ATAD1,MAPKAPK2,SCARB1,TFRC,FNBP1,GPC3,SGIP1,ADRBK1,TBC1D5,GHR,PRSS12,SNX9,PLCG2,ROCK1,GAPVD1,TUB,SH3GL3,CACNG8,AP2B1,HEATR5A,SNX33,FCHSD2,SH3BP1,SNCA,CACNG2,MAGI2,RAB5B,MAPK1,MIB1,ATXN2,PIK3C3,LRRK2,UNC119,LILRB4,TMEM108,ITGAM,ARHGAP25,MI A2,RABEP1,DNAJC6,TF,RHOBTB1,ESYT2,SH3KBP1,EEF2K,NECAB2,PACSIN2,CALCRL,RABGEF1,GPR107,ANGPT1,CFI,BIN2,CLTB,CD300A,SH3BP4,ANXA2,RAB27B,ITSN1,NUMB,SYK,CACNG3,ANKRD13A,FCHO1,CAV2,EPS15,INPP5F,TMPRSS3,AXL,REPS2,SNX1,EHD2,NEDD4L,SH3GL2,SPON2</i>
GO:0043067	regulation of programmed cell death	0.00012320 2169089702 03	<i>PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,IL31RA,GRID2,RPS6KA2,PTGFR,LATS2,ANP32A,PTGIS,TJP1,UNC5C,PRLR,CBL,EGLN2,SEMA5A,FLT3,STAT5B,MAP2K5,KITLG,LRP2,PIK3CD,OLFM1,TNFAIP8L1,HTR2B,MECOM,LMNA,TRAF6,ITPKB,DNAJA3,OXR1,GRK5,ITGB1,HSP90AA1,TSC22D3,OMA1,HDAC6,DDDB1,ADORA1,IKBK,ERBB4,GBE1,MRE11A,ESR1,NTRK2,BRMS1,FMN2,TCF7L2,EGLN3,BDNF,TFAP2A,KCNMA1,LCK,MDM4,ECT2,SNX6,TOX3,GSN,NF1,MGMT,SNCB,RTN4,DPEP1,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,FNIP1,TMBIM6,CSRNP3</i>

			,RBM5,COP5,ANO6,CERKL,NEUROD1,RFFL,JAK2,FBXW7,ITCH,BCL11B,TEX11,ANXA4,WNT11,SLAH1,PRKCD,TGFB1,SGK1,CRADD,SLIT2,TP73,SAP18,MTDH,FANK1,SMAD6,TFAP2D,BCL3,DAPK2,TNFRSF10B,NAIP,FGF10,CAPN3,PRKCA,CNR1,MAGEA4,MAG,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,DLG5,DRA XIN,NOL3,MYOCD,CHEK2,HCK,CAPN2,NF2,FLT4,SGMS1,HDAC4,PAX2,SFRP1,FOXO3,BCL2L13,SMAD3,GRIK5,TXNDC12,CDC73,SLK,NOX1,YAPI,VDAC1,EYA2,ANGPTL4,LRP5,CHST11,TMEM14A,FRS2,PALB2,MMP2,DCUN1D3,STAT1,TCTN3,ATF2,RAF1,CARD16,CASP1,PTPN1,CAMK1D,FGF2,SEMA4D,RORC,YME1L1,RARB,PRKCG,NCOA1,AREL1,EEF1E1,TXNDC5,EIF2B5,ATF3,PAWR,DEPTOR,P4HB,CN TFR,HIP1,GLI2,DAB2,PKHD1,SIN3A,PELI1,CFDP1,ALK,INPP5D,SRA1,PAX7,PAK3,ADNP,RNF34,TFRC,WWOX,GFRAL,EYA1,TRPV1,MNAT1,HDAC1,TRIM24,PLCG2,ROCK1,HIPK3,RYBP,CAPN10,PTPN2,NTRK1,TMIGD1,SLC39A10,SARM1,MUC1,EPHA7,CTNNA1,AIFM2,MST1,ERCC3,SNCA,BMPR1B,GRM4,USP42,HEY2,ZMYND11,CAST,DFFA,RASA1,MITF,SRSF6,NUGGC,BTK,IGF1,CTNNBL1,HTT,PTEN,BMP7,LRRK2,OSGIN1,BAG6,ITGAM,WNT7A,NLRP1,GPI,SH3RF2,PRMT2,RAPGEF2,SMO,MARK4,PSEN2,RHOA,SYNGAP1,HSPD1,GSK3B,DNAJC3,EEF2K,CD27,BOK,RNF144B,NACC2,TNFRSF8,AGT,PRKAA2,ADAR,PTK2,FBXO10,MAP3K5,DLX1,SHC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,SLC1A1,SIGMAR1,HCAR2,DLCL1,PPARA,PPP1R10,PHLPP1,CPEB4,PRKCZ,ADORA2A,ANGPT1,EYA3,FHL2,ATF6,ETS1,PPP1CA,GRIA4,STPG1,PRKCQ,BRAF,HDAC2,POU3F3,HIGD2A,PHIP,ANGPT4,SP100,MADD,SYK,GRIK2,HRK,HSF1,SRPK2,ANKRD13C,QRICH1,VAV3,NUAK2,AXL,TNFSF9,MET,CAMK2D,MALT1,KDM2B,PHB,PTPRC,TYRO3,ADCY10,TRAP1,PRAP1,BMP4,CASP12
GO:0060997	dendritic spine morphogenesis	0.00012716804280684296	PRMT3,KALRN,DOCK10,HDAC6,TANC2,CAPRIN2,ZDHHC15,CAMK2B,CTNND2,EPHA4,DNM3,CUX2,ABI2,SHANK1,NLGN1,EPHB3,PAFAH1B1,RELN,PAK3,ACTR2,EPHB1,ARHGAP44,PTEN,LRRK2,SHANK3,WNT7A,EEF2K,EPHB2
GO:0009628	response to abiotic stimulus	0.00012737757235583446	NRXN1,RDH13,SLC9A1,PRDM12,RYR1,PTGIS,TJP1,CBL,ARNT,EGLN2,MARVELD3,MAPK10,XRCC4,HTR2B,ITGB6,CAMKMT,LMNA,NMT2,DNAJA3,SLC24A2,ITGB1,HSP90A1A1,PSMB7,TSC22D3,CNGB1,PTPRK,ABCC8,DDDB1,ADORA1,ATP8A2,HIF3A,CUL4B,EP300,CDH8,STK39,FMN2,CAB39,MAP3K4,EGLN3,SLC4A10,STRC,KCNMA1,TRIM13,MDM4,ECT2,TMC2,MB,DMD,SLC8A1,GSN,RBM4,FYN,NF1,MGMT,PCDH15,RTN4,RWDD3,CHI3L1,TTN,NDRG4,BDKRB1,BDKRB2,STRBP,TMBIM6,SCFD1,GNAQ,FBXW7,UIMC1,TMC1,CLDN1,PDE2A,WNT11,MTA1,CLPB,ERCC8,PRKCD,SEMA5B,TGFB1,POLK,CRADD,DISC1,KCNJ3,CLOCK,ANO3,BCL3,TNFRSF10B,GPR52,CTNNA1,FBXL17,PPL,CAPN3,EPHA4,RORA,MAG,CTNNB1,SOD2,HSFA6,IGF1R,PPARG,TRPM1,CYBB,BRIP1,RYR2,FGF1,NOL3,DCT,SCARA3,MYOCD,PER2,AJUBA,CHEK2,PPP1CB,CAPN2,DIO2,GRM1,HDAC4,SFRP1,ST8SIA1,FOXO3,SMAD3,ITPR1,ARNT2,RNF168,NEDD4,APP,NOX1,YAPI,RAB11FIP5,ANGPTL4,DRD1,MMP2,DCUN1D3,STAT1,USP53,STRA6,ATF2,RAF1,CARD16,CASP1,BACH1,TICRR,PTAFR,EIF2B5,COL11A1,KCNQ1,P4HB,TRPA1,DDAH1,TRPM3,ERCC1,BLM,RUVBL2,ABCBI,EYS,RGS7,ATP2B4,MAPKAPK2,MAP1B,ATP6V0A2,TYR,RNF34,TFRC,PSMB2,EYA1,TRPV1,PAXIP1,INSRR,NTRK1,PTPRQ,EPHB1,TMEM199,NETO1,LRRK8,LRRK8D,STAC,MST1,ERCC3,HMGCS2,OPRD1,TROVE2,IGF1,HTT,PTEN,BMP7,LHFPL5,ATP6V1A,UNC119,PKD2,RGS9,BMP6,ANO1,GPI,EXT1,N4BP1,KNC2,GRIN1,RHOA,SPRTN,SYNGAP1,TFEC,HSPD1,ITPR2,GSK3B,DNAJC3,EEF2K,ALAS2,KRT8,TNFRSF8,AGT,POLH,ZMPSTE24,PTK2,CREBBP,SLC29A1,NDUFS2,RPS6KB1,STC2,GUCY2F,SECEL,DNAJB6,ADAM8,CDS1,HUS1,PKD1L1,NOS1,RGS14,ACTN4,MC1R,SLC1A1,DNAJC7,PPARA,MCOLN1,CPEB4,PPP1CC,CPEB1,NIPBL,EYA3,PPP1CA,BRAF,HDAC2,IMPACT,ANGPT4,OPN1LW,KCND2,GRIK2,GTTF2,H5,SCN1A,BRCA2,TAF1,TANK,HSF1,RAD9B,TIMELESS,PTPRC,TANC1,EDNRA,GNGT1,PRAP1
GO:0048041	focal adhesion assembly	0.00012751511458915365	MAP4K4,SLC9A1,CLASP2,PTPRK,ARHGAP6,APOD,BCR,RCC2,BCAS3,CORO1C,DUSP22,AJUBA,SORBS1,SFRP1,SMAD3,SLK,COL16A1,PPM1F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2,TAOK2,DLCL1,PHLDB2,THSD1,CAMSAP3,PTPRJ
GO:0007160	cell-matrix adhesion	0.00014112583670349441	MAP4K4,SLC9A1,CLASP2,UTRN,CASK,ITGB6,ITGB1,PTPRK,EPHA1,STRC,ARHGAP6,DMD,ADAMTS9,NF1,APOD,BCR,CDH13,RCC2,SKAP1,MKLN1,BCAS3,CORO1C,DISC1,DUSP22,OTOA,CTNNB1,ECM2,AJUBA,SORBS1,NF2,SFRP1,SMAD3,HOXD3,SLK,DEFB118,ADAMTS12,COL16A1,PPM1F,PEAK1,ITGA11,VCL,PKHD1,MACF1,CLASP1,GPM6B,CDK6,ROCK1,NID1,PTPRA,COL13A1,RASA1,PTEN,EFNA5,EPDR1,RHOA,ONECUT2,GSK3B,ITGBL1,PTK2,TAOK2,ITGAL,CD44,DLCL1,PRKCZ,CD96,PHLDB2,THSD1,CAMSAP3,PTPRJ,EDA,TNXB
GO:0040013	negative regulation of locomotion	0.00015018909556330709	SIPR2,CLASP2,SEMA3A,NRG3,SEMA3D,SEMA5A,GRM5,MARVELD3,MAP2K5,PTPRR,ROBO1,ROBO2,SRGAP3,MCC,SRGAP2B,PTPRK,ABCC8,DACH1,ADORA1,EPHA1,PTPRO,PTPRU,ADAMTS9,NF1,PLCB1,DPEP1,APOD,BCR,NDRG4,NRG1,HDAC5,DCN,PTPRT,WNT11,SEMA5B,MMP28,SLIT2,CORO1C,KANK1,DUSP22,EPHA4,PIP5KL1,PPARG,DLG5,MYOCD,NF2,SFRP1,FOXO3,PTPRM,NAV3,PTPRG,SEMA6D,BMPR1A,FGF2,SEMA4D,MCTP1,CHRD,VCL,CLIC4,WNT3,LDLRAD4,CLASP1,PRKG1,ATP2B4,PTPN2,CTNNA1,MAGI2,ADTRP,MITF,DPYSL3,PTEN,RHOA,SULF1,GPR173,TMEFF2,DLCL1,ZMYND8,ADORA2A,RABGEF1,PHLDB2,OSBPL8,BRAF,SPINT2,CD300A,ANGPT4,SP100,SRGAP2,SLIT1,FRMD5,PTPRJ,GNA12,SEMA3C
GO:00	regulation of	0.00015403	ENPPI,PRDX2,PRKCI,SLCO3A1,ADCY8,PTGIS,FER,MAP2K5,MAPK10,TRAF6,DN

51090	DNA-binding transcription factor activity	610390542913	<i>AJA3,ZC4H2,CCDC22,ERC1,IKBKB,PEX14,ESR1,EP300,RNF220,BRMS1,TCF7L2,FANCA,TRIM13,RWDD3,MDF1,PPP2CB,HDAC5,CMKLR1,COP5,MAD2L2,NEUROD1,JAK2,TRAPPC9,ITCH,ANXA4,TGFB1,SGK1,BTRC,MTDH,FANK1,CLOCK,ZNF675,BCL3,CAPN3,TNFSF11,PPP3CA,UFL1,CTNNB1,PPARG,IL18R1,MYOCD,TRIM5,HCK,TRIM8,HDAC4,MED13,SMAD3,WWP2,APP,LRP5,CHUK,ESR2,S100A12,PRKDI,TAF3,ATF2,TCF3,CARD16,CAMK1D,DDX58,TERF2IP,SUFU,PKHD1,RELN,COMMD6,PELI1,MAP3K7,TRIM22,ALK,UBE2V1,TFRC,EPHA5,PLCG2,PAXIP1,NTRK1,SP11,MAP3K13,OPRD1,BTK,PTEN,BMP7,PKD2,CRTC3,PRMT2,SMO,ROR1,AGT,PBX1,PARP10,ADAM8,RPS6KA5,IL18,ARID5B,PRKCZ,PRKCQ,HDAC2,SP100,ADCY1,SYK,DVL2,TAF1,TICAM1,HSF1,RNF2,TRIM37,MALTI,EDA</i>
GO:0097061	dendritic spine organization	0.00015586653587455876	<i>PRMT3,KALRN,DOCK10,HDAC6,INSR,TANC2,FYN,CAPRIN2,ZDHC15,CAMK2B,CTNND2,EPHA4,FCGR2B,IGF1R,DNM3,CUX2,ABI2,SHANK1,NLGN1,EPHB3,PAFAH1B1,RELN,PAK3,ACTR2,EPHB1,ARHGAP44,PTEN,LRRK2,SHANK3,WNT7A,EEF2K,EPHB2,GRIN2B,TANC1</i>
GO:0090109	regulation of cell-substrate junction assembly	0.00017205284174314254	<i>MAP4K4,SLC9A1,CLASP2,ARHGAP6,APOD,RCC2,BCAS3,CORO1C,DUSP22,SFRP1,SMAD3,SLK,COL16A1,PPM1F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2,DLC1,PHLDB2,CAMSAP3,PTPRJ</i>
GO:0051893	regulation of focal adhesion assembly	0.00017205284174314254	<i>MAP4K4,SLC9A1,CLASP2,ARHGAP6,APOD,RCC2,BCAS3,CORO1C,DUSP22,SFRP1,SMAD3,SLK,COL16A1,PPM1F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2,DLC1,PHLDB2,CAMSAP3,PTPRJ</i>
GO:1901575	organic substance catabolic process	0.00017387638520622464	<i>NT5C1B,ENPP1,GPC5,PDE4D,PDE7B,PDE8A,ALDH4A1,RNASET2,GK5,CALR3,SLC25A17,FBXL2,PRKAG2,HPSE2,FTO,DCAF12,ACOXL,CBL,ARNT,EGLN2,ENPP2,PLCE1,SAMHD1,USP32,CHI3L2,LRP2,ADPGK,EZR,TOM1L1,PSMD1,GOT1,INPP4B,HSP90AA1,PSMB7,CCDC22,AMDHD1,OMA1,DNAJB14,PDE4A,TCIRG1,HDAC6,DDBI,ADORA1,GPRASP1,CUL4B,CECR2,ACAD11,FBXL18,TNRC6A,EP300,CELA1,ZYG11B,FBXL7,USP46,CHFR,INSR,FMN2,ASB5,USP34,FBXW11,RNF144A,SAMD4A,FUT8,TRIM13,UBR2,MDM4,ENTPD5,PIPOX,ACOX1,ERN2,NPLOC4,LARP4B,USP13,PAFAH1B2,FYN,MKRN2,ARNTL,ADAMTS9,SMG7,PLCB1,DMGDH,SLC25A21,FBXO21,DPEP1,NEIL2,CHI3L1,BLVRB,NRG1,DAGLA,VGLL4,PPP2CB,ALDH3B2,RNF4,CSNK2A3,UBE3D,CREBRF,TRDMT1,FHIT,ENTPD1,MAD2L2,MAN1A1,FBXO9,RFFL,USP22,FBXW7,LINC00473,OAZ2,ITCH,USP12,ABCC2,SMG1,DPYS,IDNK,PNPLA1,PDE2A,SPSB1,HADHB,MTA1,SLAH1,ERCC8,PRKCD,BANP,PLCXD3,SPSB4,ZHX2,ASCC2,BTRC,DNAJB2,RNF133,RNF148,MGAM,DISC1,ZFAND2A,CPT1C,CLN6,CLOCK,PLCB4,BCKDHB,SYNJ2,NELL1,TIMP2,SND1,HNRNPC,YTHDF1,FBXL17,KCTD10,CAPN3,SMURF2,EPHA4,PRKCA,CNR1,SMG6,NSUN2,UBQLN3,UBQLN1,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,CPQ,OTC,LRP4R,RSRPY1,FOXK2,CHKE2,UBQLN4,PPP1CB,CAPN2,DIO2,HDAC4,TRHDE,ZCCHC17,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,ALK,FASTKD5,XDH,SNX5,RBP6,ATP2B4,NSF,SYNCRIP,SMAD3,RNFT2,WWP2,CYP4F11,RNF168,DCP1B,NEDD4,PLA2G4C,OGDHL,SLC4A4,SEC61B,APP,USP49,RBM8A,ARIH1,AMFR,SH3D19,LRP5,BDH2,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ACOX2,PTPN1,ADAMTS12,PSMD11,GGT7,USP33,IDO2,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,ARL1,OC90,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,AKRID1,STT3B,AGO3,ACA1,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,PAFAH1B1,PNLIPRP1,DDAH1,EDEM3,TNRC6B,ALDH6A1,MGLL,DAB2,UBR1,CACUL1,</i>

			DE1, GSK3B, SULF1, RNF43, SNX3, APCDD1L, LBX2, SCEL, CSNK1A1, STK4, SPEF1, WLS, TBL1X, LRRK1, PPP1CA, RBMS3, PPP2CA, WWTR1, WIF1, ANKRD6, EDA, RNF213, SHISA6
GO:0007017	microtubule-based process	0.00017766948444168402	DNAH11, HOOK2, TACC2, SPAG16, PDE4DIP, CLASP2, KIF22, ASH1L, TUBA1C, IQCG, MAPRE2, FER, STAG2, EZR, TACC1, KIF5C, LMNA, ULK4, ITGB1, CNIH2, KIF26B, DLG2, IFT43, TTL5, PARD6G, HDAC6, TBCEL, KIF18B, PEX14, DNAH2, NPHP3, DNAI2, HOK3, MID1, FMN2, PAK1, FBXW11, CATSPER2, AP3S1, LRRC49, STARD9, RBM14, DST, RANBP9, DCTN1, MYH9, WDR92, NAV1, RNF4, PARD3B, LRUGK, CATSPER3, AUNIP, TLE6, CCNYL1, TERF2, ARL3, KIF2A, ICK, TTL8, RANBP1, SMC3, CROCC, BBS12, DNAH14, KIF21A, DYNCH11, PIBF1, BCAS3, DISC1, CEP135, TTBK2, SPAG17, ANKFN1, FGF10, SLC16A1, TRAK1, CTNNB1, AXIN1, DNAH10, LRPPRC, NIN, DNHD1, TUBGCP6, HAUS4, CHEK2, PHLDB1, DNAH9, HEPACAM2, AP3B2, SPG11, IFT122, RAB6A, C10ORF90, KPNB1, NAV3, RAB6C, APP, SLK, BORA, SLC9B2, SETD2, KIF24, SYNE2, SYBU, USP33, VBP1, RAB11A, CRMP1, AGBL4, ARMC2, SLC9B1, BLOC1S5, GAS8, PAFAH1B1, KIF3A, CEP350, TTL7, TNKS, PKHD1, DZIP1, NEK10, EML4, MACF1, CLASP1, SLC9C1, TTL9, ATP2B4, DYX1C1, MAP1B, MARK1, UVRAG, ZNF207, RPGR, ACTR2, ROCK1, AP3B1, MAP1A, NCKAP5, PARD3, TRIM46, TUB, DNAH12, TEKT1, AP3D1, KIF3C, TRDN, NTMT1, MST1, SNCA, HAUS3, CHMP3, HYDIN, HTT, TTL4, SPAG5, CHMP5, IFT81, TMEM108, PKD2, EFNA5, STMN4, PPP2R3C, TBCD, MAP4, NME8, RHOT1, SIK3, ATRX, SUN1, BLOC1S3, MARK4, RHOA, NDE1, GSK3B, HDGFRP3, PRKAA2, BLOC1S6, CUL9, TPPP2, CD14A, COPG2, CEP70, KIF6, RGS14, TUBB3, MARK3, SPEF1, TTL11, GPSM2, LDHC, PAX6, PRKCZ, STAG1, PHLDB2, KLC3, ARHGAP21, MAP2, KIFC3, DIAPH1, CAPN6, CAMSAP3, RAB27B, SRGAP2, BRCA2, DNAH3, SKA2, POC1B, TRIM37, MET, ADCY10, RAS, SF8, CCDC170
GO:0050769	positive regulation of neurogenesis	0.0001806251649832645	PRKCI, TLAM2, KALRN, SEMA5A, GRM5, LRP2, ROBO1, CDKL5, ROBO2, DSCAM, GOLGA4, LIMK1, NTRK2, CDH4, PTPRD, BDNF, AMIGO1, TENM4, NTN1, MAP2K1, CAPRIN2, IL1RAPL1, CAMK2B, TGFB1, SLIT2, TP73, DISC1, EPHA4, MAG, UFL1, CTNNB1, PPAR, NIN, DCT, CUX2, GSX2, ISLR2, PARP6, BMPR2, RAB11A, SEMA4D, PLXNA2, SPEN, WNT3, PAFAH1B1, TRPC5, RUFY3, RELN, MACF1, PAK3, ADNP, MAP1B, ACTR2, HDAC1, EGR2, CUX1, MAP3K13, EFNA5, SHANK3, SMO, EEF2K, RGS14, EPHB2, PAX6, PPP1CC, FBXO31, BRAF, HDAC2, CDKL3, NUMB
GO:0006816	calcium ion transport	0.00022836040713730162	ASPH, PDE4D, SLC9A1, FAM155A, CHERP, CACHD1, RYR1, NOS1AP, EPB41, ATP2B2, CASK, ANK2, CHD7, HTR2B, RYR3, SLC24A2, SLC24A3, CACNB2, PDGFB, CACNA1B, CATSPER2, LCK, TMC2, MICU3, DMD, SLC8A1, JPH2, FYN, CACNA1E, BDKRB1, STIM1, NALCN, TM6IM6, CATSPER3, ANO6, NPSR1, TMC1, CACNA1H, CAMK2B, CD4, TGFB1, JPH3, CDH23, CACNA1D, CACNA2D3, HOMER2, CAPN3, VMP1, PPP3CA, CTNNB1, TRPM1, RYR2, NOL3, CACNA1C, ITPR1, VDACL1, IBTK, DRD1, PRKD1, FGF2, ADCYAP1R1, TRPA1, TRPM3, NMUR2, AKAP6, TRPC5, SLC8A2, TPCN1, AHNK, ATP2B4, CACNA1A, TRPV1, PLCG2, GPR35, CACNG8, CD84, MCU, TRDN, STAC, TRPC6, SNCA, CACNG2, OPRD1, HTT, TMC01, PKD2, PSEN2, GRIN1, RHOA, GRIN3A, ITPR2, EPM2A, AGT, ZMPS2, PDE4B, TRPC4AP, STC2, PKDIL1, NOS1, XCR1, CALCRL, MCOLN1, ADORA2A, GRIN2B, DIAPH1, HTR2C, ANXA2, CACNG3, ATP2B3, GPM6A, SESTD1, CAMK2D, PTPRC, EDNRA
GO:0051963	regulation of synapse assembly	0.00022943412237888045	NRXN1, NEGR1, GRID2, NTRK3, LHFPL4, ROBO2, NTRK2, PTPRD, BDNF, AMIGO1, NTN1, LRFN5, CLSTN2, IL1RAPL1, LINGO2, IL1RAPL2, DLG5, CUX2, APP, NLGN2, GPC6, NLGN1, SEMA4D, EIF4G1, EPHB3, NLGN3, SETD5, ADNP, FLRT2, NTRK1, EPHB1, EPHA7, SNCA, PTPRS, EFNA5, WNT7A, EEF2K, EPHB2, SLIT1, SYNDIG1
GO:0052696	flavonoid glucuronidation	0.0002619779187481073	UGT1A1, UGT1A10, UGT1A3, UGT1A4, UGT1A5, UGT1A6, UGT1A7, UGT1A8, UGT1A9
GO:0032870	cellular response to hormone stimulus	0.0002686045599300005	ENPP1, PRKCI, SLC9A1, ADCY8, PTGFR, LATS2, PRLR, PAGR1, EGLN2, FLT3, STAT5B, FER, GOT1, ROBO2, CDC6, THRB, STXBP4, PTPN11, HDAC6, BRD8, ESR1, PMEP1, EP300, CCND3, INSR, PIP4K2A, PAK1, ESRRB, AP3S1, ARNTL, PLCB1, RXFP1, PIK3R2, HDAC5, SLC39A14, DEFA1B, DEFA3, PTGER2, JAK2, CACNA1H, PRKCD, TGFB1, SGK1, BCAS3, SLIT3, SLIT2, KANK1, RXFP2, CLOCK, SMYD3, GLP2R, UFL1, SMARCC1, IGF1R, PPARG, BRIPI, LEPR, LEPROT, NR4A3, SORBS1, HDAC4, SFRP1, FOXO3, NEDD4, ESRG, YAP1, GNG2, ESR2, STAT1, HNF4A, PTPN1, PIK3R3, RARB, NCOA1, PTPRE, SRSF5, IDE, NR2C1, IRS4, WDC1, DAB2, SP1, SRA1, SNX5, DYX1C1, MAP1B, GHR, ACACA, HDAC1, TRIM24, ADIPOR2, ROCK1, CAPN10, PTPN2, INSR, CARM1, PTPRA, BCAR3, RAB15, HMGS2, KMT2D, ADTRP, BMP7, PRCP, EFNA5, NCOA3, GPR21, TSHR, PNPLA3, PRMT2, UBR5, GRB14, RHOA, RQCD1, GSK3B, RDX, STAT6, EEF2K, AGT, PRKAA2, PTK2, PHEX, UGT1A1, SHC1, RPS6KB1, GPR173, SCNN1B, PPARA, SLC25A33, ZNF366, FBN1, PRKCZ, ATP1A3, CPEB1, OSBP1, NCOR2, PRKCQ, PHIP, CNOT1, UCN2, HSF1, MAX, NCOA2, CAV2, DENND4C, PHB, EDNRA, BMP4
GO:0001952	regulation of cell-matrix adhesion	0.0002899177349073299	MAP4K4, SLC9A1, CLASP2, UTRN, CASK, EPHA1, ARHGAP6, DMD, NF1, APOD, CDH13, RCC2, SKAP1, BCAS3, CORO1C, DISC1, DUSP22, NF2, SFRP1, SMAD3, SLK, COL16A1, PPM1F, PEAK1, VCL, PKHD1, MACF1, CLASP1, GPM6B, CDK6, ROCK1, PTPRA, RAS, PTEN, EFNA5, RHOA, ONECUT2, GSK3B, PTK2, DLC1, PRKCZ, PHLDB2, CAMSAP3, PTPRJ
GO:0010721	negative regulation of cell	0.000291578269351287	SEMA3A, CLDN18, SEMA3D, NTRK3, SEMA5A, DAB1, ABCC8, HOOK3, NF1, RTN4, RTN4R, NTN1, RCC2, FBXW7, SEMA5B, TGFB1, C9ORF47, CORO1C, KANK1, PPP3CA, MAG, CTNNB1, DRAXIN, DCC, PRTG, DIP2B, FSTL4, SEMA6D, BMPR1A, SEMA4D, WNT3, TR

	development	17	PC5,RUFY3,BRINP1,TRPV1,RNF10,TRIM46,EPA7,CTNNA1,PTPRS,IGF1,PTEN,BMP7,EFNA5,WNT7A,RAPGEF2,SYNGAP1,GSK3B,DLX1,ACTN4,EPHB2,FBN1,PAX6,MAP2,TNR,CDKL3,SLIT1,SEMA3C
GO:0048514	blood vessel morphogenesis	0.0002970805986881603	NRXN1,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,LRP2,PIK3CD,NRXN3,ROBO1,CHD7,VAV2,ITGB1,ARHGAP24,RUNX1,ABCC8,EPA7,HIF3A,MYO18B,NTRK2,CBLA1,NPRL3,MEIS1,SGCD,ADAMTS9,NF1,RTN4,APOD,CHI3L1,UBP1,STIM1,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNX1,WNT11,QKI,TGFB1,BCAS3,SLIT2,MTDH,BMPER,PARVA,ADAM12,FGF10,RORA,PRKCA,CTNNB1,ARHGAP22,PPARG,CYBB,LEPR,FGF1,MYOCD,MYO1E,CSPG4,FLT4,SFRP1,PTPRM,NRP2,PDGFRA,NOX1,YAP1,HEG1,JAK1,ANGPTL4,LRP5,SETD2,VASH2,MMP2,PRKD1,STAT1,STRA6,EREG,ATF2,BMPR2,BMPR1A,TSPAN12,PIK3R3,FGF2,ISM1,EPHB3,COL4A3,RHOJ,COL4A3,DDAH1,APOLD1,SP1,XDH,OVOL2,ATP2B4,TMEM2,CALD1,EYAI,HOXB3,SMOC2,ADIPOR2,ROCK1,PAXIP1,EPHB1,SP1,RAPGEF3,HEY2,WNT7B,ADTRP,RASA1,HIPK1,PTEN,PRCP,PKD2,AMOTL1,WNT7A,SOS1,RAPGEF2,SMO,RHOA,PTPRB,SULF1,AGT,PTK2,SHB,SHC1,CD160,ALOX5,ADAM8,THSD7A,CXCL17,STK4,EPHB2,SLC1A1,IL18,CALCRL,NOTCH4,COL22A1,TMIGD2,ANGPT1,ETS1,ANGPT4,SP100,ANXA2,SYK,SRPK2,SASH1,VAV3,CCKR3,RNF213,EDNRA,BMP4
GO:0032880	regulation of protein localization	0.0003023597756562833	CD247,GPC5,NRXN1,ASPH,PRKCI,ADCY8,CLDN18,CTDSPL2,LATS2,ASTN2,EPB41,EZR,TENM1,LMNA,ITGB1,ABCC8,HMGN3,STXBP4,EFCAB7,TCIRG1,PTPN11,CTCT2,HDAC6,ERBB4,GBF1,DPP10,FRMD4A,TCF7L2,MYO1,BDNF,ECT2,KAT7,GSN,FYN,ARNTL,NF1,STX6,RTN4,APOD,TTN,ICAI,PIK3R2,TMEM30A,SCFD1,CREBRF,IPO5,GOLPH3L,NEUROD1,JAK2,FBXW7,OAZ2,CROCC,PLS1,PRKCD,TGFB1,F2RL1,BCAS3,DNAJB2,AAK1,CEP135,TTBK2,CHRM1,CLOCK,DCLK1,RABGAP1L,STXBP5,SLC16A1,CNR1,PPP3CA,UFL1,CTNNB1,PARK2,PPARG,ANXA13,SREBF2,LEPROT,TRIM5,PCP2,SORBS1,TRIM8,NF2,SPTBN1,SFRP1,SMAD3,WWP2,LZTFL1,YAP1,RAB11FIP5,NLGN2,BORA,NVL,LRP5,SLC9B2,SETD2,GPC6,SERGEF,PRKD1,HNF4A,VPS4A,PTPN1,PPM1F,ADCY5,RAB11FIP3,GAS8,AP2M1,TSG101,VCL,SUFU,KIF3A,RUFY3,DAB2,DZIP1,SIN3A,TRIM22,APBB3,GPM6B,ATP2B4,KCNAB2,TFRC,EPA5,GPC3,STOM,GAPVD1,CAPN10,ZFAND1,MAP1A,ANK3,PTPN9,GNL3L,PTPN14,AP2B1,ARHGAP44,SNX33,SP11,MCU,CTNNA1,STAC,RAPGEF3,CACNG2,SYT9,ADTRP,ABCA12,XPO4,IGF1,STX8,PIK3C3,LRRK2,TMEM59,LILRB4,ITGAM,EFA5,SHANK3,WNT7A,ZBED6,DNAJC1,BMP6,MYCBP2,ANO1,SMO,MARK4,STXBP5L,CPT1A,UBR5,EPM2A,GSK3B,RDX,NECAB2,PRKAA2,SYT7,SNX3,SEC16B,ALOX5,DNAJB6,ADAM8,SLC5A3,EPHB2,SLC1A1,WLS,GPSM2,HCAR2,SYTL4,PRKCZ,ADORA2A,OTUD7B,ANGPT1,EPB41L2,SP100,TRIM29,NUMB,WWTR1,MYRIP,ANKRD13A,CCT3,NEDD4L,SHISA6,EDNRA,BMP4,ABLIM3
GO:0042981	regulation of apoptotic process	0.0003234803840093516	PRDX2,PRKCI,MAP4K4,DNMT1,TMBIM4,SLC9A1,IL31RA,GRID2,RPS6KA2,PTGFR,LATS2,ANP32A,PTGIS,TJP1,UNC5C,PRLR,CBL,EGLN2,SEMA5A,FLT3,STAT5B,MAP2K5,KITLG,LRP2,PIK3CD,OLFM1,TNFAIP8L1,HTR2B,LMNA,TRAF6,ITPKB,DNAJA3,OXR1,GRK5,ITGB1,HSP90AA1,TSC22D3,OMA1,DDI1,ADORA1,IKBK,ERBB4,GBE1,MRE11A,ESR1,NTRK2,BRMS1,FMN2,TCF7L2,EGLN3,BDNF,TFAP2A,CNMA1,LCK,MDM4,ECT2,SNX6,TOX3,GSN,NF1,MGMT,SNCB,RTN4,DPEP1,NRG1,ARHGAP10,CDK19,BDKRB2,DOCK8,BID,FNIP1,TMBIM6,CSRNP3,RBM5,COP5,ANO6,CERKL,NEUROD1,RFFL,JAK2,FBXW7,ITCH,BCL11B,TEX11,ANXA4,WNT11,SLAH1,PRKCD,TGFB1,SGK1,CRADD,SLIT2,TP73,SAP18,MTDH,FANK1,SMAD6,TFAP2D,BCL3,DAPK2,TNFRSF10B,NAIP,FGF10,CAPN3,PRKCA,CNR1,MAGEA4,MAG,PIP5KL1,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,DLG5,DRAVIN,NOL3,MYOCD,CHEK2,HCK,CAPN2,NF2,FLT4,SGMS1,HDAC4,PAX2,SFRP1,FOXO3,BCL2L13,SMAD3,GRIK5,TXNDC12,CDC73,SLK,NOX1,YAP1,VDAC1,EYA2,ANGPTL4,LRP5,CHST11,TMEM14A,FRS2,PALB2,MMP2,DCUN1D3,STAT1,TCTN3,ATF2,RAF1,CARD16,CASPI,PTPN1,CAMK1D,SEMA4D,RORC,YME1L1,RARB,PRKCQ,NCOA1,AREL1,EEF1E1,TXNDC5,EIF2B5,ATF3,PAWR,DEPTOR,P4HB,CNTFR,HIP1,GLI2,DAB2,PKHD1,SIN3A,CFDP1,ALK,INPP5D,SRA1,PAX7,PAK3,ADNP,RNF34,TFRC,WWOX,GFRAL,EYA1,TRPV1,MNAT1,HDAC1,TRIM24,ROCK1,HIPK3,RYBP,CAPN10,PTPN2,NTRK1,TMIGD1,SLC39A10,SARM1,MUC1,EPA7,CTNNA1,AIFM2,MST1,ERCC3,SNCA,BMPR1B,GRM4,USP42,HEY2,ZMYND11,CAST,DFFA,RASA1,MITF,SRSF6,NUGGC,BTK,IGF1,CTNNB1,HTT,PTEN,BMP7,LRRK2,OSGIN1,BAG6,ITGAM,WNT7A,NLRP1,GPI,SH3RF2,PRMT2,RAPGEF2,SMO,PSEN2,RHOA,SYNGAP1,HSPD1,GSK3B,DNAJC3,EEF2K,CD27,BOK,RNF144B,NACC2,TNFRSF8,AGT,PRKAA2,ADAR,PTK2,FBXO10,MAP3K5,DLX1,SHC1,CD160,RPS6KB1,DNAJB6,CD44,ADAM8,BCL2L14,ACTN4,STK4,ZFAND6,SLC1A1,SIGMAR1,HCAR2,DLC1,PPARA,PPP1R10,PHLPP1,CPEB4,PRKCZ,ADORA2A,ANGPT1,EYA3,FHL2,ATF6,ETS1,PPP1CA,GR1A4,STPG1,PRKCQ,BRAF,HDAC2,POU3F3,HIGD2A,PHIP,ANGPT4,SP100,MADD,GRIK2,HRK,HSF1,SRPK2,ANKRD13C,QRICH1,VAV3,NUAK2,AXL,TNFSF9,CAMK2D,MALT1,KDM2B,PHB,PTPRC,TYRO3,ADCY10,TRAP1,PRAP1,BMP4,CASP12
GO:0007612	learning	0.0003255442541898207	NRXN1,NLGN4X,KALRN,GRM5,NRXN3,SLC24A2,ITGB1,ABCC8,DGKI,NTRK2,INSR,TBR1,FYN,NF1,PLCB1,NDRG4,JPH3,YTHDF1,CNTNAP2,PARK2,CSMD1,SHANK1,SLC6A1,APP,DRD1,SHANK2,STRA6,NLGN3,RELN,SLC8A2,ATAD1,SORCS3,ACTR2,ELAVL4,MAP1A,NETO1,HTT,SHANK3,PRKAR2B,GRIN1,SYNGAP1,EPM2A,AGT,RGS14,EPHB2,SLC1A1,BRAF,ATP8A1,TNR,ATXN1,TANC1
GO:0007044	cell-substrate junction assembly	0.000330605159766999	MAP4K4,SLC9A1,CLASP2,PTPRK,ARHGAP6,LAMC1,DST,APOD,BCR,RCC2,BCAS3,CORO1C,DUSP22,AJUBA,SORBS1,SFRP1,SMAD3,SLK,COL16A1,PPM1F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2,TAOK2,D

		4	LC1,PHLDB2,THSD1,CAMSAP3,PTPRJ
GO:0150116	regulation of cell-substrate junction organization	0.00033421 4138679454 25	MAP4K4,SLC9A1,CLASP2,MAPRE2,ARHGAP6,APOD,RCC2,BCAS3,CORO1C,DUSP22,SFRP1,SMAD3,SLK,COL16A1,PPM1F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2,DLC1,PHLDB2,CAMSAP3,PTPRJ
GO:0080134	regulation of response to stress	0.00036938 8579537364 8	PRDX2,MAP4K4,ADCY8,PDE8A,CLASP2,SEMA3A,SETD4,C12ORF49,ASH1L,PTGIS,SUSD4,STAT5B,SAMHD1,CASK,MARVELD3,SH2D1A,EZR,MECOM,LMNA,TRAF6,DNAJA3,OXR1,ULK4,ITGB1,HSP90AA1,PSMB7,ABCC8,PTPN11,HDAC6,ADORA1,IKBKB,ESR1,EP300,PDGFB,TNFK,MID1,ALOX5AP,STK39,FMN2,PAK1,MAP3K4,FANCA,FUT8,VAMP7,NPLOC4,USP13,KAT7,RBM14,FYN,MKRN2,ARNTL,PLCB1,MGMT,PPP4R2,RTN4R,BCR,CDK19,BDKRB2,BID,MAP2K1,LRFN5,DAGLA,TMBIM6,TSPAN8,CREBRF,AUNIP,COPS5,MAD2L2,TERF2,ANO6,HERC5,JAK2,FAM168A,FBXW7,UIMC1,ITCH,MLIP,SMG1,CLDN1,PDE2A,KREMEN1,ERCC8,PRKCD,F2RL1,KANK1,MMP26,CLOCK,ZNF675,DUSP22,NAIP,SBNO2,FGF10,SH3RF3,EPHA4,RORA,CNRI,TNFSF11,PPP3CA,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,AXIN1,OTUB1,IL1RL1,PROS1,NR4A3,NOL3,TRIM5,KIR2DL4,AJUBA,CHEK2,UBQLN4,HCK,FLT4,SFRP1,FOXO3,SMAD3,RNF168,TXNDC12,APP,PDGFR,NOX1,AMFR,SESNI,TNFRSF19,EYA2,POLR3G,SETD2,S100A12,STAT1,EREG,ACOX2,CASP1,PTPN1,ADAMTS12,GGT7,BMPRI1A,FGF2,ADCY5,MCTP1,DDX58,PRKCG,AREL1,EEF1E1,EEF1E1-BLOCIS5,EIF4G1,PAWR,TERF2IP,P4HB,PAFAH1B1,DDAH1,ERCC1,MGLL,SIN3A,ABCB1,MAP3K7,CLASP1,UBE2V1,XDH,PRKG1,ATP2B4,PAK3,MAPKAPK2,CDK6,CELF1,DROSHA,PSMB2,EYA1,PTGER3,SHPK,RNF216,TSPAN6,ACTR2,RECQL5,MOC2,PLCG2,C1QTNF1,PAXIP1,HIPK3,ABCC1,PTPN2,TRIM44,EPHB1,AXIN2,MUC1,COCH,SPI1,AIFM2,PSPC1,SNCA,PNPT1,WNT7B,PTPRS,XYND11,TRIP12,ADTRP,SRSF6,RTN4RL1,BTK,IGF1,MAPK1,PTEN,SPRED2,BMP7,PCBP2,LRRK2,BAG6,SHANK3,NT5E,WNT7A,NLRP1,SH3RF2,N4BP1,ENPP3,UBR5,GSK3B,ACTA2,C2D7,BOK,NACC2,AGT,POLH,ADAR,STAT2,ZMPSTE24,PTK2,MAP3K5,CREBBP,NCF1,TAOK2,CD160,RNF11,ALOX5,DNAJB6,CD44,ADAM8,CLDN4,CXCL17,EPHB2,IL18,UBE2K,DNAJC7,PPARA,PPP1R10,CALCRL,PHLPP1,MAGI3,GPSM3,CD96,ADORA2A,RABGEF1,PHLDB2,EYA3,ATF6,ETS1,BRAF,TNR,SYK,GRIK2,YBX1,CADM1,HSF1,DHFR,SASH1,GBP5,ZP3,INPP5F,CD109,MET,TIMELESS,ANKRD6,ZDHHC11,PTPRC,TYRO3,TRAF3IP2,ATF6B,TRAP1,CLNK,BMP4,CASP12
GO:0009950	dorsal/ventral axis specification	0.00041274 4508508269 3	MDFI,VAX2,SMAD6,CTNNB1,AXIN1,SFRP1,BMPRI1A,WNT3,AXIN2,PAX6
GO:0051169	nuclear transport	0.00041775 2017343326 94	POLDIP3,CTDSPL2,ANP32A,LTV1,FAM53A,TNPO3,LMNA,AKAP13,EFCAB7,PTPN11,TCF7L2,ECT2,SHFM1,RANBP17,RBM4,NF1,SMG7,APOD,PIK3R2,IPO5,NEUROD1,IPO11,JAK2,SMG1,KPNA3,PRKCD,TGFB1,NUP93,BCL3,ANKRD54,SMG6,PPP3CA,NSUN2,AXIN1,RIOK2,RANBP3,SMAD3,NEDD4,KPNB1,THOC3,SETD2,PRICKLE1,DRD1,PRKD1,ATF2,IPO9,XPO6,TNPO1,DES1,SUFU,SMG5,NXT2,EGR2,KPN46,SNUPN,PTPN14,RAPGEF3,RSRC1,PRKAG1,XPO4,NUP88,LRRK2,ZC3H11A,POM121C,SMO,LSG1,UBR5,EPM2A,GSK3B,IWS1,UPF2,AGT,ADAR,GCKR,RGS14,STK4,PPP1R10,KPNA4,PPP1CC,ANGPT1,RPL23,ATXN1,SP100,NUP214,SYK,MALT1,NDIC1,TRAF3IP2,BMP4
GO:0006913	nucleocytoplasmic transport	0.00041775 2017343326 94	POLDIP3,CTDSPL2,ANP32A,LTV1,FAM53A,TNPO3,LMNA,AKAP13,EFCAB7,PTPN11,TCF7L2,ECT2,SHFM1,RANBP17,RBM4,NF1,SMG7,APOD,PIK3R2,IPO5,NEUROD1,IPO11,JAK2,SMG1,KPNA3,PRKCD,TGFB1,NUP93,BCL3,ANKRD54,SMG6,PPP3CA,NSUN2,AXIN1,RIOK2,RANBP3,SMAD3,NEDD4,KPNB1,THOC3,SETD2,PRICKLE1,DRD1,PRKD1,ATF2,IPO9,XPO6,TNPO1,DES1,SUFU,SMG5,NXT2,EGR2,KPN46,SNUPN,PTPN14,RAPGEF3,RSRC1,PRKAG1,XPO4,NUP88,LRRK2,ZC3H11A,POM121C,SMO,LSG1,UBR5,EPM2A,GSK3B,IWS1,UPF2,AGT,ADAR,GCKR,RGS14,STK4,PPP1R10,KPNA4,PPP1CC,ANGPT1,RPL23,ATXN1,SP100,NUP214,SYK,MALT1,NDIC1,TRAF3IP2,BMP4
GO:0007611	learning or memory	0.00048402 6613428472 55	DNAH11,NRXN1,ADCY8,NLGN4X,KALRN,GRM5,NRXN3,SLC24A2,ITGB1,ABCC8,DGKI,NTRK2,EP300,INSR,TBRI,BDNF,FYN,NF1,PLCB1,AFF2,NDRG4,SGK1,JPH3,YTHDF1,CNTNAP2,CNRI,CAMK4,PARK2,PRKAR1B,CSMD1,CUX2,SHANK1,SLC6A1,APP,AMFR,RCAN1,DRD1,SHANK2,STRA6,PRKCG,NLGN3,PAFAH1B1,BTBD9,RELN,SLC8A2,ATAD1,ADNP,SORCS3,BRINP1,ACTR2,ELAVL4,EGR2,NTRK1,MAP1A,NETO1,HTT,MAPK1,PTEN,SHANK3,GPI,PRKAR2B,GRIN1,SYNGAP1,EPM2A,AGT,RPS6KB1,RGS14,EPHB2,SLC1A1,PRKCZ,GRIN2B,BRAF,ATP8A1,TNR,ATXN1,ADCY1,TANC1,CREB1
GO:0009605	response to external stimulus	0.00048647 9250928854 7	PRDX2,NRXN1,SLC9A1,ADCY8,CLASP2,SEMA3A,IL31RA,GRID2,RNASET2,PRDM12,SETD4,PTGFR,NRG3,ASH1L,SEMA3D,MYOT,PTGIS,PRKAG2,TJP1,UNC5C,PRLR,KALRN,NTRK3,CBL,SEMA5A,SUSD4,STAT5B,ENPP2,SAMHD1,FER,CASK,PIK3CD,NAALADL2,DEPDC5,SH2D1A,NRXN3,ROBO1,CHD7,SLC26A6,ITGB6,CAMKMT,KIF5C,LPO,NMT2,TRAF6,ROBO2,NFASC,DNAJA3,SLC24A2,HSP90AA1,ELMO2,PSMB7,DSCAM,CNGB1,TRIO,OMA1,ABCC8,STXBP4,LAMA2,PTPN11,ADORA1,EPHA1,IKBKB,GBF1,ATP8A2,KLHL6,ESR1,PTPRO,TNRC6A,EP300,PDGFB,USP46,ALOX5AP,BPI,STK39,UNC5D,LAMA3,CDH4,PAK1,LITAF,TBRI,STRC,BDNF,TTC4,FANCA,NPRL3,TRIM13,HLCS,LCK,TMC2,VAMP7,LSP1,NPLOC4,DMD,SLC8A1,GSN,RBM14,RBM4,MACROD2,FYN,MKRN2,ADAMTS9,NCF2,MGMT,PCDH15,DPEP1,

			<p>RTN4R,BCR,CHI3L1,CCDC141,TTN,ADAMTSL1,NTN1,NRG1,CDK19,BDKRBI,STRBP,MAP2K1,FNIP1,LRFN5,DAGLA,CNTN4,CMKLR1,TSPAN8,DOCK2,CDH13,RAB27A,DEFA1B,DEFA3,F5,PTGER2,BOC,ANO6,GNAQ,FBXO9,HERC5,JAK2,MYPN,I TCH,NPSR1,BCL11B,TMC1,CLDN1,B3GALT5,PDE2A,WNT11,TRIM59,MTA1,KREMEN1,WDFY4,CLPB,SLAH1,PRKCD,TAB2,SEMA5B,CD4,TGFB1,MMP28,CRAADD,F2RL1,BCAS3,SLIT3,SLIT2,HP,LAMC2,MTDH,XPR1,MMP26,SMAD6,CLOCK,ANO3,BCKDHB,BCL3,DCLK1,DAPK2,TNFRSF10B,PARVA,GPR52,NAIP,SBNQ2,YTHDF1,FGF10,CNTNAP2,FBXL17,ENAH,PPL,CAPN3,SLC16A1,EPHA4,RORA,PRKCA,CNR1,CD6,TNFSF11,MAG,UFL1,CTNNB1,PARK2,SOD2,FCGR2B,IGF1R,PPARG,IL1RL1,TRPM1,ANKRD17,CYBB,OTC,BRIP1,SREBF2,RYR2,DRAXIN,FGF1,PROS1,FOXK2,WDR45B,MYOCD,TRIM5,PER2,KIR2DL4,KIR3DL1,CSMD1,PPP1CB,HCK,CAPN2,TRIM8,DIO2,DCC,HDAC4,PAX2,SFRP1,FOXO3,DGKB,TPH2,CNTN6,NFIB,SYNCRIP,SMAD3,PTPRM,ACKR2,WIPI1,C1S,SHANK1,IFNAR1,NRP2,PREX1,DOCK4,PRTG,CDC73,APP,PDGFRA,SESN1,NLGN2,ALPL,JAK1,POLR3G,SETD2,DEFB118,ECSIT,DRD1,CHUK,MMP2,S100A12,PRKD1,STAT1,SLC6A3,USP53,SHANK2,STRA6,EREG,MAPKAPK3,DSCAML1,SEMA6D,ATF2,POU2F2,RAF1,CARD16,CASP1,PTPN1,ADAMTSL2,GGT7,BMPR2,USP33,DYSL2,CAMK1D,CTNNA2,CRMP1,FGF2,PPM1F,ADCY5,AGBL4,SEMA4D,PLXNA2,PTAFR,DDX58,PIK3C2B,PRKCG,NCOA1,AREL1,BLOC1S5,ABCF3,E1F4G1,EPHB3,ATF3,WDR59,COL11A1,KCNQ1,WNT3,FKBP5,CCL14,CCL15,CCL15-</p> <p>CCL14,ZFYVE1,TRPA1,TRPM3,NMUR2,GLI2,NEO1,ERCC1,MGLL,C9,WNK1,RELN,SIN3A,CSF3R,EYS,PELI1,SLC22A3,MAP3K7,TRIM22,ALK,CLASPI,DSC2,PRKG1,PAK3,MASPI,ZPLD1,ADNP,MAPKAPK2,MAP1B,SCARB1,CDK6,CELF1,TYR,TFRCEPHA5,DROSHA,GFRAL,GPC3,SGIP1,TBC1D5,PSMB2,PTGER3,SHPK,TRPV1,RNF216,TSPAN6,TFEB,CLEC16A,GHR,FLRT2,ACTR2,C2,CFB,SMOC2,TRIM24,LCNG2,C1QTNF1,EGR2,ABCC1,PTPN2,NTRK1,CRISP3,TRIM44,PTPRQ,EPHB1,EPHA10,SARM1,AP3D1,SRD5A2,CD84,COCH,HMCN1,SP11,EPHA7,MCU,PSPC1,TRDN,ATG14,LY86,SHROOM3,MST1,PTK7,CHID1,SNCA,BMPR1B,CACNG2,RNF19B,HMGC S2,PTPRS,ZMYND11,PRKAG1,ADTRP,PLD1,NUGGC,RPTOR,RTN4RL1,BTK,VPS41,IGF1,STX8,HTT,MAPK1,PTEN,BMP7,PIK3C3,PUM1,LHFPL5,PCBP2,LRRK2,UNC119,CHMP5,ITGAM,PKD2,EFNA5,NT5E,MTMR3,PPP2R3C,NLRP1,ARNTL2,BMP6,MYCBP2,ANO1,GPI,SOS1,EXT1,N4BP1,PDCD1LG2,SERINC5,SMO,ENPP3,BLOC1S3,CPT1A,TNFRSF11B,RHOA,GRIN3A,TF,FAM19A4,ABCG8,DNAJC3,EMB,ACTA2,FAM49B,KRT8,TNFRSF8,AGT,PRKAA2,ADAR,BLOC1S6,STAT2,ZMPSTE24,PTK2,PHX,SNX3,PDE4B,GAP43,MAP3K5,CREBBP,NCF1,UGT1A1,SHC1,CD160,ECE1,RPS6KB1,STC2,GUCY2F,SCEL,ALOX5,ADAM8,RPS6KA5,CDS1,MUC7,PKD1L1,CXCL17,NOS1,SCNN1B,TUBB3,EPHB2,SLC1A1,XCR1,IL18,UBE2K,PPARA,CALCRL,PHLPP1,CPEB4,GPM3,PAX6,ZC3HAV1,CD96,ADORA2A,PPP1CC,RABGEF1,PHLDB2,TYK2,ANGPT1,ETS1,PPP1CA,CFI,BIN2,CCL22,PRKCQ,BRAF,HDAC2,HTR2C,IMPACT,TNR,SP100,OPN1LW,TRIM29,CR2,TMEFF1,WIPI2,SYK,GRIK2,SCN1A,SLIT1,PTPRJ,SLC10A1,TICAM1,GPM6A,UCN2,CADM1,HSF1,MAX,SRPK2,SASH1,GBP5,VAV3,ZP3,INPP5F,NUAK2,AXL,CD109,MET,CCR3,IFI44L,MALTI,ZDHHC11,SEMA3C,PHB,PTPRC,TYRO3,RNF213,SPON2,NCAM1,TRAF3IP2,TRIM60,CLNK,EDNR A,GNGT1,BMP4,CASP12</p>
GO:0051966	regulation of synaptic transmission, glutamatergic	0.00049568 9259254921 2	<p>NRXN1,GRM8,GRM5,DGKI,ADORA1,GRM7,ROR2,SYT1,GRIK3,DISC1,CNR1,GRM1,NLGN2,DRD1,NLGN1,GRIK1,NLGN3,RELN,ATAD1,NTRK1,UNC13A,CACNG8,CACNG2,GRM4,LRRK2,SHANK3,ADORA2A,TNR,GRIK2,CACNG3</p>
GO:0006814	sodium ion transport	0.00053017 7160453659 6	<p>SLC9A1,UTRN,SLC38A11,SLC9A9,SLC24A2,NKAIN2,SLC24A3,NKAIN3,NETO2,STK39,SLC20A2,SLC4A10,SLC6A16,DMD,SLC8A1,SLC5A6,SLC4A5,NALCN,CATSPER3,FGF14,ANO6,SCN4A,SLC5A9,SLC9A7,CACNA1H,TGFB1,SGK1,SLC17A7,NDUF49,SCN3B,NEDD4,SLC4A4,SLC6A1,KCNK1,SLC9B2,SPTBN4,SLC6A3,FXYP2,FXYP6,KLHL3,SLC5A8,SLC9B1,KCNQ1,WNK1,SLC8A2,SLC9C1,TPCN1,ATP2B4,STOM,SLC38A6,ANK3,SLC9C2,NETO1,PKP2,SLC4A8,SCN8A,PKD2,SLC6A14,SCN9A,SLC5A10,SLC5A3,NOS1,ACTN4,SCNN1B,NKAIN1,ATP1A3,CNTN1,SCN1A,SLC10A1,SLC13A3,SLC5A4,CAMK2D,NEDD4L,EDNRA</p>
GO:0071702	organic substance transport	0.00054602 8529536022 6	<p>POLDIP3,ZDHHC14,ENPP1,SLC35E3,HOOK2,RTBDN,BLZF1,ASPH,PRKCI,SLCO3A1,ADCY8,CTDSPL2,SLC25A17,LRP1B,ASTN2,SLC14A2,PRKAG2,SLC35F3,MVP,KALRN,PITPNC1,SEC23B,SNX31,RAB4B,RAB4B-EGLN2,FAM53A,CCDC93,SPNS2,LRP2,SLC38A11,TNPO3,ANK2,EZR,TOMIL1,CHD7,SLC26A6,TENM1,KIF5C,LMNA,SRP72,AFM,ITGB1,HSP90AA1,APOL4,CCDC22,DLG2,FLVCR2,ABCC8,ERC1,HMGN3,AFTPH,STXBP4,EFCAB7,TCIRG1,PTPN11,HDAC6,GOLGA4,ADORA1,PEX14,GBF1,TLK1,ATP8A2,OSBPL10,GRM7,NTRK2,FRMD4A,STX18,HOOK3,VPS45,RIMS1,SNX2,INSR,FMN2,ATP8B1,TCF7L2,PIP4K2A,SCAMP4,MYOM1,SLC4A10,GLTP,SFT2D1,ECT2,TMEM144,SNX6,CHML,VAMP7,SPNS3,SLC6A16,RFTN1,SHFM1,AP3S1,NPLOC4,CENPF,RANBP17,ATG10,PRELID2,FYN,ARNTL,ADAMTSL9,NF1,SMG7,SLC16A6,LMTK2,STX6,SLC25A21,GOLGA2P5,SLC5A6,APOD,SLC2A14,VTA1,BCR,TTN,ICA1,PIK3R2,SLC4A5,SLC16A10,SLC43A2,BDKRB2,BID,SLC35A2,SLC01A2,MYH9,TMEM30A,SCFD2,ZDHHC3,LIN7A,SCFD1,PITPNB,CREBRF,EXOC4,IPO5,MAN1A1,RAB27A,MTX3,RAB3C,COG8,TMED6,GOLPH3L,ANO6,ARL3,NEUROD1,IPO11,PARP11,DENND1A,ZDHHC15,JAK2,FBXW7,OAZ2,STARD6,SYT1,SNAP25-</p>

			<p> <i>AS1,ABCC2,SMG1,RBFOX1,SLC1A4,SLC5A9,ATP9A,PLS1,DENND2A,KLF15,KPNA3,CTAGE6,VPS13B,IMMP2L,QKI,PRKCD,TGFB1,PCSK5,NUP93,PTPRN2,F2RL1,BCAS3,CADPS2,SYT13,ZFAND2A,ABCC11,GRPEL2,ANO4,CHRM1,CLOCK,ANO3,BCL3,RABGAP1L,SLC17A7,STXBP5,SLC16A1,VMP1,SNX8,CNR1,TNFSF11,SMG6,PP3CA,NSUN2,TRAK1,PARK2,RN7SL832P,TSNARE1,PPARG,MYO1D,MSR1,SYTL5,XK,APOL3,SCAMP5,ANXA13,LRPPRC,SREBF2,LEPROT,NR4A3,AGAP1,PER2,SORBS1,TBC1D14,RAB3GAP2,TBCK,GRM1,SPTBN1,AP3B2,SFRP1,CCDC91,RANBP3,ATP10D,SNX14,SMAD3,RAB6A,WWP2,VPS39,PSAP,SLC16A2,SYT3,NEDD4,KPNB1,SLC4A4,VPS53,SLC6A1,RAB6C,SEC61B,THOC3,BET1L,RBM8A,RAB11FIP5,SFXN5,NLGN2,SSR2,LRP5,SEC22C,SLC9B2,SETD2,ZDHHC6,PRICKLE1,DRD1,RFT1,SERGEF,PRKD1,OSBPL2,SLC6A3,HNF4A,STRA6,VPS4A,PTTRM1,SLC16A12,ATF2,RAF1,PTPN1,APIB1,NLGN1,ATP9B,SNX16,RAB11A,EPG5,IPO9,RAB24,PPM1F,ADCY5,XPO6,ABCA13,RILPL1,SORCS2,RAB11FIP3,SLC5A8,TANGO6,OC90,AP2M1,SLC35D1,TNPO1,TECPR2,TSG101,DES11,KCNQ1,SLC2A11,SUFU,PAFAH1B1,KIF3A,ATG4C,NMUR2,HIP1,AKAP6,TRPC5,TNKS,RUFY3,DAB2,XKR4,TRAM2,DZIP1,SMG5,ABCB1,SLC22A3,SLC47A1,FAM91A1,PLEKHF2,APOLD1,MACF1,MYO7A,EEPDI,APB3,SLC35A4,GPM6B,SNX5,NSF,SLC04A1,NXT2,CEP41,SCARB1,TFRIC,EPHA5,MF2A,SYT12,GPC3,STOM,ADRBK1,TBC1D5,TRPV1,SLC38A6,SNX9,RPGR,ARL5A,C1QTNF1,EGR2,GAPVD1,CAPN10,ABCC1,AP3B1,KPNA6,ZFAND1,MAP1A,ANK3,SNUPN,ATP13A3,PARD3,PTPN14,CACNG8,AP3D1,AP2B1,ARHGAP44,SNX33,LP4,MCU,VPS16,LIM1,LRRC8C,LRRC8D,ILDR2,ABCB7,FCHSD2,RAB15,RAPGEF3,SLC48A1,SNCA,CACNG2,TBC1D9,PNPT1,OCA2,SYT9,CHMP3,SLC22A10,RAB5B,OSBPL1A,ADTRP,ABCA12,BTK,TBC1D16,XPO4,VPS41,SLC4A8,IGF1,STX8,SLC7A14,ATXN2,PIK3C3,NUP88,LRRK2,UNC119,CHMP5,SLC44A1,ITGAM,EFNA5,MIA2,SERPINA5,ATP8B4,SGSM1,ZBED6,ZC3H11A,SNAP23,DNAJC1,RABEP1,POM121C,BMP6,ANO1,PLIN2,SERINC5,SAMM50,ABCG2,SMO,SLC6A14,LSG1,BLOC1S3,STXBP5L,CPT1A,SYT17,UBR5,ARRDC4,BBS9,ESYT2,HSPD1,EPM2A,GSK3B,ABCG8,EMB1WS1,UPF2,AGT,SYT7,ADAR,BLOC1S6,PITPNM2,PEX5L,SNX3,EXOC6B,RIMS2,SLC25A51,TOMM5,COPG2,CPE,SEC16B,STOML1,TIMM44,CHKA,SLC25A42,GTFT2IRD2,NCF1,SLC29A1,TAOK2,UGT1A3,SLC44A3,RPS6KB1,SLC5A10,ZDHHC23,ALOX5,ADAM8,SLC5A3,ARFGAP3,SLC25A18,MON2,NOS1,PEX7,GCKR,ACTN4,COG4,STK4,ZFAND6,SLC1A1,WLS,SIGMAR1,HCAR2,PPARA,PPP1R10,ABCD3,GRTP1,CALCRL,MCOLN1,STEAP3,SLC25A33,KPNA4,SYTL4,PRKCZ,ADORA2A,RABGEF1,ANGPT1,CADPS,OSBPL8,IGF2BP3,SLC25A26,SLC02B1,HACL1,TBC1D10C,ATG3,BRAF,HTR2C,SIL1,ATP8A1,CLTB,SLC26A2,RPL23,CAMSAP3,SP100,VT11A,ANXA2,RAB27B,ITSN1,NUP214,PITPNM3,SYK,MYRIP,RAB2A,SEC31B,SLC44A5,CACNG3,YBX1,GRIP1,SLC10A1,OSBP2,SLC13A3,SLC2A12,HSF1,CNIH4,ATP10B,PLEKHM1,SLC5A4,MLPH,RAB37,AKTIP,EP515,DENND4C,TBC1D10A,SNX1,ZDHHC11,ZDHHC11B,NDC1,RPH3A,GPR89A,RAB28,SYNDIG1,VPS52,TRAF3IP2,SGTB,EDNRA,PRAP1,SLC25A13,BMP4,ABLIM3</i> </p>
GO:0051058	negative regulation of small GTPase mediated signal transduction	0.0005581834754270862	<p> <i>ITGB1,ARHGAP24,ARHGAP42,NF1,PPP2CB,SLIT2,KANK1,RASA4,RASA4B,KCTD10,HEG1,RASAL1,ARHGAP12,ARHGAP44,SH3BP1,RASA1,KCTD13,RASA2,ARHGAP25,SYNGAP1,CUL3,FAM49B,EPHB2,DLC1,RABGEF1,CGNL1,MET</i> </p>
GO:0007049	cell cycle	0.0005679169238181456	<p> <i>MOV10L1,TACC2,C6ORF89,PDE4DIP,CLASP2,TAS1R2,RPS6KA2,KIF22,LATS2,TUBA1C,NOX5,EPB41,MAPRE2,NUDT6,PAGRI,RAD51B,STAT5B,EXD1,MAPK4,PRCC,STAG2,EZR,TOM1L1,CDKL5,MECOM,TACCL1,LMNA,SENP5,GRK5,ITGB1,TRIOBP,CDC6,PSMB7,GFI1B,PARD6G,PTPRK,STXBP4,ITGB3BP,DACH1,PTPN11,DDDB1,KIF18B,MRE11A,GBF1,TLK1,CUL4B,CECR2,EP300,PDGFB,CCND3,FBXL7,CHFR,INSR,FMN2,FBXW11,ESRRB,CDK14,FANCA,PHACTR4,UBR2,MDM4,ECT2,MTA3,TFDP2,CDC45,STARD9,DMD,CENPF,PDS5A,HFM1,RBM14,ARNTL,PLCB1,BCR,TN,KLHL21,DCTN1,CDK19,BID,MYH9,MAD1L1,RNF4,CSNK2A3,PARD3B,CDKL2,AUNIP,COP55,CSPP1,DMC1,IPO5,MAD2L2,TLE6,CCNYL1,TERF2,FOXN3,RCC2,ARL3,KIF2A,RAD51D,RANBP1,HERC5,USP22,YTHDC2,FBXW7,SMC3,UIMC1,CROCC,LZTS1,TEX11,SEPT7,CENPC,RPRD1B,SLAH1,PRKCD,TGFB1,BANP,PIBF1,BTRC,CRADD,TP73,TXNL4B,CEP135,RAB11FIP4,CLOCK,RNF212,SNDI1,ANKFN1,OIP5,FGF10,FBXL17,FANCI,SVIL,CAPN3,SLC16A1,PRKCA,PPP3CA,NSUN2,MAGEA4,CTNNB1,METTL13,IGF1R,ANKRD17,BRIP1,CDK11A,CDK11B,NIN,NPAT,TUBGCP6,RIOK2,ESCO1,MYOCD,PER2,AJUBA,HAUS4,CHEK2,PPP1CB,SPDYA,CTDPI1,BAZ1B,NF2,SMC2,SPTBN1,HEPACAM2,SFRP1,MTBP,C10ORF90,KPNB1,RAB6C,CD73,APP,CCNI2,CDK3,BORA,LRP5,SOX2,SETD2,DCUNID3,PLAGL1,VPS4A,EREG,CCNY,ATF2,TCF3,POLA1,USP33,CDK12,RAB11A,MYB,FGF2,BACH1,TICRR,NEDD9,CDC27,RAB11FIP3,BRDT,EIF4G1,ANAPC5,SRSF5,CKS1B,TSG101,C11ORF80,PAFAH1B1,KIF3A,POLE,TNKS,WBP2NL,ERCC1,BLM,PKHD1,CACUL1,NEK10,SIN3A,ABCB1,PPP2R5C,IQGAAP1,EML4,CLASP1,SRA1,OVOL2,ATP2B4,APEX2,HORMAD2,CCPG1,CDK6,UVRAG,PSMB2,ZNF207,BRINP1,CDCA3,DIS3L2,MNAT1,SNX9,ACTR2,RECQL5,SMOC2,PLCG2,ROCK1,EP58,PAXIP1,CUL2,PKN2,ANK3,AXIN2,PARD3,MUC1,SNX33,HMCN1,RAD51C,CUZD1,URGCP,NTMT1,PDXP,ERCC3,HAUS3,PNPT1,MCMBP,CABLES1,FOXJ3,CHMP3,RNF103-CHMP3,ZMYND11,CDKL1,RASA1,NUGGC,RPTOR,IGF1,HTT,MAPK1,PTEN,IFFO1,BMP7,PIK3C3,PUM1,NUP88,SEPT6,SPAG5,UNC119,CHMP5,BAG6,CHAF1B,PKD</i> </p>

			2,HSF2BP,TADA2A,TBCD,ZBED6,MAP4,TTC28,PDCD2L,ATRX,IKZF1,PRMT2,SUN1,MARK4,JADE1,RHOA,MCM3,NDE1,CUL3,EPM2A,RDX,MLF1,RBBP8,CDK13,NA CC2,CCNJL,CUL9,ZMPSTE24,BRINP3,PBX1,CDC14A,TAOK2,RPS6KB1,SETDB2,C SNK1A1,HUS1,RGS14,TUBB3,TEX12,GPSM2,PPP1R10,STEAP3,TAF2,PAX6,SPECC 1L,SPECC1L- ADORA2A,PPP1CC,STAG1,CCNG2,NIPBL,YEATS4,EPB41L2,ETSI,PPP1CA,FBXO 31,CDK5RAP1,UBE2E2,PHIP,CDKL3,PPP2CA,RPL23,DCDC1,OPN1LW,DONSON, NUP214,MADD,CIT,BRCA2,TAF1,PPME1,HSF1,SRPK2,MCM8,RNF2,CAV2,SKA2,P OC1B,TRIM37,CENPK,MICAL3,RAD9B,TIMELESS,NDIC1,PTPRC,CTCF,LIG1,EDN RA,PRAP1,BMP4
GO:00 10810	regulation of cell- substrate adhesion	0.00058822 6094854464 6	MAP4K4,SLC9A1,CLASP2,DOCK1,UTRN,CASK,TRIOBP,EPAH1,PTPRO,PDGFB,A RHGAP6,DMD,CASS4,NF1,APOD,EGFLAM,CDH13,RCC2,JAK2,SKAP1,BCAS3,CO RO1C,DISC1,KANK1,DUSP22,HSD17B12,ECM2,NF2,SFRP1,SMAD3,PREX1,SLK,C OL16A1,PPM1F,NEDD9,PEAK1,SPOCK1,VCL,P4HB,DAB2,PKHD1,MACF1,CLASP 1,GPM6B,CDK6,ROCK1,NID1,PTPRA,RASA1,PTEN,EFNA5,TBCD,RHOA,ONECUT 2,GSK3B,PTK2,ACTN4,STK4,DLC1,PRKCZ,PHLDB2,GCNT2,VWC2,BRAF,CAMSAP 3,PTPRJ
GO:00 42326	negative regulation of phosphorylation	0.00061737 1533133805 4	ENPPI,PDE4D,LATS2,PRKAG2,MVP,NTRK3,CBL,DNAJA3,EPAH1,PMPEA1,PTPR O,PRKAR1A,PIP4K2A,SNX6,DMD,SLC8A1,NF1,PAQR3,BDKRB1,BDKRB2,PTPRT,I PO5,GNAQ,ZFYVE28,PRKCD,PPM1E,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,DUS P22,SMYD3,PIP5K1L,PARK2,PPARG,PRKAR1B,PRKAR2A,AX6,PRKCZ,ADORA2A ,DAC4,SFRP1,HEG1,IBTK,LRP5,PTPN1,SPAG9,PPM1F,SEMA4D,EIF4G1,DEPTOR, TSG101,TERF2IP,PTPN13,LDLRAD4,XDH,ROCK1,HIPK3,PTPN2,PARD3,ATG14,S TK38,SNCA,MLLT1,PTEN,SPRED2,BMP7,LRRK2,LILRB4,PKIB,PRKAR2B,EPM2A, DNAJC3,PTPRB,AGT,ADAR,GCKR,RGS14,EPHB2,PPARA,PAX6,PRKCZ,ADORA2A ,RABGEF1,ANGPT1,LRRK1,CDK5RAP1,IMPACT,CD300A,PPP2CA,WWTR1,PTPRJ, INPP5F,CD109,MLXIPL,PTPRC,SH3GL2,BMP4
GO:00 19932	second- messenger- mediated signaling	0.00066646 4500632526	ASPH,PDE4D,TMBIM4,SLC9A1,PDE7B,PTGFR,CHERP,NOS1AP,KSR2,GRM5,PLC E1,ANK2,HTR2B,CHRM3,SGCD,DMD,SLC8A1,RIT2,NRG1,PPP3R1,CMKLR1,CDH 13,NEUROD1,LINC00473,PDE2A,CD4,NFATC3,HOMER2,ADCY2,TNFSF11,PPP3C A,RYR2,CACNA1C,HDAC4,ITPR1,ACKR2,NFATC1,RCAN1,PDE11A,MCTP1,ADCY AP1R1,DDAH1,NMUR2,AKAP6,GUCY1A2,SLC8A2,NFATC2,PRKG1,ATP2B4,CAMT A1,ADNP,EPAH5,PLCG2,PPP1R9A,RCAN2,MCU,RAPGEF3,BTK,IGF1,HTT,LRRK2 ,RAPGEF2,KCNC2,GRIN1,ITPR2,GSK3B,MCTP2,AGT,ZMPSTE24,LAT2,PEX5L,GU CY2F,NOS1,XCR1,MCOLN1,GRIN2B,FHL2,TBC1D10C,HTR2C,PPP2CA,ADCY1,SY K,PTPRJ,INPP5A,CAMK2D,CCR3,PTPRC
GO:01 50115	cell-substrate junction organization	0.00067564 8720332564	MAP4K4,SLC9A1,CLASP2,MAPRE2,PTPRK,ARHGAP6,LAMC1,DST,APOD,BCR,RC C2,BCAS3,CORO1C,DUSP22,AJUBA,SORBS1,SFRP1,SMAD3,SLK,COL16A1,PPM1 F,PEAK1,VCL,MACF1,CLASP1,GPM6B,ROCK1,PTPRA,PTEN,EFNA5,RHOA,PTK2, TAOK2,DLC1,PHLDB2,THSD1,CAMSAP3,PTPRJ
GO:00 46578	regulation of Ras protein signal transduction	0.00075378 2153548553 8	MAP4K4,MAPRE2,CBL,PLCE1,KITLG,ROBO1,ITPKB,ITGB1,ARHGAP24,AKAP13, DGKI,CYTH3,GBF1,ARHGAP42,RIT2,NF1,RTN4,RTN4R,BCR,NRG1,RALGPS2,PPP 2CB,RALGPS1,DENND1A,F2RL1,KANK1,FGF10,RAS44,RAS44B,ARHGEF28,KCT D10,AUTS2,P2RY10,ARHGEF18,HEG1,RAF1,RASGRF2,DENND4A,SHOC2,RASAL1 ,P2RY8,EPS8,GPR35,NTRK1,ARHGAP44,ARHGEF3,SH3BP1,RASA1,KCTD13,IGF1, RAS42,SYNGAP1,CUL3,RDX,EPHB2,DLC1,RABGEF1,DENND4B,MADD,DENND4 C,MET
GO:01 40352	export from cell	0.00082178 8140486977 9	NRXN1,SLC9A1,ADCY8,CLASP2,KALRN,CBL,FER,CASK,PIK3CD,EZR,NRXN3,CH D7,ABCC8,HMGN3,DGKI,STXBP4,ERC2,TCIRG1,PTPN11,CACNB2,ADORA1,GRM 7,NTRK2,FRMD4A,RIMS1,TCF7L2,PAK1,MYOM1,VAMP7,SLC8A1,ARNTL,NF1,BC R,TTN,ICAI,SLC16A10,MYH9,SCFD2,LIN7A,SYN2,COP5,EXOC4,RAB27A,RAB3C, GOLPH3L,ANO6,NEUROD1,JAK2,SYN3,SYT1,ATP9A,CTAGE6,CACNA1H,IL1RAPL 1,PCSK5,PTPRN2,F2RL1,CADPS2,SYT13,C12ORF4,ANK1,CLOCK,FGF10,STXBP5, SLC16A1,CNR1,TNFSF11,PPP3CA,PARK2,FCGR2B,PPARG,SYTL5,SCAMP5,NR4A 3,PER2,HCK,RIMS4,SFRP1,GRIK5,SLC16A2,SYT3,SLC4A4,RAB11FIP5,NLGN2,SCR N1,LRP5,SLC9B2,DRD1,SERGEF,TPH1,HNF4A,VPS4A,FXD2,RAF1,NLGN1,RAB1 1A,ADCY5,MCTP1,PTAFR,RAB11FIP3,PRKCG,TANGO6,TRAPP11,FBXL20,TSG1 01,KCNQ1,PAFAH1B1,DAB2,ABCB1,SLC47A1,SLC8A2,CLASP1,APBB3,NSF,EPAH 5,SYT12,ADRBK1,TRPV1,PRSSI2,C1QTNF1,CAPN10,ABCC1,UNC13A,KCND3,ARH GAP44,CD84,SPI1,CHRN4,MCU,ILDR2,RAB15,SNCA,GRM4,SYT9,ADTRP,ABCA1 2,BTK,SLC4A8,IGF1,PIK3C3,LRRK2,ITGAM,EFNA5,MIA2,WNT7A,ZBED6,SNAP23, DNAJC1,BMP6,ANO1,ABCG2,BLOC1S3,STXBP5L,CPT1A,SYT17,GRIN3A,GSK3B,S YN1,MCTP2,AGT,SYT7,BLOC1S6,LAT2,EXOC6B,RIMS2,COPG2,CPE,PCSK6,CD16 0,ALOX5,CPLX2,ADAM8,ARFGAP3,WLS,HCAR2,STEAP3,SYTL4,ATP1A3,ADORA2 A,RABGEF1,CADPS,BRAF,HTR2C,CD300A,RAB27B,ITSN1,ADCY1,SYK,MYRIP,AT P2B3,ZP3,AXL,MICAL3,RPH3A,TYRO3,CREB1,CLNK,STXBP6
GO:00 45596	negative regulation of cell differentiation	0.00085773 7796425283 4	ENPPI,PRDX2,DNMT1,HLX,CBFB,SEMA3A,CLDN18,SEMA3D,NTRK3,SEMA5A,ST AT5B,ZNF536,ITPKB,ITGB1,TRIO,RUNX1,DAB1,ABCC8,PTPN11,NPHP3,HOOK3, PDGFB,TOB2,ESRRB,BDNF,MEIS1,DMD,GPR171,ARNTL,NF1,RTN4,RTN4R,NTN1, CNTN4,HDAC5,JDP2,MAD2L2,RCC2,FBXW7,BBS12,SOX6,SEMA5B,TGFB1,ZHX2, NFATC3,C9ORF47,TP73,CORO1C,KANK1,SMAD6,ZNF675,FGF10,LOXL3,EPAH4, RORA,PPP3CA,MAG,CTNNB1,SOD2,FCGR2B,PPARG,AXIN1,ANKRD17,ANKRD26, DRAXIN,MYOCD,DCC,CTDP1,HDAC4,SFRP1,FOXO3,SMAD3,NFATC1,PRTG,CD

			<i>C73, APP, DIP2B, YAP1, FSTL4, LRP5, SOX2, PRICKLE1, FRS2, STAT1, EREG, SEMA6D, ADAMTS12, BMPR2, BMPR1A, CDK12, SPAG9, MYB, SEMA4D, RARB, CHRD, WNT3, SUFU, TRPC5, GLI2, RUFY3, USH2A, LDLRAD4, INPP5D, SRA1, XDH, OVOL2, NFATC2, MARK1, CDK6, BRINP1, TRPV1, RNF10, PTPN2, EPHB1, AXIN2, TRIM46, EPHA7, CTNNA1, GLIS1, HEY2, RC3H1, PTPRS, SRSF6, PKP2, IGF1, MAPK1, PTEN, MIB1, SPRED2, BMP7, LILRB4, EFNA5, WNT7A, ZBED6, IL17RD, RAPGEF2, SMO, RHOA, SYNGAP1, GSK3B, CDK13, PBX1, DLX1, ACTN4, EPHB2, IL18, PPARA, NOTCH4, FBN1, PAX6, MAP2, TNFR, MBNL3, CDKL3, PPP2CA, WWTR1, SLIT1, YBX1, ADAMTS7, SEMA3C, BMP4</i>
GO:0051093	negative regulation of developmental process	0.0010425867309034882	<i>ENPP1, PRDX2, DNMT1, HLX, CBF, SEMA3A, WWCI, CLDN18, SEMA3D, WWCI, NTRK3, SEMA5A, STAT5B, ZNF536, ROBO2, ITPKB, ITGB1, TRIO, RUNX1, DAB1, OMA1, ABCC8, PTPN11, NPHP3, HOOK3, PDGFB, TOB2, ESRRB, BDNF, MEIS1, DMD, GPR171, ARNTL, ADAMTS9, NF1, FAT3, RTN4, RTN4R, BCR, NTN1, VGLL4, CNTN4, HDAC5, JDP2, DCN, MAD2L2, TERF2, RCC2, FBXW7, BBS12, WNT11, KREMEN1, SOX6, SEMA5B, TGFBI, ZHX2, NFATC3, C9ORF47, TP73, CORO1C, KANK1, SMAD6, ZNF675, FGF10, LOXL3, EPHA4, RORA, PPP3CA, MAG, CTNNB1, PARK2, SOD2, FCGR2B, PPARG, AXIN1, ANKRD17, ANKRD26, DRAXIN, MYOCD, DCC, CTDPI, HDAC4, PAX2, SFRP1, FOXO3, NFIB, DNMT3, SMAD3, PTPRM, NFATC1, PRTG, CDC73, APP, DIP2B, YAP1, FSTL4, LRP5, SOX2, PRICKLE1, FRS2, SFMBT1, STAT1, EREG, SEMA6D, ATF2, ADAMTS12, BMPR2, BMPR1A, NLGN1, CDK12, SPAG9, MYB, SEMA4D, ISM1, JARID2, RARB, CHRD, WNT3, SUFU, COL4A3, TRPC5, GLI2, RUFY3, USH2A, LDLRAD4, RSP02, INPP5D, SRA1, XDH, OVOL2, NFATC2, ATP2B4, MARK1, CDK6, TFR, BRINP1, TRPV1, ROCK1, RNF10, PTPN2, EPHB1, AXIN2, TRIM46, BCOR, CARM1, SPI1, EPHA7, CTNNA1, GLIS1, RAPGEF3, HEY2, RC3H1, PTPRS, TLL2, SRSF6, PKP2, RTN4RL1, IGF1, MAPK1, PTEN, MIB1, SPRED2, BMP7, LILRB4, EFNA5, WNT7A, ZBED6, IL17RD, RAPGEF2, SMO, TNFRSF11B, RHOA, SYNGAP1, GRIN3A, GSK3B, CDK13, SULF1, AGT, PBX1, DLX1, SHC1, CD160, STC2, ALOX5, ACTN4, STK4, EPHB2, IL18, PPARA, NOTCH4, FBN1, PAX6, ASPN, MAP2, HDAC2, TNFR, MBNL3, CDKL3, PPP2CA, ANGPT4, WWTR1, SLIT1, YBX1, ASAP1, ADAMTS7, INPP5F, SEMA3C, BMP4</i>
GO:0048814	regulation of dendrite morphogenesis	0.0010665888526121517	<i>KALRN, CDKL5, KND1, TNK1, PTPRD, CAPRIN2, LZTS1, IL1RAPL1, CAMK2B, EPHA4, PPP3CA, CUX2, NEDD4, PARP6, SEMA4D, PAFAH1B1, TRPC5, RELN, PAK3, ACTR2, SARMI, CUX1, RAPGEF2, GSK3B, EEF2K, FBXO31, CDKL3, NEDD4L</i>
GO:0006508	proteolysis	0.0010669759492890037	<i>ADAMTS16, ASPH, RPS6KA2, CALR3, FBXL2, CPA6, DPP6, OVCH2, DCAF12, CBL, MAP2K5, USP32, NAALADL2, ROBO1, TOM1L1, PSMD1, SENP5, DNAJA3, PSMB7, PGPEP1L, CCDC22, ADGB, RUNX1, OMA1, DNAJB14, HDAC6, DDB1, ADAMTS3, CUL4B, DPP10, FBXL18, CELA1, ZYG11B, FBXL7, USP46, CAPN14, CHFR, USP43, FBXW11, RNF144A, EGLN3, TRIM13, UBR2, LCK, CST2, NPLOC4, TMPRSS15, USP13, GSN, FYN, MKRN2, ARNTL, ADAMTS9, MGMT, FBXO21, DPEP1, ADAMTS19, TLL1, BID, FNIP1, MYH9, PPP2CB, PCSK2, RNF4, UBE3D, ITIH2, CPB1, FHIT, COPS5, MAN1A1, NLN, FBXO9, RFFL, CBE1, USP22, JAK2, FBXW7, UIMC1, ITCH, USP12, SPSB1, CYFIP2, CLCA2, MTAF1, IMMP2L, SLAH1, ADAM23, ERCC8, PCSK5, SPSB4, MMP28, ASCC2, KEL, BTRC, CRADD, DNABJ2, RNF133, RNF148, ITIH4, HP, HPR, DISC1, BLID, ZFAND2A, CLN6, MMP26, CLOK, TIMP2, ADAM12, NAIP, TRRAP, FBXL17, KCTD10, CAPN3, SMURF2, EPHA4, UBQLN3, UBQLN1, UFL1, CTNNB1, PARK2, SMARCC1, PPARG, AXIN1, OTUB1, CPQ, RSPRY1, PROS1, NOL3, GLG1, SUPT3H, UBQLN4, CSTL1, CAPN2, ZUFSP, MMP16, PAX2, TRABD2B, SFRP1, TRHDE, USP54, BCL2L13, SMAD3, RNFT2, WWP2, SIMC1, RNF168, C1S, NEDD4, SEC61B, APP, USP49, ARIH1, AMFR, SH3D19, SCRNI, SOX2, ADAMTS2, PRICKLE1, VASH2, ERLIN1, MMP2, ST18, USP53, TASP1, VPS4A, PITRM1, GRAMD4, RAF1, CARD16, CASP1, ADAMTS12, PSMD11, GGT7, USP33, PPM1F, UBE2R2, AGBL4, ADAMTS4, CDC27, YME1L1, KLHL3, PRKCG, SPOCK1, AREL1, UCHL3, ECE2, PSMD2, RBX1, XPNPEP3, ANAPC5, FBXO45, STT3B, FBXL20, ADAM20, ADAM21, TSG101, DESH1, IDE, ADAMTS6, RCE1, SUFU, QPCTL, ADAMTS14, ATG4C, COL4A3, HIP1, EDEM3, DAB2, UBR1, CACUL1, MYSM1, RELN, PSMD7, JOSD1, PELI1, PPP2R5C, ZNRF1, KLK2, TMPRSS12, AGBL1, XDH, RBBP6, MASP1, DYX1C1, UBE3C, RNF34, TFR, GPC3, PSMB2, RHBDL3, RNF216, PRSS12, SNX9, HDAC1, C2, CFB, ROCK1, RYBP, CAPN10, CUL2, MAP1A, MAN1B1, FBXO39, ANXA8L1, ADAM19, SNX33, FOLH1, LPA, EPHA7, XPNPEP2, CUZD1, FBXW4, EIF3H, RENBP, OTUD3, ADAMTS17, MST1, SNCA, USP42, USP50, RC3H1, RNF103, CHMP3, RNF19B, PSMF1, TLL2, CAST, TRIP12, SPPL2A, ZNRF3, KCTD13, PTEN, MIB1, PIK3C3, PCBP2, PRCP, LRRK2, TMEM59, ZRANB1, BAG6, SEL1L2, AMZ2, SERPINA3, SERPINA4, SERPINA5, NLRP1, PEPD, UACA, DNAJC1, GPI, SH3RF2, N4BP1, GET4, PSE2, UBE2H, GRIN1, ADAM29, RHOA, SPRTN, CPVL, CUL3, HSPD1, EPM2A, GSK3B, DNABJ3, CD27, BOK, RNF144B, RNF43, AGT, CUL9, ZMPSTE24, PTK2, ARMC8, PHEX, RNF121, FBXO10, MAP3K5, CPE, TRPC4AP, PCSK6, ECE1, RNFT1, SERPINB11, DNAJB6, CD44, ADAM8, CLDN4, CSNK1A1, SLC1A1, UBE2K, DLG1, FBXL13, RNF150, ADORA2A, GRIN2B, OTUD7B, COL28A1, TBLIX, CFI, FBXO31, PRKCQ, HDAC2, CAPN6, SPINT2, UQCRC2, C18ORF25, SKP1, RPL23, ACAN, ANXA2, SYK, WWTR1, TAF1, TANK, HSF1, ADAMTS7, BMP1, GNAI2, UGGT1, TMPRSS3, AGBL3, CD109, TBC1D10A, UCHL5, MALT1, SERPINE3, FBXL4, NEDD4L, RNF213, SGTB, CASP12, CPNE1</i>
GO:0030705	cytoskeleton-dependent intracellular	0.0011243904093352671	<i>HOOK2, TUBA1C, KIF5C, CNH2, DLG2, IFT43, MYO10, HDAC6, PEX14, HOOK3, FBXW11, AP3S1, TANC2, DST, TERF2, ARL3, ICK, BBS12, DYNC111, TRAK1, MYO1D, LRPPRC, MYO1E, AP3B2, SPG11, IFT122, RAB6A, APP, MYO1F, SYNE2, SYBU, AGBL4, BLOCIS5, PAFAH1B1, KIF3A, MYO7A, MAP1B, RPGR, AP3B1, MAP1A, TRIM46, TUB, AP3D1, KI</i>

	transport		<i>F3C,HTT,IFT81,TMEM108,RHOT1,SUN1,BLOC1S3,NDE1,BLOC1S6,COPG2,ACTN4,PRKCZ,KLC3,ARHGAP21,MAP2,CAMSAP3,RAB27B,MYO1A</i>
GO:0060079	excitatory postsynaptic potential	0.00115609 1088568804	<i>NRXN1,S1PR2,GRID2,NLGN4X,DGKI,ADORA1,RIMS1,PPP3CA,CUX2,GRIK5,SHANK1,APP,NLGN2,GLRA2,CELF4,NLGN1,NLGN3,RELN,SLC8A2,P2RX6,TRPV1,NETO1,CHRN4,SNCA,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,GRIN1,GSK3B,RIMS2,SLC29A1,PRKCZ,ADORA2A,GRIN2B,GRIK2</i>
GO:0120031	plasma membrane bounded cell projection assembly	0.00116394 1165677554	<i>CLRN1,ADAMTS16,NRXN1,S1PR2,SPAG16,IQCG,PLCE1,FER,EZR,CDKL5,TENM1,NAV2,ITGB1,ARHGAP24,IFT43,CDC42EP3,MYO10,HDAC6,GBF1,DNAH2,NPHP3,PTPRO,DNAI2,TENM2,TNIP,ATP8B1,LRRC49,DMD,GSN,PCDH15,NTN1,DCTN1,RAPGEF6,WDR92,LRGUK,CDH13,NCKAP1,RCC2,ANO6,ARL3,ICK,TTLH8,CROCC,SPTT7,IFT80,PRKCD,PIBF1,F2RL1,BCAS3,RPGRIPI1,SLIT2,CORO1C,DISC1,CEP135,KANK1,PTPDC1,TTBK2,SPAG17,PARVA,AUTS2,AJUBA,CSPG4,HDAC4,ARL13B,IFT122,DNM3,ABI2,YAPI,KIF24,TTC39C,SYNE2,TCTN3,ABLIM1,TEMEM237,ABLIM2,NLGN1,ARMC2,RILPL1,GAS8,VCL,WDR90,KCNQ1,RFK2,KIF3A,CEP350,PKHD1,DZIP1,DOCK11,ZNF423,DYX1C1,CEP41,MPHOSPH9,AIF1L,FGD1,RPGR,ACTR2,ROCK1,EPS8,TEKT1,ARHGAP44,HYDIN,CDKL1,PLD1,TROVE2,HTT,DPYSL3,SEPT6,IFT81,MAP4,NME8,CEP89,PARVB,RAPGEF2,MARK4,BBS9,ONECUT2,RDX,CDC14A,GAP43,CEP70,FGD3,FGD4,SPEF1,KLC3,ATG3,NOTO,ARHGFE6,FAM149B1,SRGAP2,WWTR1,GPM6A,MYO1A,PLEKHM1,ASAP1,NAV3,POC1B,EHD2,ABLIM3</i>
GO:0071248	cellular response to metal ion	0.00118064 87647240435	<i>NRXN1,ASPH,ADCY8,RYR1,ADCY7,RYR3,ITPKB,DLG2,CPNE4,ALEX5AP,TFAP2A,ECT2,DPEP1,SYT1,CLDN1,CACNA1H,SYT13,KCNH1,RASA4,RASA4B,CAPN3,PARK2,MTF1,CYBB,CPNE6,TPH2,SYT3,APP,GLRA2,CHUK,CPNE9,NLGN1,CLIC4,RASAL1,IQGAP1,MEF2A,SYT12,PLCG2,ANK3,SNCA,SYT9,MAPK1,LRRK2,PKD2,BMP6,SYT17,TF,EEF2K,PRKAA2,SYT7,NCF1,SLC1A1,MCOLN1,BRAF,ADCY1,A3GALT2,HSF1,CAMK2D,CREB1,CPNE1</i>
GO:0046907	intracellular transport	0.00119807 8445928337	<i>POLDIP3,ZDHHC14,HOOK2,ASPH,PRKCI,SLC9A1,WWC1,CTDSPL2,TUBA1C,ANP32A,SEC23B,LTV1,SNX31,FAM53A,CCDC93,TNPO3,EZR,TOMIL1,TENM1,KIF5C,LMNA,SRP72,HSP90AA1,CNIH2,CCDC22,KLHL12,AKAP13,DLG2,IFT43,MYO10,ERCI,AFTPH,STXBP4,EFCAB7,PTPN11,HDAC6,ADORA1,GPRASP1,PEX14,GBF1,TLK1,STX18,HOOK3,VPS45,RIMS1,SNX2,FMN2,TCF7L2,PIP4K2A,FBXW11,ECT2,SNX6,CHML,VAMP7,RFTN1,SHFM1,AP3S1,NPLOC4,DENND5A,RANBP17,RBM4,TANC2,FYN,NF1,SMG7,DST,LMTK2,STX6,GOLGA2P5,APOD,VTAI,BCR,NDRG4,PIK3R2,NTN1,DCTN1,BID,MAP2K1,TMEM30A,SCFD2,ZDHHC3,SCFD1,CREBRF,IPO5,MAN1A1,RAB27A,TERF2,TMED6,ARL3,NEUROD1,IPO11,ICK,RANBP1,DENND1A,ZDHHC15,JAK2,FBXW7,OAZ2,BBS12,SNAP25-AS1,SMG1,DYNC111,ATP9A,DENND2A,KPNA3,CTAGE6,IMMP2L,PRKCD,TGFB1,NUP93,BCAS3,ZFYVE9,CORO1C,ZFAND2A,GRPEL2,ANK1,CLMN,CHRM1,RAB11FIP4,ITSN2,BCL3,DCLK1,ANKRD54,RABGAP1L,SNX8,SMG6,PPP3CA,NSUN2,TRAK1,PARK2,RN7SL832P,TSNARE1,AXIN1,MYO1D,SYTL5,LRRPRC,SREBF2,LEPROT,PROS1,NOL3,RIOK2,MYO1E,TBC1D14,RAB3GAP2,TBCK,ANKFY1,AP3B2,SPG11,CCDC91,IFT122,RANBP3,SMAD3,RAB6A,WIP1,VPS39,PSAP,NEDD4,KPNB1,VPS53,RAB6C,SEC61B,THOC3,APP,BET1L,MYO1F,EYA2,SSR2,SEC22C,SETD2,ZDHHC6,PRICKLE1,DRD1,TMEM14A,SYNE2,PRKD1,OSBPL2,SYBU,VPS4A,PITRM1,ATF2,PTPN1,AP1B1,NLGN1,SNX16,SPAG9,RAB11A,EPG5,IPO9,RAB24,AGBL4,XPO6,EEA1,RILPL1,SORCS2,RAB11FIP3,BLOC1S5,AP2M1,TNPO1,TRAPPC11,TECPR2,TSG101,DES1,SUFU,PAFAH1B1,KIF3A,AKAP6,RUFY3,DAB2,TRAM2,DZIP1,SMG5,SLC25A16,FAM91A1,MYO7A,SNX5,NSF,SYNE3,SPTBN5,NXT2,MAP1B,STOM,TBC1D5,CLEC16A,SNX9,RPGR,ARL5A,ACTR2,EGR2,CAPN10,AP3B1,KPNA6,ZFAND1,MAP1A,ANK3,SNUPN,PARD3,PTPN14,TRIM46,TUB,CACNG8,AP3D1,KIF3C,AP2B1,ANXA8L1,ARHGAP44,HEATR5A,SNX33,VPS16,ACAP2,ATG14,RAPGEF3,RSRC1,CACNG2,TBC1D9,CHMP3,RNF103-CHMP3,PRKAG1,RAB5B,ABCA12,TBC1D16,XPO4,VPS41,PLA2G4E,STX8,HTT,MAPK1,PIK3C3,NUP88,LRRK2,SPAG5,CHMP5,IFT81,TMEM108,ITGAM,NSG2,MIA2,SGSM1,TMCC1,ZC3H11A,POM121C,RHOT1,SAMM50,SMO,SUN1,LSG1,BLOC1S3,CPT1A,UBR5,NDE1,CUL3,HSPD1,EPM2A,GSK3B,RDX,IWS1,UPF2,BOK,AGT,SYT7,ADAR,BLOC1S6,ZMPSTE24,PEX5L,SNX3,EXOC6B,RIMS2,TOMM5,COPG2,SEC16B,TIMM44,GTTF2IRD2,NCF1,TAOK2,ZDHHC23,ARFGAP3,MON2,PEX7,GCKR,TBC1D23,RGS14,ACTN4,STK4,ZFAND6,SLC1A1,WLS,PPP1R10,ABCD3,GRTP1,KPNA4,SYTL4,PRKCZ,PPP1CC,RABGEF1,KLC3,ANGPT1,HACL1,TBC1D10C,ARHGAP21,MAP2,STPG1,ATG3,SIL1,CLTB,RPL23,ATXN1,CAMSAP3,SP100,VTI1A,ANXA2,RAB27B,ITSN1,NUP214,SYK,SLIT1,MYRIP,RAB2A,SEC31B,CACNG3,GRIP1,ERGIC1,MYO1A,CNIH4,PLEKHM1,HGSNAT,MLPH,AKTIP,EPS15,INPP5F,REPS2,TBC1D10A,SNX1,MALTI,ZDHHC11,ZDHHC11B,EHD2,THEM4,TRAPPC8,NDIC1,RPH3A,RAB28,SYNDIG1,VPS52,TRAF3IP2,SGTB,SLC25A13,BMP4,ABLIM3</i>
GO:0051271	negative regulation of cellular component movement	0.00124077 79342219645	<i>S1PR2,CLASP2,SEMA3A,NRG3,MARVELD3,MAP2K5,PTPRR,ROBO1,CNIH2,SRGAP3,MCC,SRGAP2B,PTPRK,ABCC8,DACH1,ADORA1,EPHA1,PTPRO,PTPRU,ADAMTS9,NF1,PLCB1,DPEP1,APOD,BCR,NDRG4,NRG1,HDAC5,DEN,PTPR,WT11,MMP28,SLIT2,CORO1C,KANK1,DUSP22,EPHA4,PIP5KL1,PPARG,DLG5,MYOCD,NF2,SFRP1,FOXO3,PTPRM,NAV3,PTPRG,SEMA6D,BMPRI1A,FGF2,MCTP1,CHRD,VCL,CLIC4,PKHD1,LDLRAD4,CLASP1,PRKG1,ATP2B4,CTNNA1,MAGI2,ADTRP,MITF,DPYSL3,PTEN,RHOA,SULF1,GPR173,TMEFF2,DLC1,ZMYND8,RABGEF1,PHLDB2,OSBPL8,BRAF,SPINT2,CD300A,ANGPT4,SP100,SRGAP2,FRMD5,PTPRJ,GNA</i>

			<i>12</i>
GO:0099175	regulation of postsynapse organization	0.0012450789582670917	<i>NRXN1, GRID2, KALRN, NTRK3, CDKL5, PTPRD, TANC2, FYN, CAPRIN2, ZDHHC15, IL1RAPL1, CAMK2B, EPHA4, FCGR2B, ARHGAP22, DGKB, DNMT3, CUX2, ABI2, NRP2, NLGN1, PAFAH1B1, RELN, PAK3, ACTR2, ARHGAP44, EPHA7, PTPRS, PTEN, LRRK2, SHANK3, WNT7A, EEF2K, GRIN2B</i>
GO:0097484	dendrite extension	0.001251952634636137	<i>LLPH, RIMS1, SYTI, CYFIP2, ITSN2, AUTS2, PARK2, CPNE6, SYT3, CPNE9, SPAG9, RASAL1, UNC13A, TMEM108, SYTI7, RIMS2, CDKL3, NEDD4L, SH3GL2</i>
GO:0007605	sensory perception of sound	0.001266608082961983	<i>CLRN1, TJP1, ATP2B2, LHFPL4, LRP2, CHD7, TRIOBP, THRB, GRM7, ATP8B1, CNTN5, STRC, TFAP2A, PKHD1L1, TMC2, MYO3B, NAV2, PCDH15, PPIP5K2, LHFPL3, TMC1, MYO3A, CDH23, CACNA1D, OTOGL, HOMER2, OTOA, AXIN1, SPTBN4, USP53, SRRM4, CRYM, COL11A1, KCNQ1, COL4A3, USH2A, MYO7A, CLIC5, EYA1, PTPRQ, TUB, COCH, LHFPL5, ROR1, ZNF354A, ESPNL, CDC14A, SOBP, NIPBL, TBL1X, DIAPH1, MYO1A, TMPRSS3</i>
GO:0035335	peptidyl-tyrosine dephosphorylation	0.0012854227143726893	<i>PTPRR, PTPRK, PTPN11, PTPRO, PTPRD, PTPRU, PTPRT, PTPRN2, PTPDC1, DUSP22, TPTE, SSH1, PTPRM, EYA2, PTPRG, PTPN1, PTPRE, PTPN13, SSH2, EYA1, PTPN2, PTPRQ, PTPN9, PTPN14, PTPRA, PTPRS, PTEN, MTMR3, DNAJC6, EPM2A, PTPRB, DUSP26, CDC14A, ACPI, EYA3, PPP2CA, PTPRJ, RNGTT, PTPRC</i>
GO:0050954	sensory perception of mechanical stimulus	0.0012950749228096625	<i>CLRN1, TJP1, ATP2B2, LHFPL4, LRP2, CHD7, TRIOBP, THRB, GRM7, ATP8B1, CNTN5, STRC, TFAP2A, PKHD1L1, TMC2, MYO3B, NAV2, FYN, PCDH15, PPIP5K2, LHFPL3, TMC1, MYO3A, CDH23, CACNA1D, OTOGL, HOMER2, OTOA, AXIN1, SPTBN4, USP53, SRRM4, CRYM, COL11A1, KCNQ1, COL4A3, TRPA1, USH2A, MYO7A, CLIC5, EYA1, TRPV1, NTRK1, PTPRQ, TUB, COCH, LHFPL5, ROR1, ZNF354A, ESPNL, CDC14A, SOBP, NIPBL, TBL1X, DIAPH1, SCN1A, MYO1A, TMPRSS3</i>
GO:0050890	cognition	0.001332136916282457	<i>DNAH11, NRXN1, ADCY8, NLGN4X, KALRN, GRM5, NRXN3, CHD7, SLC24A2, ITGB1, ABCC8, DGKI, ADORA1, NTRK2, EP300, INSR, TBR1, BDNF, FYN, NF1, PLCB1, AFF2, ND RG4, SLC1A4, SGK1, JPH3, CHRM1, YTHDF1, CNTNAP2, CNR1, CAMK4, PARK2, PRKAR1B, CSMD1, CUX2, SHANK1, SLC6A1, APP, AMFR, RCAN1, DRD1, SHANK2, STRA6, PRKCG, NLGN3, PAFAH1B1, BTBD9, SETD5, RELN, SLC8A2, ATAD1, ADNP, SORCS3, BRINP1, ACTR2, ELAVL4, EGR2, NTRK1, MAP1A, NETO1, HTT, MAPK1, PTEN, SHANK3, GPI, PRKAR2B, GRIN1, SYNGAP1, EPM2A, AGT, RPS6KB1, RGS14, EPHB2, SLC1A1, SOBP, PRKCZ, GRIN2B, NIPBL, SHROOM4, BRAF, ATP8A1, TNFR, ATXN1, ADCY1, TANC1, CREB1</i>
GO:0048878	chemical homeostasis	0.0013414475787698048	<i>ENPPI1, ASPH, PDE4D, SLC9A1, FAMI55A, ADCY8, PTGFR, CHERP, RYR1, NOX5, TJP1, ACOXL, ATP2B2, GRM5, PLCE1, ANK2, MALRD1, SLC9A9, CHD7, SLC26A6, HTR2B, ITGB6, RYR3, GOT1, SLC24A2, SLC24A3, CCDC22, ABCC8, HMGN3, STXB4, TCIRG1, PTPN11, CACNB2, DDB1, ADORA1, ADRA1D, CNNM1, ESR1, CYB561A3, STK39, INSR, TC F7L2, SLC4A10, KCNMA1, LCK, SLC12A8, ACOX1, SGCD, MICU3, DMD, SLC30A9, SLC8A1, JPH2, FYN, RTN4, PIK3R2, SLC4A5, CNNM2, BDKRB1, BDKRB2, STIM1, TM6IM6, CMKLR1, DCN, SLC39A14, PTGER2, CLDN16, NEUROD1, JAK2, FBXW7, NPSR1, CLDN1, SLC9A7, PNPLA1, KLF15, NOX4, TGFB1, KEL, JPH3, PTPRN2, F2RL1, C9ORF47, CDH23, DISC1, CLN6, XPR1, TMTC2, HOMER2, CAPN3, SLC16A1, RORA, CNR1, TNFSF11, P PP3CA, PARK2, SOD2, IGF1R, PPARG, P2RY10, TRPM1, OTC, XK, SREBF2, RYR2, LEPR, FOXK2, NOL3, CACNA1C, SCN3B, CSMD1, GRM1, PAX2, MED13, FOXO3, SMAD3, ITPR1, ACKR2, GRIK5, SLC4A4, APP, PDGFRA, NOX1, RAB11FIP5, IBTK, ANGPTL4, LRP5, BDH2, SLC9B2, DRD1, PRKD1, STAT1, HNF4A, RAF1, ACOX2, FGF2, ADCY5, ADCYAP1R1, KLHL3, SLC9B1, CLIC4, KCNQ1, CCL14, CCL15, TRPA1, NMUR2, AKAP6, BTBD9, T RPC5, NEO1, WDTC1, PKHD1, WNK1, SIN3A, SLC8A2, STAU1, SLC9C1, TPCN1, SNX5, A TP2B4, ASGR2, ADNP, SCARB1, ATP6V0A2, P2RY8, TFRC, EPHA5, CACNA1A, PTGER3, TRPV1, ACACA, TRIM24, ADIPOR2, PLCG2, C1QTNF1, GPR35, AP3B1, PTPN2, SLC39A10, ANK3, TMEM199, ATP13A3, AP3D1, SLC9C2, MCU, LIMA1, TRDN, LRRC8D, TRPC6, ABCB7, ATP13A5, SNCA, WNT7B, ABCA12, SLC4A8, HTT, MAPK1, SLC30A7, PRCP, LRRK2, ATP6V1A, ZBTB20, TMCO1, PKD2, EFNA5, STEAP4, PPP2R3C, ZBED6, GPR21, BMP6, ANO1, GPI, EXT1, PNPLA3, RALY, STXB5L, GRIN1, ITIPR2, ABCG8, ALAS2, BOK, AGT, PRKAA2, HRH4, HEPHL1, SLC29A1, STC2, ALOX5, CLDN4, NOS1, GCKR, SCNN1B, SLC1A1, XCR1, IL18, MCOLN1, STEAP3, PAX6, ATP1A3, ADORA2A, GRIN2B, KCTD7, P ACS2, DIAPH1, HTR2C, POU3F3, ATP6V0A1, CYP39A1, GRIK2, ATP2B3, CIB2, CAV2, C A12, TMPRSS3, MET, CAMK2D, CCR3, TRA2B, MLXIPL, NEDD4L, PTPRC, GPR89A, ED NRA</i>
GO:0008283	cell population proliferation	0.0013472913712168507	<i>PRDX2, ASPH, PRKCI, TACC2, DNMT1, SIPR2, HLX, C6ORF89, IL31RA, RPS6KA2, SETD4, PTGFR, CHERP, NOX5, DCHS2, TJP1, NUDT6, HPSE2, PRLR, FTO, NTRK3, ARNT, S EMA5A, FLT3, RAD51B, STAT5B, TOX, FER, CASK, MARVELD3, MAP2K5, KITLG, LRP2, PIK3CD, SAAL1, MEGF10, ROBO1, HTR2B, MECOM, TACCI, TENM1, LMNA, TRAF6, ITPKB, DNAJA3, GRK5, ABI1, ITGB1, CDC6, MCC, PTPRK, RUNX1, ABCC8, STXB4, TCIRG1, DACH1, ADORA1, EPHA1, ERBB4, ADRA1D, MRE11A, ZNF609, ATP8A2, ESR1, CD ON, NTRK2, CELA1, HOOK3, PDGFB, CCND3, TOB2, INSR, RERE, PRKAR1A, TCF7L2, P AK1, ESRRB, EGLN3, TFAP2A, FANCA, MEIS1, TENM4, MDM4, IL5RA, SHC4, MTA3, LA MC1, PTPRU, DMD, USP13, KAT7, FYN, NF1, RTN4, APOD, NDRG4, IFI30, NTN1, NRG1, DOCK8, BID, MAP2K1, FNIP1, MAD1L1, DAGLA, VGLL4, RBM5, CSNK2A3, ROR2, DOC K2, CDH13, PDF, PTGER2, JAK2, FBXW7, ITC, BCL11B, CLDN1, WNT11, IFT80, NOX4, RPRD1B, PRKCD, ACVR2A, RUNX2, TGFB1, SGK1, BTRC, F2RL1, C9ORF47, DNAJB2, S LIT3, TP73, MUSTN1, DISC1, KANK1, LAMC2, CLMN, CHRM1, SMAD6, ETV6, NELL1, K CNH1, TFAP2D, BMPER, DUSP22, FGF10, GLP2R, EPHA4, RORA, PRKCA, CD6, TNFSF</i>

			<p> <i>11, UFL1, CTNBNB1, SOD2, FCGR2B, IGF1R, PPARG, DLG5, BRIPI, LEPR, FGF1, NR4A3, DCT, MYOCD, PER2, SPDYA, HCK, TBCK, CSPG4, MMP16, NF2, FLT4, HDAC4, PAX2, TPT, ELN, SFRP1, ST8SLA1, FOXO3, NFIB, SMAD3, PTPRM, MTBP, SLC16A2, NRP2, CD C73, APP, SSBP3, PDGFRA, NOX1, YAP1, CDK3, NLGN2, LRP5, POLR3G, GNG2, SOX2, C HST11, VASH2, FRS2, PALB2, MMP2, PRKD1, STAT1, ST18, HNF4A, ZBTB7C, SHANK2, E REG, ATF2, TCF3, RAF1, BMPR2, BMPR1A, BTBD10, TAF8, FGF2, AGBL4, PTAFR, YME 1L1, JARID2, RARB, VIPR1, EEF1E1, GAS8, ALKBH3, CHRD, ATF3, CKS1B, PAWR, AGO 3, DLEC1, TSG101, LAMB1, WNT3, CCL14, SCUBE2, PAFAH1B1, CNTFR, COL4A3, DDA HI, TRPC5, GLI2, ERCC1, DAB2, PKHD1, CACUL1, DLG3, ABCB1, PELI1, PPP2R5C, CF DP1, ZNF423, SP1, ALK, INPP5D, XDH, OVOL2, NFATC2, PRKG1, BNC1, TET1, CCPG1, SCARB1, CDK6, CELF1, TYR, TFRC, GPC3, EYA1, DIS3L2, HOXB4, MNAT1, LGI4, HDAC 1, TRIM24, RNF10, PTPN2, NTRK1, TMIGD1, SLC39A10, EPHB1, AXIN2, EPCAM, PTPN 14, JAG2, CARM1, SMARCA2, CTNNA1, FBXW4, MST1, BMPR1B, MAGI2, OCA2, HEY2, R C3H1, WNT7B, KMT2D, MITF, SRSF6, HIPK1, RPTOR, BTK, ZNRF3, IGF1, MAPK1, PTE N, BMP7, SOX5, LRRK2, OSGIN1, LILRB4, MORC3, IL11RA, PKD2, PDGFC, WNT7A, PLC L2, BMP6, SOS1, TSHR, EXT1, PDCD1LG2, RAPGEF2, SMO, ENPP3, RHOA, VIPR2, NDE 1, CUL3, HSPD1, EPM2A, STAT6, CDK13, BOK, SULF1, NACC2, RNF43, TNFRSF8, AGT, STAT2, ZMPSTE24, NDRG2, PTK2, PBX1, MAP3K5, TCFL5, UTP20, PYGO2, SHC1, NDU FS2, P, ARP10, RPS6KB1, ALOX5, STK4, EPHB2, IL18, DLCL1, CALCRL, SLC25A33, PAX6, PRKCZ, ADORA2A, PPP1CC, TMIGD2, ZNF143, ANGPT1, GCNT2, ETS1, PRKCQ, BRAF , HDAC2, POU3F3, SPINT2, CD300A, PHIP, RPL23, SH3BP4, CR2, NUMB, SQLE, SYK, W WTR1, BRCA2, DVL2, PTPRJ, TICAM1, HSF1, SRPK2, SULT2B1, VAV3, ZP3, CAV2, GNA1 2, POC1B, TNFSF9, CD109, CCR3, MALT1, KDM2B, MLXIPL, PHB, PTPRC, CTCF, EDNR A, BMP4</i> </p>
GO:0030010	establishment of cell polarity	0.0013951157086361451	<p> <i>PRKCI, WWCI, ITGB1, HSP90AA1, KIF26B, TCIRG1, CYTH3, GBF1, FRMD4A, FBXW11, GSN, DCTN1, DOCK8, MYH9, PARD3B, DOCK2, UST, SIPA1L3, BCAS3, KANK1, ANKFN 1, FGF10, IGF1R, MYO9A, PAFAH1B1, RUFY3, PKHD1, CLASP1, MAP1B, ROCK1, EPH B1, PARD3, SH3BP1, PTK7, HTT, AMOTL1, WNT7A, MAP4, RHOA, NDE1, GSK3B, FAM4 9B, PTK2, FRMD4B, GPM2, PAX6, PRKCZ, CAMSAP3, TRAF3IP2</i> </p>
GO:0051592	response to calcium ion	0.0013951157086361451	<p> <i>NRXN1, ASPH, ADCY8, RYR1, RYR3, ITPKB, CPNE4, ALOX5AP, KCNMA1, ECT2, DPEP1 , TTN, STIM1, SYT1, SYT13, KCNH1, RASA4, RASA4B, CAPN3, PPP3CA, RYR2, CPNE6, TP H2, SYT3, NEDD4, SLC6A1, CPNE9, NLGN1, CLIC4, RASAL1, IQGAP1, MEF2A, SYT12, M NAT1, PLCG2, CACNG2, SYT9, PKD2, SYT17, EEF2K, PRKAA2, SYT7, MCOLN1, BRAFA, A DCY1, ALG2, CAMK2D, SLC25A13, CPNE1</i> </p>
GO:0097553	calcium ion transmembrane import into cytosol	0.0013951157086361451	<p> <i>ASPH, PDE4D, FAM155A, CHERP, RYR1, ANK2, CHD7, HTR2B, RYR3, SLC24A2, LCK, D MD, SLC8A1, JPH2, FYN, BDKRB1, NPSR1, TGFB1, JPH3, CAPN3, RYR2, NOL3, CACNAI C, ITPR1, IBTK, DRD1, PRKD1, FGF2, TRPA1, AKAP6, SLC8A2, TPCN1, ATP2B4, TRPV1, PLCG2, TRDN, SNCA, HTT, PKD2, GRIN1, ITPR2, NOS1, XCR1, MCOLN1, GRIN2B, DIAP HI, HTR2C, CAMK2D, PTPRC</i> </p>
GO:0050772	positive regulation of axonogenesis	0.0013991100670383983	<p> <i>TIAM2, SEMA5A, ROBO1, CDKL5, ROBO2, DSCAM, GOLGA4, LIMK1, NTRK2, CDH4, B DNF, AMIGO1, NTN1, MAP2K1, SLIT2, DISC1, NIN, ISLR2, BMPR2, RAB11A, SEMA4D, P LXNA2, WNT3, PAFAH1B1, TRPC5, RUFY3, MACF1, ADNP, MAP1B, MAP3K13, EFNA5, BRAF</i> </p>
GO:1904062	regulation of cation transmembrane transport	0.0014358629144842498	<p> <i>NRXN1, ASPH, PDE4D, SLC9A1, NOS1AP, DPP6, UTRN, KCNIP4, ANK2, CHD7, ITGB1, CNIH2, ABCC8, TCIRG1, NETO2, CACNB2, DPP10, STK39, CAB39, AMIGO1, KCNRG, T MC2, DMD, SLC8A1, JPH2, FYN, SHISA9, SLC43A2, BDKRB1, KCNIP1, STIM1, FGF14, A NO6, NPSR1, TMCI, TGFB1, KEL, JPH3, CACNA1D, CAPN3, YMP1, RYR2, CACNA1C, SC N3B, WWP2, SHANK1, NEDD4, APP, NLGN2, VDAC1, DRD1, PRKD1, FXDY2, FXDY6, RA SGRF2, NLGN1, KCNQ1, NLGN3, AKAP6, WNK1, RELN, AHNAC, RGS7, ATP2B4, KCNA B2, STOM, PLCG2, GPR35, ANK3, CACNG8, NETO1, TRDN, STAC, SNCA, CACNG2, HTT, CNIH3, PKD2, SHANK3, KCNC2, PSEN2, AGT, PDE4B, NOS1, ACTN4, EPHB2, LRRC52, DIAPH1, CACNG3, SESTD1, CAMK2D, NEDD4L, SHISA6, EDNRA</i> </p>
GO:0019725	cellular homeostasis	0.0014621208941446098	<p> <i>ENPP1, PRDX2, ASPH, PDE4D, SLC9A1, FAM155A, ADCY8, PTGFR, CHERP, RYR1, NO X5, TJPI, EGLN2, ATP2B2, GRM5, PLCE1, ANK2, SLC9A9, CHD7, SLC26A6, HTR2B, RYR 3, SLC24A2, SLC24A3, CCDC22, ABCC8, HMGN3, STXBP4, TCIRG1, CACNB2, ADORA1, ADRA1D, LARGE, ESR1, CYB561A3, SLC4A10, KCNMA1, LCK, SLC12A8, MICU3, DMD, SLC30A9, SLC8A1, JPH2, FYN, RTN4, PIK3R2, DCTN1, SLC4A5, BDKRB1, BDKRB2, STI M1, TMIM6, CMKLR1, SLC39A14, PTGER2, CLDN16, ANO6, NEUROD1, JAK2, FBXW7 , NPSR1, SLC9A7, KLF15, NOX4, TGFB1, KEL, JPH3, PTPRN2, F2RL1, C9ORF47, DNAJB 2, CDH23, DISC1, CLN6, XPR1, CAPN3, CNR1, PPP3CA, PARK2, IGF1R, P2RY10, TRPMI , XK, RYR2, FOXK2, NOL3, CACNA1C, GRM1, PAX2, FOXO3, SMAD3, ITPR1, ACKR2, GRI K5, SLC4A4, APP, PDGFRA, NOX1, RAB11FIP5, IBTK, LRP5, SLC9B2, DRD1, PRKD1, RA F1, FGF2, ADCY5, ADCYAP1R1, SLC9B1, CLIC4, IDE, KCNQ1, CCL14, CCL15, TRPA1, N MUR2, AKAP6, TRPC5, WDC1, PKHD1, SIN3A, SLC8A2, SLC9C1, TPCN1, ATP2B4, ATP 6V0A2, P2RY8, TFRC, EPHA5, CACNA1A, PTGER3, GNB3, TRPV1, PLCG2, C1QTNF1, G PR35, AP3B1, MAP1A, SLC39A10, TMEM199, ATP13A3, AP3D1, SLC9C2, MCU, TRDN, L RRC8D, TRPC6, ABCB7, ATP13A5, SNCA, ABCA12, SGCZ, SLC4A8, HTT, MAPK1, SLC30 A7, LRRK2, ATP6V1A, ZBTB20, TMC01, PKD2, EFNA5, SHANK3, STEAP4, ZBED6, RHO TI, BMP6, ANO1, GRIN1, TF, ITPR2, ALAS2, BOK, AGT, PRKAA2, FGGY, HRH4, HEPHL1, SLC29A1, ALDOA, STC2, NOS1, SLC1A1, XCR1, UBE2K, MCOLN1, ATP1A3, GRIN2B, KC TD7, PACS2, DIAPH1, HTR2C, ATP6V0A1, GRIK2, ATP2B3, CIB2, CAV2, TMPPSS3, CAM K2D, CCR3, TRA2B, MLXIPL, NEDD4L, PTPRC, GPR89A, TYRO3, EDNRA</i> </p>

GO:0016482	cytosolic transport	0.0015215504282991817	HOOK2,EZR,ERC1,GBF1,HOOK3,SNX2,PIP4K2A,SNX6,DENND5A,TANC2,LMTK2,STX6,DCTN1,MAP2K1,ATP9A,DENND2A,SNX8,PARK2,MYO1D,TBC1D14,ANKFY1,CCDC91,RAB6A,WIP1,VPS53,RAB6C,BET1L,SNX16,SPAG9,EEA1,DAB2,SNX5,TBC1D5,ACTR2,TRIM46,HEATR5A,CHMP3,STX8,MAPK1,PIK3C3,LRRK2,RDX,SYT7,SNX3,MON2,TBC1D23,TBC1D10C,MAP2,VTI1A,AKTIP,EPS15,TBC1D10A,SNX1,VPS52
GO:0050771	negative regulation of axonogenesis	0.001571578066863775	SEMA3A,SEMA3D,SEMA5A,DAB1,RTN4,RTN4R,NTN1,SEMA5B,MAG,DRAXIN,DCC,DIP2B,FSTL4,SEMA6D,SEMA4D,WNT3,RUFY3,TRIM46,EPHA7,PTPRS,PTEN,SYNGAP1,EPHB2,MAP2,TNR,CDKL3,SLIT1,SEMA3C
GO:0007626	locomotory behavior	0.001574136434644052	NEGR1,PBX3,ADCY8,KALRN,GRM5,CHD7,OXR1,DSCAM,DAB1,SLC4A10,MEIS1,NAV2,PCDH15,ANKH,NRG1,FIG4,MTA1,ASTN1,CELSR1,CDH23,CLN6,GPR52,ANKFN1,EPHA4,PARK2,SOD2,GRM1,SPG11,APP,NLGN2,RCAN1,SPTBN4,DRD1,SLC6A3,SHANK2,ADCY5,PAFAH1B1,BTBD9,RELN,ALK,ELAVL4,LGI4,EPS8,CHRN4,SNCA,OPRD1,PTEN,PUM1,LRRK2,SHANK3,TSHR,ZMPSTE24,SLC1A1,SOBP,ADORA2A,KLHL1,HTR2C,TNR,KCND2,SCN1A,NCOA2,INPP5F
GO:0046903	secretion	0.0016816359407875441	NRXN1,PRKCI,ADCY8,CLASP2,PRLR,KALRN,CBL,STAT5B,FER,CASK,PIK3CD,EZR,NRXN3,CHD7,SLC26A6,ABCC8,HMGN3,DGKI,STXBP4,ERC2,TCIRG1,PTPN11,CACNB2,ADORA1,ERBB4,GRM7,NTRK2,FRMD4A,RIMS1,STK39,TCF7L2,PAK1,MYOM1,CHRM3,VAMP7,ARNTL,NF1,BCR,TTN,ICAI,SLC4A5,NRG1,SLC16A10,BDKRB2,MYH9,SCFD2,LIN7A,SYN2,COP5,EXOC4,RAB27A,RAB3C,GOLPH3L,NEUROD1,JAK2,SYN3,SYT1,NPSR1,ATP9A,CTAGE6,CACNA1H,IL1RAPL1,SGK1,PCSK5,PTPRN2,F2RL1,CADPS2,SYT13,C12ORF4,ANK1,CHRM1,CLOCK,FGF10,STXBP5,SLC16A1,CNR1,TNFSF11,PPP3CA,PARK2,FCGR2B,PPARG,SYTL5,SCAMP5,NR4A3,PER2,HCK,RIMS4,SFRP1,GRIK5,SLC16A2,SYT3,SLC6A1,RAB11FIP5,NLGN2,SCRN1,LRP5,SLC9B2,DRD1,SERGEF,TPH1,SLC6A3,HNF4A,VPS4A,RAFI,NLGN1,RAB11A,ADCY5,MCTP1,PTAFR,RAB11FIP3,PRKCG,TANGO6,OC90,TRAPPC11,FBXL20,TSG101,KCNQ1,PAFAH1B1,NMUR2,TPD52,DAB2,WNK1,CLASP1,APBB3,XDH,SNX5,NF,SF,EPHA5,SYT12,ADRBK1,PTGER3,TRPV1,PRSS12,C1QTNF1,CAPN10,UNC13A,ARHGAP44,CD84,SPI1,CHRN4,MCU,ILDR2,RAB15,SNCA,GRM4,SYT9,ADTRP,ABCA12,BTK,SLC4A8,IGF1,PIK3C3,LRRK2,ITGAM,EFNA5,MIA2,WNT7A,ZBED6,SNAP23,DNAJC1,BMP6,ANO1,BLOC1S3,STXBP5L,CPT1A,SYT17,GRIN3A,GSK3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,LAT2,EXOC6B,RIMS2,COPG2,CPE,PCSK6,SLC29A1,UGT1A3,CD160,ALOX5,CPLX2,ADAM8,ARFGAP3,SCNN1B,WLS,HCAR2,STEAP3,SYTL4,ADORA2A,RABGEF1,CADPS,NCOR2,BRAF,HTR2C,CD300A,RAB27B,ITSN1,ADCY1,SYK,MYRIP,SLC10A1,ZP3,AXL,MICAL3,RPH3A,TYRO3,TRAF3IP2,CREB1,CLNK,STXBP6
GO:0017157	regulation of exocytosis	0.0016961082472075847	CLASP2,FER,CASK,NRXN3,DGKI,CACNB2,VAMP7,BCR,RAB27A,RAB3C,SYT1,ATP9A,CACNA1H,IL1RAPL1,F2RL1,CADPS2,SYT13,C12ORF4,STXBP5,CNR1,PARK2,FCGR2B,SCAMP5,RIMS4,SYT3,DRD1,VPS4A,NLGN1,PTAFR,PRKCG,FBXL20,TSG101,CLASP1,NSF,SYT12,CD84,SPI1,RAB15,SNCA,SYT9,SLC4A8,LRRK2,ITGAM,WNT7A,STXBP5L,SYT17,GRIN3A,GSK3B,SYN1,SYT7,RIMS2,CD160,CPLX2,SYTL4,ADORA2A,RABGEF1,CADPS,BRAF,CD300A,RAB27B,ADCY1,SYK,ZP3,STXBP6
GO:0071902	positive regulation of protein serine/threonine kinase activity	0.0017979947537058254	NRXN1,NTRK3,FLT3,MAP2K5,KITLG,ROBO1,HTR2B,TENM1,TRAF6,CD6,AKAP13,PDGFRB,CCND3,INSR,CAB39,PAK1,MAP3K4,ERN2,MAP2K1,ROR2,CCNYL1,NOX4,TGFB1,EPHA4,TNFSF11,AXIN1,FGF1,AJUBA,SPDYA,TAB1,MTCPI1,S100A12,CCNY,PTPN1,BMPR2,BMPRI1,FGF2,DVL3,CKS1B,NEK10,MAP3K7,SLC8A2,ATP2B4,GHR,MNAT1,MAP3K13,SNCA,BMPRI1B,RPTOR,LRRK2,PKD2,PDGFC,RAPGEF2,RHOA,MAP3K5,TAOK2,ADAM8,STK4,PPP2CA,SYK,DVL2,SASH1,PTPRC
GO:0060998	regulation of dendritic spine development	0.001811102285685987	LLPH,KALRN,TANC2,CAPRN2,CAMK2B,DISC1,DLG5,DNM3,CUX2,SHANK1,FSTL4,NLGN2,NLGN1,PAFAH1B1,RELN,PAK3,ACTR2,SDK1,PTPRS,PTEN,SHANK3,GRIN3A,EEF2K,HDAC2,ASAP1
GO:0051345	positive regulation of hydrolase activity	0.0018282316410249632	ASPH,MAP4K4,C6ORF89,TIAM2,MAPRE2,KALRN,NTRK3,ROBO1,HTR2B,CDKL5,DNAJA3,ITGB1,ARHGAP24,RGS6,DOCK10,EPHA1,ABR,ESR1,FNTA,EGLN3,ARHGAP6,LCK,ECT2,ARHGAP42,GSN,FYN,NF1,RTN4R,BCR,DOCK8,BID,RAPGEF6,RGS8,RCC2,GNAQ,DENND1A,JAK2,ARAP2,DOCK9,CYFIP2,WNT11,SIPA1L3,PRKCD,CRADD,F2RL1,BCAS3,CORO1C,BLID,RABGAP1L,EPHA4,ARHGAP22,PPARG,GARNL3,RGS10,TBC1D14,TBCK,SFRP1,ARHGAP29,BCL2L13,SMAD3,PSAP,PREX1,APP,PDGFRA,PRKD1,ST18,GRAMD4,CASP1,FGF2,PPM1F,NEDD9,SEMA4D,PTAFR,ADCYAP1R1,DVL3,MYO9A,CCL14,CCL15,COL4A3,NMUR2,HIP1,DOCK11,XDH,RGS7,TBC1D5,SNX9,ROCK1,NTRK1,SLC39A10,BCAR3,RAPGEF3,SH3BP1,SNCA,MAGI2,TBC1D9,USP50,RASA1,TBC1D16,LRRK2,ARHGAP25,SGSM1,NLRP1,UACA,RAPGEF2,VRK3,GRIN1,RHOA,HSPD1,GSK3B,BOK,AGT,MAP3K5,CLDN4,RGS14,SIPA1L2,ARHGAP11A,SLC1A1,DLC1,GRTP1,PRKCZ,GRIN2B,TBC1D10C,CCL22,CD300A,SRGAP2,SYK,RAP1GAP2,DVL2,TANK,HSF1,ASAP1,RALGAP1,CAV2,GNAI2,TBC1D10A,MALTI,PHB,PTPRC,EDNRA
GO:0051235	maintenance of location	0.0018452678428426874	ENPP1,ASPH,PDE4D,CHERP,RYR1,FTO,STAT5B,ANK2,CHD7,HTR2B,RYR3,CCDC22,NRIP1,LCK,DMD,SLC8A1,GSN,RIT2,JPH2,BDKRB1,MDF1,MAD1L1,SYNE1,FBXW7,NPSR1,CD4,TGFB1,JPH3,CIZ1,PLIN3,CAPN3,PPARG,MSR1,SREBF2,RYR2,NOL3,CACNA1C,ITPR1,GRIK5,PLA2G4C,IBTK,DRD1,PRKD1,TAFA3,TAFA3,FGF2,SUFU,ZFYVE1,PAFAH1B1,TRPA1,AKAP6,DZIP1,TPCN1,LTBP1,SCARB1,UVRAG,TRPV1,PLCG2,PTPN2,ANK3,AP3D1,TRDN,SNCA,HTT,SLC30A7,MORC3,PKD2,PLIN2,G

			<i>ET4,SUN1,CPT1A,ITPR2,FBN2,CDS1,NOS1,XCR1,GPSM2,PPARA,MCOLN1,FBN1,OSBPL8,ARHGAP21,DIAPH1,HTR2C,SKP1,SP100,SQLE,ANKRD13C,CAMK2D,PTP RC,RNF213</i>
GO:0032940	secretion by cell	0.00184584 2355187936 5	<i>NRXN1,ADCY8,CLASP2,KALRN,CBL,FER,CASK,PIK3CD,EZR,NRXN3,CHD7,ABCC8,HMGN3,DGKI,STXB4,ERC2,TCIRG1,PTPN11,CACNB2,ADORA1,GRM7,NTRK2,FRMD4A,RIMS1,TCF7L2,PAK1,MYOM1,VAMP7,ARNTL,NF1,BCR,TTN,ICA1,SLC16A10,MYH9,SCFD2,LIN7A,SYN2,COPS5,EXOC4,RAB27A,RAB3C,GOLPH3L,NEUROD1,JAK2,SYN3,SYT1,ATP9A,CTAGE6,CACNA1H,IL1RAPL1,PCSK5,PTPRN2,F2RL1,CADPS2,SYT13,C12ORF4,ANK1,CLOCK,FGF10,STXB5,SLC16A1,CNR1,TNFSF11,PPP3CA,PARK2,FCGR2B,PPARG,SYTL5,SCAMP5,NR4A3,PER2,HCK,RIMS4,SFRP1,GRIK5,SLC16A2,SYT3,RAB11FIP5,NLGN2,SCRN1,LRP5,SLC9B2,DRD1,SERGEF,TPH1,HNF4A,VPS4A,RAF1,NLGN1,RAB11A,ADCY5,MCTP1,PTAFR,RAB11FIP3,PRKCG,TANGO6,TRAPP11,FBXL20,TSG101,KCNQ1,PAFAH1B1,DAB2,CLASP1,APB B3,NSF,EPAH5,SYT12,ADRBK1,TRPV1,PRSS12,C1QTNF1,CAPN10,UNC13A,ARHGAP44,CD84,SPH1,CHRN4,MCU,ILDR2,RAB15,SNCA,GRM4,SYT9,ADTRP,ABCA12,BTK,SLC4A8,IGF1,PIK3C3,LRRK2,ITGAM,EFNA5,MIA2,WNT7A,ZBED6,SNAP23,DNAJC1,BMP6,ANO1,BLOC1S3,STXB5L,CPT1A,SYT17,GRIN3A,GSK3B,SYN1,MCTP2,AGT,SYT7,BLOC1S6,LAT2,EXOC6B,RIMS2,COPG2,CPE,PCSK6,CD160,ALOX5,CPLX2,ADAM8,ARFGAP3,WLS,HCAR2,STEAP3,SYTL4,ADORA2A,RABGEF1,CADPS,BRAF,HTR2C,CD300A,RAB27B,ITSN1,ADCY1,SYK,MYRIP,ZP3,AXL,MICAL3,RPH3A,TYRQ3,CREB1,CLNK,STXB6</i>
GO:0030336	negative regulation of cell migration	0.00196211 4240882422 6	<i>SIPR2,CLASP2,SEMA3A,NRG3,MARVELD3,MAP2K5,PTPRR,ROBO1,SRGAP3,MC C,SRGAP2B,PTPRK,ABCC8,DACH1,ADORA1,EPAH1,PTPRU,ADAMTS9,NF1,PLCB1,DPEP1,APOD,BCR,NDRG4,NRG1,HDAC5,DCN,PTPRT,WNT11,MMP28,SLIT2,CORO1C,KANK1,DUSP22,EPAH4,PIP5KL1,PPARG,DLG5,MYOC,NF2,SFRP1,FOXO3,PTPRM,NAV3,PTPRG,SEMA6D,BMPRI1,FGF2,MCTP1,CHRD,VCL,CLIC4,LDLRAD4,CLASP1,PRKG1,ATP2B4,MAGI2,ADTRP,MITF,DPSYSL3,PTEN,RHOA,SULF1,GPR173,TMEFF2,DLC1,ZMYND8,RABGEF1,PHLDB2,OSBPL8,BRAF,CD300A,ANGPT4,SP100,SRGAP2,PTPRJ,GNA12</i>
GO:0098771	inorganic ion homeostasis	0.00200998 1254232051	<i>ENPPI,ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,PTGFR,CHERP,RYR1,NOX5,ATP2B2,GRM5,PLCE1,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,SLC24A3,CCDC22,TCIRG1,CACNB2,ADORA1,ADRA1D,CNNM1,ESR1,CYB561A3,SLC4A10,KCNMA1,LCK,SLC12A8,SGCD,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,SLC4A5,CNNM2,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,SLC39A14,PTGER2,CLDN16,JAK2,NPSR1,SLC9A7,TGFB1,KEL,JPH3,F2RL1,C9ORF47,CDH23,DISC1,CLN6,XPR1,TMTC2,CAPN3,CNR1,TNFSF11,PARK2,SOD2,P2RY10,TRPM1,OTC,XK,RYR2,NO L3,CACNA1C,GRM1,SMAD3,ITPR1,ACKR2,SLC4A4,APP,PDGFRA,NOX1,IBTK,BDH2,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,SLC9B1,CLIC4,KCNQ1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,BTBD9,TRPC5,NEO1,PKHD1,SLC8A2,SLC9C1,TPCN1,SNX5,ATP2B4,ATP6V0A2,P2RY8,TFRC,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR35,AP3B1,SLC39A10,ANK3,TMEM199,ATP13A3,AP3D1,SLC9C2,MCU,TRDN,TRPC6,ABC7,ATP13A5,SNCA,SLC4A8,HTT,MAPK1,SLC30A7,LRRK2,ATP6V1A,TMCO1,PKD2,STEAP4,BMP6,EXT1,GRIN1,TF,ITPR2,ALAS2,BOK,AGT,HRH4,HEPHE1,STC2,NOS1,SCNN1B,SLC1A1,XCR1,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B,KCTD7,PACS2,DIAPH1,HTR2C,ATP6V0A1,GRIK2,ATP2B3,CIB2,CAV2,C A12,TMPRSS3,CAMK2D,CCR3,NEDD4L,PTPRC,GPR89A,EDNRA</i>
GO:0045927	positive regulation of growth	0.00208299 4443255892	<i>HLX,SLC9A1,SEMA5A,STAT5B,MAP2K5,EZR,CHD7,CDKL5,DSCAM,GOLGA4,ERB B4,LIMK1,ATP8A2,RIMS1,INSR,CDH4,BASP1,BDNF,RFTN1,PLCB1,NTN1,NRG1,C SNK2A3,SYT1,PLS1,DISC1,ITSN2,CAPN3,PARK2,CPNE6,SFRP1,SYT3,YAP1,ISLR2,SPTBN4,CPNE9,SLC6A3,BMPR2,BMPRI1A,RAB11A,FGF2,PPM1F,SEMA4D,EIF4G1,WNT3,PAFAH1B1,AKAP6,RASAL1,TRPC5,RUFY3,MACF1,ADNP,MAP1B,CELF1,GHR,UNC13A,MAP3K13,HEY2,RPTOR,IGF1,EFNA5,GPR21,TSHR,SMO,SYT17,RHO A,RIMS2,RPS6KB1,SLC25A33,NIPBL,ZP3,KDM2B,NEDD4L,CREB1</i>
GO:0006470	protein dephosphorylation	0.00228907 0181355644 3	<i>CTDSP2,PTPRR,PTPRK,PTPN11,MGAT5,ADORA1,IKKBK,PTPRO,FBXW11,PTPRD,LCK,PPM1L,PTPRU,PPP4R2,PPP2CB,PTPRT,JAK2,RPRD1B,PRKCD,PPM1E,BT RC,PTPRN2,PTPDC1,DAPP1,DUSP22,PPP3CA,PPP1CB,PPP2R2B,CTDP1,TPTE,PP6R2,SSH1,PTPRM,TAB1,EYA2,PTPRG,RCAN1,LRRK2,PTPN1,PPA2,PPM1F,PTPRE,PTPN13,PPP2R5C,SSH2,CAMTA1,EYA1,ROCK1,PTPN2,SLC39A10,PTPRQ,PTPN9,PTPN14,PTPRA,PDXP,MAGI2,PTPRS,HTT,PTEN,LRRK2,MTMR3,VK3,DNAJC6,EPM2A,GSK3B,PPP1R16A,PTPRB,DUSP26,CDC14A,DLC1,PDP1,PHLPP1,ACP1,PPP1CC,EYA3,LRRK1,PPP1CA,CD300A,PPP2CA,PTPRJ,RNGTT,GNA12,PTPRC</i>
GO:0009894	regulation of catabolic process	0.00230299 7521783682 4	<i>FBXL2,PRKAG2,FTO,DCAF12,ARNT,EGLN2,LRP2,DEPDC5,EZR,HTR2B,PSMD1,ITGB1,HSP90AA1,PSMB7,CCDC22,HDAC6,DDB1,ADORA1,CUL4B,TNRC6A,EP300,ZYG11B,CHFR,INSR,FMN2,ASB5,PIP4K2A,RNF144A,SAMD4,TRIM13,MDM4,ENTPD5,SNX6,LARP4B,USP13,PAFAH1B2,FYN,MKRN2,PIK3R2,NRG1,VGLL4,CSNK2A3,DCN,SCFD1,CREBRF,TRDMT1,FHIT,EXOC4,MAD2L2,FBXW7,OAZ2,ITCH,LZTS1,SMG1,PRKCD,TAB2,BANP,TRIM65,BTRC,DNAJB2,HP,DISC1,ZFAND2A,MTDH,NELL1,TIMP2,DAPK2,HNRNP3C,YTHDF1,SMURF2,EPAH4,PRKCA,CNR1,NSUN2,UBQLN3,UFL1,PARK2,SMARCC1,AXIN1,LRPPRC,SREBF2,LEPR,FOXK2,TRIM5,CH EK2,UBQLN4,PPP1CB,TBC1D14,RAB3GAP2,TRIM8,HDAC4,FOXO3,ZCCHC17,SYNCRIP,SMAD3,RNF27,ITPR1,WWP2,WIP1,PSAP,DCP1B,NEDD4,SLC4A4,APP,ARIHI,SESNI,VDAC1,SH3D19,PRICKLE1,PRKD1,PTPN1,USP33,PABPC4,AGBL4,PRKCG,AREL1,EIF4G1,PSMD2,RBX1,LIN28B,ATP6V0B,FBXL20,DES1,IDE,SUFU,TNR</i>

			<i>C6B,DAB2,MAP3K7,TRIM22,ALK,FASTKD5,TPCN1,SNX5,ATP2B4,NSF,DYX1C1,M APKAPK2,SCARB1,ATP6V0A2,CELF1,UVRA3,GPC3,PSMB2,SCOC,DIS3L2,TFEB, CLEC16A,SNX9,ELAVL4,ROCK1,RYBP,MAP1A,AXIN2,SNX33,EIF3H,SNCA,PNPT1, RC3H1,RNF19B,PRKAG1,PSMF1,DFFA,RPTOR,IGF1,HTT,PTEN,PUM1,LRRK2,AT P6V1A,MLYCD,TMEM59,ZBTB20,BAG6,DAZL,MTMR3,CRTC3,TAI15,MYCBP2,SH 3RF2,N4BP1,CPT1A,EPM2A,GSK3B,RDX,BOK,RNF144B,METTL16,PRKAA2,ZMPS TE24,PTK2,SNX3,EXOSC3,RNFT1,ADAM8,CSNK1A1,DRAM1,MFSD8,UBE2K,HCA R1,HCAR2,DIS3,PPARA,ZC3HAV1,ATF6,PPP1CA,PHKG2,RPL23,SH3BP4,ANXA2,P ARN,ATP6V0A1,CNOT1,YBX1,TAI1,TICAM1,HSF1,GNAI2,MYEF2,MET,SNX1,UCH L5,MLXIPL,NEDD4L,PHB,TRAF3IP2</i>
GO:00 55082	cellular chemical homeostasis	0.00239061 7656703736 4	<i>ENPPI,ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,PTGFR,CHERP,RYR1,NOX5,TJP1, ATP2B2,GRM5,PLCE1,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,SLC2 4A3,CCDC22,ABCC8,HMGN3,STXBP4,TCIRG1,CACNB2,ADORA1,ADRA1D,ESR1, CYB561A3,SLC4A10,KCNMA1,LCK,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,RTN 4,PIK3R2,SLC4A5,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,SLC39A14,PTGER2, CLDN16,NEUROD1,JAK2,NPSR1,SLC9A7,KLF15,NOX4,TGFB1,KEL,JPH3,PTPRN2 ,F2RL1,C9ORF47,CDH23,DISC1,CLN6,XPR1,CAPN3,CNR1,PPP3CA,IGF1R,P2RY1 0,TRPM1,XK,RYR2,FOXK2,NOL3,CACNA1C,GRM1,PAX2,FOXO3,SMAD3,ITPR1,A CKR2,GRIK5,SLC4A4,APP,PDGFRA,NOX1,RAB11FIP5,IBTK,LRP5,SLC9B2,DRD1, PRKD1,RAF1,FGF2,ADCY5,ADCYAP1R1,SLC9B1,CLIC4,KCNQ1,CCL14,CCL15,TR PA1,NMUR2,AKAP6,TRPC5,WDTC1,PKHD1,SIN3A,SLC8A2,SLC9C1,TPCN1,ATP2 B4,ATP6V0A2,P2RY8,TFRC,EPA5,CACNA1A,PTGER3,TRPV1,PLCG2,C1QTNF1, GPR35,AP3B1,SLC39A10,TMEM199,ATP13A3,AP3D1,SLC9C2,MCU,TRDN,LRRRC D,TRPC6,ABC7,ATP13A5,SNCA,ABCA12,SLC4A8,HTT,BMPK1,SLC30A7,LRRK2,A TP6V1A,ZBTB20,TMCO1,PKD2,EFNA5,STEAP4,ZBED6,MAP6,ANO1,GRIN1,TF,IT PR2,ALAS2,BOK,AGT,PRKAA2,HRH4,HEPHL1,SLC29A1,STC2,NOS1,SLC1A1,XCR 1,MCOLN1,ATP1A3,GRIN2B,KCTD7,PACS2,DIAPH1,HTR2C,ATP6V0A1,GRIK2,AT P2B3,CIB2,CAV2,TMPRSS3,CAMK2D,CCR3,TRA2B,MLXIPL,NEDD4L,PTPRC,GPR 89A,EDNRA</i>
GO:00 01764	neuron migration	0.00241382 3920021772	<i>SEMA3A,NRG3,ASTN2,PHACTR1,NTRK3,CDKL5,ULK4,DAB1,ZNF609,NTRK2,KIR REL3,UNC5D,POMGNT2,SATB2,FYN,FAT3,NTN1,NRG1,NTNG1,NAV1,ASTN1,CAM K2B,CELSR1,DISC1,DCLK1,AUTS2,CTNNB1,DCC,NRP2,CEP85L,DRD1,CTNNA2,E LP3,SPOCK1,FBXO45,PAFAH1B1,RELN,PRKG1,DYX1C1,MAP1B,MARK1,FLRT2,T RIM46,RAPGEF2,NDE1,GPR173,PEX7,PAX6,NIPBL,FBXO31,SRGAP2,GPM6A,AXL</i>
GO:00 10171	body morphogenesis	0.00247008 0846008995 4	<i>ASPH,CLASP2,PTPN11,ANKRD11,CDON,EP300,CRISPLD2,TGFB1,PHLDB1,IFT12 2,SSBP3,PDGFRA,MMP2,STRA6,WNT3,CLASP1,GPC3,PLEKHA1,ARID5B,PHLDB2 ,NIPBL,BRAF,CSRNPI</i>
GO:00 08038	neuron recognition	0.00247008 0846008995 4	<i>SEMA3A,SEMA5A,ROBO1,ROBO2,DSCAM,AMIGO1,RTN4,CNTN4,MYPN,OPCML, CNTNAP2,EPA4,CNR1,CNTN6,CRTAC1,APP,DSCAML1,NTM,EPHB3,EXT1,EMB, GAP43,EPHB2</i>
GO:00 30198	extracellular matrix organization	0.00251424 1353093395 6	<i>ADAMTS16,CLASP2,HPSE2,MIA,ITGB6,ITGB1,RUNX1,IMPG2,COL14A1,ADAMTS3 ,CSGALNACT1,LAMC1,CRISPLD2,ADAMTS9,NF1,RXFP1,TLL1,EGFLAM,VWAI,NT NG1,COL12A1,TGFB1,MMP28,COLGALT1,COL23A1,MMP26,COL24A1,SMOC1,B CL3,LOXL3,LUM,HSD17B12,ECM2,PHLDB1,MYO1E,MMP16,ELN,SMAD3,THSD4, APP,PDGFRA,NOX1,ADAMTS2,MMP2,ADAMTS12,COL16A1,ADAMTS4,LAMB1,C OL11A1,ADAMTS6,ADAMTS14,COL4A3,COL19A1,COL6A5,CLASP1,GPM6B,COL4 A6,FLRT2,SMOC2,NID1,PTPRQ,ADAMTS17,COL13A1,ADAMTS13,TLL2,ADTRP,S H3PXD2B,EXT1,TNFRSF11B,SULF1,AGT,COL9A1,FMOD,COL21A1,ITGAL,DNAJB 6,ADAM8,COL22A1,PHLDB2,COL28A1,SPINT2,TNR,ACAN,ITGAE,ADAMTS7,BMP 1,CAV2,COL4A5,TNXB</i>
GO:00 06887	exocytosis	0.00253881 8053793858 2	<i>CLASP2,CBL,FER,CASK,PIK3CD,NRXN3,DGKI,ERC2,CACNB2,RIMS1,PAK1,VAM P7,BCR,MYH9,SCFD2,LIN7A,SYN2,COPS5,EXOC4,RAB27A,RAB3C,SYT1,ATP9A,C ACNA1H,ILIRAPL1,F2RL1,CADPS2,SYT13,C12ORF4,ANK1,STXBP5,CNR1,PARK2, FCGR2B,SYTL5,SCAMP5,NR4A3,HCK,RIMS4,GRIK5,SYT3,RAB11FIP5,SCRNI,DRD 1,TPH1,VPS4A,NLGN1,RAB11A,PTAFR,PRKCG,TRAPPC11,FBXL20,TSG101,CLAS P1,NSF,SYT12,PRSS12,UNC13A,ARHGAP44,CD84,SPI1,RAB15,SNCA,SYT9,ABCA1 2,BTK,SLC4A8,LRRK2,ITGAM,WNT7A,SNAP23,STXBP5L,SYT17,GRIN3A,GSK3B,SY N1,SYT7,BLOC1S6,LAT2,EXOC6B,RIMS2,CD160,CPLX2,SYTL4,ADORA2A,RABGE F1,CADPS,BRAF,CD300A,RAB27B,ITSN1,ADCY1,SYK,ZP3,MICAL3,CLNK,STXBP6</i>
GO:00 55080	cation homeostasis	0.00263214 359402537	<i>ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,PTGFR,CHERP,RYR1,NOX5,ATP2B2,GR M5,PLCE1,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,SLC24A3,CCDC2 2,TCIRG1,CACNB2,ADORA1,ADRA1D,CNNM1,ESR1,CYB561A3,SLC4A10,KCNMA 1,LCK,SLC12A8,SGCD,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,SLC4A5,CNNM2, BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,SLC39A14,PTGER2,CLDN16,JAK2,NP SR1,SLC9A7,TGFB1,KEL,JPH3,F2RL1,C9ORF47,CDH23,DISC1,CLN6,TMTC2,CAP N3,CNR1,TNFSF11,PARK2,SOD2,P2RY10,TRPM1,OTC,XK,RYR2,NOL3,CACNA1C, GRM1,SMAD3,ITPR1,ACKR2,SLC4A4,APP,PDGFRA,NOX1,IBTK,BDH2,DRD1,PRK D1,FGF2,ADCY5,ADCYAP1R1,SLC9B1,CLIC4,KCNQ1,CCL14,CCL15,TRPA1,NMU R2,AKAP6,BTBD9,TRPC5,NEO1,PKHD1,SLC8A2,SLC9C1,TPCN1,SNX5,ATP2B4,AT P6V0A2,P2RY8,TFRC,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR3 5,AP3B1,SLC39A10,ANK3,TMEM199,ATP13A3,AP3D1,SLC9C2,MCU,TRDN,TRPC6,</i>

			<i>ABCB7, ATP13A5, SNCA, SLC4A8, HTT, MAPK1, SLC30A7, LRRK2, ATP6V1A, TMCO1, PKD2, STEAP4, BMP6, EXT1, GRIN1, TF, ITPR2, ALAS2, BOK, AGT, HRH4, HEPHL1, STC2, NOS1, SCN1B, SLC1A1, XCR1, MCOLN1, STEAP3, ATP1A3, ADORA2A, GRIN2B, KCTD7, PACS2, DIAPH1, HTR2C, ATP6V0A1, GRIK2, ATP2B3, CIB2, CAV2, TMPRSS3, CAMK2D, CCR3, NEDD4L, PTPRC, GPR89A, EDNRA</i>
GO:0043062	extracellular structure organization	0.00289723 9891234574 7	<i>ADAMTS16, CLASP2, HPSE2, MIA, ITGB6, ITGB1, RUNX1, IMPG2, COL14A1, ADAMTS3, CSGALNACT1, LAMC1, CRISPLD2, ADAMTS9, NF1, RXFP1, TLL1, EGFLAM, VWA1, NTNG1, COL12A1, TGFB1, MMP28, COLGALT1, COL23A1, MMP26, COL24A1, SMOC1, BCL3, LOXL3, LUM, HSD17B12, ECM2, PHLDB1, MYO1E, MMP16, ELN, SMAD3, THSD4, APP, PDGFRA, NOX1, ADAMTS2, MMP2, ADAMTS12, COL16A1, ADAMTS4, LAMB1, COL11A1, ADAMTS6, ADAMTS14, COL4A3, COL19A1, COL6A5, CLASP1, GPM6B, COL4A6, FLRT2, SMOC2, NID1, PTPRQ, ADAMTS17, COL13A1, ADAMTSL3, TLL2, ADTRP, SH3PXD2B, EXT1, TNFRSF11B, SULF1, AGT, COL9A1, FMOD, COL21A1, ITGAL, DNAJB6, ADAM8, COL22A1, PHLDB2, COL28A1, SPINT2, TNFR, ACAN, ITGAE, ADAMTS7, BMP1, CAV2, COL4A5, TNXB</i>
GO:2000146	negative regulation of cell motility	0.00290704 6334069171	<i>SIPR2, CLASP2, SEMA3A, NRG3, MARVELD3, MAP2K5, PTPRR, ROBO1, SRGAP3, MC3, SRGAP2B, PTPRK, ABCC8, DACH1, ADORA1, EPHA1, PTPRU, ADAMTS9, NF1, PLCB1, DPEP1, APOD, BCR, NDRG4, NRG1, HDAC5, DCN, PTPRT, WNT11, MMP28, SLIT2, CORO1C, KANK1, DUSP22, EPHA4, PIP5KL1, PPARG, DLG5, MYOCD, NF2, SFRP1, FOXO3, PTPRM, NAV3, PTPRG, SEMA6D, BMPRI1, FGF2, MCTP1, CHRDR, VCL, CLIC4, LDLRAD4, CLASP1, PRKG1, ATP2B4, CTNNA1, MAGI2, ADTRP, MITF, DPYSL3, PTF, DNAB, RHOA, SULF1, GPR173, TMEFF2, DLC1, ZMYND8, RABGEF1, PHLDB2, OSBPL8, BRAF, SPINT2, CD300A, ANGPT4, SP100, SRGAP2, FRMD5, PTPRJ, GNAI2</i>
GO:0000122	negative regulation of transcription by RNA polymerase II	0.00294235 6523410107	<i>LDB2, DNMT1, TRPS1, CBFB, PRDM12, WWC1, SCAF8, WWC3, ZNF566, MAP2K5, ZNF536, SP3, HDGF, EZR, TRAF6, DNAJA3, GFII1B, RUNX1, NRIP1, THRB, DACH1, ORC2, ESR1, MIER1, PCBP3, EP300, CELA1, TENM2, CCND3, ZNF19, BRMS1, H2AFY2, TCF7L2, TFAP2A, PEG3, ZIM2, TGIF2, MDM4, ZNF148, MTA3, SATB2, MDF1, FNIP1, VAX2, TMBIM6, HDAC5, ZNF692, JDP2, CREBRF, SOX13, MAD2L2, TLE6, MLIP, PDE2A, TBX15, MTA1, KLF8, LCOR, TGFB1, NSD1, ZHX2, CC2D1B, MTDH, MYT1L, ZNF398, ZNF675, ETV6, DUSP22, SMURF2, MAGEA4, KLF12, GATAD2B, CTNNB1, PARK2, METTL13, PPARG, CBX5, SREBF2, NR4A3, FOXK2, MYOCD, PER2, AJUBA, PRDM16, BRMS1L, HDAC4, FOXO3, SMAD3, CUX2, WWP2, MIER3, NEDD4, CDC73, YAP1, SOX2, ESR2, STAT1, ETV5, TAF3, PLAGL1, ATF2, TCF3, MYB, BACH1, MXD3, SEMA4D, NFX1, RORC, JARID2, RARB, SPEN, SIN3B, EHMT1, ATF3, PAWR, TSG101, CRYM, SUFU, MAGEA11, NR2C1, GLI2, GLIS3, WDTC1, DAB2, SIN3A, OVOL2, NFATC2, CDK6, MEF2A, SATB1, GATAD2A, TRPV1, HOXB3, HOXB4, HDAC1, RYBP, PTPN2, ZNF425, BCOR, SMARCA2, CUX1, SPI1, DNMT3B, FOXP2, GLIS1, JAZF1, SNCA, ZEB2, HEY2, CREM, MITF, NFIX, CBF42T2, ATF7IP, MXI1, CIR1, ZBTB20, RIPPLY1, ZBED6, BMP6, ATRX, SMO, SOX30, CUL3, TFEC, STAT6, DUSP26, NACC2, SUPT4H1, TCFL5, CREBBP, DLX1, PRDM2, TCF25, ZNF282, PPARA, ARIAD5B, NOTCH4, ZNF366, PAX6, OTUD7B, NIPBL, TBL1X, FHL2, ZBTB5, MTF2, TAGLN3, NCOR2, HDAC2, IMPACT, RPL23, ATXN1, SP100, TRIM29, CNOT1, WWTR1, YBX1, TAF1, HSF1, MAX, SAP130, EZH1, NCOA2, RNF2, ZNF554, TRIM37, TIMELESS, KDM2B, MLX1PL, PHB, ZNF555, CTCF, NR6A1, BMP4</i>
GO:0060401	cytosolic calcium ion transport	0.00302237 9388848272	<i>ASPH, PDE4D, FAM155A, CHERP, RYR1, ANK2, CHD7, HTR2B, RYR3, SLC24A2, LCK, MICU3, DMD, SLC8A1, JPH2, FYN, BDKRB1, TMBIM6, NPSR1, TGFB1, JPH3, CAPN3, TRPM1, RYR2, NOL3, CACNA1C, ITPR1, VDAC1, IBTK, DRD1, PRKD1, FGF2, ADCYAP1R1, TRPA1, AKAP6, SLC8A2, TPCN1, ATP2B4, TRPV1, PLCG2, MCU, TRDN, SNCA, HTT, PKD2, PSEN2, GRIN1, ITPR2, NOS1, XCR1, MCOLN1, GRIN2B, DIAPH1, HTR2C, ATP2B3, CAMK2D, PTPRC</i>
GO:0006511	ubiquitin-dependent protein catabolic process	0.00303218 3952693213	<i>CALR3, FBXL2, DCAF12, CBL, USP32, TOM1L1, PSMD1, PSMB7, CCDC22, DNAJB14, HDAC6, DDB1, CUL4B, FBXL18, ZYG11B, FBXL7, USP46, CHFR, USP34, FBXW11, RNF144A, TRIM13, UBR2, NPLOC4, USP13, MKRN2, ARNTL, FBXO21, PPP2CB, RNF4, UBE3D, FHIT, MAN1A1, FBXO9, RFFL, USP22, FBXW7, ITCH, USP12, SPSB1, MTA1, SHAH1, ERC8, SPSB4, ASCC2, BTRC, DNAJB2, RNF133, RNF148, DISC1, ZFAND2A, CLOCK, FBXL17, KCTD10, SMURF2, UBQLN3, UBQLN1, UFL1, CTNNB1, PARK2, SMARCC1, AXIN1, UBQLN4, WWP2, RNF168, NEDD4, SEC61B, USP49, ARIH1, AMFR, PRICKLE1, ERLIN1, VPS4A, PSMD11, USP33, UBE2R2, AGBL4, CDC27, KLHL3, AREL1, UCHL3, PSMD2, RBX1, ANAPC5, FBXO45, STT3B, FBXL20, TSG101, DESI1, SUFU, EDEM3, DAB2, UBR1, CACUL1, PSMD7, PELI1, PPP2R5C, ZNRF1, RBBP6, UBE3C, RNF34, PSMB2, RNF216, RYBP, CUL2, MAP1A, MAN1B1, FBXO39, FBXW4, EIF3H, USP42, USP50, RC3H1, RNF103, RNF103-CHMP3, RNF19B, PSMF1, TRIP12, ZNRF3, KCTD13, PTEN, MIB1, PCBP2, LRRK2, ZRANB1, BAG6, SEL1L2, SH3RF2, N4BP1, UBE2H, CUL3, EPM2A, GSK3B, RNF144B, RNF43, CUL9, PTK2, ARMC8, RNF121, FBXO10, TRPC4AP, CSNK1A1, UBE2K, FBXL13, RNF150, OTUD7B, TBL1X, FBXO31, C18ORF25, SKP1, RPL23, WWTR1, TAF1, GNAI2, UCHL5, FBXL4, NEDD4L, RNF213, SGTB</i>
GO:0030031	cell projection assembly	0.00309857 0194148197 7	<i>CLRN1, ADAMTS16, NRXN1, SIPR2, SPAG16, IQCG, PLCE1, FER, EZR, CDKL5, TENM1, VAV2, ITGB1, ARHGAP24, IFT43, CDC42EP3, MYO10, HDAC6, GBF1, DNAH2, NPHP3, PTPRO, DNAI2, TENM2, TNK1, ATP8B1, LRRC49, DMD, GSN, PCDH15, NTN1, DCTN1, RAPGEF6, WDR92, LRGUK, CDH13, NCKAP1, RCC2, ANO6, ARL3, ICK, TTLL8, CROCC, SEPT7, IFT80, PRKCD, PIBF1, F2RL1, BCAS3, RPRGRIPL, SLIT2, CORO1C, DISC1, CEP135, KANK1, PTPDC1, TTBK2, SPAG17, PARVA, AUTS2, AJUBA, CSPG4, HDAC4, ARL13B, IFT122, DNMT3, ABI2, YAP1, KIF24, TTC39C, SYNE2, TCTN3, ABLIM1, TMEM237, ABLI</i>

			M2,NLGN1,ARMC2,RILPL1,GAS8,VCL,WDR90,KCNQ1,RFK2,RHOJ,KIF3A,CEP350,PKHD1,DZIP1,DOCK11,ZNF423,DYX1C1,CEP41,MPHOSPH9,AIF1L,FGD1,RPGR,ACTR2,ROCK1,EPSS,TEKT1,ARHGAP44,HYDIN,CDKL1,PLD1,TROVE2,HTT,DPYS L3,SEPT6,IFT81,MAP4,NME8,CEP89,PARVB,RAPGEF2,MARK4,BBS9,ONECUT2,RDX,CDC14A,GAP43,CEP70,FGD3,FGD4,SPEF1,KLC3,ATG3,NOTO,ARHGEF6,FAM149B1,SRGAP2,WWTR1,GPM6A,MYO1A,PLEKHM1,ASAP1,VAV3,POC1B,EHD2,ABLIM3
GO:1901565	organonitrogen compound catabolic process	0.0031946664693608645	NT5C1B,GPC5,PDE4D,PDE7B,PDE8A,ALDH4A1,CALR3,FBXL2,HPSE2,DCAF12,CBL,EGLN2,ENPP2,SAMHD1,USP32,CHI3L2,LRP2,EZR,TOM1L1,PSMD1,GOT1,HS P90AA1,PSMB7,CCDC22,AMDHD1,OMAI,DNAJB14,PDE4A,TCIRG1,HDAC6,DDBI,CUL4B,FBXL18,CELA1,ZYG11B,FBXL7,USP46,CHFR,FMN2,ASB5,USP34,FBXW11,RNF144A,TRIM13,UBR2,MDM4,PIPOX,NPLOC4,USP13,FYN,MKRN2,ARNTL,ADAMTS9,DMGDH,SLC25A21,FBXO21,DPEP1,NEIL2,CHI3L1,BLVRB,NRG1,VGLL4,PPP2CB,RNF4,CSNK2A3,UBE3D,CREBRF,FHIT,MAD2L2,MAN1A1,FBXO9,RFFL,USP22,FBXW7,LINC00473,OAZ2,ITCH,USP12,ABCC2,DPYS,PDE2A,SPSB1,MTA1,SIAH1,ERCC8,PRKCD,BANP,SPSB4,ASCC2,BTRC,DNAJB2,RNF133,RNF148,DISC1,ZFAND2A,CLN6,CLOCK,BCKDHB,NELL1,TIMP2,FBXL17,KCTD10,CAPN3,SMURF2,EPHA4,UBQLN3,UBQLNL,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,CPO,OTC,RSPRY1,CHEK2,UBQLN4,CAPN2,DIO2,TRHDE,SMAD3,RNFT2,WWP2,RNF168,NEDD4,SEC61B,USP49,ARIH1,AMFR,SH3D19,PRICKLE1,ERLIN1,NUDT10,HEXA,SLC6A3,VPS4A,ADAMTS12,PSMD11,GGT7,USP33,IDO2,FGF2,UBE2R2,AGBL4,CDC27,HIBADH,YME1L1,KLHL3,PRKCG,AREL1,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,STT3B,FBXL20,TSG101,DES1,CRYM,IDE,SUFU,DDAH1,EDEM3,ALDH6A1,DAB2,UBR1,CACUL1,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,XDH,SNX5,RBBP6,ATP2B4,NSF,TMEM2,TET1,DYX1C1,UBE3C,SCARB1,RNF34,GPC3,PSMB2,RNFB16,SNX9,TRIM24,ROCK1,RYBP,CUL2,ABCC1,MAP1A,HYKK,MAN1B1,SARM1,TMEM199,FBXO39,SNX33,FBXW4,EIF3H,RENBP,PDXP,SNCA,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PSMF1,TRIP12,ZNRF3,KCTD13,PTEN,MIB1,PCBP2,LRK2,MLYCD,ZRANB1,BAG6,SLC44A1,BLVRA,SEL1L2,NT5E,GLDC,MYCBP2,SH3RF2,EXT1,N4BP1,GET4,ACADSB,UBE2H,CUL3,EPM2A,GSK3B,DNAJC3,RDX,RNF144B,RNF43,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,SNX3,PDE4B,FBXO10,TRPC4AP,UGT1A1,UGT1A4,ECE1,RNFT1,CD44,ADAM8,CSNK1A1,NOS1,MFSD8,UBE2K,FBXL13,RNF150,PAH,OTUD7B,UPB1,TBL1X,NT5M,SLC20B1,FBXO31,C18ORF25,MOXD1,SKP1,MAOA,RPL23,ACAN,ANXA2,WWTR1,ALDH8A1,TAF1,ADAMTS7,GNAI2,UGGT1,SNX1,UCHL5,MALT1,FBXL4,GNS,NEDD4L,PHB,RNF213,SGTB
GO:0051017	actin filament bundle assembly	0.0032165379068714124	SLC9A1,CLASP2,PHACTRI,TJP1,EZR,EPHA1,LIMK1,FMN2,PAK1,ARHGAP6,DMD,PLS1,WNT11,PPM1E,RHPN2,PARK2,ADD2,SORBS1,NF2,ELN,SFRP1,SMAD3,SHANK1,ARHGEF18,PPM1F,NEDD9,PAWR,CLASP1,AIF1L,PLS3,CALD1,ROCK1,EPSS,LIMA1,RAPGEF3,PDXP,KCTD13,DPYSL3,SHANK3,RHOA,SHROOM1,CUL3,RDX,ESPNL,FAM171A1,TMEFF2,DLC1,PHLDB2,BRAF,CGNL1,MET
GO:0051650	establishment of vesicle localization	0.0033369975571252634	CLASP2,KIF5C,CNIH2,KLHL12,TCIRG1,GBF1,FBXW11,AP3S1,TANC2,LIN7A,COP55,EXOC4,RAB27A,DYNC111,ATP9A,TRAK1,CTNNB1,PARK2,MYO1D,MYO1E,AP3B2,SPG11,WIP1,MYO1F,VPS4A,NLGN1,RAB11A,BLOC1S5,TSG101,PAFAH1B1,KIF3A,FAM91A1,MYO7A,CLASP1,AP3B1,TRIM46,AP3D1,SNCA,HTT,LRK2,SNAP23,BLOC1S3,NDE1,CUL3,BLOC1S6,EXOC6B,SEC16B,ARFGAP3,TBC1D23,ACTN4,PRKCZ,MAP2,RAB27B,MYO1A,MLPH
GO:0009057	macromolecule catabolic process	0.0033607242850286195	GPC5,RNASET2,CALR3,FBXL2,HPSE2,FTO,DCAF12,CBL,EGLN2,USP32,CHI3L2,LRP2,EZR,TOM1L1,PSMD1,HS P90AA1,PSMB7,CCDC22,OMAI,DNAJB14,TCIRG1,HDAC6,DDBI,GPRASP1,CUL4B,CECR2,FBXL18,TNRC6A,CELA1,ZYG11B,FBXL7,USP46,CHFR,FMN2,ASB5,USP34,FBXW11,RNF144A,SAMD4A,TRIM13,UBR2,MDM4,ERN2,NPLOC4,LARP4B,USP13,FYN,MKRN2,ARNTL,ADAMTS9,SMG7,FBXO21,CH13L1,NRG1,VGLL4,PPP2CB,RNF4,CSNK2A3,UBE3D,CREBRF,TRDMT1,FHIT,MAD2L2,MAN1A1,FBXO9,RFFL,USP22,FBXW7,OAZ2,ITCH,USP12,SMG1,SPSB1,MTA1,SIAH1,ERCC8,PRKCD,BANP,SPSB4,ZHX2,ASCC2,BTRC,DNAJB2,RNF133,RNF148,MGAM,DISC1,ZFAND2A,CLN6,CLOCK,NELL1,TIMP2,SND1,HNRNP, YTHDF1,FBXL17,KCTD10,CAPN3,SMURF2,EPHA4,PRKCA,SMG6,NSUN2,UBQLN3,UBQLNL,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,LRPPRC,RSPRY1,CHEK2,UBQLN4,PPP1CB,CAPN2,ZCCHC17,SYNCRIP,SMAD3,RNFT2,WWP2,RNF168,DCP1B,NEDD4,SEC61B,USP49,RBM8A,ARIH1,AMFR,SH3D19,PRICKLE1,ERLIN1,VPS4A,PTPN1,ADAMTS12,PSMD11,USP33,PABPC4,FGF2,UBE2R2,AGBL4,CDC27,YME1L1,KLHL3,PRKCG,AREL1,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,LIN28B,STT3B,AGO3,FBXL20,TSG101,DES1,IDE,SUFU,EDEM3,TNRC6B,DAB2,UBR1,CACUL1,SMG5,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,FASTKD5,SNX5,RBBP6,NSF,TMEM2,DYX1C1,MAPKAPK2,UBE3C,CELF1,RNF34,UVRAG,DROSHA,GPC3,XRN1,PSMB2,DIS3L2,RNF216,SNX9,ELAVL4,TRIM24,ROCK1,RYBP,CUL2,MAP1A,MAN1B1,AXIN2,TMEM199,FBXO39,SNX33,FBXW4,EIF3H,SNCA,USP42,PNPT1,USP50,RC3H1,EIF3E,RNF103,RNF103-CHMP3,RNF19B,PSMF1,TRIP12,DFFA,ZNRF3,KCTD13,PTEN,MIB1,PUM1,PCBP2,LRK2,ZRANB1,BAG6,SEL1L2,DAZL,TAF15,MYCBP2,SH3RF2,EXT1,N4BP1,GET4,UBE2H,RQCD1,CUL3,EPM2A,GSK3B,DNAJC3,RDX,UPF2,RNF144B,RNF43,METT16,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,SNX3,EXOSC3,FBXO10,TRPC4AP,RNFT1,CD44,ADAM8,CSNK1A1,MFSD8,UBE2K,DIS3,FBXL13,RNF150,ZC3HAV1,OT

			UD7B,TBL1X,PPP1CA,FBXO31,PHKG2,C18ORF25,SKP1,RPL23,ACAN,ANXA2,PARN,CNOT1,WWTR1,YBX1,TAF1,HSF1,POP1,ETF1,ADAMTS7,GNA12,UGGT1,MYEF2,SNX1,UCHL5,MALT1,FBXL4,GNS,NEDD4L,PHB,RNF213,TRAF3IP2,SGTB
GO:0051091	positive regulation of DNA-binding transcription factor activity	0.0034061951184758306	PRKCI,SLCO3A1,ADCY8,FER,TRAF6,ZC4H2,ERC1,IKBKB,ESR1,EP300,RNF220,TRIM17,HDAC5,COP5,NEUROD1,JAK2,TRAPPC9,TGFB1,MTDH,FANK1,CLOCK,CAPN3,TNFSF11,PPP3CA,CTNNB1,PPARG,IL18R1,MYOCD,TRIM5,TRIM8,HDAC4,SMAD3,APP,LRP5,CHUK,ESR2,S100A12,PRKD1,ATF2,TCF3,CARD16,CAMK1D,DX58,TERF2IP,RELN,MAP3K7,TRIM22,ALK,UBE2V1,TFRC,EPHA5,PLCG2,NTRK1,MAP3K13,OPRD1,BTK,PTEN,CRTC3,SMO,ROR1,AGT,ADAM8,RPS6KA5,IL18,ARID5B,PRKCZ,PRKCQ,SP100,ADCY1,DVL2,TAF1,TICAM1,HSF1,TRIM37,MALT1,EDA
GO:0043161	proteasome-mediated ubiquitin-dependent protein catabolic process	0.00357928129988292	CALR3,FBXL2,DCAF12,PSMD1,PSMB7,DNAJB14,DDDB1,CUL4B,FBXL18,ZYG11B,FBXL7,CHFR,FBXW11,RNF144A,TRIM13,UBR2,NPLOC4,MKRN2,ARNTL,PPP2CB,RNF4,UBE3D,FHIT,MAN1A1,FBXO9,RFFL,FBXW7,ITCH,SPSB1,MTA1,SLAH1,ERC8,SPSB4,ASCC2,BTRC,DNAJB2,ZFAND2A,CLOCK,FBXL17,KCTD10,SMURF2,UBQLN3,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,UBQLN4,WWP2,NEDD4,SEC61B,ARIH1,AMFR,PRICKLE1,ERLIN1,CDC27,AREL1,PSMD2,RBX1,ANAPC5,FBXO45,STT3B,FBXL20,DES1,EDEM3,DAB2,UBR1,PSMD7,PELI1,PPP2R5C,ZNRF1,RNF34,PSMB2,RNF216,RYPB,CUL2,MAP1A,MAN1B1,FBXO39,FBXW4,EIF3H,RNF103,RNF103-CHMP3,RNF19B,PSMF1,KCTD13,PCBP2,LRRK2,BAG6,SEL1L2,SH3RF2,N4BP1,UBE2H,CUL3,EPM2A,GSK3B,RNF144B,ARMC8,RNF121,TRPC4AP,CSNK1A1,UBE2K,FBXL13,TBL1X,FBXO31,SKP1,WWTR1,TAF1,GNA12,UCHL5,FBXL4,NEDD4L,SGTB
GO:0035235	ionotropic glutamate receptor signaling pathway	0.0035973644616030588	GRID2,GRIK4,GRIK3,GRIK5,APP,GRIA3,GRIK1,GRIA2,GRIN1,GRIN3A,GRID1,CPEB4,GRIN2B,GRIA4,GRIK2
GO:1990806	ligand-gated ion channel signaling pathway	0.0035973644616030588	GRID2,GRIK4,GRIK3,GRIK5,APP,GRIA3,GRIK1,GRIA2,GRIN1,GRIN3A,GRID1,CPEB4,GRIN2B,GRIA4,GRIK2
GO:2000463	positive regulation of excitatory postsynaptic potential	0.0035973644616030588	NRXN1,RIMS1,CUX2,SHANK1,NLGN2,NLGN1,NLGN3,RELN,NETO1,PTEN,SHANK3,WNT7A,GRIN1,RIMS2,PRKCZ
GO:0007423	sensory organ development	0.003599911311490603	CLRN1,RCN1,RDH13,PRKCI,PBX3,TENM3,NTRK3,ATP2B2,SP3,MFAP5,CHD7,ESRPI,TRIOBP,DSCAM,TLL5,THRB,IMPG2,TCIRG1,PTPN11,ATP8A2,CECR2,CDON,NTRK2,ATP8B1,ESRRB,STRC,TFAP2A,TGIF2,PHACTR4,MEIS1,MYO3B,NF1,PCDH15,FAT3,CHRD1,BCR,NTN1,SLC4A5,VAX2,ROR2,LIN7A,NEUROD1,BCL11B,TMC1,LRIIG3,PKNOX1,PLS1,SIPA1L3,TGFB1,MYO3A,ZHX2,RPGRIPII,CELSR1,SDK2,CDH23,BNC2,SMOC1,BMPER,SLC17A7,FGF10,EPHA4,CTNNB1,BFSP1,CACNA1C,NF2,PAX2,IFT122,SMAD3,PTPRM,NHS,ABI2,PDGFRA,LRP5,SOX2,TTC39C,FRS2,SLC6A3,STRA6,MYH15,CELF4,BMPR2,TSPAN12,FGF2,RARB,OC90,CLIC4,COL1A1,KCNQ1,RHOJ,PAFAH1B1,GLI2,USH2A,MYO7A,HOXC13,ATP2B4,MAPKAPK2,EYA1,HDAC1,PTPRQ,EPHB1,PDE6A,TUB,JAG2,BCAR3,SDK1,PTK7,BMPR1B,HEY2,WNT7B,MITF,HIPK1,MAPK1,SPRED2,BMP7,LHFPL5,MEGF11,WNT7A,SH3PXD2B,BMP6,SOS1,TSHR,BLOC1S3,ROR1,FBN2,PBX1,DLX1,PYGO2,ECE1,EPHB2,SLC1A1,SOBP,FBN1,PAX6,NIPBL,ATF6,HDAC2,DVL2,GPM6A,MAX,KDM2B,EDNRA,NGTI,BMP4
GO:0043632	modification-dependent macromolecule catabolic process	0.0037218452397373577	CALR3,FBXL2,DCAF12,CBL,USP32,TOM1L1,PSMD1,PSMB7,CCDC22,DNAJB14,HDAC6,DDDB1,CUL4B,FBXL18,ZYG11B,FBXL7,USP46,CHFR,USP34,FBXW11,RNF144A,TRIM13,UBR2,NPLOC4,USP13,MKRN2,ARNTL,FBXO21,PPP2CB,RNF4,UBE3D,FHIT,MAN1A1,FBXO9,RFFL,USP22,FBXW7,ITCH,USP12,SPSB1,MTA1,SLAH1,ERC8,SPSB4,ASCC2,BTRC,DNAJB2,RNF133,RNF148,DISC1,ZFAND2A,CLOCK,FBXL17,KCTD10,SMURF2,UBQLN3,UBQLN4,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,UBQLN4,WWP2,RNF168,NEDD4,SEC61B,USP49,ARIH1,AMFR,PRICKLE1,ERLIN1,VPS4A,PSMD11,USP33,UBE2R2,AGBL4,CDC27,KLHL3,AREL1,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,STT3B,FBXL20,TSG101,DES1,SUFU,EDEM3,DAB2,UBR1,CACUL1,PSMD7,PELI1,PPP2R5C,ZNRF1,RBBP6,UBE3C,RNF34,PSMB2,DIS3L2,RNF216,RYPB,CUL2,MAP1A,MAN1B1,FBXO39,FBXW4,EIF3H,USP42,PNPT1,USP50,R3H1,RNF103,RNF103-CHMP3,RNF19B,PSMF1,TRIP12,ZNRF3,KCTD13,PTEN,MIB1,PCBP2,LRRK2,ZRANB1,BAG6,SEL1L2,SH3RF2,N4BP1,UBE2H,CUL3,EPM2A,GSK3B,RNF144B,RNF43,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,EXOSC3,FBXO10,TRPC4AP,CSNK1A1,UBE2K,FBXL13,RNF150,OTUD7B,TBL1X,FBXO31,C18ORF25,SKP1,RPL23,WWTR1,TAF1,GNA12,UCHL5,FBXL4,NEDD4L,RNF213,SGTB
GO:0045229	external encapsulating structure	0.0038338747433879403	ADAMTS16,CLASP2,HPSE2,MIA,ITGB6,ITGB1,RUNX1,IMPG2,COL14A1,ADAMTS3,CSGALNACT1,LAMC1,CRISPLD2,ADAMTS9,NF1,RXFP1,TLL1,EGFLAM,VWA1,NTNG1,COL12A1,TGFB1,MMP28,COLGALT1,COL23A1,MMP26,COL24A1,SMOC1,BCL3,LOXL3,LUM,HSD17B12,ECM2,PHLDB1,MYO1E,MMP16,ELN,SMAD3,THSD4,

	organization		APP,PDGFRA,NOX1,ADAMTS2,MMP2,ADAMTS12,COL16A1,ADAMTS4,LAMB1,COL11A1,ADAMTS6,ADAMTS14,COL4A3,COL19A1,COL6A5,CLASP1,GPM6B,COL4A6,FLRT2,SMOC2,NID1,PTPRQ,ADAMTS17,COL13A1,ADAMTSL3,TLL2,ADTRP,S H3PXD2B,EXT1,TNFRSF11B,SULF1,AGT,COL9A1,FMOD,COL21A1,ITGAL,DNAJB6,ADAM8,COL22A1,PHLDB2,COL28A1,SPINT2,TNR,ACAN,ITGAE,ADAMTS7,BMP1,CAV2,COL4A5,TNXB
GO:0045055	regulated exocytosis	0.0038740560897231294	CBL,FER,CASK,PIK3CD,NRXN3,DGKI,ERC2,CACNB2,RIMS1,VAMP7,BCR,MYH9,SYN2,RAB27A,SYTI,CACNA1H,F2RL1,CADPS2,SYT13,C12ORF4,STXBP5,CNR1,FCGR2B,SCAMP5,NR4A3,HCK,RIMS4,GRIK5,SYT3,RAB11FIP5,DRD1,TPH1,NLGN1,PTAFR,PRKCG,FBXL20,SYT12,UNC13A,CD84,SPII,RAB15,SNCA,SYT9,ABCA12,BTK,SLC4A8,LRRK2,ITGAM,WNT7A,SNAP23,STXBP5L,SYT17,GRIN3A,GSK3B,SYN1,SYT7,BLOC1S6,LAT2,RIMS2,CD160,CPLX2,ADORA2A,RABGEF1,CADPS,BRAF,CD300A,ADCY1,SYK,ZP3,CLNK
GO:0033043	regulation of organelle organization	0.0038826325434957033	ADAMTS16,NRXN1,DNMT1,SLC9A1,PDE4DIP,CLASP2,GRID2,RPS6KA2,FHOD3,MAPRE2,TJP1,NTRK3,SEMA5A,FER,EZR,TOM1L1,CDKL5,TENM1,LMNA,TRIOBP,CDC6,AKAP13,OMA1,CDC42EP3,CCT2,HDAC6,EPHA1,MRE11A,LIMK1,STX18,EP300,PDGFB,MIDI,CHFR,INSR,AFAP1,PIP4K2A,PAK1,MAP3K4,PTPRD,NPRL3,ARHGAP6,ECT2,CENPF,GSN,RBM14,PLCB1,DCTN1,BID,MAP2K1,MAD1L1,RNF4,D CN,SCFD1,MAD2L2,NCKAP1,TERF2,SLX1B,ARL3,FBXW7,SYT1,CROCC,SMG1,PD E2A,SEPT7,CYFIP2,WNT11,PRKCD,PPM1E,TGFB1,F2RL1,BCAS3,CELSR1,SLIT2,CEP135,KANK1,TTBK2,HNRNPC,KANK4,IQCJ-SCHIP1,RHPN2,SVIL,SMG6,CTNNB1,PARK2,PPARG,ADD2,SREBF2,NIN,NOL3,RIOK2,PHLDB1,UBQLN4,HCK,TBC1D14,RAB3GAP2,CAPN2,BAZ1B,NF2,SPTBN1,ELN,SFRP1,SSH1,SMAD3,WIP1,MTBP,ABI2,C10ORF90,GRIK5,SHANK1,ARHGEF18,NAV3,PDGFRA,ADD3,YAP1,TEN1,VDAC1,BOR4,LRP5,ZDHHC6,KIF24,SPTBN4,TMEM14A,VILL,SYNE2,RND3,EREG,CTNNA2,MORC2,PPM1F,CDC27,ANAPC5,TSG101,TERF2IP,CLIC4,PAFAH1B1,TNKS,ERCC1,DZIP1,SMG5,SIN3A,IQGAP1,CLASP1,GPM6B,SPTBN5,PAK3,SSH2,MAP1B,MPHOSPH9,TFRG,UVRAG,EPAH5,XRN1,ZNF207,CLEC16A,MNAT1,SNX9,ROCK1,EPSS8,MAP1A,AXIN2,GNL3L,ARHGAP44,M CU,LIMA1,FCHSD2,RAPGEF3,PDXP,SH3BP1,SNCA,ZEB2,SYT9,PTPRS,CDKL1,RA SA1,IGF1,ATF7IP,HTT,MAPK1,BMP7,LRRK2,SPAG5,CHMP5,EFNA5,SHANK3,STM N4,PKIB,MTMR3,TBCD,MAP4,RHOT1,MYCBP2,ATRX,MARK4,RHOA,RHOBTB1,C UL3,GSK3B,RDX,FAM49B,CDK13,BOK,HDGFRP3,PRKAA2,CUL9,STAT2,GAP43,IQGAP2,CEP70,TAOK2,YLPM1,SETDB2,CPLX2,SPEF1,TMEFF2,GPSM2,DLC1,PPP1R10,PHLDB2,MAP2,ATG3,PRKCQ,BRAF,DIAPH1,CAPN6,NOTO,PHIP,CAM SAP3,ANXA2,PARN,CNOT1,CIT,HRK,NEB,ASAP1,CGNL1,CAV2,SKA2,TRIM37,ME T,SPTAN1,CCT3,CTCF,RASSF8,PRAP1,BMP4
GO:0007265	Ras protein signal transduction	0.003905291676344091	MAP4K4,DNMT1,KSR2,MAPRE2,CBL,RAB4B,RAB4B-EGLN2,PLCE1,KITLG,ROBO1,ITPKB,ITGB1,ARHGAP24,AKAP13,CDC42EP3,DGK I,CYTH3,GBF1,LIMK1,PHACTR4,ARHGAP6,ARHGAP42,RIT2,NF1,RTN4,RTN4R,B CR,NTN1,NRG1,RAPGEF6,RALGPS2,PPP2CB,CDH13,NCKAP1,RALGPS1,DENND 1A,F2RL1,CELSR1,RRAS2,KANK1,FGF10,RASA4,RASA4B,ARHGEF28,KCTD10,AU TS2,P2RY10,ARHGAP29,ABI2,ARHGEF18,KPNB1,HEG1,PRKD1,RAF1,RASGRF2,D ENND4A,FGF2,SHOC2,RHOJ,RASAL1,P2RY8,ROCK1,EPSS8,GPR35,NTRK1,ARHGA P44,ARHGEF3,RAB15,RAPGEF3,SH3BP1,USP50,PLD1,RASA1,KCTD13,IGF1,RAS A2,RAB30,SOS1,RAPGEF2,RHOA,SYNGAP1,CUL3,RDX,EPHB2,GPSM2,DLC1,RAB GEF1,DENND4B,MADD,GNAI2,DENND4C,MET
GO:0051209	release of sequestered calcium ion into cytosol	0.003910209534301338	ASPH,PDE4D,CHERP,RYR1,ANK2,CHD7,HTR2B,RYR3,LCK,DMD,SLC8A1,JPH2,B DKRB1,NPSR1,TGFB1,JPH3,CAPN3,RYR2,NOL3,CACNA1C,ITPR1,IBTK,DRD1,PR KD1,FGF2,TRPA1,AKAP6,TPCN1,TRPV1,PLCG2,TRDN,SNCA,HTT,PKD2,ITPR2,N OSI,XCR1,MCOLN1,DIAPH1,HTR2C,CAMK2D,PTPRC
GO:0051248	negative regulation of protein metabolic process	0.004055997129179171	ENPP1,PRMT3,PDE4D,DNMT1,LATS2,PRKAG2,MVP,FTO,NTRK3,CBL,MAP2K5,D NAAJ3,OXR1,MGAT5,HDAC6,EPAH1,IKBKB,LIMK1,PMPEA1,PTPRO,NTRK2,TNR C6A,FMN2,PRKAR1A,SAMD4A,MDM4,SNX6,CST2,DMD,SLC8A1,RBM4,FYN,NF1,R TN4,DPEP1,APOD,PAQR3,NRG1,BDKRB1,BDKRB2,FRY,FNIP1,ITIH2,FHIT,PTPR T,IPO5,MAD2L2,CAPRIN2,GNAQ,RFFL,ZFYVE28,KLF15,PRKCD,PPM1E,BANP,PI BF1,DNAJB2,SLIT2,ITIH4,CORO1C,KDM4B,SMAD6,ZNF675,NELL1,TIMP2,DUSP2 2,NAIP,YTHDF1,SMYD3,CAPN3,EPAH4,PIP5KL1,UFLI,CTNNB1,PARK2,SMARCC 1,PPARG,AXIN1,PRKAR1B,OTUB1,PROS1,NOL3,PRKAR2A,MYOCD,PER2,GLG1,C STL1,NF2,PAX2,SFRP1,SYNCRIP,SMAD3,SIMC1,DCP1B,APP,HEG1,IBTK,LRP5,D CUN1D3,RAF1,CELF4,CARD16,PTPN1,YBP1,SPAG9,PPM1F,SEMA4D,JARID2,PR KCG,SPOCK1,EIF4G1,AGO3,DEPTOR,TSG101,TERF2IP,SUFU,PTPN13,COL4A3,T NRC6B,LDLRAD4,SIN3A,XDH,ATP2B4,CELF1,RNF34,GPC3,XRN1,DIS3L2,ROCK1, HIPK3,RYBP,PTPN2,TRIM44,MAP1A,PARD3,GNL3L,BCOR,ANXA8L1,CD84,LPA,S PII,DNMT3B,ATG14,EIF3H,STK38,ACOT8,RENBP,SNCA,PNPT1,RC3H1,EIF3E,PS MF1,CAST,TRIP12,MLLT1,IGF1,PTEN,SPRED2,BMP7,PUM1,LRRK2,TMEM59,BA G6,LILRB4,SERPINA3,SERPINA4,SERPINA5,PKIB,DNAJC1,MYCBP2,GPI,SH3RF2, N4BP1,PRKAR2B,UBR5,RQCD1,EPM2A,GSK3B,DNAJC3,PTPRB,CD27,AGT,METT L16,PRKAA2,ADAR,SNX3,EXOSC3,PARP10,PRG3,SERPINB1,DNAJB6,CD44,RGS 14,EPHB2,DIS3,CPEB4,PAX6,PRKCZ,ADORA2A,RABGEF1,CPEB1,COL28A1,ANG PT1,LRRK1,IGF2BP3,MTF2,CDK5RAP1,HDAC2,IMPACT,SPINT2,CD300A,PPP2C A,RPL23,ANXA2,PARN,CNOT1,WWTR1,YBX1,PTPRJ,TAF1,DHFR,INPP5F,CD109,

			<i>UCHL5, SERPINE3, MLXIPL, PHB, PTPRC, SH3GL2, BMP4</i>
GO:001667	ameboidal-type cell migration	0.004414285398574893	<i>MAP4K4, CLASP2, SEMA3A, DOCK1, SEMA3D, MAPRE2, SEMA5A, ENPP2, FER, MARVELD3, MAP2K5, KITLG, PTPRR, PIK3CD, ROBO1, HTR2B, ITGB1, MCC, PTPN11, HDAC6, ERBB4, PDGFB, PHACTR4, SLC8A1, ADAMTS9, NF1, RTN4, MYH9, HDAC5, DCN, CDH13, RCC2, RFFL, CCBE1, FBXW7, WNT11, SEMA5B, TGFB1, BCAS3, SLIT2, CORO1C, KANK1, BMPER, FGF10, SMURF2, PRKCA, PPARG, FGF1, FLT4, PTPRM, NRP2, LRP5, PTPRG, PRKD1, SEMA6D, BMPR2, PIK3R3, RAB11A, FGF2, PPM1F, SEMA4D, PKN3, RHOG, PAFAH1B1, IQGAP1, SP1, MACF1, CLASP1, OVOL2, ATP2B4, PAK3, SCARB1, GPC3, SMOC2, PLCG2, ROCK1, PAXIP1, PKN2, SH3BP1, ZEB2, ADTRP, PTEN, BMP7, PRCP, AMOTL1, WNT7A, GPI, SMO, RHOA, ACTA2, AGT, PTK2, ARID5B, EPB41L4B, ANGPT1, ETS1, BRAF, ANGPT4, SP100, FAT2, SRGAP2, RADIL, SASH1, GNA12, MET, SEMA3C, EDNRB, BMP4</i>
GO:0016043	cellular component organization	0.004639985737408097	<i>CD247, CLRN1, ENPP1, HOOK2, ADAMTS16, BLZF1, NRXN1, ASPH, PRMT3, PRKCI, MOV10L1, TACC2, MAP4K4, PDCL, DNMT1, SIPR2, LLPH, SLC9A1, NEGR1, ADCY8, SPAG16, PDE4DIP, CLASP2, SEMA3A, GRID2, RPS6KA2, PRDM12, TENM3, DOCK1, CLDN18, KIF22, RYR1, NRG3, ASH1L, NOS1AP, TUBA1C, NOX5, SPESP1, IQCG, TLN2, EPB41, SEMA3D, PHACTR1, MYOT, NREP, SCAF8, TIAM2, FHOD3, MAPRE2, NLGN4X, TJP1, UNC5C, HPSE2, PRLR, UTRN, KALRN, PITPNC1, SEC23B, PHACTR2, NTRK3, CBL, EGLN2, MIA, RAB4B, RAB4B-EGLN2, SEMA5A, RAD51B, PTGES3L, TOX, ENPP2, GRM5, PLCE1, LHFPL4, SAMHD1, FER, RNU6-202P, MARVELD3, MAP2K5, ISCA1, LRP2, ANK2, OLFM1, MFAP5, STAG2, EZR, MEGF10, NRXN3, ROBO1, TOM1L1, CHD7, ITGB6, CDKL5, MECOM, TACCI, TENM1, CAMKMT, RYR3, KIF5C, LMNA, ROBO2, NFASC, CTNNA3, DNAJA3, VAV2, ABI1, ULK4, ITGB1, TROBP, HSP90AA1, ELMO2, GAS7, CDC6, PSMB7, PCDH17, KNDCC1, ZC4H2, DSCAM, BCORL1, STK38L, CDAN1, CNGB1, TRIO, ARHGAP24, KLHL12, AKAP13, IFT43, TTLL5, GFII1B, PARD6G, PTPRK, RUNX1, DAB1, OMA1, CDC42EP3, MYO10, ABCC8, ERC1, HMGN3, CDH10, ERC2, XIRP2, IMPG2, ITGB3BP, LAMA2, CLVS1, MAST4, COL14A1, IL17RB, TCIRG1, PTPN11, KCNS3, CCT2, CACNB2, DOCK10, HDAC6, GOLGA4, SERTAD2, TBCEL, ADAMTS3, EPHA1, IKBKB, KIF18B, PEX14, ERBB4, CDH12, MRE11A, GBF1, DNAH2, LIMK1, TLK1, BRD8, ATP8A2, RNU6-78P, RAD54L2, TEX264, KAT6B, CUL4B, CECR2, ESR1, NPHP3, RNU6-179P, GRM7, PMEP1, PTPRO, KANSL1, NTRK2, STX18, DNAI2, EP300, DYM, TENM2, FNTA, HOOK3, RNU1-124P, PDGFB, RIMS1, TNK1, SNX2, KIRREL3, CDH8, CSGALNACT1, MID1, RNU6-1061P, CHFR, ALOX5AP, MSTO1, INSR, FMN2, RERE, PRKARIA, AFAP1, ATP8B1, UNC5D, H2AFY2, LAMA3, TCF7L2, PIP4K2A, CDH4, HPS1, JMD1C, PAK1, FBXW11, MAP3K4, PTPRD, CNTN5, TBR1, STRC, BDNF, GLTP, AMIGO1, FANCA, KCNMA1, TGIF2-C20ORF24, NPRL3, FMNL2, PHACTR4, RNU6ATAC27P, TENM4, KCNKG, UBR2, ARHGAP6, MDM4, ECT2, SLC12A8, ZNF148, NAV2, ACOX1, VAMP7, LAMC1, RFTN1, ERN2, CDC45, SHFM1, LRRC49, NPLOC4, PYROXD2, STARD9, DENND5A, DMD, CENPF, RNU6-1269P, CRISPLD2, PDS5A, KAT7, PRELID2, GSN, HFM1, RBM14, SATB2, RIT2, HIRA, TANC2, CASS4, KCTD16, FYN, ADAMTS9, NF1, PLCB1, DST, PCDH15, LMTK2, STX6, ARID4B, SNCB, FAT3, SH3BGR, RTN4, AFF2, RXFP1, GOLGA2P5, APOD, B4GALT6, RTN4R, VTA1, BCR, BRPF1, CCDC141, TTN, NDRG4, BMP2K, PAQR3, COA6, ADAMTSL1, RANBP9, TLL1, NTN1, EGFLAM, DCTN1, SLC4A5, NRG1, ARHGAP10, BDKRB1, BID, FRY, MAP2K1, FNIP1, RAPGEF6, VAX2, MYH9, FRMPD4, MAD1L1, LRFN5, VGLL4, PPP2CB, CNTN4, WDR92, VWA1, HDAC5, RBM5, NTNG1, NAV1, NFIA, RNF4, TMEM30A, CSNK2A3, SYNE1, PARD3B, LRIG1, ROR2, DCN, LIN7A, SCFD1, DOCK2, CDH13, PITPNB, AUNIP, UST, DMC1, PCDH16, EXOC4, MAD2L2, TLE6, RAB27A, CAPRIN2, MTX3, NCKAP1, TERF2, TMED6, SLX1B, GOLPH3L, CLDN16, RCC2, BOC, ANO6, ARL3, DNAJC11, KIF2A, ICK, RAD51D, TTLL8, PARP11, COL12A1, RANBP1, USP22, ZDHHC15, JAK2, MYPN, FBXW7, KCNB2, SKAP1, SMC3, CLSTN2, UIMC1, SYT1, ITCH, CROCC, RNU1-2, RNU1-4, BBS12, SNAP25-AS1, LZTS1, BCL11B, SMG1, CLDN1, MLLT3, ATP9A, CDC42BPB, PLS1, TEX11, PDE2A, SEPT7, MAGI1, KCNC4, KPNA3, CYFIP2, CENPC, WNT11, IFT80, FIG4, MTA1, KREMN1, IMMP2L, SIPA1L3, MKLN1, SIAH1, IL1RAPL1, CAMK2B, PRKCD, SEMA5B, PPM1E, TGFB1, BANP, LRCH3, SGK1, PDLIM4, ATL2, NUP93, MMP28, NSD1, PIBF1, KEL, ARMC1, CLDN10, F2RL1, BCAS3, PDZRN3, RPGRIP1L, DNAJB2, CELSR1, SLIT3, AAK1, SDK2, SLIT2, COLGALT1, TP73, SYT13, CDH23, CORO1C, CTNND2, DISC1, CEP135, KANK1, PTPDC1, GRPEL2, ANO4, LAMC2, COL23A1, CLN6, ANK1, CLMN, TTBK2, MDM4B, SPAG17, MMP26, SMAD6, COL24A1, ITSN2, PPFIBP2, ANO3, SMOC1, ETV6, SYNJ2, BCL3, DCLK1, RNF212, EIF3L, LYRM4, PARVA, DUSP22, STRIP1, HNRNPC, RNU6-816P, TRRAP, ANKFN1, SLC17A7, OIP5, LINGO2, YTHDF1, FGF10, CNTNAP2, SMYD3, STXBP5, KANK4, KCTD10, ENAH, IL1RAPL2, PPL, IQCJ-SCHIP1, LOXL3, RHPN2, MAST2, SVIL, CAPN3, SLC16A1, LUM, VMP1, EPHA4, HSD17B12, PRKCA, AUTS2, CNR1, SMG6, PPP3CA, GNG4, MAG, GATAD2B, LIX1L, UFL1, TRAK1, CTNBN1, MPRIP, PARK2, SOD2, RN7SL832P, FCGR2B, ARHGAP22, SMARCC1, TSNA RE1, CDHR2, IGF1R, PPARG, NGRN, AXIN1, DLG5, MYO1D, BFP1, ADD2, MSRI, CELF2, TRPM1, XK, SCAMP5, BRIP1, CENPP, ECM2, SREBF2, KCNJ12, CDK11A, KCNA6, NDUF9, FBLIM1, CDK11B, DRAXIN, LEPROT, NIN, WDR45B, TUBGCP6, NOL3, R1OK2, ESCO1, MPP6, MYOCD, AJUBA, HAUS4, CPNE6, CHEK2, PHLD1B, KRT6B, UBQLN4, PR</i>

			<p> DM16, MYO1E, SPDYA, HCK, SORBS1, TBC1D14, RAB3GAP2, CAPN2, TBCK, CSPG4, DCC, ANKFY1, CTDP1, BAZ1B, MMP16, OBSCN, NF2, SMC2, HDAC4, PAX2, DNAH9, SPTBN1, HEPACAM2, ELN, TRABD2B, SPG11, SFRP1, DGKB, ARL13B, CNTN6, NFIB, MUC12, IFT122, DNM3, SSH1, CELF5, ATP10D, SNX14, SMAD3, CUX2, THSD4, PTPRM, WIP1, MTBP, VPS39, RNF168, EMG1, ABI2, C10ORF90, GRIK5, SHANK1, SYT3, NEDD4, NRP2, ARHGEF18, BTBD3, PREX1, PLA2G4C, CRTAC1, SPAG6, KPNB1, NAV3, SLC6A1, RAB6C, PRTG, CDC73, APP, SSBP3, USP49, PDGFRA, BET1L, SLK, ADD3, DIP2B, KANSL2, NOX1, YAP1, HEG1, MYO1F, TEN1, FSTL4, NLGN2, VDAC1, EYA2, SH3D19, BORA, LRP5, PTPRG, ISLR2, SOX2, SETD2, ZDHHC6, GPC6, KIF24, TTC39C, ADAMTS2, TEAD1, PLEKHA7, SPTBN4, VASH2, DRD1, TMEM14A, RFT1, SFMBT1, VILL, MMP2, ESR2, SYNE2, DCUN1D3, CPNE9, KDM6A, GTF2F2, PRKD1, CELF6, PARP6, OSBPL2, DGKG, SYBU, RND3, HNF4A, TBCA, SHANK2, SHPRH, VPS4A, EREG, TCTN3, ABLIM1, MYOF, DSCAML1, RNU6-167P, PITRM1, SEMA6D, ATF2, TMEM237, KCNG4, RAF1, CELF4, ABLIM2, SMIM20, PTPN1, ADAMTS12, PSMD11, RNU6-923P, BMPR2, USP33, DPYSL2, VBP1, CAMK1D, NLGN1, COL16A1, CTNNA2, ATP9B, IKZF4, TAF8, CAND2, SPAG9, MORC2, RAB11A, CRMP1, EPG5, MYL, LRRC4C, PPM1F, NEDD9, PEAK1, ADAMTS4, SEMA4D, ARMC2, CDC27, HELQ, MCTP1, PLXNA2, POC1A, EEA1, SETD1A, YME1L1, ABCA13, JARID2, RILPL1, BRDT, CHCHD6, PI4KA, PIK3C2B, SPOCK1, BLOC1S5, EHMT1, GAS8, AP2M1, DVL3, EIF4G1, EPHB3, RNU6-229P, ANAPC5, ARHGAP39, FBXO45, TRAPPC11, SRSF5, PAWR, TRMT61B, AGO3, DEPTOR, TSG101, VCL, LAMB1, TERF2IP, WDR90, CLIC4, MYO9A, ANKS4B, COL11A1, KCNQ1, RFX2, WNT3, ADAMTS6, C11ORF80, RHOJ, NLGN3, ZFYVE1, PAFAH1B1, KIF3A, ADAMTS14, COL4A3, TRPA1, TRPM3, HIP1, AKAP6, CEP350, SASAL1, PADI6, BTBD9, TRPC5, TLL7, GLI2, NEO1, TNKS, WBP2NL, ERCC1, RUFY3, WDTSC1, STON3, C9, COL19A1, DAB2, BLM, PKHD1, XKR4, TRAM2, LDLRAD4, MYSM1, SETD5, DZIP1, SMG5, DLG3, RELN, SIN3A, RUVBL2, ABCB1, DOCK11, IQGAP1, TMEM170A, SPATA18, COL6A5, EMIL4, FAM91A1, ZNF423, MACF1, ARHGAP12, MYO7A, ALK, SLC8A2, STAU1, CLASP1, TOP1, MBOAT1, GPM6B, XDH, NFATC2, CHD1L, PRKG1, TLL9, NSF, SYNE3, PACSIN1, SPTBN5, ACTL6B, PAK3, HORMAD2, SSH2, TET1, DYX1C1, ATAD1, ADNP, CEP41, ARID4A, MAP1B, C12ORF65, CDC42BP4, COL4A6, MPHOSPH9, SCARB1, MARK1, PHF2, CELF1, AIF1L, TFRC, UVRAG, EPHA5, MEF2A, DHX30, DCUNID5, GPC3, SGIP1, XRN1, PLS3, SATB1, TBC1D5, PSMB2, ZNF207, CALD1, EYA1, DIS3L2, GNB3, TRPV1, TFEB, CLCE16A, MNAT1, FLRT2, FGD1, SNX9, DIAPH2, RPGR, ACTR2, L3MBTL4, ACACA, ELAVL4, FAM174B, HDAC1, RECQL5, SMOC2, PLCG2, ROCK1, EPS8, NID1, SCMH1, EGR2, CAPN10, GPR35, ABCC1, AP3B1, INSR, NTRK1, ZFAND1, MAP1A, PKN2, PPP1R9A, EIF3A, ANK3, UNC13A, PTPRQ, EPHB1, EPHA10, PTPN9, AXIN2, NCKAP5, SARMI, TMEM199, PARD3, GNL3L, TRIM46, TUBB, SH3GL3, TEK1, KCND3, BCOR, AP3D1, CARM1, AP2B1, ANXA8L1, NUDT5, ARHGAP44, SNX33, PIFO, SMARCA2, CUX1, RAD51C, SPII, EPHA7, MCU, RANBP10, PTPRA, VPS16, PPF1A4, CTNNA1, LIMA1, AIFM2, TRDN, ATG14, EIF3H, LRRC8C, LRRC8D, RNU6-979P, SHROOM3, ABCB7, ACOT8, NTMT1, FCHSD2, MAP3K13, RAPGEF3, SDK1, ADAMTS17, PDXP, SH3BP1, RNU6-47P, ERCC3, PTK7, SMYD1, SNCA, BMPR1B, HAUS3, CACNG2, CD53, MAGI2, PNPT1, USP50, ZEB2, MCMBP, FOXJ3, SYT9, HEY2, RC3H1, CHMP3, COL13A1, EIF3E, HYDIN, RNF103-CHMP3, RNU6-640P, WNT7B, PTPRS, ADAMTSL3, ZMYND11, KMT2D, CDKL1, RAB5B, KMT2C, TLL2, CAST, DFFA, ADTRP, ABCA12, CSRP1, PLD1, RASAI, MITF, SRSF6, OPRD1, CABIN1, HIPK1, PKP2, RPTOR, RTN4RL1, SGCZ, DSG1, VPS41, KCTD13, TROVE2, CBFA2T2, IGF1, STX8, ATF7IP, HTT, DPYSL3, MAPK1, PTEN, ARHGEF17, CLDN11, MIB1, BMP7, ATXN2, PIK3C3, LHFPL5, TLL4, RAB30, LRRK2, OSGIN1, SEPT6, ZRANB1, EBAG9, SPAG5, UNC119, CHMP5, RAPHI, RFC3, BAG6, CHAF1B, IFT81, TMEM108, ITGAM, ARHGAP25, NSG2, PKD2, EFNA5, HSF2BP, SHANK3, KCTD1, STMN4, PDGFC, SERPINA5, AMOTL1, ATP8B4, PKIB, MTMR3, STEAP4, PPP2R3C, TBCD, TMCC1, WNT7A, SNAP23, BRWD3, NLRP1, MAP4, CRTC3, NME8, CEP89, KAT6A, MTIF2, RABEP1, SH3PXD2B, RHOT1, SIK3, BMP6, MYCBP2, SOS1, TSHR, EXT1, ATRX, IKZF1, PARVB, PNPLA3, SAMM50, RAPGEF2, CDH9, KCNC2, RNU6ATAC31P, SMO, GET4, SUN1, BLOC1S3, GEMIN7, MARK4, PSEN2, TCF4, TNFRSF11B, SYT17, SOX30, DNAJC6, GRIN1, JADE1, KCTD8, BBS9, RHOA, SYNGAP1, GRIN3A, MCM3, NDE1, ROR1, TF, ONECUT2, RHOBTB1, ESYT2, SHROOM1, CUL3, SH3KBP1, HSPD1, TSPAN33, EPM2A, GABRB3, GSK3B, ABCG8, PLD2, PRR16, EMB, RDX, SYNI, EE2F2K, FAM49B, NECAB2, CDK13, TAPBPL, VAMP1, BOK, SULF1, KRT8, NACC2, SUPT4H1, AGT, HDGFRP3, CDH20, PRKAA2, SYT7, ADAR, BLOC1S6, CUL9, ESPNL, PITPNM2, STAT2, ZMPSTE24, PTK2, TPPP2, GTF2E1, PEX5L, SNX3, EXOC6B, RIMS2, TOMM5, CDC14A, GAP43, RNU6-1056P, SEC16B, CREBBP, TIMM44, IQGAP2, FAM171A1, ARVCF, COL9A1, FMOD, COL21A1, CEP70, GTF2IRD2, TAOK2, PYGO2, SHC1, NDUFS2, ALDOA, ECE1, PARP10, YLP1, RSNB1, SF3A1, PGM5, SETDB2, ITGAL, CPLX2, DNAJB6, CD44, FGD3, LARP4, ADAM8, ARFGAP3, CLDN4, PACSIN2, RPS6KA5, CDS1, THSD7A, CSNK1A1, HUS1, FGD4, PEX7, TBC1D23, PLEKHA1, RGS14, ACTN4, COG4, STK4, TUBB3, ZFAND6, MARK3, SPEF1, THSD7B, EPHB2, SLC1A1, TLL11, SIGMAR1, TMEFF2, TEX12, MFSD8, ASF1B, UBQ2K, GPSM2, DLC1, PPARA, PPP1R10, ABCD3, MCOLN1, EPB41L4B, SLC25A33, SMARCA1, CCDC6, PRRC2C, SYTL4, PAX6, PRKCZ, ATP1A3, ADORA2A, SPECC1L, GRIN2B, KCTD7, RABGEF1, STAG1, WDR83OS, COL22A1, PHLDB2, KLC3, KLHL1, NIPBL, YEA </p>
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			TS4,COL28A1,PHF20,THSD1,UPBI,ANGPT1,BRF1,PACS2,EYA3,MBTD1,OSBPL8,S HROOM4,EPB41L2,ETS1,HACL1,PPP1CA,ARHGAP21,MAP2,MTF2,BIN2,STPG1,K IFC3,NEBL,FBXO31,ATG3,CNTN1,PRKCQ,LGI2,MDN1,BRAF,DIAPH1,HDAC2,IM PACT,ATP8A1,SRCAP,CAPN6,NOTO,SPINT2,TNR,CLTB,HIGD2A,CD300A,PHIP,C DKL3,EMC3,PPP2CA,ANGPT4,ARHGEF6,DNAJC9,FAM149B1,RPL23,SH3BP4,RF C5,ACAN,CAMSA3,SP100,VTI1A,ANXA2,CHCHD3,KCND2,PARN,PRMT7,PITPN M3,FARSB,SRGAP2,TMEFF1,WIPI2,ADCY1,NUMB,SQLC,SYK,CNOT1,WWTR1,GT F2H5,SLIT1,FRMD5,CIT,RAB2A,SEC31B,UBAP2L,BRCA2,HRK,RAP1GAP2,DVL2, MORC1,MTRF1,NEB,ANKRD13A,GRIP1,PTPRJ,TAF1,GPRIN3,TICAM1,GPM6A,IT GAE,MYO1A,HSF1,MAX,DHFR,EZH1,ANKRD30BL,ETF1,SRPK2,ATP10B,PLEKHM 1,HGSNAT,ASAP1,ADAMTS7,GBP5,MCM8,BMP1,CGNL1,FCHO1,GEMIN6,VAV3,C HD6,EPB41L1,MTRF2,CAV2,SKA2,SYNM,AKTIP,COL4A5,EPS15,POC1B,INPP5F,N UAK2,TBP,AXL,REPS2,TRIM37,CENPK,MET,FMNL1,MICAL3,CAMK2D,SNX1,BRD 9,SETD3,INO80C,SPTAN1,TMEM120B,CCDC136,EHD2,KDM2B,SEMA3C,THEM4, TRAPPC8,CCT3,NEDD4L,UQCC1,NDI1,PHB,PTPRC,CTCF,SH3GL2,RNF213,SYN DIG1,NCAM1,TANC1,CREB1,RASSF8,SHISA6,TNXB,CCDC170,EDNRA,PRAP1,STX BP6,BMP4,ABLIM3,CPNE1
GO:00 50768	negative regulation of neurogenesis	0.00467371 6751194455	SEMA3A,SEMA3D,NTRK3,SEMA5A,DAB1,ABCC8,HOK3,NF1,RTN4,RTN4R,NTN1, SEMA5B,TGFB1,PPP3CA,MAG,CTNNB1,DRAXIN,DCC,PRTG,DIP2B,FSTL4,SEMA 6D,BMPRI1,SEMA4D,WNT3,TRPC5,RUFY3,BRINP1,RNF10,TRIM46,EPA7,CTNN A1,PTPRS,PTEN,BMP7,WNT7A,RAPGEF2,SYNGAP1,DLX1,EPHB2,PAX6,MAP2,TN R,CDKL3,SLIT1,SEMA3C
GO:00 60402	calcium ion transport into cytosol	0.00469037 4422254974	ASPH,PDE4D,FAM155A,CHERP,RYR1,ANK2,CHD7,HTR2B,RYR3,SLC24A2,LCK,D MD,SLC8A1,JPH2,FYN,BDKRB1,TMBIM6,NPSR1,TGFB1,JPH3,CAPN3,TRPM1,RY R2,NOL3,CACNA1C,ITPR1,IBTK,DRD1,PRKD1,FGF2,ADCYAP1R1,TRPA1,AKAP6, SLC8A2,TPCN1,ATP2B4,TRPV1,PLCG2,TRDN,SNCA,HTT,PKD2,GRIN1,ITPR2,NOS 1,XCR1,MCOLN1,GRIN2B,DIAPH1,HTR2C,CAMK2D,PTPRC
GO:00 51283	negative regulation of sequestering of calcium ion	0.00499345 1616723576	ASPH,PDE4D,CHERP,RYR1,ANK2,CHD7,HTR2B,RYR3,LCK,DMD,SLC8A1,JPH2,B DKRB1,NPSR1,TGFB1,JPH3,CAPN3,RYR2,NOL3,CACNA1C,ITPR1,IBTK,DRD1,PR KD1,FGF2,TRPA1,AKAP6,TPCN1,TRPV1,PLCG2,TRDN,SNCA,HTT,PKD2,ITPR2,N OS1,XCR1,MCOLN1,DIAPH1,HTR2C,CAMK2D,PTPRC
GO:00 09725	response to hormone	0.00501641 3071108112	ENPPI,PRKCI,SLC9A1,ADCY8,PTGFR,LATS2,PRLR,PAGRI,NTRK3,EGLN2,FLT3,S TAT5B,FER,LRP2,GOT1,ROBO2,CDC6,ABCC8,THRB,STXBP4,PTPN11,HDAC6,BR D8,ESR1,PMEPA1,EP300,CCND3,INSR,PIP4K2A,CAB39,PAK1,ESRRB,PTPRU,AP3 S1,RBM14,ARNTL,PLCB1,RXFP1,PIK3R2,HDAC5,SLC39A14,ACSBG1,DEFA1B,DE FA3,PTGER2,JAK2,CLDN1,KLF15,CACNA1H,PRKCD,TGFB1,SGK1,BCA53,SLIT3, SLIT2,GABRB1,KANK1,SMAD6,RXFP2,CLOCK,BCKDHB,TIMP2,SMYD3,GLP2R,U FL1,SMARCC1,IGF1R,PPARG,CYBB,OTC,BRIP1,LEPR,LEPROT,NR4A3,SORBS1,H DAC4,SFRP1,FOXO3,TPH2,NEDD4,ESRRG,YAP1,ALPL,NGG2,MMP2,ESR2,STAT1, HNF4A,REG,PTPN1,PIK3R3,PTAFR,RARB,NCOA1,EIF2B5,PTPRE,SRSF5,IDE,KC NQ1,NR2C1,IRS4,ME1,WDTC1,DAB2,SP1,GSTM3,SRA1,SNX5,DYX1C1,MAP1B,TRP V1,GHR,ACACA,HDAC1,C2,TRIM24,ADIPOR2,ROCK1,EGR2,CAPN10,PTPN2,INSR R,CARM1,SRD5A2,PTPR,CTNNA1,BCAR3,RAB15,PNPT1,CNGA3,WNT7B,HMGCS 2,KMT2D,ADTRP,SRSF6,DSG1,BMP7,PRCP,EFNA5,NCOA3,WNT7A,SGK1,BMP6, GPI,TSHR,PNPLA3,PRMT2,TNFRSF11B,SOX30,UBR5,GRB14,RHOA,RQCD1,GSK3 B,RDX,STAT6,EEF2K,AGT,PRKAA2,STAT2,PTK2,PHEX,UGT1A1,SHC1,RPS6KB1,S TC2,GPR173,CLDN4,NOS1,SCNN1B,PPARA,SLC25A33,ZNF366,FBN1,PRKCZ,ATP 1A3,CPEB1,FHL2,OSBPL8,NCOR2,PRKCQ,PHIP,CNOT1,UCN2,HSF1,MAX,NCOA 2,CAV2,DENND4C,PHB,CREB1,EDNRA,HADHA,BMP4
GO:00 71407	cellular response to organic cyclic compound	0.00517578 3314051368	PDE4D,SLC9A1,ADCY8,RYR1,PAGRI,EGLN2,FLT3,EZR,SLC26A6,HTR2B,RYR3,NR IP1,HDAC6,ESR1,PMEPA1,EP300,PDGFB,PAK1,ESRRB,CHRM3,SLC8A1,ARNTL,P LCB1,MGMT,RGS8,DEFA1B,DEFA3,JAK2,PDE2A,LCOR,CCDC62,TGFB1,SGK1,BT RC,GABRB1,CHRM1,CLOCK,SMYD3,ADCY2,SLC16A1,RORA,UFL1,CTNNB1,PARK 2,IGF1R,PPARG,MSR1,RYR2,NR4A3,CHEK2,SFRP1,FOXO3,SSH1,NEDD4,ESRRG, APP,YAP1,ALPL,NGG2,DRD1,MMP2,ESR2,STAT1,EPG5,ADCY5,RORC,PTAFR,DD X58,KCNQ1,AKAP6,NR2C1,GLI2,DAB2,BLM,SIN3A,RUVBL2,ALK,ATP2B4,PAK3,D YX1C1,XRN1,TRPV1,ACTR2,HDAC1,RECQL5,TRIM24,AXIN2,CARM1,HTR1D,CTN NA1,RAPGEF3,PDXP,SNCA,HMGCS2,KMT2D,ADTRP,MAPK1,BMP7,LRRK2,GNAI 4,NSG2,PKD2,EFNA5,NCOA3,PNPLA3,PRMT2,RAPGEF2,SMO,UBR5,RHOA,RQCD 1,ITPR2,GABRB3,GSK3B,EEF2K,HRH4,PHEX,PDE4B,UGT1A1,RPS6KB1,SCNN1B, SLC1A1,IL18,PPARA,ZNF366,ATP1A3,NCOR2,DIAPH1,HDAC2,HTR2C,IMPACT,A DCY1,CNOT1,TAF1,HSF1,CIB2,CAV2,PHB,BMP4
GO:00 71705	nitrogen compound transport	0.00529701 4773613552	POLDIP3,ZDHHC14,SLC35E3,HOK2,RTBDN,BLZF1,ASPH,PRKCI,ADCY8,CTDS PL2,SLC25A17,LRP1B,ASTN2,SLC14A2,SLC35F3,MVP,KALRN,SEC23B,SNX31,RAB 4B,RAB4B- EGLN2,FAM53A,CCDC93,LRP2,SLC38A11,TNPO3,ANK2,EZR,TOMIL1,CHD7,SLC 26A6,TENM1,KIF5C,LMNA,SRP72,AFM,ITGB1,HSP90AA1,CCDC22,DLG2,FLVCR2 ,ABCC8,ERCI1,HMGN3,AFTPH,STXBP4,EFCAB7,TCIRG1,PTPN11,HDAC6,GOLGA 4,ADORA1,PEX14,GBF1,TLK1,ATP8A2,GRM7,NTRK2,FRMD4A,STX18,HOK3,VP S45,RIMS1,SNX2,FMN2,ATP8B1,TCF7L2,SCAMP4,MYOM1,GLTP,SFT2D1,ECT2,S NX6,CHML,VAMP7,SLC6A16,RFTN1,SHFM1,AP3S1,NPLOC4,RHCE,CENPF,RANB P17,ATG10,FYN,ARNTL,ADAMTS9,NF1,SMG7,LMTK2,STX6,GOLGA2P5,SLC5A6,A

			<p> <i>POD, VTA1, BCR, TTN, ICA1, PIK3R2, SLC16A10, SLC43A2, BID, SLC35A2, MYH9, TME M30A, SCFD2, ZDHHC3, LIN7A, SCFD1, CREBRF, EXOC4, IPO5, MAN1A1, RAB27A, MT X3, RAB3C, COG8, TMED6, GOLPH3L, ARL3, NEUROD1, IPO11, PARP11, DENND1A, Z DHHC15, JAK2, FBXW7, OAZ2, SYTI, SNAP25- AS1, ABCC2, SMG1, RBFOX1, SLC1A4, DENND2A, KPN43, CTAGE6, VPS13B, IMMP2L, QKI, PRKCD, TGFB1, PCSK5, NUP93, PTPRN2, F2RL1, BCAS3, CADPS2, SYTI3, ZFAND 2A, ABCC11, GRPEL2, CHRM1, CLOCK, BCL3, RABGAP1L, SLC17A7, STXBP5, SLC16A 1, VMP1, SNX8, CNR1, TNFSF11, SMG6, PPP3CA, NSUN2, TRAK1, PARK2, RN7SL832P, T SNARE1, PPARG, MYO1D, MSRI, SYTL5, XK, SCAMP5, ANXA13, LRPPRC, SREBF2, LEP ROT, AGAP1, PER2, TBC1D14, RAB3GAP2, TBCK, GRM1, SPTBN1, AP3B2, SFRP1, CCD C91, RANBP3, SNX14, SMAD3, RAB6A, WWP2, VPS39, PSAP, SLC16A2, SYTI3, NEDD4, KP NB1, VPS53, SLC6A1, RAB6C, SEC61B, THOC3, BET1L, RBM8A, RAB11FIP5, SFXN5, NL GN2, SSR2, LRP5, SEC22C, SLC9B2, SETD2, ZDHHC6, PRICKLE1, DRD1, SERGEF, PRK D1, SLC6A3, HNF4A, VPS4A, PITRM1, SLC16A12, ATF2, RAF1, PTPN1, AP1B1, NLGN1, S NX16, RAB11A, EPG5, IPO9, RAB24, PPM1F, ADCY5, XPO6, ABCA13, RILPL1, SORCS2, RAB11FIP3, TANGO6, AP2M1, SLC35D1, TNPO1, TECPR2, TSG101, DESI1, SUFU, PAF AH1B1, KIF3A, ATG4C, HIP1, AKAP6, TNKS, RUFY3, DAB2, TRAM2, DZIP1, SMG5, ABC B1, SLC22A3, SLC47A1, FAM91A1, PLEKHF2, MACF1, MYO7A, APBB3, SLC35A4, GPM 6B, SNX5, NSF, NXT2, CEP41, TFRC, EPHA5, SYTI2, STOM, ADRBK1, TBC1D5, TRPV1, S LC38A6, SNX9, RPGR, ARL5A, EGR2, GAPVD1, CAPN10, ABCC1, AP3B1, KPN46, ZFAN D1, MAP1A, ANK3, SNUPN, ATP13A3, PARD3, PTPN14, CACNG8, AP3D1, AP2B1, ARHG AP44, SNX33, MCU, VPS16, LRRC8C, LRRC8D, ILDR2, ABCB7, FCHSD2, RAB15, RAPGE F3, SLC48A1, SNCA, CACNG2, TBC1D9, PNPT1, OCA2, SYT9, CHMP3, RAB5B, ADTRP, A BCA12, BTK, TBC1D16, XPO4, VPS41, IGF1, STX8, SLC7A14, ATXN2, PIK3C3, NUP88, L RRK2, UNC119, CHMP5, SLC44A1, ITGAM, EFNA5, MIA2, SGSM1, ZBED6, ZUC3H11A, S NAP23, DNAJC1, RABEP1, POM121C, BMP6, ANO1, SERINC5, SAMM50, ABCG2, SMO, SLC6A14, LSG1, BLOC1S3, STXBP5L, CPT1A, SYTI7, UBR5, ARRDCA, BBS9, HSPD1, EP M2A, GSK3B, IWS1, UPF2, AGT, SYT7, ADAR, BLOC1S6, PEX5L, SNX3, EXOC6B, RIMS2, SLC25A51, TOMM5, COG2, CPE, SEC16B, TIMM44, SLC25A42, GTF2IRD2, NCF1, SLC 29A1, TAOK2, SLC44A3, ZDHHC23, ALOX5, ADAM8, ARFGAP3, SLC25A18, MON2, NOS 1, PEX7, GCKR, ACTN4, COG4, STK4, ZFAND6, SLC1A1, WLS, HCAR2, PPP1R10, GRTP1 , CALCR, MCOLN1, STEAP3, SLC25A33, KPN44, SYTL4, PRKCD, ADORA2A, RABGEF1 , ANGPT1, CADPS, IGF2BP3, HAC11, TBC1D10C, ATG3, HTR2C, SIL1, ATP8A1, CLTB, R PL23, CAMSAP3, SP100, VTI1A, RAB27B, ITSN1, NUP214, SYK, MYRIP, RAB2A, SEC31B, SLC44A5, CACNG3, YBX1, GRIP1, SLC13A3, HSF1, CNIH4, PLEKHM1, MLPH, RAB37, A KTI1, EPS15, DENND4C, TBC1D10A, SNX1, ZDHHC11, ZDHHC11B, NDC1, RPH3A, GP R89A, RAB28, SYNDIG1, VPS52, TRAF3IP2, SGTB, EDNR4, SLC25A13, BMP4, ABLIM3</i> </p>
GO:0019941	modification-dependent protein catabolic process	0.005348162606580545	<p> <i>CALR3, FBXL2, DCAF12, CBL, USP32, TOM1L1, PSMD1, PSMB7, CCDC22, DNAJB14, H DAC6, DDB1, CUL4B, FBXL18, ZYG11B, FBXL7, USP46, CHFR, USP34, FBXW11, RNF14 4A, TRIM13, UBR2, NPLOC4, USP13, MKRN2, ARNTL, FBXO21, PPP2CB, RNF4, UBE3D, FHIT, MAN1A1, FBXO9, RFFL, USP22, FBXW7, ITCH, USP12, SPSB1, MTA1, SHAH1, ERC C8, SPSB4, ASCC2, BTRC, DNAJB2, RNF133, RNF148, DISC1, ZFAND2A, CLOCK, FBXL 17, KCTD10, SMURF2, UBQLN3, UBQLN1, UFL1, CTNBN1, PARK2, SMARCC1, AXIN1, UBQLN4, WWP2, RNF168, NEDD4, SEC61B, USP49, ARIH1, AMFR, PRCKLE1, ERLIN1, VPS4A, PSMD11, USP33, UBE2R2, AGBL4, CDC27, KLHL3, AREL1, UCHL3, PSMD2, RB X1, ANAPC5, FBXO45, STT3B, FBXL20, TSG101, DESI1, SUFU, EDEM3, DAB2, UBR1, CA CUL1, PSMD7, PELI1, PPP2R5C, ZNRF1, RBBP6, UBE3C, RNF34, PSMB2, RNF216, RYB P, CUL2, MAP1A, MAN1B1, FBXO39, FBXW4, EIF3H, USP42, USP50, RC3H1, RNF103, R NF103- CHMP3, RNF19B, PSMF1, TRIP12, ZNRF3, KCTD13, PTEN, MIB1, PCBP2, LRRK2, ZRAN B1, BAG6, SEL1L2, SH3RF2, N4BP1, UBE2H, CUL3, EPM2A, GSK3B, RNF144B, RNF43, C UL9, ZMPSTE24, PTK2, ARMC8, RNF121, FBXO10, TRPC4AP, CSNK1A1, UBE2K, FBXL 13, RNF150, OTUD7B, TBL1X, FBXO31, C18ORF25, SKP1, RPL23, WWTR1, TAF1, GNA1 2, UCHL5, FBXL4, NEDD4L, RNF213, SGTB</i> </p>
GO:0010976	positive regulation of neuron projection development	0.0054930095969547175	<p> <i>PRKCI, NEGR1, TENM3, KALRN, NTRK3, TOX, ATP8A2, NTRK2, EP300, BDNF, AMIGO1 ,DMD, RIT2, FYN, NDRG4, TMEM30A, ROR2, CAPRIN2, ZDHHC15, FIG4, CAMK2B, DIS C1, CNR1, IGF1R, CUX2, PRKD1, CAMK1D, PAFAH1B1, RELN, ALK, PACSINI, PAK3, A DNP, ACTR2, ELAVL4, NTRK1, PTK7, MAGI2, CBFA2T2, DPYSL3, BMP7, RAPGEF2, RO R1, EEF2K, AGT, SNX3, CNTN1, BRAF</i> </p>
GO:0060070	canonical Wnt signaling pathway	0.005500906350723799	<p> <i>GPC5, LATS2, SEMA5A, PSMB7, MCC, NPHP3, PTPRO, RNF220, TCF7L2, USP34, CDK1 4, PTPRU, ARNTL, ROR2, SOX13, MAD2L2, TLE6, CAPRIN2, CCNYL1, GNAQ, MLLT3, TC F7, WNT11, KREMEN1, BTRC, CTNND2, DISC1, KANK1, FGF10, SMURF2, CTNNB1, PA RK2, AXIN1, DRAXIN, BICC1, SFRP1, FOXO3, SMAD3, YAP1, AMFR, LRP5, SOX2, PRICK LE1, KDM6A, CCNY, FGF2, DKK2, DVL3, RBX1, WNT3, PRDM15, TNKS, DAB2, WNK1, R UVBL2, RSP02, GPC3, PSMB2, HDAC1, INVS, AXIN2, PTK7, ZEB2, WNT7B, MITF, ZNRF 3, PTEN, LRRK2, WNT7A, EXT1, UBR5, JADE1, GSK3B, PYGO2, SCEL, CSNK1A1, STK4, WLS, TBL1X, LRRK1, PPP1CA, RBMS3, WWTR1, DVL2, ANKRD6, EDA, SHISA6, EDNR4 NRXN1, ASPH, ADCY8, RYR1, ADCY7, RYR3, ITPKB, DLG2, CPNE4, ALOX5AP, TFAP2A, ECT2, DPEP1, SYTI, CLDN1, CACNA1H, SYTI3, KCNH1, RASA4, RASA4B, CAPN3, PAR K2, MTF1, CYBB, CPNE6, TPH2, SYT3, APP, GLR42, CHUK, CPNE9, NLGN1, CLIC4, RAS AL1, BLM, IQGAP1, MEF2A, SYTI2, PLCG2, ANK3, SNCA, SYT9, MAPK1, LRRK2, PKD2, BMP6, ATRX, KCNC2, SYTI7, TF, EEF2K, PRKAA2, SYT7, NCF1, SLC1A1, MCOLN1, BRA F, ADCY1, A3GALT2, HSF1, CAMK2D, TIMELESS, ADCY10, CREB1, CPNE1</i> </p>
GO:0071241	cellular response to inorganic substance	0.005527836775990985	

GO:0051961	negative regulation of nervous system development	0.00567643 1933021912	SEMA3A,SEMA3D,NTRK3,SEMA5A,ROBO2,DAB1,ABCC8,HOOK3,NF1,RTN4,RTN4R,NTN1,SEMA5B,TGFB1,PPP3CA,MAG,CTNNA1,DRAXIN,DCC,PRTG,DIP2B,FSTL4,SEMA6D,BMPR1A,SEMA4D,WNT3,TRPC5,RUFY3,BRINP1,RNF10,TRIM46,EPHA7,CTNNA1,PTPRS,PTEN,BMP7,WNT7A,RAPGEF2,SYNGAP1,DLX1,EPHB2,PAX6,MAP2,TNR,CDKL3,SLIT1,SEMA3C
GO:0002064	epithelial cell development	0.00569389 3000948697	PDE4D,SIPR2,TJP1,EZR,IKBKB,ESR1,PDGFB,DMD,ARNTL,PLCB1,ARID4B,SLC4A5,BCL11B,CLDN1,PDE2A,SIPA1L3,TGFB1,F2RL1,C9ORF47,CLOCK,BFSP1,MYO1E,ABI2,YAP1,HEG1,FRS2,HNF4A,FNDC3A,RILPL1,RARB,VCL,CLIC4,PKHD1,IQGAP1,GSTM3,ARID4A,CDK6,ROCK1,NTRK1,SHROOM3,RAPGEF3,MAGI2,HYDIN,WNT7B,PTPRS,ABCA12,WNT7A,BMP6,ATRX,RAPGEF2,SMO,ONECUT2,GSK3B,RDX,ACTA2,NOTCH4,PAX6,COL22A1,SPINT2,MET,EDNRA,BMP4
GO:0030335	positive regulation of cell migration	0.00569475 3297601329	MAP4K4,CLASP2,SEMA3A,DOCK1,SEMA3D,MAPRE2,TJP1,NTRK3,SEMA5A,ENPP2,FER,KITLG,PIK3CD,ITGB1,MGAT5,HDAC6,EPHA1,ZNF609,PDGFB,STK39,INSR,PAK1,SLC8A1,CASSA,RTN4,BDKRB1,DOCK8,CMKLR1,ROR2,CDH13,CD99,ANO6,CCBE1,JAK2,CLDN1,WNT11,SEMA5B,TGFB1,F2RL1,BCAS3,RRAS2,LAMC2,DAPK2,FGF10,SMURF2,EPHA4,PRKCA,PPP3CA,SOD2,IGF1R,FGF1,NR4A3,FLT4,HDC4,SMAD3,NRP2,DOCK4,APP,PDGFRA,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,BMPR2,CAMK1D,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D,ELP3,PTAFR,LAMB1,RHOJ,RUFY3,DAB2,WNK1,RELN,SP1,CLASP1,PAK3,SSH2,SCARB1,SMO,C2,PLCG2,SPII,MCU,IGF1,MAPK1,BMP7,PDGFC,WNT7A,GPI,SH3RF2,RAPGEF2,SMO,RHOA,ONECUT2,RDX,ACTA2,AGT,PTK2,RPS6KB1,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,EPB41L4B,GPSM3,NIPBL,ANGPT1,GCNT2,ETS1,FBXO31,DIAPH1,ATP8A1,ANGPT4,NUMB,SASH1,ZP3,MET,SEMA3C,PTPRC,BMP4
GO:0032147	activation of protein kinase activity	0.00584786 0514869213	ADCY8,NRG3,PRKAG2,PRLR,NTRK3,TOMIL1,TRAF6,PDGFB,INSR,CAB39,ECT2,CH3L1,NRG1,MAP2K1,JAK2,WNT11,PRKCD,PIBF1,TNFRSF10B,AXIN1,FGF1,SPDYA,BORA,WNK1,MAP3K7,ADNP,GHR,RPTOR,IGF1,EFNA5,PDGFC,PPP2R3C,AGT,TAOK2,SLC1A1,IL18,MOB3B,PRKCZ,ANGPT1,OSBPL8,CD300A,ANGPT4,MADD,MOB3A,MALT1,PHB
GO:0010035	response to inorganic substance	0.00585267 65512353736	PRDX2,NRXN1,ASPH,GSS,ADCY8,PDE8A,RYR1,ADCY7,RYR3,ITPKB,DLG2,ABCC8,TCIRG1,HDAC6,CPNE4,ALOX5AP,TFAP2A,KCNMA1,ECT2,DMD,SLC8A1,FYN,PLCB1,DPEP1,TTN,STIM1,PPP2CB,SYT1,CLDN1,CACNA1H,PRKCD,SYT13,HP,KCNH1,RASA4,RASA4B,CAPN3,PPP3CA,PARK2,SOD2,MTF1,CYBB,OTC,RYR2,NR4A3,CPNE6,CAPN2,PAX2,CPOX,FOXO3,TPH2,ARL13B,SYT3,NEDD4,SLC6A1,APP,GLRA2,CHUK,MMP2,CPNE9,STAT1,SLC6A3,ATF2,NLGN1,EIF2B5,PAWR,CLIC4,TRPA1,RASAL1,ERCC1,BLM,IQGAP1,ATP2B4,ADNP,MAP1B,TFRC,MEF2A,SYT12,MNAT1,PLCG2,NTRK1,ZFAND1,ANK3,SNCA,CACNG2,SYT9,CNGA3,HMGCS2,MAPK1,BMP7,LRRK2,PKD2,BMP6,GPI,ATRX,KCNC2,TNFRSF11B,SYT17,TF,STAT6,EEF2K,KRT8,PRKAA2,SYT7,PHEX,MAP3K5,NCF1,PLEKHA1,SLC1A1,SIGMAR1,MCOLN1,ASPN,PPP1CA,BRAF,HDAC2,IMPACT,PPP2CA,ADCY1,ALG2,A3GALT2,HSF1,DHFR,AXL,MET,CAMK2D,TIMELESS,NEDD4L,ADCY10,CREB1,TRAP1,SLC25A13,CPNE1
GO:0061572	actin filament bundle organization	0.00601559 3797572798	SLC9A1,CLASP2,PHACTR1,TJP1,EZR,EPHA1,LIMK1,FMN2,PAK1,ARHGAP6,DMD,PLS1,WNT11,PPM1E,RHPN2,PARK2,ADD2,SORBS1,NF2,ELN,SFRP1,SMAD3,SHANK1,ARHGEF18,PPM1F,NEDD9,PAWR,CLASP1,AIF1L,PLS3,CALD1,ROCK1,EPS8,LIM1,RAPGEF3,PDXP,KCTD13,DYSL3,SHANK3,SHOXA,SHROOM1,CUL3,RDX,ESPNL,FAM171A1,TMEFF2,DLC1,PHLDB2,BRAF,CGNL1,MET
GO:0019722	calcium-mediated signaling	0.00607806 1859355667	ASPH,TMBIM4,SLC9A1,PTGFR,CHERP,KSR2,GRM5,PLCE1,ANK2,HTR2B,CHRM3,SGCD,DMD,SLC8A1,RIT2,NRG1,PPP3R1,CMKLR1,CDH13,CD4,NFATC3,HOMER2,TNFSF11,PPP3CA,RYR2,CACNA1C,HDAC4,ITPR1,ACKR2,NFATC1,RCAN1,MCTP1,NMUR2,AKAP6,SLC8A2,NFATC2,ATP2B4,CAMTA1,PLCG2,PPP1R9A,RCAN2,MCU,BTK,IGF1,HTT,LRRK2,GRIN1,GSK3B,MCTP2,ZMPSTE24,LAT2,XCR1,MCOLN1,GRIN2B,FHL2,TBC1D10C,SYK,PTPRJ,CAMK2D,CCR3,PTPRC
GO:0046777	protein autophosphorylation	0.00610090 6979035428	ENPP1,MVP,FLT3,FER,TOMIL1,CDKL5,GRK5,EPHA1,ERBB4,MRE11A,NTRK2,PDGFB,TNIK,STK39,INSR,PAK1,FYN,LMTK2,NRG1,JAK2,SMG1,CAMK2B,MYO3A,AAK1,DAPK2,EPHA4,CAMK4,IGF1R,RIOK2,CHEK2,HCK,OBSCN,FLT4,PDGFRA,SLK,PRKD1,MAPKAPK3,CDK12,PEAK1,PRKCG,EPHB3,NEK10,ALK,MAPKAPK2,TRIM24,INSRR,NTRK1,EPHB1,EPHA7,MAP3K13,BTK,LRRK2,PDGFC,GSK3B,EEF2K,PTK2,TEC,TAOK2,STK4,MARK3,IMPACT,SYK,TAF1,CAMK2D,PTPRC,TYRO3
GO:0050801	ion homeostasis	0.00626259 4556675063	ENPP1,ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,PTGFR,CHERP,RYR1,NOX5,ATP2B2,GRM5,PLCE1,ANK2,SLC9A9,CHD7,SLC26A6,HTR2B,RYR3,SLC24A2,SLC24A3,CCDC22,TCIRG1,CACNB2,ADORA1,ADRA1D,CNNM1,ESR1,CYB561A3,STK39,SLC4A10,KCNMA1,LCK,SLC12A8,SGCD,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,SLC4A5,CNNM2,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,DCN,SLC39A14,PTGER2,CLDN16,JAK2,NPSR1,SLC9A7,TGFB1,KEL,JPH3,F2RL1,C9ORF47,CDH23,DISC1,CLN6,XPR1,TMTC2,CAPN3,CNRR1,TNFSF11,PARK2,SOD2,P2RY8,TFRC,CACNA1A,K,RYR2,NOL3,CACNA1C,SCN3B,GRM1,SMAD3,ITPR1,ACKR2,SLC4A4,APP,PDGFRA,NOX1,IBTK,BDH2,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,KLHL3,SLC9B1,CALC4,KCNQ1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,BTBD9,TRPC5,NEO1,PKHD1,WNK1,SLC8A2,SLC9C1,TPCN1,SNX5,ATP2B4,ATP6V0A2,P2RY8,TFRC,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR35,AP3B1,SLC39A10,ANK3,TMEM199,ATP13A3,AP3D1,SLC9C2,MCU,TRDN,TRPC6,ABCB7,ATP13A5,SNCA,SLC4A8,HTT,MAPK1,SLC30A7,LRRK2,ATP6V1A,TMCO1,PKD2,STEAP4,PPP2R3C,BMP6,EXT1,GRIN1,TF,ITPR2,ALAS2,BOK,AGT,HRH4,HEPHE1,STC2,NOS1,SCNN1B,SLC1

			<i>A1,XCRI,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B,KCTD7,PACS2,DIAPH1,HTR2C,ATP6V0A1,GRIK2,ATP2B3,CIB2,CAV2,CA12,TMPRSS3,CAMK2D,CCR3,NEDD4L,PTPRC,GPR89A,EDNRA</i>
GO:0010970	transport along microtubule	0.00628284 4384639668	<i>KIF5C,CNIH2,DLG2,IFT43,HDAC6,PEX14,FBXW11,AP3S1,DST,TERF2,ARL3,ICK,BBS12,DYNC1I1,TRAK1,LRPPRC,AP3B2,SPG11,IFT122,RAB6A,APP,SYNE2,SYBU,AGBL4,BLOC1S5,PAFAH1B1,KIF3A,MAP1B,RPGR,AP3B1,MAP1A,TRIM46,TUBA,P3D1,KIF3C,HTT,IFT81,TMEM108,RHOT1,SUN1,BLOC1S3,NDE1,BLOC1S6,COPG2,PRKCZ,KLC3,ARHGAP21,MAP2,CAMSAP3,RAB27B</i>
GO:0099565	chemical synaptic transmission, postsynaptic	0.00628924 45022191615	<i>NRXN1,S1PR2,GRID2,NLGN4X,DGKI,ADORA1,RIMS1,PPP3CA,CUX2,GRIK5,SHANK1,APP,NLGN2,GLRA2,CELF4,NLGN1,NLGN3,RELN,SLC8A2,P2RX6,TRPV1,NETO1,CHRNA4,SNCA,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,GRIN1,GSK3B,RIMS2,SLC29A1,PRKCZ,ADORA2A,GRIN2B,GRIK2</i>
GO:0022402	cell cycle process	0.00641226 8643671339	<i>MOV10L1,TACC2,PDE4DIP,CLASP2,TASIR2,RPS6KA2,KIF22,LATS2,NOX5,MAPRE2,PAGRI,RAD51B,STAG2,EZR,TOM1L1,TACC1,LMNA,ITGB1,CDC6,PSMB7,GFII1B,PARD6G,STXBP4,DACH1,PTPN11,DDB1,KIF18B,MRE11A,CUL4B,CECR2,PDGF,B,CCND3,FBXL7,CHFR,INSR,FMN2,FBXW11,ESRRB,CDK14,FANCA,UBR2,ECT2,MTA3,CDC45,STARD9,CENPF,PDS5A,HFM1,RBM14,PLCB1,TTN,KLHL21,DCTN1,BID,MYH9,MAD1L1,RNF4,AUNIP,CSPP1,DMC1,MAD2L2,TLE6,TERF2,FOXN3,RC2,ARL3,KIF2A,RAD51D,RANBP1,YTHDC2,FBXW7,SMC3,UIMC1,CROCC,LZTS1,TEX11,SEPT7,CENPC,RPRD1B,TGFB1,PIBF1,CRADD,CEP135,RAB11FIP4,CLOK,K,RNF212,SND1,ANKFN1,FGF10,FBXL17,SVIL,CAPN3,SLC16A1,PRKCA,PPP3CA,NSUN2,CTNNA1,METTL13,IGF1R,ANKRD17,BRIP1,NIN,NPAT,TUBGCP6,RIOK2,ESCO1,HAUS4,CHEK2,SPDYA,CTDP1,BAZ1B,SMC2,SPTBN1,HEPACAM2,SFRP1,M TBP,C10ORF90,KPNB1,RAB6C,CDC73,APP,CCN2,CDK3,BORA,LRP5,SOX2,SETD2,DCUN1D3,VPS4A,EREG,CCNY,ATF2,TCF3,POLA1,USP3,ANKK3,AXIN2,MUC1,SNX33,RAD51C,NTMT1,PDXP,ERCC3,HAUS3,MCMBP,FOXJ3,CHMP3,RNF103-CHMP3,RASA1,NUGGC,RPTOR,IGF1,HTT,PTEN,IFFO1,BMP7,PIK3C3,SEPT6,SPAG5,UNC119,CHMP5,BAG6,PKD2,HSF2BP,MAP4,ATRX,PRMT2,SUN1,MARK4,JADE1,RHOA,MCM3,NDE1,CUL3,RDX,MLF1,RBBP8,CDK13,NACC2,CCNJL,CUL9,ZM PSTE24,PBX1,CDC14A,TAOK2,RPS6KB1,HUS1,RGS14,TEX12,GPSM2,PPP1R10,TA F2,PAX6,STAG1,CCNG2,NIPBL,FBXO31,UBE2E2,PHIP,PPP2CA,RPL23,DCDC1,OPN1LW,DONSON,CIT,BRCA2,TAF1,PPME1,CAV2,POC1B,TRIM37,CENPK,RAD9B,TIMELESS,NDI1,PTPRC,CTCF,LIG1,EDNRA,PRAP1,BMP4</i>
GO:0010720	positive regulation of cell development	0.00691397 8040697399	<i>PRKCI,S1PR2,DOCK1,TIAM2,KALRN,SEMA5A,GRM5,LRP2,ROBO1,CDKL5,ROBO2,TRIOBP,DSCAM,GOLGA4,LIMK1,NTRK2,CDH4,PTPRD,BDNF,AMIGO1,TENM4,CASS4,NTN1,MAP2K1,CAPRIN2,IL1RAPL1,CAMK2B,TGFB1,SLIT2,TP73,DISC1,EPHA4,TNFSF11,MAG,UFL1,CTNNB1,PPARG,NIN,DCX,CUX2,PRES1,GSX2,ISLR2,SLC9B2,PARP6,BMPR2,RAB11A,NEDD9,SEMA4D,PLXNA2,SPEN,WNT3,P4HB,PAFAH1B1,TRPC5,RUFY3,DAB2,RELN,MACF1,BNC1,PAK3,ADNP,MAP1B,ACTR2,HDAC1,EGR2,CUX1,MAP3K13,EFNA5,SHANK3,SMO,EEF2K,RGS14,EPHB2,PAX6,PPP1CC,FBXO31,BRAF,HDAC2,CDKL3,NUMB,BMP4</i>
GO:0021955	central nervous system neuron axonogenesis	0.00703324 3889546942	<i>HSP90AA1,B4GALT6,SLIT2,DCLK1,EPHA4,DRAXIN,NIN,DCC,NFIB,SPTBN4,EPHB3,FBXO45,PAFAH1B1,GLI2,EPHB1,PTEN,MYCBP2,EPHB2</i>
GO:0021952	central nervous system projection neuron axonogenesis	0.00716573 7758036799	<i>SLIT2,DCLK1,EPHA4,DRAXIN,NIN,DCC,NFIB,SPTBN4,EPHB3,FBXO45,PAFAH1B1,GLI2,EPHB1,MYCBP2,EPHB2</i>
GO:0090596	sensory organ morphogenesis	0.00721383 1489460682	<i>CLRN1,RDH13,PRKCI,TENM3,SP3,MFAP5,CHD7,TRIOBP,DSCAM,THRB,IMP2,ATP8A2,CDON,NTRK2,STRC,TFAP2A,PHACTR4,MEIS1,MYO3B,NF1,PCDH15,FAT3,BCR,NTN1,VAX2,ROR2,LRIG3,PLS1,MYO3A,ZHX2,RPGRIP1L,CELSR1,SDK2,CDH23,FGF10,CTNNB1,PAX2,IFT122,PTPRM,ABI2,LRP5,TTC39C,FRS2,STRA6,TSPAN12,FGF2,RARB,COL11A1,KCNQ1,GLI2,MYO7A,HOXC13,EYA1,HDAC1,PTPRQ,EPHB1,BCAR3,SDK1,PTK7,HIPK1,MAPK1,BMP7,LHFPL5,MEGF11,TSHR,FBN2,EPHB2,SLC1A1,SOBP,FBN1,PAX6,NIPBL,HDAC2,DVL2,KDM2B,EDNRA,NGT1,BMP4</i>
GO:0031644	regulation of nervous system process	0.00729145 2950090203	<i>NRXN1,S1PR2,SLC9A1,NLGN4X,CNIH2,ADORA1,RIMS1,TENM4,SHISA9,FIG4,DLGAP1,MAG,GRM1,CUX2,SHANK1,APP,NLGN2,CELF4,NLGN1,PTAFR,NLGN3,NMUR2,MGLL,RELN,SLC8A2,EGR2,RNF10,GPR35,PARD3,NETO1,CHRNA4,OPRD1,PTEN,LRRK2,TMEM108,SHANK3,WNT7A,GRIN1,FAM19A4,AGT,RIMS2,PRKCZ,HTR2C,TNR,DLGAP2,SHISA6</i>
GO:0035637	multicellular organismal signaling	0.00736860 8215352249	<i>PDE4D,SLC9A1,CLCN1,ATP2B2,ANK2,RYR3,NFASC,CTNNA3,CACNB2,NTRK2,SLC8A1,SCN4A,CACNA1H,KCNJ3,CACNA1D,OTOA,CNTNAP2,MAG,RYR2,CACNA1C,SCN3B,ITPR1,TNNI3K,SPTBN4,DRD1,KCNQ1,PAFAH1B1,SLC8A2,DSC2,ATP2B4,MEF2A,GPR35,ANK3,KCND3,CACNG8,CHRNA4,TRDN,CACNG2,PKP2,SCN8A,SCN9A,AGT,ZMPSTE24,ATP1A3,TNR,KCND2,GRIK2,SCN1A,CACNG3,ATP2B3,CAMK2D</i>

GO:0048568	embryonic organ development	0.00750963 4808484994 5	CLRN1,HLX,PBX3,ARNT,KITLG,SP3,MFAP5,CHD7,TRIOBP,ATP8A2,NPHP3,PDGF,STRC,TFAP2A,PHACTR4,MYO3B,SATB2,PCDH15,BCR,NDRG4,NTN1,MAP2K1,MDFI,VAX2,ROR2,NEUROD1,LRIG3,PLS1,TBX15,WNT11,RUNX2,TGFB1,PCSK5,MYO3A,CELSR1,CDH23,FGF10,CTNNB1,RYR2,MMP16,PAX2,ARL13B,IFT122,SMAD3,HOXD3,HOXD4,PDGFRA,YAP1,SETD2,TTC39C,CHST11,TEAD1,VASH2,FRS2,PA1B2,KDM6A,STRA6,DSCAM1,BMP1A,RARB,NCOA1,COL11A1,KCNQ1,SUFU,POL,GLI2,ERCC1,MYO7A,TEAD4,OVOL2,RBBP6,EYA1,HOXB3,HOXB4,HOXB5,HOXB6,TFEB,PTPRQ,P1FO,ERCC3,PTK7,HEY2,COL13A1,WNT7B,HIPK1,MAPK1,MI1B1,BMP7,LHFPL5,PKD2,PDGFC,TSHR,SMO,MTHFD1L,KRT8,FBN2,PBX1,ECE1,SETDB2,DNAJB6,TBC1D23,STK4,EPHB2,SOBP,FBN1,PAX6,NIPBL,NOTO,SPINT2,DVL2,TRA2B,KDM2B,VPS52,EDNRA,BMP4
GO:0044257	cellular protein catabolic process	0.00777036 2068260999 6	CALR3,FBXL2,DCAF12,CBL,USP32,LRP2,EZR,TOM1L1,PSMD1,HSP90AA1,PSMB7,CCDC22,OMA1,DNAJB14,TCIRG1,HDAC6,DDBI,CUL4B,FBXL18,ZYG11B,FBXL7,USP46,CHFR,USP34,FBXW11,RNF144A,TRIM13,UBR2,NPLOC4,USP13,MKRN2,ARNTL,FBXO21,VGLL4,PPP2CB,RNF4,UBE3D,FHIT,MAN1A1,FBXO9,RFFL,USP22,FBXW7,ITCH,USP12,SPSB1,MTA1,SLAH1,ERCC8,SPSB4,ASCC2,BTRC,DNAJB2,RNF133,RNF148,DISC1,ZFAND2A,CLOCK,NELL1,FBXL17,KCTD10,SMURF2,EPHA4,UBQLN3,UBQLN1,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,RSPRY1,CHEK2,UBQLN4,CAPN2,RNFT2,WWP2,RNF168,NEDD4,SEC61B,USP49,ARIH1,AMFR,PRICKLE1,ERLIN1,VPS4A,ADAMTS12,PSMD11,USP33,UBE2R2,AGBL4,CDC27,YME1L1,KLHL3,PRKCG,AREL1,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,STT3B,FBXL20,TSG101,DES1,IDE,SUFU,EDEM3,DAB2,UBR1,CACUL1,PSMD7,PELI1,PPP2R5C,SPATA18,ZNRF1,SNX5,RBBP6,DYX1C1,UBE3C,RNF34,PSMB2,RNF216,RYPB,CUL2,MAP1A,MAN1B1,TMEM199,FBXO39,FBXW4,EIF3H,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PSMF1,TRIP12,ZNRF3,KCTD13,PTEN,MIB1,PCBP2,LRK2,ZRANB1,BAG6,SEL1L2,SH3RF2,N4BP1,GET4,UBE2H,CUL3,EPH2A,GSKB,DNAJC3,RDX,RNF144B,RNF43,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,FBXO10,TRPC4AP,RNF11,CSNK1A1,MFSD8,UBE2K,FBXL13,RNF150,OTUD7B,TBL1X,FBXO31,C18ORF25,SKP1,RPL23,ANXA2,WWTR1,TAF1,ADAMTS7,GNA12,UGGT1,UCHL5,MALT1,FBXL4,NEDD4L,RNF213,SGTB
GO:0044089	positive regulation of cellular component biogenesis	0.00782297 440145894	CLRN1,LDB2,NRXN1,MAP4K4,DNMT1,PDE4DIP,CLASP2,GRID2,PLCE1,FER,TENM1,HSP90AA1,CDC42EP3,EPHA1,LIMK1,ESR1,NTRK2,STX18,TENM2,PIP4K2A,PAK1,PTPRD,BDNF,AMIGO1,DCTN1,NRG1,BID,FNIP1,NCKAP1,SLX1B,ARL3,SKAP1,CLSTN2,CROCC,CLDN1,SEPT7,WNT11,IL1RAPL1,PPM1E,F2RL1,BCAS3,CEP135,LINGO2,CNTNAP2,PRKCA,AUTS2,DLG5,NIN,AJUBA,PHLDB1,HCK,RAB3GAP2,NF2,HDAC4,TRABD2B,SFRP1,DNM3,SMAD3,CUX2,WIP1,ABI2,NAV3,NLGN2,VPS4A,NLGN1,COL16A1,MORC2,PPM1F,SEMA4D,EIF4G1,EPHB3,TSG101,NLGN3,ERCC1,DZIP1,SIN3A,DOCK11,CLASP1,ADNP,MAP1B,TFR3,FLRT2,SNX9,ACTR2,PLCG2,ROCK1,EPH2,NTRK1,EPHB1,GNL3L,FCHSD2,RAPGEF3,SNCA,USP50,ATF71P,HTT,DYSL3,BMP7,SPAG5,EFNA5,WNT7A,MARK4,RHOA,GSKB,EEF2K,AGT,TPP2,SETDB2,EPHB2,GPSM2,PHLDB2,BRAF,SYK,CNOT1,HRK,PTPRJ,GPM6A,HSF1,PLEKHM1,ASAP1,GBP5,MET,SYNDIG1
GO:0016197	endosomal transport	0.00789463 007743374	CCDC93,CCDC22,ERC1,GBF1,SNX2,SNX6,DENND5A,LMTK2,STX6,VTA1,NDRG4,DCTN1,DENND1A,ATP9A,DENND2A,ZFYVE9,CORO1C,RAB11FIP4,ITSN2,DCLK1,SNX8,PARK2,LEPROT,TBC1D14,ANKFY1,RAB6A,VPS39,VPS53,RAB6C,BET1L,VPS4A,SPAG9,RAB11A,EPG5,EEA1,RAB11FIP3,SNX5,TBC1D5,CLEC16A,SNX9,AP3B1,AP3D1,ANXA8L1,ARHGAP44,HEATR5A,SNX33,VPS16,ACAP2,CHMP3,PLA2G4E,LRK2,CHMP3,NSG2,TMCC1,SNX3,TBC1D23,TBC1D10C,VTI1A,ITSN1,GRIP1,EPS15,INPP5F,REPS2,TBC1D10A,SNX1,EHD2,VPS52
GO:0043547	positive regulation of GTPase activity	0.00799728 9396086845	MAP4K4,TIAM2,MAPRE2,KALRN,NTRK3,CDKL5,ITGB1,ARHGAP24,RGS6,DOCK10,EPHA1,ABR,ARHGAP6,ECT2,ARHGAP42,NF1,RTN4R,BCR,DOCK8,RAPGEF6,RGS8,RCC2,DENND1A,ARAP2,DOCK9,WNT11,SIPA1L3,F2RL1,BCAS3,CORO1C,RABGAP1L,ARHGAP22,GARNL3,RGS10,TBC1D14,TBCK,SFRP1,ARHGAP29,PREX1,NEDD9,SEMA4D,DVL3,MYO9A,CCL14,CCL15,DOCK11,RGS7,TBC1D5,SNX9,NTRK1,BCAR3,RAPGEF3,SH3BP1,TBC1D9,RASA1,TBC1D16,ARHGAP25,SGSM1,RAPGEF2,GSKB,RGS14,SIPA1L2,ARHGAP11A,GRTP1,TBC1D10C,CCL22,SRGAP2,RAP1GAP2,DVL2,ASAP1,RALGAP1,CAV2,TBC1D10A
GO:0051282	regulation of sequestering of calcium ion	0.00804153 832201548	ASPH,PDE4D,CHERP,RYR1,ANK2,CHD7,HTR2B,RYR3,LCK,DMD,SLC8A1,JPH2,BDKRB1,NPSR1,TGFB1,JPH3,CAPN3,RYR2,NOL3,CACNA1C,ITPR1,IBTK,DRD1,PRKD1,FGF2,TRPA1,AKAP6,TPCN1,TRPV1,PLCG2,TRDN,SNCA,HTT,PKD2,ITPR2,NOS1,XCR1,MCOLN1,DIAPH1,HTR2C,CAMK2D,PTPRC
GO:0099111	microtubule-based transport	0.00826521 2654689139	DNAH11,SPAG16,KIF5C,CNIH2,DLG2,IFT43,HDAC6,PEX14,NPHP3,FBXW11,AP3S1,DST,TERF2,ARL3,ICK,BBS12,DYNC1H1,SPAG17,TRAK1,LRPPRC,DNAH9,AP3B2,SPG11,IFT122,RAB6A,APP,SYNE2,SYBU,AGBL4,BLOC1S5,GAS8,PAFAH1B1,KIF3A,NEK10,DYX1C1,MAP1B,RPGR,AP3B1,MAP1A,TRIM46,TUB,AP3D1,KIF3C,HTT,IFT81,TMEM108,RHOT1,SUN1,BLOC1S3,NDE1,BLOC1S6,COPG2,PRKCZ,KLC3,ARHGAP21,MAP2,CAMSAP3,RAB27B,ADCY10
GO:0009611	response to wounding	0.00891878 0009036788	PRDX2,F8,GP6,C6ORF89,CLASP2,NREP,NTRK3,CASK,ITGB6,VAI2,ITGB1,ARHGAP24,ABCC8,DGKI,PDGFB,PLLP,JMJD1C,PAK1,LCK,NF1,DST,DGKH,APOD,RTN4R,NRG1,MAP2K1,MYH9,TSPAN8,ENTPD1,RAB27A,F5,ANO6,GNAQ,JAK2,CLDN1,KREMEN1,PRKCD,TGFB1,F2RL1,CELSR1,KANK1,FGF10,PPL,EPHA4,PRKCA,PPP3CA,MAG,SOD2,IGF1R,PPARG,FGF1,PROS1,NOL3,AJUBA,DGKB,SMAD3,CYP4

			<i>F11, PDGFRA, YAP1, SOX2, MMP2, DGKG, HNF4A, EREG, MYOF, RAF1, PABPC4, FGF2, VCL, SCUBE1, MACF1, CLASPI, PRKG1, MAP1B, SCARB1, SMOC2, ADIPOR2, PLCG2, CIQTNF1, AP3B1, NTRK1, SARM1, VWF, DGKK, CTNNA1, PTK7, PTPRS, ADTRP, CSRP1, SRSF6, RTN4RL1, IGF1, DPYSL3, PTEN, PRCP, WNT7A, EXT1, BLOC1S3, RHOA, ACTA2, SYT7, BLOC1S6, PTK2, TEC, GAP43, MAP3K5, RPS6KB1, ALOX5, CD44, CLDN4, EPHB2, SLC1A1, TMEFF2, PPARA, EPB41L4B, NOTCH4, SYTL4, PAX6, ADORA2A, PHLDB2, PRKCQ, BRAF, TNF, SYK, MAX, DHFR, VAV3, GNAI2, INPP5F, AXL, CD109, TYRO3, EDNRA</i>
GO:0098742	cell-cell adhesion via plasma-membrane adhesion molecules	0.009064370920897916	<i>NRXN1, GRID2, TENM3, CLDN18, MYOT, DCHS2, PCDH9, MAP2K5, ROBO1, TENM1, ROBO2, ITGB1, PCDH17, DSCAM, DAB1, CDH10, CDH12, TENM2, KIRREL3, CDH8, UNC5D, CDH4, PTPRD, AMIGO1, CLDN12, PCDH7, TENM4, PCDH15, FAT3, NRG1, LRFN5, CNTN4, NTNG1, CDH13, PTPRT, PCDHB16, CLDN16, MYPN, CLSTN2, CLDN1, IL1RA, PL1, CLDN10, CELSR1, SDK2, CDH23, CD6, MAG, CDHR2, CADM3, AJUBA, CNTN6, CDH26, PTPRM, GPC6, DSCAML1, NLGN1, LRRC4C, WNK1, DSC2, CD84, HMCN1, SDK1, PTPRS, PCDH11X, DSG1, CLDN11, ITGAM, EFNA5, CDH9, EMB, CDH20, ARVCF, ITGAL, CLDN4, PCDH10, FAT2, CADMI</i>
GO:0080135	regulation of cellular response to stress	0.010042714140805048	<i>MAP4K4, ADCY8, PDE8A, SEMA3A, C12ORF49, MARVELD3, EZR, MECOM, TRAF6, OXR1, ULK4, HDAC6, EP300, TNK1, MID1, STK39, FMN2, MAP3K4, FUT8, USP13, KAT7, FYN, ARNTL, PLCB1, MGMT, PPP4R2, RTN4R, BDKRB2, BID, MAP2K1, TMBIM6, CREBRF, AUNIP, COPS5, MAD2L2, TERF2, FAM168A, FBXW7, UIMC1, ITCH, SMG1, KREMEN1, ERCC8, PRKCD, F2RL1, ZNF675, DUSP22, NAIP, FGF10, SH3RF3, EPHA4, TNFSF11, UFL1, CTNNB1, PARK2, SOD2, FCGR2B, IGF1R, AXIN1, OTUB1, NR4A3, NOL3, KIR2DL4, AJUBA, CHEK2, UBQLN4, FLT4, SFRP1, FOXO3, RNFT2, RNF168, TXNDC12, APP, NOX1, AMFR, TNFRSF19, EYA2, SETD2, PTPN1, BMPR1A, PRKCG, EEF1E1, EEF1E1, BLOC1S5, EIF4G1, PAWR, TERF2IP, P4HB, PAFAH1B1, DDAH1, ERCC1, UBE2V1, XDH, MAPKAPK2, CDK6, EYA1, ACTR2, RECQL5, PAXIP1, HIPK3, PTPN2, EPHB1, AXIN2, MUC1, SPI1, AIFM2, PNPT1, WNT7B, PTPRS, ZMYND11, TRIP12, RTN4RL1, MAPK1, PTEN, SPRED2, BMP7, LRRK2, BAG6, WNT7A, SH3RF2, UBR5, GSK3B, CD27, BOK, NACC2, POLH, ZMPSTE24, MAP3K5, CREBBP, NCF1, TAOK2, RNFT1, ALOX5, DNAJB6, CD44, DNAJC7, PPP1R10, PHLPP1, MAGI3, EYA3, ATF6, BRAF, TNF, GRIK2, YBX1, HSF1, DHFR, SASH1, INPP5F, MET, TIMELESS, ANKRD6, ATF6B, TRAP1, BMP4</i>
GO:0099643	signal release from synapse	0.010344813069971034	<i>NRXN1, CASK, NRXN3, DGKI, ERC2, CACNB2, RIMS1, NF1, LIN7A, SYN2, SYN3, SYTI, PTPRN2, CADPS2, STXBP5, CNR1, PARK2, RIMS4, GRIK5, DRD1, NLGN1, MCTP1, PRKCG, FBXL20, SYTI2, UNC13A, CHRN4, SNCA, GRM4, SYT9, SLC4A8, LRRK2, WNT7A, SNA P23, STXBP5L, GRIN3A, GSK3B, SYN1, MCTP2, SYT7, BLOC1S6, RIMS2, CPLX2, ADORA2A, CADPS, BRAF, ADCY1, RPH3A</i>
GO:0007269	neurotransmitter secretion	0.010344813069971034	<i>NRXN1, CASK, NRXN3, DGKI, ERC2, CACNB2, RIMS1, NF1, LIN7A, SYN2, SYN3, SYTI, PTPRN2, CADPS2, STXBP5, CNR1, PARK2, RIMS4, GRIK5, DRD1, NLGN1, MCTP1, PRKCG, FBXL20, SYTI2, UNC13A, CHRN4, SNCA, GRM4, SYT9, SLC4A8, LRRK2, WNT7A, SNA P23, STXBP5L, GRIN3A, GSK3B, SYN1, MCTP2, SYT7, BLOC1S6, RIMS2, CPLX2, ADORA2A, CADPS, BRAF, ADCY1, RPH3A</i>
GO:0052697	xenobiotic glucuronidation	0.010356391806710448	<i>UGT1A1, UGT1A10, UGT1A3, UGT1A4, UGT1A5, UGT1A6, UGT1A7, UGT1A8, UGT1A9</i>
GO:0048562	embryonic organ morphogenesis	0.010527199224424747	<i>CLRN1, HLX, SP3, MFAP5, CHD7, TRIOBP, ATP8A2, NPHP3, STRC, TFAP2A, PHACTR4, MYO3B, SATB2, PCDH15, BCR, NDRG4, NTN1, MDFI, VAX2, ROR2, NEUROD1, LRIG3, PLS1, TBX15, WNT11, RUNX2, MYO3A, CELSR1, CDH23, FGF10, CTNNB1, RYR2, MMP16, PAX2, ARL13B, SMAD3, HOXD3, HOXD4, PDGFRA, YAP1, SETD2, TTC39C, SHST11, FRS2, KDM6A, STRA6, DSCAML1, RARB, COL11A1, KCNQ1, SUFU, GLI2, MYO7A, OVOL2, EYA1, HOXB3, HOXB4, HOXB5, HOXB6, PTPRQ, PTK7, HIPK1, MAPK1, MIB1, BMP7, LHFPL5, PKD2, TSHR, SMO, MTHFD1L, FBN2, SETDB2, EPHB2, SOBP, FBN1, PAX6, NIPBL, NOTO, DVL2, KDM2B, EDNRA, BMP4</i>
GO:1903305	regulation of regulated secretory pathway	0.010787434714635686	<i>FER, CASK, NRXN3, DGKI, CACNB2, VAMP7, BCR, RAB27A, SYTI, CACNA1H, F2RL1, SYTI3, C12ORF4, STXBP5, CNR1, FCGR2B, SCAMP5, RIMS4, SYT3, DRD1, NLGN1, PTAFR, PRKCG, FBXL20, SYTI2, CD84, SPI1, RAB15, SYT9, SLC4A8, LRRK2, ITGAM, WNT7A, STXBP5L, SYTI7, GRIN3A, GSK3B, SYN1, SYT7, CD160, ADORA2A, RABGEF1, BRAF, CD300A, ADCY1, SYK, ZP3</i>
GO:0048008	platelet-derived growth factor receptor signaling pathway	0.01079594913283391	<i>CLASP2, CBL, FER, PTPN11, PDGFB, APOD, NDRG4, JAK2, NR4A3, MYOCD, MYO1E, CSPG4, PDGFRA, PTPN1, HIP1, IQGAP1, PTPN2, SNCA, PDGFC, PLEKHA1, RGS14, ARI D5B, CSRN1, PTPRJ</i>
GO:0044265	cellular macromolecule catabolic process	0.011577847285066655	<i>RNASET2, CALR3, FBXL2, FTO, DCAF12, CBL, USP32, LRP2, EZR, TOM1L1, PSMD1, HSP90AA1, PSMB7, CCDC22, OMA1, DNAJB14, TCIRG1, HDAC6, DDB1, CUL4B, CECR2, FBXL18, TNRC6A, CELA1, ZYG11B, FBXL7, USP46, CHFR, USP34, FBXW11, RNF144A, SAMD4A, TRIM13, UBR2, ERN2, NPLOC4, LARP4B, USP13, MKRN2, ARNTL, ADAMTS9, SMG7, FBXO21, VGLL4, PPP2CB, RNF4, UBE3D, TRDMT1, FHIT, MAN1A1, FBXO9, RFFL, USP22, FBXW7, ITCH, USP12, SMG1, SPSB1, MTA1, SLAH1, ERCC8, PRKCD, SPSB4, ZHX2, ASCC2, BTRC, DNAJB2, RNF133, RNF148, DISC1, ZFAND2A, CLN6, CLOCK, NEL L1, SND1, HNRNPC, YTHDF1, FBXL17, KCTD10, SMURF2, EPHA4, PRKCA, SMG6, NSUN2, UBQLN3, UBQLN4, UFL1, CTNNB1, PARK2, SMARCC1, AXIN1, LRPPRC, RSPRY1, CHEK2, UBQLN4, CAPN2, ZCCHC17, SYNCRIP, RNFT2, WWP2, RNF168, DCP1B, NEDD4, SEC61B, USP49, RBM8A, ARIH1, AMFR, PRICKLE1, ERLIN1, VPS4A, ADAMTS12, PS</i>

			<p>MD11, USP33, PABPC4, UBE2R2, AGBL4, CDC27, YME1L1, KLHL3, PRKCG, AREL1, UCHL3, PSMD2, RBX1, ANAPC5, FBXO45, LIN28B, STT3B, AGO3, FBXL20, TSG101, DESI1, IDE, SUFU, EDEM3, TNRC6B, DAB2, UBR1, CACUL1, SMG5, PSMD7, PELI1, PPP2R5C, SPATA18, ZNRF1, FASTKD5, SNX5, RBBP6, DYX1C1, MAPKAPK2, UBE3C, CELF1, RNF34, DROSHA, XRN1, PSMB2, DIS3L2, RNF216, ELAVL4, ROCK1, RYBP, CUL2, MAP1A, MAN1B1, AXIN2, TMEM199, FBXO39, FBXW4, EIF3H, USP42, PNPT1, USP50, RC3H1, EIF3E, RNF103, RNF103-CHMP3, RNF19B, PSMF1, TRIP12, DFFA, ZNRF3, KCTD13, PTEN, MIB1, PUM1, PCBP2, LRRK2, ZRANB1, BAG6, SEL1L2, DAZL, TAF15, SH3RF2, N4BP1, GET4, UBE2H, RQCD1, CUL3, EPM2A, GSK3B, DNAJC3, RDX, UPF2, RNF144B, RNF43, METTL16, CUL9, ZMPSTE24, PTK2, ARMC8, RNF121, EXOSC3, FBXO10, TRPC4AP, RNFT1, CSNK1A1, MFS D8, UBE2K, DIS3, FBXL13, RNF150, ZC3HAV1, OTUD7B, TBL1X, FBXO31, C18ORF25, SKP1, RPL23, ANXA2, PARN, CNOT1, WWTR1, YBX1, TAF1, HSF1, POP1, ETT1, ADAMTS7, GNA12, UGGT1, MYEF2, UCHL5, MALT1, FBXL4, NEDD4L, RNF213, TRAF3IP2, SGTB</p>
GO:0030163	protein catabolic process	0.01181587989688001	<p>CALR3, FBXL2, DCAF12, CBL, EGLN2, USP32, LRP2, EZR, TOM1L1, PSMD1, HSP90AA1, PSMB7, CCDC22, OMA1, DNAJB14, TCIRG1, HDAC6, DDB1, CUL4B, FBXL18, CELA1, ZYG11B, FBXL7, USP46, CHFR, FMN2, ASB5, USP34, FBXW11, RNF144A, TRIM13, UBR2, MDM4, NPLOC4, USP13, FYN, MKRN2, ARNTL, ADAMTS9, FBXO21, NRG1, VGLL4, PP2CB, RNF4, CSNK2A3, UBE3D, CREBRF, FHIT, MAD2L2, MAN1A1, FBXO9, RFFL, USP22, FBXW7, OAZ2, ITC, USP12, SPSB1, MTA1, SIAH1, ERCC8, BANP, SPSB4, ASCC2, BTRC, DNAJB2, RNF133, RNF148, DISC1, ZFAND2A, CLN6, CLOCK, NELL1, TIMP2, FBXL17, KCTD10, CAPN3, SMURF2, EPHA4, UBQLN3, UBQLNL, UFL1, CTNBN1, PARK2, SMARCC1, AXIN1, RSPRY1, CHEK2, UBQLN4, CAPN2, SMAD3, RNFT2, WWP2, RNF168, NEDD4, SEC61B, USP49, ARIH1, AMFR, SH3D19, PRICKLE1, ERLIN1, VPS4A, ADAMTS12, PSMD11, USP33, UBE2R2, AGBL4, CDC27, YME1L1, KLHL3, PRKCG, AREL1, UCHL3, PSMD2, RBX1, ANAPC5, FBXO45, STT3B, FBXL20, TSG101, DESI1, IDE, SUFU, EDEM3, DAB2, UBR1, CACUL1, PSMD7, PELI1, PPP2R5C, SPATA18, ZNRF1, SNX5, RBBP6, NSF, DYX1C1, UBE3C, RNF34, GPC3, PSMB2, RNF216, SNX9, TRIM24, ROCK1, RYBP, CUL2, MAP1A, MAN1B1, TMEM199, FBXO39, SNX33, FBXW4, EIF3H, SNCA, USP42, USP50, RC3H1, RNF103, RNF103-CHMP3, RNF19B, PSMF1, TRIP12, ZNRF3, KCTD13, PTEN, MIB1, PCBP2, LRRK2, ZRANB1, BAG6, SEL1L2, MYCBP2, SH3RF2, EXT1, N4BP1, GET4, UBE2H, CUL3, EPM2A, GSK3B, DNAJC3, RDX, RNF144B, RNF43, CUL9, ZMPSTE24, PTK2, ARMC8, RNF121, SNX3, FBXO10, TRPC4AP, RNFT1, ADAM8, CSNK1A1, MFS D8, UBE2K, FBXL13, RNF150, OTUD7B, TBL1X, FBXO31, C18ORF25, SKP1, RPL23, ANXA2, WWTR1, TAF1, ADAMTS7, GNA12, UGGT1, SNX1, UCHL5, MALT1, FBXL4, NEDD4L, PHB, RNF213, SGTB</p>
GO:0030003	cellular cation homeostasis	0.01316887807474172	<p>ASPH, PDE4D, SLC9A1, FAM155A, ADCY8, PTGFR, CHERP, RYR1, NOX5, ATP2B2, GRM5, PLCE1, ANK2, SLC9A9, CHD7, SLC26A6, HTR2B, RYR3, SLC24A2, SLC24A3, CCDC22, TCIRG1, CACNB2, ADORA1, ADRA1D, ESR1, CYB561A3, SLC4A10, KCNMA1, LCK, MICU3, DMD, SLC30A9, SLC8A1, JPH2, FYN, SLC4A5, BDKRB1, BDKRB2, STIM1, TM6IM6, CMKLR1, SLC39A14, PTGER2, CLDN16, JAK2, NPSR1, SLC9A7, TGFB1, KEL, JPH3, F2RL1, C9ORF47, CDH23, DISC1, CLN6, CAPN3, CNR1, P2RY10, TRPM1, XK, RYR2, NOL3, CACNA1C, GRM1, SMAD3, ITPR1, ACKR2, SLC4A4, APP, PDGFRA, NOX1, IBTK, DRD1, PRKD1, FGF2, ADCY5, ADCYAP1R1, SLC9B1, CLIC4, CCL14, CCL15, TRPA1, NMUR2, AKAP6, TRPC5, PKHD1, SLC8A2, SLC9C1, TPCN1, ATP2B4, ATP6V0A2, P2RY8, TFRC, CACNA1A, PTGER3, TRPV1, PLCG2, C1QTNF1, GPR35, AP3B1, SLC39A10, TMEM199, ATP13A3, AP3D1, SLC9C2, MCU, TRDN, TRPC6, ABCB7, ATP13A5, SNCA, SLC4A8, HTT, MAPK1, SLC30A7, LRRK2, ATP6V1A, TMCO1, PKD2, STEAP4, BMP6, GRIN1, TF, ITPR2, ALAS2, BOK, AGT, HRH4, HEPHL1, STC2, NOS1, SLC1A1, XCR1, MCOLN1, ATP1A3, GRIN2B, KCTD7, PACS2, DIAPH1, HTR2C, ATP6V0A1, GRIK2, ATP2B3, CIB2, CAV2, TMPRSS3, CAMK2D, CCR3, NEDD4L, PTPRC, GPR89A, EDNRA</p>
GO:0006873	cellular ion homeostasis	0.013187395614661104	<p>ENPP1, ASPH, PDE4D, SLC9A1, FAM155A, ADCY8, PTGFR, CHERP, RYR1, NOX5, ATP2B2, GRM5, PLCE1, ANK2, SLC9A9, CHD7, SLC26A6, HTR2B, RYR3, SLC24A2, SLC24A3, CCDC22, TCIRG1, CACNB2, ADORA1, ADRA1D, ESR1, CYB561A3, SLC4A10, KCNMA1, LCK, MICU3, DMD, SLC30A9, SLC8A1, JPH2, FYN, SLC4A5, BDKRB1, BDKRB2, STIM1, TM6IM6, CMKLR1, SLC39A14, PTGER2, CLDN16, JAK2, NPSR1, SLC9A7, TGFB1, KEL, JPH3, F2RL1, C9ORF47, CDH23, DISC1, CLN6, XPR1, CAPN3, CNR1, P2RY10, TRPM1, XK, RYR2, NOL3, CACNA1C, GRM1, SMAD3, ITPR1, ACKR2, SLC4A4, APP, PDGFRA, NOX1, IBTK, DRD1, PRKD1, FGF2, ADCY5, ADCYAP1R1, SLC9B1, CLIC4, KCNQ1, CCL14, CCL15, TRPA1, NMUR2, AKAP6, TRPC5, PKHD1, SLC8A2, SLC9C1, TPCN1, ATP2B4, ATP6V0A2, P2RY8, TFRC, CACNA1A, PTGER3, TRPV1, PLCG2, C1QTNF1, GPR35, AP3B1, SLC39A10, TMEM199, ATP13A3, AP3D1, SLC9C2, MCU, TRDN, TRPC6, ABCB7, ATP13A5, SNCA, SLC4A8, HTT, MAPK1, SLC30A7, LRRK2, ATP6V1A, TMCO1, PKD2, STEAP4, BMP6, GRIN1, TF, ITPR2, ALAS2, BOK, AGT, HRH4, HEPHL1, STC2, NOS1, SLC1A1, XCR1, MCOLN1, ATP1A3, GRIN2B, KCTD7, PACS2, DIAPH1, HTR2C, ATP6V0A1, GRIK2, ATP2B3, CIB2, CAV2, TMPRSS3, CAMK2D, CCR3, NEDD4L, PTPRC, GPR89A, EDNRA</p>
GO:0032984	protein-containing complex disassembly	0.013787681461715011	<p>ASPH, CLASP2, SCAF8, SEMA5A, TRIOBP, HDAC6, KIF18B, PEX14, MID1, INSR, GSN, VTA1, KIF2A, F2RL1, TTBK2, SYTL, VMP1, LIX1L, SMARCC1, IGF1R, ADD2, UBQLN4, SPTBN1, SNX14, NAV3, ADD3, KIF24, SPTBN4, VILL, VPS4A, EPG5, TSG101, CLASP1, NSF, SPTBN5, MAP1B, C12ORF65, UVRAG, CLEC16A, EPS8, ZFAND1, MAP1A, NCKAP5, VPS16, LIM1A, ATG14, PDXP, SH3BP1, CHMP3, CHMP5, STMN4, DNAJC6, GSK3B, RDX, HDGFRP3, ZMPSTE24, SPEF1, MFS D8, MCOLN1, PPP1CA, RPL23, CAMSAP3, MTRF1, ETF1, MICAL3, SPTAN1</p>

GO:0033135	regulation of peptidyl-serine phosphorylation	0.013849320158932915	<i>NRXN1,PDE4D,NTRK3,TENM1,HSP90AA1,HDAC6,NTRK2,PAK1,BDNF,DMD,PAQR3,SH2D3C,BDKRB2,FNIP1,MAD2L2,CAPRIN2,NSD1,SMYD3,AXIN1,APP,MTCP1,SPTBN4,PRKDI,RAF1,PPM1F,EIF4G1,TERF2IP,ATP2B4,TFRC,BCAR3,RAPGEF3,SNCA,OPRD1,RPTOR,PTEN,PLCL2,RQCD1,EPM2A,CD44,NOS1,STK4,ANGPT1,BRAF,SH2D3A,INPP5F,MLXIPL</i>
GO:1901653	cellular response to peptide	0.014374425665783605	<i>ENPPI,PRKCI,SLC9A1,ADCY8,STAT5B,GRM5,FER,GOT1,CDC6,STXBP4,PTPN11,CCND3,INSR,PIP4K2A,SNX6,AP3S1,FYN,PLCB1,PIK3R2,HDAC5,SLC39A14,JAK2,KLF15,PRKCD,TGFB1,KANK1,GLP2R,EPHA4,FCGR2B,SMARCC1,IGF1R,PPARG,BRIP1,LEPROT,NR4A3,SORBS1,FOXO3,APP,STAT1,HNF4A,PTPN1,PIK3R3,PTPRE,SRSF5,IDE,IRS4,WDTC1,SP1,SNX5,MAP1B,CACNA1A,GHR,ROCK1,CAPN10,ABCC1,PTPN2,INSRR,PTPR4,BCAR3,RAB15,HMGCS2,IGF1,CHMP5,GPR21,ANO1,TSHR,PNPLA3,GRB14,GSK3B,STAT6,EEF2K,AGT,PTK2,SHC1,RPS6KB1,GPR173,EPHB2,SLC25A33,FBN1,PRKCZ,ATP1A3,CPEB1,OSBP1L,PRKCQ,PHIP,RPL23,HSF1,MAX,CAV2,DENND4C,TIMELESS,EDNRA</i>
GO:0035725	sodium ion transmembrane transport	0.014376244917853437	<i>SLC9A1,UTRN,SLC9A9,SLC24A2,SLC24A3,NETO2,STK39,SLC20A2,SLC4A10,SLC6A16,DMD,SLC8A1,SLC4A5,NALCN,FGF14,ANO6,SCN4A,SLC9A7,CACNA1H,SLC17A7,SCN3B,NEDD4,SLC4A4,SLC6A1,KCNK1,SLC9B2,SLC6A3,FXYP2,FXYP6,SLC9B1,KCNQ1,WNK1,SLC8A2,SLC9C1,TPCN1,ATP2B4,STOM,ANK3,SLC9C2,NETO1,SLC4A8,SCN8A,PKD2,SLC6A14,SCN9A,SLC5A10,NOS1,ACTN4,SCNN1B,ATP1A3,SCN1A,CAMK2D,NEDD4L</i>
GO:0055065	metal ion homeostasis	0.014416386025001475	<i>ASPH,PDE4D,SLC9A1,FAM155A,ADCY8,PTGFR,CHERP,RYR1,NOX5,ATP2B2,GRM5,PLCE1,ANK2,CHD7,HTR2B,RYR3,SLC24A2,SLC24A3,CCDC22,TCIRG1,CACNB2,ADORA1,ADRA1D,CNNM1,ESR1,CYB561A3,KCNMA1,LCK,SLC12A8,SGCD,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,CNNM2,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,SLC39A14,PTGER2,CLDN16,JAK2,NPSR1,TGFB1,KEL,JPH3,FE2RL1,C9ORF47,CDH23,DISC1,TMTC2,CAPN3,CNR1,TNFSF11,PARK2,SOD2,P2RY10,TRPM1,XK,RYR2,NOL3,CACNA1C,GRM1,SMAD3,ITPR1,ACKR2,APP,PDGFRA,IBTK,BDH2,DRD1,PRKDI,FGF2,ADCY5,ADCYAP1R1,KCNQ1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,BTBD9,TRPC5,NEO1,PKHD1,SLC8A2,TPCN1,SNX5,ATP2B4,ATP6V0A2,P2RY8,TFRC,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR35,AP3B1,SLC39A10,ANK3,TMEM199,ATP13A3,AP3D1,MCU,TRDN,TRPC6,ABCB7,ATP13A5,SNCA,HTT,SLC30A7,ATP6V1A,TMCO1,PKD2,STEAP4,BMP6,EXT1,GRIN1,TF,ITPR2,ALAS2,BOK,AGT,HRH4,HEPHE1,STC2,NOS1,SCNN1B,SLC1A1,XCR1,MCOLN1,STEAP3,ATP1A3,ADORA2A,GRIN2B,KCTD7,PACS2,DIAPH1,HTR2C,GRIK2,ATP2B3,CIB2,CAV2,TMPRSS3,CAMK2D,CCR3,NEDD4L,PTPRC,EDNRA</i>
GO:0032269	negative regulation of cellular protein metabolic process	0.014623110253370554	<i>ENPPI,PRMT3,PDE4D,DNMT1,LATS2,PRKAG2,MVP,FTO,NTRK3,CBL,MAP2K5,DNAJA3,OXRI,MGAT5,HDAC6,EPHA1,IKBKB,LIMK1,PMEPA1,PTPRO,TNRC6A,PRKARIA,SAMD4A,SNX6,CST2,DMD,SLC8A1,RBM4,FYN,NF1,DPEP1,PAQR3,BDKRB1,BDKRB2,FRY,FNIP1,ITIH2,FHIT,PTPRT,IPO5,MAD2L2,CAPRIN2,GNAQ,RFFL,ZFYVE28,KLF15,PRKCD,PPM1E,PIBF1,DNAJB2,SLIT2,ITIH4,CORO1C,KDM4B,SMAD6,ZNF675,NELL1,TIMP2,DUSP22,NAIP,YTHDF1,SMYD3,CAPN3,EPHA4,PIP5K1L,UFL1,CTNNB1,PARK2,SMARCC1,PPARG,PRKAR1B,OTUB1,PROS1,NOL3,PRKAR2A,MYOCD,PER2,GLG1,CSTL1,NF2,PAX2,SFRP1,SYNCRIP,SIMC1,DCP1B,APP,HEG1,IBTK,LRP5,DCUN1D3,RAF1,CELF4,CARD16,PTPN1,SPAG9,PPM1F,SEMA4D,JARID2,PRKCG,SPOCK1,EIF4G1,AGO3,DEPTOR,TSG101,TERF2IP,SUFU,PTPN13,COL4A3,TNRC6B,LDLRAD4,SIN3A,XDH,ATP2B4,CELF1,RNF34,GPC3,XRN1,DIS3L2,ROCK1,HIPK3,RYBP,PTPN2,TRIM44,MAP1A,PARD3,GNL3L,BCOR,ANXA8L1,LPA,SP11,DNMT3B,ATG14,EIF3H,STK38,RENB,P,SNCA,PNPT1,RC3H1,EIF3E,PSMF1,CAST,TRIP12,MLLT1,PTEN,SPRED2,BMP7,PUM1,LRRK2,TMEM59,BAG6,LILRB4,SERPINA3,SERPINA4,SERPINA5,PKIB,DNAJC1,GPI,SH3RF2,N4BP1,PRKAR2B,UBR5,RQCD1,EPM2A,GSK3B,DNAJC3,PTPRB,CD27,AGT,METTL16,PRKAA2,ADAR,EXOSC3,PARP10,PRG3,SERPINB11,DNAJB6,CD44,RGS14,EPHB2,DIS3,CPEB4,PAX6,PRKCZ,ADORA2A,RABGEF1,CPEB1,COL28A1,ANGPT1,LRRK1,IGF2BP3,MET2,CDK5RAP1,HDAC2,IMPACT,SPINT2,CD300A,PPP2CA,RPL23,ANXA2,PARN,CNOT1,WWTR1,YBX1,PTPRJ,TAF1,DHFR,INPP5F,CD109,UCHL5,SERPINE3,MLXIPL,PTPRC,SH3GL2,BMP4</i>
GO:0014070	response to organic cyclic compound	0.015231390537330275	<i>ASPH,PDE4D,SLC9A1,ADCY8,PTGFR,RYR1,PAGR1,NTRK3,CBL,EGLN2,FLT3,STAT5B,EZR,SLC26A6,HTR2B,RYR3,GOT1,NRIP1,HDAC6,ESR1,PMEPA1,EP300,PDGFB,PAK1,ESRRB,CHRM3,HLC5,PTPRU,RFTN1,SLC8A1,ARNTL,PLCB1,MGMT,ACSBG1,RGS8,DEFA1B,DEFA3,PTGER2,JAK2,CLDN1,PDE2A,LCOR,CCDC62,TGFB1,SGK1,BTRC,SLIT3,SLIT2,GABRB1,CHRM1,CLOCK,BCKDHB,HOMER2,FGF10,SMYD3,ADCY2,SLC16A1,RORA,CNR1,HBE1,UFL1,CTNNB1,PARK2,SOD2,IGF1R,PPARG,MSR1,CYBB,OTC,RYR2,NR4A3,CHEK2,SFRP1,FOXO3,TPH2,SSH1,NEDD4,ESRRG,SLC6A1,APP,YAP1,RNLS,ALPL,GNG2,DRD1,MMP2,ESR2,STAT1,SLC6A3,ATF2,EPHX1,GGT7,EPG5,ADCY5,RORC,PTAFR,ADCYAP1R1,DDX58,PRKCG,KCNQ1,TRPA1,AKAP6,NR2C1,GLI2,DAB2,BLM,SIN3A,RUVBL2,PELI1,ALK,ATP2B4,PAK3,DYX1C1,P2RX6,MAP1B,TYR,XRN1,PSMB2,TRPV1,GHR,ACTR2,ELAVL4,HDAC1,RECQL5,TRIM24,AXIN2,CARM1,SRDS2A,HTR1D,CTNNA1,RAPGEF3,SDK1,PDXP,SNCA,PNPT1,CNGA3,WNT7B,HMGCS2,KMT2D,ADTRP,DSG1,MAPK1,BMP7,LRRK2,GNA14,NSG2,PKD2,EFNA5,NCOA3,WNT7A,GLDC,BMP6,GPI,PLIN2,PNPLA3,PRMT2,RAPGEF2,KCNC2,SMO,PRKAR2B,CPT1A,SOX30,UBR5,RHOA,RQCD1,ITPR2,GABRB3,GSK3B,EEF2K,AGT,HRH4,PHEX,PDE4B,UGT1A1,RPS6KB1,STC2,CLDN4,SCNN1B,SLC1A1,IL18,PPARA,ABCD3,TAF2,ZNF366,ATP1A3,ADORA2A,NCOR2,DI</i>

			<i>APH1,HDAC2,HTR2C,IMPACT,ADCY1,CNOT1,SLC10A1,TAF1,TICAM1,HSF1,DHFR,NCOA2,CIB2,CAV2,PHB,BMP4</i>
GO:0072001	renal system development	0.01524042811094845	<i>ADAMTS16,DCHS2,PLCE1,LRP2,ROBO2,KIF26B,ERBB4,NPHP3,PTPRO,PDGFB,KIRREL3,BASPI,TFAP2A,CENPF,NF1,NFIA,ARL3,KLF15,WNT11,TGFB1,PCSK5,RPGRIP1L,SLIT2,TP73,SMAD6,BMPER,FGF10,GREB1L,EPHA4,CTNNB1,DLG5,FGF1,MYOCD,MYO1E,BICC1,PAX2,SFRP1,SMAD3,PDGFRA,YAP1,STAT1,STRA6,AP1B1,FGF2,KLHL3,RARB,ADAMTS6,COL4A3,GLI2,PKHD1,IQGAP1,GPC3,EYA1,NID1,EPCAM,AP2B1,EPHA7,PTK7,MAGI2,WNT7B,HMGCS2,BMP7,LRRK2,BAG6,PKD2,BMP6,EXT1,SMO,RHOA,ACTA2,SULF1,AGT,ZMPSTE24,PBX1,PYGO2,ARID5B,FBN1,NIPBL,ANGPT1,POU3F3,WWTR1,TRAF3IP2,EDNRA,BMP4</i>
GO:0043405	regulation of MAP kinase activity	0.015279230407037638	<i>NTRK3,FLT3,MAP2K5,KITLG,ROBO1,HTR2B,TENM1,TRAF6,AKAP13,PDGFB,INSR,PAK1,MAP3K4,ERN2,NF1,PAQR3,ROR2,NOX4,PRKCD,ZNF675,EPHA4,TNFSF11,PPARG,AXINI,FGF1,AJUBA,SFRP1,TAB1,S100A12,PTPN1,CDK12,FGF2,DVL3,TSGL101,NEK10,MAP3K7,GHR,HIPK3,STK38,MAP3K13,BMP7,LRRK2,PDGFC,AGT,MAP3K5,ADAM8,RGS14,CD300A,SYK,DVL2,PTPRJ,SASH1,PTPRC,TNXXB,BMP4</i>
GO:0001822	kidney development	0.01585272461142216	<i>ADAMTS16,DCHS2,PLCE1,LRP2,ROBO2,KIF26B,ERBB4,NPHP3,PTPRO,PDGFB,KIRREL3,BASPI,TFAP2A,CENPF,NF1,ARL3,KLF15,WNT11,TGFB1,PCSK5,RPGRIP1L,SLIT2,TP73,SMAD6,BMPER,FGF10,GREB1L,EPHA4,CTNNB1,DLG5,FGF1,MYO1E,BICC1,PAX2,SFRP1,SMAD3,PDGFRA,YAP1,STAT1,STRA6,AP1B1,FGF2,KLHL3,RARB,ADAMTS6,COL4A3,GLI2,PKHD1,IQGAP1,GPC3,EYA1,NID1,EPCAM,AP2B1,EPHA7,PTK7,MAGI2,WNT7B,HMGCS2,BMP7,LRRK2,BAG6,PKD2,BMP6,EXT1,SMO,RHOA,ACTA2,SULF1,AGT,ZMPSTE24,PBX1,PYGO2,ARID5B,FBN1,NIPBL,ANGPT1,POU3F3,WWTR1,TRAF3IP2,EDNRA,BMP4</i>
GO:0051480	regulation of cytosolic calcium ion concentration	0.017796118171469893	<i>ASPH,PDE4D,FAM155A,ADCY8,PTGFR,CHERP,RYR1,ATP2B2,GRM5,PLCE1,ANK2,CHD7,HTR2B,RYP3,SLC24A2,CACNB2,ADORA1,ADRA1D,ESR1,LCK,DMD,SLC8A1,JPH2,FYN,BDKRB1,BDKRB2,TMBIM6,CMKLR1,PTGER2,JAK2,NPSR1,TGFB1,JPH3,F2RL1,C9ORF47,CDH23,CAPN3,CNR1,P2RY10,TRPM1,RYR2,NOL3,CACNA1C,GRM1,SMAD3,ITPR1,ACKR2,PDGFRA,IBTK,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,TRPA1,NMUR2,AKAP6,TRPC5,SLC8A2,TPCN1,ATP2B4,P2RY8,CACNA1A,PTGER3,TRPV1,PLCG2,C1QTNF1,GPR35,TRDN,TRPC6,SNCA,HTT,PKD2,GRIN1,ITPR2,BOK,AGT,HRH4,NOS1,XCR1,MCOLN1,GRIN2B,DIAPH1,HTR2C,ATP2B3,CIB2,CAV2,CAMK2D,CCR3,PTPRC,EDNRA</i>
GO:0030100	regulation of endocytosis	0.01830135858407241	<i>CBL,RAB4B,RAB4B-EGLN2,INSR,RIT2,BMP2K,NRG1,CDH13,ANO6,MKLN1,F2RL1,AAK1,SLC17A7,PPP3CA,PPARG,SCAMP5,ANKFY1,PRKD1,PTPN1,NLGN1,MCTP1,ABCA13,AP2M1,TSGL101,KIF3A,HIP1,BTBD9,STON2,DAB2,PACSIN1,ATAD1,GPC3,SGIP1,TBC1D5,PLCG2,ROCK1,SH3GL3,AP2B1,SNX33,SNCA,MAGI2,RAB5B,MIB1,ATXN2,LRRK2,UNC119,DNAJC6,TF,EEF2K,NECAB2,PACSIN2,RABGEF1,ANGPT1,CD300A,ANXA2,NUMB,SYK,ANKRD13A,AXL,NEDD4L</i>
GO:0051603	proteolysis involved in cellular protein catabolic process	0.018911001283017596	<i>CALR3,FBXL2,DCAF12,CBL,USP32,TOM1L1,PSMD1,PSMB7,CCDC22,OMA1,DNAJB14,HDAC6,DDBI,CUL4B,FBXL18,ZYG11B,FBXL7,USP46,CHFR,USP34,FBXW11,RNF144A,TRIM13,UBR2,NPLOC4,USP13,MKRN2,ARNTL,FBXO21,PPP2CB,RNF4,UBE3D,FHIT,MAN1A1,FBXO9,RFFL,USP22,FBXW7,ITCH,USP12,SPSB1,MTA1,SIAH1,ERCC8,SPSB4,ASCC2,BTRC,DNAJB2,RNF133,RNF148,DISC1,ZFAND2A,CLOCK,FBXL17,KCTD10,SMURF2,EPHA4,UBQLN3,UBQLN1,UFL1,CTNNB1,PARK2,SMARCC1,AXIN1,RSPRY1,UBQLN4,CAPN2,RNFT2,WWP2,RNF168,NEDD4,SEC61B,USP49,ARIH1,AMFR,PRICKLE1,ERLIN1,VPS4A,ADAMTS12,PSMD11,USP33,UBE2R2,AGBL4,CDC27,YME1L1,KLHL3,PRKCG,AREL1,UCHL3,PSMD2,RBX1,ANAPC5,FBXO45,STT3B,FBXL20,TSGL101,DES1,IDE,SUFU,EDEM3,DAB2,UBR1,CACUL1,PSMD7,PEL1,PPP2R5C,ZNRF1,RBBP6,DYX1C1,UBE3C,RNF34,PSMB2,RNF216,RYP,P,CUL2,MAP1A,MAN1B1,FBXO39,FBXW4,EIF3H,USP42,USP50,RC3H1,RNF103,RNF103-CHMP3,RNF19B,PSMF1,TRIP12,ZNRF3,KCTD13,PTEN,MIB1,PCBP2,LRRK2,ZRANB1,BAG6,SEL1L2,SH3RF2,N4BP1,GET4,UBE2H,CUL3,EPM2A,GSK3B,DNAJC3,RNF144B,RNF43,CUL9,ZMPSTE24,PTK2,ARMC8,RNF121,FBXO10,TRPC4AP,RNFT1,CSNK1A1,UBE2K,FBXL13,RNF150,OTUD7B,TBL1X,FBXO31,C18ORF25,SKP1,RPL23,WWTR1,TAF1,ADAMTS7,GNAI2,UGGT1,UCHL5,MALTI,FBXL4,NEDD4L,RNF13,SGTB</i>
GO:0051272	positive regulation of cellular component movement	0.019847542146210446	<i>MAP4K4,CLASP2,SEMA3A,DOCK1,SEMA3D,MAPRE2,TJP1,NTRK3,SEMA5A,ENPP2,FER,KITLG,PIK3CD,ITGB1,MGAT5,HDAC6,EPHA1,ZNF609,PDGFB,STK39,INSR,PAK1,SLC8A1,CASS4,RTN4,NTN1,BDKRB1,DOCK8,CMKLR1,ROR2,CDH13,CD99,ANO6,CCBE1,JAK2,CLDN1,WNT11,SEMA5B,TGFB1,F2RL1,BCAS3,RRAS2,LAMC2,DAPK2,FGF10,SMURF2,EPHA4,PRKCA,PPP3CA,SOD2,IGF1R,FGF1,NR4A3,FLT4,HDAC4,SMAD3,NRP2,DOCK4,APP,PDGFRA,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,BMPR2,CAMK1D,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D,ELP3,PTAFR,LAMB1,RHOJ,KIF3A,RUFY3,DAB2,WNK1,RELN,SP1,CLASP1,PAK3,SSH2,SCARB1,SMOC2,PLCG2,TRIM46,SPI1,MCU,IGF1,MAPK1,BMP7,PDGFC,WNT7A,GPI,SH3RF2,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,AGT,PTK2,RPS6KB1,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,EPB41L4B,GPSM3,NIPBL,ANGPT1,GCNT2,ETS1,MAP2,FBXO31,DIAPH1,ATP8A1,ANGPT4,NUMB,SASH1,ZP3,MET,SEMA3C,PTPRC,BMP4</i>
GO:00	sequestering of	0.01987832	<i>ASPH,PDE4D,CHERP,RYR1,ANK2,CHD7,HTR2B,RYP3,LCK,DMD,SLC8A1,JPH2,BDKRB1,NPSR1,TGFB1,JPH3,CAPN3,RYR2,NOL3,CACNA1C,ITPR1,IBTK,DRD1,PR</i>

51208	calcium ion	120323495	<i>KDI,FGF2,TRPA1,AKAP6,TPCN1,TRPV1,PLCG2,TRDN,SNCA,HTT,PKD2,ITPR2,NOS1,XCR1,MCOLN1,DIAPH1,HTR2C,CAMK2D,PTPRC</i>
GO:0032409	regulation of transporter activity	0.020127320406113758	<i>NRXN1,ASPH,PDE4D,SLC9A1,NOS1AP,UTRN,GRM5,ANK2,ITGB1,CNIH2,ABCC8,NETO2,CACNB2,STK39,CAB39,AMIGO1,CHRM3,KCNRG,DMD,JPH2,SHISA9,STIM1,FGF14,PRKCD,SGK1,JPH3,CACNA1D,VMP1,PPARG,RYR2,SCN3B,WWP2,SHANK1,NEDD4,APP,NLGN2,FXSD2,FXSD6,RASGRF2,NLGN1,PTAFR,KCNQ1,NLGN3,AKAP6,WNK1,RELN,ABCB1,AHNAK,STOM,PLCG2,GPR35,ANK3,CACNG8,NETO1,TRDN,STAC,TRPC6,SNCA,CACNG2,HTT,CNIH3,PKD2,SHANK3,KCNC2,PDE4B,SLC5A3,NOS1,ACTN4,EPHB2,LRRCS2,KCTD7,CACNG3,CAMK2D,NEDD4L,SHISA6,EDNRA</i>
GO:0072507	divalent inorganic cation homeostasis	0.02015687756827664	<i>ASPH,PDE4D,FAM155A,ADCY8,PTGFR,CHERP,RYR1,ATP2B2,GRM5,PLCE1,ANK2,CHD7,HTR2B,RYR3,SLC24A2,SLC24A3,TCIRG1,CACNB2,ADORA1,ADRA1D,CNNM1,ESR1,LCK,SGCD,MICU3,DMD,SLC30A9,SLC8A1,JPH2,FYN,CNNM2,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,SLC39A14,PTGER2,JAK2,NPSRI,TGFB1,KEL,JPH3,F2RL1,C9ORF47,CDH23,DISC1,TMTC2,CAPN3,CNR1,TNFSF11,PARK2,P2RY10,TRPM1,XK,RYR2,NOL3,CACNA1C,GRM1,SMAD3,ITPR1,ACKR2,APP,PDGFRA,IBTK,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,TRPC5,PKHD1,SLC8A2,TPCN1,ATP2B4,P2RY8,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR35,AP3B1,SLC39A10,ANK3,ATP13A3,AP3D1,MCU,TRDN,TRPC6,ATP13A5,SNCA,HTT,SLC30A7,TMCO1,PKD2,GRIN1,ITPR2,BOK,AGT,HRH4,STC2,NOS1,SLC1A1,XCR1,MCOLN1,GRIN2B,PACS2,DIAPH1,HTR2C,GRIK2,ATP2B3,CIB2,CAV2,CAMK2D,CCR3,PTPRC,EDNRA</i>
GO:0050806	positive regulation of synaptic transmission	0.020644997134153176	<i>NRXN1,ADCY8,SLC24A2,LAMA2,CACNB2,ADORA1,NTRK2,RIMS1,NF1,ROR2,ZDHHC3,CLSTN2,SYT1,YTHDF1,EPHA4,CNR1,APP,NLGN2,DRD1,SHANK2,RASGRF2,NLGN1,PRKCG,NLGN3,RELN,SLC8A2,STAU1,SYT12,NTRK1,CACNG8,SNCA,CACNG2,KCTD13,SLC4A8,MAPK1,PTEN,SHANK3,GSK3B,RIMS2,RGS14,EPHB2,SLC1A1,PRKCZ,ADORA2A,GRIN2B,BRAF,TNR,ADCY1,GRIK2,CACNG3</i>
GO:0071840	cellular component organization or biogenesis	0.021092900688764793	<i>CD247,CLRN1,ENPPI,HOOK2,ADAMTS16,BLZF1,LDB2,NRXN1,ASPH,PRMT3,PRKCI,MOV10L1,TACC2,MAP4K4,PDCL,DNMT1,S1PR2,LLPH,SLC9A1,NEGR1,ADCY8,SPAG16,PDE4DIP,CLASP2,SEMA3A,GRID2,RPS6KA2,PRDM12,TENM3,DOCK1,CLDN18,KIF22,RYR1,NRG3,ASH1L,NOS1AP,TUBA1C,NOX5,SPESP1,IQCG,TLN2,EPB41,SEMA3D,PHACTR1,MYOT,NREP,SCAF8,TIAM2,FHOD3,MAPRE2,NLGN4X,TJP1,UNC5C,HPSE2,PRLR,UTRN,KALRN,PITPNC1,SEC23B,LTV1,PHACTR2,MRM1,NTRK3,CBL,EGLN2,MIA,RAB4B,RAB4B-EGLN2,SEMA5A,RAD51B,PTGES3L,TOX,ENPP2,GRM5,PLCE1,LHFPL4,SAMHD1,FER,RNU6-202P,MARVELD3,MAP2K5,ISCA1,LRP2,ANK2,OLFM1,MFAP5,STAG2,EZR,MEGF10,NRXN3,ROBO1,TOM1L1,CHD7,ITGB6,CDKL5,MECOM,TACCI,TENM1,CAMKMT,RYR3,KIF5C,LMNA,ROBO2,NFASC,CTNNA3,DNAJA3,VAV2,ABI1,ULK4,ITGB1,TRIOBP,HSP90AA1,ELMO2,GAS7,CDC6,PSMB7,PCDH17,KNDC1,ZC4H2,DSCAM,BCORL1,STK38L,CDAN1,CNGB1,TRIO,ARHGAP24,KLHL12,AKAP13,IFT43,TTL5,GF11B,PARD6G,PTPRK,RUNX1,DAB1,OMA1,CDC42EP3,MYO10,ABCC8,ERC1,HMGN3,CDH10,ERC2,XIRP2,IMPG2,ITGB3BP,LAMA2,CLVS1,MAST4,COL14A1,IL17RB,TCIRG1,PTPN11,KCNS3,CCT2,CACNB2,DOCK10,HDAC6,GOLGA4,SERTAD2,TBCEL,ADAMTS3,EPHA1,IKBKB,KIF18B,PEX14,ERBB4,CDH12,MRE11A,GBF1,DNAH2,LIMK1,TLK1,BRD8,ATP8A2,RNU6-78P,RAD54L2,TEX264,KAT6B,CUL4B,CECR2,ESR1,NPHP3,RNU6-179P,GRM7,PMEP1,PTPRO,KANSL1,NTRK2,STX18,DNAI2,EP300,DYM,TENM2,FNTA,HOOK3,RNU1-124P,PDGFB,RIMS1,TNIK,SNX2,KIRREL3,CDH8,CSGALNACT1,MID1,RNU6-1061P,CHFR,ALOX5AP,MSTO1,INSR,FMN2,RERE,PRKAR1A,AFAP1,ATP8B1,UNC5D,H2AFY2,LAMA3,TCF7L2,PIP4K2A,CDH4,HPS1,JMJD1C,PAK1,FBXW11,MAP3K4,PTPRD,CNTN5,TBR1,STRC,BDNF,GLTP,AMIGO1,GTPBP10,FANCA,KCNMA1,TGIF2-C20ORF24,NPRL3,FMNL2,PHACTR4,RNU6ATAC27P,TENM4,KCNRG,UBR2,ARHGAP6,MDM4,ECT2,SLC12A8,ZNF148,NAV2,ACOX1,VAMP7,LAMC1,RFTN1,ERN2,CD45,SHFM1,C1D,LRRK49,NPLOC4,PYROXD2,STARD9,DENND5A,DMD,CENPF,RNU6-1269P,CRISPLD2,PDS5A,KAT7,PRELID2,GSN,HFM1,RBM14,SATB2,RIT2,HIRA,TANC2,CASS4,KCTD16,FYN,ADAMTS9,NF1,PLCB1,DST,PCDH15,LMTK2,STX6,ARID4B,SNCB,FAT3,SH3BGR,RTN4,AFF2,RXFP1,GOLGA2P5,APOD,B4GALT6,RTN4R,VTA1,BCR,BRPF1,CCDC141,TTN,NDRG4,BMP2K,PAQR3,COA6,ADAMTSL1,RANBP9,TLL1,NTN1,EGFLAM,DCTN1,SLC4A5,NRG1,ARHGAP10,BDKRB1,BID,FRY,MAP2K1,FNIP1,RAPGEF6,VAX2,MYH9,FRMPD4,MAD1L1,LRFN5,VGLL4,PPP2CB,CNTN4,WDR92,VWA1,HDAC5,RBM5,NTNG1,NAV1,NFIA,RNF4,TMEM30A,CSNK2A3,SYNE1,PARD3B,LRGUK,ROR2,DCN,LIN7A,SCFD1,DOCK2,CDH13,PITPNB,AUNIP,UST,COPSS,DMC1,PCDHB16,EXOC4,MAD2L2,TLE6,RAB27A,CAPRIN2,MTX3,NCKAP1,TERF2,TMED6,SLX1B,GOLPH3L,CLDN16,RCC2,BOC,ANO6,ARL3,DNAJC11,KIF2A,ICK,RAD51D,TTL8,PARP11,COL12A1,RANBP1,USP22,ZDHHC15,JAK2,MYPN,FBXW7,KCNB2,SKAP1,SMC3,CLSTN2,UIMC1,SYT1,ITCH,CROCC,RNU1-2,RNU1-4,BBS12,SNAP25-AS1,LZTS1,BCL11B,SMG1,CLDN1,MLLT3,ATP9A,CDC42BPB,PLS1,TEX11,PDE2A,SEPT7,MAGI1,KCNC4,KPNA3,CYFIP2,CENPC,WNT11,IFT80,FIG4,MTA1,KREME</i>

			<p> <i>N1,IMMP2L,SIPA1L3,MKLN1,SLAH1,IL1RAPL1,CAMK2B,PRKCD,SEMA5B,PPM1E,TGFB1,BANP,LRCH3,SGK1,PDLIM4,ATL2,NUP93,MMP28,NSD1,PIBF1,KEL,ARMCI,CLDN10,F2RL1,BCAS3,PDZRN3,RPGRIP1L,DNAJB2,CELSRI,SLIT3,AAK1,SDK2,SLIT2,COLGALT1,TP73,SYT13,CDH23,CORO1C,CTNND2,DISC1,CEP135,KANK1,PTPDC1,GRPEL2,ANO4,LAMC2,COL23A1,CLN6,ANK1,CLMN,TTBK2,KDM4B,SPAG17,MMP26,SMAD6,COL24A1,ITSN2,PPFIBP2,ANO3,SMOC1,ETV6,SYNJ2,BCL3,DCLK1,RNF212,EIF3L,LYRM4,PARVA,DUSP22,STRIP1,HNRNPC,RNU6-816P,PDCD11,TRRAP,ANKFN1,SLC17A7,OIP5,LINGO2,YTHDF1,FGF10,CNTNAP2,SMYD3,STXBPS,KANK4,KCTD10,ENAH,IL1RAPL2,PPL,IQCJ-SCHIP1,LOXL3,RHPN2,MAST2,SVIL,CAPN3,SLC16A1,LUM,VMP1,EPHA4,HSD17B12,PRKCA,AUTS2,CNR1,SMG6,PPP3CA,GNG4,MAG,GATAD2B,LIX1L,UFL1,TRAK1,CTNNB1,MPRIP,PARK2,SOD2,RN7SL832P,FCGR2B,ARHGAP22,SMARCC1,TSNARE1,CDHR2,IGF1R,PPARG,NGRN,AXIN1,DLG5,MYO1D,BFSP1,ADD2,MSR1,CELF2,TRPM1,XK,SCAMP5,BRIP1,CENPP,ECM2,SREBF2,KCNJ12,CDK11A,KCNA6,NDUFA9,FBLIM1,CDK11B,DRAXIN,LEPROT,NIN,WDR45B,TUBGCP6,NOL3,RIOK2,ESCO1,MPP6,MYOCD,AJUBA,HAUS4,CPNE6,CHEK2,PHLDB1,KRT6B,UBQLN4,PRDM16,MYO1E,SPDYA,HCK,SORBS1,TBC1D14,RAB3GAP2,CAPN2,TBCK,CSPG4,DCC,ANKFY1,CTDP1,BAZ1B,MMP16,OBSCN,NF2,SMC2,HDAC4,PAX2,DNAH9,SPTBN1,HEPACAM2,ELN,TRABD2B,SPG11,SFRP1,DGKB,ARL13B,CNTN6,NFIB,MUC12,IFT122,DDX10,DNM3,SSH1,CELF5,ATP10D,SNX14,SMAD3,CUX2,THSD4,PTPRM,WIP1,MTBP,VPS39,RNF168,EMG1,ABI2,C10ORF90,SHANK1,SYT3,NEDD4,NRP2,ARHGEF18,BTBD3,PREX1,PLA2G4C,CRTAC1,SPAG6,KPNB1,NAV3,SLC6A1,RAB6C,PRTG,CDC73,APP,SSBP3,USP49,PDGFRA,BET1L,SLK,ADD3,DIP2B,KANSL2,NOX1,YAP1,HEG1,MYO1F,TEN1,FSTL4,NLGN2,VDAC1,EYA2,SH3D19,BORA,NVL,LRP5,PTPRG,ISLR2,SOX2,SETD2,ZDHHC6,GPC6,KIF24,TTTC39C,ADAMTS2,TEAD1,PLEKHA7,SPTBN4,VASH2,DRD1,TMEM14A,RFT1,SFMBT1,VILL,MMP2,ESR2,SYNE2,DCUN1D3,ERI2,CPNE9,KDM6A,GTTF2F2,PRKD1,CELF6,PARP6,OSBP2,DGKG,SYBU,RND3,HNF4A,TBCA,SHANK2,SHPRH,VPS4A,EREG,TCTN3,ABLIM1,MYOF,DSCAM1,RNU6-167P,PITRM1,SEMA6D,ATF2,TMEM237,KCNG4,RAF1,CELF4,ABLIM2,SMIM20,PTPN1,ADAMTS12,PSMD11,RNU6-923P,BMPR2,USP33,DPYSL2,VBP1,CAMK1D,NLGN1,COL16A1,CTNNA2,ATP9B,IKZF4,TAF8,CAND2,SPAG9,MORC2,RAB11A,CRMP1,EPG5,MYB,LRRC4C,PPM1F,NEDD9,PEAK1,ADAMTS4,SEMA4D,ARMC2,CDC27,HELQ,MCTP1,PLXNA2,POC1A,EEA1,SETD1A,YME1L1,ABCA13,JARID2,RILPL1,BRDT,CHCHD6,PI4KA,PIK3C2B,SPOCK1,BLOC1S5,EHMT1,GAS8,AP2M1,DVL3,EIF4G1,EPHB3,RNU6-229P,ANAPC5,ARHGAP39,FBXO45,TRAPPC11,SRSF5,PAWR,TRMT61B,AGO3,DEPTOR,TSG101,VCL,LAMB1,TERF2IP,WDR90,CLIC4,MYO9A,ANKS4B,COL11A1,KCNQ1,RFX2,WNT3,ADAMTS6,C11ORF80,RHOJ,NLGN3,ZFYVE1,PAFAH1B1,KIF3A,ADAMTS14,COL4A3,TRPA1,TRPM3,HIP1,AKAP6,CEP350,RASAL1,PADI6,BTBD9,TRPC5,TTL7,GLI2,NEO1,TNKS,WBP2NL,ERCC1,RUFY3,WDTC1,STON2,C9,COL19A1,DAB2,BLM,PKHD1,XKR4,TRAM2,LDLRAD4,MYSM1,SETD5,DZIP1,SMG5,DLG3,RELN,SIN3A,RUVBL2,ABCB1,DOCK11,IQGAP1,TMEM170A,SPATA18,COL6A5,EML4,FAM91A1,DDX47,ZNF423,MACF1,ARHGAP12,MYO7A,ALK,SLC8A2,STAU1,CLASPI,TOPI,MBOAT1,GPM6B,XDH,NFATC2,CHD1L,PRKG1,TTL9,NSF,SYNE3,PACSIN1,SPTBN5,ACTL6B,PAK3,HORMAD2,SSH2,TET1,DYX1C1,ATAD1,ADNP,CEP41,ARID4A,MAP1B,C12ORF65,CDC42BP4,COL4A6,MPHOSPH9,SCARB1,MARK1,PHF2,CELF1,AIF1L,TFRC,UVRAG,EPHA5,MEF2A,DHX30,DCUN1D5,DROSHA,GRPC3,SGIP1,XRN1,PLS3,SATB1,TBC1D5,PSMB2,ZNF207,CALD1,EYA1,DIS3L2,GNB3,TRPV1,TFEB,CLEC16A,MNAT1,FLRT2,FGD1,SNX9,DIAPH2,RPGR,ACTR2,L3MBTL4,ACACA,ELAVL4,FAM174B,HDAC1,RECQL5,SMOC2,PLCG2,ROCK1,EPS8,NID1,SCMH1,EGR2,CAPN10,GPR35,ABCC1,AP3B1,INSRR,NTRK1,ZFAND1,CAP1A,PKN2,PPP1R9A,EIF3A,ANK3,UNC13A,PTPRQ,EPHB1,EPHA10,PTPN9,AXIN2,NCKAP5,SARM1,TMEM199,PARD3,GNL3L,TRIM46,TUBB,SH3GL3,TEKT1,KCND3,BCOR,AP3D1,CARM1,AP2B1,ANXA8L1,NUDT5,ARHGAP44,SNX33,P1FO,SMARCA2,CUX1,RAD51C,SP11,EPHA7,MCU,RANBP10,PTPRA,VPS16,PPF1A4,CTNNA1,LIMA1,AIFM2,TRDN,ATG14,EIF3H,LRRC8C,LRRC8D,RNU6-979P,SHROOM3,ABCB7,ACOT8,NTMT1,FCHSD2,MAP3K13,RAPGEF3,SDK1,ADAMTS17,PDXP,SH3BP1,RNU2-47P,ERCC3,PTK7,SMYD1,SNCA,BMPR1B,HAUS3,CACNG2,CD53,MAGI2,PNPT1,USP50,ZEB2,MCMBP,FOXJ3,SYT9,HEY2,RC3H1,CHMP3,COL13A1,EIF3E,HYDIN,RNF103-CHMP3,RNU6-640P,WNT7B,PTPRS,ADAMTSL3,ZMYND11,KMT2D,CDKL1,RAB5B,KMT2C,TLL2,CAST,DFFA,ADTRP,ABCA12,CSRPI,PLD1,RASA1,MITF,SRSF6,OPRD1,CABIN1,HIPK1,PKP2,RPTOR,RTN4RL1,SGCZ,DSG1,VPS41,KCTD13,TROVE2,CBFA2T2,IGF1,STX8,ATF7IP,HTT,DPYSL3,MAPK1,PTEN,ARHGEF17,CLDN11,MIB1,BMP7,ATXN2,PIK3C3,LHFPL5,NUP88,TTL4,RAB30,LRRK2,OSGIN1,SEPT6,ZRANB1,EBAG9,SPAG5,UNC119,CHMP5,RAPH1,RFC3,BAG6,CHAF1B,IFT81,TMEM108,ITGAM,ARHGAP25,NSG2,PKD2,EFNA5,HSF2BP,SHANK3,KCTD1,STMN4,PDGFC,SERPINA5,AMOTL1,ATP8B4,PKIB,MTMR3,STEAP4,PPP2R3C,TBCD,TMCC1,WNT7A,SNAP23,BRWD3,NLRP1,MAP4,CRTC3,NME8,CEP89,KAT6A,MTIF2,BRBEPI,SH3PXD2B,RHOT1,SIK3,BMP6,MYCBP2,SOS1,TSHR,WDR43,EXT1,ATRX,IKZF1,PARVB,PNPLA3,SAMM50,RAPGEF2,CDH9,KCNC2,RNU6ATAC31P,SMO,GET4,SUN1,LSG1,BLOC1 </i> </p>
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			<p>S3,FDXACB1,GEMIN7,MARK4,PSEN2,TCF4,TNFRSF11B,SYT17,SOX30,DNAJC6,G RIN1,JADE1,KCTD8,ARRDC4,BBS9,RHOA,SYNGAP1,GRIN3A,MCM3,NDE1,ROR1,TF,ONECUT2,RHOBTB1,ESYT2,SHROOM1,CUL3,SH3KBP1,HSPD1,TSPAN33,EPM2A,ESF1,GABRB3,GSK3B,ABCG8,PLD2,PRR16,EMB,RDX,SYN1,EEF2K,FAM49B,N ECAB2,CDK13,TAPBPL,VAMPI1,BOK,SULF1,KRT8,NACC2,SUPT4H1,AGT,HDGFR P3,METTL16,CDH20,PRKA2,SYT7,ADAR,BLOC1S6,CUL9,ESPNL,PITPNM2,STAT 2,ZMPSTE24,PTK2,TPPP2,GTFE2E1,PEX5L,SNX3,EXOC6B,RIMS2,EXOSC3,TOMM5 ,CDC14A,GAP43,RNU6-1056P,SEC16B,CREBBP,TIMM44,IQGAP2,FAM171A1,UTP20,ARVCF,COL9A1,FM OD,COL21A1,CEP70,GTFF2IRD2,TAOK2,PYGO2,SHC1,NDUFS2,ALDOA,ECE1,PAR P10,YLPM1,RSBN1,SF3A1,PGM5,SETDB2,ITGAL,CPLX2,DNAJB6,CD44,FGD3,LAR P4,ADAM8,NOL10,ARFGAP3,CLDN4,PACSLN2,RPS6KA5,CD51,THSD7A,CSNK1A1 ,HUS1,FGD4,PEX7,TBC1D23,PLEKHA1,RGS14,ACTN4,COG4,STK4,TUBB3,ZFAN D6,MARK3,SPEF1,THSD7B,EPHB2,SLC1A1,TLL11,SIGMAR1,TMEFF2,TEX12,MF SD8,ASF1B,UBE2K,GPSM2,DIS3,DLC1,PPARA,PPP1R10,ABCD3,MCOLN1,EPB41 L4B,SLC25A33,SMARCA1,CCDC6,PRRC2C,SYTL4,PAX6,PRKCZ,ATP1A3,ADORA 2A,SPECC1L,GRIN2B,KCTD7,RABGEF1,STAG1,WDR83OS,COL22A1,PHLDB2,KL C3,KLHL1,NIPBL,YEATS4,COL28A1,PHF20,THSD1,UPB1,ANGPT1,BRF1,PACS2,E YA3,MBTD1,OSBPL8,SHROOM4,EPB41L2,ETS1,HACL1,PPP1C4,ARHGAP21,MAP 2,MTF2,BIN2,STPG1,KIFC3,NEBL,FBXO31,ATG3,CNTN1,PRKCQ,LGI2,MDN1,BRA F,DIAPH1,HDAC2,IMPACT,ATP8A1,SRAP,CAPN6,NOTO,SPINT2,TNR,CLTB,HIG D2A,CD300A,PHIP,CDKL3,EMC3,PPP2CA,ANGPT4,ARHGEF6,DNAJC9,FAM149B 1,RPL23,SH3BP4,RFC5,ACAN,CAMSAP3,SP100,VTI1A,ANXA2,CHCHD3,KCND2,P ARN,PRMT7,PITPNM3,FARSB,SRGAP2,TMEFF1,WIP1,ADCY1,NUMB,SQLE,SYK, CNOT1,WWTR1,GTFF2H5,SLIT1,FRMD5,CIT,RAB2A,SEC31B,UBAP2L,BRC42,HRK, RAP1GAP2,DVL2,MORC1,MTRF1,NEB,ANKRD13A,GRIPI,PTPRJ,TAF1,GPRIN3,TI CAM1,GPM6A,ITGAE,MYO1A,HSF1,MAX,DHFR,EZH1,ANKRD30BL,ETF1,SRPK2, ATP10B,PLEKHM1,HGSNAT,ASAP1,ADAMTS7,GBP5,MCM8,WDR18,BMP1,BMS1, CGNL1,FCHO1,GEMIN6,VAV3,CHD6,EPB41L1,MTFR2,CAV2,SKA2,SYNM,AKTIP, COL4A5,EPS15,POC1B,INPP5F,NUAK2,TBP,AXL,REPS2,TRIM37,CENPK,MET,FM NL1,MICAL3,CAMK2D,MRPL1,SNX1,BRD9,SETD3,INO80C,SPTAN1,TMEM120B,C CDC136,EHD2,KDM2B,SEMA3C,THEM4,TRAPPC8,CCT3,NEDD4L,UQCC1,NDCl, PHB,PTPRC,CTCF,SH3GL2,RNF213,SYNDIG1,NCAM1,TANC1,CREB1,RASSF8,SHI SA6,TNXB,CCDC170,EDNRA,PRAP1,STXBP6,BMP4,ABLIM3,CPNE1</p>
GO:00 07162	negative regulation of cell adhesion	0.02124194 1228215946	<p>PRDX2,B4GALNT2,MAP4K4,HLX,CBFB,CLASP2,SEMA5A,CASK,MAP2K5,ZSCAM, RUNX1,DAB1,PTPN11,PTPRO,PRKARIA,ARHGAP6,NF1,APOD,MAD1L1,CDH13, MAD2L2,RCC2,JAK2,ITCH,PRKCD,TGFB1,BCAS3,CORO1C,KANK1,DUSP22,LOX L3,EPHA4,FCGR2B,DLG5,NF2,MMP2,PPM1F,SEMA4D,PLXNA2,SPOCK1,PAWR, WNK1,PELI1,PRKG1,C1QTNF1,PTPN2,EPCAM,MUC1,SP1,RC3H1,ADTRP,ABCA1 2,RASA1,PTEN,LILRB4,EFNA5,TBCD,BMP6,PDCD1LG2,PAG1,RHOA,RDX,PTK2,A CTN4,EPHB2,DLC1,PPARA,NOTCH4,ADORA2A,PHLDB2,ANGPT1,GCNT2,SPINT2 ,TNR,CD300A,PTPRC,BMP4</p>
GO:00 32412	regulation of ion transmembrane transporter activity	0.02157115 0558703886	<p>NRXN1,ASPH,PDE4D,SLC9A1,NOS1AP,UTRN,GRM5,ANK2,ITGB1,CNIH2,ABCC8, NETO2,CACNB2,STK39,CAB39,AMIGO1,CHRM3,KCNRG,DMD,JPH2,SHISA9,STI M1,FGF14,JPH3,CACNA1D,VMP1,RYR2,SCN3B,WWP2,SHANK1,NEDD4,APP,NLG N2,FXSD2,FXSD6,RASGRF2,NLGN1,PTAFR,KCNQ1,NLGN3,AKAP6,WNK1,RELN, ABCB1,AHNAK,STOM,PLCG2,GPR35,ANK3,CACNG8,NETO1,TRDN,STAC,TRPC6, CACNG2,HTT,CNIH3,PKD2,SHANK3,KCNC2,PDE4B,NOS1,ACTN4,EPHB2,LRRCS 2,CACNG3,CAMK2D,NEDD4L,SHISA6,EDNRA</p>
GO:00 50775	positive regulation of dendrite morphogenesis	0.02164397 4408295637	<p>KALRN,CDKL5,PTPRD,CAPRIN2,IL1RAPL1,CAMK2B,EPHA4,CUX2,PARP6,PAFA H1B1,RELN,PAK3,ACTR2,CUX1,EEF2K,FBXO31,CDKL3</p>
GO:00 42127	regulation of cell population proliferation	0.02229414 5532670298	<p>ASPH,PRKCI,DNMT1,SIPR2,HLX,IL31RA,RPS6KA2,SETD4,PTGFR,CHERP,TJPI,N UDT6,HPSE2,PRLR,FTO,NTRK3,ARNT,SEMA5A,FLT3,RAD51B,STAT5B,TOX,FER, CASK,MARVELD3,MAP2K5,KITLG,LRP2,PIK3CD,SAALI,MEGF10,ROBO1,HTR2B, TENM1,LMNA,TRAF6,DNAJA3,GRK5,ABI1,ITGB1,CDC6,MCC,PTPRK,RUNX1,ABC C8,STXBP4,TCIRG1,DACH1,ADORA1,EPHA1,ERBB4,ADRA1D,ZNF609,ATP8A2,ES R1,CDON,NTRK2,CELA1,PDGFB,CCND3,TOB2,INSR,PRKARIA,TCF7L2,PAK1,EG LN3,TFAP2A,FANCA,MEIS1,MDM4,IL5RA,SHC4,MTA3,LAMC1,PTPRU,DMD,KAT7 ,NF1,RTN4,APOD,NDRG4,IFI30,NTN1,NRG1,BID,MAP2K1,FNIP1,MAD1L1,VGLL4 ,RBM5,CSNK2A3,ROR2,CDH13,PDF,PTGER2,JAK2,FBXW7,ITCH,BCL11B,CLDN1, WNT11,IFT80,NOX4,RPRD1B,RUNX2,TGFB1,SGK1,C9ORF47,DNAJB2,SLIT3,TP73 ,DISC1,LAMC2,CLMN,CHRM1,SMAD6,NELL1,KCNH1,TFAP2D,DUSP22,FGF10,G LP2R,EPHA4,PRKCA,CD6,UFL1,CTNNB1,SOD2,FCGR2B,IGF1R,PPARG,DLG5,BR IP1,FGF1,NR4A3,DCT,MYOCD,PER2,SPDYA,HCK,NF2,FLT4,HDAC4,PAX2,TPTE, ELN,SFRP1,ST8SIA1,FOXO3,NFIB,SMAD3,PTPRM,MTBP,SLC16A2,NRP2,CDC73,A PP,SSBP3,PDGFR4,NOX1,YAP1,NLGN2,LRP5,SOX2,CHST1,VASH2,FRS2,MMP2, PRKD1,STAT1,ST18,HNF4A,ZBTB7C,SHANK2,EREG,ATF2,TCF3,RAF1,BMPR2,BM PRIA,FGF2,AGBL4,PTAFR,JARID2,RARB,VIPR1,EEF1E1,GAS8,CHRD,ATF3,PAW R,AGO3,DLEC1,TSG101,LAMB1,WNT3,CCL14,SCUBE2,CNTFR,COL4A3,DDAHI,T RPC5,GLI2,DAB2,PKHD1,CACUL1,DLG3,PELI1,PPP2R5C,CFDP1,ZNF423,SP1,AL K,INPP5D,XDH,OVOL2,NFATC2,PRKG1,BNC1,TET1,CCPG1,CDK6,CELF1,TFRC,</p>

			GPC3,EYA1,DIS3L2,MNAT1,HDAC1,TRIM24,RNF10,PTPN2,NTRK1,TMIGD1,SLC39A10,EPHB1,AXIN2,EPCAM,PTPN14,JAG2,CARM1,SMARCA2,CTNNA1,FBXW4,MSMT1,BMPR1B,MAGI2,HEY2,RC3H1,KMT2D,MITF,SRSF6,HIPK1,RPTOR,BTK,IGF1,MAPK1,PTEN,BMP7,LRRK2,OSGIN1,LILRB4,MORC3,IL11RA,PKD2,PDGFC,WNT7A,BMP6,SOS1,TSHR,PDCD1LG2,RAPGEF2,SMO,ENPP3,RHOA,VIPR2,CUL3,STAT6,CDK13,BOK,SULF1,NACC2,TNFRSF8,AGT,STAT2,ZMPSTE24,NDRG2,PTK2,PBX1,MAP3K5,TCFL5,UTP20,PYGO2,SHC1,PARP10,RPS6KB1,ALOX5,STK4,EPHB2,IL18,DLC1,CALCRL,SLC25A33,PAX6,PRKCZ,ADORA2A,PPP1CC,TMIGD2,ZNF143,ANGPT1,GCNT2,ETSI,PRKCQ,BRAF,HDAC2,POU3F3,SPINT2,CD300A,PHIP,RPL23,SH3BP4,SQLE,SYK,WWTR1,BRCA2,DVL2,PTPRJ,TICAM1,HSF1,SRPK2,SULT2B1,VAV3,ZP3,CAV2,GNAI2,TNFSF9,CD109,CCR3,KDM2B,MLXIPL,PHB,PTPRC,CTCF,BMP4
GO:0045664	regulation of neuron differentiation	0.022639127194291633	NREP,ZNF536,ESRP1,ZC4H2,DAB1,CDON,BDNF,TGIF2,MEIS1,ECT2,DMD,CNTN4,NEUROD1,BCL11B,ZHX2,TP73,TCF12,MAG,SFRP1,FOXO3,CASZ1,HOXD3,APP,SOX2,TCF3,DYSL2,NLGN1,SPAG9,NCOA1,EIF4G1,TRPC5,GLI2,SIN3A,ALK,MAP1B,EYA1,BRINP1,ROCK1,SH3GL3,MAP3K13,HEY2,MIB1,BMP7,LRRK2,BMP6,TCF4,RHOA,GSK3B,BRINP3,PBX1,DLX1,PAX6,VWC2,CDK5RAP1,IMPACT,BMP4,CPNE1
GO:0031032	actomyosin structure organization	0.022639127194291633	SLC9A1,CLASP2,EPB41,PHACTR1,FHOD3,TJP1,ITGB1,AKAP13,EPHA1,LIMK1,PRKARIA,PAK1,ARHGAP6,ECT2,TTN,MYH9,MYPN,CDC42BPB,WNT11,PPM1E,RHPN2,CAPN3,SORBS1,OBSCN,NF2,ELN,SFRP1,SMAD3,ARHGEF18,PDGFRA,VPS4A,PPM1F,CLASP1,CDC42BPA,MEF2A,ROCK1,RAPGEF3,CSRPI,KCTD13,RHOA,CUL3,KRT8,FAM171A1,PGM5,TMEFF2,DLC1,EPB41L4B,PHLDB2,EPB41L2,NEBL,BRAF,FRMD5,CIT,NEB,CGNL1,EPB41L1,MET
GO:0014706	striated muscle tissue development	0.02285705307183873	HLX,SLC9A1,RYR1,FHOD3,HIVEP3,NDUFV2,LRP2,MEGF10,CHD7,LMNA,ITGB1,AKAP13,RUNX1,XIRP2,ERBB4,MYO18B,CDON,EP300,PRKARIA,NPRL3,TENM4,SGCD,DMD,CENPF,SLC8A1,JPH2,ARNTL,ADAMTS9,NF1,TTN,NDRG4,NRG1,VGLL4,NLN,RBFOX1,NOX4,SOX6,TGFB1,KEL,TP73,LRRC10,SVIL,PPP3CA,CTNNB1,XK,RYR2,MYOCD,CTDP1,HDAC4,ELN,SMAD3,PDGFRA,YAP1,HEG1,EYA2,RCAN1,FRS2,MYH15,BMPR1A,FGF2,JARID2,RARB,ATF3,COL1A1,AKAP6,COL19A1,MEF2A,EYA1,EGR2,EPHB1,SMYD1,HEY2,TLL2,PKP2,SGCZ,IGF1,PTEN,BMP7,ALPK3,SMO,MYLPF,RHOA,AGT,ZMPSTE24,RPS6KB1,PGM5,PPARA,FHL2,NEBL,NEB,CAV2,SEMA3C,CREB1,EDNRA,BMP4
GO:0001655	urogenital system development	0.023527106937158437	ADAMTS16,DCHS2,PRLR,PLCE1,LRP2,ROBO2,KIF26B,ERBB4,ESR1,NPHP3,PTPRO,PDGFB,KIRREL3,BASPI,TFAP2A,CENPF,NF1,NFIA,ARL3,KLF15,WNT11,TGFB1,PCSK5,RPGRIPI,SLIT2,TP73,SMAD6,BMPER,FGF10,GREB1,EPHA4,CTNNB1,DLG5,FGF1,MYOCD,MYO1E,BICC1,PAX2,SFRP1,SMAD3,PSAP,PDGFRA,YAP1,FRS2,MMP2,STAT1,STRA6,AP1B1,FGF2,KLHL3,RARB,EPHB3,ADAMTS6,COL4A3,GLI2,PKHD1,IQGAP1,GPC3,EYA1,NID1,EPCAM,AP2B1,EPHA7,PTK7,MAGI2,WNT7B,HMGCS2,PTEN,BMP7,LRRK2,BAG6,PKD2,BMP6,EXT1,SMO,RHOA,ACTA2,SULF1,AGT,ZMPSTE24,PBX1,PYGO2,EPHB2,ARID5B,FBN1,NIPBL,ANGPT1,POU3F3,WWTR1,TRAF3IP2,EDNRA,BMP4
GO:0000147	positive regulation of cell motility	0.02363774062200861	MAP4K4,CLASP2,SEMA3A,DOCK1,SEMA3D,MAPRE2,TJP1,NTRK3,SEMA5A,ENPP2,FER,KITLG,PIK3CD,ITGB1,MGAT5,HDAC6,EPHA1,ZNF609,PDGFB,STK39,INSR,PAK1,SLC8A1,CASS4,RTN4,NTN1,BDKRB1,DOCK8,CMKLR1,ROR2,CDH13,CD99,ANO6,CCBE1,JAK2,CLDN1,WNT11,SEMA5B,TGFB1,F2RL1,BCAS3,RRAS2,LAMC2,DAPK2,FGF10,SMURF2,EPHA4,PRKCA,PPP3CA,SOD2,IGF1R,FGF1,NR4A3,FLT4,HDAC4,SMAD3,NRP2,DOCK4,APP,PDGFRA,DRD1,MMP2,SYNE2,PRKD1,SEMA6D,BMPR2,CAMK1D,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9,SEMA4D,ELP3,PTAFR,LAMB1,RHOJ,RUFY3,DAB2,WNK1,RELN,SP1,CLASP1,PAK3,SSH2,SCARB1,SMOC2,PLCG2,SP1,MCU,IGF1,MAPK1,BMP7,PDGFC,WNT7A,GPI,SH3RF2,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,AGT,PTK2,RPS6KB1,ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,EPB41L4B,GPSM3,NIPBL,ANGPT1,GCNT2,ETSI,FBXO31,DIAPH1,ATP8A1,ANGPT4,NUMB,SASH1,ZP3,MET,SEMA3C,PTPRC,BMP4
GO:0008015	blood circulation	0.024158260024557704	ADAMTS16,ASPH,PDE4D,SLC9A1,SEMA3A,RPS6KA2,NOS1AP,TJP1,ATP2B2,ANK2,CHD7,HTR2B,RYR3,CTNNA3,ABCC8,THRB,CACNB2,ADORA1,ADRA1D,PTPRO,PDGFB,STK39,KCNMA1,CHRM3,NAV2,ARHGAP42,SGCD,DMD,SLC8A1,GSN,BCR,TTN,SLC4A5,BDKRB1,BDKRB2,F5,JAK2,PDE2A,IMMP2L,CACNA1H,SGK1,PCSK5,KEL,F2RL1,SLIT2,KCNJ3,CACNA1D,CNR1,SOD2,PPARG,CELF2,KCNJ12,RYR2,PER2,CACNA1C,SCN3B,HDAC4,ELN,TRHDE,SMAD3,ITPR1,DOCK4,NOX1,RNLS,TNNI3K,LRP5,SPTBN4,DRD1,MMP2,STAT1,MYOF,BMPR2,PTAFR,KCNQ1,COL4A3,DDAH1,WNK1,SLC8A2,KLK2,DSC2,SNX5,PRKG1,ATP2B4,MEF2A,ADRBK1,GNB3,TRPV1,ROCK1,KCND3,HTR1D,LPA,TRDN,RENBP,HEY2,PKP2,SGCZ,PRCP,BMP6,EXT1,RHOA,ACTA2,AGT,ZMPSTE24,PDE4B,ECE1,NOS1,PLVAP,SCNN1B,SLC1A1,PPARA,ATP1A3,ADORA2A,ANGPT1,SCN1A,PTPRJ,ATP2B3,TAC3,GNAI2,CAMK2D,NEDD4L,SH3GL2,EDNRA
GO:0016311	dephosphorylation	0.02458994237141267	NT5C1B,NT5C1B-RDH14,CTDSP2,PTPRR,INPP4B,PTPRK,PTPN11,MGAT5,ADORA1,IKBKB,PTPRO,FBXW11,PTPRD,LCK,PPM1L,PTPRU,SMG7,PPP4R2,PPP2CB,INPP4A,PTPRT,PP1R42,JAK2,FIG4,RPRD1B,PRKCD,PPM1E,BTRC,PTPRN2,PTPDC1,SYNJ2,DAPPI,DUSP22,SMG6,PPP3CA,PPP1CB,PPP2R2B,CTDP1,TNS3,TPTE,PPP6R2,SSH1,SMAD3,PTPRM,TAB1,EYA2,ALPL,PTPRG,RCAN1,LRRC2,PTPN1,PPA2,PPM1F,SEM

			<i>A4D,PTPRE,PTPN13,SMG5,PPP2R5C,IQGAPI,INPP5D,SSH2,CAMTA1,PHOSPHO2,EYA1,ROCK1,PTPN2,SLC39A10,PTPRQ,PTPN9,PTPN14,PTPRA,PDXP,MAGI2,PTPRS,HTT,PTEN,LRRK2,NT5E,NT5DC4,MTMR3,PPP2R3C,VRK3,DNAJC6,EPM2A,GSK3B,PPP1R16A,PTPRB,DUSP26,CDC14A,DLC1,PDP1,PHLPP1,ACPI,PPP1CC,EYA3,LRRK1,NT5M,PPP1CA,CD300A,PPP2CA,PTPRJ,PFKFB4,INPP5A,RNGTT,GNAL12,INPP5F,PTPRC,MTMR12</i>
GO:001503	ossification	0.02488928 295249406	<i>RDH14,ENPP1,CBFB,RYR1,SP3,TRAF6,SLC24A3,RUNX1,TCIRG1,PTPN11,CSGALNACT1,TOB2,TFAP2A,SLC8A1,SATB2,HIRA,NF1,CHRD1,BMP2K,ANKH,ROR2,ANO6,WNT11,IFT80,KREMEN1,ACVR2A,RUNX2,TGFB1,RRAS2,SMAD6,SMOC1,NELL1,SUCO,SND1,HNRNPC,SBNO2,TNFSF11,UFL1,CTNNB1,PPARG,MRC2,MMP16,HDAC4,SFRP1,SYNCRIP,SMAD3,YAPI,ALPL,LRP5,SOX2,MMP2,TPH1,PRKD1,BMPR2,BMPR1A,FGF2,SEMA4D,ITGA11,CHRD,COL11A1,WNT3,SUFU,SCUBE2,GLI2,RSPO2,GPM6B,ASGR2,CDK6,WWOX,GPC3,EGR2,AXIN2,BCOR,GLIS1,BMPR1B,COL13A1,WNT7B,IGF1,MAPK1,BMP7,BMP6,EXT1,SMO,RHOA,GSK3B,ADAR,FBN2,ZMPSTE24,PTK2,PHEX,PBX1,ALOX5,SP7,PEX7,FAM20C,NIPBL,ASPN,FHL2,SLC26A2,WWTR1,BMP1,PHB,BMP4</i>
GO:0072384	organelle transport along microtubule	0.02763121 956947607	<i>CNIH2,HDAC6,PEX14,FBXW11,AP3S1,DYNC1I1,TRAK1,LRRPRC,AP3B2,RAB6A,SYNE2,SYBU,AGBL4,BLOC1S5,PAFAH1B1,KIF3A,MAP1B,AP3B1,TRIM46,AP3D1,KIF3C,HTT,RHOT1,SUN1,BLOC1S3,NDE1,BLOC1S6,COPG2,PRKCZ,ARHGAP21,MAP2</i>
GO:0006836	neurotransmitter transport	0.02774838 9737845467	<i>NRXN1,CASK,NRXN3,ITGB1,DGKI,ERC2,CACNB2,SV2B,RIMS1,SLC6A16,NF1,ICA1,LIN7A,SYN2,SYN3,SYT1,PTPRN2,CADPS2,SLC17A7,STXBP5,CNR1,PARK2,PER2,RIMS4,GRIK5,SLC6A1,DRD1,SLC6A3,NLGN1,MCTP1,PRKCG,FBXL20,SLC22A3,GPM6B,SYT12,UNC13A,CHRN4,SNCA,GRM4,SYT9,SLC4A8,LRRK2,WNT7A,SNAP23,STXBP5L,GRIN3A,GSK3B,SYN1,MCTP2,SYT7,BLOC1S6,RIMS2,SLC29A1,CPLX2,NOS1,SLC1A1,ADORA2A,CADPS,BRAF,ADCY1,RPH3A</i>
GO:0048640	negative regulation of developmental growth	0.02860084 1272183115	<i>SEMA3A,WWC1,SEMA3D,WWC3,SEMA5A,RTN4,RTN4R,NTN1,VGLL4,SEMA5B,TP73,MAG,DRAXIN,DCC,CTDP1,DIP2B,FSTL4,SEMA6D,SPAG9,SEMA4D,JARID2,WNT3,TRIM46,EPHA7,PTPRS,TL2,PTEN,STC2,STK4,PPARA,MAP2,TNR,CDKL3,SLIT1,SEMA3C,BMP4</i>
GO:0051301	cell division	0.02931163 6068705	<i>CLASP2,TASIR2,LATS2,TUBA1C,NOX5,EPB41,MAPRE2,HDGF,STAG2,HTR2B,TACCI,SENP5,TRIOBP,CDC6,PARD6G,ITGB3BP,KIF18B,CECR2,PDGFB,CCND3,FBXL7,CHFR,FMN2,ESRRB,CDK14,ECT2,CENPF,PDS5A,KLHL21,DCTN1,MYH9,MAD1L1,PARD3B,CSPP1,MAD2L2,TLE6,RCC2,ARL3,KIF2A,SMC3,MLLT3,SEPT7,CENPC,TGFB1,RAB11FIP4,OIP5,SVIL,NSUN2,IGF1R,BRIP1,FGF1,DCT,HAUS4,CHEK2,PPP1CB,CTDP1,SMC2,SPTBN1,HEPACAM2,CDC44,CDK3,BORA,SETD2,VPS4A,EREG,CCNY,RAB11A,FGF2,NEDD9,CDC27,RAB11FIP3,ANAPC5,CKS1B,TSG101,PAFAH1B1,PRDM15,PADI6,TNKS,BLM,EML4,CLASP1,TOPI,CDK6,UVRAG,ZNF207,CDCA3,DIS3L2,HOXB4,SNX9,ACTR2,RECQL5,ROCK1,PKN2,ANK3,PARD3,SNX3,HMCN1,CUZD1,PDXP,HAUS3,MCMBP,CABLES1,CHMP3,RNF103,CHMP3,RASA1,MACC1,PIK3C3,SOX5,SEPT6,SPAG5,UNC119,CHMP5,PDGFC,NCOA3,WNT7A,MAP4,TTC28,EXT1,MARK4,RHOA,NDE1,CUL3,RBBP8,CDK13,CDC14A,SETDB2,CSNK1A1,RGS14,GPSM2,PAX6,SPECCIL,SPECCIL-ADORA2A,PPP1CC,STAG1,CCNG2,EPB41L2,PPP1CA,POU3F3,DCDC1,OPN1LW,NUMB,WWTR1,CIT,BRCA2,YBX1,SKA2,MICAL3,TIMELESS,LIG1</i>
GO:0048167	regulation of synaptic plasticity	0.02949485 383608509	<i>ADCY8,GRID2,GRM5,SLC24A2,ERC1,DGKI,ERC2,ADORA1,NTRK2,RIMS1,SLC4A10,NF1,SHISA9,CNTN4,LZTS1,CAMK2B,JPH3,YTHDF1,EPHA4,APP,DRD1,SHANK2,RASGRF2,MCTP1,SORCS2,PRKCG,RELN,SLC8A2,STAU1,MAP1B,SORCS3,SYT12,EGR2,MAP1A,NETO1,SNCA,MAPK1,PTEN,SHANK3,RAPGEF2,GRIN1,SYNGAP1,GSK3B,AGT,SYT7,RIMS2,CPLX2,RGS14,EPHB2,SLC1A1,PRKCZ,ADORA2A,GRIN2B,BRAF,TNR,ADCY1,GRIK2,SHISA6</i>
GO:0015698	inorganic anion transport	0.02971862 59102023	<i>ENPP1,CLCN1,GRM5,SLC26A6,SLC22A8,GABRA3,ATP8B1,SLC20A2,SLC4A10,SLC12A8,SLC5A6,ANKH,SLC4A5,SLC39A14,ANO6,ABCC2,SLC1A4,CLCA2,GABRR3,GABRB1,ABCC11,ANO4,XPR1,ANO3,SLC17A7,ANO2,SLC4A4,SLC6A1,VDAC1,GLRA2,PTAFR,CLIC4,KCNQ1,TG,NMUR2,ABCB1,CLIC5,GABRG3,ABCC1,GABRA6,LRRC8C,LRRC8D,CLCC1,SLC4A8,BEST3,ANO1,ANO8,GABRR2,GABRB3,CLDN4,SLC1A1,SLC26A2,GPR89A</i>
GO:0051494	negative regulation of cytoskeleton organization	0.03002202 6307138412	<i>CLASP2,FHOD3,TJP1,TRIOBP,HDAC6,MID1,ARHGAP6,GSN,RBM14,PRKCD,SLIT2,KANK1,TTBK2,KANK4,IQCJ-SCHIP1,RHPN2,SVIL,PARK2,ADD2,SPTBN1,SSH1,SHANK1,ARHGEF18,NAV3,ADD3,SPTBN4,VILL,CTNNA2,CLASP1,SPTBN5,SSH2,MAP1B,EPS8,LIMA1,SNCA,SHANK3,TBCD,RDX,FAM49B,HDGFRP3,SPEF1,TMEFF2,DLC1,PHLDB2,MAP2,CAMSA3,CGNL1,TRIM37,MET,SPTAN1</i>
GO:0045936	negative regulation of phosphate metabolic process	0.03168893 3773210165	<i>ENPP1,PDE4D,LATS2,PRKAG2,MVP,NTRK3,CBL,DNAJA3,MGAT5,EPHA1,IKBKB,PMEP1,PTPRO,PDGFB,PRKAR1A,PIP4K2A,SNX6,DMD,SLC8A1,NF1,PAQR3,BDKRB1,BDKRB2,PTPRT,IPO5,GNAQ,ZFYVE28,PRKCD,PPM1E,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,DUSP22,SMYD3,PIP5K1I,PARK2,PPARG,PRKAR1B,PRKAR2A,MYOCD,AJUBA,NF2,HDAC4,SFRP1,HEG1,IBTK,LRP5,PTPN1,SPAG9,PPM1F,SEMA4D,EIF4G1,DEPTOR,TSG101,TERF2IP,PTPN13,LDLRAD4,IQGAPI,XDH,ROCK1,HIPK3,PTPN2,PARD3,ATG14,STK38,SNCA,MLLT1,PTEN,SPRED2,BMP7,LRRK2,ILLRB4,PKIB,PRKAR2B,EPM2A,GSK3B,DNAJC3,PTPRB,AGT,ADAR,GCKR,RGS14,EPHB2,PPARA,PAX6,PRKCZ,ADORA2A,RABGEF1,ANGPT1,LRRK1,CDK5RAP1,IMP</i>

			<i>ACT, CD300A, PPP2CA, WWTR1, PTPRJ, INPP5F, CD109, MLXIPL, PTPRC, SH3GL2, BMP4</i>
GO:0021543	pallium development	0.031733640932039356	<i>TACC2, PHACTR1, ROBO1, TACC1, DAB1, CDON, NTRK2, KIRREL3, TBRI, DMD, NF1, PLCB1, RTN4, CCDC141, NEUROD1, TRAPPC9, SLIT2, DISC1, CNTNAP2, CTNNB1, IGF1R, NF2, BTBD3, DRD1, SYNE2, EIF2B5, FBXO45, LAMB1, PAFAH1B1, RELN, ALK, ATP2B4, CDK6, CELF1, EPHA5, HDAC1, SRD5A2, FOXF2, PTPRS, PTEN, TMEM108, SMO, SUN1, RHOA, NDE1, GSK3B, DLX1, PAX6, POU3F3, SRGAP2, EZH1, TRA2B</i>
GO:0034504	protein localization to nucleus	0.03206003435692837	<i>CLDN18, LATS2, FAM53A, TNPO3, HDGF, LMNA, EFCAB7, CCT2, ECT2, RANBP17, KAT7, FYN, NF1, AKAP13, XIRP2, SYNE1, IPO5, IPO11, JAK2, KPNB3, PRKCD, TGFBI, BANP, NUP93, BCL3, DCLK1, CIZ1, PPP3CA, TRIM8, NF2, SMAD3, KPNB1, YAP1, NVL, PRICKLE1, DRD1, PRKD1, TAF3, ATF2, TAF8, IPO9, TNPO1, SUFU, SIN3A, NXT2, TFRC, KPNB6, SNUPN, CTNNA1, BMP7, NUP88, LRRK2, LILRB4, MORC3, POM121C, SMO, SUN1, UBR5, EPM2A, GSK3B, AGT, ADAR, DNAJB6, GCKR, STK4, PPP1R10, KPNB4, OTUD7B, ANGPT1, OSBPL8, SKP1, RPL23, SP100, TRIM29, NUP214, SYK, WWTR1, CCT3, TRAF3IP2, BMP4</i>
GO:0061061	muscle structure development	0.032111420380786765	<i>DNMT1, HLX, SLC9A1, RYR1, FHOD3, HIVEP3, UTRN, LRP2, ANK2, MEGF10, CHD7, LMNA, ITGB1, AKAP13, XIRP2, LAMA2, ZNF609, LARGE, MYO18B, CDON, EP300, PDGFB, PRKARIA, TCF7L2, BASP1, BDNF, SGCD, DMD, CENPF, SLC8A1, RBM4, HIRA, JPH2, ARNTL, NF1, PLCB1, PLEKHM3, TTN, NRG1, MYH9, HDAC5, SYNE1, NLN, BOC, MYPN, RBFOX1, NOX4, CACNA1H, QKI, SOX6, TGFBI, PDLIM4, KEL, NFATC3, LRRK10, TCF12, KCNH1, PRR14, ADAM12, FGF10, SMYD3, SYTL, CAPN3, RORA, PPP3CA, CTNNB1, SOD2, ANKRD17, XK, RYR2, MYOCD, CAPN2, CTDPI, OBSCN, MEF2B, HDAC4, ELN, SMAD3, NFATC1, PDGFR4, HEG1, PRICKLE1, RCAN1, FRS2, SFMBT1, STRA6, EREG, MYOF, MYH15, BMPR2, BMPR1A, SPAG9, EVC, ITGA11, RARB, ATF3, COL11A1, CNTFR, AKAP6, COL19A1, TEAD4, SRA1, NFATC2, PAX7, MEF2A, EGR2, EPHB1, FMOX1, CD53, HEY2, TLL2, CSRP1, PKP2, SGCZ, IGF1, ALPK3, ZBED6, SMO, MYLPF, RHOA, KRT8, AGT, ZMPSTE24, MAP3K5, LBX2, RPS6KB1, PGM5, NOS1, ACTN4, IL18, PPARA, ARID5B, FHL2, NEBL, MBNL3, NEB, YBX1, CAV2, MYEF2, SETD3, EHD2, TANC1, CREB1, EDNRA, BMP4</i>
GO:0010038	response to metal ion	0.03273249932253092	<i>NRXN1, ASPH, GSS, ADCY8, RYR1, ADCY7, RYR3, ITPKB, DLG2, ABCC8, TCIRG1, CPNE4, ALOX5AP, TFAP2A, KCNMA1, ECT2, DPEP1, TTN, STIM1, PPP2CB, SYT1, CLDN1, CACNA1H, SYT13, KCNH1, RASA4, RASA4B, CAPN3, PPP3CA, PARK2, SOD2, MTF1, CYBB, OTC, RYR2, CPNE6, CPOX, TPH2, ARL13B, SYT3, NEDD4, SLC6A1, APP, GLRA2, CHUK, CPNE9, SLC6A3, NLGN1, EIF2B5, CLIC4, RASAL1, ERCC1, IQGAP1, TFRC, MEF2A, SYT12, MNAT1, PLCG2, ANK3, SNCA, CACNG2, SYT9, CNGA3, HMGC2, MAPK1, LRRK2, PKD2, BMP6, GPI, KCNC2, TNFRSF11B, SYT17, TF, EEF2K, PRKAA2, SYT7, NCF1, SLC1A1, MCOLN1, PPP1CA, BRAF, PPP2CA, ADCY1, ALG2, A3GALT2, HSF1, CAMK2D, NEDD4L, CREB1, SLC25A13, CPNE1</i>
GO:0001501	skeletal system development	0.03370109896913515	<i>TRPS1, CLDN18, RYR1, ASH1L, SPNS2, SP3, CHD7, ITGB6, KIAA1217, ABII, AKAP13, RUNX1, PTPN11, ANKRD11, EP300, DYM, CSGALNACT1, PIP4K2A, TFAP2A, MEIS1, SATB2, CH13L1, ANKH, TLL1, MDF1, CMKLRL1, ROR2, SLC39A14, PRPSAP2, FOXN3, FBXW7, TBX15, WNT11, IFT80, SOX6, ACVR2A, RUNX2, TGFBI, PCSK5, MUSTN1, TNFSF11, CTNNB1, GLG1, MMP16, HDAC4, SFRP1, NFIB, SMAD3, HOXD3, HOXD4, PDGFR4, ALPL, LRP5, SLC9B2, SETD2, CHST11, MMP2, DSCAML1, ATF2, ADAMTS12, BMPR2, BMPR1A, EVC, FGF2, ADAMTS4, SEMA4D, RARB, CHRD, MATN3, COL11A1, SUFU, SCUBE2, PAFAH1B1, GLI2, COL19A1, RSPO2, TEAD4, WWOX, PLS3, EYA1, HOXB3, HOXB4, HOXB5, HOXB6, GHR, AXIN2, JAG2, SRD5A2, FBXW4, TTC9, BMPR1B, COL13A1, WNT7B, IGF1, BMP7, SOX5, PDGFR, WNT7A, SH3PXD2B, BMP6, EXT1, TNFRSF11B, RHOA, SULF1, MTHFD1L, FBN2, ZMPSTE24, PHEX, PBX1, DLX1, CD44, PEX7, PLEKHA1, ARID5B, FBN1, FAM20C, NIPBL, LRRK1, MBTD1, CSRNPI, ACAN, ANXA2, ADAMTS7, BMP1, PTPRC, EDNRA, BMP4</i>
GO:0048013	ephrin receptor signaling pathway	0.03420821653599693	<i>KALRN, NTRK3, ANKS1B, PTPN11, EPHA1, PAK1, FYN, ARHGEF28, EPHA4, MMP2, EPHB3, PAK3, EPHA5, NTRK1, EPHB1, EPHA10, EPHA7, RASA1, EFNA5, PTK2, ANKS1A, EPHB2</i>
GO:0030517	negative regulation of axon extension	0.034355608623358735	<i>SEMA3A, SEMA3D, SEMA5A, RTN4, RTN4R, NTN1, SEMA5B, MAG, DRAXIN, DIP2B, SEMA6D, SEMA4D, WNT3, TRIM46, PTPRS, MAP2, TNR, CDKL3, SLIT1, SEMA3C</i>
GO:0000226	microtubule cytoskeleton organization	0.03499323240482612	<i>HOOK2, TACC2, SPAG16, PDE4DIP, CLASP2, TUBA1C, IQCG, MAPRE2, FER, STAG2, EZR, TACC1, LMNA, ULK4, ITGB1, TLL5, PARD6G, HDAC6, TBCEL, KIF18B, PEX14, DNAAH2, DNAAH2, HOOK3, MID1, FMN2, PAK1, FBXW11, LRRK49, STARD9, RBM14, DST, RANBP9, DCTN1, MYH9, WDR92, NAV1, RNF4, PARD3B, LRUG, AUNIP, TLE6, ARL3, KIF2A, RANBP1, SMC3, CROCC, PIBF1, BCAS3, DISC1, CEP135, TTBK2, SPAG17, ANKFN1, FGF10, SLC16A1, CTNNB1, AXIN1, NIN, TUBGCP6, HAUS4, CHEK2, PHLDB1, HEPACAM2, C10ORF90, KPNB1, NAV3, RAB6C, SLK, BORA, SETD2, KIF24, SYNE2, USP33, RAB11A, CRMP1, ARMC2, GAS8, PAFAH1B1, KIF3A, CEP350, TLL7, TNKS, PKHD1, DZIP1, EML4, CLASP1, TLL9, DYX1C1, MAP1B, MARK1, UVRA9, ZNF207, ROCK1, MAP1A, NCKAP5, PARD3, TRIM46, TRDN, NTMT1, SNCA, HAUS3, CHMP3, HYDIN, HTT, TLL4, SPAG5, CHMP5, PKD2, EFNA5, STMN4, PPP2R3C, TBCD, MAP4, SIK3, ATRX, SUN1, MARK4, RHOA, NDE1, GSK3B, HDGFRP3, PRKAA2, CUL9, CDC14A, CEP70, RGS14, TUBB3, MARK3, SPEF1, TLL11, GPSM2, PAX6, PRKCZ, STAG1, PHLDB2, MAP2, CAPN6, CAMSAP3, SRGAP2, BRCA2, SKA2, POC1B, TRIM37, MET, RASSF8, CCDC170</i>
GO:00	negative	0.03534106	<i>ENPP1, PDE4D, LATS2, PRKAG2, MVP, NTRK3, CBL, DNAJA3, MGAT5, EPHA1, IKBKB,</i>

10563	regulation of phosphorus metabolic process	584073046	PMEP1A,PTPRO,PDGFB,PRKARIA,PIP4K2A,SNX6,DMD,SLC8A1,NF1,PAQR3,BDKRB1,BDKRB2,PTPRT,IPO5,GNAQ,ZFYVE28,PRKCD,PPM1E,PIBF1,SLIT2,CORO1C,SMAD6,ZNF675,DUSP22,SMYD3,PIP5KL1,PARK2,PPARG,PRKAR1B,PRKAR2A,MYOCD,AJUBA,NF2,HDAC4,SFRP1,HEG1,IBTK,LRP5,PTPN1,SPAG9,PPM1F,SEMA4D,EIF4G1,DEPTOR,TSG101,TERF2IP,PTPN13,LDLRAD4,IQGAPI,XDH,ROCK1,HIPK3,PTPN2,PARD3,ATG14,STK38,SNCA,MLLT1,PTEN,SPRED2,BMP7,LRK2,LLRB4,PKIB,PRKAR2B,EPH2A,GSK3B,DNAJC3,PTPRB,AGT,ADAR,GCKR,RGS14,EPHB2,PPARA,PAX6,PRKCZ,ADORA2A,RABGEF1,ANGPT1,LRRK1,CDK5RAP1,IMPACT,CD300A,PPP2CA,WWTR1,PTPRJ,INPP5F,CD109,MLXIPL,PTPRC,SH3GL2,BMP4
GO:0051965	positive regulation of synapse assembly	0.03541159703842759	NRXN1,GRID2,NTRK2,PTPRD,BDNF,AMIGO1,CLSTN2,IL1RAPL1,LINGO2,DLG5,CUX2,NLGN2,NLGN1,SEMA4D,EPHB3,NLGN3,ADNP,FLRT2,NTRK1,EPHB1,EFNA5,WNT7A,EEF2K,EPHB2,SYNDIG1
GO:0008360	regulation of cell shape	0.03579220736829987	EPB41,EZR,CDC42EP3,MYO10,FMNL2,FYN,MYH9,SEPT7,PALMD,MKLN1,PARVA,FBLIM1,HCK,ARHGEF18,RND3,SEMA4D,PLXNA2,RHOJ,KIF3A,CFDP1,AKAP2,SYNE3,FGD1,EPS8,DNMBP,COCH,SHROOM3,RASA1,BRWD3,PARVB,RHOA,RHOB,TB1,SH3KBP1,RDX,ZMPSTE24,PTK2,FAM171A1,TAOK2,ALDOA,ARHGAP15,FGD3,FGD4,DLC1,DIAPH1,PHIP,GNA12,FMNL1
GO:0007204	positive regulation of cytosolic calcium ion concentration	0.03618245818550352	ASPH,PDE4D,FAM155A,ADCY8,PTGFR,CHERP,RYR1,PLCE1,ANK2,CHD7,HTR2B,RYR3,SLC24A2,CACNB2,ADRA1D,ESR1,LCK,DMD,SLC8A1,JPH2,FYN,BDKRB1,BDKRB2,TMBIM6,CMKLR1,PTGER2,JAK2,NPSRI,TGFB1,JPH3,F2RL1,C9ORF47,CAPN3,CNR1,P2RY10,TRPM1,RYR2,NOL3,CACNA1C,GRM1,ITPR1,ACKR2,PDGFRA,IBTK,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,TRPA1,NMUR2,AKAP6,TRPC5,SLC8A2,TPCN1,ATP2B4,P2RY8,CACNA1A,PTGER3,TRPV1,PLCG2,C1QTNF1,GPR35,TRDN,TRPC6,SNCA,HTT,PKD2,GRIN1,ITPR2,AGT,HRH4,NOS1,XCR1,MCOLN1,GRIN2B,DIAPH1,HTR2C,CIB2,CAMK2D,CCR3,PTPRC,EDNRA
GO:0048511	rhythmic process	0.03651025536168444	ENOX1,STAT5B,MAPK10,ROBO2,NRIP1,DDBI,ADORA1,ESR1,NTRK2,EP300,FBXW11,RBM4,ARNTL,GNAQ,FBXW7,MTA1,SPSB4,BTRC,SLIT3,SLIT2,GABRB1,GPR176,CLOCK,ENOX2,ANKFN1,FBXL17,KCNH7,RORA,IGF1R,PPARG,CIPC,NDUFA9,PER2,PPP1CB,FOXO3,TPH2,PDGFRA,MMP2,TPH1,HNF4A,EREG,NLGN1,RORC,PKCKG,KCNQ1,BTBD9,SIN3A,SP1,ADNP,HDAC1,EGR2,NTRK1,PSPC1,BMPR1B,CREM,PTEN,ARNTL2,MYCBP2,GRIN3A,GSK3B,PRKAA2,CREBBP,CLDN4,PLEKHA1,PPARA,PHLPP1,ADORA2A,PPP1CC,PPP1CA,NCOR2,HDAC2,KCND2,ADCY1,NCOA2,ZP3,AXL,TIMELESS,TYRO3,CREB1
GO:0010468	regulation of gene expression	0.036827885213148344	POLDIP3,ENPP1,PRDX2,LDB2,NRXN1,ASPH,PRKCI,MOV10L1,SLC3A1,PDE4D,DNMT1,HLX,SLC9A1,PBX3,ADCY8,MED13L,TRPS1,CBFB,PDE8A,ZNF823,IL31RA,RPS6KA2,PRDM12,SETD4,PTGFR,MED26,WWC1,ASH1L,NOS1AP,NOX5,SCAF8,TOX2,PTGIS,WWC3,PAGR1,ADCY7,HIVEP3,FTO,NPAS3,UBAP2,NTRK3,ARNT,LRRFIP2,STAT5B,TOX,EXD1,GRM5,ZNF566,FER,CASK,MAP2K5,MAPK10,PIK3CD,ZNF536,SP3,HDGF,ANK2,EIF4G3,OLFM1,EZR,IKZF2,ROBO1,CHD7,HTR2B,ITGB6,MECOM,TACC1,MIR1185-1,TENM1,LMNA,TRAF6,ESRP1,DNAJA3,NHLH1,HSP90AA1,SLC24A3,PSMB7,TSC2D3,ZC4H2,CCDC22,CNGB1,GF11B,PTPRK,RUNX1,ABCC8,ERCI,HMGN3,NRIP1,THRB,MIR105-2,MIR767,EFCAB7,ITGB3BP,TCIRG1,DACH1,PTPN11,ZNF569,ORC2,HDAC6,SERTAD2,MYT1,IKBKB,PEX14,ERBB4,ZNF609,BRD8,KAT6B,ACTG2,HIF3A,SNIP1,ESR1,MIER1,PCBP3,MAML3,CDON,NTRK2,TNRC6A,EP300,CELA1,TENM2,ZNF76,RNF220,ZNF471,PDGFB,RIMS1,CCND3,TOB2,ZNF19,ZNF23,BRMS1,ZNF605,SCML4,BPI,HNF4G,INSR,RERE,PRKAR1A,FUBP1,ATP8B1,H2AFY2,TCF7L2,JMJD1C,ZNF443,ZNF490,ZNF564,ZNF709,ZNF799,LITAF,FBXW11,ESRRB,MYO1,MAP3K4,BA-SPI,RBM20,TBRI,SAMD4A,TFAP2A,CDK14,FANCA,PEG3,ZIM2,TGIF2,TGIF2-C20ORF24,FUT8,MEIS1,VRTN,TRIM13,MDM4,IL5RA,SHC4,ZNF148,MTA3,SNX6,TFDP2,PTCD3,RFTN1,ERN2,C1D,NPLOC4,AFF3,DMD,CENPF,SLC30A9,TOX3,LARP4B,USP13,KAT7,ZNF667,SLC8A1,GSN,KHDRBS2,RBM14,RBM4,MED12L,SATB2,RIT2,HIRA,FYN,MKRN2,ARNTL,NF1,SMG7,PLCB1,ARID4B,RTN4,AFF2,APOD,RWDD3,BRPF1,CHI3L1,TTN,PIK3R2,SLC4A5,NRG1,UBP1,MIR600HG,MAP2K1,MDF1,FNIP1,VAX2,MYH9,TMBIM6,VGLL4,PPP2CB,PPP3R1,HDAC5,CSRNP3,RBM5,ZNF692,NFIA,RNF4,JDP2,CMKLR1,TSPAN8,ROR2,DCN,PCBD2,HNRNPLL,CDH13,CREBRF,TRDMT1,SOX13,COPSS,MAD2L2,TLE6,RAB27A,CAPRIN2,ZNF418,PHF20L1,TERF2,ZNF286A,FOXN3,NEUROD1,CCBE1,USP22,JAK2,TRAPPC9,FBXW7,SKAP1,UIMC1,ITCH,MLIP,ABCC2,BCL11B,SMG1,RBFOX1,PKNOX1,MLLT3,TSHZ2,TCF7,PDE2A,KLF15,TBX15,ANXA4,WNT11,MTA1,KLF8,LCOR,RPRD1B,OKI,CCDC62,PRKCD,SOX6,ACVR2A,RUNX2,CD4,TGFB1,BANP,SGK1,NSD1,IGSF1,PIBF1,ZHX2,PKNOX2,ASCC2,BTRC,NFATC3,MIR153-2,F2RL1,BCAS3,C9ORF47,CDYL2,SLIT3,CC2D1B,MIR218-1,TP73,SAP18,ZBTB22,ILF2,MTDH,FANK1,MYT1L,SMAD6,BNC2,ZNF398,CLOCK,TCF12,ZNF675,ETV6,NELL1,TFAP2D,BCL3,SNB1,DUSP22,HNRNPC,TRRAP,HOMER2,SBNO2,YTHDF1,FGF10,SMYD3,LOXL3,MAST2,CAPN3,LUM,SMURF2,RORA,HIVEP2,PRKCA,AUTS2,CD6,TNFSF11,SMG6,PPP3CA,NSUN2,NFYB,MAGEA4,KLF12,CAMK4,GATAD2B,UFL1,TRAK1,CTNNB1,PARK2,SOD2,DACH2,METTL13,FCGR2B,SMARCC1,KLF17,PPARG,NGRN,AXIN1,IL18R1,IL1RL1,CIPC,MTF1,MSR1,CELF2,CBX5,CYBB,SCAMP5,BRIP1,LRPPRC,SREBF2,CDK11A,CDK11B,FGF1,NPAT,

			<p>NR4A3,FOXK2,NOL3,RIOK2,MYOCD,TRIM5,PER2,KIR2DL4,AJUBA,GLG1,ZNF626,ZNF737,CHEK2,SUPT3H,PRDM16,PPP1CB,HCK,CAPN2,TRIM8,DIO2,BRMS1L,ZBTB8A,ZBTB8B,CTDP1,ZUFSP,BAZ1B,FLT4,MEF2B,HDAC4,PAX2,PHF5A,SECISBP2L,SPTBN1,SFRP1,MED13,ZNF395,FOXO3,NFIB,SP4,ZCCHC17,CELF5,SYNCRIP,SMAD3,CUX2,WWP2,ARNT2,SBN01,KRBOX1,ZNF662,ZNF777,EBF3,RNF168,CASZ1,DCP1B,MIER3,NEDD4,ESRRG,HOXD3,HOXD4,NAV3,ZNF114,KTI12,NFATC1,CDC73,APP,SSBP3,GSX2,PDGFRA,RBM8A,NOX1,YAPI,HEG1,LRP5,POLR3G,ZNF787,SOX2,SETD2,TEAD1,PRICKLE1,ZNF653,ZNF521,DRD1,ARID3A,ZNF761,CHUK,SFMBT1,ZNF584,ESR2,S100A12,KDM6A,PRKD1,STAT1,CELF6,ST18,ETV5,RHOXF2B,TAF3,PLAGL1,HNF4A,ZBTB7C,TASP1,EREG,RBFOX3,ATF2,POU2F2,TCF3,ZNF730,RAF1,CELF4,ZNF766,CARD16,CASP1,SRRM4,POLA1,BMPR2,CAMK1D,BMPR1A,ZKSCAN1,PABPC4,IKZF4,PIK3R3,CDK12,CAND2,MORC2,DENND4A,MYB,FGF2,ZNF71,POU6F2,BACH1,MXD3,PPM1F,GLI4,ZFP41,BEND5,SEMA4D,NFX1,RORC,ELP3,PTAFR,SP140,SP140L,RHOXF2,JARID2,DDX58,BRDT,PHC2,RARB,SPEN,SIN3B,NCOA1,EHMT1,LMO7,DVL3,EIF2B5,EIF4G1,TCF20,ATF3,LIN28B,SRSF5,LINC00461,CKS1B,PAWR,EBF2,AGO3,MAML2,TSG101,CCDC3,TERF2IP,CRYM,KCNQ1,RFX2,WNT3,ZNF322,SUFU,MAGEA11,PTPN13,PRDM15,ZNF670,ZNF695,CCDC169-SOHLH2,SOHLH2,ZNF354C,TCEA3,PADI6,ZNF704,NR2C1,GLI2,TNKS,WBP2NL,ERCC1,TNRC6B,GLIS3,WDC1,ZNF664,DAB2,BLM,PKHD1,MYSM1,SETD5,SMG5,RNLN,SIN3A,RUVBL2,COMMD6,GMEB1,PEL1,IQGAP1,MAP3K7,ZNF423,SP1,TRIM22,ALK,SLC8A2,INPP5D,TEAD4,FASTKD5,HOXC13,APBB3,SLC35A4,SRA1,TOP1,UBE2V1,ADIRF,XDH,AHNAK,LTBP1,OVOL2,SNX5,NFATC2,PAX7,BNC1,ATP2B4,ACTL6B,ASXL3,TET1,CAMTA1,CCPG1,ADNP,MAPKAPK2,ARID4A,MARK1,CDK6,PHF2,CELF1,TFRC,EPAH5,WWOX,MEF2A,MIR1226,DCAF6,DROSHA,XRN1,SATB1,PSMB2,EYA1,GATAD2A,DIS3L2,GNB3,TRPV1,RBM12B,RNF216,HOXB3,HOXB4,HOXB5,HOXB6,MIR10A,TFEB,MNAT1,ACTR2,L3MBTL4,ELAVL4,HDAC1,RECQL5,TRIM24,PLCG2,ROCK1,SCMH1,C1QTNF1,PAXIP1,ZNF713,EGR2,RNF10,RBYP,AP3B1,PTPN2,NTRK1,KPNA6,TRIM44,ANK3,AXIN2,EPCAM,ZNF425,MUC1,PTPN14,BCOR,AP3D1,ZNF41,CARM1,ZNF383,ADAM19,CD84,ZNF616,ZNF836,SMARCA2,CUX1,MIR1302-10,SPII,DNMT3B,FOXP2,PSPC1,GLIS1,SFMBT2,ATG14,EIF3H,JAZF1,RBPMS,CHURC1,CREB5,MAP3K13,MST1,SMYD1,CHID1,SNCA,BMPR1B,PNPT1,USP50,ZEB2,FOXJ3,HEY2,RC3H1,EIF3E,PTPRS,ZMYND11,KMT2D,PRKAG1,CREM,KMT2C,CASST,ADTRP,PLD1,MACCI,MITF,SRSF6,OPRD1,RPTOR,NFIX,BTK,MIR383,MLLT1,TROVE2,CBA2T2,IGF1,MLXIP,ATF7IP,MAPK1,PTEN,BMP7,ATXN2,MXI1,PUM1,SOX5,CIR1,PCBP2,ZNF780A,ZNF780B,LRRK2,TMEM59,ZBTB20,LILRB4,PKD2,ZNF652,KCTD1,RIPPLY1,RCOR3,TADA2A,DAZL,NCOA3,ZNF146,ZNF565,CUEDC2,WNT7A,ZBED6,BRWD3,NLRP1,CRTC3,DNAJC1,ARNTL2,KAT6A,MTIF2,ZKSCAN7,ZNF197,ZNF660,BMP6,TAF15,MYCBP2,NFE2L1,GPI,WDR43,ZNF30,N4BP1,PDCD1LG2,ATRX,DPH6,IKZF1,PRMT2,ASCC1,SMO,RALY,TCF4,AFF1,SOX30,TFE3,UBR5,GRIN1,JADE1,RHOA,ROR1,RQCD1,TF,ONECUT2,CUL3,TFEC,HSPD1,NFKBID,EPM2A,GSK3B,PRR16,DNAJC3,RDX,STAT6,ACTA2,MLF1,FAM49B,RBBP8,CDK13,UPF2,DUSP26,SULF1,ZNF362,NACC2,SUPT4H1,TNFRSF8,ZNF354A,AGT,HMGFR,P3,METTL16,PRKAA2,ADAR,STAT2,ZMPSTE24,NDRG2,UPK3B,PDE4B,PBX1,EXOSC3,MAP3K5,SEC16B,TCFL5,CREBBP,DLX1,GTTF2IRD2,NCF1,SHC1,ZNF813,CD160,LBX2,PARP10,RPS6KB1,STC2,DPRX,PRG3,SETDB2,Alox5,DNAJB6,SP7,LARP4,ADAM8,RPS6KA5,ZNF484,ZNF93,MIR346,PRDM2,CXCL17,NOS1,N4BP1,MED15,RGS14,ACTN4,MC1R,TCF25,ZNF282,EPHB2,EDRF1,IL18,DIS3,PPARA,ARID5B,EPB41L4B,SMARCA1,CPEB4,GPSM3,NOTCH4,ZMYND8,ZNF366,CRX,PAX6,PRKCZ,ZC3HAV1,CD96,ADORA2A,PPP1CC,RABGEF1,CPEB1,OTUD7B,NIPBL,TMIGD2,YEATS4,PHF20,ZNF143,ANGPT1,BRF1,TBL1X,FHL2,MBTD1,ATF6,ZBTB5,ZNF708,IGF2BP3,GCNT2,ETS1,PPP1CA,MTF2,RBMS3,BTN3A2,TAGLN3,CDK5RAP1,CNTN1,NCOR2,PRKCQ,BRAF,CSRNP1,HDAC2,IMPACT,MIR1912,SRCAP,POU3F3,NOTO,MBNL3,ZKSCAN5,ELF2,PHIP,PPP2CA,RPL23,ATXN1,SP100,ZNF347,ZNF415,TRIM29,PARN,PRMT7,ADCY1,RBM42,SYK,CNOT1,RBM39,WWTR1,GTTF2H5,ASB1,NFXL1,ZBTB38,BRCA2,ATF7,DVL2,MORC1,MTRF1,YBX1,PTPRJ,SLC10A1,TAF1,EIF4E3,TICAM1,THAP3,CADM1,HSF1,MAX,SAP130,DHFR,EZH1,ETFI,MIR663B,NRF1,SRPK2,NCOA2,GBP5,EEFSEC,QRICH1,ZP3,CHD6,RNF2,ZNF554,MYEF2,AXL,TRI M37,MET,ZNF461,CAMK2D,TIMELESS,BRD9,MALT1,SETD3,TRA2B,KDM2B,MLX1PL,PHB,PTPRC,EDA,ZNF555,CTCF,SH3GL2,NR6A1,SPON2,TRAF3IP2,TRIM60,ATF6B,CREB1,RGBM,TRAP1,AFF4,CLNK,EBF4,ZNF511,BMP4,ABLIM3,CPNE1</p>
GO:0048729	tissue morphogenesis	0.03801793211118072	<p>ADAMTS16,CLASP2,SEMA3A,ASTN2,LRP2,PIK3CD,ROBO1,CHD7,TRAF6,ROBO2,ITGB1,PSMB7,KIF26B,ARHGAP24,XIRP2,ERBB4,ACTG2,CECR2,ESR1,NPHP3,PRKAR1A,LAMA3,PAK1,TFAP2A,PHACTR4,MDM4,PCDH15,TTN,NDRG4,NTN1,NRG1,ROR2,EXOC4,MLLT3,WNT11,TGFB1,BTRC,RPGRIP1L,CELSR1,SLIT2,FGF10,GRB1L,SMURF2,EPA4,CTNNB1,AXIN1,DLG5,RYR2,FGF1,AJUBA,CSMD1,NF2,PAX2,SFRP1,ARL13B,IFT122,SMAD3,NRP2,VANGLI1,YAPI,HEG1,EYA2,LRP5,SETD2,GPC6,PRICKLE1,FRS2,MMP2,KDM6A,STAT1,ADAMTS12,BMPR2,BMPR1A,FGF2,KLHL3,DVL3,VCL,CLIC4,MYO9A,COL11A1,WNT3,SUFU,PAFAH1B1,GLI2,DAB2,PKHD1,DLG3,RSP02,LUZP1,ARHGAP12,CLASP1,OVOL2,GPC3,PSMB2,EYA1,HOXB4,JAG2,EPAH7,SHROOM3,SH3BP1,MST1,PTK7,MAGI2,HEY2,WNT7B,PKP2,ZNF3,PTEN,MIB1,BMP7,PKD2,SHANK3,WNT7A,GPI,SOS1,EXT1,PRICKLE2,SMO,MY</p>

			<i>LPF,RHOA,ROR1,ACTA2,SULF1,MTHFD1L,AGT,PBX1,LBX2,SETDB2,CD44,STK4,SPEF1,WLS,TMEFF2,DLC1,NOTCH4,PHLDB2,PPP1CA,NOTO,SPINT2,CAMSAP3,DVL2,MET,TIMELESS,ANKRD6,KDM2B,SEMA3C,VPS52,EDNR4,BMP4</i>
GO:0050730	regulation of peptidyl-tyrosine phosphorylation	0.03844378 220605475	<i>IL31RA,MVP,CBL,FLT3,ENPP2,GRM5,KITLG,AB11,PTPN11,ADORA1,ERBB4,PDGF,SNX6,CASS4,FYN,NRG1,JAK2,FBXW7,ZFYVE28,NOX4,PRKCD,CD4,PIBF1,DU SP22,DOCK3,FGF10,EPHA4,CSPG4,NF2,SFRP1,APP,IBTK,EREG,PTPN1,NEDD9,SEMA4D,TSG101,DLG3,RELN,ADNP,GHR,PLCG2,PTPN2,EPHA7,IGF1,UNC119,LI LRB4,EFNA5,PDGFC,BMP6,AGT,TEC,NCF1,SHC1,CD44,IL18,PRKCZ,ANGPT1,LR RK1,CNTN1,HDAC2,CD300A,PPP2CA,ANGPT4,SYK,DVL2,PTPRJ,HSF1,INPP5F,P TPRC</i>
GO:0048016	inositol phosphate-mediated signaling	0.03958915 128176423	<i>SLC9A1,CHERP,PLCE1,NRG1,PPP3R1,NFATC3,HOMER2,PPP3CA,ITPRI,NFATC1,RCAN1,NMUR2,AKAP6,NFATC2,ATP2B4,CAMTA1,PLCG2,IGF1,ITPR2,GSK3B,FH L2,TBC1D10C,INPP5A</i>
GO:0016567	protein ubiquitination	0.04066957 0397405	<i>LNK2,PRMT3,CBFB,FBXL2,RNF145,DCAF12,CBL,TRAF6,DNAJA3,HSP90AA1,PSM B7,ZC4H2,KLHL12,KLHL7,HERC4,HDAC6,DDB1,LIMK1,CUL4B,FBXL18,RNF220,FBXL7,CHFR,ASB5,FBXW11,RNF144A,TRIM13,UBR2,FYN,MKRN2,FBXO21,NOSIP,KLHL21,RNF4,UBE3D,WDSUB1,WDR70,MAD2L2,FBXO9,RFFL,HERC5,USP22,FB XW7,UBR7,ITCH,SPSB1,TRIM59,MTA1,SLAH1,ERCC8,SPSB4,BTRC,PDZRN3,DNAJ B2,KLHL2,ASB15,RNF133,RNF148,FBXL17,UNKL,KCTD10,SH3RF3,FANCI,SMUR F2,UFL1,CTNNB1,PARK2,AXIN1,OTUB1,RSPRY1,TRIM5,PER2,ASB8,TRIM8,RNFT 2,WWP2,MTBP,RNF168,C10ORF90,NEDD4,CDC73,ARIH1,AMFR,PRICKLE1,DCU N1D3,SHPRH,CAND2,UBE2R2,NFX1,CDC27,KLHL3,PRKCG,AREL1,LMO7,UCHL3, RBX1,ANAPC5,FBXO45,FBXL20,TSG101,TNKS,WDTC1,UBR1,PELI1,DCAF5,TRIM 22,ZNRF1,UBOX5,UBE2V1,RBBP6,HECTD4,MKRN3,UBE3C,RNF34,DCAF6,DCUN ID5,PSMB2,CDCA3,RNF216,TRIM24,PAXIP1,RNF10,RYPB,CUL2,TRIM44,GNL3L, BCOR,FBXW4,RC3H1,RNF103,RNF103-CHMP3,RNF19B,UBE2QL1,TRIP12,ZNRF3,KCTD13,PTEN,MIB1,LRRK2,SEL1L2,M YCBP2,SH3RF2,N4BP1,UBE2H,UBR5,ARRDC4,SPRTN,WSB2,CUL3,EPM2A,RNF14 4B,RNF43,CUL9,RNF121,DCAF10,FBXO10,TRPC4AP,PARP10,RNFT1,FBXO28,MA RCH8,UBE2K,FBXL13,RNF150,ANGPT1,FBXO31,ATG3,UBE2E2,C18ORF25,SKP1, RPL23,WWTR1,ASB1,TAF1,TICAM1,RNF38,SASH1,RNF2,AKTIP,TRIM37,MALTI1,T RIM69,KDM2B,NEDD4L,RNF213,TRAF3IP2,TRIM60</i>
GO:0051651	maintenance of location in cell	0.04109168 099044619	<i>ASPH,PDE4D,CHERP,RYR1,ANK2,CHD7,HTR2B,RYR3,LCK,DMD,SLC8A1,GSN,RI T2,JPH2,BDKRB1,SYNE1,NPSR1,CD4,TGFB1,JPH3,CIZ1,CAPN3,RYR2,NOL3,CAC NA1C,ITPRI,GRIK5,IBTK,DRD1,PRKD1,TAF3,TAF8,FGF2,PAFAH1B1,TRPA1,AKA P6,TPCN1,UVRAG,TRPV1,PLCG2,ANK3,AP3D1,TRDN,SNCA,HTT,SLC30A7,MORC 3,PKD2,SUN1,ITPR2,NOS1,XCR1,GPSM2,MCOLN1,ARHGAP21,DIAPH1,HTR2C,S KP1,SP100,ANKRD13C,CAMK2D,PTPRC</i>
GO:0036465	synaptic vesicle recycling	0.04130360 682885987	<i>NLGN4X,SNCB,DENND1A,SYT1,ITSN2,SYNJ2,SLC17A7,DNM3,NLGN2,NLGN1,ABC A13,AP2M1,NLGN3,BTBD9,STON2,PACSIN1,ROCK1,AP3B1,AP3D1,SNCA,LRRK2, WNT7A,DNAJC6,PLD2,SYT7,RAB27B,ITSN1</i>
GO:0040017	positive regulation of locomotion	0.04171583 879260053	<i>MAP4K4,CLASP2,SEMA3A,DOCK1,SEMA3D,MAPRE2,TJP1,NTRK3,SEMA5A,ENPP 2,FER,KITLG,PIK3CD,ITGB1,DSCAM,MGAT5,HDAC6,EPHA1,ZNF609,PDGFB,ST K39,INSR,PAK1,SLC8A1,CASS4,RTN4,NTN1,BDKRB1,DOCK8,CMKLR1,ROR2,CDH 13,CD99,ANO6,CCBE1,JAK2,CLDN1,WNT11,SEMA5B,TGFB1,F2RL1,BCAS3,SLIT2, RRAS2,LAMC2,DAPK2,FGF10,SMURF2,EPHA4,PRKCA,PPP3CA,SOD2,IGF1R,FG F1,NR4A3,FLT4,HDAC4,SMAD3,NRP2,DOCK4,APP,PDGFRA,DRD1,MMP2,SYNE2, PRKD1,SEMA6D,BMPR2,CAMK1D,PIK3R3,SPAG9,RAB11A,FGF2,PPM1F,NEDD9, SEMA4D,ELP3,PTAFR,LAMB1,RHOJ,RUFY3,DAB2,WNK1,RELN,SP1,CLASP1,PAK 3,SSH2,SCARB1,SMOC2,PLCG2,SPII,MCU,IGF1,MAPK1,BMP7,PDGFC,WNT7A,G PI,SH3RF2,RAPGEF2,SMO,RHOA,TF,ONECUT2,RDX,ACTA2,AGT,PTK2,RPS6KB1, ADAM8,CLDN4,CXCL17,PLVAP,ACTN4,STK4,EPHB2,EPB41L4B,GPSM3,NIPBL,A NGPT1,GCNT2,ETS1,FBXO31,DIAPH1,ATP8A1,ANGPT4,NUMB,SASH1,ZP3,MET,S EMA3C,PTPRC,BMP4</i>
GO:0048017	inositol lipid-mediated signaling	0.04211997 218597487	<i>FBXL2,NTRK3,CBL,FLT3,PLCE1,PIK3CD,EZR,HTR2B,ERBB4,NTRK2,PDGFB,INS R,ENTPD5,NF1,PLCB1,PIK3R2,ROR2,DCN,JAK2,F2RL1,PLCB4,KCNH1,IGF1R,TP TE,NEDD4,PDGFRA,FGF2,SEMA4D,PTAFR,PI4KA,PIK3C2B,PTPN13,RELN,NTRK 1,PLD1,IGF1,PTEN,PIK3C3,PDGFC,PLCL2,ROR1,PLD2,AGT,PITPNM2,PTK2,NCF 1,CD160,RPS6KB1,PLEKHA1,IL18,ANGPT1,INPP5F,TYRO3</i>
GO:0033555	multicellular organismal response to stress	0.04350599 7523658635	<i>USP46,VWA1,ANKFN1,PPP3CA,CAPN2,DRD1,ADCYAP1R1,PRKCG,EIF4G1,FBXL 20,TRPA1,NMUR2,RELN,BRINP1,TRPV1,NTRK1,HMGCS2,PTEN,SHANK3,EXT1,SC N9A,RPS6KB1,NOS1,EPHB2,SLC1A1,HTR2C,GRIK2,MORC1</i>
GO:0043406	positive regulation of MAP kinase activity	0.04360022 5067030395	<i>NTRK3,FLT3,MAP2K5,KITLG,ROBO1,HTR2B,TENM1,TRAF6,AKAP13,PDGFB,INS R,PAK1,MAP3K4,ERN2,ROR2,NOX4,EPHA4,TNFSF11,AXIN1,FGF1,AJUBA,TAB1,S 100A12,PTPN1,FGF2,DVL3,NEK10,MAP3K7,GHR,MAP3K13,LRRK2,PDGFC,MAP3 K5,ADAM8,SYK,DVL2,SASH1,PTPRC</i>
GO:0060537	muscle tissue development	0.04376526 850198183	<i>HLX,SLC9A1,RYR1,FHOD3,HIVEP3,NDUFV2,LRP2,MEGF10,CHD7,LMNA,ITGB1, AKAP13,RUNX1,XIRP2,ERBB4,MYO18B,CDON,EP300,PRKARIA,NPRL3,TENM4,S</i>

			<i>GCD,DMD,CENPF,SLC8A1,JPH2,ARNTL,ADAMTS9,NF1,TTN,NDRG4,NRG1,VGLL4,NLN,RBFOX1,NOX4,SOX6,TGFB1,KEL,TP73,LRR10,SVIL,PPP3CA,CTNNB1,XK,RYR2,MYOCD,CTDP1,HDAC4,ELN,SMAD3,PDGFRA,YAP1,HEG1,EYA2,RCAN1,FRS2,STRA6,MYH15,BMPRI1,FGF2,JARID2,RARB,ATF3,COL11A1,AKAP6,COL19A1,MEF2A,EYA1,EGR2,EPHB1,SMYD1,HEY2,TLL2,CSR1,PKP2,SGCZ,IGF1,PTEN,BMP7,PKD2,ALPK3,SMO,MYLPP,RHOA,AGT,ZMPSTE24,RPS6KB1,PGM5,PPARA,FHL2,NEBL,NEB,CAV2,SEMA3C,CREB1,EDNRA,BMP4</i>
GO:0001525	angiogenesis	0.04415406183968074	<i>NRXN1,NOX5,PTGIS,TJP1,SEMA5A,ENPP2,MAP2K5,PIK3CD,NRXN3,ROBO1,VAV2,ITGB1,ARHGAP24,RUNX1,ABCC8,EPHA1,HIF3A,CELA1,MEIS1,ADAMTS9,NF1,RTN4,APOD,CHI3L1,UBP1,STIM1,MYH9,HDAC5,DCN,CDH13,PLXDC1,CCBE1,FBXW7,PKNOX1,BCAS3,SLIT2,MTDH,BMPER,PARVA,ADAM12,FGF10,RORA,PRKCA,CTNNB1,ARHGAP22,PPARG,CYBB,LEPR,FGF1,CSPG4,FLT4,SFRP1,PTPRM,NRP2,PDGFRA,NOX1,JAK1,ANGPTL4,SETD2,VASH2,MMP2,PRKD1,STAT1,EREG,ATF2,TSPAN12,PIK3R3,FGF2,ISM1,EPHB3,CLIC4,RHOJ,COL4A3,DDAH1,APOLD1,SP1,OVOL2,ATP2B4,TMEM2,CALD1,HOXB3,SMOC2,ADIPOR2,ROCK1,EPHB1,RAPGEF3,ADTRP,HIPK1,PTEN,PRCP,AMOTL1,WNT7A,RHOA,PTPRB,SULF1,AGT,PTK2,SHB,SHC1,CD160,ALOX5,ADAM8,THSD7A,CXCL17,STK4,EPHB2,IL18,CALCR1,NOTCH4,COL22A1,TMIGD2,ANGPT1,ETS1,ANGPT4,SP100,ANXA2,SYK,SRPK2,SASH1,VAV3,CCR3,RNF213,EDNRA,BMP4</i>
GO:0046058	cAMP metabolic process	0.0448792475496112	<i>PDE4D,PDE7B,ADCY8,PDE8A,ADCY7,PDE4A,LINC00473,ADCY2,ADCY5,ADCY9,PDE4B,ADCY1,ADCY10</i>
GO:0060828	regulation of canonical Wnt signaling pathway	0.045123654077305245	<i>GPC5,LATS2,SEMA5A,PSMB7,MCC,NPHP3,PTPRO,RNF220,TCF7L2,USP34,CDK14,PTPRU,ARNTL,ROR2,SOX13,MAD2L2,TLE6,CAPRIN2,CCNYL1,GNAS,MLLT3,WNT11,KREMEN1,BTRC,CTNND2,KANK1,FGF10,SMURF2,PARK2,AXIN1,DRAXIN,BICC1,SFRP1,FOXO3,SMAD3,YAP1,AMFR,SOX2,PRICKLE1,CCNY,FGF2,DKK2,RBX1,PRDM15,TNKS,DAB2,WNK1,RUVBL2,RSP02,GPC3,PSMB2,HDAC1,INVS,AXIN2,PTK7,ZEB2,ZNRF3,LRRK2,UBR5,JADE1,GSK3B,SCEL,CSNK1A1,STK4,WLS,TBL1X,LRRK1,PPP1CA,RBMS3,WWTR1,ANKRD6,EDA,SHISA6</i>
GO:0000311	regulation of AMPA receptor activity	0.04513983810276199	<i>NRXN1,CNIH2,SHISA9,SHANK1,NLGN2,NLGN1,NLGN3,RELN,CACNG8,CACNG2,CNIH3,SHANK3,CACNG3,SHISA6</i>
GO:0022898	regulation of transmembrane transporter activity	0.0467114562143887	<i>NRXN1,ASPH,PDE4D,SLC9A1,NOS1AP,UTRN,GRM5,ANK2,ITGB1,CNIH2,ABCC8,NETO2,CACNB2,STK39,CAB39,AMIGO1,CHRM3,KCNRG,DMD,JPH2,SHISA9,STIM1,FGF14,JPH3,CACNA1D,VMP1,RYR2,SCN3B,WWP2,SHANK1,NEDD4,APP,NLGN2,FXND2,FXND6,RASGRF2,NLGN1,PTAFR,KCNQ1,NLGN3,AKAP6,WNK1,RELN,ABCB1,AHNAK,STOM,PLCG2,GPR35,ANK3,CACNG8,NETO1,TRDN,STAC,TRPC6,SNCA,CACNG2,HTT,CNIH3,PKD2,SHANK3,KCNC2,PDE4B,NOS1,ACTN4,EPHB2,LRRK2,CACNG3,CAMK2D,NEDD4L,SHISA6,EDNRA</i>
GO:0045773	positive regulation of axon extension	0.04850934814871792	<i>SEMA5A,CDKL5,DSCAM,GOLGA4,LIMK1,CDH4,NTN1,DISC1,ISLR2,BMPR2,RAB11A,PAFAH1B1,TRPC5,RUFY3,MACF1,ADNP,MAP1B,MAP3K13</i>
GO:0021885	forebrain cell migration	0.0488074020037026	<i>NRG3,ROBO1,DAB1,RTN4,CCDC141,NRG1,SLIT2,DISC1,CTNNB1,ARL13B,DRD1,SYNE2,FBXO45,LAMB1,PAFAH1B1,RELN,LRRK2,SUN1,RHOA,POU3F3,TNR,SRGA,P2,SLIT1,AXL,TYRO3</i>
GO:0055074	calcium ion homeostasis	0.04934355538392671	<i>ASPH,PDE4D,FAM155A,ADCY8,PTGFR,CHERP,RYR1,ATP2B2,GRM5,PLCE1,ANK2,CHD7,HTR2B,RYR3,SLC24A2,SLC24A3,TCIRG1,CACNB2,ADORA1,ADRA1D,ESR1,LCK,SGCD,MICU3,DMD,SLC8A1,JPH2,FYN,BDKRB1,BDKRB2,STIM1,TMBIM6,CMKLR1,PTGER2,JAK2,NPSR1,TGFB1,KEL,JPH3,F2RL1,C9ORF47,CDH23,DISC1,TMTC2,CAPN3,CNRI,TNFSF11,P2RY10,TRPM1,XK,RYR2,NOL3,CACNA1C,GRM1,SMAD3,ITPR1,ACKR2,APP,PDGFRA,IBTK,DRD1,PRKD1,FGF2,ADCY5,ADCYAP1R1,CCL14,CCL15,TRPA1,NMUR2,AKAP6,TRPC5,PKHD1,SLC8A2,TPCN1,ATP2B4,P2RY8,CACNA1A,PTGER3,TRPV1,TRIM24,PLCG2,C1QTNF1,GPR35,ATP13A3,MCU,TRDN,TRPC6,ATP13A5,SNCA,HTT,TMCO1,PKD2,GRIN1,ITPR2,BOK,AGT,HRH4,STC2,NOS1,XCR1,MCOLN1,GRIN2B,PACS2,DIAPH1,HTR2C,GRIK2,ATP2B3,CIB2,CAV2,CAMK2D,CCR3,PTPRC,EDNRA</i>

Table S2. GO associations with Biological Processes (GO Profiler) of top 4920 rDNA-contacting genes shown in Figure 1B.

GO.ID	Description	padj	Genes
GO:0032501	multicellular organismal process	3.0026941554276024e-32	<i>ISM1,SRGAP2B,MACROD2,CDH4,PIEZO2,ZHX3,PLCB1,DHX35,CMKLR1,DAB1,OMA1,GTTF2,GABRB3,GABRG3,MAPK14,ABCG8,DSCAM,ARID1B,RUNX1,ASIC2,DTNA,OR11H1,SERPINA1,MYO18B,NCAM2,RAB27A,HUNK,HNF2BP,OR4M2,ANK3,DCC,SVEP1,WLS,RBFOX1,TIMP3,PCSK2,AKAP13,FBLN1,ERG,GRIK1,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,LOXHD1,ABCG1,KCNQ1,DPF3,SUN2,CA10,EPHA6,O</i>

			<p> R4K15,GRIN3A,NRXN1,SHC3,TMPRSS3,ISX,TNNI3K,DOK5,NRXN3,SLC1A2,RAB5A,SDK2,DOCK2,CTNND2,EYS,TNC,POTEE,MS4A1,OR8U1,PAX7,CHODL,RIMS2,MTPN,SHANK2,GRI1,NRG3,SMYD2,CELF2,HUS1,PKD1L1,ARNT2,OLFM3,TGFBR3,TRPM3,FSTL4,CDH13,ANK2,LRRC4C,RTN1,ANKH,NXN,KCND3,CSMD1,IGSF3,SYNDIG1,TF,MYH1,SCN8A,KCNE1,BCAN,SDCCAG8,TMEM108,OR4C12,GADD45A,ADAMTSL1,PRDM9,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NRG1,ETS2,PSMB2,SHISA6,HYDIN,IL4R,ALDH1A2,CECR2,LRFN5,RYR3,GGT1,NLN,SUZ12,ASTN2,PLCE1,UNC5D,KSR2,SEMA6D,SPOCK1,DRP2,CTNNA2,SLCO3A1,CCR1,CCR3,CFTR,BBS9,RBFOX2,DTX4,PCTP,TIAM1,PM20D1,COL22A1,AGBL4,LDLRAD4,KIAA1217,RASGRF1,ZBTB20,DPYSL2,MYO3A,SLC6A2,TET3,CBFA2T2,IL1RAPL2,OR4A5,NKD1,TACC2,BTN2A1,ALK,UTRN,SORCS3,SPEF2,ZNF536,MYOM3,FBXO31,KLRF2,RAB7A,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPHA3,PRKACB,DCLK1,SLC44A1,COL15A1,AJAP1,OR8K3,AGT,CST2,FSIP2,SHISA9,ATAT1,CHRM5,FBXO32,VTI1A,WDR11,ATP6V0D1,CDH11,RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,LOXL2,HDGAC2,DLGAPI,LAMA2,GREB1L,HMCN1,KIR2DL4,OR4K13,CORO2B,ZNF804A,CYBB,NEGR1,OTC,DNAH9,GNB4,OR4M1,OR4N2,SEMA3D,DACH1,NTN1,OR52N5,TKX,GPC6,ANKFN1,NELL1,TRAPPC9,DBH,TSPAN8,PCDH17,SETD3,ZNRF3,FMNL3,KCNMA1,TRIO,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,CNTN5,PDCD6,TM4SF1,OR2L13,RPS6KA2,IGF1R,KRT25,MDM2,SLC24A4,SMAD1,DSC3,NOVA1,GALC,OR11G2,OR9Q1,CTNBNB1,RAPGEF5,VCAN,ADAMTS6,GABRG1,PTPRG,PDE9A,OR8K5,TRPC5,DMD,HCN1,SYT1,BASP1,CACNG3,KRT2,SIPA1L3,VCL,NOX5,SPESP1,TEAD1,CELSR1,CSMD3,FGF14,FSHR,GRM1,MBOAT7,FMN2,MAEL,NRIP1,ASTN1,STK24,OPCML,PLAC1,AKMIP1,WWOX,ATRX,TRPM2,CTNNA3,RNLS,RYR2,OCA2,XRCC4,DIAPH2,KIF3B,NTNG1,OR2M5,TENM4,CAMTA1,CATSPER2,LRRK2,ROBB,SLC1A3,STRC,IGFBP7,PIR,KIF26B,NTRK3,RORA,GGT2,PRICKLE2,SLC4A4,ANKS1A,CHD7,OVGP1,RNF165,DISC1,HEXB,TSNAX,EMB,GLIS1,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,CDC14A,PRKD1,SERPINA5,SNRK,PLEKHA5,ERCC6,FLVCR1,OGT,TGFB2,ATP1A4,CLSTN2,FMN1,VAV3,AFF3,DACH2,LCE2B,LCE2C,PIWIL4,PLCD3,RIPPLY3,SEMA5A,SLC5A3,SLCO2B1,ACSBG1,BDNF,KRT74,LSAMP,PRKAR1B,PRKCH,RYK,SNB1,ZDHHC17,KCNC1,PCDH15,POLR3C,DNAAF2,EML1,ABI3BP,SGCD,WASF1,WDR72,GRIN2B,KDM4C,OR6N1,POLE,EXT2,LAMA3,RAG1,RAG2,ABC B5,ANKRD6,NR2F2,PTGFR,SNAP25,NR5A2,PAQR8,PML,PPARGC1A,RNF180,SGCG,SYBU,MYH8,AKAP6,CNTNAP2,FBN1,MED15,PPP4R4,NLRP2,NLRP7,PLXNA2,SNAP23,TAOK3,ACSM3,BCL2,CHMP4C,RAD51B,RXFP2,ZNF675,ARHGAP24,EPHB1,KCNJ3,MOV10L1,SMARCE1,IL12RB2,SIPA1L1,CSGALNACT1,DISP1,LRP2,MMP16,TMEM100,LRRC4,NFIA,SND1,VANGL2,NR4A2,ABCC9,ARHGEF10,EPHA7,RPGR,FYN,GNRHR,KCNE2,PARN,SLC26A7,ADAMTS18,CHN1,NR4A1,SMARCA4,SULT4A1,CD44,HECW1,MYL12A,PMP22,RCVRN,RHBDD1,RNF213,THBS2,FOXO1,PDE4D,PYY,RBBP8,TBXAS1,KANK1,ENPP2,ABC B10,ACTN2,ATF6,ATP8A2,DCDC2,GABRB1,KLF13,MME,PACRG,TNMD,EXOC4,NAV2,GRIK2,IGSF11,LAMB4,ZNF516,CELF4,RAP1GDS1,SERPINB7,TPO,UNC5C,APBB2,KCND2,MYLK3,NAMPT,NTM,SCN11A,SLC1A1,UGCG,ZFPM2,ZNF141,PALLD,RARB,RFX4,ETV6,NLRP12,MTOR,ROR1,GAS7,LDB2,MOV10,RLBP1,CHRM1,DDX21,FAT3,MEGF9,PKP2,BMPER,CCDC88B,ERMN,PTPRD,TIAM2,ZNF521,BBS2,MTN3,OR51B2,OR5111,PGK1,PLCL1,ZFP64,ARL6IP5,ATP1A1,CEP85L,COL11A1,EPM2A,PLN,CTNBNB1,EPB41L4B,KLHL1,SOX8,DSG4,IFT88,NLGN4X,OR4K17,OR8J3,PRKCE,GTFF2A1L,HELLS,KMT2A,PRKCB,VDR,ADCY8,FAM19A4,FOXO3,IGF2BP3,LRRTM1,MITF,SCMH1,CAPN3,KALRN,DLC1,EDNRB,MSR1,ROBO1,RXFPI,SATB2,TANC2,FAP,FLT1,NASP,NOX4,SGIP1,ZNF148,CDH17,GRHL2,TCF4,COL2A1,MALL,MAP3K7,NEBL,PREX2,TACR3,TRAF3IP2,CBLN4,CR1,EYA4,GABRA2,OR4C15,SEC24B,MDM1,PKHD1,STK3,TGM2,VASH2,FAM9B,KDR,PPHLN1,PRCP,CHL1,EDA,ABCA12,APP,CALCRL,COL18A1,DGKB,NRP1,PTPRM,SHROOM3,LGR4,SERPING1,TENM2,ADTRP,CD58,EGFLAM,IMMP2L,KAT5,LCE6A,THRB,TTC12,KCNK2,SEMA3C,ADAM17,CAMK1D,CYLC2,DIS3L2,TSPEAR,IGF2R,TFPI,ATF2,ELP3,ETS1,NR2C2,EFEMP1,PRTG,ROSI,TGFB111,OR10R2,RGS16,RPS6KA5,TCF7L2,AFF2,ITGA11,PARD3,SSPN,THOC2,TRAF3,ZNF830,ABAT,ATRNLI,FRAS1,GRIN2A,GRIP1,DLX6-AS1,HRNR,OPHN1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5A,RIN2,TUB,ALCAM,CHRD1,STK36,UPB1,BCL2L1,ADAMTS16,GUCY2F,HDAC4,MYO16,PDE4B,SOX5,SRRM4,DNMT1,GHR,GLRA2,JAM2,MAPRE2,NTRK2,PRKG1,ACSL4,M1AP,A1CF,DNM3,PAPPA,RASGRP1,STARD13,ARR3,CAMK4,RABGEF1,SDK1,SPIN3,SPRED2,GLI3,KAZ </p>
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			<p> <i>N,OR5L2,SMCHD1,CACNA1C,CLDN1,KIF16B,OR11L1,SPRR2B,SPRR2E,CERS3,CRB1,DOCK4,RAP1A,SAFB2,SRP54,TGFBR1,USP53,CYSLTR1,KCNJ12,MGLL,PRDX4,RRP7A,ADAM12,DICER1,DYM,EPHA5,TAS2R38,THEMIS,TNR,TPP1,CUX1,KRTAP6-1,SLC6A17,TAS2R1,TENM3,CHST11,CPE,IL16,RAPGEF1,CD96,CHRNA3,CHRNA5,EP300,MORC3,SLC16A7,SYNE1,DSCAML1,HMG20A,TBX3,CACNA2D1,CACNA2D4,CYP7B1,DIO2,SPRR4,TRIOBP,ATXN1,GAB2,GLRA1,PCSK5,SYCP1,TP73,GRID2,NPC1,OR4C5,PIBF1,MORN2,PSMA1,TRHDE,FLNB,PPP1R12B,SPG11,ADORA2A,CAMK2G,EFNA5,EMCN,FAM20A,MERTK,SPRR2G,TAC4,WARS2,BRD1,CACNG2,FAM9A,MAGI2,NF1,RGS7,TFF1,IMPG1,SORL1,BICC1,ELK3,IFT80,IGSF21,OR5K4,TEAD4,TTC8,DMRT1,ASXL1,EIF4E,FRYL,POR,RELN,SLC39A8,SLC9C1,TNFRSF11B,TSHZ1,GRM5,HAPLN1,HDAC9,IL18R1,IL1RL1,KIRREL3,KRTAP4-3,NECAB1,PTPN9,COL12A1,DYNC1H1,LRRTM3,DDC,NAPEPLD,NDRG2,NUMB,RHPN2,SP2,MAP3K13,NPHP4,RALA,TBX15,ADCYAP1R1,CYP39A1,IL1RAP,NAV3,FBXL17,JAG1,MEOX2,PPP3CA,KCNB2,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,SLC7A1,CXADR,DGKI,MAS1,PER1,SLC24A2,WWTR1,KLC6,CBLB,DOCK10,ELAVL4,MNAT1,PLSCR1,RNF17,SEC63,SLC5A1,CNTN1,DGUOK,GPC4,GRM7,RIMS1,TRIM16,GABPA,GABRA3,KAT7,L3MBTL3,SLC22A2,AGGF1,ASAP1,FHOD3,FREM1,N4BP2L2,NLGN1,P2RX6,PTPRU,AKIRIN2,ARHGAP5,CHST8,CTTNBP2,RNF128,SLC22A3,SSUH2,AK8,MEGF11,NPR3,SYCP2,LHFP,L3,LRRK1,MAPK8IP2,TMPRSS11E,CACNA1D,DDX3X,MYH4,OMG,GABRA5,TPCN2,JAK2,SHOX2,SOBP,SPNS2,AH1,CATSPERB,PSG7,SMAD3,KIDINS220,NOS1,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,TMTC4,WDR33,AATF,ANHX,CDK1,HDAC7,HIVEP3,ITPK1,LTB,MAGT1,MCM3AP,NBN,PRRC2C,RRH,TAGLN3,TNF,COBL,NHS,OVOL2,PANX1,SNX5,ZFPM1,CHKB,POMC,PPF1A2,PSG1,TANC1,TMC2,ADNP2,ATXN10,BLOC1S6,BMP15,DLG5,PHEX,POU6F2,LGR6,OR11A1,OR5V1,SIM2,ARID2,MLIP,MMP20,PAXBP1,BRINP1,KATNAL1,KCNK10,PRG3,SPAG16,ADORA3,BCL11A,CALD1,CLEC4A,FREM2,HMGA2,MYO6,DOCK1,KIF18A,PCDH19,ANO1,GCLC,QKI,RAB23,EPS8,LTBPI,MBOAT2,TPD52,DAAM2,PABPC1L,SMOC2,SULF1,TRPC4,C5AR1,CISD2,GNAL,LRP4,PIK3R3,WDR5,XYLTI,CNGB3,CNTN6,EFNB2,PIWIL3,TRDN,AMOTL1,HERC1,PHF8,SPATA5,ZNF423,CLSTN1,INSC,SELP,ALPK2,CTNNA1,SCN1A,TENM1,TSHZ3,ABCG2,ARHGEF11,CDKL5,EFHC2,MAMLD1,MYH14,PRKAR1A,TNFRSF19,ARHGAP11B,BPTF,DYNC2H1,GABRR2,MLLT3,MYH13,TMEM150C,CD109,EGF,MIP,PTPN14,SPIRE2,ALDH1A1,CMA1,FOXP4,IL1RAPL1,KIT,POTEF,SLIT3,TAFA4B,TNFSF8,UBR2,OR7A5,TRPV4,VWC2,ABCA5,CC2D2A,CPS1,DNAH11,EDAR,EFNB1,PTPRO,RAPGEF2,RCSD1,SLCO4C1,DNAJB6,ESR1,HTR2C,JAK1,MYPN,NCMAP,SEMA3E,UBE3A,FGF13,GABRB2,MARVELD3,NUP155,PLAG1,SGCZ,ARMC2,EPHB2,FNDC3A,KRT76,MECOM,TBCD,TGFD2,TOX,ABCC1,C14ORF39,ERBB4,MAP3K3,MINPP1,RBM19,SLITRK6,SPTA1,TDRKH,ENIP1,LRP5,PTH2R,SNRNP200,TLL5,MYH15,SLAMF1,ABL2,BSG,CAMP,F11R,FARP2,GAS8,OR4C6,SETD2,ALX4,AP2B1,ARHGAP35,CD2AP,CLDN11,NSUN2,SGMS2,ATP8A1,CCL3,FGF7,GGN,LAMA1,MYO7B,PREX1,SEMA5B,SPRED3,VWF,IL20RA,KIF2A,MCM9,NHLH2,PSG9,SPA17,SULF2,ARF4,MYH9,PTGER3,SLC2A13,SLC39A12,SOX4,P2RX1,PDGFD,PIK3CD,AGTPBP1,ASGR2,ITGA8,KCNE4,PUM1,ARID4A,CNGA4,ENPEP,FAM172A,KDM3A,MYO3B,PDZD7,PLAT,UNC13A,WDPCC,ADCY9,AUTS2,CDH23,DAPL1,FGFR1,MEF2A,OCLN,RYR1,SYNM,UNC13B,ARID4B,DAD1,GLRA3,MAP2,SOST,ASXL3,BPGM,IL23R,KEAP1,NTF3,P2RX7,PLA2G4A,SCUBE1,TEX14,EDDM3A,GP5,AMFR,AR,BCOR,CASP7,FGL2,KIAA1109,PAPSS1,SCAMP5,SUFU,CEP250,EYA1,IFNA8,IL1RL2,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,BHLHB9,DGKZ,GNL3,L3MBTL1,PRKAA2,SEMA3A,ANKRD11,CDC73,EPB41L3,JRKL,MARK2,MEIS2,MOGAT2,PDE5A,PROS1,REEP2,SMPX,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM72,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SCNN1A,SMPD3,TNN,ZC3H13,CLN6,DAB2,GPR55,LCP1,PBX1,RNF207,SRD5A2,STX3,SYT2,ADAM10,BLOC1S5,DAAM1,FGF12,ITGA3,FRY,LGII,NREP,OR10K2,OR4C46,PLCL2,PPM1B,RFTN1,STAC,LECT2,LRIG1,MYOM1,PIN1,RPS6KA6,THSD7A,TRPM4,CD226,NME8,SCLT1,SHROOM4,ABCC2,BMP6,BTBD9,CHRM3,CIT,CLASP1,EIF4ENIF1,SMTNL2,CNGB1,NCOA2,TGFA,TMOD1,CREM,GAS2,HGF,HGFAC,MYLK,OBP2A,PRPSAP2,SPATA6,CALCR,CAPN7,CENPF,DPY19L2,FLII,SCUBE3,SLC13A3,SLC26A8,ZBTB16,CACNB2,ELN,NCAM1,NFASC,NOS1AP,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,TAF7L,AKT3,CHM,CTDP1,ELF1,ENPP1,FMR1,LIMK2,LITAF,PAX3,TESK2,WDR7,ATP5J,FAM126A,FPGS,GABRA1,GOLGA3,GPRIN2,KLF6,PHC2,PRKX,SBF2,ULK4,ABCD1,C </i> </p>
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			<p>RMP1,EVC,GABRR3,IDE,MAD1L1,MFNG,RPGRIP1,TDRD6,AIM2,ARHGAP42,CCDC141,CD84,CSF2RB,GLDN,JPH4,PCK1,PDE6B,PPARA, SORT1,TTN,ZFH2,C1GALT1,COL19A1,CORIN,FHL1,GNA13,MYH7,SLC22A5,TAF1,CHD5,FUT8,PPP2R3C,QRFP,SIPR3,SPRED1,TRPM1,AKR1C2,CHSY1,LCE1F,NTN4,PRDM16,PTPRF,SCN9A,BTRC,GTSF1,HIRA,MYBPC2,PTPRR,RIT2,TECTA,ESRP2,EXT1,IFT81,MDM4,MYH6,NCAPH2,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,ADAMTS5,CBF A2T3,DOCK7,FBXW11,G3BP1,HDAC5,KLHL3,OR51L1,TDGF1,A2M,ADAM28,MYEF2,SLC38A10,SLC40A1,STIM1,TTC39C,ADARB1,KCNC2,MYH11,NDE1,OR4C16,PEMT,POU2AF1,PRKCQ,SCEL,STAT3,TP63,AMOT,BRIP1,CST1,HPN,ISLR2,PAK3,TBL1X,USH2A,BLNK,CASQ2,DHRS2,DHRS7B,DTNBP1,GAK,CRTAC1,DLGAP2,LCE2A,LGALS9,LRP8,MYOM2,NFAT5,OR2T4,TAS1R1,GDA,MAPKAPK2,SLC7A8,TUSC3,UPK3A,APC,BMPRI1A,CSN3,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,SPINT2,UBASH3B,VLDLR,ASB3,KRT75,AB11,CTSH,DHX9,NCAPG2,RGCC,ACACA,CYB5D2,GABRG2,GPR21,IL6R,LCE4A,MAP2K6,NCALD,SLC16A12,TFIP11,SPTBN4,CLASP2,MAP2K1,SOS1,TPH1,VPS35,C1QTNF3,COL6A3,FGF1,MCOLN3,TBX20,C6ORF106,DCHS2,DGKK,PPP1R9A,RGN,RREB1,TBX18,BZW2</p>
GO:0032502	developmental process	6.754681769376912e-31	<p>ISM1,SRGAP2B,MACROD2,CDH4,ZHX3,PLCB1,DHX35,CMKLR1,DAB1,OMA1,GTTF2,FMNL2,GABRB3,CDC42EP3,MAPK14,DSCAM,ARID1B,RUNX1,ASIC2,CTBP2,MYO18B,NCAM2,RAB27A,HUNK,HSF2BP,ANK3,DCC,SVEP1,WLS,RBFOX1,PCSK2,AKAP13,FBLN1,ERG,GRIK1,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,ABCG1,KCNQ1,DPF3,SUN2,NUBPL,CA10,EPHA6,GRIN3A,NRXN1,SHC3,ZRANB1,ISX,DOK5,NRXN3,SLC1A2,SDK2,DOCK2,CTNND2,EYS,TNC,PLEKHB2,POTEE,MS4A1,PAX7,CHODL,RIMS2,MTPN,SHANK2,COMT,NRG3,SMYD2,HUS1,PKD1L1,ARNT2,FGD6,OLFM3,TGFBR3,FSTL4,CDH13,ANK2,LRRC4C,RTN1,ANKH,NXN,CSMD1,RUNX1T1,IGSF3,SYNDIG1,TF,SCN8A,BCAN,SDCCAG8,TMEM108,CHEK2,GADD45A,ADAMTSL1,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NHSL2,NRG1,ETS2,PSMB2,SHISA6,HYDIN,IL4R,ALDH1A2,CECR2,LRFN5,GGT1,NLN,SUZ12,ASTN2,PLCE1,UNC5D,SEMA6D,SPOCK1,DRP2,CTNNA2,CCR1,CCR3,CFTF,BBS9,RBFOX2,TIAM1,RHOC,COL22A1,AGBL4,LDLRAD4,KIAA1217,RASGRF1,DPYSL2,MYO3A,TET3,CBFA2T2,ILIRAPL2,NKD1,TACC2,ALK,UTRN,SPF2,ZNF536,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPHA3,PRKACB,DCLK1,COL15A1,AJAP1,AGT,FSIP2,ATAT1,WDR11,ATP6V0D1,CDH11,RHOJ,RCAN1,CDH2,CDH9,PARK2,FHL2,FOXN3,LOXL2,MDGA2,LAMA2,GREB1L,KIR2DL4,ZNF804A,CYBB,NEGR1,OTC,GNB4,SEMA3D,DACH1,NTN1,KCNH1,ZNF268,TXK, GPC6,NELL1,TRAPPC9,TSPAN8,PCDH17,SETD3,ZNRF3,FMNL3,TRIO,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,CDH8,CNTN5,PDCC6,TM4SF1,RPS6KA2,IGF1R,KRT25,MDM2,PALMD,SLC24A4,SMAD1,DSC3,FOXO4L4,GALC,CTNBNB1,RAPGEF5,VCAN,ADAMTS6,PTPRG,CPQ,TRPC5,DMD,HCN1,SYT1,BASPI,KRT2,SIPAIL3,VCL,NOX5,TEAD1,CELSR1,CSMD3,FGF14,FSHR,MBOAT7,FMN2,MAEL,NRIP1,ASTN1,STK24,OPCML,PLAC1,WWOX,ATRX,TRPM2,RYR2,OCA2,XRCC4,DIAPH2,KIF3B,NTNG1,TENM4,UNC13C,CATSPER2,LRRK2,MAPK10,RORB,SLC1A3,STRC,IGFBP7,PIR,KIF26B,NTRK3,RORA,GGT2,PRICKLE2,ANKS1A,CHD7,RNF165,DISC1,HEXB,TSNAX,EMB,GLIS1,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,PRKD1,SERPINA5,SNRK,PLEKHA5,ERCC6,FLVCR1,FRMD6,TGFB2,ATP1A4,CLSTN2,FMN1,PRAMEF12,VAI3,AFF3,DACH2,LCE2B,LCE2C,PIWIL4,PLCD3,RIPPLY3,SEMA5A,SLC5A3,ACSBG1,BDNF,KRT74,LSAMP,PRKCH,RIPK4,RYK,ZDHHC17,KCNC1,PCDH15,DNAAF2,EMI1,ABI3BP,SGCD,WASF1,WDR72,GRIN2B,KDM4C,POLE,EXT2,LAMA3,RAG1,RAG2,ABC5,ANKRD6,MREG,NR2F2,SNAP25,NR5A2,PAQR8,PML,PPARGC1A,SGCG,SYBU,ARHGAP12,AKAP6,CNTNAP2,FBN1,MED15,PPP4R4,PLXNA2,TAOK3,BCL2,CDH10,CHMP4C,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,MOV10L1,SMARCE1,CDH12,SIPAIL1,CSGALNACT1,DISP1,LRP2,MMP16,TMEM100,LRRC4,NFIA,SND1,VANGL2,CDH6,NR4A2,ARHGEF10,EPHA7,ZBTB7C,FYN,GNRHR,KCNE2,ADAMTS18,CHN1,NR4A1,SMARCA4,SULT4A1,CD44,FLNC,HECW1,PMP22,RHBDD1,RNF213,THBS2,CASP6,FOXO1,PDE4D,PYY,RBBP8,KANK1,ENPP2,ABC10,ACTN2,ATF6,ATP8A2,DCDC2,GABRB1,GRK5,KLF13,MME,PACRG,TNMD,EXOC4,NAV2,LAMB4,ZNF516,CELF4,SERPINB7,TPO,UNC5C,MYLK3,NTM,SLC1A1,UGCG,ZFPM2,ZNF141,PALLD,RARB,RFX4,STRIP1,ETV6,MTOR,ROR1,GAS7,LDB2,MOV10,CHRM1,DDX21,FAT3,MEGF9,PKP2,BMPER,ERMN,PTPRD,TIAM2,ZNF521,BBS2,MATN3,PGK1,ZFP64,CEP85L,COL11A1,EPM2A,PLN,CTNBNBIP1,KLHL1,SOX8,DSG4,IFT88,NLGN4X,CDH18,EIF2S1,HELLS,KMT2A,PRKCB,VDR,FOXO3,IGF2BP3,LRRTM1,MITF,SCMH1,CAPN3,KALRN,CCDC88C,DLC1</p>

			<p>,EDNRB,MSI2,MSR1,ROBO1,RXFPI1,SATB2,TANC2,FAP,FLT1,NASP,NOX4,ZNF148,CDH17,GRHL2,TCF4,COL2A1,MALL,MAPK9,NEBL,PREX2,TACR3,TRAF3IP2,ZNF277,CBLN4,CR1,EYA4,GABRA2,SEC24B,MDM1,PKHD1,STK3,TGM2,VASH2,FAM9B,KDR,PPHLN1,PRCP,ARHGAP15,CHL1,EDA,NHSL1,ABCA12,APP,CALCRL,COL18A1,NRP1,PTPRM,SHROOM3,ARHGEF18,LGR4,SERPING1,TENM2,ADTRP,EGFLAM,IMMP2L,KAT5,LCE6A,ST7,THRB,TTC12,KCNK2,SEMA3C,ADAM17,CAMK1D,CYLC2,DIS3L2,MAP3K5,PARVG,TSPEAR,IGF2R,ATF2,ELP3,ETSI,NR2C2,EFEMP1,PRTG,ROSI,TGFB1I1,RPS6KA5,TCF7L2,AFF2,BICD1,ITGA11,PARD3,THOC2,ZNF830,ABAT,ATRNL1,FRASI,GRIN2A,GRIP1,DLX6-AS1,HRNR,OPHN1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5A,RIN2,TUB,ALCAM,CHRDLL1,CNN3,STK36,UPB1,BCL2L1,ADAMTS16,HDAC4,MYO16,SOX5,SRRM4,DNMT1,GHR,JAM2,NTRK2,PRKG1,ACSL4,MIAP,A1CF,DNM3,RASGRP1,STARD13,CAMK4,SDK1,SPRED2,GLI3,KAZN,SMCHD1,CACNA1C,CLDN1,KIF16B,SPRR2B,SPRR2E,CERS3,CRB1,RAP1A,SAFB2,SRP54,TGFBRI,CYSLTR1,PRDX4,RRP7A,ADAM12,DICER1,DYM,EPAH5,THEMIS,TMEM120B,TNR,TOPI,CUX1,KRTAP6-1,PEAK1,SLC6A17,TENM3,CHST11,CPE,RAPGEF1,CHRNA3,EP300,MORC3,SYNE1,DSCAMLL1,HMG20A,SCFD1,TBX3,WIF1,CYP7B1,DIO2,SPRR4,TRIOBP,ATXN1,GAB2,PCSK5,SYCP1,TP73,GRID2,PARVB,PNPLA3,MORN2,PSMA1,FLNB,SPG11,ADCK1,ADORA2A,CAMK2G,DX10,EFNA5,EMCN,FAM20A,MERTK,SPRR2G,WARS2,BRD1,FAM9A,MAG12,NF1,RGS7,TFF1,SORL1,BICC1,ELK3,IFT80,IGSF21,TEAD4,TC8,DMRT1,ASXL1,EIF4E,FRYL,POR,RELN,SLC9C1,TNFRSF11B,TSHZ1,GRM5,HAPLN1,HDAC9,IL18R1,KIRREL3,KRTAP4-3,NECAB1,PTPN9,COL12A1,LRRTM3,DDC,NAPEPLD,NDRG2,NUMB,SP2,MAP3K13,NPHP4,RALA,TBX15,ADCYAP1R1,IL1RAP,NAV3,ATP10A,EXOC5,FBXL17,JAG1,MEOX2,PPP3CA,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,CAPZB,CXADR,MAS1,WWTR1,KL,C6,CBLB,DOCK10,ELAVL4,GSTA2,MNAT1,RNF17,SEC63,CNTN1,DGUOK,GPC4,GRM7,RIMS1,TRIM16,GABPA,KAT7,L3MBTL3,TMEM135,AGGF1,ASAP1,FHOD3,FREM1,N4BP2L2,NLGN1,PTPRU,AKIRIN2,ARHGAP5,CHST8,CTTNBP2,SH3KBP1,SSUH2,AK8,MEGF11,NPR3,SYCP2,LRRK1,MAPK8IP2,DDX3X,EGFL6,RBL2,OMG,EHF,GABRA5,JAK2,SHOX2,SOBP,SPNS2,AH1I,CATSPERB,SMAD3,XKR4,KIDINS220,MAP2K4,MIAT,NOS1,PTGFRN,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,WDR33,AATF,ANHX,CDK1,HDAC7,HIVEP3,ITPK1,LTB,MCM3AP,NBN,PRRC2C,TAGLN3,TNF,COBL,NHS,OVOL2,PANX1,ZFPM1,CHKB,PPFIA2,TANC1,ADNP2,ATXN10,BLOC1S6,BMP15,DLG5,PHEX,POU6F2,RBM11,LGR6,SIM2,ARID2,MMP20,PAXBP1,BRINP1,KATNAL1,SPAG16,BCL11A,CALD1,FREM2,HMG2A,MYO6,NEK4,DOCK1,KIF18A,PCDH19,SULT1B1,GCLC,QKI,RAB23,UBE2V1,EPS8,MBOAT2,TPD52,DAAM2,PABPC1L,SMOC2,SULF1,TRPC4,C5AR1,CISD2,LRP4,PIK3R3,WDR5,XYLT1,CNTN6,EFNB2,PIWIL3,AMOTL1,HERC1,PHF8,SPATA5,ZNF423,CLSTN1,INSC,LRRRC8,ALPK2,CTNNA1,TENM1,WDFY2,CDKL5,DMBT1,EHFC2,MAMLD1,MYH14,PRKAR1A,TNFRSF19,ARHGAP11B,BPTF,DYNC2H1,FAM171A1,MLLT3,CD109,EGF,MIP,PTPN14,CMA1,FOXP4,IL1RAPL1,KIT,SLIT3,TAF4B,TNFSF8,UBR2,TRPV4,VWCC2,ABCA5,CC2D2A,CPS1,DNAH11,EDAR,EFNB1,PTPRO,RAPGEF2,SLC04C1,DNAJB6,ESR1,HTR2C,JAK1,MYPN,NCMAP,SEMA3E,UBE3A,DNMBP,FGF13,GABRB2,PLAG1,SGCZ,ARMC2,EPHB2,FNDCC3A,KRT76,MECOM,TBCD,TDFP2,TOX,C14ORF39,ERBB4,FER,MAP3K3,MINPP1,RBM19,SLITRK6,SPTA1,TDRKH,FNIP1,LRP5,SNRNP200,TTL5,XKR7,MYH15,SLAMF1,ABL2,BSG,CAMP,F11R,FARP2,GAS8,SETD2,ALX4,AP2B1,ARHGAP35,CLDN11,NSUN2,SGMS2,CCL3,FGF7,GGN,LAMA1,MYO7B,PREX1,SEMA5B,SPRED3,FGD4,KIF2A,NHLH2,PSG9,SPA17,SULF2,ARF4,MYH9,NSMCE2,PACSIN2,SLC39A12,SOX4,NEDD9,PDGFD,PIK3CD,AGTPBP1,ASGR2,ITGA8,PUM1,ARID4A,ENPEP,FAM172A,KDM3A,MYO3B,PDZD7,UNC13A,WDCP,ADCY9,AUTS2,CDH23,DAPL1,FGFR1,MEF2A,RYR1,UNC13B,ARID4B,DAD1,MAP2,ASXL3,BPGM,IL23R,ITGB7,KEAP1,NTF3,P2RX7,SCUBE1,AMFR,ARBOR,CASP7,FGL2,KIAA1109,PAPSS1,SUFU,EYA1,IFNA8,IL1RL2,RBM4,SRPK2,HLA-DRA,BHLHB9,GNL3,L3MBTL1,NEK5,SEMA3A,ANKRD11,CDC73,EPB41L3,JRKL,MARK2,MEIS2,PDE5A,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM72,FERMT2,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SMPD3,TNN,ZC3H13,DAB2,GPR55,LCPI,PBX1,RNF207,SRD5A2,STX3,SYT2,ACTN4,ADAM10,BLOC1S5,CCL7,DAAMI,EEF1E1,FGF12,ITGA3,KMO,POU2F3,PRAMEF8,FRY,LGI1,NREP,PLCL2,LECT2,LRI1,PINI,RPS6KA6,THSD7A,TRPM4,NME8,SCLT1,SHROOM4,BMP6,CHRM3,CIT,CCLASPI,EIF4ENIF1,CFDP1,CNGB1,TGFA,TMOD1,CREM,GAS2,HGF,</p>
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			<p>MYLK,PRPSAP2,SPATA6,CALCR,CENPF,DPY19L2,FLI1,SCUBE3,SLC26A8,ZBTB16,ELN,NCAM1,NFASC,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,TAF7L,AKT3,CTDP1,ELF1,ENPP1,FMRI,LIMK2,PAX3,TESK2,WDR7,ATP5J,FAM126A,FPGS,GABRA1,GOLGA3,GPRIN2,JDP2,KLF6,PHC2,PRKX,SBF2,ULK4,ABCD1,CRMP1,EVC,IDE,MAD1L1,MFNG,RPGRIP1,TDRD6,CCDC141,GLDN,PCK1,PDE6B,PPARA,SORT1,SPIB,TBX22,TTN,ZFH2,C1GALT1,COL19A1,FHL1,GNAI3,MYH7,TAF1,CHD5,FUT8,PPP2R3C,S1PR3,SPRED1,AKR1C2,CHSY1,KRT4,LCE1F,NTN4,PRDM16,PTPRF,RBL1,SCN9A,BTRC,CCDC3,GTSF1,HIRA,PGM5,PTPRR,RIT2,ESRP2,EXT1,IFT81,MDM4,MYH6,NCAPH2,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,ADAMTS5,CBFA2T3,DOCK7,FBXW11,HDAC5,KLHL3,TDGF1,A2M,ADAM28,AKAP2,LYVE1,MYEF2,SLC24A5,SLC38A10,SLC40A1,STIM1,TTC39C,ADARB1,KCNC2,UBASH3B,VLDLR,ADAMTS20,KRT75,ABI1,CTSH,DHX9,NCAPG2,RGCC,CYB5D2,EDA2R,GABRG2,GPR21,IL6R,LCE4A,MAP2K6,SLAH3,TFIP11,SPTBN4,CLASP2,MAP2K1,PRAMEF7,SOS1,TPH1,VPS35,C1QTNF3,COL6A3,FGF1,MCOLN3,TBX20,DCHS2,PPP1R9A,RGN,RREB1,TBX18,BZW2</p>
GO:0048731	system development	3.137188725360184e-29	<p>ISM1,SRGAP2B,MACROD2,CDH4,PLCB1,CMKLR1,DAB1,GTTF2,GA BRB3,MAPK14,DSCAM,ARID1B,RUNX1,ASIC2,MYO18B,NCAM2,ANK3,DCC,SVEP1,WLS,RBFOX1,PCSK2,AKAP13,GRIK1,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,KCNQ1,DPF3,SUN2,CA10,EPHA6,GRIN3A,NRXN1,SHC3,ISX,DOK5,NRXN3,SLC1A2,SDK2,DOCK2,CTNND2,TNC,POTEE,MS4A1,PAX7,CHODL,RIMS2,MTPN,SHANK2,NRG3,SMYD2,ARN2,OLFM3,TGFB3,FSTL4,CDH13,ANK2,LRRRC4C,RTN1,ANKH,NXN,CSMD1,IGSF3,SYNDIG1,TF,SCN8A,BCAN,SDCCAG8,TMEM108,GADD45A,ADAMTSL1,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NRGI,ETS2,PSMB2,HYDIN,IL4R,ALDH1A2,CECR2,LRFN5,NLN,SUZ12,ASTN2,PLCE1,UNC5D,SEMA6D,SPOCK1,DRP2,CTNNA2,CCR1,CCR3,CFTR,RBFOX2,TIAM1,COL22A1,AGBL4,LDLRAD4,KIAA1217,RASGRF1,DPYSL2,MYO3A,CBFA2T2,IL1RAPL2,NKD1,TACC2,ALK,UTRN,SEPF2,ZNF536,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPHA3,PRKACB,DCLK1,COL15A1,AJAP1,AGT,ATAT1,WDR11,A TP6VOD1,CDH11,RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,LOXL2,MDGA2,LAMA2,GREB1L,ZNF804A,CYBB,NEGR1,OTC,GNB4,SEMA3D,NTN1,GPC6,NELL1,TRAPPC9,PCDH17,ZNRF3,FMNL3,TRIO,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,CNTN5,PCDC6,RPS6KA2,IGF1R,KRT25,MDM2,SLC24A4,SMAD1,GALC,CTNNBL1,RAPGEF5,VCAN,ADAMTS6,PTPRG,TRPC5,DMD,HCN1,SYT1,BASPI,KRT2,SIPA1L3,VCL,NOX5,TEAD1,CELSR1,CSMD3,FGF14,FSHR,MB OAT7,NRIP1,ASTN1,STK24,OPCML,PLAC1,WWOX,ATRX,TRPM2,RYR2,XRCC4,NTNG1,TENM4,LRRK2,RORB,SLC1A3,STRC,PIR,KIF26B,NTRK3,RORA,PRICKLE2,ANKS1A,CHD7,RNF165,DISC1,HEXB,EMB,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,PRKD1,SNRK,PLEKHA5,ERCC6,FLVCR1,TGFB2,CLSTN2,FMN1,VAV3,LCE2B,LCE2C,PLCD3,RIPPLY3,SEMA5A,SLC5A3,ACSBG1,BDNF,KRT74,LSAMP,PRKCH,RYK,ZDHHC17,KCNC1,PCDH15,EML1,ABI3BP,SGCD,WASF1,WDR72,GRIN2B,POLE,EXT2,LAMA3,RAG1,RAG2,ABCB5,ANKRD6,NR2F2,SNAP25,NR5A2,PML,PPARGC1A,SGCG,SYBU,AKAP6,CNTNAP2,FBN1,PLXNA2,TAOK3,BCL2,RXFP2,ZNF675,ARHGAP24,EPHB1,SMARCE1,SIPA1L1,CSGALNACT1,DISP1,LRP2,MMP16,TMEM100,LRRC4,NFIA,VANGL2,NR4A2,ARHGEF10,EPHA7,FYN,KCNE2,ADAMTS18,CHN1,NR4A1,SMARCA4,SULT4A1,CD44,HECW1,PMP22,RNF213,THBS2,FOXO1,PYY,KANK1,ENPP2,ABCB10,ACTN2,ATF6,ATP8A2,DCDC2,GABRB1,KLF13,MME,TNMD,EXOC4,NAV2,LAMB4,ZNF516,CELF4,SERPINB7,TPO,UNC5C,MYLK3,NTM,SLC1A1,UGCG,ZFPM2,PALLD,RARB,RFX4,ETV6,MTOR,ROR1,GAS7,LDB2,MOV10,CHRM1,FAT3,MEGF9,PKP2,BMPER,PTPRD,TIAM2,ZNF521,BBS2,MATN3,PGK1,ZFP64,CEP85L,COL11A1,EPM2A,PLN,CTNNBIP1,KLHL1,SOX8,DSG4,IFT88,NLGN4X,HELLS,KMT2A,PRKCB,VDR,FOXO3,IGF2BP3,LRRTM1,MITF,CAPN3,KALRN,DLC1,EDNRB,ROBO1,RXFP1,SATB2,TANC2,FAP,FLT1,NASP,NOX4,ZNF148,CDH17,GRHL2,TCF4,COL2A1,MALL,NEBL,PREX2,TRAF3IP2,CBLN4,CR1,EY44,GABRA2,SEC24B,MDM1,PKHD1,STK3,TGM2,VASH2,KDR,PPHLN1,PRCP,CHLL,EDA,ABCA12,APP,CALCRL,COL18A1,NRP1,PTPRM,SHROOM3,LGR4,TENM2,ADTRP,EGFLAM,IMMP2L,LCE6A,THRB,KCNK2,SEMA3C,ADAM17,CAMK1D,TSPEAR,IGF2R,ATF2,ELP3,ETS1,NR2C2,EFEMP1,PRTG,TGFB111,RPS6KA5,TCF7L2,AFF2,ITGA11,PARD3,THOC2,ZNF830,ABAT,ATRNL1,FRAS1,GRIN2A,GRIP1,DLX6-AS1,HRNR,OPHN1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5</p>

			<p>A,RIN2,TUB,ALCAM,CHRD1,STK36,UPB1,BCL2L1,ADAMTS16,HDA C4,MYO16,SOX5,SRRM4,DNMT1,GHR,JAM2,NTRK2,PRKG1,ACSL4,DNM3,RASGRP1,STARD13,CAMK4,SDK1,SPRED2,GLI3,KAZN,SMC HD1,CACNA1C,CLDN1,SPRR2B,SPRR2E,CERS3,CRB1,RAP1A,SAFB2,SRP54,TGFBR1,CYSLTR1,PRDX4,ADAM12,DICER1,DYM,EPHA5,TH EMIS,TNR,CUX1,KRTAP6-1,SLC6A17,TENM3,CHST11,CPE,RAPGEF1,CHRNA3,EP300,DSCAM L1,HMG20A,TBX3,CYP7B1,SPRR4,TRIOBP,ATXN1,GAB2,PCSK5,TP73,GRID2,PSMA1,FLNB,SPG11,ADORA2A,CAMK2G,EFNA5,EMCN,FA M20A,MERTK,SPRR2G,WARS2,BRD1,MAGI2,NF1,RGS7,SORL1,BICC1,ELK3,IFT80,IGSF21,TEAD4,TTC8,DMRT1,ASXL1,EIF4E,FRYL,POR,RELN,TNFRSF11B,TSHZ1,GRM5,HAPLN1,HDAC9,IL18R1,KIRREL3,PTPN9,LRRMT3,NDRG2,NUMB,MAP3K13,NPHP4,RALA,TBX15,IL1RAP,NAV3,FBXL17,JAG1,MEOX2,PPP3CA,KLF7,MYT1L,NEB,PLS1,SH3GL2,CXADR,MAS1,WWTR1,KL,CBLB,DOCK10,ELAVL4,MNAT1,SEC63,CNTN1,DGUOK,GPC4,GRM7,RIMS1,TRIM16,GABPA,KAT7,L3MBTL3,AGGF1,ASAP1,FHOD3,FREMI,N4BP2L2,NLGN1,PTPRU,ARHGAP5,CHST8,CTTNBP2,SSUH2,AK8,MEGF11,NPR3,SYCP2,LRRK1,MA PK8IP2,OMG,GABRA5,JAK2,SHOX2,SOBP,SPNS2,AHI1,SMAD3,KID1 NS220,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,ANHX,CDK1,HDAC7,HIVEP3,ITPK1,LTB,MCM3AP,NBN,PRRC2C,TAGLN3,TNF,COB L,NHS,OVOL2,ZFPM1,CHKB,PPF1A2,ADNP2,ATXN10,BLOCIS6,BM P15,DLG5,PHEX,POU6F2,LGR6,SIM2,ARID2,MMP20,PAXBP1,BRIN P1,BCL11A,CALD1,FREM2,HMGA2,MYO6,DOCK1,KIF18A,PCDH19, QK1,RAB23,MBOAT2,TPD52,DAAM2,SMOC2,SULF1,TRPC4,C5AR1,L RP4,PIK3R3,WDR5,XYLTI,CNTN6,EFNB2,AMOTL1,HERC1,PHF8,SPATA5,ZNF423,CLSTN1,INSC,ALPK2,CTNNA1,TENM1,CDKL5,EFHC2,MAMLD1,MYH14,PRKAR1A,TNFRSF19,ARHGAP11B,BPTF,DYNC2H1,MLLT3,CD109,EGF,MIP,PTPN14,CMA1,FOXPA,ILIRAPLI,KIT,SLI T3,TNFSF8,TRPV4,VWC2,CC2D2A,CPS1,DNAH11,EDAR,EFNB1,PTP RO,RAPGEF2,DNAJB6,ESR1,JAK1,MYPN,NCMAP,SEMA3E,UBE3A,F GF13,GABRB2,PLAG1,SGCZ,EPHB2,FNDCA3,KRT76,MECOM,TBCD,TFDP2,TOX,ERBB4,MAP3K3,MINPP1,SLITRK6,SPTA1,FNIP1,LRP5,TTLL5,MYH15,SLAMF1,ABL2,BSG,CAMP,FARP2,GAS8,SETD2,ALX4,AP2B1,ARHGAP35,CLDN11,NSUN2,SGMS2,CCL3,FGF7,LAM1,MYO7B,PRES1,SEMA5B,SPRED3,KIF2A,NHLH2,PSG9,SULF2,ARF4,MYH9,SLC39A12,SOX4,PDGFD,PIK3CD,AGTPBP1,ASGR2,ITGA8,ARID4A,ENPEP,FAM172A,MYO3B,PDZD7,UNC13A,WDPCP,AUTS2,CDH23,FGFR1,MEF2A,RYR1,ARID4B,MAP2,ASXL3,BPGM,IL23R,NTF3,P2RX7,SCUBE1,AR,BCOR,CASP7,FGL2,PAPSS1,SUFU,EYA1,IFNA8,IL1RL2,SRPK2,HLA-DRA,BHLHB9,L3MBTL1,SEMA3A,ANKRD11,CDC73,EPB41L3,JRKL,MARK2,MEIS2,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM72,FERMT2,H CN4,LTBR,MAP2K5,MARK1,PAPP42,SMPD3,TNN,DAB2,GPR55,LCP1,PBX1,RNF207,SRD5A2,STX3,SYT2,ADAM10,BLOCIS5,DAAM1,FGF12,ITGA3,FRY,LGI1,NREP,PLCL2,LECT2,LRIG1,PINI,RPS6KA6,THSD7A,TRPM4,SCLT1,SHROOM4,BMP6,CHRM3,CIT,CLASP1,EIF4ENI F1,CNGB1,TGFA,TMOD1,GAS2,HGF,MYLK,PRPSAP2,CALCR,CENP F,FLI1,ZBTB16,ELN,NCAM1,NFASC,INSR,MACF1,PAK1,PSMB7,SKI,AKT3,CTDPI,ENPP1,FMR1,LIMK2,PAX3,WDR7,ATP5J,FAM126A,FGPS,GABRA1,GPRIN2,KLF6,PRKX,SBF2,ULK4,ABCD1,CRMP1,EVC,MAD1L1,MFNG,RPGRIPI,CCDC141,GLDN,PCK1,PDE6B,PPARA,TTN,ZFH2,CIGALT1,COL19A1,FHL1,GNA13,MYH7,TAF1,CHD5,PPP2R3C,SPRED1,CHSY1,LCE1F,NTN4,PTPRF,BTRC,RIT2,ESRP2,EXT1,M DM4,MYH6,NCAPH2,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,ADAMTS5,CBFA2T3,DOCK7,FBXW11,HDAC5,KLHL3,TDGF1,A2M,MYEF2,SLC38A10,SLC40A1,STIM1,TTC39C,ADARB1,KCNC2,MYH11,NDE1,POU2AF1,PRKCQ,SCEL,STAT3,TP63,AMOT,BRIP1,HPN,ISLR2,PAK3,USH2A,BLNK,DHRS2,DHRS7B,DTNBP1,GAK,CRTAC1,LCE2A,LGALS9,LRP8,GDA,MAPKAPK2,UPK3A,APC,BMPRI1A,CSN3,ITGA1,KIAA0319,NGF,PRKCA,SPINT2,UBASH3B,VLDLR,KRT75,ABI1,CTSH,NCA PG2,RGCC,CYB5D2,GABRG2,IL6R,LCE4A,MAP2K6,TFIP11,SPTBN4,CLASP2,MAP2K1,SOS1,TPH1,VPS35,COL6A3,FGF1,MCOLN3,TBX20,DCHS2,PPP1R9A,RGN,RREB1,TBX18,BZW2</p>
GO:0048856	anatomic al structure developm ent	4.874862724718194e-29	<p>ISM1,SRGAP2B,MACROD2,CDH4,PLCB1,DHX35,CMKLR1,DAB1,OM A1,GTTF2,FMNL2,GABRB3,CDC42EP3,MAPK14,DSCAM,ARID1B,RU NX1,ASIC2,MYO18B,NCAM2,HUNK,ANK3,DCC,SVEP1,WLS,RBFOX1,PCSK2,AKAP13,FBLN1,ERG,GRIK1,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,KCNQ1,DPF3,SUN2,NUBPL,CA10,EPHA6,GRIN3A,NRXN1,SHC3,ZRANB1,ISX,DOK5,NRXN3,SLC1A2,SDK2,DOCK2,CTNND2,EYS,TNC,POTEE,MS4A1,PAX7,CHODL,RIMS2,MTPN,SHANK2,NRG3,SMYD2,HUS1,PKD1L1,ARNT2,FGD6,OLFM3,TGFB3,FSTL4,CDH13,ANK2,LRRRC4C,RTN1,ANKH,NXN,CSMD1,IGSF3,SYNDIG1,TF,SCN8A,</p>

			<p> BCAN,SDCCAG8,TMEM108,GADD45A,ADAMTSL1,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NRG1,ETS2,PSMB2,HYDIN,IL4R,ALDH1A2,CECR2,LRFN5,NLN,SUZ12,ASTN2,PLCE1,UNC5D,SEMA6D,SPOCK1,DRP2,CTNNA2,CCR1,CCR3,CFTR,RBFOX2,TIAM1,RHOC,COL22A1,AGBL4,LDLRAD4,KIAA1217,R4SGRF1,DPYSL2,MYO3A,TET3,CBFA2T2,IL1RAPL2,NKD1,TACC2,ALK,UTRN,SPEF2,ZNF536,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPHA3,PRKACB,DCLK1,COL15A1,AJAP1,AGT,FSIP2,ATAT1,WDR11,ATP6V0D1,CDH11,RHOJ,RCAN1,CDH2,CDH9,PARK2,FHL2,FOXN3,LOXL2,MDGA2,LAMA2,GREB1L,ZNF804A,CYBB,NEGR1,OTC,GNB4,SEMA3D,DACH1,NTN1,KCNH1,TKX,GPC6,NELL1,TRAPPC9,PCDH17,SETD3,ZNRF3,FMNL3,TRIO,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,CDH8,CNTN5,PDCD6,TM4SF1,RPS6KA2,IGF1R,KRT25,MDM2,PALMD,SLC24A4,SMAD1,DSC3,FOXD4L4,GALC,CTNBNL1,RAPGEF5,VCAN,ADAMTS6,PTPRG,CPQ,TRPC5,DMD,HCN1,SYT1,BASPI,KRT2,SIPA1L3,VCL,NOX5,TEAD1,CELSR1,CSMD3,FGF14,FSHR,MBOAT7,FMN2,MAEL,NRIP1,ASTN1,STK24,OPCML,PLAC1,WWOX,ATRX,TRPM2,RYR2,OCA2,XRCC4,DIAPH2,KIF3B,NTNG1,TENM4,CATSPER2,LRRK2,RORB,SLC1A3,STRC,IGFBP7,PIR,KIF26B,NTRK3,RORA,PRICKLE2,ANKS1A,CHD7,RNF165,DISC1,HEXB,EMB,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,PRKD1,SNRK,PLEKHA5,ERCC6,FLVCR1,FRMD6,TGFB2,CLSTN2,FMN1,VAV3,AFF3,DACH2,LCE2B,LCE2C,PLCD3,RIPPLY3,SEMA5A,SLC5A3,ACSBG1,BDNF,KRT74,LSAMP,PRKCH,RIPK4,RYK,ZDHHC17,KCNC1,PCDH15,DNAAF2,EML1,ABI3BP,SGCD,WASF1,WDR72,GRIN2B,KDM4C,POLE,EXT2,LAMA3,RAG1,RAG2,ABCBS,ANKRD6,NR2F2,SNAP25,NR5A2,PAQR8,PML,PPARGC1A,SGCG,SYBU,ARHGAP12,AKAP6,CNTNAP2,FBN1,PPP4R4,PLXNA2,TAOK3,BCL2,CDH10,CHMP4C,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,MOV10L1,SMARCE1,CDH12,SIPA1L1,CSGALNACT1,DISP1,LRP2,MMP16,TMEM100,LRRCA4,NFIA,VANGL2,CDH6,NR4A2,ARHGEF10,EPHA7,FYN,GNRHR,KCNE2,ADAMTS18,CHN1,NR4A1,SMARCA4,SULT4A1,CD44,FLNC,HECW1,PMP22,RNF213,THBS2,CASP6,FOXO1,PDE4D,PYY,RBBP8,KANK1,ENPP2,ABCB10,ACTN2,ATF6,ATP8A2,DCDC2,GABRB1,KLF13,MME,PACRG,TNMD,EXOC4,NAV2,LAMB4,ZNF516,CELF4,SERPINB7,TPO,UNC5C,MYLK3,NTM,SLC1A1,UGCG,ZFPM2,ZNF141,PALLD,VASHB,RFX4,STRIP1,ETV6,MTOR,ROR1,GAS7,LDB2,MOV10,CHRM1,FAT3,MEGF9,PKP2,BMPER,ERMN,PTPRD,TLAM2,ZNF521,BBS2,MATN3,PGK1,ZFP64,CEP85L,COL11A1,EPM2A,PLN,CTNNBIP1,KLHL1,SOX8,DSG4,IFT88,NLGN4X,CDH18,HELLS,KMT2A,PRKCB,VDR,FOXO3,IGF2BP3,LRRTM1,MITF,SCMH1,CAPN3,KALRN,CCDC88C,DLC1,EDNRB,MSI2,ROBO1,RXFP1,SATB2,TANC2,FAP,FLT1,NASP,NOX4,ZNF148,CDH17,GRHL2,TCF4,COL2A1,MALL,NEBL,PREX2,TRAF3IP2,CBLN4,CRI,EYA4,GABRA2,SEC24B,MDM1,PKHD1,STK3,TGFB2,VASH2,FAM9B,KDR,PPLN1,PRCP,ARHGAP15,CHL1,EDA,ABCA12,APP,CALCR1,COL18A1,NRP1,PTPRM,SHROOM3,ARHGEF18,LGR4,TENM2,ADTRP,EGFLAM,IMMP2L,LCE6A,THRB,TTC12,KCNK2,SEMA3C,ADAM17,CAMK1D,MAP3K5,PARVG,TSPEAR,IGF2R,ATF2,ELP3,ETS1,NR2C2,EFEMP1,PRTG,ROS1,TGFB11,RPS6KA5,TCF7L2,AFF2,BICD1,ITGA11,PARD3,THOC2,ZNF830,ABAT,ATRNL1,FRAS1,GRIN2A,GRIPI,DLX6-AS1,HRNR,OPHN1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5A,RIN2,TUB,ALCAM,CHRD1,CNN3,STK36,UPB1,BCL2L1,ADAMTS16,HDAC4,MYO16,SOX5,SRRM4,DNMT1,GHR,JAM2,NTRK2,PRKG1,ACSL4,AICF,DNM3,RASGRP1,STARD13,CAMK4,SDK1,SPRED2,GLI3,KAZN,SMCHD1,CACNA1C,CLDN1,KIF16B,SPRR2B,SPRR2E,CERS3,CRB1,RAP1A,SAFB2,SRP54,TGFBRI,CYSLTR1,PRDX4,RRP7A,ADAM12,DICER1,DYM,EPHA5,THEMIS,TNR,TOPI,CUX1,KRTAP6-1,PEAK1,SLC6A17,TENM3,CHST11,CPE,RAPGEF1,CHRNA3,EP300,MORC3,SYNE1,DSCAML1,HMG20A,SCFD1,TBX3,WIF1,CYP7B1,SPRR4,TRIOBP,ATXN1,GAB2,PCSK5,SYCP1,TP73,GRID2,PARVB,PSMA1,FLNB,SPG11,ADCK1,ADORA2A,CAMK2G,DDX10,EFNA5,EMCN,FAM20A,MERTK,SPRR2G,WARS2,BRD1,FAM9A,MAGI2,NF1,RGS7,SORL1,BICC1,ELK3,IFT80,IGSF21,TEAD4,TTC8,DMRT1,ASXL1,EIF4E,FRYL,POR,RELN,TNFRSF11B,TSHZ1,GRM5,HAPLN1,HDAC9,IL18R1,KIRREL3,NECAB1,PTPN9,COL12A1,LRRTM3,DDC,NDRG2,NUMB,MAP3K13,NPHP4,RALA,TBX15,ADCYAP1R1,IL1RAP,NAV3,ATP10A,EXOC5,FBXL17,JAG1,MEOX2,PPP3CA,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,CAPZB,CXADR,MAS1,WWTR1,KLC6,CBLB,DOCK10,ELAVL4,GSTA2,MNAT1,RNF17,SEC63,CNTN1,DGUOK,GPC4,GRM7,RIMS1,TRIM16,GABPA,KAT7,L3MBTL3,TMEM135,AGGF1,ASAP1,FTOD3,FRS3,EM1,N4BP2L2,NLGN1,PTPRU,AKIRIN2,ARHGAP5,CHST8,CTTNBP2,SH3KBP1,SSUH2,AK8,MEGF11,NPR3,SYCP2,LRRK1,MAPK8IP2,OM </p>
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			<p>G,EHF,GABRA5,JAK2,SHOX2,SOBP,SPNS2,AHI1,SMAD3,XKR4,KIDI NS220,NOS1,PTGFRN,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,A ATF,ANHXC,CDK1,HDAC7,HIVEP3,ITPK1,LTB,MCM3AP,NBN,PRRC2 C,TAGLN3,TNF,COBL,NHS,OVOL2,PANX1,ZFPM1,CHKB,PPF1A2,TA NC1,ADNP2,ATXN10,BLOC1S6,BMP15,DLG5,PHFX,POU6F2,LGR6,S IM2,ARID2,MMP20,PAXBPI,BRINP1,SPAG16,BCL11A,CALD1,FREM 2,HMGA2,MYO6,DOCK1,KIF18A,PCDH19,SULT1B1,QKI,RAB23,EPS 8,MBOAT2,TPD52,DAAM2,PABPC1L,SMOC2,SULF1,TRPC4,C5AR1, CISD2,LRP4,PIK3R3,WDR5,XYLT1,CNTN6,EFNB2,AMOTL1,HERC1, PHF8,SPATA5,ZNF423,CLSTN1,INSC,ALPK2,CTNNA1,TENM1,CDKL 5,DMBT1,EFHC2,MAMLD1,MYH14,PRKAR1A,TNFRSF19,ARHGAP11 B,BPTF,DYNC2H1,FAM171A1,MLLT3,CD109,EGF,MIP,PTPN14,CMA 1,FOXPA,IL1RAPL1,KIT,SLIT3,TAF4B,TNFSF8,TRPV4,VWC2,CC2D2 A,CPS1,DNAH11,EDAR,EFNB1,PTPRO,RAPGEF2,DNAJB6,ESR1,JAK 1,MYPN,NCMAP,SEMA3E,UBE3A,DNMBP,FGF13,GABRB2,PLAG1,S GCZ,ARMC2,EPHB2,FNDC3A,KRT76,MECOM,TBCD,TDFP2,TOX,C1 4ORF39,ERBB4,FER,MAP3K3,MINPP1,RBM19,SLITRK6,SPTA1,FNIP 1,LRP5,TTL5,XKR7,MYH15,SLAMF1,ABL2,BSG,CAMP,F11R,FARP2, GAS8,SETD2,ALX4,AP2B1,ARHGAP35,CLDN11,NSUN2,SGMS2,CCL3 ,FGF7,LAMA1,MYO7B,PREX1,SEMA5B,SPRED3,FGD4,KIF2A,NHLH 2,PSG9,SULF2,ARF4,MYH9,PACSIN2,SLC39A12,SOX4,NEDD9,PCDGF D,PIK3CD,AGTPBP1,ASGR2,ITGA8,ARID4A,ENPEP,FAM172A,KDM 3A,MYO3B,PDZD7,UNC13A,WDPCC,ADCY9,AUTS2,CDH23,FGFR1, MEF2A,RYR1,ARID4B,DAD1,MAP2,ASXL3,BPGM,IL23R,ITGB7,KEA P1,NTF3,P2RX7,SCUBE1,AR,BCOR,CASP7,FGL2,KIAA1109,PAPSS1, SUFU,EYA1,IFNA8,IL1RL2,RBM4,SRPK2,HLA- DRA,BHLHB9,L3MBTL1,NEK5,SEMA3A,ANKRD11,CDC73,EPB41L3, JRKL,MARK2,MEIS2,PDE5A,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM 72,FERMT2,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SMPD3,TNN,DAB 2,GPR55,LCPI,PBX1,RNF207,SRD5A2,STX3,SYT2,ACTN4,ADAM10,B LOC1S5,CCL7,DAAM1,FGF12,ITGA3,POU2F3,FRY,LGII,NREP,PLC L2,LECT2,LRIG1,PIN1,RPS6KA6,THSD7A,TRPM4,SCLT1,SHROOM4, BMP6,CHRM3,CIT,CLASP1,EIF4ENIF1,CFDP1,CNGB1,TGFA,TMOD 1,GAS2,HGF,MYLK,PRPSAP2,CALCR,CENPF,DPIY19L2,FLH1,SLC26A 8,ZBTB16,ELN,NCAM1,NFASC,INSR,MACF1,PAK1,PDE3A,PSMB7,S KI,AKT3,CTDP1,ENPP1,FMR1,LIMK2,PAX3,WDR7,ATPSJ,FAM126A, FPGS,GABRA1,GPRIN2,KLF6,PRKX,SBF2,ULK4,ABCD1,CRMP1,EV C,IDE,MAD1L1,MFNG,RPGRIP1,CCDC141,GLDN,PCK1,PDE6B,PPA RA,SORT1,TTN,ZFH2,C1GALT1,COL19A1,FHL1,GNA13,MYH7,TAF 1,CHD5,FUT8,PPP2R3C,SIPR3,SPRED1,AKR1C2,CHSY1,KRT4,LCE1 F,NTN4,PTPRF,SCN9A,BTRC,HIRA,PGM5,PTPRR,RIT2,ESRP2,EXT1, MDM4,MYH6,NCAPH2,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,A DAMTS5,CBFA2T3,DOCK7,FBXW11,HDAC5,KLHL3,TDGF1,A2M,AK AP2,LYVE1,MYEF2,SLC38A10,SLC40A1,STIM1,TTC39C,ADARBI,KC NC2,MYH11,NDE1,PEMT,POU2AF1,PRKCQ,SCEL,STAT3,TP63,AMO T,BRIP1,HPN,ISLR2,PAK3,USH2A,BLNK,DHRS2,DHRS7B,DITNBP1,G AK,RAP1B,CRTAC1,LCE2A,LGALS9,LRP8,MYOM2,GDA,MAPKAPK2, UPK3A,APC,BMPRI1,CSN3,ITGA1,KIAA0319,NGF,PRKCA,SPINT2,U BASH3B,VLDLR,KRT75,ABI1,CTSH,NCAPG2,RGCC,CYB5D2,EDA2R, GABRG2,IL6R,LCE4A,MAP2K6,SLAH3,TFIP11,SPTBN4,CLASP2,MAP 2K1,SOS1,TPH1,VPS35,COL6A3,FGF1,MCOLN3,TBX20,DCHS2,PPP1 R9A,RGN,RREB1,TBX18,BZW2</p>
GO:0007275	multicellul ar organism developm ent	6.035311461212255e-28	<p>ISM1,SRGAP2B,MACROD2,CDH4,PLCB1,DHX35,CMKLR1,DAB1,GT F2I,GABRB3,MAPK14,DSCAM,ARID1B,RUNX1,ASIC2,MYO18B,NCA M2,HUNK,ANK3,DCC,SVEP1,WLS,RBFOX1,PCSK2,AKAP13,FBLN1, ERG,GRIK1,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,KCNQ1,DPF3,S UN2,CA10,EPAH6,GRIN3A,NRXN1,SHC3,ISX,DOK5,NRXN3,SLC1A2, SDK2,DOCK2,CTNND2,TNC,POTEE,MS4A1,PAX7,CHODL,RIMS2,M TPN,SHANK2,NRG3,SMYD2,HUS1,PKD1L1,ARNT2,OLFM3,TGFBR3, FSTL4,CDH13,ANK2,LRRC4C,RTN1,ANKH,NXN,CSMD1,IGSF3,SYND IG1,TF,SCN8A,BCAN,SDCCAG8,TMEM108,GADD45A,ADAMTSL1,P CP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NRG1,ETS2,PSMB2,HYDIN, IL4R,ALDH1A2,CECR2,LRFN5,NLN,SUZ12,ASTN2,PLCE1,UNC5D,SE MA6D,SPOCK1,DRP2,CTNNA2,CCR1,CCR3,CFTR,RBFOX2,TIAM1,C OL22A1,AGBL4,LDLRAD4,KIAA1217,RASGRF1,DPYSL2,MYO3A,TET 3,CBFA2T2,IL1RAPL2,NKD1,TACC2,ALK,UTRN,SPEF2,ZNF536,FBX O31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPAH3,PRKA CB,DCLK1,COL15A1,AJAPI,AGT,ATAT1,WDR11,ATP6V0D1,KRT411, RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,LOXL2,MDGA2,LAMA2,G REB1L,ZNF804A,CYBB,NEGR1,OTC,GNB4,SEMA3D,DACH1,NTN1,G PC6,NELL1,TRAPPC9,PCDH17,ZNRF3,FMNL3,TRIO,APBA2,FTO,HD AC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,CNTN5,PDCCD6,TM4SF1, RPS6KA2,IGF1R,KRT25,MDM2,SLC24A4,SMAD1,DSC3,GALC,CTNN</p>

			<p> <i>BLI, RAPGEF5, VCAN, ADAMTS6, PTPRG, TRPC5, DMD, HCN1, SYT1, BA SP1, KRT2, SIPA1L3, VCL, NOX5, TEAD1, CELSR1, CSMD3, FGF14, FSHR ,MBOAT7, NRIPI, ASTN1, STK24, OPCML, PLAC1, WWOX, ATRX, TRPM2 ,RYR2, XRCC4, KIF3B, NTNG1, TENM4, LRRK2, RORB, SLC1A3, STRC, IG FBP7, PIR, KIF26B, NTRK3, RORA, PRICKLE2, ANKS1A, CHD7, RNF165, DISC1, HEXB, EMB, SOX6, IER2, MECP2, MTMR2, SEMA4D, GSK3B, LGR 5, LINGO2, SLC8A1, PRKD1, SNRK, PLEKHA5, ERCC6, FLVCR1, TGFB2, CLSTN2, FMN1, VAV3, AFF3, DACH2, LCE2B, LCE2C, PLCD3, RIPPLY3, SEMA5A, SLC5A3, ACSBG1, BDNF, KRT74, LSAMP, PRKCH, RYK, ZDHH CI7, KCNC1, PCDH15, DNAAF2, EML1, ABI3BP, SGCD, WASF1, WDR72, GRIN2B, KDM4C, POLE, EXT2, LAMA3, RAG1, RAG2, ABCB5, ANKRD6, N R2F2, SNAP25, NR5A2, PML, PPARGC1A, SGCG, SYBU, AKAP6, CNTNAP 2, FBN1, PPP4R4, PLXNA2, TAOX3, BCL2, CHMP4C, RAD51B, RXFP2, ZN F675, ARHGAP24, EPHB1, SMARCE1, SIPA1L1, CSGALNACT1, DISP1, L RP2, MMP16, TMEM100, LRRC4, NFIA, VANGL2, NR4A2, ARHGEF10, EP HA7, FYN, GNRHR, KCNE2, ADAMTS18, CHN1, NR4A1, SMARCA4, SULT 4A1, CD44, HECW1, PMP22, RNF213, THBS2, FOXO1, PYY, RBBP8, KANK 1, ENPP2, ABCB10, ACTN2, ATF6, ATP8A2, DCDC2, GABRB1, KLF13, MM E, TNMD, EXOC4, NAV2, LAMB4, ZNF516, CELF4, SERPINB7, TPO, UNC5 C, MYLK3, NTM, SLC1A1, UGCG, ZFPM2, ZNF141, PALLD, RARB, RFX4, E TV6, MTOR, ROR1, GAS7, LDB2, MOV10, CHRM1, FAT3, MEGF9, PKP2, B MPER, PTPRD, TIAM2, ZNF521, BBS2, MATN3, PGK1, ZFP64, CEP85L, C OL11A1, EPM2A, PLN, CTNNBIP1, KLHL1, SOX8, DSG4, IFT88, NLGN4X, HELLS, KMT2A, PRKCB, VDR, FOXO3, IGF2BP3, LRRTM1, MITF, SCMH 1, CAPN3, KALRN, DLC1, EDNRB, ROBO1, RXFP1, SATB2, TANC2, FAP, F LT1, NASP, NOX4, ZNF148, CDH17, GRHL2, TCF4, COL2A1, MALL, NEBL ,PREX2, TRAF3IP2, CBLN4, CR1, EYA4, GABRA2, SEC24B, MDM1, PKHD 1, STK3, TGM2, VASH2, KDR, PPHLN1, PRCP, CHL1, EDA, ABCA12, APP, CALCRL, COL18A1, NRP1, PTPRM, SHROOM3, LGR4, TENM2, ADTRP, E GFLAM, IMMP2L, LCE6A, THRB, KCNK2, SEMA3C, ADAM17, CAMK1D, TSPEAR, IGF2R, ATF2, ELP3, ETS1, NR2C2, EFEMP1, PRTG, TGFB11I, R PS6K45, TCF7L2, AFF2, ITGA11, PARD3, THOC2, ZNF830, ABAT, ATRNL 1, FRAS1, GRIN2A, GRIP1, DLX6- AS1, HRNR, OPHN1, TRPS1, ZNF568, CASP5, CCDC88A, CD38, DENND5 A, RIN2, TUB, ALCAM, CHRDL1, STK36, UPB1, BCL2L1, ADAMTS16, HDA C4, MYO16, SOX5, SRRM4, DNMT1, GHR, JAM2, NTRK2, PRKG1, ACSL4, A1CF, DNMT3, RASGRP1, STARD13, CAMK4, SDK1, SPRED2, GLI3, KAZN, SMCHD1, CACNA1C, CLDN1, KIF16B, SPRR2B, SPRR2E, CERS3, CRB1, R AP1A, SAFB2, SRP54, TGFBRI, CYSLTR1, PRDX4, RRP7A, ADAM12, DIC ER1, DYM, EPHA5, THEMIS, TNF, TOP1, CUX1, KRTAP6- 1, SLC6A17, TENM3, CHST11, CPE, RAPGEF1, CHRNA3, EP300, MORC3, DSCAML1, HMG20A, TBX3, CYP7B1, SPRR4, TRIOBP, ATXN1, GAB2, PCS K5, TP73, GRID2, PSMA1, FLNB, SPG11, ADORA2A, CAMK2G, EFN45, E MCN, FAM20A, MERTK, SPRR2G, WARS2, BRD1, MAGI2, NF1, RGS7, SOR L1, BICC1, ELK3, IFT80, IGSF21, TEAD4, TTC8, DMRT1, ASXL1, EIF4E, F RYL, POR, RELN, TNFRSF11B, TSHZ1, GRM5, HAPLN1, HDAC9, IL18R1, KIRREL3, NECAB1, PTPN9, COL12A1, LRRTM3, DDC, NDRG2, NUMB, M AP3K13, NPHP4, RALA, TBX15, ADCYAP1R1, IL1RAP, NAV3, FBXL17, JA G1, MEOX2, PPP3CA, KLF3, KLF7, MYT1L, NEB, PLS1, SH3GL2, CXADR, MAS1, WWTR1, KL, C6, CBLB, DOCK10, ELAVL4, MNAT1, SEC63, CNTN1, DGUOK, GPC4, GRM7, RIMS1, TRIM16, GABPA, KAT7, L3MBTL3, AGGF 1, ASAP1, FHOD3, FREM1, N4BP2L2, NLGN1, PTPRU, AKIRIN2, ARHGA P5, CHST8, CTTNBP2, SSUH2, AK8, MEGF11, NPR3, SYCP2, LRRK1, MAP K8IP2, OMG, GABRA5, JAK2, SHOX2, SOBP, SPNS2, AH11, SMAD3, KIDIN S220, SERPINB12, COL8A1, PLXNB1, RDH10, TCF12, AATF, ANHX, CDK 1, HDAC7, HIVEP3, ITPK1, LTB, MCM3AP, NBN, PRRC2C, TAGLN3, TNF, COBL, NHS, OVOL2, ZFPM1, CHKB, PPFA2, ADNP2, ATXN10, BLOC1S6 ,BMP15, DLG5, PHEX, POU6F2, LGR6, SIM2, ARID2, MMP20, PAXBP1, B RINP1, BCL11A, CALD1, FREM2, HMGA2, MYO6, DOCK1, KIF18A, PCD H19, QKI, RAB23, MBOAT2, TPD52, DAAM2, SMOC2, SULF1, TRPC4, CSA R1, CISD2, LRP4, PIK3R3, WDR5, XYLT1, CNTN6, EFN2, AMOTL1, HER C1, PHF8, SPATA5, ZNF423, CLSTN1, INSC, ALPK2, CTNNA1, TENM1, CD KL5, EFHC2, MAMLD1, MYH14, PRKARIA, TNFRSF19, ARHGAP11B, BP TF, DYNC2H1, MLLT3, CD109, EGF, MIP, PTPN14, CMA1, FOXP4, IL1RA PL1, KIT, SLIT3, TNFSF8, TRPV4, VWC2, CC2D2A, CPS1, DNAH11, EDAR, EFNB1, PTPRO, RAPGEF2, DNAJB6, ESR1, JAK1, MYPN, NCMA, SEMA 3E, UBE3A, FGF13, GABRB2, PLAG1, SGCZ, EPHB2, FNDC3A, KRT76, M ECOM, TBCD, TFDP2, TOX, ERBB4, MAP3K3, MINPP1, RBM19, SLITRK6 ,SPTA1, FNIP1, LRP5, TTLL5, MYH15, SLAMF1, ABL2, BSG, CAMP, F11R, FARP2, GAS8, SETD2, ALX4, AP2B1, ARHGAP35, CLDN11, NSUN2, SGMS 2, CCL3, FGF7, LAMA1, MYO7B, PREX1, SEMA5B, SPRED3, KIF2A, NHL H2, PSG9, SULF2, ARF4, MYH9, SLC39A12, SOX4, PDGFD, PIK3CD, AGT PBP1, ASGR2, ITGA8, ARID4A, ENPEP, FAM172A, MYO3B, PDZD7, UNC </i> </p>
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			<p> <i>I3A, WDP, ADCY9, AUTS2, CDH23, FGFR1, MEF2A, RYR1, ARID4B, DAD1, MAP2, ASXL3, BPGM, IL23R, KEAP1, NTF3, P2RX7, SCUBE1, AR, BCOR, CASP7, FGL2, KIAA1109, PAPSS1, SUFU, EYA1, IFNA8, IL1RL2, SRPK2, HLA-DRA, BHLHB9, L3MBTL1, SEMA3A, ANKRD11, CDC73, EPB41L3, JRKL, MARK2, MEIS2, ZMIZ1, FLT3, PDLIM5, PPARGC1B, TRIM72, FERMT2, HCN4, LTBR, MAP2K5, MARK1, PAPP42, SMPD3, TNN, DAB2, GPR55, LCP1, PBX1, RNF207, SRD5A2, STX3, SYT2, ADAM10, BLOC1S5, DAAM1, FGF12, ITGA3, FRY, LGI1, NREP, PLCL2, LECT2, LRIG1, PIN1, RPS6KA6, THSD7A, TRPM4, SCLT1, SHROOM4, BMP6, CHRM3, CIT, CLASP1, EIF4ENI1, CNGB1, TGFA, TMOD1, GAS2, HGF, MYLK, PRPSAP2, CALCR, CENPF, FLI1, ZBTB16, ELN, NCAM1, NFASC, INSR, MACF1, PAK1, PSMB7, SKI, AKT3, CTDPI1, ENPP1, FMR1, LIMK2, PAX3, WDR7, ATP5J, FAM126A, FPGS, GABRA1, GPRIN2, KLF6, PRKX, SBF2, ULK4, ABCD1, CRMP1, EVC, IDE, MAD1L1, MFNG, RPRGRI1, CCDC141, GLDN, PCK1, PDE6B, PPARA, TTN, ZFH2, C1GALT1, COL19A1, FHL1, GNA13, MYH7, TAF1, CHD5, FUT8, PPP2R3C, S1PR3, SPRED1, CHSY1, LCE1F, NTN4, PTPRF, SCN9A, BTRC, HIRA, PTPRR, RIT2, ESRP2, EXT1, MDM4, MYH6, NCAPH2, NCOA1, PRKCG, PRLR, SCO2, TYMP, UMOD, ADAMTS5, CBFA2T3, DOCK7, FBXW11, HDAC5, KLHL3, TDGF1, A2M, MYEF2, SLC38A10, SLC40A1, STIM1, TTC39C, ADAR1, KCNC2, MYH11, NDE1, PEMT, POU2AF1, PRKCG, SCLEL, STAT3, TP63, AMOT, BRIP1, HPN, ISLR2, PAK3, USH2A, BLNK, DHRS2, DHRS7B, DTNBP1, GAK, CRTAC1, LCE2A, LGALS9, LRP8, GDA, MAPKAPK2, UPK3A, APC, BMPRI1, CSN3, ITGA1, KIAA0319, NGF, PRKCA, SPINT2, UBASH3B, VLDLR, KRT75, ABI1, CTSN, NCAPG2, RGCC, CYB3D2, GABRG2, IL6R, LCE4A, MAP2K6, SLAH3, TFIP11, SPTBN4, CLASP2, MAP2K1, SOS1, TPH1, VPS35, COL6A3, FGF1, MCOLN3, TBX20, DCHS2, PPP1R9A, RGN, RREB1, TBX18, BZW2</i> </p>
GO:006507	biological regulation	5.4881435190474596e-27	<p> <i>LINC00273, IGHV1OR21-1, ISM1, TASP1, FANK1, CAST, ADCY2, SRGAP2B, TPTE, CDH4, PIEZO2, ZHX3, PLCB1, KMT2C, KHDRBS2, ZNF595, CMKLR1, DAB1, OMA1, DUX4, GTF2I, ZNF717, FMNL2, GABRB3, CDC42EP3, GABRG3, MAPK14, ABCG8, DSCAM, ARID1B, TPTE2, MIR663A, GPHN, RUNX1, ORC3, SH3RF3, ASIC2, CTBP2, DTNA, OR11H1, SERPINA1, TSHZ2, CCNG2, RAB27A, HUNK, CACNA1E, KCNJ6, PCBD2, ANXA8L1, NPY4R, PRIM2, LYPD6, OR4M2, PTPRT, MIR1185-1, MIR1185-2, MIR134, MIR154, MIR300, MIR323B, MIR376C, MIR381, MIR382, MIR485, MIR487A, MIR487B, MIR539, MIR544A, MIR654, MIR655, MIR889, ANK3, IGHV4-31, DTD2, DCC, BCL2L13, IGHV3-64, SVEP1, WLS, RFXO1, SYN3, TIMP3, ZNF397, ZSCAN30, DUSP22, PCSK2, TTC28, AKAP13, FBLN1, ERG, VPS13D, GRIK1, ZNF292, GPR139, IGHV1OR15-9, LARGE, SORBS2, SLC24A3, IGHV4OR15-8, NPHP3, ITGA2, ABCG1, TMPRSS2, RGS6, KCNQ1, DPF3, SUN2, GABBR2, ATF7IP, EPHA6, OR4K15, TMEM117, VRK2, GRIN3A, FCRL2, NRXN1, SHC3, TMPRSS3, MIR369, MIR410, MIR656, ZRANB1, ISX, TNNI3K, DOK5, SGSM1, NRXN3, SLC1A2, RAB5A, ZNF578, DOCK2, CTNND2, TNC, PCNT, PLEKHB2, POTE, MS4A1, OR8U1, PAX7, CHODL, RIMS2, MTPN, SHANK2, COMT, GRIA1, NRG3, ZNF732, SMYD2, CELF2, CLEC16A, HUS1, ARNT2, FGD6, SLC9B1, TGFB3, ANO4, FSTL4, CDH13, RNF152, ANK2, TBC1D22A, LRRC4C, RTN1, ANKH, NXN, KCND3, CSMD1, RUNX1T1, FAM155A, CSNK2A1, PDE4DIP, SYNDIG1, SLC12A1, ZNF678, DPP10, ZNF112, ZNF229, ZNF285, TF, PLGRKT, PRIMA1, ERCC4, SCN8A, KCNE1, PIK3C2B, SAMD4A, SDCCAG8, MIR99A, MIRLET7C, TMEM108, EIF4EBP3, CHEK2, OR4C12, ZNF486, GADD45A, PRDM9, KCNJ15, PCP4, PSMC6, ACIN1, ZNF331, SYT17, PLXNA4, KCNG3, FLRT2, TOX3, GPC3, FBLN5, NRG1, SCAR5, STXBP6, ETS2, PSMB2, SHISA6, RAD51D, RFFL, NPAS3, SPIDR, IL4R, ALDH1A2, LRFN5, RYR3, EWSR1, MCTP1, GGT1, MIR17HG, NLN, ST8SIA1, SUZ12, LCORL, PRMT8, ASTN2, PLCE1, SH3RF2, UNC5D, KSR2, GLP2R, STK38L, SEMA6D, SPOCK1, ABHD17C, CTNNA2, SLC3A1, CCR1, CCR3, CFTR, RFXO2, ZNF420, DTX4, MIR551B, ZNF257, MED13L, PCTP, MC2R, TIAM1, PM20D1, RHOC, AGBL4, BEND5, LDLRAD4, DNAJC15, RGS7BP, ZNF91, RASGRF1, ZBTB20, DPYSL2, GRID1, SLC6A2, TET3, ARFIP1, CBFA2T2, IL1RAPL2, OR4A5, NKD1, HPSE2, SCAL, MX1, BTN2A1, ALK, PTPRE, PIK3C3, UTRN, SORCS3, ZNF536, FAM3B, PLCB4, ERIC1, FBXO31, KLRF2, RAB7A, CNTN4, RGL2, TAPBP, ARID5B, PHACTR1, S100B, ROBO2, SPOCK3, ZNF366, C2CD3, EPHA3, PRKACB, PTPRN2, CNTNAP4, DCLK1, PXDN, COL15A1, CRNN, AJAP1, LEMD3, OR8K3, AGT, ERC2, PHACTR3, CST2, MAGEB3, SHISA9, ATAT1, AVEN, CHRM5, FBXO32, WDR11, ATP6V0D1, CDH11, RHOJ, RCAN1, CDH2, KLHL25, PAH, PARK2, BANP, FHL2, FOXN3, LGALS14, LOXL2, DLGAP1, LAMA2, CDC5L, KIR2DL1, KIR2DL4, KIR3DL2, OR4K13, BPIFB1, CORO2B, FRMPD4, TRIM51, ZNF804A, CYBB, MCTP2, NEGR1, OTC, PSPC1, BRF1, GNB4, OR4M1, OR4N2, SEMA3D, DACH1, NTN1, OR52N5, TP53I11, TRIM22, TRIM5, KCNH1, U</i> </p>

			<p> SP25,ZBTB8B,ZNF268,DCUN1D4,TKX,CP,DENND2A,GPC6,RNF185,USP40,USP6,ZNF232,ANKFN1,NELL1,TRAPPC9,DBH,ITSN1,TNS3,TS PAN8,NCF4,PCDH17,PHC1,SETD3,ZNRF3,FMNL3,KCNMA1,RIN3,T RIO,ZNF845,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFA P2D,ZBTB34,CDH8,KCTD1,AHRR,HS4-MIR-490,PDCD6,ZSCAN5C,OR2L13,RPS6KA2,STXBP4,GPC5,LCMT1,IGF1R,MDM2,MX2,PALMD,SLC24A4,SMAD1,DSC3,E2F3,NOVA1,SYT9,Z BED4,FOXO4,OR11G2,OR9Q1,TMPRSS6,ZNF567,ZNF850,CTNNB L1,RAPGEF5,CEP97,GABRG1,KCNK17,NR3C2,PTPRG,PXK,PDE9A, CPQ,OR8K5,SACS,TRIM48,TRPC5,DMD,HCN1,KCTD8,STK33,SYT1, BASP1,CACNA2D3,CACNG3,KRT2,SIPA1L3,VCL,NOX5,TEAD1,CELS R1,CSMD3,FGF14,FSHR,SGS1L,GRIA4,GRM1,MBOAT7,FMN2,HNR NPA2B1,MAEL,MORF4L1,NFE2L3,NR1P1,PRKAR2A,SKAP1,SORCS2, INPP5A,STK24,DCDC1,DPP6,WDR83,WWOX,ATRX,ACTR5,FRMD5,P ARP16,TRPM2,CNIH3,CTNNA3,RNLS,RYR2,USP16,XRCC4,KIF3B,NT NG1,OR2M5,TENM4,UNC13C,CAMTA1,CATSPER2,DHRS7C,HSPB8, LINC00472,LRRK2,MAPK10,MIR495,MIR543,RORB,SLC1A3,IGFBP7, KCNH5,PIR,ZFP30,ZNF607,KIF26B,NTRK3,NUSAP1,RORA,CD8B,G GT2,ILDR1,IQCJ- SCHIP1,PRICKLE2,SLC4A4,ANKS1A,CHD7,OVGP1,RNF165,ZNF26, DISC1,HEXB,KCNK13,MEMO1,PAN3,TPRG1L,WRAP73,CDCA2,GLIS 1,KCTD9,PDXP,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3 B,LGR5,LINGO2,SLC8A1,ZNF432,ZNF841,CDC14A,MAGI3,PLCH2,P RKD1,SERPINA4,SERPINA5,SNRK,ERCC6,FLVCR1,FRMD6,OGT,RN F144A,TGFB2,ATP1A4,CLSTN2,FMN1,PRAMEF12,VAV3,ANKS1B,AF F3,ATP9B,C8A,DACH2,DNAJC6,FUT4,PIWIL4,PLCD3,RIPPLY3,S100 A11,SEMA5A,SLC5A3,BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RIPK4 ,RYK,ZDHHC17,KCNC1,NBEA,PCDH15,PLCXD3,POLR3C,TOR1AIP1 ,ABI3BP,EDIL3,SGCD,WASF1,GRIN2B,KDM4C,OR6N1,OTUD7A,CH ST9,EXT2,LAMA3,NKAIN2,RAG1,RAG2,SAMD13,SIK2,ZNF433,ABCB 5,ANKRD6,ARHGAP8,NR2F2,PLEKHM2,PRR5,PRR5- ARHGAP8,PTGFR,SNAP25,NR5A2,PAQR8,PCBP3,PITPNC1,PML,PP ARGC1A,RNF180,TRUB2,USP36,ZNF627,ARHGAP12,CORO2A,AKAP 6,CNTNAP2,TNS1,FBN1,MED15,PPP4R4,GRIK3,IGHV3- 16,LRFN2,NLRP2,NLRP7,PLXNA2,SNAP23,TAOK3,ZNF610,ACSM3,B CL2,CHMP4C,MXI1,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EP HB1,KCNJ3,MOV10L1,SMARCE1,IL12RB2,SIPA1L1,SKAP2,SLC30A5, DISP1,KLF12,LRP2,MMP16,NKAIN3,NSF,TMEM100,FRMD4A,ITPR2, LRRC4,NF1A,SDN1,VANGL2,CDH6,DEPTOR,NR4A2,ZNF677,ABCC9, ARHGEF10,CYB561A3,EPHA7,MIR648,PSD3,ZBTB7C,DPT,RBAK,RB AK- RBAKDN,RPGR,FYN,GNRHR,KCNE2,LRRC69,PARN,ADAMTS18,CH N1,NR4A1,SMARCA4,CD44,EIF4G3,HECW1,MYL12A,NEU3,PMP22,R CVRN,RHBDD1,RNF213,THBS2,FOXO1,PDE4D,PYY,RBBP8,RNF144 B,TBXAS1,KANK1,ATP10B,ENPP2,ABCB10,ACTN2,ARHGEF3,ATF6, ATP8A2,BACH1,CST9L,DCDC2,GABRB1,GRK5,KLF13,MME,PACRG, RNF217,TNMD,CSNK1G3,EXOC4,KCNS3,NAV2,GRIK2,IGSF11,ZNF5 16,CELF4,KCNIP4,RAP1GDS1,SERPINB7,TPO,UNC5C,APBB2,EIF3E ,KCND2,MYLK3,NAMPT,SCN11A,SETD7,SLC1A1,UGCG,ZFPM2,ZNF 141,ZNF429,ZSCAN5A,GLIS3,PHF20,RARB,REGR,RFX4,STRIP1,AGA P1,ETV6,GNG4,NLRP12,GRAP2,MFSD12,MTOR,RMI2,ROR1,CADPS, LDB2,MOV10,TMPRSS4,VPS26B,CHRM1,CTDSP2,DDX21,FAT3,PK P2,UBXN2B,ZNF510,ABCA13,BMPER,CCDC88B,ERMN,PTPRD,RAS GEF1B,SCAF8,TIAM2,ZNF521,BBS2,OGFOD1,OR51B2,OR51I1,PGK1 ,PLCL1,ZFP64,ZNF483,ARL6IP5,ATP1A1,EPM2A,PLN,SLCO1B1,NOL 11,ZMAT3,CLYBL,CTNNBIP1,EPB41L4B,EVI5,HEPHL1,SOX8,ZMYN D11,DIDO1,DSG4,HAS3,HIVEP2,IFT88,MIR491,NLGN4X,OR4K17,O R8J3,PRKCE,ATP6V1D,EIF2S1,GT2A1L,HELLS,KMT2A,PRKCB,ST ON1,VDR,ADCY8,EFHB,FAM19A4,FHL5,FOXO3,IGF2BP3,LRRTM1, MITF,RAB31,SCMH1,SCP2,TRAPPC12,CAPN3,DPH6,ITLN1,KALRN, PJA1,TTL12,CCDC88C,CREB5,DLC1,EDNRB,MSR1,OASL,ROBO1,R XFPI1,SATB2,TANC2,TBC1D4,TDRD3,BNIP3L,FAP,FLT1,NOX4,SGIP 1,SLC12A8,STX12,ZNF148,CDH17,CENPV,GRHL2,TCF4,TSC22D3,Z NF573,ZNF720,COL2A1,KCNC4,MALL,MAP3K7,MAPK9,NBAS,NR3C 1,PREX2,TACR3,TRAF3IP2,VPS37B,ZNF277,CR1,EYA4,GABRA2,OR4 C15,SEC24B,SPON1,ACSL5,MDM1,PKHD1,STK3,SUPT3H,TGM2,VAS H2,ZNF585A,KDR,PPhLN1,PRCP,RAB30,ARHGAP15,CASK,CHL1,E DA,IGHV4- 28,PCOLCE2,ABCA12,APP,CALCRL,COL18A1,DGKB,NRP1,PTPRM, SHROOM3,UACA,ARHGEF18,ELMO1,LGR4,LINC00473,SERPING1,T ENM2,ADTRP,CD58,EGFLAM,KAT5,RANBP10,ST7,THRB,CPEB2,FU BP1,KCNK2,SEMA3C,ZNF667,ZNF98,ADAM17,CAMK1D,DIS3L2,MA P3K5,PKP4,TSPEAR,CDC42BPG,IGF2R,TFPI,ZER1,ATF2,ELP3,ETS1 </p>
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			<p>,GPR78,GRK6,NR2C2,PEX5L,PIK3R5,SAMSN1,EFEMP1,GOPC,MT1HL1,OIT3,PRTG,ROSI,SMG6,TGFB111,TM9SF4,CDK17,DOT1L,KPNB1,OR10R2,PSIP1,RGS16,RPS6K45,TCF7L2,TNFRSF10B,TRABD2B,ZNF443,ZNF490,ZNF709,ZNF799,ACSM2A,AFF2,BICD1,CYTIP,ITGA11,PARD3,RALGAP42,TLK2,TRAF3,ZNF830,ABAT,ATRNL1,DOCK9,GRIN2A,GRIP1,MIR183,MIR96,PXT1,RIMS3,SGK2,DLX6-AS1,HRNR,KIFAP3,OPHN1,BCLAF1,PYGL,SGMS1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5A,FAM83B,KHDRBS3,MOB3B,MRPS27,RIN2,RNF43,SLC30A7,TUB,ZBED5,ALCAM,CHRD1,NCF2,RNF126,SMG7,STK36,BCL2L1,ADAMTS16,GUCY2F,HDAC4,MYO16,PDE4B,SOX5,SRRM4,TIMP2,BACE2,BCL2L15,DNMT1,GHR,GLRA2,JAM2,MAPRE2,MIR605,NTRK2,PRKG1,ACSL4,FAM83G,A1CF,CDC42BP4,DNM3,NGG2,BRD4,PKNOX2,PTPDC1,RASGRP1,STARD13,ARR3,CAMK4,COMMD1,KCTD7,LY86,RAB11FIP4,RABGEF1,RGL1,SDK1,SPIN3,SPRED2,STARD4,GLI3,OR5L2,SMCHD1,ZNF207,CACNA1C,CLDN1,COG7,KIF16B,MORC2,OR11L1,PPA2,STXBP5,CRB1,DOCK4,RAP1A,SAFB2,TGFBF1,USP53,ZBTB41,CYSLTR1,KCNJ12,MGLL,PRDX4,ADAM12,DICER1,EPHA5,LCP2,TAS2R38,THEMIS,TNR,TOPI,CUX1,NCOA5,PEAK1,TAS2R1,TENM3,CHST11,CPE,IL16,ITGB3BP,MAGEA11,PTTG1IP,RAPGEF1,ZNF729,CD96,CHRNA3,CHRNA5,EP300,MORC3,ELAVL2,HMG20A,SCFD1,TBX3,TTC39B,WIF1,CACNA2D1,CACNA2D4,CYP7B1,DIO2,GRAMD4,PRAMENP,STX8,TRIOBP,ATXN1,BRD7,CLIC6,GAB2,GLRA1,PCSK5,SYCP1,TP73,COL4A6,GRID2,IFNGR2,NPCC1,OR4C5,PARVB,PIBF1,PNPLA3,RASGRF2,TRPM7,ARHGEF33,PSMA1,TRHDE,FHIT,FLNB,ONECUT3,PPP1R12B,ADCK1,ADORA2A,ADRBK2,CABIN1,CAMK2G,EFNA5,EMCN,FAM20A,MERTK,RALGPS1,TAC4,BRD1,CACNG2,GUCY2C,MAGI2,NF1,PPP6R2,RALGPS2,RFC3,RGS7,TFF1,USP17L5,ZNF525,ZNF765,KCNQ5,SORL1,STRN3,ZNF615,ARHGAP6,ASB13,BICC1,BID,ELK3,IFT80,OR5K4,TEAD4,TRIM59,TTTC8,DMRT1,HTR4,LZTR1,ASXL1,EIF4E,MICU1,POR,RELN,SLC39A8,SLC9C1,TNFRSF11B,TSHZ1,USP3,GRM5,HDAC9,IGHV4-4,IL18R1,IL1RL1,NECAB1,PTPN9,SELE,DYNC1H1,LRRTM3,MGAT5,PLSCR4,NAPEPLD,NDRG2,NUMB,RHPN2,SP2,TNFAIP8,CCDC57,IGHV3OR16-12,MAP3K13,NLK,NPHP4,RALA,TBX15,ADCYAP1R1,CYP39A1,EGLN3,IL1RAP,NAV3,ATP10A,FBXL17,FBXL5,JAG1,MEOX2,PPP3CA,TBC1D3B,GPR176,JRK,KCNB2,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,SLC7A1,SNX25,ATP8B4,CAPZB,CXADR,DGKI,MAS1,PER1,SATB1,SLC24A2,TBC1D5,WWTR1,KL,ANKRD13A,C6,CBLB,DOCK10,ELAVL4,MAGEB2,MNAT1,PLSCR1,ATP9A,CNTN1,DGUOK,DOK6,GPC4,GRM7,RIMS1,TMEM67,TRIM16,WDR59,ZNF736,AHSA1,GABPA,GABRA3,GPSM2,KAT7,L3MBTL3,MAPK4,MIR105-1,MIR105-2,MIR767,SSBP2,STIM2,TMEM135,ZNF540,ZNF571,SLC22A2,AGGF1,ASAP1,BORA,FHOD3,ITGAE,N4BP2L2,NLGN1,P2RX6,PDE1C,PTPRU,THAP7,AKIRIN2,ARHGAP5,BTBD11,CHST8,CTTNBP2,RNF128,RPS20,SH3KBP1,SLC22A3,ZNF562,ENOX2,NPR3,PHACTR2,RAD51API,SYCP2,AKAP7,LRKK1,MAPK8IP2,VEPH1,ZNF208,ACOX3,CACNA1D,DDX3X,EGFL6,LRRPPRC,NSG1,RBL2,ARAP2,CNOT7,DTD1,GMD5,MAAML3,EHF,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,DNMT3B,JAK2,LMO7,SHOX2,SPNS2,AHI1,SMAD3,XKR4,BALAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,MTTC4,ZNF337,AATF,ANH2,CDK1,DCBLD2,HDAC7,HIVEP3,ITPK1,LTB,MIR320B2,MRGPRG,NBN,NVL,RRH,SLC39A10,TAGLN3,TNF,COLLRCH1,OVOL2,PANX1,SNX5,TNIP1,ZFPM1,CSPP1,EIF3A,ILF3,POMC,PPFIA2,TMC2,PRDM15,ADNP2,BLOC1S6,BMP15,DHRS11,DLG5,FCHSD2,INO80,NUDT4,POU6F2,RBM11,SCAF4,TRIM23,AFAP1,LGR6,MAGI1,OR11A1,OR5V1,RXFP4,SIM2,ARID2,MLIP,MMP20,PAXBP1,SHC2,BRINP1,FAM220A,KCNK10,PLCH1,PRG3,SRSF4,STK32B,ADORA3,ARF1,BCL11A,CLEC4A,HMGA2,MYO6,NEK4,POLR1A,TAF1D,UBE2E3,YAF2,ZNF41,ZNF705A,ZNF880,AGO3,DOCK1,GRIA3,IGLC2,IGLL5,KIF18A,MUC5AC,PAPOLA,RUFY1,STK32C,SULT1B1,TSPAN13,ZSWIM7,ANO1,CDC20B,GCLC,KCNA6,PMEPA1,QKI,RAB23,UBE2V1,ZNF664,ZNF728,ZNF879,ACTR8,EPH8,LTBP1,MBOAT2,SP140,SP140L,CYP3A5,DAAM2,L3MBTL4,SLC7A7,SMOC2,SULF1,TRPC4,ANKRD31,C5AR1,CCP110,CISD2,DEF6,GNAL,LRP4,PIK3R3,TSPAN1,WDR5,ARHGEF6,CNGB3,CNTN6,EFNB2,KCNH8,MXD3,MYCT1,PIWI L3,SAE1,TRDN,TRIM41,AMOTL1,HERC1,NET1,PHF8,ZNF423,CDC14B,CLSTN1,INSC,LRRRC8D,SELP,ALPK2,CDK8,CHD6,CTNNAT1,CUL2,NSG2,SCN1A,TENM1,TSHZ3,WDFY2,ZNF407,ZNF93,ARHGEF11,CDKL5,DMXL1,EFHC2,GRIK4,GSKIP,MAMLD1,MIR765,MYH14,NELL2,PRKARIA,TNFRSF19,ZNF345,ARHGAP11B,BPTF,DYNC2H1,FAM171A1,GABRR2,KCNH7,MLLT3,MYRIP,SIPA1L2,CD109,EGF,MIP,PTPN14,SEC16B,SPIRE2,ALDH1A1,CMA1,FOXP4,GBE1,IL1RAPL1,KIT,MT</p>
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			<p> RR,POTEF,SLIT3,TNFSF8,TNRC6B,UBR2,ZNF600,BLM,CTNNA1,OR7A5,PIK3C2G,TRPV4,VWC2,ABCA5,C8B,CC2D2A,CPS1,DNAH11,EDAR,EFNBI,KCNAB1,NAPG,PTPRO,RAPGEF2,REG1B,STK32A,ZIM3,DNAJB6,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,SLC30A8,UBE3A,DNMBP,EBAG9,FGF13,GABRB2,GRM4,MARVELD3,NUP155,PLAG1,SGCZ,AKAP10,ANO3,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,TBCD,TFDP2,TOX,ABCC1,C14ORF39,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,RBM19,SLITRK6,SPTA1,TDRKH,CACNG6,FNIP1,LRP5,MALRD1,PTH2R,RAPGEF6,SHCBP1,XKR7,ZNF439,ZNF507,LACTB,RPS27L,SLAMF1,ABL2,ASAP2,BSG,CAMP,DEPDC5,F11R,FARP2,GAS8,HS1BP3,OR4C6,SETD2,VPS13C,ALX4,A P2B1,ARHGAP35,CD2AP,COMMD7,NSUN2,PTPRK,SGMS2,ATP8A1,CCL3,FGF7,LAMA1,MCUR1,PREX1,RNF138,SEMA5B,SPRED3,TNFAIP8L2,VWF,ZNF189,ARHGAP25,BTBD17,CDKL1,FGD4,GCFC2,GLYR1,GPR158,IL20RA,ITGA9,KIF2A,LRRC70,NHLH2,PSG9,SLAE,SULF2,ARF4,ARFGAP3,EEFSEC,MYH9,NSMCE2,PACIN2,PTGER3,SLC2A13,SLC39A12,SOX4,ST18,CAB39L,GARNL3,KIF23,NEDD9,P2RX1,PDE1A,PDGFD,PIK3CD,PRR16,RGPD1,SPTB,STOML3,UBE2N,AGTPBP1,ASGR2,DNM3OS,ITGA8,KCNE4,MIR214,PUM1,ARID4A,DDDB1,ENPEP,FAM172A,IRAK2,KDM3A,PLAT,SERTAD2,TNKS,UNC13A,WDPCCP,ZFP82,ADCY9,AUTS2,BCL7A,CDH23,CDK19,DAPL1,FGFR1,MEF2A,OCLN,PARP15,PDE11A,RGS3,RYR1,TBC1D9,UNC13B,ZCCHC17,ZNF85,ARID4B,DAD1,GLRA3,ITGBL1,MAP2,RASSF3,SLX1B,SOST,ASXL3,BPGM,IL23R,ITGB7,JMY,KEAP1,NTF3,P2RX7,PLA2G4A,RAPGEF4,SCUBE1,SORCSI,TEX14,ARRDC4,BRD9,GP5,RASA3,RCAN2,TOX2,ZDHHHC9,ZDHHHC9,ZNF544,AMFR,APIP,AR,BCOR,FGL2,KIAA1109,PVT1,RABGAP1L,SCAMP5,SNX30,SUFU,TRERF1,UPK3B,C10ORF90,CEP250,DENND5B,EXOC2,EYA1,IFNA8,IL1RL2,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,ARMC9,BHLHB9,DGKZ,GNL3,IFI27L1,L3MBTL1,MIR127,MIR136,MIR431,MIR432,MIR433,NEK5,OGN,PI3,PRKAA2,RLF,SEMA3A,TAX1BP1,THADA,TLE4,ZNF202,ZNF558,ARHGAP10,CDX3,EPB41L3,GNB5,GRIA2,MARK2,MEIS2,PDE5A,PROS1,REEP2,ZMIZ1,ZNF19,ZNF440,ZNF670,ZNF695,FLT3,LDLRAD3,NFIC,PDLIM5,PPARGC1B,PTPRA,SNX7,SRGAP3,TRIM72,ATP6V1H,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SCNN1A,SMPD3,TNN,ZC3H13,ATP13A3,C9,CALML4,CLN6,DAB2,GPR55,HDAC8,LCPI,PBX1,RNF207,SRD5A2,STX3,SYT2,TCL1B,ACTN4,ADAM10,BLOC1S5,CCL7,DAAMI,DRG2,EEF1E1,EEF1E1-BLOC1S5,ELP4,FGF12,ITGA3,KCNJ16,KMO,POU2F3,PRAMEF8,TXNDC5,FANCB,FRY,LGI1,MT1F,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRICHI,RFTN1,SSX5,STAC,MYOM1,NUP153,PHF20L1,PINI,RPS6KA6,SYNPO2,TRPM4,CD226,ERLIN1,GPR141,KRBOX4,PIP5K1B,STK38,TCF20,ZNF674,ABCA8,ABCC2,BMP6,BTBD9,CHRM3,CIT,CIZ1,CLASP1,EIF4ENIF1,GAD2,SMTNL2,CARF,CDYL2,CFDP1,CNGB1,EBF1,NCOA2,TGFA,TMOD1,WDR12,CREM,G3BP2,GAS2,HGF,HGFAC,MYLK,PKP1,POU2F1,PRPSAP2,RALGAP1,RASSF8,RGS12,ZNF665,ZNF730,CALCR,CAPN7,CENPF,FLI1,MIR489,MIR653,POMT2,SCUBE3,SH3BP5,TLK1,ZBTB16,CACNB2,CNKSR2,CTIF,ELN,KDM4B,MAST4,MIR556,NCAM1,NOS1AP,PI4KA,RALGDS,SNAP29,ZNF57,ARHGAP28,IL18RAP,INSR,LARP4B,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CD16,CHM,CTDP1,ELF1,ENPP1,FMR1,LIMK2,LITAF,MICU2,MIR361,PAX3,THEM4,CHFR,DKC1,GABRA1,IGHV1-69,JDP2,KLF6,PHC2,PRKX,RRAGC,SBF2,TMTC2,ULK4,ZNF605,ABCD1,BMF,CRMP1,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,SAMD8,AIM2,ARHGAP42,CD84,CSF2RB,DENND2D,EPG5,EVC2,JPH4,LRRN2,PCK1,PDE6B,POLD1,PPARA,SORT1,SPIB,TBX22,TNFAIP8L3,TTN,ZFH2,CLIP1,CORIN,FAM3D,FHL1,GNA13,KATNB1,MYH7,NUP214,PPP1R13B,SLC22A5,SMARCA1,TAF1,WDR41,ADH1B,CACNA1A,CHD5,FNIP2,FUT8,PPP2R3C,QRFPP,S1PR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,KRT4,NTN4,PRDM16,PTPRF,QSOX1,RBL1,SCN9A,ZNF451,ATP6V1E1,BTRC,C2,CCDC3,CFB,DEFA1B,DEFA3,FBLN2,HIRA,IGHV1-18,MLLT10,MPDZ,OPTN,PPP2R2C,PTPRR,RIT2,ZNF713,ESRP2,EXT1,GNGL2,IFT81,MDM4,MYH6,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,ZNF354B,ADAMTS5,CBFA2T3,DOCK7,FBXW11,G3BP1,HDAC5,ICK,INPP4A,KLHL3,OR51L1,PSMD6,TGDF1,WDR70,ZNF493,A2M,AKAP2,LVE1,MYEF2,PI15,SERPINB8,SLC24A5,SLC40A1,STAT4,STIM1,TREM1,ZNF623,ADARB1,KCNC2,OR4C16,PEMT,POU2AF1,PRKCQ,SCEL,SLC9A9,STAT3,SUSD4,TFEC,TP63,USP7,ZNF721,AMOT,BRIP1,CDKN3,CST1,DOCK3,HPN,ISLR2,PAK3,PIK3R2,STK17B,TBL1X,USH2A,ADH1A,BLNK,CASQ2,DHRS2,DHRS7B,DTNBP1,GAK,RAP1B,TMEM175,ZNF518A,CNNM3,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,O </p>
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			<p>R2T4,SNCAIP,TAS1R1,ZNF697,ACSM1,ALPK1,EFCAB1,GTPBP1,IL10RB,MAPKAPK2,SLC7A8,UPK3A,AHNAK2,AOAH,APC,BMPRI1,CKAP5,CSN3,DPP4,ITGA1,KCTD20,KIAA0319,NGF,PPP1R14A,PRKCA,PTGES,SPINT2,UBASH3B,UBE2E2,VLDLR,ADAMTS20,ASB3,DRAM1,GPR75,ITIH6,MTMR4,MTRF1,OSGIN2,PDS5A,PILRB,ABI1,CTSH,DHX9,FCRL5,NCAPG2,RGCC,RPH3AL,SLC9A2,SRGAP1,TRBV6-8,USP18,ACACA,CCL14,CCL15,CCL15-CCL14,CYB5D2,DPH1,EBF4,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,SLAH3,SRRD,TFIP11,TMEM123,SPTBN4,CLASP2,MAP2K1,PDE7B,PRAMEF7,RGMB,SOS1,TPH1,VPS35,ZBTB25,ZRANB3,C1QTNF3,CABLES1,COL6A3,FGF1,MCOLN3,NSUN3,PLB1,RAD18,TBX20,ZNF527,ATMIN,ATP6V1E2,C6ORF106,CRADD,DGKK,NLRC5,PP1R9A,RGN,RREB1,TBX18,VSTM1,ZFP2,ZNF501</p>
GO:0050794	regulation of cellular process	1.3549371650624336e-26	<p>IGHV1OR21-1,TASPI,FANK1,CAST,ADCY2,SRGAP2B,TPTE,CDH4,ZHX3,PLCB1,KMT2C,KHDRBS2,ZNF595,CMKLR1,DAB1,OMAI,DUX4,UTF21,ZNF717,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSCAM,ARID1B,PTTE2,RUNX1,ORC3,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,SERPINA1,TSHZ2,CCNG2,RAB27A,HUNK,CACNA1E,KCNJ6,PCBD2,ANXA8L1,NPY4R,PRIM2,LYPD6,OR4M2,PTPRT,ANK3,IGHV4-31,DCC,BCL2L13,IGHV3-64,SVEP1,WLS,RBFOX1,SYN3,TIMP3,ZNF397,ZSCAN30,DUSP22,TTTC28,AKAP13,FBLN1,ERG,VPS13D,GRIK1,ZNF292,GPR139,IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,ABCG1,RGS6,KCNQ1,DPF3,SUN2,GABBR2,ATF7IP,EPHA6,OR4K15,TMEM117,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,ISX,DOK5,NRXN3,SLC1A2,RAB5A,ZNF578,DOCK2,CTNND2,TNCC,PCNT,PLEKHB2,MS4A1,OR8U1,PAX7,CHODL,RIMS2,MTPN,SHANK2,GRIA1,NRG3,ZNF732,SMYD2,CELF2,CLEC16A,HUS1,ARNT2,TGFBR3,FSTL4,CDH13,RNF152,ANK2,LRRC4C,RTN1,NXN,KCND3,RUNX1T1,CSNK2A1,PDE4DIP,SYNDIG1,ZNF678,DPP10,ZNF112,ZNF229,ZNF285,TF,PLGRKT,ERCC4,SCN8A,KCNE1,PIK3C2B,SAMD4A,SDCCAG8,TMEM108,EIF4EBP3,CHEK2,OR4C12,ZNF486,GADD45A,PRDM9,KCNJ15,PCP4,PSMC6,ACIN1,ZNF331,SYT17,PLXNA4,KCNG3,FLRT2,TOX3,GPC3,FBLN5,NRG1,STXBP6,ETS2,PSMB2,SHISA6,RAD51D,RFFL,NPAS3,SPIDR,IL4R,ALDH1A2,LRFN5,RYR3,EWSR1,MCTP1,NLN,ST8SIA1,SUZ12,LCORL,ASTN2,PLCE1,SH3RF2,UNC5D,KSR2,GPL2R,STK38L,SEMA6D,SPOCK1,ABHD17C,CTNNA2,SLCO3A1,CCR1,CCR3,CFTR,RBFOX2,ZNF420,DTX4,ZNF257,MED13L,MC2R,TIAM1,PM20D1,RHOC,AGBL4,BEND5,LDLRAD4,DNAJC15,RGS7B,KIF91,RASGRF1,ZBTB20,DPYSL2,GRID1,TET3,ARFIP1,CBFA2T2,IL1RAPL2,OR4A5,NKD1,HPSE2,SCAI,MXI,BTN2A1,ALK,PTPRE,PIK3C3,UTRN,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,FBXO31,RAB7A,CNTN4,RLG2,ARID5B,PHACTR1,S100B,ROBO2,SPOCK3,ZNF366,C2CD3,EPHA3,PRKACB,CNTNAP4,DCLK1,PXDN,COL15A1,CRNN,AJAPI,LEMD3,OR8K3,AGT,ERC2,CST2,MAGEB3,SHISA9,ATAT1,AVEN,CHRM5,WDR11,ATP6V0D1,CDH11,RHOJ,RCAN1,CDH2,KLHL25,PARK2,BANP,FHL2,FOXN3,LGALS14,LOXL2,DLGAP1,LAMA2,CDC5L,KIR2DL1,KIR2DL4,KIR3DL2,OR4K13,BPIFB1,CORO2B,FRMPD4,ZNF804A,CYBB,MCPT2,NEGR1,PSPC1,BRF1,GNB4,OR4M1,OR4N2,SEMA3D,DACH1,NTN1,OR52N5,TP53I11,TRIM22,TRIM5,KCNH1,USP25,ZBTB8B,ZNF268,DCUN1D4,TKX,CP,GPC6,RNF185,USP6,ZNF232,ANKFN1,NELL1,TRAPPC9,DBH,ITSN1,TNS3,PCDH17,PHC1,SETD3,ZNRF3,KCNMA1,RIN3,TRIO,ZNF845,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,ZBTB34,CDH8,KCTD1,AHRR,PDCD6,ZSCAN5C,OR2L13,RP56K2,STXBP4,GPC5,LCMT1,IGF1R,MDM2,MX2,SLC24A4,SMAD1,E2F3,NOVA1,SYT9,ZBED4,FOXO4L4,OR11G2,OR9Q1,TMPRSS6,ZNF567,ZNF850,CTNBNB1,RAPGEF5,CEP97,GABRG1,KCNK17,NR3C2,PTPRG,PXK,PDE9A,OR8K5,SACS,TRPC5,DMD,HCN1,KCTD8,STK33,SYT1,BASPI,CACNA2D3,CACNG3,SIPA1L3,VCL,NOX5,TEAD1,CELSR1,CSMD3,FGF14,FSHR,GSG1L,GRIA4,GRM1,MBOAT7,FMN2,HNRNPA2B1,MAEL,MORF4L1,NFE2L3,NRIP1,PRKAR2A,SKAP1,SORCS2,INPP5A,STK24,DCDC1,DPP6,WDR83,WWOX,ATRX,ACTR5,FRMD5,PARP16,TRPM2,CNIH3,CTNNA3,RYR2,USP16,KIF3B,NTNG1,OR2M5,TENM4,UNC13C,CAMTA1,CATSPER2,DHRS7C,HSPB8,LRRK2,MAPK10,RORB,SLC1A3,IGFBP7,KCNH5,PIR,ZFP30,ZNF607,KIF26B,NTRK3,NUSAP1,RORA,CD8B,ILDR1,IQCJ-SCHIP1,PRICKLE2,SLC4A4,ANKS1A,CHD7,OVGP1,RNF165,ZNF26,DISC1,HEXB,KCNK13,MEMO1,PAN3,TPRG1L,WRAP73,CDCA2,GLIS1,KCTD9,PDXP,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,ZNF432,ZNF841,CDC14A,MAGI3,PLCH2,PRKDI,SERPINA4,SERPINA5,SNRK,ERCC6,FRMD6,OGT,RNF144A,TGFB2,ATPIA4,CLSTN2,FMN1,PRAMEF12,VAV3,ANKS1B,AFF3,DACH</p>

			<p> 2,DNAJC6,FUT4,PIWIL4,PLCD3,RIPPLY3,SI00A11,SEMA5A,SLC5A3, BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RIPK4,RYK,ZDHC17,KCN C1,PLCXD3,POLR3C,ABI3BP,EDIL3,SGCD,WASF1,GRIN2B,KDM4C, OR6N1,OTUD7A,EXT2,LAMA3,RAG1,RAG2,SAMD13,SIK2,ZNF433,A NKRD6,ARHGAP8,NR2F2,PLEKHM2,PRR5,PRR5- ARHGAP8,PTGFR,SNAP25,NR5A2,PAQR8,PCBP3,PITPNC1,PML,PP ARGC1A,RNF180,TRUB2,USP36,ZNF627,ARHGAP12,CORO2A,AKAP 6,CNTNAP2,TNS1,FBN1,MED15,PPP4R4,GRIK3,IGHV3- 16,LRFN2,NLRP2,NLRP7,PLXNA2,TAOK3,ZNF610,BCL2,CHMP4C,M XI1,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,KCNJ3,SM ARCE1,IL12RB2,SIPA1L1,SKAP2,SLC30A5,DISP1,KLF12,LRP2,NSF,T MEM100,FRMD4A,ITPR2,LRRC4,NFIA,SND1,VANGL2,CDH6,DEPTO R,NR4A2,ZNF677,ARHGEF10,EPA7,PSD3,ZBTB7C,DPT,RBAK,RBA K- RBAKDN,FYN,GNRHR,KCNE2,LRRC69,PARN,ADAMTS18,CHN1,NR4 A1,SMARCA4,CD44,EIF4G3,HECW1,NEU3,PMP22,RCVRN,RHBDD1, RNF213,THBS2,FOXO1,PDE4D,PYY,RBBP8,RNF144B,KANK1,ENPP2 ,ABCB10,ACTN2,ARHGEF3,ATF6,ATP8A2,BACH1,CST9L,DCDC2,GA BRB1,GRK5,KLF13,MME,PACRG,RNF217,TNMD,CSNK1G3,EXOC4, KCNS3,GRIK2,IGSF11,ZNF516,CELF4,KCNIP4,SERPINB7,UNC5C,A PBB2,EIF3E,KCND2,MYLK3,NAMPT,SCN11A,SETD7,SLC1A1,UGCG, ZFPM2,ZNF141,ZNF429,ZSCAN5A,GLIS3,PHF20,RARB,REG,RF4, ETV6,GNG4,NLRP12,GRAP2,MFSD12,MTOR,RMI2,ROR1,CADPS,LD B2,MOV10,VPS26B,CHRM1,CTDSPL2,DDX21,FAT3,PKP2,UBXN2B,Z NF510,ABCA13,BMPER,CCDC88B,ERMN,PTPRD,RASGEF1B,SCAF8, TIAM2,ZNF521,BBS2,OGFOD1,OR51B2,OR51I1,PLCL1,ZFP64,ZNF4 83,ARL6IP5,ATP1A1,EPM2A,PLN,NOL11,CLYBL,CTNNBIP1,EPB41L 4B,SOX8,ZMYND11,DIDO1,DSG4,HAS3,HIVEP2,IFT88,NLGN4X,OR4 K17,OR8J3,PRKCE,ATP6V1D,EIF2S1,GTTF2A1L,HELLS,KMT2A,PRK CB,STON1,VDR,ADCY8,EFHB,FAM19A4,FHL5,FOXO3,IGF2BP3,LRR TM1,MITF,RAB31,SCMH1,SCP2,TRAPPC12,CAPN3,DPH6,ITLN1,KA LRN,PJA1,TTL12,CCDC88C,CREB5,DLCL1,EDNRB,MSR1,OASL,ROB O1,RXFP1,SATB2,TANC2,TBC1D4,TDRD3,BNIP3L,FAP,FLT1,NOX4, SGIP1,ZNF148,CDH17,CENPV,GRHL2,TCF4,TSC22D3,ZNF573,ZNF7 20,COL2A1,KCNC4,MAP3K7,MAPK9,NBAS,NR3C1,PREX2,TACR3,TR AF3IP2,ZNF277,CR1,EYA4,GABRA2,OR4C15,SEC24B,SPON1,ACSL5, MDM1,PKHD1,STK3,SUPT3H,TGM2,VASH2,ZNF585A,KDR,PPHLN1, PRCP,RAB30,ARHGAP15,CASK,CHL1,EDA,IGHV4- 28,PCOLCE2,ABCA12,APP,CALCRL,COL18A1,DGKB,NRP1,PTPRM, UACA,ARHGEF18,ELMO1,LGR4,LINC00473,SERPING1,TENM2,ADT RP,EGFLAM,KAT5,RANBP10,ST7,THRB,CPEB2,FUBP1,KCNK2,SEM A3C,ZNF667,ZNF98,ADAM17,CAMK1D,DIS3L2,MAP3K5,PKP4,TSPE AR,CDC42BP3,IGF2R,TFPI,ZER1,ATF2,ELP3,ETS1,GPR78,GRK6,NR 2C2,PEXSL,PIK3R5,SAMSN1,EFEMP1,GOPC,PRTG,ROS1,SMG6,TGF B1I1,TM9SF4,CDK17,DOT1L,KPNB1,OR10R2,PSIP1,RGS16,RPS6KA5 ,TCF7L2,TNFRSF10B,TRABD2B,ZNF443,ZNF490,ZNF709,ZNF799,AF F2,BICD1,CYTIP,ITGA11,PAR3,RALGAP2,TLK2,TRAF3,ZNF830,A BAT,ATRL1,DOCK9,GRIN2A,GRIP1,PXT1,RIMS3,SGK2,DLX6- AS1,KIFAP3,OPHN1,BCLAF1,SGMS1,TRPS1,ZNF568,CASP5,CCDC8 8A,CD38,DENND5A,FAM83B,KHDRBS3,MOB3B,MRPS27,RIN2,RNF4 3,TUB,ZBED5,ALCAM,CHRD1,RNF126,SMG7,STK36,BCL2L1,ADA MTS16,GUCY2F,HDAC4,MYO16,PDE4B,SOX5,SRRM4,TIMP2,BACE2 ,BCL2L15,DNMT1,GHR,GLRA2,JAM2,MAPRE2,NTRK2,PRKG1,ACSL 4,FAM83G,CDC42BP4,DNM3,GNG2,BRD4,PKNOX2,PTPDC1,RASGR P1,STARD13,ARR3,CAMK4,COMMD1,LY86,RAB11FIP4,RABGEF1,R GL1,SPIN3,SPRED2,STARD4,GLI3,OR5L2,SMCHD1,ZNF207,CACNA 1C,CLDN1,KIF16B,MORC2,OR11L1,STXBP5,DOCK4,RAP1A,SAFB2, TGFBRI,ZBTB41,CYSLTR1,KCNJ12,MGLL,PRDX4,ADAM12,DICER1, EPA5,LCP2,TAS2R38,THEMIS,TNR,CUX1,NCOA5,PEAK1,TAS2R1,T ENM3,CHST11,CPE,IL16,ITGB3BP,MAGEA11,PTTG1IP,RAPGEF1,Z NF729,CHRNA3,CHRNA5,EP300,MORC3,ELAVL2,HMG20A,SCFD1,T BX3,WIFI,CACNA2D1,CACNA2D4,CYP7B1,DIO2,GRAMD4,STX8,TRI OBP,ATXN1,BRD7,CLIC6,GAB2,GLRA1,TP73,COL4A6,GRID2,IFNGR 2,NPC1,OR4C5,PIBF1,RASGRF2,PSMA1,TRHDE,FHIT,FLNB,ONECU T3,PPP1R12B,ADCK1,ADORA2A,ADRBK2,CABIN1,CAMK2G,EFNA5, EMCN,FAM20A,MERTK,RALGPS1,TAC4,BRD1,CACNG2,GUCY2C,M AGI2,NF1,PPP6R2,RALGPS2,RFC3,RGS7,TFPI,USP17L5,ZNF525,Z NF765,KCNQ5,SORL1,STRN3,ZNF615,ARHGAP6,ASB13,BICC1,BID,EL K3,IFT80,OR5K4,TEAD4,TRIM59,TTC8,DMRT1,HTR4,LZTR1,ASXL1, EIF4E,MICU1,POR,RELN,SLC39A8,TNFRSF11B,TSHZ1,GRM5,HDAC 9,IGHV4- 4,IL18R1,IL1RL1,NECAB1,PTPN9,SELE,DYNC1H1,LRRTM3,MGAT5, NAPEPLD,NDRG2,NUMB,RHPN2,SP2,TNFAIP8,CCDC57,IGHV3OR1 </p>
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		<p>6-12,MAP3K13,NLK,NPHP4,RALA,TBX15,ADCYAP1R1,EGLN3,IL1RAP,NAV3,ATP10A,FBXL17,FBXL5,JAG1,MEOX2,PPP3CA,GPR176,JRK,KCNB2,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,SLC7A1,SNX25,CAPZB,CXADR,DGKI,MAS1,PER1,SATB1,SLC24A2,TBC1D5,WWTRI,KL,ANKRD13A,CBLB,DOCK10,ELAVL4,MAGEB2,MNAT1,PLSCR1,ATP9A,CNTN1,DGUOK,DOK6,GPC4,GRM7,RIMS1,TMEM67,TRIM16,WDR59,ZNF736,GABPA,GABRA3,GPSM2,KAT7,L3MBTL3,MAPK4,SSBP2,STIM2,TMEM135,ZNF540,ZNF571,SLC22A2,AGGF1,ASAP1,BORA,FHOD3,ITGAE,N4BP2L2,NLGN1,P2RX6,PDE1C,PTPRU,THAP7,AKIRIN2,ARHGAP5,BTBD11,CTTNBP2,RNF128,RPS20,SH3KBP1,ZNF562,NPR3,READ51AP1,SYCP2,AKAP7,LRRK1,MAPK8IP2,VEPH1,ZNF208,CACNA1D,DDX3X,EGFL6,LRRPPRC,NSG1,RBL2,ARAP2,CNOT7,GMDS,MAML3,EHF,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,DNMT3B,JAK2,LMO7,SHOX2,SPNS2,AH11,SMAD3,BALAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,SERPIN12,COL8A1,PLXNB1,RDH10,TCF12,TMTC4,ZNF337,AATF,ANHX,CDK1,DCBLD2,HDAC7,HIVEP3,ITPK1,ITPB,MR1320B2,MRGPRG,NBN,NVL,RRH,SLC39A10,TAGLN3,TNF,COBL,LRCH1,OVOL2,SNX5,TNIP1,ZFPM1,CSPP1,EIF3A,ILF3,POMC,PPF1A2,TMTC2,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,FCHSD2,INO80,NUDT4,POU6F2,RBM11,SCAF4,AFAP1,LGR6,MAG11,OR11A1,OR5V1,RXFP4,SIM2,ARID2,MLIP,PAXBP1,SHC2,BRINP1,FAM220A,KCNK10,PLCH1,PRG3,SRSF4,STK32B,ADORA3,ARF1,BCL11A,CLEC4A,HMGA2,MYO6,NEK4,POLR1A,TAF1D,YAF2,ZNF41,ZNF705A,ZNF880,AGO3,DGCK1,GRIA3,IGLC2,IGLL5,KIF18A,MUC5AC,PAPOLA,RUFY1,STK32C,TSPAN13,ANO1,CDC20B,GCLC,KCNA6,PMEPA1,OKI,RAB23,UBE2V1,ZNF664,ZNF728,ZNF879,ACTR8,EP58,LTBP1,MBOAT2,SP140,SP140L,DAAM2,L3MBTL4,SLC7A7,SMOC2,SULF1,ANKRD31,C5AR1,CYP110,CISD2,DEF6,GNAL,LRP4,PIK3R3,WDR5,ARHGEF6,CNGB3,CNTN6,EFNB2,KCNH8,MXD3,PIWIL3,SAE1,TRDN,TRIM41,AMOTL1,HERC1,NET1,PHF8,ZNF423,CDC14B,CLSTN1,INSC,SELP,ALPK2,CDK8,CHD6,CTNNA1,CUL2,NSG2,SCN1A,TENM1,TSHZ3,WDFY2,ZNF407,ZNF93,ARHGEF11,CDKL5,EFHC2,GRIK4,GSKIP,MAMLD1,PRKAR1A,TNFRSF19,ZNF345,ARHGAP11B,BPTF,DYNC2H1,GABRR2,KCNH7,MLLT3,MYRIP,SIPA1L2,CD109,EGF,MIP,PTPN14,SEC16B,SPIRE2,FOPX4,GBE1,IL1RAPL1,KIT,SLIT3,TNFSF8,TNRC6B,UBR2,ZNF600,BLM,CTNNAL1,OR7A5,PIK3C2G,TRPV4,VWC2,ABCA5,CC2D2A,DNAH11,EDAR,EFNB1,KCNAB1,PTPRO,RAPGEF2,REG1B,STK32A,ZIM3,DNAJB6,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,SLC30A8,UBE3A,DNMBP,EBAG9,FGF13,GABRB2,GRM4,MARVELD3,PLAG1,AKAP10,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,TBCD,TFDP2,TOX,C14ORF39,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,SLITRK6,SPTA1,CACNG6,FNIP1,LRP5,MALRD1,PTH2R,RAPGEF6,SHCBP1,ZNF439,ZNF507,RPS27L,SLAMF1,ABL2,BSG,CAMP,DEPDC5,F11R,FARP2,GAS8,HS1BP3,OR4C6,SETD2,VPS13C,ALX4,AP2B1,ARHGAP35,CD2AP,COMMDD7,NSUN2,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,TNFAIP8L2,VWF,ZNF189,ARHGAP25,CDKL1,FGD4,GCFC2,GLYR1,GPR158,IL20RA,ITGA9,KIF2A,NHLH2,PSG9,SULF2,ARF4,EEFSEC,MHY9,NSMCE2,PACSIN2,PTGER3,SLC2A13,SLC39A12,SOX4,ST18,CAB39L,GARNL3,KIF23,NEDD9,P2RX1,PDE1A,PDGFD,PIK3CD,PRR16,SPTB,STOML3,UBE2N,AGTPBP1,ASGR2,ITGA8,KCNE4,PUM1,ARID4A,DDBI,ENPEP,FAM172A,IRAK2,KDM3A,PLAT,SERTAD2,TNKS,UNC13A,WDPCCP,ZFP82,ADCY9,AUTS2,BCL7A,CDK19,DAPL1,FGFR1,MEF2A,OCLN,PARP15,PDE11A,RGS3,RYR1,UNC13B,ZCCHC17,ZNF85,ARID4B,DAD1,GLRA3,ITGBL1,MAP2,RASSF3,SLX1B,SOST,ASXL3,IL23R,ITGB7,JMY,KEAP1,NTF3,P2RX7,PLA2G4A,RAPGEF4,SCUBE1,SORCS1,TEX14,ARRDC4,BRD9,RASA3,RCAN2,TOX2,ZDHHC9,ZNF544,AMFR,APIP,AR,BCOR,FGL2,KIAA1109,SCAMP5,SNX30,SUFU,TRERF1,C10ORF90,CEP250,EYA1,IFNA8,IL1RL2,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,ARMC9,BHLHB9,DGKZ,GNL3,IFI27L1,L3MBTL1,MIR433,NEK5,OGN,PI3,PRKAA2,RLF,SEMA3A,TAX1BP1,THADA,TLE4,ZNF202,ZNF558,ARHGAP10,CDC73,EPB41L3,GNB5,GRIA2,MARK2,MEIS2,PDE5A,PROS1,REEP2,ZMIZ1,ZNF19,ZNF440,ZNF670,ZNF695,FLT3,NFIC,PDLIM5,PPARGC1B,PTPR4,SNX7,SRGAP3,TRIM72,ATP6V1H,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,PPA2,SMPD3,TNN,CLN6,DAB2,GPR55,HDAC8,LCPI,PBX1,RNF207,STX3,SYT2,TCL1B,ACTN4,ADAM10,BLOC1S5,CCL7,DAAMI,DRG2,EEF1E1,EEF1E1-BLOC1S5,ELP4,FGF12,ITGA3,KCNJ16,KMO,POU2F3,PRAMEF8,TXNDC5,FANCB,FRY,LGI1,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRICH1,RFTN1,SSX5,STAC,MYOM1,NUP153,PHF20L1,PIN1,RPS6KA6,S</p>
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			<p>YNPO2,TRPM4,CD226,ERLIN1,GPR141,KRBOX4,PIP5K1B,STK38,TCF20,ZNF674,BMP6,BTBD9,CHRM3,CIT,CIZ1,CLASP1,EIF4ENIF1,CARF,CDYL2,CFDP1,CNGB1,EBF1,NCOA2,TGFA,TMOD1,WDR12,CREM,G3BP2,GAS2,HGF,MYLK,PKP1,POU2F1,RALGAP1,RASSF8,RGS12,ZNF665,ZNF730,CALCR,CAPN7,CENPF,FLI1,POMT2,SCUBE3,SH3BP5,TLK1,ZBTB16,CACNB2,CNKS2,CTIF,ELN,KDM4B,MAST4,NCAM1,NOS1AP,PI4KA,RALGDS,ZNF57,ARHGAP28,IL18RAP,INSR,LARP4B,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CDC16,CHM,CTDP1,ELF1,ENPP1,FMR1,LIMK2,LITAF,PAX3,THEM4,CHFR,DKC1,GABRA1,IGHV1-69,JDP2,KLF6,PHC2,PRKX,RRAGC,ULK4,ZNF605,ABCD1,BMF,CRMP1,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,SAMD8,AIM2,ARHGAP42,CD84,CSF2RB,EPG5,EVC2,JPH4,LRRN2,PCK1,PDE6B,PPARA,SORT1,SPIB,TBX22,TNFAIP8L3,TTN,ZFH2,CLIP1,FAM3D,FHL1,GNA13,KATNBL1,NUP214,PPP1R13B,SMARCA1,TAF1,WDR41,CACNA1A,CHD5,FNIP2,FUT8,PPP2R3C,QRFP,SIPR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,KRT4,PRDM16,PTPRF,QSOX1,RBL1,SCN9A,ZNF451,ATP6V1E1,BTRC,C2,CCDC3,DEFA1B,DEFA3,FBLN2,HIRA,IGHV1-18,MLLT10,MPDZ,OPTN,PTPRR,RIT2,ZNF713,ESRP2,EXT1,NGG12,IFT81,MDM4,NCOA1,PRKCG,PRLR,TYMP,UMOD,ZNF354B,CBFA2T3,DOCK7,FBXW11,G3BP1,HDAC5,ICK,INPP4A,OR51L1,TGDF1,WDNR70,ZNF493,A2M,LYVE1,MYEF2,PI15,SERPINB8,SLC24A5,SLC40A1,STAT4,STIM1,TREM1,ZNF623,ADARB1,KCNC2,OR4C16,POU2AF1,PRKCQ,SCEL,STAT3,TFEC,TP63,USP7,ZNF721,AMOT,BRIP1,CDKN3,CST1,DOCK3,HPN,ISLR2,PAK3,PIK3R2,STK17B,TBL1X,USH2A,BLNK,CASQ2,DHRS2,DHRS7B,DTNBP1,GAK,RAP1B,ZNF518A,DLGAP2,KSR1,LGALS9,LRP8,NFAT5,OR2T4,SNCAIP,TAS1R1,ZNF697,ALPK1,EFCAB1,GTPBP1,IL10RB,MAPKAPK2,AHNAK2,APC,BMPR1A,CKAP5,DPP4,ITGA1,KCTD20,KIAA0319,NGF,PPP1R14A,PRKCA,PTGES,SPIR2,UBASH3B,UBE2E2,VLDLR,ADAMTS20,ASB3,DRAM1,GPR75,ITIH6,MTMR4,MTRF1,OSGIN2,PDS5A,PILRB,ABI1,CTSH,DHX9,FCRL5,NCAPG2,RGCC,RPH3A,SRGAP1,TRBV6-8,USP18,CCL14,CCL15,CCL15-CCL14,CYB5D2,DPH1,EBF4,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,SIAH3,SRRD,TFIP11,SPTBN4,CLASP2,MAP2K1,PDE7B,PRAMEF7,RGMB,SOS1,TPH1,VPS35,ZBTB25,ZRANB3,C1QTNF3,CABLES1,COL6A3,FGF1,MCOLN3,NSUN3,RAD18,TBX20,ZNF527,ATMIN,ATP6V1E2,C6ORF106,CRADDD,GKKK,NLRCS,PPP1R9A,RGN,RRBB1,TBX18,VSTM1,ZFP2,ZNF501</p>
GO:0009653	anatomic al structure morphogenesis	2.905489988194354e-26	<p>ISM1,CDH4,DAB1,OMA1,GTTF2,FMNL2,CDC42EP3,MAPK14,DSCAM,RUNX1,MYO18B,ANK3,DCC,SVEP1,WLS,AKAP13,FBLN1,NPH3,ITGA2,KCNQ1,NUBPL,EPHA6,NRXN1,ZRANB1,NRXN3,SDK2,CTNND2,TNC,PAX7,CHODL,RIMS2,MTPN,NRG3,FGD6,OLFM3,TGFB3,FS TL4,CDH13,ANK2,LRR4C,CSMD1,SDCCAG8,TMEM108,GADD45A,ADAMTSL1,SYT17,PLXNA4,FLRT2,GPC3,NRG1,ETS2,PSMB2,IL4R,ALDH1A2,CECR2,ASTN2,UNC5D,SEMA6D,CTNNA2,CCR3,CFTR,RBF OX2,TIAM1,RHOC,COL22A1,DPSL2,MYO3A,NKD1,SPEF2,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,C2CD3,EPHA3,PRKACB,D CLK1,COL15A1,AJAP1,AGT,CDH11,RHOJ,CDH2,CDH9,PARK2,FHL2,FOXN3,LOXL2,LAMA2,GREB1L,CYBB,SEMA3D,NTN1,KCNH1,GPC6,ZNRF3,FMNL3,TRIO,HDAC2,HTRA1,MYO9A,SLIT2,CDH8,PDCC6,TM4SF1,IGF1R,KRT25,MDM2,PALMD,SLC24A4,SMAD1,FOXO4L4,T RPC5,DMD,HCN1,SYT1,BASP1,SIPA1L3,VCL,NOX5,CELSR1,MBOAT7,MAEL,WWOX,ATRX,RYR2,NTNG1,TENM4,LRRK2,RORB,SLC1A3,S TRC,KIF26B,RORA,PRICKLE2,CHD7,RNF165,DISC1,HEXB,EMB,SH3BP1,SOX6,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,PRKD1,FLVCR1,FRMD6,TGFB2,FMN1,VAV3,AFF3,PLCD3,SEMA5A,BDNF,RIPK4,RY K,ZDHHC17,PCDH15,SGCD,WASF1,WDR72,KDM4C,EXT2,LAMA3,ANKRD6,NR2F2,NR5A2,PML,ARHGAP12,CNTNAP2,FBN1,PLXNA2,TA OK3,BCL2,CDH10,RALBP1,ARHGAP24,EPHB1,CDH12,SIPA1L1,CSG ALNACT1,LRP2,MMP16,TMEM100,VANGL2,CDH6,NR4A2,EPHA7,F YN,CHN1,NR4A1,SULT4A1,CD44,HECW1,PMP22,RNF213,THBS2,KAN K1,ENPP2,ACTN2,ATP8A2,DCDC2,TNMD,EXOC4,LAMB4,UNC5C,MYLK3,SLC1A1,ZFPM2,ZNF141,PALLD,RARB,STRIP1,MTOR,ROR1,GAS7,MOV10,FAT3,MEGF9,PKP2,BMPER,ERMN,PTPRD,TIAM2,BBS2,PGK1,COL11A1,CTNNBIP1,SOX8,CDH18,PRKCB,VDR,FOXO3,IGF2BP3,CAPN3,KALRN,CCDC88C,DLC1,ROBO1,RXFP1,SATB2,TANC2,FAP,FLT1,NOX4,GRHL2,COL2A1,NEBL,PREX2,EYA4,SEC24B,PKHD1,STK3,TGM2,VASH2,KDR,PRCP,ARHGAP15,CHL1,EDA,APP,CALC RL,COL18A1,NRP1,PTPRM,SHROOM3,ARHGEF18,LGR4,ADTRP,EGFLAM,THRB,SEMA3C,ADAM17,PARVG,TSPEAR,ATF2,ETS1,EFEMP1,PRTG,TGFB111,RPS6KA5,BICD1,PARD3,ATRNL1,FRAS1,GRIP1,OP</p>

			<p> <i>HNI, ZNF568, RIN2, ALCAM, BCL2L1, ADAMTS16, MYO16, SOX5, GHR, JAM2, NTRK2, DNMT3, STARD13, SDK1, GLI3, CACNA1C, KIF16B, CRB1, RAPIA, TGFBRI, CYSLTRI, RRP7A, ADAM12, DICER1, EPHA5, TNF, CUX1, PEAK1, TENM3, CHST11, CPE, CHRNA3, EP300, DSCAML1, SCFD1, TBX3, CYP7B1, TRIOBP, PCSK5, GRID2, PARVB, PSMA1, FLNB, SPG11, ADCK1, ADORA2A, EFNA5, EMCN, FAM20A, MERTK, WARS2, MAGI2, NF1, ELK3, IFT80, TEAD4, TTC8, DMRT1, ASXL1, FRYL, POR, RELN, TNFRSF11B, TSHZ1, HDAC9, KIRREL3, COL12A1, NUMB, MAP3K13, RALA, TBX15, ATP10A, EXOC5, JAG1, MEOSX2, PPP3CA, KLF7, NEB, PLS1, SH3GL2, CA PZB, WWTR1, DOCK10, ELAVL4, GPC4, RIMS1, GABPA, TMEM135, AGGF1, FHOD3, FREM1, NLGN1, SH3KBP1, SSUH2, MEGF11, SYCP2, MAPK8IP2, SHOX2, SOBP, AH11, SMAD3, KIDINS220, NOS1, PTGFRN, COL8A1, PLXNB1, RDH10, HDAC7, TNF, COBL, OVOL2, ZFPM1, PPFA2, TANC1, DLG5, PHEX, LGR6, ARID2, MMP20, BCL11A, CALD1, FREM2, HMGA2, MYO6, DOCK1, QKI, RAB23, EPS8, TPD52, SMOC2, SULF1, CSAR1, LRP4, PIK3R3, CNTN6, EFN2, AMOTL1, HERC1, ALPK2, CTNNA1, CDKL5, MYH14, PRKARI, DYNC2H1, FAM171A1, MLLT3, CD109, EGF, PTPN14, CMA1, IL1RAPL1, KIT, SLIT3, TRPV4, CC2D2A, DNAH11, EDAR, EFN1, PTPRO, RAPGEF2, DNAJB6, ESR1, JAK1, MYPN, NCMAP, SEMA3E, UBE3A, DNMBP, FGF13, PLAG1, EPHB2, TBCD, ERBB4, FER, MAP3K3, SLITR6, SPTA1, LRP5, BSG, CAMP, F11R, SETD2, ALX4, ARHGAP35, CCL3, FGF7, LAMA1, PREX1, SEMA5B, FGD4, SULF2, MYH9, PACSIN2, SLC39A12, SOX4, NEDD9, PIK3CD, AGTPBP1, ITGA8, ENPEP, MYO3B, PDZD7, UNC13A, WDPCP, AUTS2, CDH23, FGFRI, MEF2A, RYR1, MAP2, ASXL3, ITGB7, NTF3, P2RX7, AR, BCOR, SUFU, EYA1, SRPK2, BHLHB9, SEMA3A, ANKRD11, CDC73, EPB41L3, MARK2, MEIS2, ZMIZ1, PDLIM5, PPARGC1B, FERMT2, MAP2K5, PAPA2, SMPD3, TNN, DAB2, PBX1, RNF207, SYT2, ACTN4, CCL7, DAAM1, ITGA3, FRY, LGI1, LRIG1, THSD7A, BMP6, CLASP1, CFDP1, TGFA, TMOD1, GAS2, HGF, MYLK, FLI1, ZBTB16, ELN, NCAM1, NFASC, INSR, MACF1, PAK1, PSMB7, SKI, AKT3, PAX3, PRKX, CRMP1, MFNG, RPGRIP1, CCDC141, PPARA, TTN, CIGALT1, FHL1, GNAI3, MYH7, SIPR3, SPRED1, CHSY1, NTN4, BTRC, HIRA, PGM5, ESRP2, EXT1, MDM4, MYH6, NCOA1, TYMP, ADAMTS5, DOCK7, FBXW11, HDAC5, KLHL3, TDGF1, AKAP2, LYVE1, SLC40A1, STIM1, TTC39C, ADARBI, MYH11, PRKCQ, STAT3, TP63, AMOT, HPN, ISLR2, PAK3, USH2A, DTNBP1, LRP8, MYO2, UPK3A, BMPRI1, ITGA1, KIAA0319, NGF, PRKCA, SPINT2, VLDR, ABLI, CTSH, RGCC, SPTBN4, CLASP2, MAP2K1, SOS1, VPS35, FGF1, TBX20, RREB1, TBX18</i> </p>
GO:0051179	localization	8.755032728190287e-24	<p> <i>IGHV1OR21-1, SRGAP2B, TPTE, PIEZO2, PLCB1, CMKLR1, DAB1, FMNL2, GABRB3, ABCC10, GABRG3, MAPK14, ABCG8, TPTE2, TRAPP8, GPHN, HNRNPA1L2, ASIC2, CTBP2, TMPRSS15, RAB27A, CACNA1E, KCNJ6, ANXA8L1, ANO2, PTPRT, ANK3, IGHV4-31, HEATR5A, DCC, IGHV3-64, WLS, RBFOX1, SYN3, DUSP22, AKAP13, FBLN1, SNX31, VPS13D, GRIK1, IGHV1OR15-9, SLC24A3, IGHV4OR15-8, NPHP3, ITGA2, ABCG1, TMPRSS2, KCNQ1, SUN2, GRIN3A, NRXN1, TMPRSS3, ZRANB1, SGSM1, NRXN3, SLC1A2, RAB5A, DOCK2, PCNT, MS4A1, RIMS2, GRIA1, NRG3, CLEC16A, PKDILL1, DLG2, SLC9B1, TGFBRI, TRPM3, ANO4, CDH13, ANK2, TBC1D22A, ANKH, GRAMD1C, KCND3, LRP1B, FAM155A, SYNDIG1, SLC12A1, DPP10, TF, SCN8A, KCNE1, PIK3C2B, S DCCAG8, CEP41, TMEM108, GADD45A, KCNJ15, SYT17, PLXNA4, KCNG3, FLRT2, GPC3, FBLN5, NRG1, SCAR5, STXBP6, PSMB2, SHISA4, RFFL, SPIDR, IL4R, ENTHD1, CECR2, RYR3, MCTP1, ASTN2, SH3RF2, UNC5D, SEMA6D, SPOCK1, SYT16, ABHD17C, CTNNA2, SLC3A1, CCR1, CCR3, CFTR, BBS9, RBFOX2, DNAH6, SCFD2, PCTP, TIAM1, PM20D1, RHOC, AGL4, LDLRAD4, DNAJC15, RASGRF1, DPYSL2, GRID1, SLC6A2, ARFIP1, SLC17A3, NKD1, SCAI, PIK3C3, UTRN, SPEF2, FAM3B, ERC1, FBXO31, KLRF2, RAB7A, TAPBP, ARID5B, PHACTR1, SPOCK3, C2CD3, EPHA3, PTPRN2, DCLK1, SLC44A1, AGT, ATG4C, ERC2, PSTPIP2, FSIP2, SHISA9, CHRM5, VTIIA, WDR11, ATP6V0D1, RHOJ, ZFYVE1, CDH2, PARK2, BANP, LOXL2, LAMA2, RN7SL659P, CORO2B, CYBB, MCTP2, SYTL5, DNAH9, SEMA3D, DACH1, NTN1, TRIM22, TRIM5, KCNH1, SLC22A23, ZNF268, SLC5A4, CP, DENND2A, GPC6, RNF185, USP6, ANKFN1, DBH, ITSN1, NCF4, PCDH17, FMNL3, KCNMA1, RIN3, APBA2, CYB5R2, FTO, LAMA4, SLIT2, TTLL8, PDCD6, STXBP4, GPC5, SLC44A5, IGF1R, MDM2, MX2, SLC24A4, E2F3, NUTF2, SYT9, TMEM241, CCDC91, VCAN, GABRG1, KCNK17, PTPRG, PKX, SLC14A2, TRPC5, DMD, HCN1, SYT1, CACNA2D3, CACNG3, KRT2, VCL, NOX5, CELSR1, FGF14, FSHR, GSG1L, GRIA4, GRM1, MBOAT7, FMN2, HNRNPA2B1, NRIP1, SKAP1, SORCS2, ASTN1, STK24, JAKMIP1, SLC39A11, DPP6, WDR83OS, ATRX, FRMD5, TRPM2, CNIH3, CTNNA3, IPO13, RYR2, OCA2, XRCC4, KIF3B, NTNG1, UNC13C, CATSPER2, DHRS7C, LRRK2, SLC1A3, KCNH5, KXD1, NTRK3, NUSAP1, ILDR1, SLC4A4, ANKSI1A, CHD7, DISC1, DPY30, HEXB, KCNK13, WRAP73, EMB, SH3BP1, IE</i> </p>

			<p>R2,MECP2,MTMR2,SEMA4D,FAM160A1,GSK3B,SLC8A1,PRKDI,SER PINA5,LRBA,FLVCR1,FRMD6,TGFB2,ATP1A4,MFSD9,VAV3,ANKS1B ,ATP9B,DNAJC6,FUT4,SI00A11,SEMA5A,SLC5A3,SLCO2B1,BDNF,L LGL2,PRKAR1B,PRKCH,ZDHHC17,KCNC1,NBEA,DNAAF2,DNAH3,S NX24,TOR1AIP1,WASF1,WDR72,GRIN2B,ZDHHC14,EXT2,LAMA3,N KAIN2,ABCB5,MREG,NR2F2,PLEKHM2,SNAP25,SNAP25- AS1,PITPNC1,PML,STOML1,SYBU,USP36,ARHGAP12,AKAP6,CNTN AP2,TNS1,FBN1,GRIK3,IGHV3- 16,PLXNA2,SNAP23,BCL2,CHMP4C,RALBP1,ARHGAP24,EPHB1,KC NJ3,SLC30A5,DISP1,LRP2,NKAIN3,NSF,FRMD4A,ITPR2,LRRC4,VAN GL2,CD163,CD163L1,GDAP1,NR4A2,ABCC9,CYB561A3,MICAL3,RP GR,FYN,KCNE2,PARN,SLC26A7,NR4A1,CD44,HECW1,NEU3,RCVRN, RHBDD1,RNF213,PDE4D,KANK1,ATP10B,ENPP2,ABCB10,ACTN2,A TP8A2,DCDC2,GABRB1,PACRG,CSNK1G3,EXOC4,KCNS3,GRIK2,IG SF11,LAMB4,KCNIP4,UNC5C,KCND2,SCN11A,SLC1A1,UGCG,PALL D,AGAP1,NLRP12,MFSD12,MTOR,CADPS,LDB2,TMPRSS4,VPS26B, CHRM1,CTDSPL2,FAT3,MEGF9,PKP2,RANBP17,UBXN2B,ABCA13,B MPER,CCDC88B,SLC35F3,BBS2,HBE1,ARL6IP5,ATP1A1,CEP85L,EP M2A,PLN,SLCO1B1,SLCO1B3,ZMAT3,EPB41L4B,EVI5,EXOC6B,HEP HL1,SOX8,EHBP1,IFT88,NLGN4X,PRKCE,SLC2A9,ATP6V1D,KMT2A, PRKCB,STON1,STON1- GTF2A1L,VDR,ADCY8,EFHB,FAM19A4,FOXO3,IGF2BP3,LRRTM1,M ITF,RAB31,SCP2,SLC47A1,TRAPP12,CAPN3,ITLN1,KALRN,PARD3 B,CCDC88C,DLC1,EDNRB,MSR1,ROBO1,SATB2,TANC2,TBC1D4,BN IP3L,FAP,FLT1,NASP,SGIP1,SLC12A8,STX12,CDH17,CENPV,KCNC4 ,MAP7,MAPK9,NBAS,TACR3,TRAF3IP2,VPS37B,CBLN4,CR1,GABRA 2,SEC24B,ACSL5,PKHD1,STK3,TGM2,KDR,PPLN1,PRCP,CASK,CH L1,IGHV4- 28,ABCA12,APP,CALCRL,NRP1,PTPRM,RN7SL674P,SHROOM3,TSN ARE1,ARHGEF18,ELMO1,ADTRP,IMMP2L,PRELID2,TTC12,KCNK2, SEMA3C,SLC38A7,ADAM17,CAMK1D,IGF2R,ATF2,ELP3,ETSI,G,C,P EX5L,SLC35F4,CEP112,GOPC,ROSI,SMG6,TM9SF4,KPNB1,TCF7L2, BICD1,CCT6B,ITGA11,PARD3,THOC2,ABAT,ATRNL1,FRAS1,GRIN2 A,GRIPI,RIMS3,SGK2,KIFAP3,OPHN1,BCLAF1,SAMD9,SLC35F2,CC DC88A,CD38,DENND5A,RIN2,SLC30A7,TUB,NCF2,RNF126,SMG7,ST K36,BCL2L1,DNAH8,HDAC4,PDE4B,GHR,GLRA2,JAM2,MAPRE2,NT RK2,PRKG1,ACSL4,MGST1,SLC5A10,A1CF,CDC42BP4,DNM3,RASG RP1,STARD13,TRAPP10,ARR3,COMMD1,KCTD7,RAB11FIP4,RABG EF1,STARD4,C17ORF75,GLI3,CACNA1C,CLDN1,COG7,KIF16B,NIP A2,STXBP5,CRB1,DOCK4,LAMP5,RAP1A,SRP54,TGFBRI,CYSLTR1,K CNJ12,SVOPL,EPA5,SLC13A4,TNR,VPS53,CUX1,PEAK1,SLC25A2I, SLC6A17,CHST11,CPE,IL16,PTTG1IP,RAPGEF1,STARD5,CHRNA3,C HRNA5,MORC3,RAB2A,SLC16A7,SYNE1,SCFD1,SPAG17,TBX3,TTC3 9B,CACNA2D1,CACNA2D4,CYP7B1,STX8,ATXN1,CLIC6,GAB2,GLRA 1,HBD,PCSK5,SYCP1,GRID2,IFNGR2,NPC1,PIBF1,RASGRF2,SAMM 50,TMEM50B,TRPM7,PSMA1,SV2B,VPS39,SPG11,ADORA2A,ADRBK 2,CAMK2G,DYNC112,EFNA5,MERTK,TAC4,CACNG2,MAGI2,NF1,RG S7,GOT2,GULP1,KCNQ5,SORL1,BID,IFT80,TTC8,DMRT1,MICU1,RE LN,SLC39A8,SLC9C1,GRM5,HDAC9,IGHV4- 4,KIRREL3,PTPN9,SELE,SNUPN,DYNC1H1,MGAT5,PLSCR4,DDC,N UMB,IGHV3OR16- 12,NPHP4,RALA,ADCYAP1R1,NAV3,SLC35A5,SPTSSA,ATP10A,EXOC 5,JAG1,MAN1A1,MEOX2,PPP3CA,TBC1D3B,TMEM163,KCNB2,KLF7 ,PLS1,SH3GL2,SLC7A1,SNX25,ATP8B4,CXADR,DGKI,GNPTAB,PER1 ,SLC24A2,TBC1D5,TSPAN33,WWTR1,ANKRD13A,CBLB,DOCK10,PL SCR1,SEC63,SLC38A6,SLC5A1,ATP9A,CNTN1,GPC4,GRM7,RIMS1,F AM126B,GABRA3,GPSM2,KAT7,STIM2,SLC22A2,BORA,CEP128,MZT 1,NLGN1,P2RX6,PTPRU,SLC35F1,GBP2,RNF128,SH3KBP1,SLC22A3, NPR3,OSBPL5,AKAP7,MAPK8IP2,CACHD1,CACNA1D,DDX3X,LRPP RC,NSG1,VPS37A,GABRA5,TPCN2,JAK2,SLC5A8,SPNS2,AHII,RP4I, SLC25A48,SMAD3,VPS41,XKR4,CD300A,NOS1,PLXNB1,CDK1,HDAC 7,HGSNAT,MAGT1,MCM3AP,NVL,SLC39A10,TNF,LRCH1,OVOL2,PA NX1,SNX5,CPT1B,POMC,PPF1A2,TMC2,BLOC1S6,DLG5,FCHSD2,TR IM23,KCNT2,LGR6,ARID2,TMC5,KCNK10,SPAG16,ADORA3,ARF1,M YO6,POLR1A,DOCK1,GRIA3,IGLC2,IGLL5,KIF18A,RUFY1,TSPAN13, ANO1,GCLC,KCNA6,QKI,RAB23,EPS8,LTBP1,NUDCD3,TPD52,PABP C1L,SLC7A7,SMOC2,SULF1,TOMM34,TRPC4,C5AR1,LRP4,PIK3R3,C DS2,CNGB3,EFNB2,KCNH8,RAB24,RSRC1,SAE1,SHFM1,TRDN,AMO TL1,ANO10,NET1,SLC15A1,ZNF423,CLSTN1,INSC,LRRC8C,LRRC8D, SELP,CSE1L,CTNNA1,NSG2,SCN1A,TENM1,ABCG2,CDKL5,DMBT1, EFHC2,GRIK4,WDR35,ARHGAP11B,DYNC2H1,GABRR2,KCNH7,MY RIP,STX16,STX16- NPEPL1,TMEM150C,EGF,MIP,PTPN14,SEC16B,SPIRE2,VPS8,IL1RA</p>
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			<p>PLI, KIT, KPNA3, PIK3C2G, TRPV4, ABCA10, ABCA5, ABCA6, CC2D2A, DNAH11, EFNBI, KCNAB1, NAPG, PTPRO, RAPGEF2, SLC04C1, DNAJB6, ESR1, HTR2C, JAK1, SEMA3E, SLC30A8, UBE3A, FGF13, GABRB2, GRM4, MARVELD3, NUP155, SLC22A15, AKAP10, ANO3, ARMC2, EPHB2, IGHV3-72, NDFIP2, ABCC1, DAPK1, ERBB4, FER, MAP3K3, CACNG6, FLVCR2, IFT43, LRP5, RAPGEF6, XKR7, SLAMF1, ABCC11, ABL2, BSG, F11R, GAS8, SETD2, TMEM50A, VPS13C, AP2B1, ARHGAP35, CD2AP, NSUN2, PTPRK, SV2C, ATP8A1, CCL3, FGF7, LAMA1, MCUR1, MYO7B, PREX1, SEMA5B, ARHGAP25, GPR158, IPO11, ITGA9, KIF2A, MCM9, NHLH2, REEP1, SPA17, ARF4, ARFGAP3, MYH9, PACSIN2, PTGER3, SLC2A13, SLC39A12, SOX4, SPRN, TEK4, MIPER, NEDD9, OSCP1, P2RX1, PDGFD, PIK3CD, RGPDI, AGTPBP1, ASGR2, ITGA8, KCNE4, CNGA4, ENPEP, PDZD7, PLAT, SFXN3, TNKS, UNC13A, VPS45, WPCP, AUTS2, CDH23, FGFR1, MEF2A, OCLN, RYR1, TBC1D9, UNC13B, GLRA3, ITGBL1, MAP2, TTC7B, ITGB7, JMY, KEAP1, NTF3, P2RX7, PLA2G4A, RAPGEF4, SORCS1, ARDC4, RAS A3, ZDHHC11, ZDHHC11B, ZDHHC9, AR, ATG2B, COG1, KIAA1109, PIGK, RABGAP1L, SCAMP5, SNX30, SUFU, CEP250, DENND5B, EXOC2, RBM4, BDKRB1, BDKRB2, AFTPH, DGKZ, GNL3, PRKAA2, SEMA3A, THADA, ANXA11, AQP10, EPB41L3, GNB5, GRIA2, KIF4A, MARK2, MOGAT2, PROS1, REEP2, ZMIZ1, LDLRAD3, SNX7, SRGAP3, TRIM72, VPS16, ATP6V1H, FERMT2, HCN4, MAP2K5, MARK1, SCNN1A, SMPD3, TNN, ATP13A3, DAB2, HDAC8, LCP1, RNF207, STX3, SYT2, ACTN4, ADAM10, BLOC1S5, CCL7, FGF12, ITGA3, KCNJ16, KMO, TXNDC5, KCNN3, LGI1, RFTN1, RNA SEH2B-AS1, SLC16A4, STAC, MYOM1, NUP153, PIN1, SYNPO2, TRPM4, NME8, ABCA8, ABCC2, BMP6, BTBD9, CHRM3, CIZ1, CLASP1, EIF4ENIF1, SIRT1, CNGBI, PCDHGA3, TCMO3, G3BP2, HGF, MYLK, SLC38A4, CALCR, CAPN7, CENPF, MYO1B, OSBPL3, RN7SL318P, SLC13A3, SLC26A8, TLK1, ZBTB16, CACNB2, NFASC, NOS1AP, OSBPL10, SNAP29, INSR, MACF1, PAK1, PSMB7, SKI, AKT3, CHM, ENPP1, FMR1, LIMK2, MICU2, THEM4, ATP5J, DKC1, FAM126A, GABRA1, IGHV1-69, MON2, PRKX, RRAGC, ULK4, ABCD1, AMPH, CHKA, GABRR3, IGHV1-46, MAD1L1, APIG2, CCDC141, CD84, EPG5, ESYT2, JPH4, PPARA, SIL1, SORT1, TNFAIP8L3, TTN, CORIN, FAM3D, FHL1, GNA13, HEATR5B, NUP214, SLC22A5, CACNA1A, FUT8, SPRED1, TRPM1, NTN4, PTPRF, SCN9A, ATP6V1E1, C2, DEFA1B, IGHV1-18, NUP62CL, OPTN, PTPRR, RIT2, EXT1, IFT81, PRKCG, PRLR, UMOD, DOCK7, LYMO2, FBXW11, HDAC5, ICK, KLHL3, TDGF1, GOSR2, LYE1, SLC24A5, SLC38A10, SLC40A1, STIM1, TREM1, TRPM6, ADARB1, KCNC2, NDE1, PRKCG, SLC22A10, SLC22A25, SLC9A9, STAT3, USP7, AMOT, DNMIP46, HPN, PAK3, PIK3R2, SLC15A5, USH2A, CASQ2, DTNBP1, GAK, RAP1B, SLC28A3, TMEM175, CNNM3, LGALS9, LRP8, SNCAIP, EFCA1, MAPKAPK2, SLC7A8, TMEM63A, TUSC3, UPK3A, APC, BMPR1A, CKAP5, CSN3, DPP4, HDLBP, ITGA1, KIAA0319, PRKCA, PTGES, SPINT2, SRP19, UBASH3B, VLDLR, ASB3, EXOC6, CTSH, DHX9, RGCC, RPH3A, SLC9A2, SRGAP1, CCL14, CCL15, CCL15-CCL14, GABRG2, IL6R, MAP2K6, NCALD, OSBPL1A, SIAH3, SLC16A12, SPTBN4, AP5M1, CLASP2, MAP2K1, SOS1, TPH1, VPS35, C1QTNF3, FGF1, MCOLN3, TBX20, ATP6V1E2, C6ORF106, RGN, RN7SL673P, RREB1</p>
GO:0007155	cell adhesion	1.7027145451160513e-23	<p>CDH4, PCDH9, DAB1, MAPK14, DSCAM, RUNX1, NCAM2, PTPRT, ANK3, IGSF5, SVEP1, DUSP22, FBLN1, ITGA2, NRXN1, NRXN3, SDK2, CTNND2, TNC, PKD1L1, DLG2, CDH13, LRRC4C, BCAN, ADAMTSL1, PLXNA4, FLRT2, FBLN5, NRG1, STXBP6, IL4R, LRFN5, MUC16, ASTN2, UNC5D, SPOCK1, CTNNA2, CCR1, CCR3, TLAM1, PCDH11X, PCDH7, PDZD2, UTRN, CNTN4, ROBO2, EPHA3, CNTNAP4, COL15A1, CRNN, AJAPI, CDH11, CDH2, CDH9, LOXL2, LAMA2, HMCN1, CORO2B, NEGR1, NTN1, TLN2, GPC6, PCDH17, LAMA4, CDH8, CNTN5, DSC3, VCAN, DMD, CLDN14, VCL, CELSR1, SKAP1, ASTN1, OPCML, CADM2, FRMD5, CTNNA3, CUZD1, NTN1, TENM4, STRC, IGFBP7, KIF26B, DISC1, EMB, SEMA4D, GSK3B, TGFBI2, CLSTN2, FMN1, VAV3, FUT4, S100A11, SEMA5A, LSAMP, PCDH15, ABL3BP, EDIL3, LAMA3, RAG1, RAG2, PML, CNTNAP2, FBN1, PLXNA2, BCCL2, CDH10, EPHB1, CDH12, LRRC4, CDH6, EPHA7, DPT, FYN, ADAMTS18, CD44, MYL12A, THBS2, KANK1, ACTN2, IGSF11, LAMB4, CDHR4, NTM, PALLD, FAT3, MEGF9, PKP2, CCDC88B, PTPRD, EPB41L4B, DSG4, NLGN4X, PRKCE, CDH18, FOXO3, PARD3B, DLC1, ROBO1, FAP, CDH17, GRHL2, CR1, SPON1, LPP, PKHD1, TGM2, KDR, CASK, CHL1, EDAA, ABCA12, APP, COL18A1, NRPI, PTPRM, TENM2, VSIG10, ADTRP, CD58, EGFLAM, ADAM17, PARVG, PKP4, ETS1, PRTG, TGFB11, TM9SF4, CYTIP, ITGA11, PARD3, SSPN, ABAT, ATRNL1, KIFAP3, RIN2, ALCAM, CNN3, CNTN3, JAM2, PRKG1, PPFIBP1, RASGRP1, SDK1, GLI3, CLDN1, CRB1, ADAM12, TNFR, PEAK1, TENM3, ITGB3BP, RAPGEF1, CD96, DSCAML1, TRIOBP, C</p>

			<p>OL4A6,GRID2,PARVB,TRPM7,CD72,ADORA2A,EFNA5,EMCN,MERTK,SPECCIL,CNTNAP5,NF1,ARHGAP6,IGSF21,RELN,SLC39A8,HAPLN1,KIRREL3,SELE,COL12A1,NPHP4,IL1RAP,JAG1,PPP3CA,SLC7A1,CXADR,CBLB,CNTN1,GPC4,AGGF1,FREM1,ITGAE,NLGN1,PTPRU,ARHGAP5,MEGF11,EGFL6,CADM3,OMG,JAK2,LMO7,SMAD3,BALAP2L1,CD300A,COL8A1,PLXNB1,AATF,TNF,TNIP1,PPFIA2,DLG5,MAGI1,CLEC4A,FREM2,DOCK1,PCDH19,CNTN6,EFNB2,CLSTN1,SELP,CTNNA1,TENM1,PRKAR1A,MIP,IL1RAPL1,KIT,CTNNA1,TRPV4,VWC2,EFNB1,PTPRO,DNAJB6,JAK1,MYPN,SEMA3E,EPHB2,FNDC3A,TBCD,FER,SPTA1,SLAMF1,ABL2,BSG,F11R,FARP2,CD2AP,CLDN11,PTPRK,LAMA1,PREX1,TNFAIP8L2,VWF,ITGA9,MYH9,SOX4,NEDD9,ITGA8,WDPCP,CDH23,ITGBL1,IL23R,ITGB7,GP5,FGL2,IL1RL2,HLA-DRA,PDE5A,ZMIZ1,PDLIM5,PTPRA,FERMT2,MAP2K5,TNN,DAB2,STX3,ACTN4,ADAM10,ITGA3,CD226,EPDR1,BMP6,CLASP1,CFDP1,PCDHGA1,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGA2,PCDHGA3,PCDHGA4,PCDHGA5,PCDHGA6,PCDHGA7,PCDHGA8,PCDHGA9,PCDHGB1,PCDHGB2,PCDHGB3,PCDHGB4,PCDHGB6,PCDHGB7,PKP1,ZBTB16,NCAM1,NFASC,MACF1,TESK2,PRKX,MAD1L1,CCDC141,CD84,GLDN,LRRN2,PKC1,PPARA,COL19A1,FIBCD1,NTN4,PTPRF,FBLN2,MYBPC2,PGM5,TECTA,EXT1,PRLR,UMOD,ELMO2,LYVE1,SERPINB8,PRKCQ,USH2A,NID2,LGALS9,NFAT5,APC,DPP4,ITGA1,PRKCA,SPINT2,UBASH3B,CNTNAP3,RGCC,CLASP2,RGMB,COL6A3,DCHS2,RREB1</p>
GO:0000902	cell morphogenesis	2.98896707223533e-23	<p>CDH4,DAB1,FMNL2,CDC42EP3,MAPK14,DSCAM,ANK3,DCC,FBLN1,EPHA6,NRXN1,ZRANB1,NRXN3,CTNND2,CHOLD,RIMS2,FGD6,FSYL4,LRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,NRG1,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,RHOC,COL22A1,DPPYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,COL15A1,CDH11,RHOJ,CDH2,CDH9,PARK2,LAMA2,SEMA3D,NTN1,FMNL3,TRIO,MYO9A,SLIT2,CDH8,IGF1R,PALMD,TRPC5,DMD,SYT1,SIPAIL3,VCL,MAEL,NTNG1,LRRK2,SLC1A3,STRC,RNF165,DISC1,HEXB,EMB,SEMA4D,GSK3B,FRMD6,TGFB2,SEMA5A,BDNF,RYK,ZDHHC17,PCDH15,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,CDH10,EPHB1,CDH12,SIPAIL1,LRP2,CDH6,NR4A2,EPHA7,FYN,CHN1,SULT4A1,CD44,HECW1,KANK1,ENPP2,ATP8A2,DCDC2,TNMD,LAMB4,UNC5C,PALLD,STRIP1,GAS7,MOV10,FAT3,MEGF9,ERMN,PTPRD,TIAM2,CDH18,VDR,KALRN,CCDC88C,DLC1,ROBO1,TANC2,NOX4,GRHL2,PREX2,SEC24B,PKHD1,KDR,ARHGAP15,CHL1,APP,COL18A1,NRP1,PTPRM,SHROOM3,ARHGEF18,SEMA3C,PARVG,PRTG,RPS6KA5,PAR3,ATRN1,GRIP1,OPHN1,ALCAM,MYO16,NTRK2,DNM3,GLI3,CRB1,DICER1,EPHA5,TNR,CUX1,PEAK1,CHRNA3,EP300,DSCAML1,SCFD1,TRIOBP,PARVB,FLNB,SPG11,ADORA2A,EFNA5,MERTK,TTCC,D MRT1,ASXL1,FRYL,RELN,KIRREL3,NUMB,MAP3K13,ATP10A,PPP3CA,KLF7,PLS1,SH3GL2,CAPZB,DOCK10,ELAVL4,RIMS1,NLGN1,SHKBP1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,ZFPM1,PPFIA2,LRG6,BCL11A,DOCK1,EPSS8,LRP4,CNTN6,EFNB2,CDKL5,MYH14,FAM171A1,IL1RAPL1,KIT,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,DNMBP,FGF13,EPHB2,TBCD,FER,SLITRK6,SPTA1,BSG,F11R,ARHGAP35,CCL3,LAMA1,PREX1,SEMA5B,FGD4,MYH9,PACSIN2,NEDD9,ITGA8,PDZD7,UNC13A,WDPCP,AUTS2,CDH23,MEF2A,MAP2,ITGB7,NTF3,P2RX7,AR,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,FERMT2,TNN,DAB2,SYT2,ACTN4,CCL7,FRY,LGI1,CFDP1,GAS2,HGF,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,GNAI3,NTN4,EXT1,DOCK7,AKAP2,ADARB1,PRKCQ,HPN,ISLR2,PAK3,USH2A,D TNBP1,LRP8,UPK3A,ITGA1,KIAA0319,NGF,SPINT2,VLDLR,ABII,SP TBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0022610	biological adhesion	4.556151712352773e-23	<p>CDH4,PCDH9,DAB1,MAPK14,DSCAM,RUNX1,NCAM2,PTPRT,ANK3,IGSF5,SVEP1,DUSP22,FBLN1,ITGA2,NRXN1,NRXN3,SDK2,CTNND2,TNC,PKD1L1,DLG2,CDH13,LRRC4C,BCAN,ADAMTSL1,PLXNA4,FLRT2,FBLN5,NRG1,STXBP6,IL4R,LRFN5,MUC16,ASTN2,UNC5D,SPOCK1,CTNNA2,CCR1,CCR3,TIAM1,PCDH11X,PCDH7,PDZD2,UTRN,CNTN4,ROBO2,EPHA3,CNTNAP4,COL15A1,CRNN,AJAPI,CDH11,CDH2,CDH9,LOXL2,LAMA2,HMCN1,CORO2B,NEGR1,NTN1,TLN2,GPC6,PCDH17,LAMA4,CDH8,CNTN5,DSC3,VCAN,DMD,CLDN14,VCL,C ELSR1,SKAP1,ASTN1,OPCML,CADM2,FRMD5,CTNNA3,CUZD1,NTNG1,TENM4,STRC,IGFBP7,KIF26B,DISC1,EMB,SEMA4D,GSK3B,TGFB2,CLSTN2,FMN1,VAV3,FUT4,S100A11,SEMA5A,LSAMP,PCDH15,AB3BP,EDIL3,LAMA3,RAG1,RAG2,PML,CNTNAP2,FBN1,PLXNA2,BCL2,CDH10,EPHB1,CDH12,LRRC4,CDH6,EPHA7,DPT,FYN,ADAMTS18,CD44,MYL12A,THBS2,KANK1,ACTN2,IGSF11,LAMB4,CDHR4,NTM,PALLD,FAT3,MEGF9,PKP2,CCDC88B,PTPRD,EPB41L4B,DSG4,NLGN4X,PRKCE,CDH18,FOXO3,PARD3B,DLC1,ROBO1,FAP,CDH17,GRHL2,CR1,SPON1,LPP,PKHD1,TGM2,KDR,CASK,CHL1,EDA,ABCA1</p>

			<p>2,APP, COL18A1, NRPI, PTPRM, TENM2, VSIG10, ADTRP, CD58, EGFLA M, ADAM17, PARVG, PKP4, ETS1, PRTG, TGFB11, TM9SF4, CYTIP, ITGA 11, PARD3, SSPN, ABAT, ATRNL1, KIFAP3, RIN2, ALCAM, CNN3, CNTN3, JAM2, PRKG1, PPFIBP1, RASGRP1, SDK1, GLI3, CLDN1, CRB1, ADAM12, TNR, PEAK1, TENM3, ITGB3BP, RAPGEF1, CD96, DSCAML1, TRIOBP, C OL4A6, GRID2, PARVB, TRPM7, CD72, ADORA2A, EFNA5, EMCN, MERT K, SPECC1L, CNTNAP5, NF1, ARHGAP6, IGSF21, RELN, SLC39A8, HAPL NI, KIRREL3, SELE, COL12A1, NPHP4, IL1RAP, JAG1, PPP3CA, SLC7A1, CXADR, CBLB, CNTN1, GPC4, AGGF1, FREM1, ITGAE, NLGN1, PTPRU, ARHGAP5, MEGF11, EGFL6, CADM3, OMG, JAK2, LMO7, SMAD3, BAIA P2L1, CD300A, COL8A1, PLXNB1, AATF, TNF, TNIP1, PPFIA2, DLG5, MA GII, CLEC4A, FREM2, DOCK1, PCDH19, CNTN6, EFNB2, CLSTN1, SELP, CTNNA1, TENM1, PRKARI, MIP, IL1RAPL1, KIT, CTNNA1, TRPV4, VW C2, EFNB1, PTPRO, DNAJB6, JAK1, MYPN, SEMA3E, EPHB2, FNDC3A, T BCD, FER, SPTA1, SLAMF1, ABL2, BSG, F11R, FARP2, CD2AP, CLDN11, P TPRK, LAMA1, PREX1, TNFAIP8L2, VWF, ITGA9, MYH9, SOX4, NEDD9, I TGA8, WDCP, CDH23, ITGBL1, IL23R, ITGB7, GP5, FGL2, IL1RL2, HLA- DRA, PDE5A, ZMIZ1, PDLIM5, PTPRA, FERMT2, MAP2K5, TNN, DAB2, ST X3, ACTN4, ADAM10, ITGA3, CD226, EPDR1, BMP6, CLASPI, CFDP1, PC DHGA1, PCDHGA10, PCDHGA11, PCDHGA12, PCDHGA2, PCDHGA3, PCDHGA4, PCDHGA5, PCDHGA6, PCDHGA7, PCDHGA8, PCDHGA9, P CDHGB1, PCDHGB2, PCDHGB3, PCDHGB4, PCDHGB6, PCDHGB7, P KP1, ZBTB16, NCAM1, NFASC, MACF1, TESK2, PRKX, MAD1L1, CCDC1 41, CD84, GLDN, LRRN2, PCK1, PPARA, COL19A1, FIBCD1, NTN4, PTPR F, FBLN2, MYBPC2, PGM5, TECTA, EXT1, PRLR, UMOD, ELMO2, LVE1, SERPINB8, PRKCQ, USH2A, NID2, LGALS9, NFAT5, APC, DPP4, ITGA1, P RKCA, SPINT2, UBASH3B, CNTNAP3, RGCC, CLASP2, RGM, COL6A3, DCHS2, RREB1</p>
GO:0048666	neuron developm ent	5.2339606769949857e-23	<p>CDH4, DAB1, DSCAM, RUNX1, NCAM2, ANK3, DCC, KCNQ1, EPHA6, GR IN3A, NRXN1, NRXN3, CTNND2, TNC, CHODL, RIMS2, OLFM3, FSTL4, LR RC4C, TMEM108, ADAMTSL1, SYT17, PLXNA4, FLRT2, CECR2, UNC5D, SEMA6D, SPOCK1, CTNNA2, RBFOX2, TIAM1, ABL4, RASGRF1, DPYS L2, CBFA2T2, ALK, FBXO31, CNTN4, PHACTR1, S100B, ROBO2, EPHA3, DCLK1, AGT, ATAT1, CDH11, CDH2, PARK2, LAMA2, ZNF804A, NEGR1, SEMA3D, NTN1, TRIO, HDAC2, MYO9A, SLIT2, IGF1R, PTPRG, TRPC5, D MD, HCN1, SYT1, VCL, CSMD3, FSHR, STK24, OPCML, NTNG1, TENM4, L RRK2, ROR, SLC1A3, STRC, NTRK3, ANKS1A, RNF165, DISC1, EMB, ME CP2, MTMR2, SEMA4D, GSK3B, PRKD1, ERCC6, TGFB2, SEMA5A, BDNF, RYK, ZDHHC17, PCDH15, WASF1, LAMA3, SNAP25, CNTNAP2, PLXNA2, TAOK3, BCL2, EPHB1, SIPA1L1, LRP2, NR4A2, EPHA7, FYN, CHN1, SUL T4A1, HECW1, PMP22, KANK1, ATP8A2, DCDC2, GABRB1, UNC5C, NTM, UGCG, PALLD, ROR1, GAS7, MOV10, FAT3, PTPRD, TIAM2, KLHL1, IFT 88, KALRN, EDNRB, ROBO1, TANC2, PREX2, SEC24B, VASH2, CHL1, APP, NRPI, PTPRM, TENM2, THRB, SEMA3C, CAMK1D, PRTG, RPS6KA5, PA RD3, THOC2, GRIP1, OPHN1, CCDC88A, CD38, DENND5A, ALCAM, MY O16, SRRM4, NTRK2, PRKG1, DNM3, SDK1, GLI3, CRB1, RAP1A, DICER1, EPHA5, TNR, CUX1, TENM3, RAPGEF1, CHRNA3, EP300, DSCAML1, TRI OBP, GRID2, SPG11, ADORA2A, CAMK2G, EFNA5, MAGI2, TTC8, FRYL, RELN, KIRREL3, PTPN9, NUMB, MAP3K13, NPHP4, PPP3CA, KLF7, MYT 1L, PLS1, SH3GL2, DOCK10, ELAVL4, CNTN1, DGUOK, GRM7, RIMS1, AS AP1, NLGN1, MAPK8IP2, OMG, GABRA5, JAK2, SHOX2, AHII, KIDINS22 0, PLXNB1, COBL, PPFIA2, ATXN10, BLOC1S6, DLG5, LGR6, BCL11A, LR P4, WDR5, CNTN6, EFNB2, HERC1, CTNNA1, TENM1, CDKL5, EFHC2, IL 1RAPL1, SLIT3, TRPV4, EFNB1, PTPRO, RAPGEF2, MYPN, SEMA3E, UBE 3A, FGF13, GABRB2, EPHB2, TBCD, TOX, SLITRK6, ABL2, BSG, FARP2, A RHGAP35, LAMA1, SEMA5B, NHLH2, ARF4, SLC39A12, AGTPBP1, PDZ D7, UNC13A, WDCP, AUTS2, CDH23, MEF2A, MAP2, NTF3, BHLHB9, S EMA3A, EPB41L3, MARK2, ZMIZ1, PDLIM5, MARK1, TNN, DAB2, PBX1, S TX3, SYT2, BLOC1S5, ITGA3, FRY, LGI1, NREP, SCLT1, CNGB1, HGF, NCA M1, NFASC, MACF1, PAK1, FMR1, GPRIN2, ULK4, CRMP1, RPGRIP1, CC DC141, GLDN, NTN4, PTPRF, RIT2, EXT1, DOCK7, ADARB1, PRKCQ, ISL R2, PAK3, DTNBP1, GAK, CRTAC1, LRP8, ITGA1, KIAA0319, NGF, VLDLR, ABI1, SPTBN4, CLASP2, MAP2K1, SOS1, PPP1R9A</p>
GO:0065008	regulation of biological quality	5.505074737529906e-23	<p>CDH4, PIEZO2, CMKLRI, OMA1, FMNL2, GABRB3, CDC42EP3, GABRG 3, MAPK14, ABCG8, DSCAM, GPHN, ASIC2, CTBP2, SERPINA1, RAB27A, ANK3, DTD2, DCC, SYN3, PCSK2, FBLN1, GRIK1, LARGE, SLC24A3, NPH P3, ITGA2, ABCG1, KCNQ1, ATF7IP, GRIN3A, NRXN1, TMPRSS3, TNNI3K, NRXN3, SLC1A2, RAB5A, POTE, MS4A1, RIMS2, MTPN, SHANK2, COM T, GRIA1, FGD6, SLC9B1, TGFB3, ANO4, FSTL4, ANK2, KCND3, CSMD1, FAMI55A, SYNDIG1, SLC12A1, TF, PRIMA1, SCN8A, KCNE1, SAMP4A, T MEM108, CHEK2, PSMC6, ACIN1, PLXNA4, FLRT2, NRG1, SCARA5, PSM B2, SHISA6, IL4R, ALDH1A2, LRFN5, RYR3, MCTP1, PLCE1, KSR2, SEMA6 D, ABHD17C, CTNNA2, CCRI, CCR3, CFTR, RBFOX2, PCTP, PM20D1, RH</p>

			<p> OC,RGS7BP,RASGRF1,ZBTB20,DPYSL2,GRID1,SLC6A2,IL1RAPL2,ALK,SORCS3,FAM3B,ERC1,RAB7A,CNTN4,TAPBP,S100B,ROBO2,PRKACB,PTPRN2,AGT,ERC2,SHISA9,ATP6V0D1,RHOJ,CDH2,PAH,PARK2,LAMA2,CORO2B,FRMPD4,ZNF804A,MCTP2,NEGR1,OTC,SEMA3D,NTN1,KCNH1,TKX,CP,GPC6,USP40,DBH,TSPAN8,FMNL3,KCNMA1,RIN3,APBA2,FTO,LAMA4,SLIT2,CDH8,RPS6KA2,STXBP4,IGF1R,MDM2,PALMD,SLC24A4,SMAD1,DSC3,NOVA1,SYT9,TMPRSS6,GABRG1,KCNK17,PXK,CPO,TRPC5,DMD,HCN1,SYT1,CACNG3,VCL,NOX5,FSHR,GSG1L,GRM1,SORCS2,TRPM2,CTNNA3,RNLS,RYR2,UNC13C,DHRS7C,LRRK2,SLC1A3,KCNH5,NTRK3,RORA,ILDRI,SLC4A4,CHD7,DISC1,HEXB,KCNK13,PAN3,PDXP,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LINGO2,SLC8A1,PRKD1,ERCC6,FLVCR1,OGT,ATP1A4,CLSTN2,FMNI1,VAV3,ATP9B,PIWIL4,SEMA5A,BDNF,RYK,KCNK1,NBEA,PCDH15,SGCD,GRIN2B,CHST9,EXT2,RAG1,RAG2,ABCB5,NR2F2,PTGFR,SNAP25,NR5A2,PML,PPARGC1A,USP36,AKAP6,GRIK3,LRFN2,PLXNA2,SNAP23,ACSM3,BCL2,ZNF675,EPHB1,KCNJ3,SIPA1L1,SLC30A5,DISP1,ITPR2,DEPTOR,CYB561A3,EPHA7,FYN,KCNE2,PARN,ADAMTS18,NR4A1,SMARCA4,MYL12A,THBS2,FOXO1,PDE4D,TBXAS1,KANK1,ATP10B,ABCB10,ACTN2,ATP8A2,GABRB1,KLF13,MME,NAV2,GRIK2,IGSF11,ZNF516,CELF4,RAP1GDS1,TPO,APBB2,KCND2,MYLK3,SCN11A,SLC1A1,UGCG,MTOR,CADPS,LDB2,MOV10,CHRM1,PKP2,ERMN,PTPRD,BBS2,PLCL1,ARL6IP5,ATP1A1,PLN,SLCO1B1,CTNNBIP1,HEPHL1,SOX8,NLGN4X,PRKCE,PRKCB,VDR,ADCY8,FAM19A4,FOXO3,LRRTM1,SCP2,CAPN3,KALRN,CCDC88C,DLCL1,EDNRB,TANC2,BNIP3L,FAP,NOX4,SGIP1,SLC12A8,STX12,TSC22D3,COL2A1,MALL,TACR3,TRAF3IP2,GABRA2,PKHD1,STK3,TGM2,KDR,PRCP,ARRHGAP15,CASK,ABCA12,APP,DGKB,NRP1,SHROOM3,ARHGAP18,LRG4,SERPING1,ADTRP,THRB,KCNK2,SEMA3C,ADAM17,DIS3L2,TFF1,ATF2,ETS1,MT1HL1,OIT3,TM9SF4,TCF7L2,ACSM2A,ZNF830,ABAT,GRIN2A,GRIP1,RIMS3,HRNR,OPHN1,PYGL,CD38,SLC30A7,TUBBCL2L1,ADAMTS16,PDE4B,BACE2,GHR,GLRA2,JAM2,NTRK2,PRKG1,ACSL4,A1CF,DNM3,COMMD1,KCTD7,ZNF207,CACNA1C,CLDN1,CUG7,PPA2,STXBP5,CRB1,DOCK4,RAP1A,USP53,CYSLTR1,PRDX4,EPHA5,TNR,NCOA5,CPE,CHRNA3,CHRNA5,EP300,MORC3,TBX3,TTC39B,CACNA2D1,CYP7B1,DIO2,TRIOBP,GLRA1,PCSK5,GRID2,NPC1,PARVB,PNPLA3,RASGRF2,TRPM7,PSMA1,TRHDE,ADCK1,ADORA2A,CAMK2G,EFNA5,EMCN,FAM20A,MERTK,TAC4,BRD1,CACNG2,NF1,TFF1,BID,HTR4,ASXL1,MICU1,POR,RELN,SLC39A8,SLC9C1,TNFRSF11B,USP3,GRM5,HDAC9,IL18R1,DYNCH1,LRRTM3,PLSCR4,NAPEPLD,NUMB,MAP3K13,NLK,NPHP4,ADCYAP1R1,CYP39A1,IL1RAP,ATP10A,FBXL5,PPP3CA,KLF7,NEB,PLS1,SH3GL2,ATP8B4,CAPZB,CXADR,DGKI,SLC24A2,WWTR1,KL,DOCK10,ELAVL4,PLSCR1,ATP9A,GPC4,RIMS1,GABRA3,KAT7,L3MBTL3,STIM2,SLC22A2,FHOD3,NLGN1,P2RX6,CHST8,CTTNBP2,RNF128,SH3KBP1,SLC22A3,NPR3,AKAP7,LRRK1,MAPK8IP2,ACOX3,CACNA1D,DDX3X,NSG1,CNOT7,DTD1,GABRA5,TPCN2,JAK2,SHOX2,SPNS2,SMAD3,XKR4,BAIAP2L1,NOS1,PLXNB1,RDH10,TMTC4,ITPK1,MIR320B2,SLC39A10,TNF,SNX5,ZFPM1,POMC,PPFIA2,BLOC1S6,DHRS11,DLG5,FCHSD2,ARID2,KCNK10,ARF1,BCL11A,SULT1B1,ZSWIM7,ANO1,GCLC,EPSS8,CYP3A5,TRPC4,C5AR1,LRP4,TSPAN1,EFNB2,KCNH8,MYCT1,TRDN,ZNF423,CLSTN1,INSC,LRRC8D,SELP,SCN1A,TENM1,TSHZ3,CDKL5,DMXL1,GRIK4,MYH14,NELL2,ARHGAP11B,FAM171A1,GABRR2,KCNH7,MYRIP,ALDH1A1,CMA1,IL1RAPL1,KIT,POTEF,TNRC6B,TRPV4,ABCA5,CPSI,NAPG,PTPRO,RAPGEF2,ESR1,HTR2C,SEMA3E,SLC30A8,UBE3A,DNMBP,FGF13,GABRB2,GRM4,NUP155,SGCZ,ANO3,EPHB2,ABCC1,ERBB4,FER,SLITRK6,SPTA1,LRP5,MALRD1,PTH2R,XKR7,ABL2,BSGF11R,AP2B1,ARHGAP35,NSUN2,ATP8A1,CCL3,MCUR1,SEMA5B,VWF,FGD4,IL20RA,ARF4,MYH9,PTGER3,SLC39A12,SOX4,P2RX1,PIK3CD,PRR16,SPTB,AGTPBP1,ASGR2,KCNE4,PUM1,ARID4A,DDB1,ENPEP,KDM3A,PLAT,UNC13A,WDPCC,CDH23,OCLN,RYR1,UNC13B,ZCCHC17,DAD1,GLRA3,MAP2,BPGM,P2RX7,PLA2G4A,RAPGEF4,SCUBE1,GP5,RASA3,AR,C10ORF90,BDKRB1,BDKRB2,ADRA1B,BHLHB9,DGKZ,MIR433,PRKAA2,SEMA3A,THADA,CDC73,EPB41L3,MARK2,PROS1,FLT3,PDLIM5,PPARGC1B,ATP6V1H,ESRRG,FERMT2,HCN4,SCNN1A,SMPD3,ATP13A3,CLN6,DAB2,GPR55,HDAC8,RNF207,SRD5A2,STX3,SYT2,ADAM10,CCL7,FGF12,KMO,LGI1,MT1F,PLCL2,PIN1,TRPM4,BMP6,BTBD9,CHRM3,CIT,EIF4ENIF1,GAD2,SMTNL2,CFDPI,CNGB1,TMOD1,GAS2,HGFAC,CALCR,FLI1,CACNB2,ELN,NSO1AP,SNAP29,ARHGAP28,INSR,LARP4B,MACF1,PDE3A,PSMB7,AKT3,ENPP1,FMR1,MICU2,THEM4,CHFR,DKC1,GABRA1,TMTC2,ABCD1,GABRR3,IDE,ARHGAP42,JPH4,PCK1,POLD1,PPARA,CORIN,FAM3D,FHL1,GNA13,MYH7,SLC22A5,TAF1,ADH1B,CACNA1A,PPP2R3C,QRFP,SIPR3,TRPM1,AKR1C2,PRDM16,SCN9A,BTRC,EXT1,MDM4,MYH6, </p>
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			<p>PRKCG,PRLR,SCO2,UMOD,ADAMTS5,DOCK7,FBXW11,KLHL3,AKA P2,MYEF2,SLC24A5,SLC40A1,STIM1,KCNC2,PEMT,PRKCQ,SLC9A9,STAT3,TP63,USP7,AMOT,HPN,ISLR2,PAK3,PIK3R2,TBL1X,USH2A,A DH1A,CASQ2,DHRS2,DHRS7B,DTNBP1,RAP1B,TMEM175,CNNM3,L GALS9,LRP8,SNCAIP,ACSM1,MAPKAPK2,SLC7A8,UPK3A,APC,CSN 3,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,UBASH3B,CTSH,DHX 9,NCAPG2,RPH3AL,SLC9A2,ACACA,CCL14,CCL15,GABRG2,GPR21,MAP2K6,NCALD,SLAH3,TMEM123,SPTBN4,CLASP2,SOS1,TPH1,VPS 35,C1QTNF3,MCOLN3,PLB1,DGKK,RGN,TBX18</p>
GO:0023052	signaling	2.3392838595374863e-22	<p>IGHV1OR21-1,ADCY2,TPTE,PLCB1,CMKLR1,DAB1,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSCAM,TPTE2,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,HUNK,CACNA1E,NPY4R,LYPD6,OR4M2,PTPRT,ANK3,IGHV4-31,DCC,IGHV3-64,SVEP1,WLS,SYN3,TIMP3,DUSP22,AKAP13,FBLN1,ERG,GRIK1,GP R139,IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,RGS6,KCNQ1,GABBR2,EPHA6,OR4K15,TMEM117,V RK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,TNNI3K,DOK5,NRXN3,SLC1A2,RAB5A,DOCK2,CTNND2,TNC,PCNT,MS4A1,OR8U1,RIMS2,SHANK2,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,DLG2,TGFBR3,FSTL4,CDH13,RNF152,ANK2,LRRC4C,NXN,KCND3,CSNK2A1,TF,SCN8A,KCNE1,PIK3C2B,TMEM108,CHEK2,OR4C12,GADD45A,PCP4,SYT17,PLXNA4,FLRT2,GPC3,NRG1,PSMB2,SHISA6,RFFL,IL4R,ALDH1A2,RYR3,MCTP1,NLN,PLCE1,SH3RF2,UNC5D,KSR2,GLP2R,STK38L,SEMA6D,DRP2,CCR1,CCR3,CFTF,RBFOX2,DTX4,MC2R,TIAM1,RHOC,LDLRAD4,RGS7BP,RASGRF1,DPYSL2,GRID1,SLC6A2,CBFA2T2,IL1RAPL2,OR4A5,NKD1,SCA1,MX1,BTN2A1,ALK,PTPRE,PIK3C3,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,FBXO31,RAB7A,CNTN4,RGL2,ARID5B,S100B,ROBO2,ZNF366,C2CD3,EPHA3,PRKACB,PTPRN2,CNTNAP4,DC LK1,PXDN,COL15A1,CRNN,LEMD3,OR8K3,AGT,ERC2,SHISA9,CHRM5,WDR11,CDH11,RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,DLGAP1,LAMA2,CDC5L,KIR2DL1,KIR2DL4,OR4K13,BPIFB1,CYBB,MCTP2,GNB4,OR4M1,OR4N2,SEMA3D,NTN1,OR52N5,TRIM22,TRIM5,KCNH1,TXK,GPC6,DBH,ITSN1,TNS3,PCDH17,ZNRF3,RIN3,TRIO,APBA2,HDAC2,HTRA1,MYO9A,SLIT2,CDH8,PDCD6,OR2L13,RPS6KA2,STXB P4,GPC5,LCMT1,IGF1R,MDM2,SLC24A4,SMAD1,SYT9,OR11G2,OR9Q1,TMPRSS6,RAPGEF5,GABRG1,NR3C2,PTPRG,PXK,PDE9A,OR8K5,DMD,KCTD8,STK33,SYT1,CACNG3,SIPA1L3,TEAD1,CELSR1,FGF14,FSHR,GSGL,GR1A4,GRM1,FMN2,MAEL,PRKAR2A,SKAP1,SORCS2,INPP5A,STK24,DCDC1,WDR83,WWOX,ATRX,PARP16,TRPM2,CNIH3,CTNNA3,RYR2,NTNG1,OR2M5,TENM4,UNC13C,CAMTA1,LRRK2,MAPK10,RORB,SLC1A3,IGFBP7,RIMBP2,NTRK3,RORA,CD8B,ILDR1,IQCJ-SCHIP1,PRICKLE2,ANKS1A,CHD7,RNF165,DISC1,TPRG1L,KCTD9,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,MAGI3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,ATP1A4,CLSTN2,VAV3,ANKS1B,PLCD3,S100A11,SEMA5A,BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RYK,ZDHHC17,PLCXD3,SGCD,WASF1,GRIN2B,KDM4C,OR6N1,OTUD7A,EXT2,LAMA3,SIK2,ANKRD6,ARHGAP8,NR2F2,PRR5,PRR5-ARHGAP8,PTGFR,SNAP25,NR5A2,PAQR8,PITPNC1,PML,ARHGAP12,CORO2A,AKAP6,CNTNAP2,TNS1,FBN1,GRIK3,IGHV3-16,LRFN2,PLXNA2,SNAP23,TAOK3,BCL2,CHMP4C,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,KCNJ3,IL12RB2,SIPA1L1,SKAP2,LRP2,NF,SF,TMEM100,ITPR2,LRRC4,VANGL2,CDH6,DEPTOR,NR4A2,ABCC9,ARHGEF10,EPHA7,PSD3,FYN,GNRHR,KCNE2,LRRC69,ADAMTS18,CHN1,NR4A1,SMARCA4,CD44,HECW1,NEU3,PMP22,RCVRN,RNF213,FOXO1,PDE4D,PYY,KANK1,ACTN2,ARHGEF3,ATF6,DCDC2,GABRB1,GRK5,MME,TNMD,CSNK1G3,EXOC4,GRIK2,IGSF11,CELF4,UNC5C,APBB2,KCND2,NAMPT,SCN11A,SLC1A1,UGCG,RARB,RERG,RFX4,GNG4,NLRP12,GRAP2,MTOR,ROR1,CADPS,CHRM1,CTDSPL2,DDX21,PKP2,BMPER,PTPRD,RASGEF1B,TIAM2,BBS2,OR51B2,OR51I1,PLCL1,ARL6IP5,ATP1A1,EPM2A,PLN,CTNNBIP1,SOX8,ZMYND11,DI DO1,DSG4,IFT88,NLGN4X,OR4K17,OR8J3,PRKCE,EIF2S1,HELLS,PRKCB,VDR,ADCY8,EFHB,FAM19A4,FOXO3,LRRTM1,MITF,CAPN3,KALRN,PJA1,TTL12,CCDC88C,DLC1,EDNRB,OASL,ROBO1,RXFP1,BNIP3L,FLT1,NOX4,CDH17,COL2A1,KCNC4,MAP3K7,MAPK9,NR3C1,PREX2,TACR3,TRAF3IP2,CRI,EYA4,GABRA2,OR4C15,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,RAB30,ARHGAP15,CASK,CHL1,EDA,IGHV4-28,ABCA12,APP,CALCRL,DGKB,NRP1,PTPRM,UACA,ARHGEF18,ELMO1,LGR4,LINC00473,TENM2,ADTRP,KAT5,RANBP10,THRB,KCNK2,SEMA3C,ADAM17,MAP3K5,PKP4,TSPEAR,CDC42BPQ,IGF2R,ATF2,GPR78,GRK6,NR2C2,PEX5L,PIK3R5,EFEMP1,ROS1,TGFB11,DOT</p>

			<p> <i>IL, KPNB1, OR10R2, RGS16, RPS6KA5, TCF7L2, TNFRSF10B, TRABD2B, BICD1, ITGA11, PARD3, RALGAP2, TLK2, TRAF3, ZNF830, ABAT, ATRNL1, DOCK9, GRIN2A, GRIP1, RIMS3, SGK2, KIFAP3, OPHN1, BCLAF1, SGMS1, CASP5, CCDC88A, CD38, FAM83B, MOB3B, RIN2, RNF43, TUB, ALCAM, CHRDL1, RNF126, STK36, BCL2L1, GUCY2F, HDAC4, MYO16, PDE4B, DNMT1, GHR, GLRA2, MAPRE2, NTRK2, PRKG1, ACSL4, FAM83G, CD42BP4, GNG2, BRD4, PTPDC1, RASGRP1, STARD13, ARR3, CAMK4, LY86, RABGEF1, RGL1, SPRED2, GLI3, OR5L2, ZNF207, CACNA1C, KIF16B, OR11L1, STXBP5, CRB1, DOCK4, RAPIA, SAFB2, TGFBRI, CYSLTR1, MGLL, PRDX4, ADAM12, DICER1, EPHA5, LCP2, TAS2R38, THEMIS, TNFR, NCOA5, TAS2R1, TENM3, CHST11, CPE, IL16, ITGB3BP, PTTG1IP, RAPGEF1, CHRNA3, CHRNA5, EP300, TBX3, WIF1, CACNA2D1, CYP7B1, GRAMD4, BRD7, GAB2, GLRA1, PCSK5, TP73, COL4A6, GRID2, IFNGR2, OR4C5, PIBF1, RASGRF2, PSMA1, SV2B, TRHDE, FHIT, FLNB, PPP1R12B, SPG11, ADORA2A, ADRBK2, CABIN1, CAMK2G, EFN45, MERTK, RALGPS1, TAC4, CACNG2, GUCY2C, MAGI2, NF1, RALGPS2, RGS7, TFF1, SORL1, STRN3, ARHGAP6, ASB13, BICC1, BID, CEP89, ELK3, IFT80, OR5K4, TEAD4, TRIM59, DMRT1, HTR4, LZTR1, ASXL1, EIF4E, POR, RELN, TNFRSF11B, GRM5, IGHV4-4, IL18R1, IL1RL1, SELE, MGAT5, NDRG2, RHPN2, IGHV3OR16-12, MAP3K13, NLK, NPHP4, RALA, ADCYAP1R1, IL1RAP, FBXL17, JAG1, PPP3CA, GPR176, JRK, KLF7, SH3GL2, SNX25, CXADR, DGKI, MAS1, PER1, SLC24A2, WWTR1, KL, CBLB, DOCK10, ELAVL4, PLSCR1, CNTN1, DOK6, GPC4, GRM7, RIMS1, TRIM16, WDR59, GABRA3, GPSM2, KAT7, MAPK4, ITGAE, NLGN1, P2RX6, PDE1C, PTPRU, ARHGAP5, BTBD11, RPS20, SH3KBP1, NPR3, AKAP7, LRRK1, MAPK8IP2, VEPH1, CACNA1D, DDX3X, NSG1, ARAP2, CNOT7, GMD5, MAML3, GABRA5, PDE7A, TPCN2, ZNF622, ARHGAP39, JAK2, LMO7, SHOX2, SPNS2, AH11, SMAD3, BAIAP2L1, CD300A, KIDINS220, MAP2K4, NOS1, PLXNB1, TMTC4, AATF, CDK1, DCBLD2, HDAC7, ITPK1, LTB, MIR320B2, MRGPRG, NBN, RRH, SLC39A10, TNF, OVOL2, PANX1, SNX5, TNIP1, EIF3A, POMC, PRDM15, BLOC1S6, BMP15, DLG5, FCHSD2, NUDT4, PHEX, AFAP1, LGR6, MAGI1, OR11A1, OR5V1, RXFP4, SHC2, KCNK10, PLCH1, STK32B, ADORA3, ARF1, CLEC4A, HMGA2, MYO6, AGO3, DOCK1, GRIA3, IGLC2, IGLL5, MUC5AC, RUFY1, STK32C, ANO1, GCLC, PMEP1, UBE2V1, EPS8, LTBP1, DAAM2, SMOG2, SULF1, CSAR1, DEF6, GNAL, LRP4, PIK3R3, ARHGEF6, CNGB3, CNTN6, EFN2, TRDN, AMOTL1, NET1, ZNF423, CDC14B, CLSTN1, SELP, ALPK2, CTNNA1, CUL2, NSG2, SCN1A, TENM1, TSHZ3, ARHGEF11, GRIK4, GSKIP, MYH14, PRKAR1A, TNFRSF19, ARHGAP11B, DYNC2H1, GABRR2, MLLT3, MYRIP, SIPA1L2, CD109, EGF, IL1RAPL1, KIT, SLIT3, TNFSF8, UBR2, BLM, CTNNA1, OR7A5, PIK3C2G, TRPV4, VWC2, CC2D2A, EDAR, EFN1, PTPRO, RAPGEF2, STK32A, ESR1, HTR2C, JAK1, SEMA3E, SLC30A8, UBE3A, DNMBP, FGF13, GABRB2, GRM4, MARVELD3, NUP155, AKAP10, EPHB2, IGHV3-72, MECOM, NDFIP2, DAP, DAPK1, ERBB4, FER, MAML2, MAP3K3, FNIPI, LRP5, PTH2R, RAPGEF6, SHCBP1, RPS27L, SLAMF1, ABL2, BSG, DEPDC5, F11R, FARP2, GAS8, OR4C6, ARHGAP35, CD2AP, COMMD7, NSUN2, PTPRK, SV2C, CCL3, FGF7, LAMA1, PREX1, RNF138, SEMA5B, SPRED3, VWF, ARHGAP25, FGD4, GPR158, IL20RA, ITGA9, PSG9, SULF2, MYH9, PACSIN2, PTGER3, SLC39A12, SOX4, ST18, CAB39L, GARNL3, NEDD9, P2RX1, PDE1A, PDGFD, PIK3CD, STOML3, UBE2N, ASGR2, ITGA8, KCNE4, PUM1, DDB1, ENPEP, IRAK2, KDM3A, PLAT, TNKS, UNC13A, WDCP, ADCY9, AUTS2, DAPL1, FGFR1, MEF2A, PDE11A, RGS3, UNC13B, GLRA3, ITGBL1, RASSF3, SOST, IL23R, ITGB7, JMY, NTF3, P2RX7, PLA2G4A, RAPGEF4, SCUBE1, SORCSI, TEX14, RASA3, RCAN2, ZDHHC9, AMFR, APIP, AR, SUFU, TRERF1, EYA1, IFNA8, IL1RL2, SRPK2, BDKRB1, BDKRB2, ADRA1B, ARMC9, DGKZ, IFI27L1, MIR433, OGN, PRKAA2, SEMA3A, TLE4, ARHGAP10, CDC73, GNB5, GRIA2, MARK2, PDE5A, ZMIZ1, FLT3, PPARGC1B, PTPRA, SRGAP3, TRIM72, ESRG, FERMT2, GNAO1, HCN4, LTBR, MAP2K5, MARK1, SMPD3, TNN, DAB2, GPR55, LCP1, RNF207, SRD5A2, STX3, SYT2, ACTN4, ADAM10, CCL7, DAAM1, DRG2, EEF1E1, EEF1E1-BLOC1S5, FGF12, ITGA3, KMO, LGI1, NREP, OR10K2, OR4C46, PLCL2, PPM1B, QRICH1, RFTN1, STAC, MYOM1, PIN1, RPS6KA6, TRPM4, CD226, ERLIN1, GPR141, PIP5K1B, STK38, BMP6, BTBD9, CHRM3, CIT, GAD2, CNGBI, TGFA, WDR12, CREM, G3BP2, GAS2, HGF, PKP1, RALGAP1, RASSF8, RGS12, CALCR, CENPF, SCUBE3, SH3BP5, TLK1, CACNB2, CNKSR2, MAST4, NCAM1, NFASC, NOS1AP, PI4KA, RALGDS, SNAP29, ARHGAP28, IL18RAP, INSR, MACF1, PAK1, PDE3A, PSMB7, SKI, AKT3, CHM, ELF1, ENPPI, FMRI, LITAF, THEM4, CHFR, GABRA1, IGHV1-69, PRKX, RRAGC, ULK4, AMPH, BMF, EVC, GABRR3, IDE, IGHV1-46, MAD1L1, MFNG, AIM2, ARHGAP42, CSF2RB, EPG5, EVC2, JPH4, LRRN2, PDE6B, PPARA, SORT1, TNFAIP8L3, TTN, CORIN, FAM3D, GNA13, P </i> </p>
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			<p>PP1R13B, TAF1, CACNA1A, CHD5, FNIP2, FUT8, QRF, SIPR3, SPRED1, TRPM1, AKR1C2, CHSY1, ESR2, NTN4, PRDM16, PTPRF, SCN9A, ZNF451, BTRC, CCDC3, DEFA1B, DEFA3, IGHV1-18, OPTN, PTPRR, RIT2, EXT1, GNG12, IFT81, MDM4, NCOA1, PRKCG, PRLR, TYMP, UMOD, DOCK7, FBXW11, G3BP1, ICK, INPP4A, OR51L1, TDGF1, STAT4, TREM1, ADARB1, KCNC2, OR4C16, PRKCQ, SCEL, STAT3, TP63, USP7, AMOT, BRIPI, DOCK3, PAK3, PIK3R2, STK17B, TBL1X, BLNK, CASQ2, DTNBP1, RAP1B, DLGAP2, KSR1, LGALS9, LRP8, NFAT5, OR2T4, SNCAIP, TASIR1, ALPK1, GTPBP1, IL10RB, MAPKAPK2, APC, BMP1A, ITGA1, KIAA0319, NGF, PRKCA, PTGES, UBASH3B, VLDLR, ADAMTS20, ASB3, GPR75, MTMR4, OSGIN2, PILRB, ABI1, CTSH, FCRL5, NCAPG2, RP H3AL, SRGAP1, TRBV6-8, USP18, CCL14, CCL15, CCL15-CCL14, EDAR, GABRG2, GPR21, IL6R, MAP2K6, NCALD, RIC8B, SPTBN4, CLASP2, MAP2K1, PDE7B, RGMB, SOS1, VPS35, C1QTNF3, FGF1, TBX20, CRADD, DGKK, NLRC5, PPP1R9A, RGN, RREB1, TBX18, VSTM1</p>
GO:0030030	cell projection organization	3.056298672692924e-22	<p>CDH4, DAB1, CDC42EP3, DSCAM, NCAM2, ANK3, DCC, NPHP3, ITGA2, KCNQ1, EPHA6, GRIN3A, NRXN1, NRXN3, RAB5A, CTNND2, TNC, PCNT, CHODL, RIMS2, FGD6, FSTL4, CDH13, LRRC4C, SDCCAG8, CEP41, TMEM108, ADAMTSL1, SYT17, PLXNA4, FLRT2, HYDIN, CECR2, PLCE1, UNC5D, SEMA6D, SPOCK1, CTNNA2, BBS9, RBFOX2, TIAM1, RASGRF1, DPYSL2, CBFA2T2, ALK, SPEF2, FBXO31, CNTN4, PHACTR1, S100B, ROBO2, C2CD3, EPHA3, DCLK1, AGT, FSIP2, ATAT1, WDR11, ATP6V0D1, CDH11, RHOJ, CDH2, PARK2, LAMA2, ZNF804A, NEGR1, DNAH9, SEMA3D, NTN1, TRIO, HDAC2, MYO9A, SLIT2, TTL8, DYNLL2, IGF1R, CEP97, PTPRG, TRPC5, DMD, SYT1, VCL, CSMD3, FSHR, STK24, TRPM2, KIF3B, NTNG1, LRRK2, STRC, NTRK3, RNF165, DISC1, WRAP73, EMB, MECP2, MTMR2, SEMA4D, GSK3B, CDC14A, PRKD1, ERCC6, VAV3, SEMA5A, BDNF, RYK, ZDHHC17, PCDH15, DNAAF2, WASF1, GRIN2B, LAMA3, SNAP25, CNTNAP2, PLXNA2, TAOX3, BCL2, ARHGAP24, EPHB1, SIPA1L1, LRP2, VANGL2, NR4A2, EPHA7, RPGR, FYN, CHN1, SULT4A1, CD44, HECW1, PMP22, KANK1, ENPP2, ACTN2, ATP8A2, DCDC2, UNC5C, PALLD, RFX4, MTOR, ROR1, GAS7, MOV10, FAT3, ERMN, PTPRD, TIAM2, BBS2, KLHL1, IFT88, ATP6V1D, KALRN, ROBO1, TANC2, LRRC49, PREX2, SEC24B, PKHD1, VASH2, CHL1, TMEM138, APP, NRP1, PTPRM, TENM2, TTC12, SEMA3C, CAMK1D, PARVG, PRTG, RPS6KA5, PARD3, GRIP1, KIFAP3, OPHN1, CCD8A, CD38, DENND5A, TUB, ALCAM, STK36, ADAMTS16, AK7, DNAH8, HDAC4, MYO16, NTRK2, PRKG1, DNMT3, PTPDC1, SDK1, GLI3, RAP1A, TGFBR1, DICER1, EPHA5, TNFR, CUX1, TENM3, RAPGEF1, CHRNA3, EP300, DSCAML1, SPAG17, TRIOBP, GRID2, PARVB, PIBF1, SPG11, ADORA2A, CAMK2E, EFNA5, MAGI2, CEP89, IFT80, TTC8, FRYL, RELN, KIRREL3, PTPN9, NUMB, CCDC57, MAP3K13, RALA, EXOC5, PPP3CA, KLF7, PLS1, SH3GL2, CAPZB, WWTR1, DOCK10, ELAVL4, CNTN1, DGUOK, GRM7, RIMS1, TMEM67, ASAP1, NLGN1, MAPK8IP2, OMG, JAK2, SHOX2, AH1, KIDINS220, PLXNB1, COBL, PPPIA2, TANC1, ATXN10, BLOC1S6, DLG5, LGR6, SPAG16, ARF1, BCL11A, RAB23, EPS8, NUDCD3, CCPI10, LRP4, WDR5, ARHGEF6, CNTN6, EFNB2, HERC1, ZNF423, CDC14B, CTNNA1, TENM1, CDKL5, EFHC2, WDR35, DYNC2H1, ILIRAPL1, KIT, SLIT3, TRPV4, CC2D2A, EFNB1, PTPRO, RAPGEF2, MYPN, SEMA3E, UBE3A, FGF13, ARMC2, EPHB2, TOX, FER, SLITRK6, IFT43, RAPGEF6, ABL2, BSG, GAS8, ARHGAP35, CD2AP, LAMA1, SEMA5B, CDKL1, FGD4, ARF4, MYH9, PACSIN2, SLC39A12, TEKT4, ITGA8, PDZD7, UNC13A, WPCP, AUTS2, CDH23, MEF2A, OCLN, MAP2, NTF3, P2RX7, CEP250, ARMC9, BHLHB9, SEMA3A, EPB41L3, MARK2, PDLIM5, MARK1, TNN, DAB2, STX3, SYT2, BLOC1S5, ITGA3, FRY, LGI1, NREP, NME8, SCLT1, HGF, MYLK, SPATA6, NCAM1, NFASC, SNAP29, INSR, MACF1, PAK1, FMR1, LIMK2, GPRIN2, ULK4, ABCD1, CRMP1, RPGRIP1, CCDC141, GLDN, PTPRF, RIT2, EXT1, IFT81, DOCK7, ICK, TTC29, TTC39C, ADARB1, PRKCQ, ISLR2, PAK3, POC1A, DTNBP1, GAK, CRTAC1, LRP8, ALPK1, APC, ITGA1, KIAA0319, NGF, VLDLR, ABI1, SPTBN4, CLASP2, MAP2K1, SOS1, VPS35, ATMIN, PPP1R9A, RREB1</p>
GO:0007399	nervous system development	3.7064492328167466e-22	<p>SRGAP2B, MACROD2, CDH4, PLCB1, DAB1, GABRB3, DSCAM, ARID1B, RUNX1, ASIC2, NCAM2, ANK3, DCC, WLS, RBFOX1, PCSK2, GRIK1, NPH3, KCNQ1, DPF3, SUN2, CA10, EPHA6, GRIN3A, NRXN1, SHC3, ISX, DOK5, NRXN3, SLC1A2, SDK2, CTNND2, TNC, POTEE, CHODL, RIMS2, MTPN, SHANK2, NRG3, ARNT2, OLFM3, FSTL4, ANK2, LRRC4C, RTN1, SYNDIG1, SCN8A, BCAN, SDCCAG8, TMEM108, ADAMTSL1, PCP4, SYT17, PLXNA4, FLRT2, NRG1, HYDIN, ALDH1A2, CECR2, LRFN5, SUZ12, ASTN2, UNC5D, SEMA6D, SPOCK1, DRP2, CTNNA2, RBFOX2, TIAM1, RASGRF1, DPYSL2, CBFA2T2, ILIRAPL2, NKD1, TACC2, ALK, SPEF2, ZNF536, FBXO31, CNTN4, PHACTR1, S100B, ROBO2, C2CD3, EPHA3, PRKACB, DCLK1, AGT, ATAT1, ATP6V0D1, CDH11, CDH2, PARK2, MDGA2, LAMA2, ZNF804A, NEGR1, GNB4, SEMA3D, NTN1, GPC6, NELL1, TRAPPC9, PCDH17, TRIO, APBA2, HDAC2, MYO9A, SLIT2, TFAP2D, CNTN5, IGF1R, SLC</p>

			<p>24A4, SMAD1, GALT, RAPGEF5, VCAN, PTPRG, TRPC5, DMD, HCN1, SYT1, BASP1, VCL, CELSR1, CSMD3, FGF14, FSHR, MBOAT7, ASTN1, STK24, OPCML, ATRX, NTNG1, TENM4, LRRK2, ROR, SLC1A3, STRC, NTRK3, RORA, ANKS1A, CHD7, RNF165, DISC1, HEXB, EMB, SOX6, IER2, MECP2, MTMR2, SEMA4D, GSK3B, LINGO2, SLC8A1, PRKD1, ERCC6, TGFB2, CLSTN2, SEMA5A, SLC5A3, ACSBG1, BDNF, LSAMP, PRKCH, RYK, ZDHHC17, KCNC1, PCDH15, EML1, WASF1, GRIN2B, LAMA3, NR2F2, SNAP25, SYBU, CNTNAP2, PLXNA2, TAOK3, BCL2, EPHB1, SMARCE1, SIPA1L1, LRP2, LRRC4, NFIA, VANGL2, NR4A2, ARHGEF10, EPHA7, FYN, CHN1, SMARCA4, SULT4A1, HECW1, PMP22, THBS2, KANK1, ATP8A2, DCDC2, GABRB1, MME, NAV2, UNC5C, NTM, SLC1A1, UGCG, PALLD, RARB, RFX4, ETV6, MTOR, ROR1, GAS7, LDB2, MOV10, CHRM1, FAT3, PTPRD, TIAM2, ZNF521, BBS2, CEP85L, EPM2A, KLHL1, SOX8, IFT88, NLGN4X, FOXO3, JGF2BP3, LRRTM1, KALRN, DLC1, EDNRB, ROBO1, SATB2, TANC2, ZNF148, GRHL2, TCF4, COL2A1, MALL, PREX2, CBLN4, GABRA2, SEC24B, STK3, TGM2, VASH2, CHL1, APP, NRP1, PTPRM, SHROOM3, TENM2, IMMP2L, THRB, SEMA3C, CAMK1D, ATF2, ELP3, NR2C2, PRTG, RPS6KA5, AFF2, PARD3, THOC2, ABAT, GRIN2A, GRIP1, DLX6-AS1, OPHN1, CASP5, CCDC88A, CD38, DENND5A, ALCAM, CHRDL1, STK36, HDAC4, MYO16, SOX5, SRRM4, JAM2, NTRK2, PRKG1, ACSL4, DNM3, SDK1, GLI3, CLDN1, CRB1, RAPIA, TGFBRI, DICER1, EPHA5, TNF, CUX1, SLC6A17, TENM3, RAPGEF1, CHRNA3, EP300, DSCAML1, HMG20A, TBX3, TRIOBP, ATXN1, TP73, GRID2, SPG11, ADORA2A, CAMK2G, EFNA5, MERTK, MAGI2, NF1, RGS7, SORL1, IGSF21, TTC8, EIF4E, FRYL, RELN, GRM5, HAPLN1, HDAC9, KIRREL3, PTPN9, LRRTM3, NDRG2, NUMB, MAP3K13, NPHP4, RALA, ILIRAP, NAV3, FBXL17, JAG1, PPP3CA, KLF7, MYT1L, PLS1, SH3GL2, MASI, DOCK10, ELAVL4, MNAT1, CNTN1, DGUOK, GPC4, GRM7, RIMS1, ASAP1, NLGN1, CHST8, CTTNBP2, AK8, MAPK8IP2, OMG, GABRA5, JAK2, SHOX2, AHI1, KIDINS220, PLXNB1, TCF12, CDK1, ITPK1, TAGLN3, TNF, COBL, OVOL2, PPFA2, ADNP2, ATXN10, BLOC1S6, DLG5, POU6F2, LGR6, SIM2, BRINP1, BCL11A, MYO6, PCDH19, QKI, DAAM2, SULF1, TRPC4, CSAR1, LRP4, WDR5, CNTN6, EFNB2, HERC1, PHF8, SPATA5, ZNF423, CLSTN1, INSC, CTNNA1, TENM1, CDKL5, EFHC2, ARHGAP11B, BPTF, DYNC2H1, EGF, CMA1, ILIRAPL1, KIT, SLIT3, TRPV4, VWC2, CC2D2A, DNAH11, EFNB1, PTPRO, RAPGEF2, MYPN, NCMA, SEMA3E, UBE3A, FGF13, GABRB2, PLAG1, EPHB2, TBCD, TOX, ERBB4, SLITRK6, ABL2, BSG, FARP2, GAS8, SETD2, ARHGAP35, CLDN11, CCL3, LAMA1, SEMA5B, KIF2A, NHLH2, SULF2, ARF4, SLC39A12, SOX4, AGTBPPI, ITGA8, PDZD7, UNC13A, WDP, PCP, AUTS2, CDH23, FGFRI, MEF2A, MAP2, NTF3, SUFU, EYA1, BHLHB9, SEMA3A, EPB41L3, JRKL, MARK2, MEIS2, ZMIZ1, PDLIM5, MARK1, TNN, DAB2, PBX1, SRD5A2, STX3, SYT2, BLOC1S5, FGF12, ITGA3, FRY, LGI1, NREP, LRIG1, PIN1, RPS6KA6, SCLT1, SHROOM4, BMP6, CHRM3, CIT, EIF4ENIF1, CNGB1, HGF, CENPF, ZBTB16, NCAM1, NFASC, MACF1, PAK1, SKI, AKT3, FMRI, PAX3, ATP5F, AMI26A, FPGS, GABRA1, GPRIN2, SBF2, ULK4, ABCD1, CRMP1, RPGRIP1, CCDC141, GLDN, ZFHX2, TAF1, CHD5, NTN4, PTPRF, RIT2, EXT1, NC OA1, PRKCG, TYMP, DOCK7, FBXW11, MYEF2, ADARBI, KCNC2, NDE1, PRKCO, STAT3, TP63, ISLR2, PAK3, USH2A, DTNBP1, GAK, CRTAC1, LRP8, GDA, APC, BMPRI1, ITGA1, KIAA0319, NGF, SPINT2, VLDLR, ABII, CYB5D2, GABRG2, SPTBN4, CLASP2, MAP2K1, SOS1, VPS35, MCOLN3, TBX20, PPP1R9A, BZW2</p>
GO:0120036	plasma membrane bounded cell projection organization	4.899552891991801e-22	<p>CDH4, DAB1, CDC42EP3, DSCAM, NCAM2, ANK3, DCC, NPHP3, KCNQ1, EPHA6, GRIN3A, NRXN1, NRXN3, RAB5A, CTNND2, TNC, PCNT, CHODL, RIMS2, FGD6, FSTL4, CDH13, LRRC4C, SDCCAG8, CEP41, TMEM108, ADAMTSL1, SYT17, PLXNA4, FLRT2, HYDIN, CECR2, PLCE1, UNC5D, SEMA6D, SPOCK1, CTNNA2, BBS9, RBFOX2, TIAM1, RASGRF1, DPYSL2, CBFA2T2, ALK, SPEF2, FBXO31, CNTN4, PHACTR1, S100B, ROBO2, C2CD3, EPHA3, DCLK1, AGT, FSIP2, ATAT1, WDR11, ATP6V0D1, CDH11, CDH2, PARK2, LAMA2, ZNF804A, NEGR1, SEMA3D, NTN1, TRIO, HDAC2, MYO9A, SLIT2, TTLL8, DYNLL2, IGF1R, CEP97, PTPRG, TRPC5, DMD, SYT1, VCL, CSMD3, FSHR, STK24, TRPM2, KIF3B, NTNG1, LRRK2, STRC, NTRK3, RNF165, DISC1, WRAP73, EMB, MECP2, MTMR2, SEMA4D, GSK3B, CD C14A, PRKD1, ERCC6, VAV3, SEMA5A, BDNF, RYK, ZDHHC17, PCDH15, DNAAF2, WASF1, GRIN2B, LAMA3, SNAP25, CNTNAP2, PLXNA2, TAOK3, BCL2, ARHGAP24, EPHB1, SIPA1L1, LRP2, VANGL2, NR4A2, EPHA7, RPRGR, FYN, CHN1, SULT4A1, CD44, HECW1, PMP22, KANK1, ENPP2, ACTN2, ATP8A2, DCDC2, UNC5C, PALLD, RFX4, MTOR, ROR1, GAS7, MOV10, FAT3, PTPRD, TIAM2, BBS2, KLHL1, IFT88, ATP6V1D, KALRN, ROBO1, TANC2, LRRC49, PREX2, SEC24B, PKHD1, VASH2, CHL1, TMEM138, APP, NRP1, PTPRM, TENM2, TTC12, SEMA3C, CAMK1D, PRTG, RPS6KA5, PARD3, GRIP1, KIFAP3, OPHN1, CCDC88A, CD38, DENND5A, TUB, ALCAM, STK36, ADAMTSL16, DNAH8, HDAC4, MYO16, NTRK2, PRKG1, DNM3, PTPDC1, SDK1, GLI3, RAPIA, TGFBRI, DICER1, EPHA5, TNF, CUX1, TE</p>

			<p>NM3,RAPGEF1,CHRNA3,EP300,DSCAML1,SPAG17,TRIOBP,GRID2,PARVB,PIBF1,SPG11,ADORA2A,CAMK2G,EFNA5,MAGI2,CEP89,IFT80,TTC8,FRYL,RELN,KIRREL3,PTPN9,NUMB,CCDC57,MAP3K13,RA LA,EXOC5,PPP3CA,KLF7,PLS1,SH3GL2,CAPZB,WWTR1,DOCK10,E LAVL4,CNTN1,DGUOK,GRM7,RIMS1,TMEM67,ASAP1,NLGN1,MAPK 8IP2,OMG,JAK2,SHOX2,AH11,KIDINS220,PLXNB1,COBL,PPFIA2,TAN C1,ATXN10,BLOC1S6,DLG5,LGR6,SPAG16,ARF1,BCL11A,RAB23,E PS8,NUDCD3,CCP110,LRP4,WDR5,ARHGEF6,CNTN6,EFNB2,HERC 1,ZNF423,CDC14B,CTNNA1,TENM1,CDKL5,EFHC2,WDR35,DYNC2 H1,IL1RAPL1,KIT,SLIT3,TRPV4,CC2D2A,EFNB1,PTPRO,RAPGEF2, MYPN,SEMA3E,UBE3A,FGF13,ARMC2,EPHB2,TOX,FER,SLITRK6,IF T43,RAPGEF6,ABL2,BSG,GAS8,ARHGAP35,CD2AP,LAMA1,SEMA5B, CDKL1,FGD4,ARF4,MYH9,SLC39A12,TEKT4,PDZD7,UNC13A,WDP CP,AUTS2,CDH23,MEF2A,OCLN,MAP2,NTF3,P2RX7,CEP250,ARMC 9,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,MARK1,TNN,DAB2,ST X3,SYT2,BLOC1S5,ITGA3,FRY,LG11,NREP,NME8,SCLT1,HGF,MYLK, SPATA6,NCAM1,NFASC,SNAP29,INSR,MACF1,PAK1,FMR1,LIMK2,G PRIN2,ULK4,ABCD1,CRMP1,RPGRIP1,CCDC141,GLDN,PTPRF,RIT2 ,EXT1,IFT81,DOCK7,ICK,TTC29,TTC39C,ADARB1,PRKCQ,ISLR2,PA K3,DTNBPI,GAK,CRTAC1,LRP8,ALPK1,APC,ITGA1,KIAA0319,NGF, VLDLR,AB11,SPTBN4,CLASP2,MAP2K1,SOS1,VPS35,ATMIN,PPP1R9 A,RREB1</p>
GO:0030182	neuron differentiation	1.0500012374886105e-21	<p>CDH4,DAB1,DSCAM,RUNX1,NCAM2,ANK3,DCC,KCNQ1,EPHA6,GR IN3A,NRXN1,DOK5,NRXN3,SDK2,CTNND2,TNC,CHODL,RIMS2,MTP N,OLFM3,FSTL4,LRRRC4,RTN1,TMEM108,ADAMTSL1,PCP4,SYT17, PLXNA4,FLRT2,NRG1,ALDH1A2,CECR2,UNC5D,SEMA6D,SPOCK1, CTNNA2,RBFOX2,TIAM1,AGBL4,RASGRF1,DPYSL2,CBFA2T2,NKD1, ALK,ZNF536,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCL K1,AGT,ATAT1,CDH11,CDH2,PARK2,MDGA2,LAMA2,ZNF804A,NEG R1,SEMA3D,NTN1,TRAPPC9,TRIO,HDAC2,MYO9A,SLIT2,IGF1R,PTP RG,TRPC5,DMD,HCN1,SYT1,VCL,CSMD3,FSHR,STK24,OPCML,NTN G1,TENM4,LRRK2,RORB,SLC1A3,STRC,NTRK3,RORA,ANKS1A,RNF1 65,DISC1,EMB,IER2,MECP2,MTMR2,SEMA4D,GSK3B,PRKD1,ERCC 6,TGFB2,SEMA5A,BDNF,RYK,ZDHHC17,PCDH15,WASF1,LAMA3,SN AP25,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2 ,EPHA7,FYN,CHN1,SULT4A1,HECW1,PMP22,KANK1,ATP8A2,CDCC 2,GABRB1,UNC5C,NTM,UGCG,PALLD,ROR1,GAS7,MOV10,FAT3,PT PRD,TIAM2,ZNF521,KLHL1,SOX8,IFT88,NLGN4X,FOXO3,KALRN,E DNRB,ROBO1,SATB2,TANC2,TCF4,PREX2,SEC24B,VASH2,CHL1,AP P,NRP1,PTPRM,TENM2,THRB,SEMA3C,CAMK1D,PRTG,RPS6KA5,P ARD3,THOC2,GRIP1,OPHN1,CCDC88A,CD38,DENND5A,ALCAM,M YO16,SRRM4,NTRK2,PRKG1,ACSL4,DNM3,SDK1,GLI3,CRB1,RAP1A, TGFBRI,DICER1,EPHA5,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP3 00,DSCAML1,HMG20A,TRIOBP,TP73,GRID2,SPG11,ADORA2A,CAM K2G,EFNA5,MAGI2,TTC8,EIF4E,FRYL,RELN,HDAC9,KIRREL3,PTPN 9,NUMB,MAP3K13,NPHP4,JAG1,PPP3CA,KLF7,MYT1L,PLS1,SH3GL 2,DOCK10,ELAVL4,CNTN1,DGUOK,GRM7,RIMS1,ASAP1,NLGN1,MA PK8IP2,OMG,GABRA5,JAK2,SHOX2,AH11,KIDINS220,PLXNB1,TCF1 2,COBL,PPFIA2,ADNP2,ATXN10,BLOC1S6,DLG5,LGR6,BRINP1,BCL 11A,MYO6,LRP4,WDR5,CNTN6,EFNB2,HERC1,CTNNA1,TENM1,CD KL5,EFHC2,DYNC2H1,IL1RAPL1,SLIT3,TRPV4,VWC2,EFNB1,PTPR O,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,GABRB2,EPHB2,TBCD,T OX,ERBB4,SLITRK6,ABL2,BSG,FARP2,ARHGAP35,LAMA1,SEMA5B, NHLH2,ARF4,SLC39A12,SOX4,AGTPBP1,PDZD7,UNC13A,WDPAP, A UT2,CDH23,FGFR1,MEF2A,MAP2,NTF3,SUFU,EYA1,BHLHB9,SEM A3A,EPB41L3,MARK2,ZMIZ1,PDLIM5,MARK1,TNN,DAB2,PBX1,STX 3,SYT2,BLOC1S5,ITGA3,FRY,LG11,NREP,PIN1,SCLT1,BMP6,EIF4ENI F1,CNGB1,HGF,NCAM1,NFASC,MACF1,PAK1,FMR1,GPRIN2,ULK4, CRMP1,RPGRIP1,CCDC141,GLDN,ZFH2,CHD5,NTN4,PTPRF,RIT2, EXT1,NCOA1,DOCK7,MYEF2,ADARB1,PRKCQ,STAT3,ISLR2,PAK3,U SH2A,DTNBPI,GAK,CRTAC1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,AB 11,CYB5D2,SPTBN4,CLASP2,MAP2K1,SOS1,MCOLN3,TBX20,PPP1R9 A</p>
GO:0050789	regulation of biological process	1.1533674606218404e-21	<p>LINC00273,IGHV1OR21-1,ISM1,TASP1,FANK1,CAST,ADCY2,SRGAP2B,TPTE,CDH4,ZHX3,PL CBI,KMT2C,KHDRBS2,ZNF595,CMKLR1,DAB1,OMA1,DUX4,GTF2I, ZNF717,FMNL2,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSC AM,ARID1B,TPTE2,MIR663A,RUNX1,ORC3,SH3RF3,ASIC2,CTBP2,D TNA,OR11H1,SERPINA1,TSHZ2,CCNG2,RAB27A,HUNK,CACNA1E,K CNJ6,PCBD2,ANXA8L1,NPY4R,PRIM2,LYPD6,OR4M2,PTPRT,MIR1 85-1,MIR1185-2,MIR134,MIR154,MIR300,MIR323B,MIR376C,MIR381,MIR382,MIR4 85,MIR487A,MIR487B,MIR539,MIR544A,MIR654,MIR655,MIR889,AN</p>

			<p>K3,IGHV4-31,DCC,BCL2L13,IGHV3-64,SVEP1,WLS,RBFOX1,SYN3,TIMP3,ZNF397,ZSCAN30,DUSP22,TTTC28,AKAP13,FBLN1,ERG,VPS13D,GRIK1,ZNF292,GPR139,IGHV1OR15-9,SORBS2,SLC24A3,IGHV4OR15-8,NPHP3,ITGA2,ABCG1,TMPRSS2,RGS6,KCNQ1,DPF3,SUN2,GABBR2,ATF7IP,EPHA6,OR4K15,TMEM117,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,MIR369,MIR410,MIR656,ZRANB1,ISX,TNNI3K,DOK5,NRXN3,SLC1A2,RAB5A,ZNF578,DOCK2,CTNND2,TNC,PCNT,PLEKHB2,MS4A1,OR8U1,PAX7,CHODL,RIMS2,MTPN,SHANK2,GRIA1,NRG3,ZNF732,SMYD2,CELF2,CLEC16A,HUS1,ARNT2,FGD6,TGFBR3,FSTL4,CDH13,RNF152,ANK2,LRRC4C,RTN1,ANKH,NXN,KCND3,RUNX1T1,CSNK2A1,PDE4DIP,SYNDIG1,ZNF678,DPP10,ZNF112,ZNF229,ZNF285,TF,PLGRKT,ERCC4,SCN8A,KCNE1,PIK3C2B,SAMD4A,SDCCAG8,MIR99A,MIRLET7C,TMEM108,EIF4EBP3,CHEK2,OR4C12,ZNF486,GADD45A,PRDM9,KCNJ15,PCP4,PSMC6,ACIN1,ZNF331,SYT17,PLXNA4,KCNG3,FLRT2,TOX3,GPC3,FBLN5,NRG1,STXBP6,ETS2,PSMB2,SHISA6,RAD51D,RFFL,NPAS3,SPIDR,IL4R,ALDH1A2,LRFN5,RYR3,EWSR1,MCTP1,GGT1,MIR17HG,NLN,ST8SIA1,SUZ12,LCORL,ASTN2,PLCE1,SH3RF2,UNC5D,KSR2,GLP2R,STK38L,SEMA6D,SPOCK1,ABHD17C,CTNNA2,SLCO3A1,CCR1,CCR3,CFTR,RBFOX2,ZNF420,DTX4,MIR551B,ZNF257,MED13L,PCTP,MC2R,TIAM1,PM20D1,RHOC,AGBL4,BEND5,LDLRAD4,DNAJC15,RGS7BP,ZNF91,RASGRF1,ZBTB20,DPYSL2,GRID1,TET3,ARFIP1,CBFA2T2,IL1RAPL2,OR4A5,NKD1,HPSE2,SCAI,MXI,BTN2A1,ALK,PTPRE,PIK3C3,UTRN,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,FBXO31,KLRF2,RAB7A,CNTN4,RGL2,TAPBP,ARID5B,PHACTR1,S100B,ROBO2,SPOCK3,ZNF366,C2CD3,EPHA3,PRKACB,CTNAP4,DCLK1,PXDN,COL15A1,CRNN,AJAP1,LEMDS,OR8K3,AGT,ERC2,CST2,MAGEB3,SHISA9,ATAT1,AVEN,CHRM5,FBXO32,WDR11,ATP6V0D1,CDH11,RHOJ,RCAN1,CDH2,KLHL25,PARK2,BANP,FHL2,FOXN3,LGALS14,LOXL2,DLGAP1,LAMA2,CDC5L,KIR2DL1,KIR2DL4,KIR3DL2,OR4K13,BPIFB1,CORO2B,FRMPD4,TRIM51,ZNF804A,CYBB,MCTP2,NEGR1,PSPC1,BRF1,GNB4,OR4M1,OR4N2,SEMA3D,DAC,H1,NTN1,OR52N5,TP53I11,TRIM22,TRIM5,KCNH1,USP25,ZBTB8B,ZNF268,DCUN1D4,TXK,CP,GPC6,RNF185,USP6,ZNF232,ANKFN1,NELL1,TRAPPC9,DBH,ITSN1,TNS3,TSPAN8,PCDH17,PHC1,SETD3,ZNF3,FMNL3,KCNMA1,RIN3,TRIO,ZNF845,APBA2,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,TFAP2D,ZBTB34,CDH8,KCTD1,AHRR,HSA-MIR-490,PDCD6,ZSCAN5C,OR2L13,RPS6KA2,STXBP4,GPC5,LCMT1,IGF1R,MDM2,MX2,PALMD,SLC24A4,SMAD1,E2F3,NOVA1,SYT9,ZBED4,FOXD4L4,OR11G2,OR9Q1,TMPRSS6,ZNF567,ZNF850,CTNNB1,RAPGEF5,CEP97,GABRG1,KCNK17,NR3C2,PTPRG,PXK,PDE9A,OR8K5,SACS,TRIM48,TRPC5,DMD,HCN1,KCTD8,STK33,SYT1,BASPI1,CACNA2D3,CACNG3,KRT2,SIPA1L3,VCL,NOX5,TEAD1,CELSR1,CSMD3,FGF14,FSHR,GSG1L,GRIA4,GRM1,MBOAT7,FMN2,HNRNPA2B1,MAEL,MORF4L1,NFE2L3,NRIP1,PRKAR2A,SKAP1,SORCS2,INPP5A,STK24,DCDC1,DPP6,WDR83,WWOX,ATRX,ACTR5,FRMD5,PARP16,TRPM2,CNIH3,CTNNA3,RNLS,RYR2,USP16,KIF3B,NTNG1,OR2M5,TENM4,UNC13C,CAMTA1,CATSPER2,DHRS7C,HSPB8,LINC00472,LRRK2,MAPK10,MIR495,MIR543,RORB,SLC1A3,IGFBP7,KCNH5,PIR,ZFP30,ZNF607,KIF26B,NTRK3,NUSAP1,RORA,CD8B,GGT2,ILDR1,IQCC-SCHIP1,PRICKLE2,SLC4A4,ANKS1A,CHD7,OVGP1,RNF165,ZNF26,DISC1,HEXB,KCNK13,MEMO1,PAN3,TPRG1L,WRAP73,CDCA2,GLIS1,KCTD9,PDXP,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,ZNF432,ZNF841,CDC14A,MAGI3,PLCH2,PRKD1,SERPINA4,SERPINA5,SNRK,ERCC6,FLVCR1,FRMD6,OGT,RNF144A,TGFB2,ATP1A4,CLSTN2,FMN1,PRAMEF12,VAV3,ANKS1B,AF3,C8A,DACH2,DNAJC6,FUT4,PIWIL4,PLCD3,RIPPLY3,S100A11,SEMA5A,SLC5A3,BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RIPK4,RYK,ZDHH17,KCNK1,PLCXD3,POLR3C,ABI3BP,EDIL3,SGCD,WASF1,GRIN2B,KDM4C,OR6N1,OTUD7A,EXT2,LAMA3,NKAIN2,RAG1,RAG2,SAMD13,SIK2,ZNF433,ANKRD6,ARHGAP8,NR2F2,PLEKHM2,PRR5,PRR5-ARHGAP8,PTGFR,SNAP25,NR5A2,PAQR8,PCBP3,PITPNC1,PML,PPARGC1A,RNF180,TRUB2,USP36,ZNF627,ARHGAP12,CORO2A,AKAP6,CNTNAP2,NSI1,FBN1,MED15,PPP4R4,GRIK3,IGHV3-16,LRFN2,NLRP2,NLRP7,PLXNA2,TAOK3,ZNF610,BCL2,CHMP4C,MXI1,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,KCNJ3,MOV10L1,SMARCE1,IL12RB2,SIPA1L1,SKAP2,SLC30A5,DISP1,KLF12,LRP2,NKAIN3,NSF,TMEM100,FRMD4A,ITPR2,LRRC4,NF1A,SND1,VANG2,CDH6,DEPTOR,NR4A2,ZNF677,ABCC9,ARHGEF10,EPHA7,MIR648,PSD3,ZBTB7C,DPT,RBAK,RBAK-RBAKDN,FYN,GNRHR,KCNE2,LRRC69,PARN,ADAMTS18,CHN1,NR4</p>
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			<p> <i>A1,SMARCA4,CD44,EIF4G3,HECW1,NEU3,PMP22,RCVRN,RHBDD1,RNF213,THBS2,FOXO1,PDE4D,PYY,RBBP8,RNF144B,TBXAS1,KANK1,ENPP2,ABCB10,ACTN2,ARHGEF3,ATF6,ATP8A2,BACH1,CST9L,DDCDC2,GABRB1,GRK5,KLF13,MME,PACRG,RNF217,TNMD,CSNK1G3,EXOC4,KCNS3,GRIK2,IGSF11,ZNF516,CELF4,KCNIP4,SERPINB7,UNC5C,APBB2,EIF3E,KCND2,MYLK3,NAMPT,SCN11A,SETD7,SLC1A1,UGCG,ZFPM2,ZNF141,ZNF429,ZSCAN5A,GLIS3,PHF20,RARB,RERG,RFX4,STRIP1,ETV6,GNG4,NLRP12,GRAP2,MFSD12,MTOR,RMI2,ROR1,CADPS,LDB2,MOV10,TMPRSS4,VPS26B,CHRM1,CTDSPL2,DDX21,FAT3,PKP2,UBXN2B,ZNF510,ABCA13,BMPER,CCDC88B,ERMN,PTPRD,RASGEF1B,SCAF8,TIAM2,ZNF521,BBS2,OGFOD1,OR51B2,OR51I1,PGK1,PLCL1,ZFP64,ZNF483,ARL6IP5,ATP1A1,EPM2A,PLN,NOL11,ZMAT3,CLYBL,CTNNBIP1,EPB41L4B,SOX8,ZMYND11,DIDO1,DSG4,HAS3,HIVEP2,IFT88,MIR491,NLGN4X,OR4K17,OR8J3,PRKCE,ATP6V1D,EIF2S1,GTTF2A1L,HELLS,KMT2A,PRKCB,STON1,VDR,ADCY8,EFHB,FAM19A4,FHL5,FOXO3,IGF2BP3,LRRTM1,MITF,RAB31,SCMH1,SCP2,TRAPPC12,CAPN3,DPH6,ITLN1,KALRN,PJAI,TTL12,CCDC88C,CREB5,DLC1,EDNRB,MSR1,OASL,ROBO1,RXFP1,SATB2,TANC2,TBC1D4,TDRD3,BNIP3L,FAP,FLT1,NOX4,SGIP1,ZNF148,CDH17,CENPV,GRHL2,TCF4,TSC22D3,ZNF573,ZNF720,COL2A1,KCNC4,MAP3K7,MAPK9,NBAS,NR3C1,PREX2,TACR3,TRAF3IP2,VPS37B,ZNF277,CRI,EYA4,GABRA2,OR4C15,SEC24B,SPON1,ACSL5,MDM1,PKHD1,STK3,SUPT3H,TGM2,VASH2,ZNF585A,KDR,PPLHLN1,PRCP,RAB30,ARHGAP15,CASK,CHL1,EDA,IGHV4-28,PCOLCE2,ABCA12,APP,CALCRL,COL18A1,DGKB,NRP1,PTPRM,SHROOM3,UACA,ARHGEF18,ELMO1,LGR4,LINC00473,SERPING1,TENM2,ADTRP,CD58,EGFLAM,KAT5,RANBP10,ST7,THRB,CPEB2,FUBP1,KCNK2,SEMA3C,ZNF667,ZNF98,ADAM17,CAMK1D,DIS3L2,MAP3K5,PKP4,TSPEAR,CDC42BPG,IGF2R,TFPI,ZER1,ATF2,ELP3,ETS1,GPR78,GRK6,NR2C2,PEX5L,PIK3R5,SAMSN1,EFEMP1,GOPC,PRTG,ROSI,SMG6,TGFB11,TM9SF4,CDK17,DOT1L,KPNB1,OR10R2,PSIP1,RGS16,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,ZNF443,ZNF490,ZNF709,ZNF799,AFF2,BICD1,CYTIP,ITGA11,PARD3,RALGAP2,TLK2,TRAF3,ZNF830,ABAT,ATRNL1,DOCK9,GRIN2A,GRIP1,MIR183,MIR96,PXT1,RIMS3,SGK2,DLX6-AS1,KIFAP3,OPHN1,BCLAF1,SGMS1,TRPS1,ZNF568,CASP5,CCDC88A,CD38,DENND5A,FAM83B,KHDRBS3,MOB3B,MRPS27,RIN2,RNF43,TUB,ZBED5,ALCAM,CHRD1,RNF126,SMG7,STK36,BCL2L1,ADAMTS16,GUCY2F,HDAC4,MYO16,PDE4B,SOX5,SRRM4,TIMP2,BACE2,BCL2L15,DNMT1,GHR,GLRA2,JAM2,MAPRE2,MIR605,NTRK2,PRKG1,ACSL4,FAM83G,AICF,CDC42BP4,DNM3,GNG2,BRD4,PKNOX2,PTPDC1,RASGRP1,STARD13,ARR3,CAMK4,COMMD1,KCTD7,LY86,RAB11FIP4,RABGEF1,RGL1,SDK1,SPIN3,SPRED2,STARD4,GLI3,OR5L2,SMCHD1,ZNF207,CACNA1C,CLDN1,KIF16B,MORC2,OR11L1,STXBP5,DOCK4,RAP1A,SAFB2,TGFB1,ZBTB41,CYSLTR1,KCNJ12,MGLL,PRDX4,ADAM12,DICER1,EPHA5,LCP2,TAS2R38,THEMIS,TNR,TOP1,CUX1,NCOA5,PEAK1,TAS2R1,TENM3,CHST11,CPE,IL16,ITGB3BP,MAGEA11,PTTG1IP,RAPGEF1,ZNF729,CD96,CHRNA3,CHRNA5,EP300,MORC3,ELAVL2,HMG20A,SCFD1,TBX3,TTC39B,WIF1,CACNA2D1,CACNA2D4,CYP7B1,DIO2,GRAMD4,PRAMENP,STX8,TRIOBP,ATXN1,BRD7,CLIC6,GAB2,GLRA1,SYCP1,TP73,COL4A6,GRID2,IFNGR2,NPC1,OR4C5,PARVB,PIBF1,RASGRF2,PSMA1,TRHDE,FHIT,FLNB,ONECUT3,PPP1R12B,ADCK1,ADORA2A,ADRBK2,CABIN1,CAMK2G,EFNA5,EMCN,FAM20A,MERTK,RALGPS1,TAC4,BRD1,CACNG2,GUCY2C,MAGI2,NF1,PPP6R2,RALGPS2,RFC3,RGS7,TFF1,USP17L5,ZNF525,ZNF765,KCNQ5,SORL1,STRN3,ZNF615,ARHGAP6,ASB13,BICC1,BID,ELK3,IFT80,OR5K4,TEAD4,TRIM59,TTC8,DMRT1,HTR4,LZTR1,ASXL1,EIF4E,MICU1,POR,RELN,SLC39A8,TNFRSF11B,TSHZ1,GRM5,HDAC9,IGHV4-4,IL18R1,IL1RL1,NECAB1,PTPN9,SELE,DYNC1H1,LRRTM3,MGAT5,NAPEPLD,NDRG2,NUMB,RHPN2,SP2,TNFAIP8,CCDC57,IGHV3OR16-12,MAP3K13,NLK,NPHP4,RALA,TBX15,ADCYAP1R1,EGLN3,IL1RAP,NAV3,ATP10A,FBXL17,FBXL5,JAG1,MEOX2,PPP3CA,GPR176,JRK,KCNB2,KLF3,KLF7,MYT1L,NEB,PLS1,SH3GL2,SLC7A1,SNX25,CAPZB,CXADR,DGKI,MAS1,PER1,SATB1,SLC24A2,TBC1D5,WWTR1,KLANKRD13A,C6,CBLB,DOCK10,ELAVL4,MAGEB2,MNAT1,PLSCR1,ATP9A,CNTN1,DGUOK,DOK6,GPC4,GRM7,RIMS1,TMEM67,TRIM16,WDR59,ZNF736,GABPA,GABRA3,GPSM2,KAT7,L3MBTL3,MAPK4,MIR105-1,MIR105-2,MIR767,SSBP2,STIM2,TMEM135,ZNF540,ZNF571,SLC22A2,AGGF1,ASAP1,BORA,FHOD3,ITGAE,N4BP2L2,NLGN1,P2RX6,PDE1C,PTPRU,THAP7,AKIRIN2,ARHGAP5,BTBD11,CTTNBP2,RNF128,RPS20,SH3 </i> </p>
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			<p> KBP1,ZNF562,ENOX2,NPR3,RAD51AP1,SYCP2,AKAP7,LRRK1,MAPK8IP2,VEPH1,ZNF208,CACNA1D,DDX3X,EGFL6,LRPPRC,NSG1,RBL2,ARAP2,CNOT7,GMD5,MAML3,EHF,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,DNMT3B,JAK2,LMO7,SHOX2,SPNS2,AHI1,SMAD3,BAIAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,TMTC4,ZNF337,AATF,ANH2,CDK1,DCBLD2,HDAC7,HIVEP3,ITPK1,LTB,MIR320B2,MRGPRG,NBN,NVL,RRH,SLC39A10,TAGLN3,TNF,COBL,LRC1,OVOL2,PANX1,SNX5,TNIP1,ZFPM1,CSPP1,EIF3A,ILF3,POMC,PPF1A2,TMC2,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,FCHSD2,INO80,NUDT4,POU6F2,RBM11,SCAF4,AFAP1,LGR6,MAG11,OR11A1,OR5V1,RXFP4,SIM2,ARID2,MLIP,MMP20,PAXBP1,SHC2,BRINP1,FAM220A,KCNK10,PLCH1,PRG3,SRSF4,STK32B,ADORA3,ARF1,BCL11A,CLEC4A,HMGA2,MYO6,NEK4,POU1F1,TAF1D,UBE2E3,YAF2,ZNF41,ZNF705A,ZNF880,AGO3,DOCK1,GRIA3,IGLC2,IGLL5,KIF18A,MUC5AC,PAPOLA,RUFY1,STK32C,TSPAN13,ANO1,CDC20B,GCLC,KCNA6,PMEPA1,OKI,RAB23,UBE2V1,ZNF664,ZNF728,ZNF879,ACTR8,EPSS8,LTBP1,MBOAT2,SP140,SP140L,DAAM2,L3MBTL4,SLC7A7,SMOC2,SULF1,ANKRD31,C5AR1,CCP110,CISD2,DEF6,GNAL,LRP4,PIK3R3,WDR5,ARHGEF6,CNGB3,CNTN6,EFN2,KCNH8,MXD3,PIWIL3,SAE1,TRDN,TRIM41,AMOTL1,HERC1,NET1,PHF8,ZNF423,CDC14B,CLSTN1,INSC,SELP,ALPK2,CDK8,CHD6,CTNNA1,CUL2,NSG2,SCN1A,TENM1,TSHZ3,WDFY2,ZNF407,ZNF93,ARHGEF11,CDKL5,EFHC2,GRIK4,GSKIP,MAMLD1,MIR765,MYH14,PRKAR1A,TNFRSF19,ZNF345,ARHGAP11B,BPTF,DYNC2H1,FAM171A1,GABRR2,KCNH7,MLLT3,MYRIP,SIPA1L2,CD109,EGF,MIP,PTPN14,SEC16B,SPIRE2,ALDH1A1,CMA1,FOXP4,GBE1,IL1RAPL1,KIT,SLIT3,TNFSF8,TNRC6B,UBR2,ZNF600,BLM,CTNNA1,OR7A5,PIK3C2G,TRPV4,VWC2,ABCA5,C8B,CC2D2A,DNAH11,EDAR,EFN1,KCNAB1,PTPRO,RAPGEF2,REG1B,STK32A,ZIM3,DNAJB6,ESR1,HTRC2,JAK1,NCAMAP,SEMA3E,SLC30A8,UBE3A,DNMBP,EBAG9,FGF13,GABRB2,GRM4,MARVELD3,NUP155,PLAG1,AKAP10,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,TBCD,TDFP2,TOX,ABCC1,C14ORF39,DAPP,DAPK1,ERBB4,FER,MAML2,MAP3K3,RBM19,SLITRK6,SPTA1,TDRKH,CACNG6,FNIP1,LRP5,MALRD1,PTH2R,RAPGEF6,SHCBP1,ZNF439,ZNF507,LACTB,RPS27L,SLAMF1,ABL2,BSG,CAMP,DEPDC5,F11R,FARP2,GAS8,HS1BP3,OR4C6,SETD2,VPS13C,ALX4,AP2B1,ARHGAP35,CD2AP,COMMD7,NSUN2,PTPRK,SGMS2,ATP8A1,CCL3,FGF7,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,TNFAIP8L2,VWF,ZNF189,ARHGAP25,BTBD17,CDKL1,FGD4,GCF2,GLYR1,GPR158,IL20RA,ITGA9,KIF2A,LRRC70,NHLH2,PSG9,SIAE,SULF2,ARF4,EEFSEC,MYH9,NSMCE2,PACSIN2,PTGER3,SLC2A13,SLC39A12,SOX4,ST18,CAB39L,GARNL3,KIF23,NEDD9,P2RX1,PDE1A,PDGFD,PIK3CD,PRR16,SPTB,STOML3,UBE2N,AGTPBP1,ASGR2,DNM3OS,ITGA8,KCNE4,MIR214,PUM1,ARID4A,DDBI,ENPEP,FAM172A,IRAK2,KDM3A,PLAT,SERTAD2,TNKS,UNC13A,WDPCCP,ZFP82,ADCY9,AUTS2,BCL7A,CDK19,DAPL1,FGFR1,MEF2A,OCLN,PARP15,PDE11A,RGS3,RYR1,UNC13B,ZCHC17,ZNF85,ARID4B,DAD1,GLRA3,ITGBL1,MAP2,RASSF3,SLX1B,SOX2,ASXL3,IL23R,ITGB7,JMY,KEAP1,NTF3,P2RX7,PLA2G4A,RAPGEF4,SCUBE1,SORCS1,TEX14,ARRDC4,BRD9,RASA3,RCAN2,TOX2,ZDHHC11,ZDHHC9,ZNF544,AMFR,APIP,AR,BCOR,FGL2,KIAA1109,PVT1,RABGAP1L,SCAMP5,SNX30,SUFU,TRERF1,UPK3B,C10ORF90,CEP250,DENND5B,EXOC2,EYA1,IFNA8,IL1RL2,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,ARMC9,BHLHB9,DGKZ,GNL3,IFI27L1,L3MBTL1,MIR127,MIR136,MIR431,MIR432,MIR433,NEK5,OGN,PI3,PRKAA2,RLF,SEMA3A,TAX1BP1,THADA,TLE4,ZNF202,ZNF558,ARHGAP10,CDC73,EPB41L3,GNB5,GRIA2,MARK2,MEIS2,PDE5A,PROS1,REEP2,ZMIZ1,ZNF19,ZNF440,ZNF670,ZNF695,FLT3,LDLRAD3,NFIC,PDLIM5,PPARGC1B,PTPRA,SNX7,SRGAP3,TRIM72,ATP6V1H,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SMPD3,TNN,ZC3H13,C9,CLN6,DAB2,GPR55,HDAC8,LCP1,PBX1,RNF207,STX3,SYT2,TCL1B,ACTN4,ADAM10,BLOC1S5,CCL7,DAAM1,DRG2,EEF1E1,EEF1E1-BLOC1S5,ELP4,FGF12,ITGA3,KCNJ16,KMO,POU2F3,PRAMEF8,TXNDC5,FANCB,FRY,LG11,MT1F,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRICH1,RFTN1,SSX5,STAC,MYOM1,NUP153,PHF20L1,PIN1,RPS6K46,SYNP2,TRPM4,CD226,ERLIN1,GPR141,KRBOX4,PIP5K1B,STK38,TCF20,ZNF674,ABCA8,ABCC2,BMP6,BTBD9,CHRM3,CIT,CIZ1,CLASP1,EIF4ENIF1,SMTNL2,CARF,CDYL2,CFDP1,CNGB1,EBF1,NCOA2,TGFA,TMOD1,WDR12,CREM,G3BP2,GAS2,HGF,MYLK,PKP1,POU2F1,RALGAP1,RASSF8,RGS12,ZNF665,ZNF730,CALCR,CAPN7,CENPF,FLI1,MIR489,MIR653,POMT2,SCUBE3,SH3BP5,TLK1,ZBTB16,CACNB2,CNKS2,CTIF,ELN,KDM4B,MAST4,MIR556,NCAM1,NOS1A </p>
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			<p>P,PI4KA,RALGDS,ZNF57,ARHGAP28,IL18RAP,INSR,LARP4B,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CDC16,CHM,CTDPI,ELF1,ENPP1,FMRI,LIMK2,LITAF,MIR361,PAX3,THEM4,CHFR,DKC1,GABRA1,IGHV1-69,JDP2,KLF6,PHC2,PRKX,RRAGC,ULK4,ZNF605,ABCD1,BMF,CRMP1,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,SAMD8,AIM2,ARHGAP42,CD84,CSF2RB,EPG5,EVC2,JPH4,LRRN2,PCK1,PDE6B,PPARA,SORT1,SPIB,TBX22,TNFAIP8L3,TTN,ZFH2,CLIP1,CORIN,FAM3D,FHL1,GNA13,KATNB1,MYH7,NUP214,PPP1R13B,SLC22A5,SMARCA1,TAF1,WDR41,CACNA1A,CHD5,ENIP2,FUT8,PPP2R3C,QRFP,S1PR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,KRT4,NTN4,PRDM16,PTPRF,QSOX1,RBL1,SCN9A,ZNF451,ATP6V1E1,BTRC,C2,CCDC3,CFB,DEFA1B,DEFA3,FBLN2,HIRA,IGHV1-18,MLLT10,MPDZ,OPTN,PTPRR,RIT2,ZNF713,ESRP2,EXT1,NGG12,1FT81,MDM4,MYH6,NCOA1,PRKCG,PRLR,TYMP,UMOD,ZNF354B,ADAMTS5,CBFA2T3,DOCK7,FBXW11,G3BP1,HDAC5,ICK,INPP4A,OR51L1,TDGF1,WDR70,ZNF493,A2M,AKAP2,LYVE1,MYEF2,PI15,SERP1NB8,SLC24A5,SLC40A1,STAT4,STIM1,TREM1,ZNF623,ADARB1,KCN C2,OR4C16,PEMT,POU2AF1,PRKCQ,SCEL,STAT3,SUSD4,TFEC,TP63,USP7,ZNF721,AMOT,BRIP1,CDKN3,CST1,DOCK3,HPN,ISLR2,PAK3,PIK3R2,STK17B,TBL1X,USH2A,BLNK,CASQ2,DHRS2,DHRS7B,DTNBP1,GAK,RAP1B,ZNF518A,DLGAP2,KSR1,LGALS9,LRP8,NFAT5,OR2T4,SNCAIP,TAS1R1,ZNF697,ALPK1,EFCAB1,GTPBP1,IL10RB,MAPKAPK2,AHNAK2,AOAH,APC,BMPRI1,CKAP5,DPP4,ITGA1,KCTD20,KIAA0319,NGF,PPP1R14A,PRKCA,PTGES,SPINT2,UBASH3B,UBE2E2,VLDLR,ADAMTS20,ASB3,DRAM1,GPR75,ITIH6,MTMR4,MTRF1,OSGIN2,PDS5A,PILRB,ABI1,CTSH,DHX9,FCRL5,NCAPG2,RGCC,RPH3A L,SRGAP1,TRBV6-8,USP18,CCL14,CCL15,CCL15-CCL14,CYB5D2,DPH1,EBF4,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,SLAH3,SRRD,TFIP11,SPTBN4,CLASP2,MAP2K1,PDE7B,PRAMEF7,RGMB,SOS1,TPH1,VPS35,ZBTB25,ZRANB3,C1QTNF3,CABLES1,COL6A3,FGF1,MCOLN3,NSUN3,PLB1,RAD18,TBX20,ZNF527,ATMIN,ATP6V1E2,C6ORF106,CRADD,DGKK,NLRC5,PPP1R9A,RGN,RREB1,TBX18,VSTM1,ZFP2,ZNF501</p>
GO:0048869	cellular developmental process	2.6778579534354084e-21	<p>CDH4,ZHX3,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,RUNX1,CTBP2,MYO18B,NCAM2,RAB27A,ANK3,DCC,RBFOX1,AKAP13,FBLN1,ERG,SORBS2,NPHF3,ITGA2,ABCG1,KCNQ1,SUN2,NUBPL,EPHA6,GRIN3A,NRXN1,DOK5,NRXN3,SDK2,DOCK2,CTNND2,TNC,PLEKHB2,MSA1,CHODL,RIMS2,MTPN,NRG3,OLFM3,TGFB3,FSTL4,ANK2,LRRC4C,RTN1,NXN,RUNX1T1,TF,SDCCAG8,TMEM108,CHEK2,ADAMTSL1,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NHSL2,NRG1,ETS2,PSMB2,HYDIN,IL4R,ALDH1A2,CECR2,NLN,SUZ12,ASTN2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CFTR,BBS9,RBFOX2,TIAM1,COL22A1,AGBL4,LDLRAD4,RASGRF1,DPYSL2,CBFA2T2,NKD1,ALK,SPEF2,ZNF536,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,COL15A1,AJAP1,AGT,FSIP2,ATAT1,CDH11,RCAN1,CDH2,PARK2,FHL2,LOXL2,MDGA2,LAMA2,KIR2DL4,ZNF804A,NEGR1,SEMA3D,NTN1,KCNH1,ZNF268,NELL1,TRAPPC9,SETD3,TRIO,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,PDCD6,RPS6KA2,IGF1R,MDM2,SMAD1,FOXO4,VCAN,PTPRG,TRPC5,DMD,HCN1,SYT1,BASP1,KRT2,SIPA1L3,VCL,CELSR1,CSMD3,FSHR,MBOAT7,FMN2,MAEL,ASTN1,STK24,OPCML,WWOX,ATRX,TRPM2,OCA2,DIAPH2,NTNG1,TENM4,CATSPER2,LRRK2,MAPK10,RORB,SLC1A3,STRC,PIR,NTRK3,ROR4,ANKS1A,CHD7,RNF165,DISC1,HEXB,TSNAX,EMB,GLIS1,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,PRKD1,SNRK,ERC6,FLVCR1,FRMD6,TGFB2,PRAMEF12,LCE2B,LCE2C,PIWIL4,SEMA5A,BDNF,KRT74,PRKCH,RYK,ZDHHC17,PCDH15,EML1,ABI3BP,S GCD,WASF1,KDM4C,EXT2,LAMA3,RAG1,RAG2,ABCB5,MREG,NR2F2,SNAP25,NR5A2,PAQR8,PML,PPARGC1A,AKAP6,CNTNAP2,FBN1,PLXNA2,TAOK3,BCL2,ZNF675,ARHGAP24,EPHB1,MOV10L1,SMARCE1,SIPA1L1,LRP2,TMEM100,SNR1,NR4A2,ARHGEF10,EPHA7,ZBTB7C,FYN,CHN1,NR4A1,SULT4A1,CD44,FLNC,HECW1,PMP22,RHBD1,CASP6,FOXO1,PDE4D,PYY,KANK1,ENPP2,ABCB10,ACTN2,ATP8A2,DCDC2,GABRB1,GRK5,KLF13,MME,PACRG,TNMD,NAV2,LAMB4,ZNF516,CELF4,UNC5C,MYLK3,NTM,SLC1A1,UGCG,ZFPM2,PALLD,RARB,ETV6,MTOR,ROR1,GAS7,MOV10,CHRM1,DDX21,FAT3,MEGF9,PKP2,PTPRD,TLAM2,ZNF521,BBS2,PGK1,ZFP64,CEP85L,COL11A1,EPM2A,CTNNBIP1,KLHL1,SOX8,DSG4,IFT88,NLGN4X,VDR,FOXO3,MITF,CAPN3,KALRN,CCDC88C,EDNRB,MSI2,MSR1,ROBO1,RXFP1,SATB2,TANC2,FLT1,NOX4,CDH17,GRHL2,TCF4,COL2A1,MAPK9,NEBL,PXN2,TRAF3IP2,ZNF277,CR1,EYA4,SEC24B,PKHD1,STK3,TGM2,VASH2,FAM9B,KDR,PPLN1,CHL1,EDA,NHSL1,ABCA12,APP,COL</p>

			<p> <i>I8A1,NRPI,PTPRM,SHROOM3,LGR4,TENM2,KAT5,LCE6A,ST7,THR B,TTC12,SEMA3C,ADAM17,CAMK1D,CYLC2,MAP3K5,PARVG,ATF2,ELP3,ETSI,NR2C2,EFEMP1,PRTG,ROSI,TGFB11I,SPS6KA5,TCF7L2,ITGA11,PARD3,THOC2,ZNF830,ATRN1,GRIN2A,GRIP1,HRNR,OPH N1,TRPS1,CCDC88A,CD38,DENND5A,RIN2,ALCAM,CHRD1, CNN3,BCL2L1,HDAC4,MYO16,SOX5,SRRM4,DNMT1,GHR,JAM2,NTRK2,PR KG1,ACSL4,M1AP,DNM3,RASGRP1,CAMK4,SDK1,SPRED2,GLI3,KA ZN,CLDN1,SPRR2B,SPRR2E,CERS3,CRB1,RAP1A,SAFB2,SRP54,TGF BR1,ADAM12,DICER1,EPHA5,THEMIS,TMEM120B,TNR,CUX1,KRTA P6-1,PEAK1,TENM3,CHST11,RAPGEF1,CHRNA3,EP300,MORC3,SYNE1,DSCAML1,HMG20A,TBX3,WIF1,DIO2,SPRR4,TRIOBP,GAB2,SYCP1,TP73,GRID2,PARVB,PNPLA3,MORN2,PSMA1,FLNB,SPG11,ADORA2 A,CAMK2G,EFNA5,MERTK,SPRR2G,WARS2,BRD1,FAM9A,MAGI2,N F1,TFF1,SORL1,ELK3,IFT80,TEAD4,TTC8,DMRT1,ASXL1,EIF4E,FRY L,POR,RELN,SLC9C1,GRM5,HDAC9,IL18R1,KIRREL3,PTPN9,COL12 A1,NAPEPLD,NDRG2,NUMB,MAP3K13,NPHP4,TBX15,ADCYAP1R1,NAV3,FBXL17,JAG1,PPP3CA,KLF7,MYT1L,NEB,PLS1,SH3GL2,CXAD R,WWTR1,DOCK10,ELAVL4,GSTA2,RNF17,CNTN1,DGUOK,GRM7,RIMSI,TRIM16,GABPA,KAT7,L3MBTL3,AGGF1,ASAP1,FHOD3,N4BP2 L2,NLGN1,PTPRU,LRRK1,MAPK8IP2,DDX3X,EGFL6,RBL2,OMG,EH F,GABRA5,JAK2,SHOX2,AHI1,CATSPERB,SMAD3,KIDINS220,MAP2 K4,MIAT,NOS1,PTGFRN,SERPINB12,COL8A1,PLXNB1,RDH10,TCF1 2,CDK1,HDAC7,HIVEP3,PRRC2C,TNF,COBL,NHS,OVOL2,PANX1,ZF PM1,PPFIA2,TANC1,ADNP2,ATXN10,BLOC1S6,BMP15,DLG5,POU6 F2,RBM11,LGR6,SIM2,BRINP1,SPAG16,BCL11A,HMGA2,MYO6,NEK 4,DOCK1,SULT1B1,QKI,UBE2V1,MBOAT2,TPD52,DAAAM2,PABPC1L,SULF1,TRPC4,C5AR1,LRP4,WDR5,CNTN6,EFNB2,PIWIL3,HERC1,SP ATA5,ZNF423,INSC,LRRK8C,ALPK2,CTNNA1,TENM1,WDFY2,CDKL 5,DMBT1,EFHC2,MYH14,PRKAR1A,DYNC2H1,MLLT3,CD109,IL1RA PL1,KIT,SLIT3,TAF4B,TNFSF8,TRPV4,VWC2,ABCA5,CPS1,EDAR,EF NB1,PTPRO,RAPGEF2,SLCO4C1,DNAJB6,ESR1,HTR2C,MYPN,NCM AP,SEMA3E,UBE3A,FGF13,GABRB2,PLAG1,SGCZ,ARMC2,EPHB2,F NDC3A,MECOM,TBCD,TOX,C14ORF39,ERBB4,FER,MAP3K3,SLITR K6,TDRKH,FNIP1,LRP5,SNRNP200,SLAMF1,ABL2,BSG,F11R,FARP2,SETD2,ARHGAP35,NSUN2,CCL3,FGF7,GGN,LAMA1,MYO7B,PRES1,SEMA5B,SPRED3,KIF2A,NHLH2,PSG9,SULF2,ARF4,MYH9,NSMCE2, PACSIN2,SLC39A12,SOX4,NEDD9,PIK3CD,AGTPBP1,ITGA8,PUM1, ARID4A,FAM172A,KDM3A,PDZD7,UNC13A,WDPAP,AUTS2,CDH23, DAPL1,FGFR1,MEF2A,RYR1,ARID4B,MAP2,BPGM,IL23R,ITGB7,KE AP1,NTF3,SCUBE1,AR,FGL2,KIAA1109,SUFU,EYA1,IFNA8,IL1RL2,R BM4,SRPK2,HLA-DRA,BHLHB9,L3MBTL1,NEK5,SEMA3A,CDC73,EPB41L3,MARK2,M EIS2,PDE5A,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM72,FERMT2,LTB R,MARK1,SMPD3,TNN,DAB2,GPR55,PBX1,SRD5A2,STX3,SYT2,ACTN 4,BLOC1S5,EEF1E1,ITGA3,PRAMEF8,FRY,LGI1,NREP,PLCL2,PIN1, THSD7A,TRPM4,NME8,SCLT1,BMP6,CIT,CLASP1,EIF4ENIF1,CNGB 1,TMOD1,CREM,HGF,SPATA6,CALCR,CENPF,DYI19L2,FLI1,SCUB E3,SLC26A8,ZBTB16,NCAM1,NFASC,MACF1,PAK1,PDE3A,PSMB7,S KI,TAF7L,AKT3,CTDP1,ELF1,ENPP1,FMR1,WDR7,GPRIN2,JDP2,KL F6,PRKX,ULK4,CRMP1,MFNG,RPGRI1,TDRD6,CCDC141,GLDN,P CK1,PPARA,SORT1,SPIB,TBX22,TTN,ZFH2,C1GALT1,COL19A1,FH L1,GNA13,CHD5,PPP2R3C,S1PR3,SPRED1,AKR1C2,CHSY1,KRT4,LC EIF,NTN4,PRDM16,PTPRF,RBL1,CCDC3,GTSE1,HIRA,PGM5,RIT2,E XT1,MYH6,NCAPH2,NCOA1,PRLR,TYMP,ADAMTS5,CBFA2T3,DOCK 7,FBXW11,HDAC5,TDGF1,A2M,MYEF2,SLC24A5,ADARB1,MYH11,N DE1,POU2AF1,PRKCQ,SCEL,STAT3,TP63,AMOT,BRIP1,HPN,ISLR2, PAK3,USH2A,BLNK,DHRS2,DHRS7B,DTNBP1,GAK,RAP1B,CRTAC1, LCE2A,LGALS9,LRP8,MYOM2,UPK3A,APC,BMPRI1,ITGA1,KIAA031 9,NGF,PRKCA,SPINT2,UBASH3B,VLDLR,ADAMTS20,KRT75,ABI1,D HX9,NCAPG2,RGCC,CYB5D2,EDA2R,IL6R,LCE4A,MAP2K6,SPTBN4, CLASP2,MAP2K1,PRAMEF7,SOS1,TPH1,C1QTNF3,FGF1,MCOLN3,T BX20,PPP1R9A,RREB1,TBX18,BZW2 </i> </p>
GO:0007154	cell communication	4.164590779479693e-21	<p> <i>IGHV1OR21-1,ADCY2,TPTE,PLCB1,CMKLR1,DAB1,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSCAM,TPTE2,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,HUNK,CACNA1E,NPY4R,LYPD6,OR4M2,PTPRT,ANK3,IGHV4-31,DCC,IGHV3-64,SVEP1,WLS,SYN3,TIMP3,DUSP22,AKAP13,FBLN1,ERG,GRIK1,GP R139,IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,RGS6,KCNQ1,GABBR2,EPHA6,OR4K15,TMEM117,V RK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,TNNI3K,DOKS,NRXN3,SLC1A2,RAB5A,DOCK2,CTNND2,TNC,PCNT,MS4A1,OR8U1,RIMS2,S </i> </p>

			<p> HANK2, COMT, GRIA1, NRG3, SMYD2, CLEC16A, HUS1, DLG2, TGFB3, FSTL4, CDH13, RNF152, ANK2, LRRC4C, NXN, CSNK2A1, TF, SCN8A, PIK3C2B, TMEM108, CHEK2, OR4C12, GADD45A, PCP4, SYT17, PLXNA4, FLRT2, GPC3, NRG1, PSMB2, SHISA6, RFFL, IL4R, ALDH1A2, MCTP1, NLN, PLCE1, SH3RF2, UNC5D, KSR2, GLP2R, STK38L, SEMA6D, DRP2, CCR1, CCR3, CFTR, RBFOX2, DTX4, MC2R, TIAM1, RHOC, LDLRAD4, DNAJC15, RGS7BP, RASGRF1, DPYSL2, GRID1, SLC6A2, CBFA2T2, IL1RAPL2, OR4A5, NKD1, SCAI, MX1, BTN2A1, ALK, PTPRE, PIK3C3, SORCS3, ZNF536, FAM3B, PLCB4, ERC1, FBXO31, RAB7A, CNTN4, RGL2, ARID5B, S100B, ROBO2, ZNF366, C2CD3, EPHA3, PRKACB, PTPRN2, CNTNAP4, DCLK1, PXDN, COL15A1, CRNN, LEMD3, OR8K3, AGT, ERC2, SHISA9, CHRM5, WDR11, CDH11, RHOJ, RCAN1, ZFYVE1, CDH2, PARK2, FHL2, FOXN3, DLGAP1, LAMA2, CDC5L, KIR2DL1, KIR2DL4, OR4K13, BPIFB1, CYBB, MCTP2, GNB4, OR4M1, OR4N2, SEMA3D, NTN1, OR52N5, TRIM22, TRIM5, KCNH1, TXK, GPC6, DBH, ITSN1, TNS3, PCDH17, ZNRF3, RIN3, TRIO, APB A2, HDAC2, HTRA1, MYO9A, SLIT2, CDH8, PDCD6, OR2L13, RPS6KA2, S TXBP4, GPC5, LCMT1, IGF1R, MDM2, SLC24A4, SMAD1, SYT9, OR11G2, OR9Q1, TMPRSS6, RAPGEF5, GABRG1, NR3C2, PTPRG, PXX, PDE9A, OR8K5, DMD, KCTD8, STK33, SYT1, CACNG3, SIPA1L3, TEAD1, CELSR1, FGF14, FSHR, GSG1L, GRIA4, GRM1, FMN2, MAEL, PRKAR2A, SKAP1, SO RCS2, INPP5A, STK24, DCDC1, WDR83, WWOX, ATRX, PARP16, TRPM2, CNH3, CTNNA3, RYR2, NTNG1, OR2M5, TENM4, UNC13C, CAMTA1, LR RK2, MAPK10, RORB, SLC1A3, IGFBP7, RIMBP2, NTRK3, RORA, CD8B, ILDR1, IQCJ- </p> <p> SCHIP1, PRICKLE2, ANKS1A, CHD7, RNF165, DISC1, TPRG1L, KCTD9, S H3BP1, MECP2, MTMR2, SEMA4D, GSK3B, LGR5, SLC8A1, MAGI3, PLC H2, PRKD1, SNRK, ERCC6, OGT, TGFB2, ATP1A4, CLSTN2, VAV3, ANKS1 B, PLCD3, S100A11, SEMA5A, BDNF, LLGL2, PRKAR1B, PRKCH, RBMS3, RYK, ZDHHC17, PLCXD3, SGCD, WASF1, GRIN2B, KDM4C, OR6N1, OTU D7A, EXT2, LAMA3, SIK2, ANKRD6, ARHGAP8, NR2F2, PRR5, PRR5- ARHGAP8, PTGFR, SNAP25, NR5A2, PAQR8, PITPNC1, PML, ARHGAP12 , CORO2A, AKAP6, CNTNAP2, TNSI, FBNI, GRIK3, IGHV3-16, LRFN2, PLXNA2, SNAP23, TAOK3, BCL2, CHMP4C, RALBP1, RXFP2, ZNF675, ARHGAP24, EPHB1, KCNJ3, IL12RB2, SIPA1L1, SKAP2, LRP2, T MEM100, ITPR2, LRRC4, VANG2, CDH6, DEPTOR, GDAP1, NR4A2, ARH GEF10, EPHA7, PSD3, FYN, GNRHR, LRRC69, ADAMTS18, CHN1, NR4A1 , SMARCA4, CD44, HECW1, NEU3, PMP22, RCVRN, RNF213, FOXO1, PD E4D, PYY, KANK1, ACTN2, ARHGEF3, ATF6, DCDC2, GABRB1, GRK5, M ME, TNMD, CSNK1G3, EXOC4, GRIK2, IGSF11, CELF4, UNC5C, APBB2, KCND2, NAMPT, SCN11A, SLC1A1, UGCG, RARB, RERG, RFX4, GNG4, N LRP12, GRAP2, MTOR, ROR1, CADPS, CHRM1, CTDSPL2, DDX21, PKP2, BMPER, PTPRD, RASGEF1B, TIAM2, BBS2, OR51B2, OR51I1, PLCL1, AR L6IP5, ATP1A1, EPM2A, PLN, CTNNBIP1, SOX8, ZMYND11, DIDO1, DSG 4, IFT88, NLGN4X, OR4K17, OR8J3, PRKCE, EIF2S1, HELLS, PRKCB, VD R, ADCY8, EFHB, FAM19A4, FOXO3, LRRTM1, MITF, CAPN3, KALRN, PJ A1, TTLL12, CCDC88C, DLC1, EDNRB, OASL, ROBO1, RXFP1, BNIP3L, F LT1, NOX4, CDH17, COL2A1, KCNC4, MAP3K7, MAPK9, NR3C1, PREX2, TACR3, TRAF3IP2, CR1, EYA4, GABRA2, OR4C15, ACSL5, PKHD1, STK3, TGM2, KDR, PRCP, RAB30, ARHGAP15, CASK, CHL1, EDA, IGHV4-28, ABCA12, APP, CALCR1, DGKB, NRP1, PTPRM, UACA, ARHGEF18, EL MO1, LGR4, LINC00473, TENM2, ADTRP, KAT5, RANBP10, THRB, KCNK 2, SEMA3C, ADAM17, MAP3K5, PKP4, TSPEAR, CDC42BPG, IGF2R, ATF 2, GPR78, GRK6, NR2C2, PEX5L, PIK3R5, EFEMP1, ROS1, TGFB11I, DOT 1L, KPNB1, OR10R2, RGS16, RPS6KA5, TCF7L2, TNFRSF10B, TRABD2B, BICD1, ITGA11, PARD3, RALGAP2, TLK2, TRAF3, ZNF830, ABAT, ATRN L1, DOCK9, FRAS1, GRIN2A, GRIP1, RIMS3, SGK2, KIFAP3, OPHN1, BCL AF1, SGMS1, CASP5, CCDC88A, CD38, FAM83B, MOB3B, RIN2, RNF43, T UB, ALCAM, CHRDL1, RNF126, STK36, BCL2L1, GUCY2F, HDAC4, MYO 16, PDE4B, DNMT1, GHR, GLRA2, MAPRE2, NTRK2, PRKG1, ACSL4, FAM 83G, CDC42BPA, GNG2, SNTG1, BRD4, PTPDC1, RASGRP1, STARD13, A RR3, CAMK4, LY86, RABGEF1, RGL1, SPRED2, GLI3, OR5L2, ZNF207, CA CNA1C, KIF16B, OR11L1, STXBP5, CRB1, DOCK4, RAP1A, SAFB2, TGFB R1, CYSLTR1, MGLL, PRDX4, ADAM12, DICER1, EPHA5, LCP2, TAS2R38, THEMIS, TNR, NCOA5, TAS2R1, TENM3, CHST11, CPE, IL16, ITGB3BP, P TTG1IP, RAPGEF1, CHRNA3, CHRNA5, EP300, TBX3, WIF1, CACNA2D1, CYP7B1, GRAMD4, BRD7, GAB2, GLRA1, PCSK5, TP73, COL4A6, GRID2, IFNGR2, OR4C5, PIBF1, RASGRF2, PSMA1, SV2B, TRHDE, FHIT, FLNB, P PPIR12B, SPG11, ADORA2A, ADRBK2, CABIN1, CAMK2G, EFNA5, MER TK, RALGPS1, TAC4, CACNG2, GUCY2C, MAGI2, NF1, RALGPS2, RGS7, T FF1, SORL1, STRN3, ARHGAP6, ASB13, BICC1, BID, CEP89, ELK3, IFT80, OR5K4, TEAD4, TRIM59, DMRT1, HTRA4, LZTR1, ASXL1, EIF4E, POR, REL N, TNFRSF11B, GRM5, IGHV4-4, IL18R1, IL1RL1, SELE, MGAT5, NDRG2, RHPN2, IGHV3OR16- </p>
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			<p> 12,MAP3K13,NLK,NPHP4,RALA,ADCYAP1R1,IL1RAP,FBXL17,JAG1,PPP3CA,GPR176,JRK,KLF7,SH3GL2,SNX25,CXADR,DGKI,MAS1,PER1,SLC24A2,WWTR1,KL,CBLB,DOCK10,ELAVL4,PLSCR1,CNTN1,DOCK6,GPC4,GRM7,RIMS1,TRIM16,WDR59,GABRA3,GPSM2,KAT7,MAPK4,FREM1,ITGAE,NLGN1,P2RX6,PDE1C,PTPRU,ARHGAP5,BTBD11,RPS20,SH3KBP1,NPR3,AKAP7,LRRK1,MAPK8IP2,VEPH1,CACNA1D,DDX3X,NSG1,ARAP2,CNOT7,GMD5,MAML3,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,JAK2,SHOX2,SPNS2,AH11,SMAD3,VPS41,BAIP2L1,CD300A,KIDINS220,MAP2K4,NOS1,PLXNB1,TMTC4,AATF,CDK1,DCBLD2,HDAC7,ITPK1,LTB,MIR320B2,MRGPRG,NBN,RRH,SLC39A10,TNF,OVOL2,PANX1,SNX5,TNIP1,EIF3A,POMC,PRDM15,BLOC1S6,BMP15,DLG5,FCHSD2,NUDT4,PHEX,AFAP1,LGR6,MAG11,OR11A1,OR5V1,RXFP4,SHC2,KCNK10,PLCH1,STK32B,ADORA3,ARF1,CLC4A,FREM2,HMGA2,MYO6,AGO3,DOCK1,GRIA3,IGLC2,IGLL5,MUC5AC,RUFY1,STK32C,ANO1,GCLC,PMEP1,UBE2V1,EPS8,LTBP1,DAA2,SMOC2,SULF1,C5AR1,DEF6,GNAL,LRP4,PIK3R3,ARHGEF6,CNGB3,CNTN6,EFNB2,TRDN,AMOTL1,NET1,ZNF423,CDC14B,CLSTN1,SELP,ALPK2,CTNNA1,CUL2,NSG2,SCN1A,TENM1,TSHZ3,ARHGEF11,GRIK4,GSKIP,MYH14,PRKAR1A,TNFRSF19,ARHGAP11B,DYNC2H1,GABRR2,MLLT3,MYH13,MYRIP,SIPA1L2,CD109,EGF,IL1RAPL1,KIT,SLIT3,TNFSF8,UBR2,BLM,CTNNA1,OR7A5,PIK3C2G,TRPV4,VWC2,CC2D2A,EDAR,EFNB1,PTPRO,RAPGEF2,STK32A,ESR1,HTR2C,JAK1,SEMA3E,SLC30A8,UBE3A,DNMBP,FGF13,GABRB2,GRM4,MARVELD3,NUP155,AKAP10,EPHB2,IGHV3-72,MECOM,NDFIP2,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,FNIP1,LRP5,PTH2R,RAPGEF6,SHCBP1,RPS27L,SLAMF1,ABL2,BSG,DEPDC5,F11R,FARP2,GAS8,OR4C6,ARHGAP35,CD2AP,COMM7,NSUN2,PTPRK,SV2C,CCL3,FGF7,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,VWF,ARHGAP25,FGD4,GPR158,IL20RA,ITGA9,PSG9,SLF2,MYH9,PACSIN2,PTGER3,SLC39A12,SOX4,ST18,CAB39L,GARNL3,NEDD9,P2RX1,PDE1A,PDGFD,PIK3CD,STOML3,UBE2N,ASGR2,ITGA8,PU1,DDBI,ENPEP,IRAK2,KDM3A,PLAT,TNKS,UNC13A,WDPCC,ADCY9,AUTS2,DAPL1,FGFR1,MEF2A,PDE1A,RGS3,UNC13B,GLRA3,ITGBL1,RASSF3,SOST,IL23R,ITGB7,JMY,NTF3,P2RX7,PLA2G4A,RAPGEF4,SCUBE1,SORCSI,TEX14,RASA3,RCAN2,ZDHHC9,AMFR,APIP,ARSUFU,TRERF1,EYA1,IFNA8,IL1RL2,SRPK2,BDKRB1,BDKRB2,ADRA1B,ARMC9,DGKZ,IFI27L1,MIR433,OGN,PRKAA2,SEMA3A,TLE4,ARHGAP10,CDC73,GNB5,GRIA2,MARK2,PDE5A,ZMIZ1,FLT3,PPARGC1B,PTPRA,SRGAP3,TRIM7,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,SMPD3,TNN,DAB2,GPR55,LCPI,RNF207,SRDCA2,STX3,SYT2,ACTN4,ADAM10,CCL7,DAAMI,DRG2,EEF1E1,EEF1E1-BLOC1S5,FGF12,ITGA3,KMO,LGII,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRICH1,RFTN1,STAC,MYOM1,PIN1,RPS6KA6,TRPM4,CD226,ERLIN1,GPR141,PIP5K1B,STK38,BMP6,BTBD9,CHRM3,CIT,GAD2,CNGB1,TGFA,WDR12,CREM,G3BP2,GAS2,HGF,PKP1,RALGAP1,RASSF8,RGS12,CALCR,CENPF,SCUBE3,SH3BP5,TLK1,CACNB2,CNKS2,MAST4,NCAM1,NFASC,NOS1AP,PI4KA,RALGDS,SNAP29,ARHGAP28,IL18RAP,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CHM,ELF1,ENPPI,FMR1,LITAF,THEM4,CHFR,GABRA1,IGHV1-69,PRKX,RRAGC,ULK4,AMPH,BMF,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,AIM2,ARHGAP42,CSF2RB,EPG5,EVC2,JPH4,LRRN2,PCK1,PDE6B,PPARA,SORT1,TNFAIP8L3,TTN,FAM3D,GNA13,PPP1R13B,TAF1,CACNA1A,CHD5,FNIP2,FUT8,QRFPP,SIPR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,NTN4,PRDM16,PTPRF,SCN9A,ZNF451,BTRC,CCDC3,DEFA1B,DEFA3,IGHV1-18,OPTN,PTPRR,RIT2,EXT1,GNG12,IFT81,MDM4,NCOA1,PRKCG,PRRLR,TYMP,UMOD,DOCK7,FBXW11,G3BP1,ICK,INPP4A,OR51L1,TDGF1,STAT4,TREM1,ADARB1,KCNC2,OR4C16,PRKCQ,SCEL,STAT3,TP63,USP7,AMOT,BRIP1,DOCK3,PAK3,PIK3R2,STK17B,TBL1X,BLNK,CASQ2,DTNBP1,RAP1B,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,OR2T4,SNCAIP,TASIR1,ALPK1,GTPBP1,IL10RB,MAPKAPK2,APC,BMPRIA,ITGA1,KIAA0319,NGF,PRKCA,PTGES,UBASH3B,VLDLR,ADAMTS20,ASB3,GPR75,MTMR4,OSGIN2,PILRB,ABI1,CTSH,FCRL5,NCAPG2,RPH3AL,SRGAP1,TRBV6-8,USP18,CCL14,CCL15,CCL15-CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,SPTBN4,CLASP2,MAP2K1,PDE7B,RGMB,SOS1,VPS35,C1QTNF3,FGF1,TBX20,CRADD,DGKK,NLRC5,PPP1R9A,RGN,RREB1,TBX18,VSTM1 </p>
GO:0050896	response to stimulus	8.824283106678189e-21	<p> IGHV1OR21-1,ADCY2,TPTE,MACROD2,CDH4,PIEZO2,ZPLD1,PLCB1,CMKLR1,DABI,OMAI,GTf2I,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSACAM,ARID1B,TPTE2,GPHN,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,SERPINA1,RAB27A,HUNK,NPY4R,HSF2BP,LYPD6,OR4M2,TPPRT,ANK3,IGHV4-31,DCC,IGHV3- </p>

			<p>64,SVEP1,WLS,TIMP3,DUSP22,AKAP13,FBLN1,ERG,GRIK1,GPR139,IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,ABCG1,RGS6,KCNQ1,GABBR2,EPHA6,OR4K15,TMEM117,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,DOK5,NRXN3,SLCIA2,RAB5A,DOCK2,CTNND2,EYS,TNC,PCNT,MS4A1,OR8U1,RIMS2,BCKDHB,MTPN,SHANK2,COMT,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,PKD1L1,DLG2,ARNT2,TGFBR3,TRPM3,FSTL4,CDH13,RNF152,ANK2,NXN,GRAMD1C,CSMD1,CSNK2A1,TF,PLGRKT,ERCC4,HLC5,KCNE1,PIK3C2B,TMEM108,ANKHD1,CHEK2,OR4C12,GADD45A,ADAMTSL1,PRDM9,PCP4,PSMC6,SYT17,PLXNA4,FLRT2,GPC3,CHAF1A,FBLN5,NRG1,SCARA5,PSMB2,SHISA6,AOX1,RAD51D,RFFL,SPIDR,IL4R,ALDH1A2,CHCHD6,LRFN5,RYR3,MCTP1,GGT1,NLN,ST8SIA1,PLCE1,REV1,SH3RF2,UNC5D,KYNU,KSR2,GLP2R,STK38L,SEMA6D,CTNNA2,CCR1,CCR3,CFTR,BBS9,RBFOX2,DTX4,MC2R,TIAM1,RHOC,AGBL4,LDLRAD4,DNAJC15,RGS7BP,RASGRF1,ZBTB20,DPSYL2,GRID1,MYO3A,SLC6A2,CBFA2T2,IL1RAPL2,OR4A5,SLC17A3,NKD1,SCAI,MX1,BTN2A1,ALK,PTPRE,PIK3C3,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,PAMR1,FBXO31,KLRF2,RAB7A,CNTN4,RGL2,TAPBP,ARID5B,S100B,ROBO2,ZNF366,B3GALT5,C2CD3,EPHA3,PRKACB,PTPRN2,DCLK1,PXDN,COL15A1,CRNN,AJAP1,LEMD3,OR8K3,AGT,CST2,SHISA9,CHRM5,FBXO32,WDR11,ATP6V0D1,RHOJ,RCAN1,ZFYVE1,CDH2,PARK2,FHL2,FOXN3,LOXL2,DLGAP1,LAMA2,CDC5L,HMCN1,KIR2DL1,KIR2DL3,KIR2DL4,KIR3DL1,KIR3DL2,OR4K13,BPIFB1,CORO2B,TRIM51,CYBB,MCTP2,OTC,PSPC1,GNB4,OR4M1,OR4N2,SEMA3D,DACH1,NTN1,OR52N5,TRIM22,TRIM5,KCNH1,USP25,TKX,GPC6,RNF185,ANKFN1,DBH,FBXO27,ITSN1,TNS3,TSPAN8,ZNRF3,KCNMA1,RIN3,TRIO,FTO,HDAC2,HTRA1,MYO9A,SLIT2,ACSM2B,CDH8,AHRR,PDCD6,OR2L13,RNASET2,RPS6KA2,STXBP4,GPC5,LCMT1,REG4,IGF1R,MDM2,MX2,SLC24A4,SMAD1,SYT9,OR11G2,OR9Q1,TMPRSS6,RAPGEF5,GABRG1,NR3C2,PTPRG,PXK,PDE9A,OR8K5,TRIM48,DMD,HCN1,KCTD8,STK33,SYT1,CACNG3,SIPA1L3,VCL,TEAD1,CELSR1,FGF14,FSHR,SGS1L,GRIA4,GRM1,FMN2,MAEL,MORF4L1,NRIP1,PRKAR2A,SKAP1,SORCS2,INPP5A,STK24,DCDC1,WDR83,WWOX,ATRX,ACTR5,PARP16,TRPM2,CNIH3,RNLS,RYR2,USP16,XRCC4,OR2M5,TENM4,UNC13C,CAMTA1,HSPB8,LRRK2,MAPK10,RORB,SLC1A3,STRC,IGFBP7,NTRK3,RORA,CD8B,GGT2,ILDRI,IQCJ-SCHIP1,PRICKLE2,ANKS1A,CHD7,RNF165,DISC1,EMB,KCTD9,PDXP,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,MAGI3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,WDR4,ATP1A4,VAV3,ANKS1B,AFF3,C8A,PLCD3,S100A11,SEMA5A,ACSBG1,BDNF,LLGL2,PRKCH,RBMS3,RYK,ZDHHC17,KCNK1,PCDH15,PLCXD3,POLR3C,DNAAF2,DNAJB4,ABI3BP,SGCD,WASF1,GRIN2B,KDM4C,OR6N1,OTUD7A,POLE,EXT2,INIP,LAMA3,RAG1,RAG2,SIK2,ANKRD6,ARHGAP8,NR2F2,PLEKHM2,PRR5,PRR5-ARHGAP8,PTGFR,NR5A2,PAQR8,PITPNC1,PML,PPARGC1A,ARHGAP12,CORO2A,AKAP6,CNTNAP2,TNS1,FBN1,GRIK3,IGHV3-16,NAALADL2,NLRP2,NLRP7,PLXNA2,SNAP23,TAOK3,TRDV3,BCL2,CHMP4C,RAD51B,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,KCNJ3,IL12RB2,SIPA1L1,SKAP2,SLC30A5,LRP2,TMEM100,TRDV1,ITPR2,VANGL2,CD163,CDH6,DEPTOR,GDAP1,NR4A2,ABCC9,ARHGEF10,EPHA7,PSD3,RPGR,FYN,GNRHR,KCNE2,LRRK69,ADAMTS18,CHN1,NR4A1,SMARCA4,CD44,HECW1,MYL12A,NEU3,RCVRN,RHBD1,RNF213,CASP6,FOXO1,PDE4D,PYY,RBBP8,TBXAS1,KANK1,ENPP2,ABCB10,ACTN2,ARHGEF3,ATF6,ATP8A2,BACH1,CST9L,DCDC2,GABRB1,GRK5,MME,PACRG,TNMD,CSNK1G3,CPNE4,GRIK2,IGSF11,ZNF516,CELF4,TPO,UNC5C,APBB2,KCND2,MYLK3,NAMPT,SCN11A,SETD7,SLC1A1,UGCG,PALLD,RARB,REG,RFKX4,GNG4,NLRP12,GRAP2,MTOR,RMI2,ROR1,MOV10,RLBP1,TMPRSS4,VPS26B,CHRM1,CTD SPL2,DDX21,BMPER,CCDC88B,PTPRD,RASGEF1B,TIAM2,BBS2,HB E1,MCM3,OR51B2,OR5111,PGK1,PLCL1,ARL6IP5,ATP1A1,COL11A1,EPM2A,PLN,ZMAT3,CTNNBIP1,EPB41L4B,SOX8,ZMYND11,DIDO1,DSG4,IFT88,NLGN4X,OR4K17,OR8J3,PRKCE,EIF2S1,HELLS,PRKCB,VDR,ADCY8,EFHB,FAM19A4,FOXO3,MITF,RAB31,SLC47A1,CAPN3,ITLN1,KALRN,PJA1,TTL12,CCDC88C,DLC1,EDNRB,MSR1,OASL,ROBO1,RXFP1,SATB2,TBC1D4,BNIP3L,FAP,FLT1,NASP,NOX4,SGIP1,ZNF148,CDH17,DEFB116,INO80D,TSC22D3,COL2A1,MAP3K7,MAP7,MAPK9,NR3C1,PREX2,TACR3,TRAF3IP2,ZNF277,CR1,EYA4,GABRA2,OR4C15,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,RAB30,RPL30,ARHGAP15,CASK,CHL1,EDA,IGHV4-28,MSRB3,PCOLCE2,ABCA12,APP,CALCRL,DGKB,NRP1,PTPRM,SHROOM3,UACA,ARHGEF18,ELMO1,LGR4,LINC00473,SERPING1,TENM2,ADTRP,CD58,IMMP2L,KAT5,RANBP10,THRB,CPEB2,KCNK2,SEMA3C,ADAM17,CAMK1D,MAP3K5,TSPEAR,CDC42BPG,IGF2R,SAAT</p>
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			<p>,SAA2- SAA4,TFPI,ATF2,ETSI,GPR78,GRK6,NR2C2,PEX5L,PIK3R5,SAMSN1,EFEMP1,MT1HL1,PRTG,ROSI,TGFB11,TM9SF4,DOT1L,KPNB1,OR10R2,PSIP1,RGS16,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,BICD1,ITGA11,PARD3,RALGAP2,TLK2,TRAF3,ZNF830,ABAT,ATRNL1,DOCK9,GRIN2A,GRIP1,SGK2,KIFAP3,OPHN1,BCLAF1,HSPA4L,TTC4,PYGL,SGMS1,CASP5,CCDC88A,CD38,FAM83B,MOB3B,RIN2,RNF43,TUB,ALCAM,CHRD1,NCF2,RNF126,STK36,BCL2L1,ABTB2,GUCY2F,HDAC4,MYO16,PDE4B,SOX5,TIMP2,DNMT1,GHR,GLRA2,MAPRE2,NTRK2,PRKG1,CPNE8,FAM83G,MGST1,CDC42BPA,GNG2,PAPPA,BRD4,PTPDC1,RASGRP1,STARD13,ARR3,CAMK4,COMMD1,LY86,RABGEF1,RGL1,SDK1,SPRED2,GLI3,OR5L2,SMCHD1,ZNF207,CACNA1C,CLDN1,KIF16B,MORC2,OR11L1,CRB1,DOCK4,PXDNL,RAP1A,SAFB2,SRP54,TGFBF1,USP53,CYSLTR1,MGLL,PRDX4,ADAM12,DICER1,EPHA5,LCP2,TAS2R38,THEMIS,TNR,TOPI,NCOA5,TAS2R1,TENM3,CHST11,CPE,IL16,ITGB3BP,PTTG1IP,RAPGEF1,CD96,CHAF1B,CHRNA3,CHRNA5,EP300,DSCAML1,SCFD1,TBX3,WIF1,CACNA2D1,CACNA2D4,CYP7B1,DIO2,GRAMD4,IGLV4-69,STX8,BRD7,GAB2,GLRA1,HBD,IGKV1-37,SYCP1,TP73,COL4A6,GRID2,IFNGR2,NPC1,OR4C5,PIBF1,PNPLA3,RASGRF2,CA3,PSMA1,TPH2,TRHDE,FHIT,FLNB,PPPIR12B,ADORA2A,ADRBK2,CABIN1,CAMK2G,EFNA5,FAM20A,MERTK,RALGPS1,TAC4,BRD1,CACNG2,GUCY2C,MAGI2,NF1,RALGPS2,RFC3,RGS7,TFF1,GOT2,SORL1,STRN3,ARHGAP6,ASB13,BICC1,BID,ELK3,IFT80,OR5K4,TEAD4,TRIM59,TTC8,DMRT1,HTR4,LZTR1,ASXL1,CRISP3,EIF4E,MICU1,POR,RELN,TNFRSF11B,USP3,GRM5,HDAC9,IGHV4-4,IGKV1-5,IL18R1,IL1RL1,SELE,MGAT5,PLSCR4,DDC,MXRA5,NAPEPLD,NDRG2,RHPN2,SP2,IGHV3OR16-12,MAP3K13,NLK,NPHP4,RALA,ADCYAP1R1,EGLN3,IL1RAP,DPP8,FBXL17,JAG1,MAN1A1,PPP3CA,GPR176,JRK,KLF3,KLF7,SH3GL2,SNX25,CXADR,DGKI,GLDC,MAS1,PER1,SLC24A2,TBC1D5,WWTR1,KL,C6,CBLB,DOCK10,ELAVL4,GSTA2,MNAT1,PLSCR1,SLC5A1,CNTN1,DOK6,GPC4,GRM7,RIMS1,TMEM67,TRIM16,WDR59,GABPA,GABRA3,GPSM2,KAT7,MAPK4,TMEM135,ITGAE,NLGN1,P2RX6,PDE1C,PTPRU,AKIRIN2,ARHGAP5,BTBD11,GBP2,GBP7,RPS20,SLC22A3,NPR3,RAD51AP1,AKAP7,FOXRED2,LRRK1,MAPK8IP2,MSRA,VEPH1,CACNA1D,DDX3X,NSG1,ARAP2,CNOT7,GMDS,MAML3,OMG,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,JAK2,SHOX2,SPNS2,AH11,RP1A,SMAD3,VPS41,BALAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,WDFY4,PLXNB1,TCF12,TMTC4,WDR33,AATF,CDK1,DCBLD2,HDAC7,ITPK1,LTB,MIR320B2,MRGPRG,NBN,RRH,SLC39A10,TNF,LRCH1,OVOL2,PANX1,SNX5,TNIP1,ZFPM1,CPT1B,EIF3A,ILF3,POMC,TANCI,TMC2,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,INO80,NUDT4,PEXR,BMI1,TRAV24,TRIM23,AFAP1,LGR6,MAGI1,OR11A1,OR5V1,RXFP4,ARID2,MLIP,SHC2,BRINP1,KCNK10,PLCH1,PRG3,SRSF4,STK32B,ADORA3,ARF1,BCL11A,CLEC4A,HMGA2,MYO6,NEK4,AGO3,DOCK1,GRIA3,IGLC2,IGLJ1,IGLL5,KIF18A,MUC5AC,RUFY1,STK32C,SULT1B1,ZSWIM7,ANO1,CERS6,GCLC,PMEPA1,RAB23,UBE2V1,ACTR8,EPSS,LTBP1,SP140,CYP3A5,DAAM2,SMOC2,SULF1,C5AR1,DEF6,GNAL,LRP4,PIK3R3,ARHGEF6,CNGB3,CNTN6,EFNB2,RSRC1,SHFM1,TRDN,TRIM41,AMOTL1,NET1,ZNF423,CDC14B,LRRK8C,LRRK8D,SELP,ALPK2,CHD6,CTNNA1,CUL2,NSG2,SCN1A,TENM1,ABCG2,ARHGEF11,DMBT1,EFHC2,GRIK4,GSKIP,PRKAR1A,TNFRSF19,WDR35,ARHGAP11B,DYNC2H1,GABRR2,MLLT3,MYH13,SIPA1L2,TMEM150C,CD109,EGF,MIP,SPIRE2,ALDH1A1,CMA1,IL1RAPL1,KIT,SLIT3,TNFSF8,UBR2,BLM,CTNNA1,OR7A5,PIK3C2G,TRPV4,VWC2,C8B,CC2D2A,CPS1,EDAR,EFNB1,PTPRO,RAPGEF2,RCS1,REG1B,STK32A,DNAJB6,ESR1,HTR2C,JAK1,MYPN,SEMA3E,SLC30A8,UBE3A,DNMBP,FGF13,GABRB2,GRM4,MARVELD3,AKAP10,ANO3,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,ABCC1,C14ORF39,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,SLITRK6,ARPP21,FNIP1,LRP5,PTH2R,RAPGEF6,SHCBP1,RPS27L,SLAMF1,ABL2,BSG,CAMP,DEPDC5,F11R,FARP2,GAS8,OR4C6,SETD2,VPS13C,ARHGAP35,CD2AP,COMMD7,NSUN2,PTPRK,CCL3,FGF7,GGN,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,TNFAIP8L2,VWF,ARHGAP25,BTBD17,FGD4,GPR158,IL20RA,ITGA9,LRRK70,MCM9,PSG9,SULF2,CYP2E1,MYH9,NSMCE2,PTGER3,SLC39A12,SOX4,ST18,CAB39L,GARNL3,NEDD9,OSCP1,P2RX1,PDE1A,PDGFR,PIK3CD,STOML3,UBE2N,ASGR2,ITGA8,PUM1,CNGA4,DDBI,ENPEP,IRAK2,KDM3A,MYO3B,PDZD7,PLAT,TNKS,UNC13A,WDPCE,ADCY9,AUTS2,CDH23,CDK19,DAPL1,FGFR1,MEF2A,MGME1,OCLN,PDE11A,RGS3,RYR1,UNC13B,DAD1,GLRA3,ITGBL1,RASSF3,SLX1B,SOST,IL23R,ITGB7,JMY,KEAP1,MACROD1,NTF3,P2RX7,PLA2G4A,</p>
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			<p>POLD3,RAPGEF4,SCUBE1,SORCS1,TEX14,GP5,RASA3,RCAN2,RNM T,ZDHHC11,ZDHHC9,AMFR,APIP,AR,CASP7,FGL2,GSTM4,SCAMP5,SUFU,TRERF1,CEP250,EYA1,IFNA8,IGKV1-12,IL1RL2,MGST3,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,ARMC9,DGKZ,IFI27L1,MIR431,MIR433,OGN,PI3,PRKAA2,SEMA3A,TLE4,ANXA11,AQP10,ARHGAP10,CDC73,GNB5,GRIA2,MARK2,MEIS2,PDE5A,PROS1,ZMIZ1,FLT3,PPARGC1B,PTPRA,SRGAP3,TRIM72,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,PAPPA2,SCNN1A,SMPD3,TNN,C9,DAB2,FECH,GPR55,LCP1,SRD5A2,STX3,SYT2,UROS,ACTN4,ADAM10,BLOC1S5,CCL7,DAAMI,DRG2,EEF1E1,EEF1E1-BLOC1S5,FGF12,IGLV1-36,IGLV5-37,ITGA3,KMO,POLN,FANCB,IGKV1D-12,LGI1,MTIF,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRICH1,RFTN1,STAC,LECT2,MYOM1,PIN1,RPS6KA6,TRPM4,CD226,ERLIN1,GPR141,NME8,PIP5K1B,STK38,BMP6,CHRM3,CIT,CLASP1,CARF,CNGB1,NCOA2,TGFA,WDR12,CREM,G3BP2,GAS2,HGF,HGFAC,MYLK,OBP2A,PKP1,PRB3,RALGAP1,RASSF8,RGS12,CALCR,CENPF,SCUBE3,SH3BP5,SNN,TLK1,CNKSR2,MAST4,NCAM1,NFASC,NOS1AP,PI4KA,RALGDS,ARHGAP28,IL18RAP,INSR,MACF1,PAK1,PDE3A,PSMB7,SK1,AKT3,CHM,CTDP1,ELF1,ENPP1,FMR1,LITAF,THEM4,CHFR,GABRA1,IGHV1-69,PRKX,RRAGC,ULK4,ABCD1,BMF,CRMP1,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,RPGRIP1,AIM2,ARHGAP42,CCDC141,CD84,CSF2RB,EPG5,EVC2,LRRN2,PCK1,PDE6B,POLD1,PPARA,SORT1,TNFAIP8L3,TTN,FAM3D,GNAI3,MYH7,PPP1R13B,SLC22A5,SMARCA1,TAF1,CACNA1A,CHD5,FNIP2,FUT8,PPP2R3C,QRFPP,SIPR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,PRDM16,PTPRF,RBL1,SCN9A,ZNF451,BTRC,C2,CCDC3,CFB,DEFA1B,DEFA3,IGHV1-18,OPTN,PTPRR,RIT2,EXT1,GNG12,IFT81,MDM4,MYH6,NCOA1,PRKCG,PRLR,SCO2,TYMP,UMOD,ADAMTS5,CBFA2T3,DOCK7,ELMO2,FBXW11,G3BP1,HDAC5,ICK,INPP4A,OR51L1,TDGF1,UGGT2,WDR70,A2M,LYVE1,MYEF2,SEL1L2,SLC24A5,SLC40A1,STAT4,STIM1,TREMI1,TRPM6,ADARB1,KCNC2,OR4C16,POU2AF1,PRKCQ,SCEL,SHPRH,STAT3,SUSD4,TFEC,TP63,USP7,AMOT,BRIP1,CST1,DEFB127,DOCK3,HPN,PAK3,PIK3R2,STK17B,TBL1X,USH2A,BLNK,CASQ2,DHRS2,DTNBP1,RAP1B,UBE2U,DLGAP2,KSR1,LGALS9,LRP8,NFAT5,OR2T4,TASIR1,ACSM1,ALPK1,GTPBP1,IL10RB,MAPKAPK2,SLC7A8,AOAH,APC,BMPRIA,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,SPINT2,UBASH3B,UBE2E2,VLDLR,ADAMTS20,ASB3,GBP4,GPR75,MTMR4,OSGIN2,PDS5A,PILRB,ABII,CTSH,DHX9,FCRL5,NCAPG2,RGCC,RPH3AL,SRGAP1,TRBV6-8,USP18,ACACA,CCL14,CCL15,CCL15-CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,TFIP11,CLASP2,MAP2K1,PDE7B,RGMB,SOS1,TPH1,TRAV6,VPS35,ZRANB3,C1QTNF3,FGF1,RAD18,TBX20,TDP1,ATMIN,C6ORF106,CRADD,DGKK,NLRC5,PPP1R9A,RGN,RREB1,TBX18,VSTM1</p>
GO:0030154	cell differentiation	9.584149747843348e-21	<p>CDH4,ZHX3,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,RUNX1,CTBP2,MYO18B,NCAM2,RAB27A,ANK3,DCC,RBFOX1,AKAP13,FBLN1,ERGSORBS2,NPHP3,ITGA2,ABCG1,KCNQ1,SUN2,EPHA6,GRIN3A,NRXN1,DOK5,NRXN3,SDK2,DOCK2,CTNND2,TNC,PLEKHB2,MS4A1,CHODL,RIMS2,MTPN,NRG3,OLFM3,TGFBF3,FSTL4,ANK2,LRR4C,RTN1,NXN,RUNX1T1,TF,SDCCAG8,TMEM108,ADAMTSL1,PCP4,ACINI,SYT17,PLXNA4,FLRT2,GPC3,NHSL2,NRG1,ETS2,PSMB2,HYDIN,IL4R,ALDH1A2,CECR2,NLN,SUZ12,ASTN2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CFTR,BBS9,RBFOX2,TIAM1,COL22A1,AGBL4,LDLRAD4,RASGRF1,DPSYL2,CBFA2T2,NKD1,ALK,SPEF2,ZNF536,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,COL15A1,AJAPI,AGT,FSIP2,ATAT1,CDH11,RCAN1,CDH2,PARK2,FHL2,LOXL2,MDGA2,LAMA2,ZNF804A,NEGR1,SEMA3D,NTN1,KCNH1,ZNF268,NELI1,TRAPPC9,SETD3,TRIO,FTO,HDAC2,HTRA1,LAMA4,MYO9A,SLIT2,PDCD6,RPS6KA2,IGF1R,MDM2,SMAD1,FOXO4L4,VCAN,PTPRG,TRPC5,DMD,HCN1,SYT1,BASP1,KRT2,SIPA1L3,VCL,CELSR1,CSMD3,FSHR,MBOAT7,FMN2,MAEL,ASTN1,STK24,OPCML,WWOX,ATRX,TRPM2,OCA2,DIAPH2,NTNG1,TENM4,CATSPER2,LRRK2,RORB,SLC1A3,STRC,PIR,NTRK3,RORA,ANKS1A,CHD7,RNF165,DISC1,HEXB,TSNAX,EMB,GLIS1,SH3BP1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,PRKD1,SNRK,ERCC6,FLVCR1,FRMD6,TGFB2,PRAMEF12,LCE2B,LCE2C,PIWIL4,SEMA5A,BDNF,KRT74,PRKCH,RYK,ZDHH17,PCDH15,EML1,ABI3BP,SGCD,WASF1,KDM4C,EXT2,LAMA3,RAG1,RAG2,ABCY5,MREG,NR2F2,SNAP25,NR5A2,PAQR8,PML,PPARGC1A,AKAP6,CNTNAP2,FBN1,PLXNA2,TAOK3,BCL2,ZNF675,ARHGAP24,EPHB1,MOV10L1,SMARCE1,SIPA1L1,LRP2,TMEM100,SNDI,NR4A2,ARHGEF10,EPHA7,ZBTB7C,FYN,CHN1,NR4A1,SULT4A1,FLN</p>

			<p>C,HECW1,PMP22,RHBDD1,CASP6,FOXO1,PDE4D,PYY,KANK1,ABC B10,ACTN2,ATP8A2,DCDC2,GABRB1,GRK5,KLF13,MME,PACRG,TN MD,NAV2,LAMB4,ZNF516,CELF4,UNC5C,MYLK3,NTM,SLC1A1,UGC G,ZFPM2,PALLD,RARB,ETV6,MTOR,ROR1,GAS7,MOV10,CHRM1,DX21,FAT3,MEGF9,PKP2,PTPRD,TIAM2,ZNF521,BBS2,PGK1,ZFP64,CEP85L,COL11A1,EPM2A,CTNNBIP1,KLHL1,SOX8,DSG4,IFT88,NL GN4X,VDR,FOXO3,MITF,CAPN3,KALRN,CCDC88C,EDNRB,MSI2,MSR1,ROBO1,RXFP1,SATB2,TANC2,FLT1,NOX4,CDH17,GRHL2,TCF4,COL2A1,MAPK9,NEBL,PREX2,TRAF3IP2,CRI,EYA4,SEC24B,PKHD1,STK3,TGM2,VASH2,FAM9B,KDR,PPHLN1,CHL1,EDA,NHSL1,ABCA12,APP,COL18A1,NRP1,PTPRM,SHROOM3,LGR4,TENM2,LCE6A,ST7,THRB,TTC12,SEMA3C,ADAM17,CAMK1D,CYLC2,MAP3K5,PARVG,ATF2,ELP3,ETS1,NR2C2,EFEMP1,PRTG,ROS1,TGFB11,RPS6KA5,TCF7L2,ITGA11,PARD3,THOC2,ZNF830,ATRN1,GRIN2A,GRIP1,HRNR,OPHN1,TRPS1,CCDC88A,CD38,DENND5A,RIN2,ALCAM,CHRD1,CNN3,BCL2L1,HDAC4,MYO16,SOX5,SRRM4,DNMT1,GHR,JAM2,NTRK2,PRKG1,ACSL4,M1AP,DNM3,RASGRP1,CAMK4,SDK1,SPRED2,GLI3,KAZN,CLDN1,SPRR2B,SPRR2E,CERS3,CRB1,RAP1A,SAFB2,SRP54,TGFBR1,ADAM12,DICER1,EPAH5,THEMIS,TMEM120B,TNR,CUX1,KRTAP6-1,PEAK1,TENM3,CHST11,RAPGEF1,CHRNA3,EP300,SYNE1,DSCAML1,HMG20A,TBX3,WIF1,DIO2,SPRR4,TRIOBP,GAB2,SYCP1,TP73,GRID2,PARVB,PNPLA3,MORN2,PSMA1,FLNB,SPG11,ADORA2A,CAMK2G,EFNA5,MERTK,SPRR2G,WARS2,BRD1,FAM9A,MAGI2,NF1,TFF1,SORL1,ELK3,IFT80,TEAD4,TTC8,DMRT1,ASXL1,EIF4E,FYRL,POR,RELN,SLC9C1,GRM5,HDAC9,IL18R1,KIRREL3,PTPN9,COL12A1,NAP EPLD,NDRG2,NUMB,MAP3K13,NPHP4,TBX15,ADCYAP1R1,NAV3,FBXL17,JAG1,PPP3CA,KLF7,MYT1L,NEB,PLS1,SH3GL2,CXADR,WWT R1,DOCK10,ELAVL4,GSTA2,RNF17,CNTN1,DGUOK,GRM7,RIMS1,T RIM16,GABPA,KAT7,L3MBTL3,AGGF1,ASAP1,FHOD3,N4BP2L2,NL GN1,PTPRU,LRRK1,MAPK8IP2,DDX3X,EGFL6,RBL2,OMG,EHF,GABRA5,JAK2,SHOX2,AHI1,CATSPERB,SMAD3,KIDINS220,MIAT,NOS1,PTGFRN,SERPINB12,COL8A1,PLXNB1,RDH10,TCF12,CDK1,HDAC7,HIVEP3,PRRC2C,TNF,COBL,NHS,OVOL2,PANX1,ZFPM1,PPF1A2,TANCI,ADNP2,ATXN10,BLOC1S6,BMP15,DLG5,POU6F2,RBM11,LGR6,SIM2,BRINP1,SPAG16,BCL11A,HMGA2,MYO6,DOCK1,SULT1B1,QKI,UBE2V1,MBOAT2,TPD52,DAAM2,PABPC1L,SULF1,TRPC4,C5AR1,LRP4,WDR5,CNTN6,EFNB2,PIWIL3,HERC1,SPATA5,ZNF423,INSC,L RRC8C,ALPK2,CTNNA1,TENM1,WDFY2,CDKL5,DBMT1,EFHC2,PRKARIA,DYNC2H1,MLLT3,CD109,IL1RAPL1,KIT,SLIT3,TAF4B,TNFSF8,TRPV4,VWC2,ABCA5,CPS1,EDAR,EFNB1,PTPRO,RAPGEF2,SLCO4C1,DNAJB6,ESR1,HTR2C,MYPN,NCMAP,SEMA3E,UBE3A,FGF13,GABRB2,PLAG1,SGCZ,ARMC2,EPHB2,FNDCC3A,MECOM,TBCD,TOX,C14ORF39,ERBB4,FER,SLITRK6,TDRKH,FNIP1,LRP5,SNRNP200,SLAMF1,ABL2,BSG,F11R,FARP2,SETD2,ARHGAP35,NSUN2,CCL3,FGF7,GGN,LAMA1,MYO7B,PREX1,SEMA5B,SPRED3,KIF2A,NHLH2,PSG9,SULF2,ARF4,MYH9,SLC39A12,SOX4,NEDD9,PIK3CD,AGTPBP1,ITGA8,PUMI,ARID4A,FAM172A,KDM3A,PDZD7,UNC13A,WDPCC,AUTS2,CDH23,DAPL1,FGFR1,MEF2A,RYR1,ARID4B,MAP2,BPGM,IL23R,ITGB7,KEAP1,NTF3,SCUBE1,AR,FGL2,KIAA1109,SUFU,EYA1,IFNA8,IL1RL2,RBM4,SRPK2,HLA-DRA,BHLHB9,L3MBTL1,NEK5,SEMA3A,CDC73,EPB41L3,MARK2,M EIS2,PDE5A,ZMIZ1,FLT3,PDLIM5,PPARGC1B,TRIM72,FERMT2,LTBR,MARK1,SMPD3,TNN,DAB2,GPR55,PBX1,SRD5A2,STX3,SYT2,ACTN4,BLOC1S5,ITGA3,PRAMEF8,FRY,LGII,NREP,PLCL2,PIN1,THSD7A,TRPM4,NME8,SCLT1,BMP6,CIT,CLASP1,EIF4ENIF1,CNGB1,TMOD1,CREM,HGF,SPATA6,CALCR,CENPF,DPY19L2,FLI1,SCUBE3,SLC26A8,ZBTB16,NCAM1,NFASC,MACF1,PAK1,PDE3A,PSMB7,SKI,TAF7L,CTDP1,ELF1,ENPP1,FMRI,WDR7,GPRIN2,JDP2,KLF6,PRKX,ULK4,CRMP1,MFNG,RPGRIPI,TDRD6,CCDC141,GLDN,PCK1,PPARA,SORTI,SPIB,TBX22,TTN,ZFHX2,CIGALT1,COL19A1,FHL1,GNAI3,CHD5,PPP2R3C,S1PR3,SPRED1,AKR1C2,CHSY1,KRT4,LCE1F,NTN4,PRDM16,PTPRF,RBL1,CCDC3,GTSE1,HIRA,PGM5,RIT2,EXT1,MYH6,NCAPH2,NCOA1,PRLR,TYMP,ADAMTS5,CBFA2T3,DOCK7,FBXW11,HDAC5,TDGF1,A2M,MYEF2,SLC24A5,ADARB1,MYH11,NDE1,POU2AF1,PRKCQ,SCEL,STAT3,TP63,AMOT,BRIP1,HPN,ISLR2,PAK3,USH2A,BLNK,DHRS2,DHRS7B,DTNBP1,GAK,RAP1B,CRTAC1,LCE2A,LGALS9,LRP8,MYOM2,UPK3A,APC,BMPRIA,ITGA1,KIAA0319,NGF,PRKCA,SPINT2,UBASH3B,VLDLR,ADAMTS20,KRT75,ABI1,DHX9,NCAPG2,RGCC,CYB5D2,EDA2R,IL6R,LCE4A,MAP2K6,SPTBN4,CLASP2,MAP2K1,PRAMEF7,SOS1,TPH1,C1QTNF3,FGF1,MCOLN3,TBX20,PPP1R9A,REB1,TBX18,BZW2</p>
GO:00486	generatio	2.6055691906282532	CDH4,DAB1,DSCAM,RUNX1,NCAM2,ANK3,DCC,KCNQ1,EPAH6,GR

99	n of neurons	e-20	<p> <i>IN3A,NRXN1,DOK5,NRXN3,SDK2,CTNND2,TNC,CHODL,RIMS2,MTPN,NRG3,OLFM3,FSTL4,LRRRC4C,RTN1,SDCCAG8,TMEM108,ADAMTSL1,PCP4,SYT17,PLXNA4,FLRT2,NRG1,ALDH1A2,CECR2,ASTN2,UNC5D,SEMA6D,SPOCK1,CTNNA2,RBFOX2,TIAM1,AGBL4,RASGRF1,DPYSL2,CBFA2T2,NKD1,ALK,ZNF536,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,AGT,ATAT1,CDH11,CDH2,PARK2,MDGA2,LAMA2,ZNF804A,NEGR1,SEMA3D,NTN1,TRAPPC9,TRIO,HDAC2,MYO9A,SLIT2,IGF1R,PTPRG,TRPC5,DMD,HCN1,SYT1,VCL,CELSR1,CSMD3,FSHR,ASTN1,STK24,OPCML,NTNG1,TENM4,LRRK2,RORB,SLC1A3,STRC,NTRK3,RORA,ANKS1A,CHD7,RNF165,DISC1,EMB,IER2,MECP2,MTMR2,SEMA4D,GSK3B,PRKD1,ERCC6,TGFB2,SEMA5A,BDNF,PRKCH,RYK,ZDHHC17,PCDH15,EML1,WASF1,LAMA3,NR2F2,SNAP25,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,HECW1,PMP22,KANK1,ATP8A2,DCDC2,GABRB1,MME,UNC5C,NTM,UGCG,PALLD,MTOR,ROR1,GAS7,MOV10,FAT3,PTPRD,TIAM2,ZNF521,CEP85L,KLHL1,SOX8,IFT88,NLGN4X,FOXO3,KALRN,EDNRB,ROBO1,SATB2,TANC2,TCF4,PREX2,SEC24B,TGM2,VASH2,CHL1,APP,NRP1,PTPRM,TENM2,THRB,SEMA3C,CAMK1D,ELP3,PRTG,RPS6KA5,PARD3,THOC2,GRIP1,OPHN1,CCDC88A,CD38,DENND5A,ALCAM,MYO16,SOX5,SRRM4,NTRK2,PRKG1,ACSL4,DNM3,SDK1,GLI3,CRB1,RAP1A,TGFBF1,DICER1,EPHA5,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP300,DSCAML1,HMG20A,TRIOBP,TP73,GRID2,SPG11,ADORA2A,CAMK2G,EFNA5,MAG12,NF1,SORL1,TTC8,EIF4E,FRLY,RELN,GRM5,HDAC9,KIRREL3,PTPN9,NUMB,MAP3K13,NPHP4,JAG1,PPP3CA,KLF7,MYT1L,PLS1,SH3GL2,DOCK10,ELAVL4,CNTN1,DGUOK,GRM7,RIMS1,ASAP1,NLGN1,MAPK8IP2,OMG,GABRA5,JAK2,SHOX2,AHI1,KIDINS220,PLXNB1,TCF12,TNF,COLBL,PPF1A2,ADNP2,ATXN10,BLOC1S6,DLG5,LGR6,BRINP1,BCL11A,MYO6,DAAM2,LRP4,WDR5,CNTN6,EFNB2,HERC1,CTNNA1,TENM1,CDKL5,EFHC2,DYNC2H1,IL1RAPL1,KIT,SLIT3,TRPV4,VWC2,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,GABRB2,PLAG1,EPHB2,TBCD,TOX,ERBB4,SLITRK6,ABL2,BSG,FARP2,ARHGAP35,LAMA1,SEMA5B,NHLH2,ARF4,SLC39A12,SOX4,AGTPBP1,PDZD7,UNC13A,WPCP,AUTS2,CDH23,FGFR1,MEF2A,MAP2,NTF3,SUFU,EYA1,BHLHB9,SEMA3A,EPB41L3,MARK2,ZMIZ1,PDLIM5,MARK1,TNN,AB2,PBX1,STX3,SYT2,BLOC1S5,ITGA3,FRY,LGI1,NREP,PINI,SLCT1,BMP6,CIT,EIF4ENIF1,CNGB1,HGF,NCAM1,NFASC,MACF1,PAK1,SKL,FMR1,GPRIN2,ULK4,CRMP1,RPGRI1,CCDC141,GLDN,ZFH2,CHD5,NTN4,PTPRF,RIT2,EXT1,NCOA1,DOCK7,MYEF2,ADARB1,ND E1,PRKCQ,STAT3,ISLR2,PAK3,USH2A,DTNBP1,GAK,CRTAC1,LRP8,BMPRI1,ITGA1,KIAA0319,NGF,VLDLR,ABII,CYB5D2,SPTBN4,CLASP2,MAP2K1,SOS1,MCOLN3,TBX20,PPP1R9A</i> </p>
GO:0048468	cell development	3.273795577903622e-20	<p> <i>CDH4,PLCB1,DAB1,DSCAM,RUNX1,MYO18B,NCAM2,ANK3,DCC,AKAP13,FBLN1,SORBS2,KCNQ1,EPHA6,GRIN3A,NRXN1,NRXN3,CTNND2,TNC,CHODL,RIMS2,OLFM3,TGFBF3,FSTL4,ANK2,LRRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,NRG1,HYDIN,ALDH1A2,CECR2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CFTR,RBFOX2,TIAM1,COL22A1,AGBL4,RASGRF1,DPYSL2,CBFA2T2,ALK,SPEF2,FBXO31,CNTN4,ARID5B,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,COL15A1,AGT,FSIP2,ATAT1,CDH11,RCAN1,CDH2,PARK2,FHL2,LAMA2,ZNF804A,NEGR1,SEMA3D,NTN1,TRIO,HDAC2,MYO9A,SLIT2,PDCD6,RPS6KA2,IGF1R,PTPRG,TRPC5,DMD,HCN1,SYT1,KRT2,SIPA1L3,VCL,CSMD3,FSHR,FMN2,STK24,OPCML,ATRX,OCA2,DIAPH2,NTNG1,TENM4,CATSPER2,LRRK2,RORB,SLC1A3,STRC,NTRK3,ANKS1A,CHD7,RNF165,DISC1,HEXB,EMB,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,PRKD1,ERCC6,FLVCR1,FRMD6,TGFB2,SEMA5A,BDNF,PRKCH,RYK,ZDHHC17,PCDH15,SGCD,WASF1,LAMA3,SNAP25,PAQR8,AKAP6,CNTNAP2,FBN1,PLXNA2,TAOK3,BCL2,EPHB1,MOV10L1,SIPA1L1,LRP2,NR4A2,ARHGEF10,EPHA7,FYN,CHN1,SULT4A1,FLNC,HECW1,PMP22,PDE4D,KANK1,ABCB10,ACTN2,ATP8A2,DCDC2,GABRB1,MME,PACRG,TNMD,LAMB4,CELF4,UNC5C,MYLK3,NTM,UGCG,PALLD,RARB,MTOR,ROR1,GAS7,MOV10,FAT3,MEGF9,PTPRD,TIAM2,BBS2,COL11A1,KLHL1,SOX8,IFT88,FOXO3,CAPN3,KALRN,CCDC88C,EDNRB,MSI2,ROBO1,SATB2,TANC2,GRHL2,NEBL,PREX2,SEC24B,PKHD1,TGM2,VASH2,FAM9B,KDR,CHL1,ABCA12,APP,COL18A1,NRP1,PTPRM,SHROOM3,TENM2,THRB,TTC12,SEMA3C,CAMK1D,PARVG,PRTG,ROS1,RPS6KA5,PARD3,THOC2,ZNF830,ATRNL1,GRIP1,OPHN1,CCDC88A,CD38,DENND5A,ALCAM,BCL2L1,HDAC4,MYO16,SRRM4,JAM2,NTRK2,PRKG1,DNM3,SDK1,GLI3,CLDN1,CRB1,RAP1A,DICER1,EPHA5,TNR,CUX1,PEAK1,TENM3,CHST11,RAPGEF1,CHRNA3,EP300,DSCAML1,TBX3,TRIOBP,SYCP1,TP73,GRID2,PARVB,FLNB,SPG11,ADORA2A,CAMK2G,EFNA5,MERTK,BRD1,FAM9A,MAG12,NF1,SORL1,TTC8,DMRT1,ASXL1,FRLY,RELN,GRM5,HDAC9,KIRREL3,P</i> </p>

			<p>TPN9,NUMB,MAP3K13,NPHP4,JAG1,PPP3CA,KLF7,MYT1L,NEB,PLS1,SH3GL2,CXADR,DOCK10,ELAVL4,RNF17,CNTN1,DGUOK,GRM7,RIMS1,L3MBTL3,ASAP1,FHOD3,NLGN1,LRRK1,MAPK8IP2,OMG,GABRA5,JAK2,SHOX2,AHI1,SMAD3,KIDINS220,PLXNB1,RDH10,CDK1,TNF,COBL,OVOL2,PANX1,ZFPM1,PPF1A2,ATXN10,BLOC1S6,BMP15,DLG5,LGR6,BRINP1,SPAG16,BCL11A,DOCK1,QKI,DAAM2,PABPC1L,SULF1,C5AR1,LRP4,WDR5,CNTN6,EFNB2,HERC1,ALPK2,CTNNA1,TENM1,CDKL5,EFHC2,PRKAR1A,IL1RAPL1,KIT,SLIT3,TAF4B,TRPV4,EFNB1,PTPRO,RAPGEF2,ESR1,MYPN,NCMAP,SEMA3E,UBE3A,FGF13,GABRB2,PLAG1,SGCZ,ARMC2,EPHB2,FNDCA3,TBCD,TOX,C14ORF39,ERBB4,FER,SLITRK6,LRP5,ABL2,BSG,F11R,FARP2,SETD2,ARHGAP35,NSUN2,LAMA1,PREX1,SEMA5B,NHLH2,SULF2,ARF4,MYPH9,SLC39A12,SOX4,NEDD9,AGTPBP1,ITGA8,ARID4A,FAM172A,KDM3A,PDZD7,UNC13A,WDPAP,AUTS2,CDH23,MEF2A,RYR1,ARID4B,MAP2,BPGM,ITGB7,NTF3,AR,BHLHB9,SEMA3A,EPB41L3,MARK2,PDE5A,ZMIZ1,PDLIM5,FERMT2,MARK1,SMPD3,TNN,DAB2,PBX1,STX3,SYT2,ACTN4,BLOC1S5,ITGA3,FRY,LGII,NREP,SCLT11,BMP6,CNGB1,TMOD1,HGF,DY19L2,FLI1,SLC26A8,ZBTB16,NCAM1,NFASC,MACF1,PAK1,PDE3A,SKI,CTDP1,FMR1,GPRIN2,ULK4,CRMP1,RPGRIPI,CCDC141,GLDN,PPARA,TTN,C1GALT1,CHD5,SIPR3,CHSY1,NTN4,PTPRF,PGM5,RIT2,EXT1,MYH6,DOCK7,FBXW11,ADARB1,MYH11,PRKCQ,TP63,BRIP1,ISLR2,PAK3,USH2A,DTNBP1,GAK,RAP1B,CRTAC1,LRP8,MYOM2,BMPR1A,ITGA1,KIAA0319,NGF,SPINT2,VLDLR,ABI1,SPTBN4,CLASP2,MAP2K1,SOS1,TBX20,PPP1R9A,RREB1,TBX18</p>
GO:0031175	neuron projection development	4.399380719061158e-20	<p>CDH4,DAB1,DSCAM,NCAM2,ANK3,DCC,EPHA6,GRIN3A,NRXN1,NRXN3,CTNND2,TNC,CHODL,RIMS2,FSTL4,LRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,CECR2,UNC5D,SEMA6D,SPOCK1,CTNNA2,RBFOX2,TIAM1,RASGRF1,DPYSL2,CBFA2T2,ALK,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,AGT,CDH11,CDH2,PARK2,LAMA2,ZNF804A,NEGR1,SEMA3D,NTN1,TRIO,HDAC2,MYO9A,SLIT2,IGF1R,PTPRG,TRPC5,DMD,SYT1,VCL,CSMD3,FSHR,STK24,NTNG1,LRRK2,STRC,NTRK3,RNF165,DISC1,EMB,MECP2,SEMA4D,GSK3B,PRKD1,ERCC6,SEMA5A,BDNF,RYK,ZDHHC17,PCDH15,WASF1,LAMA3,SNAP25,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,HECW1,PMP22,KANK1,ATP8A2,DCDC2,UNC5C,PALLD,ROR1,GAS7,MOV10,FAT3,PTPRD,TIAM2,KLHL1,IFT88,KALRN,ROBO1,TANC2,PREX2,SEC24B,VASH2,CHL1,APP,NRP1,PTPRM,SEMA3C,CAMK1D,PRTG,RPS6KA5,PAR3,GRIP1,OPHN1,CCDC88A,CD38,DENND5A,ALCAM,MYO16,NTRK2,PRKG1,DNM3,SDK1,GLI3,RAP1A,DICER1,EPHA5,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP300,DSCAML1,TRIOBP,GRID2,SPG11,ADORA2A,CAMK2G,EFNA5,MAGI2,TTC8,FRYL,RELN,KIRREL3,PTPN9,NUMB,MAP3K13,PPP3CA,KLF7,PLS1,SH3GL2,DOCK10,ELAVL4,CNTN1,DGUOK,GRM7,RIMS1,ASAP1,NLGN1,MAPK8IP2,OMG,JAK2,SHOX2,KIDINS220,PLXNB1,COBL,PPF1A2,ATXN10,BLOC1S6,DLG5,LGR6,BCL11A,LRP4,WDR5,CNTN6,EFNB2,HERC1,CTNNA1,CDKL5,EFHC2,IL1RAPL1,SLIT3,TRPV4,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,TOX,SLITRK6,ABL2,BSG,ARHGAP35,LAMA1,SEMA5B,ARF4,SLC39A12,PDZD7,UNC13A,AUTS2,CDH23,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,MARK1,TNN,DAB2,STX3,SYT2,BLOC1S5,ITGA3,FRY,LGII,NREP,HGF,NCAM1,NFASC,MACF1,PAK1,FMR1,GPRIN2,ULK4,CRMP1,CCDC141,PTPRF,RIT2,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,GAK,CRTAC1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,ABI1,SPTBN4,CLASP2,MAP2K1,SOS1,PPP1R9A</p>
GO:0022008	neurogenesis	1.195424277593319e-19	<p>CDH4,DAB1,DSCAM,RUNX1,NCAM2,ANK3,DCC,KCNQ1,SUN2,EPHA6,GRIN3A,NRXN1,DOK5,NRXN3,SDK2,CTNND2,TNC,CHODL,RIMS2,MTPN,NRG3,OLFM3,FSTL4,LRRC4C,RTN1,SDCCAG8,TMEM108,ADAMTSL1,PCP4,SYT17,PLXNA4,FLRT2,NRG1,ALDH1A2,CECR2,SUZ12,ASTN2,UNC5D,SEMA6D,SPOCK1,CTNNA2,RBFOX2,TIAM1,AGBL4,RASGRF1,DPYSL2,CBFA2T2,NKD1,ALK,ZNF536,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,AGT,ATAT1,CDH11,CDH2,PARK2,MDGA2,LAMA2,ZNF804A,NEGR1,SEMA3D,NTN1,TRAPP9,TRIO,HDAC2,MYO9A,SLIT2,IGF1R,VCAN,PTPRG,TRPC5,DMD,HCN1,SYT1,VCL,CELSR1,CSMD3,FSHR,MBOAT7,ASTN1,STK24,OPCML,NTNG1,TENM4,LRRK2,RORB,SLC1A3,STRC,NTRK3,RORA,ANKS1A,CHD7,RNF165,DISC1,HEXB,EMB,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,PRKD1,ERCC6,TGFB2,SEMA5A,BDNF,PRKCH,RYK,ZDHHC17,PCDH15,EML1,WASF1,LAMA3,NR2F2,SNAP25,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SMARCE1,SIPA1L1,LRP2,NR4A2,ARHGAP10,EPHA7,FYN,CHN1,SULT4A1,HECW1,PMP22,KANK1,ATP8A2,DCDC2,GABRB1,MME,NAV2,UNC5C,NTM,SLC1A1,UGCG,PALLD,RARB,ETV6,MTOR,ROR1,GAS7,MOV10,CHRM1,FAT3,PTPRD,TIAM2,ZNF52</p>

			<p>1,CEP85L,EPM2A,KLHL1,SOX8,IFT88,NLGN4X,FOXO3,KALRN,EDN RB,ROBO1,SATB2,TANC2,TCF4,PREX2,SEC24B,TGM2,VASH2,CHL1,APP,NRP1,PTPRM,TENM2,THRB,SEMA3C,CAMK1D,ELP3,PRTG,RP S6KA5,PARD3,THOC2,GRIN2A,GRIP1,OPHN1,CCDC88A,CD38,DEN ND5A,ALCAM,MYO16,SOX5,SRRM4,NTRK2,PRKG1,ACSL4,DNM3,SD K1,GLI3,CRB1,RAP1A,TGFBR1,DICER1,EPHA5,TNR,CUX1,TENM3,R APGEF1,CHRNA3,EP300,DSCAML1,HMG20A,TRIOBP,TP73,GRID2,S PG11,ADORA2A,CAMK2G,EFNA5,MAGI2,NF1,SORL1,TTC8,EIF4E,F RYL,RELN,GRM5,HDAC9,KIRREL3,PTPN9,NUMB,MAP3K13,NPHP4, NAV3,JAG1,PPP3CA,KLF7,MYT1L,PLS1,SH3GL2,DOCK10,ELAVL4,C NTN1,DGUOK,GRM7,RIMS1,ASAP1,NLGN1,MAPK8IP2,OMG,GABRA 5,JAK2,SHOX2,AHI1,KIDINS220,PLXNB1,TCF12,CDK1,TNF,COBL,P PFLA2,ADNP2,ATXN10,BLOC1S6,DLG5,LGR6,BRINP1,BCL11A,MYO 6,DAAM2,TRPC4,C5AR1,LRP4,WDR5,CNTN6,EFNB2,HERC1,CTNNA 1,TENM1,CDKL5,EFHC2,DYNC2H1,IL1RAPL1,KIT,SLIT3,TRPV4,VW C2,EFNB1,PTPRO,RAPGEF2,MYPN,NCMAP,SEMA3E,UBE3A,FGF13 ,GABRB2,PLAG1,EPHB2,TBCD,TOX,ERBB4,SLITRK6,ABL2,BSG,FAR P2,ARHGAP35,CCL3,LAMA1,SEMA5B,NHLH2,ARF4,SLC39A12,SOX4 ,AGTPBP1,PDZD7,UNC13A,WDPKP,AUTS2,CDH23,FGFR1,MEF2A, MAP2,NTF3,SUFU,EYA1,BHLHB9,SEMA3A,EPB41L3,MARK2,ZMIZ1, PDLIM5,MARK1,TNN,DAB2,PBX1,STX3,SYT2,BLOC1S5,ITGA3,FRY,L G11,NREP,PINI,SCLT1,BMP6,CIT,EIF4ENIF1,CNGB1,HGF,NCAM1, NFASC,MACF1,PAK1,SKI,FMR1,GPRIN2,ULK4,CRMP1,RPGRIP1,CC DC141,GLDN,ZFHX2,CHD5,NTN4,PTPRF,RIT2,EXT1,NCOA1,DOCK 7,MYEF2,ADARB1,NDE1,PRKCQ,STAT3,ISLR2,PAK3,USH2A,DNBP 1,GAK,CRTAC1,LRP8,BMPRI1,ITGA1,KIAA0319,NGF,VLDLR,ABII,C YB5D2,SPTBN4,CLASP2,MAP2K1,SOS1,MCOLN3,TBX20,PPP1R9A</p>
GO:0034330	cell junction organization	2.519946385294502e-19	<p>CAST,GABRB3,MAPK14,DSCAM,GPHN,ASIC2,CTBP2,ANK3,SVEP1, DUSP22,ITGA2,NRXN1,NRXN3,SDK2,CTNND2,TNC,SHANK2,ANK2,L RRC4C,SYNDIG1,BCAN,TMEM108,FLRT2,NRG1,SHISA6,LRFN5,DRP 2,ABHD17C,CTNNA2,RHOC,IL1RAPL2,ERC1,ROBO2,EPHA3,AGT,E RC2,CDH11,CDH2,CDH9,CORO2B,FRMPD4,ZNF804A,NEGR1,NTN1 ,TLN2,GPC6,PCDH17,MYO9A,CDH8,CNTN5,IGF1R,CLDN14,VCL,P DZRN3,NTNG1,UNC13C,LRRK2,NTRK3,DISC1,SH3BP1,MECP2,MT MR2,SEMA4D,LINGO2,TGFB2,CLSTN2,FMN1,BDNF,PRKCH,RYK,W ASF1,GRIN2B,SYBU,CNTNAP2,TNS1,LRFN2,BCL2,CDH10,EPHB1,C DH12,SIPA1L1,LRRCA,NFIA,CDH6,EPHA7,FYN,THBS2,ACTN2,APBB 2,SLC1A1,PKP2,PTPRD,NLGN4X,CDH18,LRRTM1,KALRN,DLC1,TA NC2,GRHL2,CBLN4,GABRA2,PKHD1,KDR,APP,DGKB,NRP1,PKP4,P ARD3,OPHN1,MAPRE2,NTRK2,DNM3,PPFIBP1,SDK1,CLDN1,FRMP D2,RAP1A,TGFBR1,TNR,PEAK1,RAPGEF1,PPFIBP2,GRID2,EFNA5, CACNG2,ARHGAP6,IGSF21,RELN,GRM5,KIRREL3,LRRTM3,NUMB, NPHP4,IL1RAP,CXADR,DOCK10,GPC4,NLGN1,CTTNBP2,ARHGAP3 9,SMAD3,PLXNB1,HDAC7,TNF,PPFIA2,TANC1,DLG5,ARF1,C5AR1,L RP4,EFNB2,CLSTN1,CTNNA1,CDKL5,IL1RAPL1,TRPV4,PTPRO,RAP GEF2,SEMA3E,UBE3A,FGF13,GABRB2,MARVELD3,EPHB2,TBCD,E RBB4,SLITRK6,F11R,CLDN11,PTPRK,ARF4,UNC13A,WDPKP,OCLN, UNC13B,BHLHB9,EPB41L3,PDLIM5,PTPRA,FERMT2,ADAM10,ITGA 3,PINI,BMP6,CLASP1,PKP1,CACNB2,CNKSR2,NFASC,NOS1AP,INSR ,MACF1,TESK2,GABRA1,PTPRF,MPDZ,EXT1,AMOT,PAK3,DTNBP1, RAP1B,LRP8,APC,PRKCA,GABRG2,CLASP2,VPS35</p>
GO:0051716	cellular response to stimulus	4.961177232851569e-19	<p>IGHV1OR21-1,ADCY2,TPTE,MACROD2,PIEZO2,PLCB1,CMKLR1,DAB1,OMA1,GT F21,GABRB3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSCAM,ARID1B, TPTE2,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,HUNK,NPY4R,HSF2BP ,LYPD6,OR4M2,PTPRT,ANK3,IGHV4-31,DCC,IGHV3-64,SVEP1,WLS,TIMP3,DUSP22,AKAP13,FBLN1,ERG,GRIK1,GPR139, IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,ABCG1,RGS6,KCNQ1,GABBR2,EPHA6,OR4K15,TM EM117,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,DOK5,NRXN3,S LC1A2,RAB5A,DOCK2,CTNND2,TNC,PCNT,MS4A1,OR8U1,RIMS2,M TPN,SHANK2,COMT,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,DLG2,TG FBR3,FSTL4,CDH13,RNF152,ANK2,NXN,GRAMD1C,CSNK2A1,TF,ER CC4,KCNE1,PIK3C2B,TMEM108,CHEK2,OR4C12,GADD45A,PRDM9 ,PCP4,PSMC6,SYT17,PLXNA4,FLRT2,GPC3,CHAF1A,FBLN5,NRG1,S CARA5,PSMB2,SHISA6,AOX1,RAD51D,RFFL,SPIDR,IL4R,ALDH1A2, CHCHD6,RYR3,MCTP1,NLN,ST8SIA1,PLCE1,REV1,SH3RF2,UNC5D, KSR2,GLP2R,STK38L,SEMA6D,CCR1,CCR3,CFTR,RBFOX2,DTX4,M C2R,TIAM1,RHOC,LDLRAD4,DNAJC15,RGS7BP,RASGRF1,ZBTB20, DPYSL2,GRID1,CBFA2T2,IL1RAPL2,OR4A5,NKD1,SCAI,MXI,BTN2A 1,ALK,PTPRE,PIK3C3,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,FBXO3 1,RAB7A,RGL2,ARID5B,S100B,ROBO2,ZNF366,C2CD3,EPHA3,PRKA CB,PTPRN2,DCLK1,PXDN,COL15A1,CRNN,LEMD3,OR8K3,AGT,SHI</p>

			<p> SA9, CHRM5, FBXO32, WDR11, ATP6V0D1, RHOJ, RCAN1, ZFYVE1, CDH2, PARK2, FHL2, FOXN3, DLGAP1, CDC5L, KIR2DL1, KIR2DL4, OR4K13, BPIFB1, CORO2B, CYBB, MCTP2, GNB4, OR4M1, OR4N2, SEMA3D, NTN1, OR52N5, TRIM22, TRIM5, KCNH1, USP25, TXK, GPC6, RNF185, DBH, FBXO27, ITSN1, TNS3, ZNRF3, RIN3, TRIO, FTO, HDAC2, HTRA1, MYO9A, SLIT2, ACSM2B, AHRR, PDCD6, OR2L13, RPS6KA2, STXBP4, GPC5, LCMT1, IGF1R, MDM2, SLC24A4, SMAD1, SYT9, OR11G2, OR9Q1, TMPRSS6, RAPGEF5, GABRG1, NR3C2, PTPRG, PDE9A, OR8K5, DMD, HCN1, KCTD8, STK33, SYT1, CACNG3, SIPA1L3, TEAD1, CELSR1, FGF14, FSHR, GSG1L, GRIA4, GRM1, FMN2, MAEL, MORF4L1, NRIP1, PRKAR2A, SKAP1, SORCS2, INPP5A, STK24, DCDC1, WDR83, WWOX, ATRX, ACTR5, PARP16, TRPM2, CNIH3, RYR2, USP16, XRCC4, OR2M5, TENM4, UNC13C, CAMTA1, HSPB8, LRRK2, MAPK10, RORB, SLC1A3, IGFBP7, NTRK3, RORA, CD8B, ILDR1, IQCJ-SCHIP1, PRICKLE2, ANKS1A, RNF165, DISC1, KCTD9, PDXP, SH3BP1, S OX6, MECP2, MTMR2, SEMA4D, GSK3B, LGR5, SLC8A1, MAGI3, PLCH2, PRKD1, SNRK, ERCC6, OGT, TGFB2, WDR4, ATP1A4, VAV3, ANKRD1B, PLCD3, S100A11, SEMA5A, BDNF, LLGL2, PRKCH, RBMS3, RYK, ZDHHC17, PLCXD3, SGCD, WASF1, GRIN2B, KDM4C, OR6N1, OTUD7A, POLE, EXT2, INIP, LAMA3, SIK2, ANKRD6, ARHGAP8, NR2F2, PRR5, PRR5-ARHGAP8, PTGFR, NR5A2, PAQR8, PITPNC1, PML, PPARGC1A, ARHGAP12, CORO2A, AKAP6, TNS1, FBN1, GRIK3, IGHV3-16, NLRP7, PLXNA2, TAOK3, BCL2, CHMP4C, RAD51B, RALBP1, RXFP2, ZNF675, ARHGAP24, EPHB1, IL12RB2, SIPA1L1, SKAP2, LRP2, TMEM100, ITPR2, VANGL2, CDH6, DEPTOR, GADAP1, NR4A2, ARHGEF10, EPHA7, PSD3, FYN, GNRHR, KCNE2, LRRC69, ADAMTS18, CHN1, NR4A1, SMARCA4, CD44, HECW1, NEU3, RCVRN, RHBDD1, RNF213, CASP6, FOXO1, PDE4D, PYY, RBBP8, KANK1, ABCB10, ACTN2, ARHGEF3, ATF6, BACH1, DCDC2, GABRB1, GRK5, MME, PACRG, TNMD, CSNK1G3, CPNE4, GRIK2, IGSF11, CELF4, TPO, UNC5C, APBB2, KCND2, MYLK3, NAMPT, SETD7, SLC1A1, UGCG, RARB, RERG, RFX4, GNG4, NLRP12, GRAP2, MTOR, RMI2, ROR1, VPS26B, CHRM1, CTDSPL2, DDX21, BMPER, PTPRD, RASGEF1B, TIAM2, BBS2, HBE1, MCM3, OR51B2, OR51I1, PGK1, PLCL1, ARL6IP5, ATP1A1, EPM2A, PLN, ZMAT3, CTNNBIP1, SOX8, ZMYND11, DIDO1, DS G4, IFT88, NLGN4X, OR4K17, OR8J3, PRKCE, EIF2S1, HELLS, PRKCB, VDR, ADCY8, EFHB, FAM19A4, FOXO3, MITF, RAB31, CAPN3, KALRN, PJA1, TTL12, CCDC88C, DLC1, EDNRB, MSRI, OASL, ROBO1, RXFP1, SATB2, TBC1D4, BNIP3L, FLT1, NOX4, CDH17, INO80D, COL2A1, MAP3K7, MAPK9, NR3C1, PREX2, TACR3, TRAF3IP2, ZNF277, CRI, EYA4, GABRA2, OR4C15, ACSL5, PKHD1, STK3, TGM2, KDR, PRCP, RAB30, ARHGAP15, CASK, CHL1, EDA, IGHV4-28, PCOLCE2, ABCA12, APP, CALCRL, DGKB, NRP1, PTPRM, SHROOM3, UACA, ARHGEF18, ELMO1, LGR4, LINC00473, TENM2, ADTRP, CD58, I MMP2L, KAT5, RANBP10, THRB, CPEB2, KCNK2, SEMA3C, ADAMI7, CAMK1D, MAP3K5, TSPEAR, CDC42BPG, IGF2R, TFPI, ATF2, GPR78, GRK6, NR2C2, PEX5L, PIK3R5, EFEMP1, MT1HL1, ROS1, TGFB1I1, DOT1L, KPNB1, OR10R2, RGS16, RPS6KA5, TCF7L2, TNFRSF10B, TRABD2B, BICD1, ITGA11, PARD3, RALGAP2, TLK2, TRAF3, ZNF830, ABAT, ATRNL1, DOCK9, GRIN2A, GRIP1, SGK2, KIFAP3, OPHN1, BCLAF1, SGMS1, CASP5, CCDC88A, CD38, FAM83B, MOB3B, RIN2, RNF43, TUB, ALCAM, CHRD L1, RNF126, STK36, BCL2L1, ABTB2, GUCY2F, HDAC4, MYO16, PDE4B, S OX5, DNMT1, GHR, GLRA2, MAPRE2, NTRK2, PRKG1, CPNE8, FAM83G, MGST1, CDC42BPA, GNG2, BRD4, PTPDC1, RASGRP1, STARD13, ARR3, CAMK4, COMMD1, LY86, RABGEF1, RGL1, SPRED2, GLI3, OR5L2, SMC HD1, ZNF207, CACNA1C, CLDN1, KIF16B, MORC2, OR11L1, CRB1, DOC K4, PDXNL, RAP1A, SAFB2, SRP54, TGFBRI1, CYSLTR1, MGLL, PRDX4, ADAMI2, DICER1, EPHA5, LCP2, TAS2R38, THEMIS, TNFR, NCOA5, TAS2R1, TENM3, CHST11, CPE, IL16, ITGB3BP, PTTG1IP, RAPGEF1, CHAF1B, CHRNA3, CHRNA5, EP300, TBX3, WIF1, CACNA2D1, CYP7B1, GRAMD4, STX8, BRD7, GAB2, GLRA1, HBD, SYCP1, TP73, COL4A6, GRID2, IFNGR2, NPC1, OR4C5, PIBF1, PNPLA3, RASGRF2, PSMA1, TPH2, TRHDE, FHIT, FLNB, PPP1R12B, ADORA2A, ADRBK2, CABIN1, EFNA5, MERTK, RALGPS1, TAC4, CACNG2, GUCY2C, MAGI2, NF1, RALGPS2, RFC3, RGS7, TFF1, SORL1, STRN3, ARHGAP6, ASB13, BICC1, BID, ELK3, IFT80, OR5K4, TEAD4, TRIM59, DMRT1, HTRA4, LZTR1, ASXL1, EIF4E, MICU1, POR, RELN, TNFRSF11B, USP3, GRM5, HDAC9, IGHV4-4, IL18R1, IL1RL1, SELE, MGAT5, PLSCR4, DDC, NDRG2, RHPN2, IGHV3 OR16-12, MAP3K13, NLK, NPHP4, RALA, ADCYAP1R1, EGLN3, IL1RAP, FBXL17, JAG1, MAN1A1, PPP3CA, GPR176, JRK, KLF3, KLF7, SH3GL2, SNX25, CXADR, DGKI, GLDC, MASI, PER1, SLC24A2, WWTR1, KL, CBLB, DOCK10, ELAVL4, GSTA2, MNAT1, PLSCR1, CNTN1, DOK6, GPC4, GRM7, RIMS1, TMEM67, TRIM16, WDR59, GABPA, GABRA3, GPSM2, KAT7, MAPK4, IT </p>
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			<p>GAE,NLGN1,P2RX6,PDE1C,PTPRU,ARHGAP5,BTBD11,GBP2,GBP7,RPS20,NPR3,RAD51AP1,AKAP7,FOXRED2,LRRK1,MAPK8IP2,MSRA,VEPH1,CACNA1D,DDX3X,NSG1,ARAP2,CNOT7,GMD5,MAML3,OMG,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,JAK2,SHOX2,SPNS2,AH11,RP41,SMAD3,VPS41,BAIAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,PLXNB1,TMTC4,WDR33,AATF,CDK1,DCBLD2,HDAC7,ITPK1,LTB,MIR320B2,MRGPRG,NBN,RRH,SLC39A10,TNF,LRCH1,OVOL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,INOS8,NUDT4,PHEX,RBM11,AFAP1,LGR6,MAG11,OR11A1,OR5V1,RXFP4,ARID2,SHC2,BRINP1,KCNK10,PLCH1,STK32B,ADORA3,BCL11A,CLEC4A,HMGA2,MYO6,NEK4,AGO3,DOCK1,GRIA3,IGLC2,IGLL5,KIF18A,MUC5AC,RUFY1,STK32C,SULT1B1,ZSWIM7,ANO1,GCLC,PMEPA1,UBE2V1,ACTR8,EPSS,LTBP1,CYP3A5,DAAM2,SMOC2,SULF1,C5AR1,DEF6,GNAL,LRP4,PIK3R3,ARHGEF6,CNGB3,CNTN6,EFNB2,SHFM1,TRIM41,AMOTL1,NET1,ZNF423,CDC14B,LRR8C8,LRR8C8,S ELP,ALPK2,CHD6,CTNNA1,CUL2,NSG2,TENM1,ABCG2,ARHGEF11,EFHC2,GRIK4,GSKIP,PRKAR1A,TNFRSF19,WDR35,ARHGAP11B,DYNC2H1,GABRR2,MLLT3,MYH13,SIPA1L2,TMEM150C,CD109,EGF,SPIRE2,ALDH1A1,CMA1,IL1RAPL1,KIT,SLIT3,TNFSF8,UBR2,BLM,CTNNAL1,OR7A5,PIK3C2G,TRPV4,VWC2,CC2D2A,CPS1,EDAR,EFNB1,PTPRO,RAPGEF2,RCS1,STK32A,DNAJB6,ESR1,HTR2C,JAK1,SEMA3E,UBE3A,DNMBP,FGF13,GABRB2,GRM4,MARVELD3,AKAP10,EPHB2,IGHV3-72,MECOM,NDFIP2,ABCC1,C14ORF39,DAP,DAPK1,ERBB4,FER,MAPML2,MAP3K3,ARPP21,FNIP1,LRP5,PTH2R,RAPGEF6,SHCBP1,RPS27L,SLAMF1,ABL2,BSG,CAMP,DEPDC5,F11R,FARP2,GAS8,OR4C6,SETD2,VPS13C,ARHGAP35,CD2AP,COMMD7,NSUN2,PTPRK,CCL3,FGF7,GGN,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,VWF,ARHGAP25,FGD4,GPR158,IL20RA,ITGA9,MCM9,PSG9,SULF2,CYP2E1,MYH9,NMCE2,PTGER3,SLC39A12,SOX4,ST18,CAB39L,GARNL3,NEDD9,P2RX1,PDE1A,PDGFD,PIK3CD,STOML3,UBE2N,ASGR2,ITGA8,PUM1,DBI,ENPEP,IRAK2,KDM3A,PLAT,TNKS,UNC13A,WDRCP,ADCY9,AUTS2,CDK19,DAPL1,FGFR1,MEF2A,MGME1,PDE11A,RGS3,RYR1,UNC13B,GLRA3,ITGBL1,RASSF3,SLX1B,SOST,IL23R,ITGB7,JMY,KEAP1,MACROD1,NTF3,P2RX7,PLA2G4A,POLD3,RAPGEF4,SCUBE1,SORCSI,TEX14,RASA3,RCAN2,RNMT,ZDHHC9,AMFR,APIP,AR,CASP7,STM4,SCAMP5,SUFU,TRERF1,EYA1,IFNA8,IL1RL2,MGST3,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,ADRA1B,ARMC9,DGKZ,IFI27L1,MIR431,MIR433,OGN,PRKAA2,SEMA3A,TLE4,AQP10,ARHGAP10,CDC73,GNB5,GRIA2,MARK2,PDE5A,ZMIZ1,FLT3,PPARGC1B,PTPRA,SRGAP3,TRIM72,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,LTBR,MAP2K5,MARK1,SMPD3,TNN,DAB2,GPR55,LCP1,SYT2,UROS,ACTN4,ADAM10,BLOC1S5,CCL7,DAAM1,DRG2,EEF1E1,EEF1E1-BLOC1S5,FGF12,ITGA3,KMO,POLN,FANCB,MTIF,NREP,OR10K2,OR4C46,PLCCL2,PPM1B,QRICH1,RFTN1,STAC,MYOM1,PIN1,RPS6KA6,TRPM4,CD226,ERLIN1,GPR141,NME8,PIP5K1B,STK38,BMP6,CHRM3,CIT,CARF,CNGB1,NCOA2,TGFA,WDR12,CREM,G3BP2,GAS2,HGF,MYLK,PKP1,RALGAP1,RASSF8,RGS12,CALCR,CENPF,SCUBE3,SH3BP5,TLK1,CNKS2,MAST4,NCAM1,NOS1AP,PI4KA,RALGDS,ARHGAP28,IL18RAP,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CHM,ELF1,ENPP1,FMR1,LITAF,THEM4,CHFR,GABRA1,IGHV1-69,PRKX,RRAGC,ULK4,ABCD1,BMF,EVC,GABRR3,IDE,IGHV1-46,MAD1L1,MFNG,AIM2,ARHGAP42,CSF2RB,EPG5,EVC2,LRRN2,PCCK1,PDE6B,POLD1,PPARA,SORT1,TNFAIP8L3,TTN,FAM3D,GN1A13,PPP1R13B,SMARCA1,TAF1,CACNA1A,CHD5,FNIP2,FUT8,QRFP,SIPR3,SPRED1,TRPM1,AKR1C2,CHSY1,ESR2,PRDM16,PTPRF,RBL1,ZNF451,BTRC,CCDC3,DEFA1B,DEFA3,IGHV1-18,OPTN,PTPRR,RIT2,EXT1,GNG12,IFT81,MDM4,NCOA1,PRKCG,PRRLR,TYMP,UMOD,DOCK7,ELMO2,FBXW11,G3BP1,HDAC5,ICK,INPP4A,OR51L1,TDGF1,UGGT2,WDR70,MYEF2,SEL1L2,SLC40A1,STAT4,TREM1,KCNC2,OR4C16,PRKCQ,SCEL,SHPRH,STAT3,TFEC,TP63,USP7,AMOT,BRIP1,DOCK3,PAK3,PIK3R2,STK17B,TBL1X,BLNK,CASQ2,DHRS2,DTNBP1,RAP1B,UBE2U,DLGAP2,KSR1,LGALS9,LRP8,NFAT5,OR2T4,TASIR1,ACSM1,ALPK1,GTPBP1,IL10RB,MAPKAPK2,APC,BMPRI1,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,SPINT2,UBASH3B,UBE2E2,VLDLR,ADAMTS20,ASB3,GBP4,GPR75,MTMR4,OSGIN2,PDS5A,PILRB,ABI1,CTSH,DHX9,FCRL5,NCAPG2,RGCC,RPH3AL,SRGAP1,TRBV6-8,USP18,ACACA,CCL14,CCL15,CCL15-CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,TFIP11,CLASP2,MAP2K1,PDE7B,RGMB,SOS1,VPS35,ZRANB3,C1QTNF3,FGF1,RAD18,TBX20,TDP1,ATMIN,CRADD,DGKK,NLRC5,PPP1R9A,RGN,RREB1,TBX18,VSTM1</p>
GO:00069	movemen	1.858818928082901e-	SRGAP2B,TPTE,CDH4,PLCB1,CMKLR1,DAB1,FMNL2,DSCAM,TPTE

28	t of cell or subcellular component	18	<p>2,PTPRT,DCC,DUSP22,FBLN1,NPHP3,ITGA2,KCNQ1,DNAL4,SUN2,EPHA6,NRXN1,ZRANB1,NRXN3,NRG3,DLG2,SLC9B1,TGFBR3,CDH13,ANK2,KCND3,TF,KCNE1,PIK3C2B,SDCCAG8,TMEM108,GADD45A,ADAMTSL1,PLXNA4,FLRT2,GPC3,NRG1,RFPL,HYDIN,MCTP1,ASTN2,SH3RF2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CCR3,RBFOX2,DNAH6,TIAM1,RHOC,AGBL4,LDLRAD4,DPYSL2,NKD1,SCAI,SPEF2,FBXO31,CNTN4,ARID5B,PHACTR1,ROBO2,SPOCK3,EPHA3,DCLK1,AGT,PSTPIP2,FSIP2,RHOJ,CDH2,LOXL2,LAMA2,DNAH9,SEMA3D,DACH1,NTN1,ZNF268,GPC6,DBH,FMNL3,RIN3,TRIO,LAMA4,SLIT2,TTLL8,PDCD6,GPC5,IGF1R,VCAN,PTPRG,KRT2,VCL,CELSR1,MBOAT7,FMN2,ASTN1,STK24,FRMD5,TRPM2,CTNNA3,RYR2,KIF3B,NTNG1,CATSPER2,LRRK2,KIF26B,NTRK3,ANKS1A,RNF165,DISC1,HEXB,EMB,SH3BP1,IER2,MECP2,SEMA4D,SLC8A1,PRKD1,FRMD6,TGFB2,ATP1A4,NAV3,FUT4,S100A11,SEMA5A,BDNF,RYK,DNAAF2,DNAH3,SGCD,WASF1,LAMA3,MREG,NR2F2,PML,SYBU,MYH8,TNS1,PLXNA2,BCL2,ARHGAP24,EPHB1,KCNJ3,VANGL2,NR4A2,EPHA7,RPGR,FYN,KCNE2,CHN1,NR4A1,CD44,PDE4D,KANK1,ENPP2,DCDC2,LAMB4,UNC5C,KIF6,PALLD,NLRP12,MTOR,LDB2,FAT3,MEGF9,PKP2,BMPER,BBS2,ATP1A1,CEP85L,PLN,EPB41L4B,SOX8,IFT88,PRKCE,FAM19A4,FOXO3,MITF,KALRN,CCDC88C,DLC1,DYNLRB2,EDNRB,ROBO1,SATB2,FAP,FLT1,CENPV,TACR3,PKHD1,KDR,PRCP,CHL1,APP,NRP1,PTPRM,ELMO1,ADTRP,TTC12,SEMA3C,ADAM17,CAMK1D,ELP3,ETS1,PRTG,KPNB1,RPS6KA5,BICD1,ITGA11,ATRNL1,KIFAP3,OPHN1,CCDC88A,RIN2,TUB,ALCAM,STK36,DNAH8,HDAC4,PDE4B,JAM2,MAPRE2,NTRK2,PRKG1,CDC42BP4,RASGRP1,STAR13,RABGEF1,GLI3,CACNA1C,CLDN1,KIF16B,DOCK4,SRP54,TGFBR1,EPHA5,TNR,PEAK1,IL16,DSCAML1,SPAG17,CACNA2D1,CYP7B1,SPG11,DYNC1I2,EFNA5,MERTK,TAC4,MAGI2,NF1,SORL1,TTC8,DMRT1,RELN,SLC9C1,HDAC9,KIRREL3,SELE,DYNC1H1,MGAT5,NUMB,NPHP4,NAV3,JAG1,MEOX2,PPP3CA,KLF7,CXADR,DOCK10,GPC4,STARD9,PTPRU,SH3KBP1,CACNA1D,LRP5,MYH4,JAK2,SPNS2,SMAD3,CD300A,PLXNB1,CDK1,HDAC7,TNF,LRCH1,OVOL2,BLOC1S6,DLG5,LGR6,ARID2,SPAG16,ADORA3,MYO6,DOCK1,KIF18A,DNAH10,EPS8,SMOC2,SULF1,C5AR1,PIK3R3,CNTN6,EFNB2,AMOTL1,NET1,SELP,CTNNA1,SCN1A,CDKL5,EFHC2,MYH14,WDR35,DYNC2H1,EGF,KIT,SLIT3,PIK3C2G,TRPV4,ZBBX,DNAH11,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,FGF13,MARVELD3,NUP155,WIPF2,ARMC2,EPHB2,ABCC1,ERBB4,FER,MAP3K3,IFT43,LRP5,SLAMF1,ABL2,BSG,F11R,GAS8,SETD2,ARHGAP35,CD2AP,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,MYO7B,PRES1,SEMA5B,ITGA9,KIF2A,NHLH2,SPA17,ARF4,MYH9,TEKT4,KIF23,NEDD9,PDGFD,PIK3CD,AGTPBP1,KCNE4,ENPEP,PLAT,WDRCP,AUTS2,FGFR1,ITGBL1,MAP2,ITGB7,JMY,NTF3,BDKRB1,DGKZ,SEMA3A,KIF4A,MARK2,ZMIZ1,SRGAP3,FERMT2,HCN4,MAP2K5,MARK1,SMPD3,TNN,DAB2,LCPI,RNF207,ACTN4,ADAM10,BLOC1S5,CCL7,FGF12,ITGA3,LGII,PINI,SYNPO2,TRPM4,EPDR1,NME8,CLASP1,HGF,MYLK,CAPN7,MYO1B,SLC26A8,CACNB2,NCAM1,NFASC,NOS1AP,INSR,MACF1,PAK1,SKI,AKT3,PRKX,ULK4,CRMP1,CCDC141,GNA13,MYH7,FUT8,SPRED1,NTN4,PTPRF,DEFA1B,PTPRR,EXT1,IFT81,MYH6,UMOD,DOCK7,ELMO2,FBXW11,HDAC5,ICK,TGDF1,TTC29,LYVE1,TREM1,ADARB1,NDE1,PRKCQ,STAT3,AMOT,PAK3,USH2A,DTNBP1,LGALS9,LRP8,EFCAB1,APC,BMPRI1,DPP4,ITGA1,KIAA0319,PRKCA,SPINT2,CTSH,RGCC,SRGAP1,CCL14,CCL15,CCL15-CCL14,IL6R,CLASP2,MAP2K1,SOS1,FGF1,TBX20,RGN,RREB1</p>
GO:0007267	cell-cell signaling	3.719205439249271e-17	<p>PLCB1,GABRB3,GABRG3,MAPK14,ASIC2,CTBP2,DTNA,CACNA1E,LYPD6,DCC,WLS,SYN3,GRIK1,NPHP3,KCNQ1,GABBR2,GRIN3A,FCRL2,NRXN1,ZRANB1,NRXN3,SLC1A2,RAB5A,CTNND2,TNC,RIMS2,SHANK2,GRIA1,NRG3,DLG2,ANK2,LRRK4C,NXN,CSNK2A1,TMEM108,SYT17,GPC3,NRG1,PSMB2,SHISA6,MCTP1,DRP2,CCR1,CFTR,TIAM1,RASGRF1,GRID1,SLC6A2,NKD1,SORCS3,FAM3B,PLCB4,ERC1,CNTN4,S100B,PTPRN2,CNTNAP4,AGT,ERC2,SHISA9,CHRM5,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,GPC6,DBH,PCDH17,ZNRF3,APBA2,CDH8,RPS6KA2,STXBPA,GPC5,SYT9,GABRG1,PXK,SYT1,CACNG3,CELSR1,FGF14,GRM1,SORCS2,WWOX,TRPM2,RYR2,NTNG1,UNC13C,LRRK2,SLC1A3,RIMBP2,ILDR1,PRICKLE2,CHD7,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,LGR5,CLSTN2,SEMA5A,BDNF,PRKAR1B,RBMS3,RYK,GRIN2B,ANKRD6,SNAP25,GRIK3,LRFN2,SNAP23,EPHB1,KCNJ3,SIPA1L1,LRRK4,VANGL2,NR4A2,FYN,NR4A1,SMARCA4,HECW1,PMP22,RNF213,FOXO1,KANK1,DCDC2,GABRB1,GRK5,MME,CNKG3,EXOC4,GRIK2,IGSF11,CELF4,KCND2,NAMPT,SLC1A1,GRAP2,ROR1,CADPS,CHRM1,PKP2,PTPRD,PLCL1,EPM2A,CTNBNIP1,NLGN4X,PRKCE,PRKCB,ADCY8,FOXO3,LRRTM1,MITF,KALRN,CCDC88C,EDNRB,KCNC4,GABRA2,STK3,CASK,EDA,ABCA12,APP,DGKB,NRP1,LGR4,PKP4,GRK6,TGFB11,TCF7L2,TRABD2B,ABAT,GRIN2A</p>

			<p>,RIMS3,OPHN1,CCDC88A,CD38,RNF43,GLRA2,NTRK2,ACSL4,GLI3,CACNA1C,STXBP5,CRB1,RAP1A,EPHA5,TNR,CPE,RAPGEF1,CHRNA3,CHRNA5,TBX3,WIF1,CACNA2D1,BRD7,GLRA1,PCSK5,GRID2,RASGRF2,PSMA1,SV2B,TRHDE,SPG11,ADORA2A,CAMK2G,EFNA5,MERTK,CACNG2,MAGI2,NF1,BICC1,CEP89,IFT80,HTR4,EIF4E,RELN,GRM5,NDRG2,NLK,NPHP4,ILIRAP,PPP3CA,GPR176,JRK,KLF7,CXADR,DGKI,SLC24A2,WWTR1,ELAVL4,GPC4,GRM7,RIMS1,GABRA3,NLGNI,P2RX6,PTPRU,SH3KBP1,AKAP7,LRRK1,MAPK8IP2,CACNA1D,DX3X,NSG1,GABRA5,JAK2,SMAD3,NOS1,LTB,MIR320B2,TNF,PANX1,POMC,PRDM15,BLOC1S6,FCHSD2,PHEX,LGR6,ADORA3,ARF1,HMGA2,ANO1,DAAM2,SULF1,LRP4,EFNB2,AMOTL1,ZNF423,CLSTN1,ALPK2,TSHZ3,GRIK4,GSKIP,GABRR2,MLLT3,MYRIP,EGF,ILIRAPL1,KIT,TNFSF8,TRPV4,EFNB1,PTPRO,RAPGEF2,HTR2C,SLC30A8,FGF13,GABRB2,GRM4,NUP155,EPHB2,LRP5,SV2C,CCL3,FGF7,RNF138,SULF2,PACSIN2,SOX4,P2RX1,DDBI,ENPEP,PLAT,TNKS,UNC13A,UNC13B,GLRA3,SOST,NTF3,P2RX7,PLA2G4A,RAPGEF4,AMFR,AR,ADRA1B,DGKZ,MIR433,PRKAA2,TLE4,CDC73,GRIA2,MARK2,PTPRA,FERMT2,HCN4,MARK1,SMPD3,TNN,DAB2,RNF207,SRD5A2,STX3,SYT2,ADAM10,CCL7,DAAMI,FGF12,ITGA3,KMO,LGII,PLCL2,PPM1B,PI NI,TRPM4,BMP6,BTBD9,CHRM3,GAD2,HGF,CACNB2,SNAP29,MACF1,PSMB7,SKI,FMR1,GABRA1,AMPH,GABRR3,JPH4,FAM3D,CACNA1A,ESR2,BTRC,RIT2,EXT1,PRKCG,FBXW11,G3BP1,ADARBI,SCEL,T P63,TBL1X,CASQ2,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAP,APC,NGF,PTGES,RPH3AL,CCL15,GABRG2,MAP2K6,PDE7B,VPS35,C1QTNF3,PPP1R9A,TBX18</p>
GO:0003008	system process	2.7597286123336736e-16	<p>PIEZO2,PLCB1,GABRB3,GABRG3,ABCG8,ASIC2,DTNA,OR11H1,NCAM2,OR4M2,ANK3,SVEP1,RBFOX1,TIMP3,AKAP13,SORBS2,SLC24A3,ITGA2,LOXHD1,KCNQ1,OR4K15,GRIN3A,NRXN1,TMPRSS3,TNNI3K,NRXN3,SLC1A2,EYS,OR8U1,RIMS2,MTPN,SHANK2,GRIAI,CELF2,TRPM3,ANK2,KCND3,CSMD1,MYH1,SCN8A,KCNE1,TMEM108,OR4C12,SHISA6,RYR3,PLCE1,CTNNA2,SLCO3A1,BBS9,RBFOX2,RASGRF1,MYO3A,OR4A5,UTRN,SORCS3,MYOM3,S100B,PRKACB,SLC44A1,OR8K3,AGT,CST2,SHISA9,CHRM5,FBXO32,VTIIA,RCANI,PARK2,DLGAPI,HMCN1,OR4K13,CORO2B,DNAH9,OR4M1,OR4N2,OR52N5,ANKFN1,DBH,SETD3,KCNMA1,FTO,HDAC2,MYO9A,SLIT2,CNTN5,OR2L13,RPS6KA2,MDM2,SLC24A4,OR11G2,OR9Q1,GABRG1,PDE9A,OR8K5,DMD,CACNG3,FSHR,GRM1,JAKMIP1,CTNNA3,RNL5,RYR2,OR2M5,TENM4,CAMTA1,LRRK2,RORB,SLC1A3,STRC,SLC4A4,CHD7,HEXB,MECP2,MTMR2,GSK3B,SLC8A1,CDC14A,TGFB2,ATP1A4,SLC5A3,SLCO2B1,BDNF,PRKAR1B,SNB1,PCDH15,SGCD,GRIN2B,OR6N1,EXT2,RAG1,NR2F2,SNAP25,SGCG,MYH8,AKAP6,CNTNAP2,ACSM3,BCL2,EPHB1,KCNJ3,LRP2,TMEM100,ABCC9,RPGR,FYN,KCNE2,SLC26A7,NR4A1,RCVRN,FOXO1,PDE4D,TBXAS1,ACTN2,ATF6,ATP8A2,DCDC2,GABRB1,MME,NAV2,GRIK2,IGSF11,CELF4,RAP1GDS1,APBB2,KCND2,MYLK3,SCN11A,SLC1A1,UGCG,MTOR,ROR1,RLBP1,CHRM1,PKP2,BBS2,OR51B2,OR51I1,ARL6IP5,ATP1A1,COL11A1,EPM2A,PLN,CTNNBIP1,NLGN4X,OR4K17,OR8J3,GTFF2A1L,VDR,ADCY8,FA M19A4,FOXO3,KALRN,EDNRB,NOX4,COL2A1,TACR3,EYA4,GABRA2,OR4C15,PRCP,CHL1,APP,CALCRL,COL18A1,SERPING1,IMMP2L,THRHB,KCNK2,TSPEAR,EFEMP1,OR10R2,RGS16,AFF2,PARD3,SSPN,ZNF830,ABAT,GRIN2A,CD38,TUB,ADAMTS16,GUCY2F,HDAC4,PDE4B,SRRM4,GLRA2,JAM2,NTRK2,PRKG1,ARR3,CAMK4,OR5L2,CACNA1C,OR11L1,CRB1,DOCK4,USP53,CYSLTR1,KCNJ12,MGLL,DICER1,TAS2R38,TNR,SLC6A17,TAS2R1,CHRNA3,CHRNA5,EP300,SLC16A7,TBX3,CACNA2D1,CACNA2D4,TRIOBP,ATXN1,GLRA1,PCSK5,GRID2,OR4C5,TRHDE,PPP1R12B,ADORA2A,CAMK2G,TAC4,CACNG2,NF1,TFF1,IMPG1,OR5K4,TTC8,RELN,GRM5,RHPN2,MEOX2,PPP3CA,KCNB2,PLS1,SH3GL2,SLC7A1,CXADR,DGKI,SLC24A2,WWTR1,KL,ELAVL4,SLC5A1,GRM7,RIMS1,GABRA3,SLC22A2,NLGN1,P2RX6,SLC22A3,NPR3,LHFPL3,MAPK8IP2,TMPRSS11E,CACNA1D,MYH4,GABRA5,TPCN2,JAK2,SHOX2,SOBP,SMAD3,NOS1,RDH10,TMTC4,MAGT1,NBN,RRH,TNF,SNX5,POMC,TANC1,TMC2,POU6F2,OR11A1,OR5V1,MLIP,BRINP1,KCNK10,SPAG16,ADORA3,CALD1,MYO6,ANO1,GCLC,SULF1,C5AR1,GNAL,CNGB3,TRDN,HERC1,SCN1A,TSHZ3,ABCG2,ARHGEF11,MYH14,GABRR2,MYH13,TMEM150C,MIP,CMA1,KIT,OR7A5,TRPV4,CPS1,DNAH11,PTPRO,RCSD1,HTR2C,NCMAP,UBE3A,FGF13,GABRB2,NUP155,SGCZ,EPHB2,ABCC1,SLITRK6,LRP5,F11R,OR4C6,ARHGAP35,ATP8A1,CCL3,MYO7B,SEMA5B,SULF2,ARF4,PTGER3,SLC2A13,P2RX1,AGTPBP1,ITGA8,KCNE4,CNGA4,ENPEP,MYO3B,PDZD7,CDH23,DAPL1,MEF2A,OCLN,RYR1,SYNM,UNC13B,GLRA3,NTF3,P2RX7,AMFR,AR,CEP250,EYA1,BDKRB1,BDKRB2,HLA-DRA,ADRA1B,BHLHB9,SEMA3A,MEIS2,MOGAT2,PDE5A,REEP2,SM PX,PDLIM5,TRIM72,FERMT2,GNAO1,HCN4,SCNN1A,CLN6,DAB2,R</p>

			<p>NF207,FGF12,ITGA3,OR10K2,OR4C46,STAC,LRIG1,MYOM1,TRPM4,SHROOM4,ABCC2,BMP6,BTBD9,CHRM3,SMTNL2,CNGB1,TMOD1,HGF,MYLK,OBP2A,FLI1,SLC13A3,CACNB2,ELN,NFASC,NOS1AP,INSR,PDE3A,CHM,CTDP1,FMR1,PAX3,GABRA1,GABRR3,RPGRI1,ARHGAP42,JPH4,PDE6B,PPARA,TTN,ZFHX2,CORIN,GNA13,MYH7,SLC22A5,QRFP,TRPM1,SCN9A,MYBPC2,TECTA,EXT1,MYH6,PRKCG,SCO2,TYMP,UMOD,KLHL3,OR51L1,ADARBI,MYH11,OR4C16,AMOT,CST1,HPN,TBL1X,USH2A,CASQ2,DLGAP2,MYOM2,NFAT5,OR2T4,TAS1R1,SLC7A8,TUSC3,ITGA1,NGF,PRKCA,PTGES,VLDLR,ASB3,GABRG2,MAP2K6,NCALD,SLC16A12,SPTBN4,VPS35,C1QTNF3,TBX20,TBX18</p>
GO:0007165	signal transduction	3.208052193240009e-16	<p>IGHV1OR21-1,ADCY2,TPTE,PLCB1,CMKLR1,DAB1,GABRR3,CDC42EP3,GABRG3,MAPK14,ABCG8,DSCAM,TPTE2,SH3RF3,ASIC2,CTBP2,DTNA,OR11H1,HUNK,NPY4R,LYPD6,OR4M2,PTPRT,ANK3,IGHV4-31,DCC,IGHV3-64,SVEP1,WLS,TIMP3,DUSP22,AKAP13,FBLN1,ERG,GRIK1,GPR139,IGHV1OR15-9,SORBS2,IGHV4OR15-8,NPHP3,ITGA2,RGS6,KCNQ1,GABBR2,EPHA6,OR4K15,TMEM117,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1,DOK5,NRXN3,RAB5A,DOCK2,CTNND2,PCNT,MS4A1,OR8U1,RIMS2,SHANK2,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,TGFBF3,FSTL4,CDH13,RNF152,ANK2,NXN,C5SNK2A1,TF,PIK3C2B,TMEM108,CHEK2,OR4C12,GADD45A,PCP4,PLXNA4,FLRT2,GPC3,NRG1,PSMB2,SHISA6,RFFL,IL4R,ALDH1A2,MCTP1,NLN,PLCE1,SH3RF2,UNC5D,KSR2,GLP2R,STK38L,SEMA6D,CARR1,CCR3,RBFOX2,DTX4,MC2R,TIAM1,RHOC,LDLRAD4,RGS7BP,ACSGRF1,DPYSL2,GRID1,CBFA2T2,IL1RAPL2,OR4A5,NKD1,SCAI,MX1,BTN2A1,ALK,PTPRE,PIK3C3,SORCS3,ZNF536,FAM3B,PLCB4,ERC1,FBXO31,RAB7A,RGL2,ARID5B,S100B,ROBO2,ZNF366,C2CD3,EPHA3,PRKACB,DCLK1,PXDN,COL15A1,CRNN,LEMD3,OR8K3,AGT,SHISA9,CHRM5,WDR11,RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,DLGAP1,CDC5L,KIR2DL1,KIR2DL4,OR4K13,BPIFB1,CYBB,MCTP2,GNB4,OR4M1,OR4N2,SEMA3D,NTN1,OR52N5,TRIM22,TRIM5,KCNH1,TKX,GPC6,DBH,ITSN1,TNS3,ZNRF3,RIN3,TRIO,HDAC2,HTRA1,MYO9A,SLIT2,PDCD6,OR2L13,RPS6KA2,STXBP4,GPC5,LCMT1,IGF1R,MDM2,SLC24A4,SMAD1,OR11G2,OR9Q1,TMPRSS6,RAPGEF5,GABRG1,NR3C2,PTPRG,PDE9A,OR8K5,DMD,KCTD8,STK33,CACNG3,SIPAL13,TEAD1,CELSR1,FGF14,FSHR,GSG1L,GRIA4,GRM1,FMN2,MAEL,PRKAR2A,SKAPI,SORCS2,INPP5A,STK24,DCDC1,WDR83,WWOX,ATRX,PARP16,TRPM2,CNIH3,RYR2,OR2M5,TENM4,UNC13C,CAMTA1,LRRK2,MAPK10,RORB,IGFBP7,NTRK3,RORA,CD8B,IQCJ-SCHIP1,PRICKLE2,ANKS1A,RNF165,DISC1,KCTD9,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,MAGI3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,ATP1A4,VA3,ANKS1B,PLCD3,S100A11,SEMA5A,BDNF,LLGL2,PRKCH,RBMS3,RYK,ZDHHC17,PLCXD3,SGCD,WASF1,GRIN2B,KDM4C,OR6N1,OTUD7A,EXT2,LAMA3,SIK2,ANKRD6,ARHGAP8,NR2F2,PRR5,PRR5-ARHGAP8,PTGFR,NR5A2,PAQR8,PITPNC1,PML,ARHGAP12,CORO2A,AKAP6,TNSI,FBN1,GRIK3,IGHV3-16,PLXNA2,TAOK3,BCL2,CHMP4C,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,IL12RB2,SIPAL1L1,SKAP2,LRP2,TMEM100,ITPR2,VANGL2,CDH6,DEPTOR,NR4A2,ARHGEF10,EPHA7,PSD3,FYN,GNRHR,LRRK69,ADAMTS18,CHN1,NR4A1,SMARCA4,CD44,HECW1,NEU3,RCVRN,RNF213,FOXO1,PDE4D,PYY,KANK1,ACTN2,ARHGEF3,ATF6,DCDC2,GABRR1,GRK5,TNMD,CSNK1G3,GRIK2,IGSF11,CELF4,UNC5C,APBB2,NAMPT,SLC1A1,UGCG,RARB,REG,RF4X,GNG4,NLRP12,GRAP2,MTOR,ROR1,CHRM1,CTDSP2,DDX21,BMPER,PTPRD,RASGEF1B,TIAM2,BBS2,OR51B2,OR51I1,PLCL1,ARL6IP5,EPM2A,PLN,CTNNBIP1,SOX8,ZMYND11,DIDO1,DSG4,IFT88,NLGN4X,OR4K17,OR8J3,PRKCE,EIF2S1,HELLS,PRKCB,VDR,ADCY8,EFHB,FAM19A4,FOXO3,MITF,CAPN3,KALRN,PJAI,TTL12,CCDC88C,DLC1,EDNRB,OASL,ROBO1,RXFP1,BNIP3L,FLT1,NOX4,CDH17,COL2A1,MAP3K7,MAPK9,NR3C1,PREX2,TACR3,TRAF3IP2,CR1,EYA4,GABRA2,OR4C15,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,RAB30,ARHGAP15,CHL1,EDA,IGHV4-28,APP,CALCRL,DGKB,NRP1,PTPRM,UACA,ARHGEF18,ELMO1,LGR4,LINC00473,TENM2,ADTRP,KAT5,RANBP10,THRB,KCNK2,SEMA3C,ADAM17,MAP3K5,TSPEAR,CDC42BPG,IGF2R,ATF2,GPR78,GRK6,NR2C2,PEX5L,PIK3R5,EFEMP1,ROSI,TGFB11,DOT1L,KPNB1,OR10R2,RGS16,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,BICD1,ITGA11,PARD3,RALGAPA2,TLK2,TRAF3,ZNF830,ABAT,ATRNL1,DOCK9,GRIN2A,GRIP1,SGK2,KIFAP3,OPHN1,BCLAF1,SGMS1,CASP5,CCDC88A,CD38,FAM83B,MOB3B,RIN2,RNF43,TUB,ALCAM,CHRD1,RNF126,STK36,BCL2L1,GUCY2F,HDAC4,MYO16,PDE4B,DNMT1,GHR,GLRA2,</p>

			<p> MAPRE2,NTRK2,PRKG1,FAM83G,CDC42BP4,GNG2,BRD4,PTPDC1, RASGRP1,STARD13,ARR3,CAMK4,LY86,RABGEF1,RGL1,SPRED2,GL I3,OR5L2,ZNF207,CACNA1C,KIF16B,OR11L1,DOCK4,RAP1A,SAFB2, TGFBRI,CYSLTR1,MGLL,PRDX4,ADAM12,DICER1,EPHA5,LCP2,TA S2R38,THEMIS,NCOA5,TAS2R1,TENM3,CHST11,CPE,IL16,ITGB3BP, PTTG1IP,RAPGEF1,CHRNA3,CHRNA5,EP300,WIF1,CYP7B1,GRAMD 4,BRD7,GAB2,GLRA1,TP73,COL4A6,GRID2,IFNGR2,OR4C5,PIBF1,R ASGRF2,PSMA1,TRHDE,FHIT,FLNB,PPP1R12B,ADORA2A,ADRBK2, CABIN1,EFNA5,MERTK,RALGPS1,TAC4,CACNG2,GUCY2C,MAGI2, NF1,RALGPS2,RGS7,TFF1,SORL1,STRN3,ARHGAP6,ASB13,BICC1,BI D,ELK3,IFT80,OR5K4,TEAD4,TRIM59,DMRT1,HTR4,LZTR1,ASXL1,P OR,RELN,TNFRSF11B,GRM5,IGHV4- 4,IL18R1,IL1RL1,SELE,MGAT5,NDRG2,RHPN2,IGHV3OR16- 12,MAP3K13,NLK,NPHP4,RALA,ADCYAP1R1,IL1RAP,FBXL17,JAG1, PPP3CA,GPR176,JRK,SH3GL2,SNX25,DGKI,MAS1,PER1,SLC24A2,W WTR1,KL,CBLB,DOCK10,PLSCR1,CNTN1,DOK6,GPC4,GRM7,RIMS1 ,TRIM16,WDR59,GABRA3,GPSM2,KAT7,MAPK4,ITGAE,ILGN1,P2RX 6,PDE1C,PTPRU,ARHGAP5,BTBD11,RPS20,NPR3,AKAP7,LRRK1,MA PK8IP2,VEPH1,CACNA1D,DDX3X,NSG1,ARAP2,CNOT7,GMD5,MAM L3,GABRA5,PDE7A,TPCN2,ZNF622,ARHGAP39,JAK2,SHOX2,SPNS2, AHI1,SMAD3,BALAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,PLXNB1 ,TMTC4,AATF,CDK1,DCBLD2,HDAC7,ITPK1,LTB,MRGPRG,NBN,RR H,SLC39A10,TNF,OVOL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,BMP1 5,DLG5,NUDT4,AFAP1,LGR6,MAG11,OR11A1,OR5V1,RXF4,SHC2,K CNK10,PLCH1,STK32B,ADORA3,CLEC4A,HMGA2,MYO6,AGO3,DO CK1,GRIA3,IGLC2,IJLL5,MUC5AC,RUFY1,STK32C,ANO1,GCLC,PM EPA1,UBE2V1,EPS8,LTBP1,DAAM2,SMOC2,SULF1,C5AR1,DEF6,GN AL,LRP4,PIK3R3,ARHGEF6,CNGB3,CNTN6,EFNB2,AMOTL1,NET1,Z NF423,CD14B,SELP,ALPK2,CTNNA1,CUL2,NSG2,TENM1,ARHGEF 11,GRIK4,GSKIP,PRKAR1A,TNFRSF19,ARHGAP11B,DYNC2H1,GAB RR2,MLLT3,SIPA1L2,CD109,EGF,IL1RAPL1,KIT,SLIT3,TNFSF8,UBR 2,BLM,CTNNA1,OR7A5,PIK3C2G,TRPV4,VWC2,CC2D2A,EDAR,EF NB1,PTPRO,RAPGEF2,STK32A,ESR1,HTR2C,JAK1,SEMA3E,UBE3A, DNMBP,FGF13,GABRB2,GRM4,MARVELD3,AKAP10,EPHB2,IGHV3- 72,MECOM,NDFIP2,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,FNI P1,LRP5,PTH2R,RAPGEF6,SHCBP1,RPS27L,SLAMF1,ABL2,BSG, PDC5,F11R,FARP2,GAS8,OR4C6,ARHGAP35,CD2AP,COMMD7,NSU N2,PTPRK,CCL3,FGF7,LAMA1,PREX1,RNF138,SEMA5B,SPRED3,VW F,ARHGAP25,FGD4,GPR158,IL20RA,ITGA9,PSG9,SULF2,MYH9,PTG ER3,SLC39A12,SOX4,ST18,CAB39L,GARNL3,NEDD9,P2RX1,PDE1A, PDGFD,PIK3CD,STOML3,UBE2N,ASGR2,ITGA8,PUM1,DDDB1,ENPE P,IRAK2,KDM3A,PLAT,TNKS,UNC13A,WDPCC,ADCY9,AUTS2,DAPL 1,FGFR1,MEF2A,PDE11A,RGS3,UNC13B,GLRA3,ITGBL1,RASSF3,SO ST,IL23R,ITGB7,JMY,NTF3,P2RX7,RAPGEF4,SCUBE1,SORCS1,TEX1 4,RASA3,RCAN2,ZDHHC9,AMFR,APIP,AR,SUFU,TRERF1,EYA1,IFNA 8,IL1RL2,SRPK2,BDKRB1,BDKRB2,ADRA1B,ARMC9,DGKZ,IFI27L1, OGN,PRKAA2,SEMA3A,TLE4,ARHGAP10,CDC73,GNB5,GRIA2,MAR K2,PDE5A,ZMIZ1,FLT3,PPARGC1B,PTPRA,SRGAP3,TRIM72,ESSRG, FERMT2,GNAO1,LTBR,MAP2K5,MARK1,SMPD3,TNN,DAB2,GPR55, LCPI,ACTN4,ADAM10,CCL7,DAAMI,DRG2,EEF1E1,EEF1E1- BLOC1S5,FGF12,ITGA3,NREP,OR10K2,OR4C46,PLCL2,PPM1B,QRI CHI,RFTN1,STAC,MYOM1,PIN1,RPS6KA6,TRPM4,CD226,ERLIN1,G PR141,PIP5K1B,STK38,BMP6,CHRM3,CIT,CNGB1,TGFA,WDR12,CR EM,G3BP2,GAS2,HGF,PKP1,RALGAP1,RASSF8,RGS12,CALCR,CE NPF,SCUBE3,SH3BP5,TLK1,CNKSR2,MAST4,NCAM1,NOS1AP,PI4K A,RALGDS,ARHGAP28,IL18RAP,INSR,MACF1,PAK1,PDE3A,PSMB7, SKI,AKT3,CHM,ELF1,ENPP1,FMR1,LITAF,THEM4,CHFR,GABRA1,I GHV1-69,PRKX,RRAGC,ULK4,BMF,EVC,GABRR3,IDE,IGHV1- 46,MAD1L1,MFNG,AIM2,ARHGAP42,CSF2RB,EPG5,EVC2,LRRN2,P DE6B,PPARA,SORT1,TNFAIP8L3,TTN,FAM3D,GNA13,PPP1R13B,TA F1,CHD5,FNIP2,FUT8,QRFP,S1PR3,SPRED1,TRPM1,AKR1C2,CHSY 1,ESR2,PRDM16,PTPRF,ZNF451,BTRC,CCDC3,DEFA1B,DEFA3,IGH V1- 18,OPTN,PTPRR,RIT2,EXT1,GNG12,IFT81,MDM4,NCOA1,PRKCG,P RLR,TYMP,UMOD,DOCK7,FBXW11,G3BP1,ICK,INPP4A,OR51L1,TD GF1,STAT4,TREM1,KCNC2,OR4C16,PRKCQ,SCEL,STAT3,TP63,USP7 ,AMOT,BRIP1,DOCK3,PAK3,PIK3R2,STK17B,TBL1X,BLNK,CASQ2,D TNBP1,RAP1B,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,OR2T4,TASIR1, ALPK1,GTPBP1,IL10RB,MAPKAPK2,APC,BMPRI1,ITGA1,KIAA0319, NGF,PRKCA,PTGES,UBASH3B,VLDLR,ADAMTS20,ASB3,GPR75,MT MR4,OSGIN2,PILRB,ABII,CTSH,FCRL5,NCAPG2,RPH3AL,SRGAP1,T RBV6-8,USP18,CCL14,CCL15,CCL15- CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,NCALD,RIC8B,CLASP </p>
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			2,MAP2K1,PDE7B,RGMB,SOS1,VPS35,C1QTNF3,FGF1,TBX20,CRAD D,DGKK,NLRC5,PPP1R9A,RGN,RREB1,TBX18,VSTM1
GO:0099537	trans-synaptic signaling	3.4385090807965705e-16	PLCB1,GABRB3,GABRG3,ASIC2,CTBP2,DTNA,CACNA1E,DCC,SYN3,GRIK1,GABBR2,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,DLG2,LRRK4C,TMEM108,SHISA6,MCTP1,RASGRF1,GRID1,SLC6A2,SORCS3,PLCB4,ERC1,CNTN4,S100B,PTPRN2,CNTNAP4,AGT,ERC2,SHISA9,CHRM5,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,DBH,PCDH17,APBA2,CDH8,RPS6KA2,SYT9,GABRG1,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,RIMBP2,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,SNAP23,EPHB1,SIPA1L1,LRRK4,FYN,NR4A1,PMP22,GABRB1,MME,EXOC4,GRIK2,IGSF11,CELF4,KCND2,SLC1A1,CADPS,CHRM1,PTPRD,PLCL1,NLGN4X,PRKCE,PRKCB,ADCY8,LRRTM1,KCNC4,GABRA2,CASK,APP,DGKB,ABAT,GRIN2A,RIMS3,OPHN1,CD38,GLRA2,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GLRA1,GRID2,RASGRF2,SV2B,SPG11,ADORA2A,CACNG2,NF1,CEP89,HTR4,EIF4E,RELN,GRM5,IL1RAP,PPP3CA,GPR176,DGKI,SLC24A2,ELAVL4,GRM7,RIMS1,GABRA3,NLGN1,P2RX6,AKAP7,MAPK8IP2,NSG1,GABRA5,JAK2,NOS1,MIR320B2,TNF,BLOC1S6,FCHSD2,ARF1,CLSTN1,TSHZ3,GRIK4,GABRR2,IL1RAPL1,KIT,RAPGEF2,HTR2C,GABRB2,GRM4,EPHB2,SV2C,PACSIN2,P2RX1,PLAT,UNC13A,UNC13B,GLRA3,NTF3,P2RX7,DGKZ,MIR433,GRIA2,PTPR,STX3,SYT2,FGF12,KMO,LGII,PLCL2,BTBD9,CHRM3,GAD2,CACNB2,SNAP29,FMR1,GABRA1,AMPH,GABRR3,JPH4,CACNA1A,RIT2,EXT1,PRKCG,ADARB1,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,GABRG2,PDE7B,PPP1R9A
GO:0010646	regulation of cell communication	4.12405945562908e-16	TPTE,PLCB1,CMKLR1,DAB1,MAPK14,TPTE2,SH3RF3,CTBP2,LYPD6,PTPRT,ANK3,DCC,WLS,SYN3,TIMP3,DUSP22,AKAP13,FBLN1,GRIK1,NPHP3,ITGA2,RGS6,VRK2,GRIN3A,NRXN1,ZRANB1,DOK5,NRXN3,RAB5A,DOCK2,CTNND2,RIMS2,SHANK2,GRIA1,NRG3,SMYD2,CLEC16A,TGFBR3,FSTL4,CDH13,RNF152,ANK2,LRRK4C,NXN,CSNK2A1,TMEM108,CHEK2,GADD45A,GPC3,NRG1,PSMB2,SHISA6,RFFL,MCTP1,PLCE1,SH3RF2,CCR1,CFTR,TIAM1,RHOC,LDLRAD4,RGS7BP,RASGRF1,GRID1,CBFA2T2,NKD1,SCAI,ALK,PTPRE,SORCS3,ZNF536,PLCB4,ERC1,RAB7A,CNTN4,RGL2,S100B,ROBO2,ZNF366,C2CD3,PRKACB,CNTNAP4,PXD,CRNN,LEMD3,AGT,ERC2,SHISA9,WDR11,CDH11,RCAN1,CDH2,PARK2,FHL2,DLGAP1,LAMA2,BPIFB1,MCTP2,TRIM22,TRIM5,TXK,GPC6,DBH,ITSN1,PCDH17,ZNRF3,TRIO,APBA2,HDAC2,HTRA1,MYO9A,SLIT2,PDCD6,STXBP4,GPC5,LGCT1,IGF1R,MDM2,SLC24A4,SYT9,TMPRSS6,NR3C2,PXK,DMD,KCTD8,SYT1,CACNG3,SIPA1L3,FSHR,SGS1L,GRM1,SORCS2,WDR83,WWOX,TRPM2,CNIH3,RYR2,NTNG1,UNC13C,CAMTA1,LRRK2,SLC1A3,IGFBP7,NTRK3,RORA,ILDR1,IQCJ-SCHIP1,ANKS1A,CHD7,RNF165,DISC1,TPRG1L,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,MAGI3,PRKD1,ERCC6,OGT,TGFB2,CLSTN2,VAI3,SEMA5A,BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RYK,ZDHHC17,WASF1,GRIN2B,KDM4C,OTUD7A,SIK2,ANKRD6,ARHGAP8,PRR5,SNAP25,PML,ARHGAP12,AKAP6,FBN1,GRIK3,LRFN2,TAOK3,BCL2,RALBP1,ZNF675,ARHGAP24,EPHB1,SIPA1L1,LRP2,TMEM100,LRRK4,DEPTOR,NR4A2,ARHGEF10,EPHA7,PSD3,FYN,CHN1,SMARCA4,CD44,HECW1,NEU3,RNF213,FOXO1,PDE4D,KANK1,ARHGEF3,ATF6,DCDC2,GRK5,MME,TNMD,CSNK1G3,GRIK2,IGSF11,CELF4,SLC1A1,UGCG,RFX4,GNG4,NLRP12,MTOR,ROR1,CTDSPL2,DDX21,BMPER,PTPRD,TIAM2,PLCL1,ARL6IP5,CTNNBIP1,ZMYND11,NLGN4X,PRKCE,HELLS,PRKCB,ADCY8,EFHB,FAM19A4,FOXO3,LRRTM1,CAPN3,KALRN,PJA1,TTL12,CCDC88C,DLC1,OASL,ROBO1,FLT1,NOX4,COL2A1,MAP3K7,MAPK9,PREX2,TRAF3IP2,EYA4,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,ARHGAP15,CASK,EDA,ABCA12,APP,DGKB,NRP1,UACA,ARHGEF18,LGR4,LINC00473,ADAM17,MAP3K5,TSPEAR,GRK6,PEX5L,PIK3R5,ROS1,TGFB11,DOT1L,RGS16,TCF7L2,TNFRSF10B,TRABD2B,BICD1,RALGAP2,TRAF3,ABAT,GRIN2A,RIMS3,OPHN1,BCLAF1,SGMS1,CCDC88A,CD38,MOB3B,RNF43,TUB,CHRD1,RNF126,STK36,BCL2L1,GUCY2F,PDE4B,GHR,MAPRE2,NTRK2,ACSL4,BRD4,RASGRP1,STARD13,ARR3,LY86,RABGEF1,SPRED2,GLI3,STXBP5,RAP1A,SAFB2,TGFB1,MGLL,EPHA5,TNR,NCOA5,CHST11,PTTG1IP,RAPGEF1,CHRNA3,CHRNA5,EP300,WIF1,CYP7B1,GRAMD4,GLRA1,TP73,GRID2,IFNGR2,PIBF1,RASGRF2,PSMA1,ADORA2A,ADRBK2,EFNA5,RALGPS1,CACNG2,MAGI2,NF1,RALGPS2,RGS7,SORL1,STRN3,ARHGAP6,BICC1,BID,IFT80,TRIM59,DMRT1,LZTR1,ASXL1,EIF4E,POR,RELN,GRM5,IL18R1,MGAT5,NDRG2,MAP3K13,NLK,NPHP4,ADCYAP1R1,FBXL17,JAG1,PPP3CA,JRK,KLF7,SNX25,CXADR,DGKI,PER1,SLC24A2,WWTR1,KL,CBLB,ELAVL4,PLSCR1,DOK6,GPC4,GRM7,RIMS1,TRIM16,WDR59,NLGN1,PTPRU,ARHGAP5,RP

			<p>S20,AKAP7,LRRK1,MAPK8IP2,VEPH1,DDX3X,NSG1,CNOT7,ZNF622,ARHGAP39,JAK2,SHOX2,SMAD3,BALAP2L1,CD300A,PLXNB1,AATF,HDAC7,MIR320B2,SLC39A10,TNF,OVOL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,BMP15,DLG5,AFAP1,LGR6,SHC2,ARF1,AGO3,ANO1,GCLC,PMEP1,UBE2V1,EPS8,LTBP1,DAAM2,SMOC2,SULF1,CSAR1,DEF6,LRP4,CNTN6,TRDN,NET1,ZNF423,CLSTN1,SELP,ALPK2,CTNNA1,TENM1,TSHZ3,ARHGEF11,GRIK4,GSKIP,TNFRSF19,ARHGAP11B,DYNC2H1,MLLT3,MYRIP,SIPA1L2,CD109,EGF,KIT,SLIT3,UBR2,TRPV4,VWC2,EDAR,PTPRO,RAPGEF2,ESR1,HTR2C,SLC30A8,UBE3A,DNMBP,GRM4,MARVELD3,EPHB2,MECOM,NDFIP2,DAPK1,ERBB4,FER,MAP3K3,FNIP1,LRP5,SLAMF1,ABL2,DEPDC5,F11R,GAS8,ARHGAP35,CD2AP,CCL3,PREX1,SPRED3,VWF,ARHGAP25,FGD4,IL20RA,SULF2,PACSIN2,SOX4,GARNL3,P2RX1,PDGFD,PIK3CD,UBE2N,ITGA8,PUM1,IRAK2,PLAT,TNKS,UNC13A,AUTS2,FGFR1,PDE11A,RGS3,UNC13B,SOST,IL23R,NTF3,P2RX7,SCUBE1,RASA3,AMFR,APIP,AR,SUFU,EYA1,IFNA8,BDKRB2,ADRA1B,ARMC9,DGKZ,MIR433,PRKAA2,SEMA3A,TLE4,ARHGAP10,CDC73,PDE5A,ZMIZ1,FLT3,PTPRA,SRGAP3,TRIM72,FERMT2,LTBR,MAP2K5,TNN,DAB2,GPR55,STX3,ACTN4,DAM10,CCL7,EEF1E1,EEF1E1-</p> <p>BLOC1S5,FGF12,ITGA3,KMO,LG11,NREP,PLCL2,PPM1B,PIN1,RPS6KA6,TRPM4,CD226,PIP5K1B,STK38,BMP6,BTBD9,CIT,TGFA,GAS2,HGF,RALGAP1,RGS12,CALCR,SCUBE3,CACNB2,CNKS2,NCAM1,NOS1AP,ARHGAP28,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,ELF1,ENPP1,FMR1,LITAF,RRAGC,ULK4,EVC,MAD1L1,MFNG,ARHGAP42,JPH4,PPARA,TNFAIP8L3,FAM3D,GNA13,TA1,CACNA1A,CHD5,SPRED1,AKR1C2,CHSY1,ESR2,PRDM16,ZNF451,BTRC,CCDC3,OPTN,PTPRR,RIT2,IFT81,NCOA1,PRKCG,PRLR,TYMP,FBXW11,G3BP1,TGDF1,PRKCQ,SEEL,STAT3,TP63,USP7,AMOT,DOCK3,PAK3,PIK3R2,TBL1X,CASQ2,DTNBP1,RAP1B,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,SNCAIP,ALPK1,IL10RB,APC,BMPRI1,ITGA1,KIAA0319,NGF,PRKCA,UBASH3B,ADAMTS20,MTMR4,CTSH,NCAPG2,RPH3AL,USP18,CCL14,CCL15,EDA2R,GPR21,IL6R,MAP2K6,RIK8B,MAP2K1,SOS1,VPS35,C1QTNF3,FGF1,TBX20,CRADD,NLR3,PPP1R9A,RGN,TBX18</p>
GO:0023051	regulation of signaling	5.058954074399642e-16	<p>TPTE,PLCBI,CMKLR1,DAB1,MAPK14,TPTE2,SH3RF3,CTBP2,LYPD6,PTPRT,DCC,WLS,SYN3,TIMP3,DUSP22,AKAP13,FBLN1,GRIK1,NPHP3,ITGA2,RGS6,VK2,GRIN3A,NRXN1,ZRANB1,TNNI3K,DOK5,NRXN3,RAB5A,DOCK2,CTNND2,RIMS2,SHANK2,GRI1A1,NRG3,SMYD2,CLEC16A,TGFBF3,FSTL4,CDH13,RNF152,ANK2,LRRC4C,NXN,CSNK2A1,TMEM108,CHEK2,GADD45A,GPC3,NRG1,PSMB2,SHISA6,RFFL,RYR3,MCTP1,PLCE1,SH3RF2,CCR1,CFTR,TIAM1,RHOC,LDLRAD4,RGS7BP,RASGRF1,GRID1,CBFA2T2,NKD1,SCAI,ALK,PTPRE,SORCS3,ZNF536,PLCB4,ERC1,RAB7A,CNTN4,RGL2,S100B,ROBO2,ZNF366,C2CD3,PRKACB,CNTNAP4,PXDN,CRNN,LEMD3,AGT,ERC2,SHISA9,WDR11,CDH11,RCAN1,CDH2,PARK2,FHL2,DLGAP1,LAMA2,BPIFB1,MCTP2,TRIM22,TRIM5,TKX,GPC6,DBH,ITSN1,PCDH17,ZNRF3,TRIO,APBA2,HDAC2,HTRA1,MYO9A,SLIT2,PDCC6,STXBP4,GPC5,LCMT1,IGF1R,MDM2,SLC24A4,SYT9,TMPRSS6,NR3C2,PXK,DMD,KCTD8,SYT1,CACNG3,SIPA1L3,FSHR,SGS1L,GRM1,SORCS2,WDR83,WWOX,TRPM2,CNIH3,RYR2,NTNG1,UNC13C,CAMTA1,LRRK2,SLC1A3,IGFBP7,NTRK3,RORA,ILDR1,IQCJ-</p> <p>SCHIP1,ANKS1A,CHD7,RNF165,DISC1,TPRG1L,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,SLC8A1,MAGI3,PRKD1,ERCC6,OGT,TGFB2,CLSTN2,VAV3,SEMA5A,BDNF,LLGL2,PRKAR1B,PRKCH,RBMS3,RYK,ZDHHC17,WASF1,GRIN2B,KDM4C,OTUD7A,SIK2,ANKRD6,ARHGAP8,PRR5,SNAP25,PML,ARHGAP12,AKAP6,FBN1,GRIK3,LRFN2,TAOK3,BCL2,RALBP1,ZNF675,ARHGAP24,EPHB1,SIPA1L1,LRP2,NSF,TMEM100,LRRC4,DEPTOR,NR4A2,ARHGEF10,EPHA7,PSD3,FYN,CHN1,SMARCA4,CD44,HECW1,NEU3,RNF213,FOXO1,PDE4D,KANK1,ARHGEF3,ATF6,DCDC2,GRK5,MME,TNMD,CSNK1G3,GRIK2,IGSF11,CELF4,SLC1A1,UGCG,RFX4,GNG4,NLRP12,MTOR,ROR1,CTDSPL2,DDX21,BMPER,PTPRD,TIAM2,PLCL1,ARL6IP5,CTNNBIP1,ZMYND11,NLGN4X,PRKCE,HELLS,PRKCB,ADCY8,EFHB,FAM194A,FOXO3,LRRTM1,CAPN3,KALRN,PJA1,TTL12,CCDC88C,DLC1,OASL,ROBO1,FLT1,NOX4,COL2A1,MAP3K7,MAPK9,PREX2,TRAF3IP2,EYA4,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,ARHGAP15,CASK,EDA,ABCA12,APP,DGKB,NRP1,UACA,ARHGEF18,LGR4,LINC00473,ADAM17,MAP3K5,TSPEAR,GRK6,PEX5L,PIK3R5,ROS1,TGFB11,DOT1L,RGS16,TCF7L2,TNFRSF10B,TRABD2B,BICD1,RALGAP2,TRAF3,ABAT,GRI2A,RIMS3,OPHN1,BCLAF1,SGMS1,CCDC88A,CD38,MOB3B,RNF43,TUB,CHRD1,RNF126,STK36,BCL2L1,GUCY2F,PDE4B,GHR,MAPRE2,NTRK2,ACSL4,BRD4,RASGRP1,STARD13,ARR3,LY86,RABGEF1,SPRED2,GLI3,KIF16B,STXBP5,RAP1A,SAFB2,TGFBF1,MGLL,EPHA5,TNR,NCOA5,CHST11,PTTG1IP,RAPGEF1,CHRNA3,CHRNA5,EP300,</p>

			<p>WIF1,CYP7B1,GRAMD4,GLRA1,TP73,GRID2,IFNGR2,PIBFI,RASGRF2,PSMA1,ADORA2A,ADRBK2,EFNA5,RALGPS1,CACNG2,MAGI2,NF1,RALGPS2,RGS7,SORL1,STRN3,ARHGAP6,BICC1,BID,IFT80,TRIM59,DMRT1,LZTR1,ASXL1,EIF4E,POR,RELN,GRM5,IL18R1,MGAT5,NDRG2,MAP3K13,NLK,NPHP4,ADCYAP1R1,FBXL17,JAG1,PPP3CA,JRK,KLF7,SNX25,DGKI,PER1,SLC24A2,WWTR1,KL,CBLB,ELAVL4,PLSCR1,DOK6,GPC4,GRM7,RIMS1,TRIM16,WDR59,NLGN1,PTPRU,ARHGAP5,RPS20,AKAP7,LRRK1,MAPK8IP2,VEPH1,DDX3X,NSG1,CNO77,ZNF622,ARHGAP39,JAK2,LMO7,SHOX2,SMAD3,BAIAP2L1,CD300A,PLXNB1,AATF,HDAC7,MIR320B2,SLC39A10,TNF,OVOL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,BMP15,DLG5,AFAP1,LGR6,SHC2,ARF1,AGO3,ANO1,GCLC,PMEP1,UBE2V1,EPH8,LTBP1,DAAM2,SMOC2,SULF1,C5AR1,DEF6,LRP4,CNTN6,NET1,ZNF423,CLSTN1,SELP,ALPK2,CTNNA1,TENM1,TSHZ3,ARHGEF11,GRIK4,GSKIP,TNFRSF19,ARHGAP11B,DYNC2H1,MLLT3,MYRIP,SIPA1L2,CD109,EGF,KIT,SLIT3,UBR2,TRPV4,VWC2,EDAR,PTPRO,RAPGEF2,ESR1,HTR2C,SLC30A8,UBE3A,DNMBP,GRM4,MARVELD3,EPHB2,MECOM,NDFIP2,DAPK1,ERBB4,FER,MAP3K3,FPN1,LRP5,SLAMF1,ABL2,DEPDC5,F11R,GAS8,ARHGAP35,CD2AP,CCL3,PREX1,SPRED3,VWF,ARHGAP25,FGD4,IL20RA,SULF2,PACSIN2,SOX4,GARNL3,P2RX1,PDGFRD,PIK3CD,UBE2N,ITGA8,PUM1,IRAK2,PLAT,TNKS,UNC13A,AUTS2,FGFR1,PDE11A,RGS3,UNC13B,SOST,IL23R,NTF3,P2RX7,SCUBE1,RASA3,AMFR,APIP,AR,SUFU,EYA1,IFNA8,BDKRB2,ADRA1B,ARMC9,DGKZ,MIR433,PRKAA2,SEMA3A,TLE4,ARHGAP10,CDC73,PDE5A,ZMIZ1,FLT3,PTPRA,SRGAP3,TRIM72,FERMT2,LTBR,MAP2K5,TNN,DAB2,GPR55,STX3,ACTN4,ADAM10,CCL7,EEF1E1,EEF1E1-BLOC1S5,FGF12,ITGA3,KMO,LG11,NREP,PLCL2,PPM1B,PIN1,RPS6KA6,TRPM4,CD226,PIP5K1B,STK38,BMP6,BTBD9,CIT,TGFA,GAS2,HGF,RALGAP1,RGS12,CALCR,SCUBE3,CACNB2,CNKSR2,NCAM1,NOS1AP,ARHGAP28,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,ELF1,ENPP1,FMR1,LITAF,RRAGC,ULK4,EVC,MAD1L1,MFNG,ARHGAP42,JPH4,PPARA,TNFAIP8L3,CORIN,FAM3D,GNAI3,TAFA1,CACNA1A,CHD5,SPRED1,AKR1C2,CHSY1,ESR2,PRDM16,ZNF451,BTRC,CCDC3,OPTN,PTPRR,RIT2,IFT81,NCOA1,PRKCG,PRLR,TYMP,FBXW11,G3BP1,TDGF1,PRKCQ,SCEL,STAT3,TP63,USP7,AMOT,DOCK3,PAK3,PIK3R2,TBL1X,DTNBP1,RAP1B,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,SNCAIP,ALPK1,IL10RB,APC,BMPRI1,ITGA1,KIAA0319,NGF,PRKCA,UBASH3B,ADAMTS20,MTMR4,CTSH,NCAPG2,RPH3A,USP18,CCL14,CCL15,EDA2R,GPR21,IL6R,MAP2K6,RIK8B,MAP2K1,SOS1,VP535,C1QTNF3,FGF1,TBX20,CRADD,NLRC5,PPP1R9A,RGN,TBX18</p>
GO:0048858	cell projection morphogenesis	8.707774375584276e-16	<p>CDH4,DAB1,DSCAM,ANK3,DCC,EPHA6,NRXN1,NRXN3,CTNND2,CHODL,RIMS2,FSTL4,LRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,PARK2,LAMA2,SEMA3D,NTN1,TRIO,MYO9A,SLIT2,IGF1R,TRPC5,DMD,SYT1,VCL,NTNG1,LRRK2,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,CD44,HECW1,KANK1,ENPP2,ATP8A2,DCDC2,UNC5C,PALLD,GAS7,MOV10,PTPRD,TIAM2,KALRN,ROBO1,TANC2,PREX2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,GRIP1,OPHN1,ALCAM,MYO16,NTRK2,DNM3,GLI3,DICER1,EPHA5,TNR,CUX1,CHRNA3,DSCAM1,SPG11,ADORA2A,EFNA5,TTC8,RELN,KIRREL3,NUMB,MAP3K13,PPP3CA,KLF7,SH3GL2,DOCK10,ELAVL4,RIMS1,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPF1A2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYN,SEMA3E,UBE3A,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,PACSIN2,UNC13A,AUTS2,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,TNN,SYT2,LG11,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,AB11,SPTBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0000904	cell morphogenesis involved in differentiation	9.743923830088466e-16	<p>CDH4,DAB1,DSCAM,ANK3,DCC,FBLN1,EPHA6,NRXN1,NRXN3,CTNND2,CHODL,FSTL4,LRRC4C,ADAMTSL1,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,COL22A1,DYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,COL15A1,CDH11,CDH2,LAMA2,SEMA3D,NTN1,TRIO,SLIT2,IGF1R,TRPC5,SIPA1L3,VCL,NTNG1,LRRK2,SLC1A3,STRC,RNF165,DISC1,EMB,SEMA4D,GSK3B,FRMD6,SEMA5A,BDNF,RYK,ZDHHC17,PCDH15,LAMA3,PLXNA2,BCL2,EPHB1,SIPA1L1,NR4A2,EPHA7,FYN,CHN1,SULT4A1,HECW1,KANK1,ATP8A2,DCDC2,TNMD,LAMB4,UNC5C,PALLD,FAT3,MEGF9,PTPRD,TIAM2,KALRN,CCDC88C,ROBO1,TANC2,GRHL2,PREX2,SEC24B,PKHD1,CHL1,APP,COL18A1,NRP1,PTPRM,SEMA3C,PARVG,PRTG,RPS6</p>

			<p>KA5,PARD3,ATRNLI,OPHN1,ALCAM,NTRK2,DNM3,GLI3,EPHA5,TNR,CUX1,PEAK1,CHRNA3,EP300,DSCAML1,TRIOBP,PARVB,FLNB,SPG11,EFNA5,MERTK,TTC8,RELN,NUMB,MAP3K13,PPP3CA,KLF7,PLS1,DOCK10,ELAVL4,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,ZFPM1,PPFIA2,LGR6,BCL11A,DOCK1,LRP4,CNTN6,EFNB2,CDKL5,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,TBCD,FER,SLITRK6,BSG,ARHGAP35,LAMA1,PRX1,SEMA5B,MYH9,NEDD9,ITGA8,PDZD7,WDCP,AP2S2,CDH23,MEF2A,MAP2,ITGB7,AR,BHLHB9,SEMA3A,MARK2,PDLIM5,FERMT2,TNN,DAB2,ACTN4,LGII,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,NTN4,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,USH2A,DTNBP1,LRP8,KIAA0319,NGF,SPINT2,VLDLR,ABII,SPTBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0120039	plasma membrane bounded cell projection morphogenesis	9.767140155615373e-16	<p>CDH4,DAB1,DSCAM,ANK3,DCC,EPHA6,NRXN1,NRXN3,CTNND2,CODL,RIMS2,FSTL4,LRRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,PARK2,LAMA2,SEMA3D,NTN1,TRIO,MYO9A,SLIT2,IGF1R,TRPC5,DMD,SYT1,VCL,NTNG1,LRRK2,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,CD44,HECW1,KANK1,ENPP2,ATP8A2,DCDC2,UNC5C,PALLD,GAS7,MOV10,PTPRD,TIAM2,KALRN,ROBO1,TANC2,PREX2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,GRIP1,OPHN1,ALCAM,MYO16,NTRK2,DNM3,GLI3,DICER1,EPHA5,TNR,CUX1,CHRNA3,DSCAML1,SPG11,ADORA2A,EFNA5,TTC8,RELN,KIRREL3,NUMB,MAP3K13,PPP3CA,KLF7,SH3GL2,DOCK10,ELAVL4,RIMS1,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPFIA2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,UNC13A,AUTS2,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,TNN,SYT2,LGII,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,ABII,SPTBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0007268	chemical synaptic transmission	9.93949904093769e-16	<p>PLCB1,GABRB3,GABRG3,ASIC2,CTBP2,DTNA,CACNA1E,DCC,SYN3,GRIK1,GABBR2,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,DLG2,LRRRC4C,TMEM108,SHISA6,MCTP1,RASGRF1,GRID1,SLC6A2,SORCS3,PLCB4,ERC1,CNTN4,S100B,PTPRN2,CNTNAP4,AGT,ERC2,SHISA9,CHRM5,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,DBH,PCDH17,APBA2,CDH8,RPS6KA2,SYT9,GABRG1,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,RIMBP2,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,SNAP23,EPHB1,SIPA1L1,LRRRC4,FYN,NR4A1,PMP22,GABRB1,MME,EXOC4,GRIK2,IGSF11,CELF4,KCND2,SLC1A1,CADPS,CHRM1,PTPRD,PLCL1,NLGN4X,PRKCE,PRKCB,ADCY8,LRRTM1,KCNC4,GABRA2,CASK,APP,DGKB,ABAT,GRIN2A,RIMS3,OPHN1,CD38,GLRA2,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GLRA1,GRID2,RASGRF2,SV2B,SPG11,ADORA2A,CACNG2,NF1,CEP89,HTR4,EIF4E,RELN,GRM5,PPP3CA,GPR176,DGKI,SLC24A2,ELAVL4,GRM7,RIMS1,GABRA3,NLGN1,P2RX6,AKAP7,MAPK8IP2,NSG1,GABRA5,JAK2,MIR320B2,TNF,BLOC1S6,FCHSD2,ARF1,CLSTN1,TSHZ3,GRIK4,GABRR2,KIT,RAPGEF2,HTR2C,GABRB2,GRM4,EPHB2,SV2C,PACSIN2,P2RX1,PLAT,UNC13A,UNC13B,GLRA3,NTF3,P2RX7,DGKZ,MIR433,GRIA2,PTPR,STX3,SYT2,FGF12,KMO,LGII,PLCL2,BTBD9,CHRM3,GAD2,CACNB2,SNAP29,FMR1,GABRA1,AMPH,GABRR3,JPH4,CACNA1A,RIT2,EXT1,PRKCG,ADARB1,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,GABRG2,PDE7B,PPP1R9A</p>
GO:0098916	anterograde trans-synaptic signaling	9.93949904093769e-16	<p>PLCB1,GABRB3,GABRG3,ASIC2,CTBP2,DTNA,CACNA1E,DCC,SYN3,GRIK1,GABBR2,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,DLG2,LRRRC4C,TMEM108,SHISA6,MCTP1,RASGRF1,GRID1,SLC6A2,SORCS3,PLCB4,ERC1,CNTN4,S100B,PTPRN2,CNTNAP4,AGT,ERC2,SHISA9,CHRM5,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,DBH,PCDH17,APBA2,CDH8,RPS6KA2,SYT9,GABRG1,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,RIMBP2,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,SNAP23,EPHB1,SIPA1L1,LRRRC4,FYN,NR4A1,PMP22,GABRB1,MME,EXOC4,GRIK2,IGSF11,CELF4,KCND2,SLC1A1,CADPS,CHRM1,PTPRD,PLCL1,NLGN4X,PRKCE,PRKCB,ADCY8,LRRTM1,KCNC4,GABRA2,CASK,APP,DGKB,ABAT,GRIN2A,RIMS3,OPHN1,CD38,GLRA2,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GLRA1,GRID2,RASGRF2,SV2B,SPG11,ADORA2A,CACNG2,NF1,CEP89,HTR4,EIF4E,RELN,GRM5,PPP3CA,GPR176,DGKI,SLC24</p>

			<p>A2,ELAVL4,GRM7,RIMS1,GABRA3,NLGN1,P2RX6,AKAP7,MAPK8IP2,NSG1,GABRA5,JAK2,MIR320B2,TNF,BLOC1S6,FCHSD2,ARF1,CLSTN1,TSHZ3,GRIK4,GABRR2,KIT,RAPGEF2,HTR2C,GABRB2,GRM4,EPHB2,SV2C,PACSIN2,P2RX1,PLAT,UNC13A,UNC13B,GLRA3,NTF3,P2RX7,DGKZ,MIR433,GRIA2,PTPRA,STX3,SYT2,FGF12,KMO,LGII,PLCL2,BTBD9,CHRM3,GAD2,CACNB2,SNAP29,FMR1,GABRA1,AMPH,GABRR3,JPH4,CACNA1A,RIT2,EXT1,PRKCG,ADARB1,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,GABRG2,PDE7B,PPP1R9A</p>
GO:0032989	cellular component morphogenesis	1.5171255874317009e-15	<p>CDH4,DAB1,DSCAM,ANK3,DCC,AKAP13,NUBPL,EPHA6,NRXN1,NRXN3,CTNND2,CHODL,RIMS2,FSTL4,ANK2,LRRK4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DPYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,PARK2,LAMA2,SEMA3D,NTN1,TRIO,MYO9A,SLIT2,IGF1R,TRPC5,DMD,SYT1,VCL,NTNG1,TENM4,LRRK2,RNF165,DISC1,EMB,MTMR2,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,CD44,HECW1,PMP22,KANK1,ENPP2,ACTN2,ATP8A2,DCDC2,UNC5C,MYLK3,PALLD,GAS7,MOV10,PTPRD,TIAM2,CAPN3,KALRN,ROBO1,TANC2,NEBL,PREX2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,GRIP1,OPHN1,ALCAM,BCL2L1,MYO16,NTRK2,DNM3,GLI3,DICER1,EPHA5,TNR,CUX1,CHRNA3,DSCAML1,SPG11,ADORA2A,EFNA5,TTC8,RELN,KIRREL3,NUMB,MAP3K13,PPP3CA,KLF7,NEB,SH3GL2,DOCK10,ELAVL4,RIMS1,FHOD3,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPF1A2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,MYH14,PRKAR1A,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,NCMAP,SEMA3E,UBE3A,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,PACSIN2,UNC13A,AUTS2,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,TNN,SYT2,LGII,CLASP1,TMOD1,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,TTN,PGM5,EXT1,MYH6,DOCK7,ADARB1,MYH11,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,MYOM2,ITGA1,KIAA0319,NGF,VLDLR,ABII,SPTBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0048812	neuron projection morphogenesis	1.856412644432481e-15	<p>CDH4,DAB1,DSCAM,ANK3,DCC,EPHA6,NRXN1,NRXN3,CTNND2,CHODL,RIMS2,FSTL4,LRRK4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DPYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,PARK2,LAMA2,SEMA3D,NTN1,TRIO,MYO9A,SLIT2,IGF1R,TRPC5,DMD,SYT1,VCL,NTNG1,LRRK2,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPHA7,FYN,CHN1,SULT4A1,HECW1,ATP8A2,DCDC2,UNC5C,PALLD,GAS7,MOV10,PTPRD,TIAM2,KALRN,ROBO1,TANC2,PREX2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,GRIP1,OPHN1,ALCAM,MYO16,NTRK2,DNM3,GLI3,DICER1,EPHA5,TNR,CUX1,CHRNA3,DSCAML1,SPG11,ADORA2A,EFNA5,TTC8,RELN,KIRREL3,NUMB,MAP3K13,PPP3CA,KLF7,SH3GL2,DOCK10,ELAVL4,RIMS1,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPF1A2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,UNC13A,AUTS2,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,TNN,SYT2,LGII,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,ABII,SPTBN4,CLASP2,MAP2K1,SOS1</p>
GO:0035556	intracellular signal transduction	1.868159150628115e-15	<p>ADCY2,TPTPE,PLCB1,CMKLR1,DAB1,CDC42EP3,MAPK14,TPTPE2,SH3RF3,HUNK,WLS,TIMP3,DUSP22,AKAP13,FBLN1,RGS6,TMEM117,VRRK2,NRXN1,SHC3,DOK5,DOCK2,SHANK2,NRG3,SMYD2,CLEC16A,HUS1,TGFBR3,CDH13,RNF152,ANK2,TF,PIK3C2B,CHEK2,GADD45A,NRG1,PSMB2,RFFL,MCTP1,PLCE1,SH3RF2,KSR2,STK38L,CCR1,CCR3,TIAM1,RHOC,RASGRF1,SCAI,ALK,PIK3C3,PLCB4,ERC1,FBXO31,RGL2,S100B,PRKACB,DCLK1,CRNN,LEMD3,AGT,RHOJ,RCAN1,CDH2,PARK2,FHL2,FOXN3,CDC5L,MCTP2,NTN1,TRIM22,TRIM5,KCNH1,ITSN1,TNS3,TRIO,MYO9A,SLIT2,PDCD6,RPS6KA2,LGMT1,IGF1R,MDM2,SLC24A4,SMAD1,RAPGEF5,NR3C2,PDE9A,DMD,STK33,SIPA1L3,TEAD1,CELSR1,FGF14,FSHR,GRM1,FMN2,MAEL,PRKAR2A,INPP5A,STK24,DCDC1,WDR83,WWOX,ATRX,TRPM2,RYR2,UNC13C,CAMTA1,LRRK2,MAPK10,NTRK3,RORA,IQCF-SCHIP1,DISC1,KCTD9,SH3BP1,SEMA4D,GSK3B,SLC8A1,MAGI3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,VAI3,PLCD3,SEMA5A,PRKCH,RYK,ZDHHC17,SGCD,WASF1,GRIN2B,OTUD7A,SIK2,ANKRD6,ARHGAP8,PRR5,PTGFR,NR5A2,PML,ARHGAP12,CORO2A,AKAP6,TNS1,TAOK3,BCL2,CHMP4C,RALBP1,ZNF675,ARHGAP24,EPHB1,SIPA1L1,LRP2,TMEM100,ITPR2,DEPTOR,ARHGEF10,EPHA7,PSD3,FYN,CHN1,CD44,FOXO1,PDE4D,KANK1,ARHGEF3,DCDC2,GRIK2,APBB2,R</p>

			<p>ERG,NLRP12,GRAP2,MTOR,ROR1,DDX21,BMPER,RASGEF1B,TIAM2,PLCL1,ARL6IP5,PLN,ZMYND11,PRKCE,HELLS,PRKCB,ADCY8,EFHB,FOXO3,CAPN3,KALRN,PJA1,CCDC88C,DLC1,EDNRB,OASL,ROBO1,FLT1,NOX4,MAP3K7,MAPK9,PREX2,TRAF3IP2,PKHD1,STK3,TGM2,KDR,RAB30,ARHGAP15,EDA,APP,DGKB,NRP1,UACA,ARHGEF18,ELMO1,LINC00473,ADTRP,KAT5,MAP3K5,CDC42BPG,ATF2,PEX5L,PIK3R5,ROSI,DOT1L,KPNB1,RPS6KA5,TCF7L2,TNFRSF10B,RALGAP2,TLK2,TRAF3,ZNF830,DOCK9,GRIN2A,GRIP1,SGK2,OPHN1,BCLAF1,SGMS1,CCDC88A,MOB3B,RIN2,STK36,BCL2L1,GUCY2F,HDAC4,MYO16,DNMT1,GHR,MAPRE2,NTRK2,PRKG1,CDC42BPA,BRD4,RASGRP1,STARD13,CAMK4,RABGEF1,RGL1,SPRED2,ZNF207,CACNA1C,DOCK4,RAP1A,TGFBF1,PRDX4,DICER1,EPAH5,LCP2,PTTG1IP,RAPGEF1,EP300,GAB2,TP73,RASGRF2,PSMA1,FHIT,MERTK,RALGPS1,GUCY2C,MAGI2,NF1,RALGPS2,RGS7,SORL1,ARHGAP6,ASB13,BID,TEAD4,TRIM59,DMRT1,LZTR1,RELN,GRM5,IL18R1,SELE,NDRG2,MAP3K13,NLK,RALA,ADCYAP1R1,PPP3CA,DGKI,MAS1,PER1,WWTR1,KL,CBLB,DOCK10,DOK6,WDR59,GPSM2,KAT7,MAPK4,NLGN1,ARHGAP5,RPS20,NPR3,AKAP7,LRRK1,MAPK8IP2,DDX3X,PDE7A,TPCN2,ZNF622,ARHGAP39,JAK2,SMAD3,CD300A,MAP2K4,NOS1,PLXNB1,CDK1,HDAC7,NBN,TNF,TNIP1,EIF3A,POMC,PRDM15,DLG5,NUDT4,SHC2,PLCH1,STK32B,HMG42,MYO6,AGO3,DOCK1,MUC5AC,RUFY1,STK32C,UBE2V1,EP88,C5AR1,DEF6,PIK3R3,ARHGEF6,AMOTL1,NET1,CDC14B,SELP,CUL2,TENM1,ARHGEF11,GSKIP,PRKAR1A,TNFRSF19,ARHGAP11B,SIPA1L2,EGF,KIT,UBR2,BLM,CTNNAL1,PIK3C2G,TRPV4,EDAR,RAPGEF2,STK32A,ESR1,HTR2C,JAK1,UBE3A,DNMBP,FGF13,GRM4,MARVELD3,EPHB2,MECOM,NDFIP2,DAPK1,ERBB4,FER,MAP3K3,FNIP1,RAPGEF6,RPS27L,SLAMF1,ABL2,DEPDC5,F1IR,FARP2,ARHGAP35,CD2AP,NSUN2,CCL3,PREX1,SPRED3,VWF,ARHGAP25,FGD4,IL20RA,SOX4,CAB39L,GARNL3,PDGFR,PIK3CD,UBE2N,PUM1,IRAK2,UNC13A,ADCY9,AUTS2,FGFR1,MEF2A,PDE11A,UNC13B,JMY,NTF3,P2RX7,RAPGEF4,TEX14,RAS43,RCAN2,ZDHHC9,APIP,AR,SRPK2,BDKRB2,ADRA1B,DGKZ,PRKAA2,SEMA3A,ARHGAP10,MARK2,PDE5A,FLT3,SRGAP3,FERMT2,LTBR,MAP2K5,MARK1,SMPD3,DAB2,GPR55,LCP1,ACTN4,CCL7,EEF1E1,EEF1E1-BLOCIS5,FGF12,ITGA3,PLCL2,PPM1B,QRICH1,STAC,MYOM1,PIN1,RPS6KA6,TRPM4,PIP5K1B,STK38,CHRM3,CIT,TGFA,G3BP2,HGF,RALGAP1,CALCR,CENPF,SH3BP5,TLK1,CNKS2,MAST4,NOS1AP,PI4KA,RALGDS,ARHGAP28,INSR,PAK1,PDE3A,PSMB7,AKT3,CHM,LITAF,THEM4,CHFR,RRAGC,ULK4,MAD1L1,ARHGAP42,PPARA,TNFAIP8L3,TTN,GNAI3,PPP1R13B,TAF1,CHD5,FNIP2,SPRED1,AKR1C2,BTRC,OPTN,PTPRR,RIT2,MDM4,PRKCG,DOCK7,FBXW11,G3BP1,ICK,TDGF1,TREM1,KCNC2,PRKCQ,TP63,USP7,AMOT,BRIP1,DOCK3,PAK3,PIK3R2,STK17B,BLNK,CASQ2,RAP1B,KSRI,LGALS9,NFAT5,ALPK1,MAPKAPK2,APC,ITGA1,NGF,PRKCA,ASB3,CTSH,CCL14,CCL15,EDA2R,IL6R,MAP2K6,NCALD,MAP2K1,PDE7B,SOS1,C1QTNF3,FGF1,CRADD,DGKK,NLRC5,PPP1R9A,RGN,RREB1</p>
GO:0032990	cell part morphogenesis	2.187057877545273e-15	<p>CDH4,DAB1,DSCAM,ANK3,DCC,NUBPL,EPAH6,NRXN1,NRXN3,CTNND2,CHODL,RIMS2,FSTL4,LRRC4C,TMEM108,ADAMTSL1,SYT17,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DPSYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPAH3,DCLK1,CDH11,CDH2,PARK2,LAMA2,SEMA3D,NTN1,TRIO,MYO9A,SLIT2,IGF1R,TRPC5,DMMD,SYT1,VCL,NTNG1,LRRK2,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,LAMA3,CNTNAP2,PLXNA2,TAOK3,BCL2,EPHB1,SIPA1L1,LRP2,NR4A2,EPAH7,FYN,CHN1,SULT4A1,CD44,HECW1,KANK1,ENPP2,ATP8A2,DCDC2,UNC59,PALLD,GAS7,MOV10,PTPRD,TIAM2,KALRN,ROBO1,TANC2,PREX2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,GRIP1,OPHN1,ALCAM,BCL2L1,MYO16,NTRK2,DNM3,GLI3,DICER1,EPAH5,TNR,CUX1,CHRNA3,DSCAML1,SPG11,ADORA2A,EFNA5,TTCS8,RELN,KIRREL3,NUMB,MAP3K13,PPP3CA,KLF7,SH3GL2,DOCK10,ELAVL4,RIMS1,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPFIA2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,MYH14,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,PACSIN2,UNC13A,AUTS2,MEF2A,MAP2,NTF3,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,TNN,SYT2,LGI1,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,ITGA1,KIAA0319,NGF,VLDLR,ABI1,SPTBN4,CLASP2,MAP2K1,SOS1,RREB1</p>
GO:0099536	synaptic signaling	4.120312652437524e-15	<p>PLCB1,GABRB3,GABRG3,ASIC2,CTBP2,DTNA,CACNA1E,DCC,SYN3,GRIK1,GABBR2,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,DLG2,LRRC4C,TMEM108,NRG1,SHISA6,MCTP1,DRP2,RASGRF1,GRID1,SLC6A2,SORCS3,PLCB4,ERC1,CNTN4,S100B,</p>

			<p>PTPRN2,CNTNAP4,AGT,ERC2,SHISA9,CHRM5,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,DBH,PCDH17,APBA2,CDH8,RPS6KA2,SYT9,GABRG1,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,RIMBP2,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,SNAP23,EPHB1,SIPA1L1,LRRC4,FYN,NR4A1,PMP22,GABRB1,MME,EXOC4,GRIK2,IGSF11,CELFG4,KCND2,SLC1A1,CADPS,CHRM1,PTPRD,PLCL1,NLGN4X,PRKCE,PRKCB,ADCY8,LRRTM1,KCNC4,GABRA2,CASK,APP,DGKB,ABAT,GRIN2A,RIMS3,OPHN1,CD38,GLRA2,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GLRA1,GRID2,RASGRF2,SV2B,SPG11,ADORA2A,CACNG2,NF1,CEP89,HTR4,EIF4E,RELN,GRM5,IL1RAP,PPP3CA,GPR176,DGKI,SLC24A2,ELAVL4,GRM7,RIMS1,GABRA3,NLGN1,P2RX6,AKAP7,MAPK8IP2,NSG1,GABRA5,JAK2,NOS1,MIR320B2,TNF,BLOC1S6,FCHSD2,ARF1,CLSTN1,TSHZ3,GRIK4,GABRR2,IL1RAPL1,KIT,RAPGEF2,HTR2C,GABRB2,GRM4,EPHB2,SV2C,PACSIN2,P2RX1,PLAT,UNC13A,UNC13B,GLRA3,NTF3,P2RX7,DGKZ,MIR433,GRIA2,PTPRA,STX3,SYT2,FGF12,KMO,LGI1,PLCL2,BTBD9,CHRM3,GAD2,CACNB2,SNAP29,FMR1,GABRA1,AMPH,GABRR3,JPH4,CACNA1A,RIT2,EXT1,PRKCG,ADARB1,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,GABRG2,PDE7B,PPP1R9A</p>
GO:0048667	cell morphogenesis involved in neuron differentiation	9.887159075524767e-15	<p>CDH4,DAB1,DSCAM,ANK3,DCC,EPHA6,NRXN1,NRXN3,CTNND2,CODL,FSTL4,LRRC4C,ADAMTSL1,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,RBFOX2,TIAM1,DYSL2,FBXO31,CNTN4,PHACTR1,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,LAMA2,SEMA3D,NTN1,TRIO,SLIT2,IGF1R,TRPC5,VCL,NTNG1,LRRK2,SLC1A3,STRC,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,PCDH15,LAMA3,PLXNA2,BCL2,EPHB1,SIPA1L1,NR4A2,EPHA7,FYN,CHN1,SULT4A1,HECW1,ATP8A2,DCDC2,UNC5C,PALLD,PTPRD,TIAM2,KALRN,ROBO1,TANC2,PREX2,SEC24B,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PARD3,OPHN1,ALCAM,NTRK2,DNM3,GLI3,EPHA5,TNR,CUX1,CHRNA3,DSCAML1,TRIOBP,SPG11,EFNA5,TTC8,RELN,NUMB,MAP3K13,PPP3CA,KLF7,PLS1,DOCK10,ELAVL4,NLGN1,MAPK8IP2,SHOX2,KIDINS220,PLXNB1,COBL,PPF1A2,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,IL1RAPL1,SLIT3,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,UBE3A,FGF13,EPHB2,TBCD,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,PDZD7,WDPCC,AUTS2,CDH23,MEF2A,MAP2,BHLHB9,SEMA3A,MARK2,PDLIM5,TNN,LG11,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,DTNBP1,LRP8,KIAA0319,NGF,VLDLR,ABII,SPTBN4,CLASP2,MAP2K1,SOS1</p>
GO:0050808	synapse organization	1.3540993275356493e-14	<p>CAST,GABRB3,MAPK14,DSCAM,GPHN,ASIC2,CTBP2,ANK3,NRXN1,NRXN3,SDK2,CTNND2,TNC,SHANK2,LRRC4C,SYNDIG1,BCAN,TMEM108,FLRT2,NRG1,SHISA6,LRFN5,DRP2,ABHD17C,CTNNA2,IL1RAPL2,ERC1,ROBO2,ERC2,CDH2,FRMPD4,ZNF804A,NEGR1,NTN1,GP6,PCDH17,CDH8,CNTN5,IGF1R,PDZRN3,NTNG1,UNC13C,LRRK2,NTRK3,DISC1,MECP2,MTMR2,SEMA4D,LINGO2,CLSTN2,BDNF,RYK,WASF1,GRIN2B,SYBU,LRFN2,EPHB1,SIPA1L1,LRRC4,NFIA,EPHA7,FYN,THBS2,APBB2,SLC1A1,PTPRD,NLGN4X,LRRTM1,KALRN,TANC2,CBLN4,GABRA2,APP,DGKB,NRP1,OPHN1,NTRK2,DNM3,PPFIBP1,SDK1,TNR,PPFIBP2,GRID2,EFNA5,CACNG2,IGSF21,RELN,GRM5,KIRREL3,LRRTM3,IL1RAP,DOCK10,GPC4,NLGN1,CTTNBP2,ARHGA39,PLXNB1,TNF,PPF1A2,TANC1,DLG5,ARF1,CSAR1,LRP4,EFNB2,CLSTN1,CDKL5,IL1RAPL1,PTPRO,SEMA3E,UBE3A,FGF13,GABRB2,EPHB2,ERBB4,SLITRK6,ARF4,UNC13A,UNC13B,BHLHB9,PDLIM5,ADAM10,ITGA3,PIN1,CACNB2,CNKSRR2,NFASC,NOS1AP,INSR,GABRA1,PTPRF,PAK3,DTNBP1,LRP8,GABRG2,VPS35</p>
GO:0050804	modulation of chemical synaptic transmission	1.646999498217122e-14	<p>PLCB1,DCC,SYN3,GRIK1,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,LRRC4C,TMEM108,SHISA6,MCTP1,RASGRF1,GRI1,SORCS3,PLCB4,ERC1,CNTN4,S100B,CNTNAP4,AGT,ERC2,SHISA9,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,PCDH17,APBA2,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,EPHB1,SIPA1L1,LRRC4,FYN,MME,GRIK2,IGSF11,CELFG4,SLC1A1,PTPRD,PLCL1,NLGN4X,PRKCE,PRKCB,ADCY8,LRRTM1,CASK,APP,DGKB,GRIN2A,RIMS3,OPHN1,CD38,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GRID2,RASGRF2,ADORA2A,CACNG2,NF1,EIF4E,RELN,GRM5,PPP3CA,DGKI,SLC24A2,ELAVL4,GRM7,RIMS1,NLGN1,AKAP7,MAPK8IP2,NSG1,JAK2,MIR320B2,TNF,ARF1,CLSTN1,TSHZ3,GRIK4,KIT,RAPGEF2,GRM4,EPHB2,PACSIN2,P2RX1,PLAT,UNC13A,NTF3,DGKZ,MIR433,PTPRA,STX3,KMO,LGI1,PLCL2,BTBD9,CACNB2,FMR1,JPH4,CACNA1A,PRKCG,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,PPP1R9A</p>
GO:00423	regulation	1.839922818762281e-	<p>PIEZO2,GABRB3,GABRG3,ASIC2,ANK3,GRIK1,KCNQ1,GRIN3A,NRX</p>

91	of membrane potential	14	<i>N1,RIMS2,GRIA1,ANK2,KCND3,SCN8A,KCNE1,TMEM108,CFTR,RGS7BP,GRID1,PARK2,KCNH1,KCNMA1,SLC24A4,GABRG1,KCNK17,PXK,TRPC5,DMD,HCN1,GRM1,CTNNA3,RYR2,LRRK2,KCNH5,SLC4A4,KCNK13,MECP2,MTMR2,GSK3B,SLC8A1,ATP1A4,KCNK1,GRIN2B,ABCB5,AKAP6,GRIK3,BCL2,KCNJ3,KCNE2,ACTN2,GABRB1,GRIK2,IGSF11,CELF4,KCND2,SCN11A,CHRM1,PKP2,ARL6IP5,ATP1A1,PLN,NLG4X,FAM19A4,GABRA2,KDR,APP,KCNK2,ABAT,GRIN2A,RIMS3,BCL2L1,GLRA2,NTRK2,KCTD7,CACNA1C,PPA2,USP53,CHRNA3,CHRNA5,CACNA2D1,GLRA1,GRID2,ADORA2A,CACNG2,BID,RELN,SLC39A8,GRM5,PPP3CA,CXADR,DGKI,RIMS1,GABRA3,NLGN1,P2RX6,AKAP7,MAPK8IP2,CACNA1D,GABRA5,TNF,KCNK10,GCLC,KCNH8,TRDN,SCN1A,GRIK4,MYH14,GABRR2,KCNH7,FGF13,GABRB2,NUP155,P2RX1,KCNE4,UNC13B,GLRA3,P2RX7,HCN4,RNF207,FGF12,TRPM4,CNGB1,CACNB2,NOS1AP,FMR1,GABRA1,ABCD1,GABRR3,FHL1,PPP2R3C,SCN9A,KCNK2,CASQ2,GABRG2,TBX18</i>
GO:0099177	regulation of trans-synaptic signaling	2.0522485782775955e-14	<i>PLCB1,DCC,SYN3,GRIK1,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,SHANK2,GRIA1,NRG3,LRRK2,SHISA6,MCTP1,RASGRF1,GRIK1,D1,SORCS3,PLCB4,ERC1,CNTN4,S100B,CNTNAP4,AGT,ERC2,SHISA9,CDH11,CDH2,PARK2,DLGAP1,LAMA2,MCTP2,PCDH17,APBA2,PXK,SYT1,CACNG3,GRM1,SORCS2,NTNG1,UNC13C,LRRK2,SLC1A3,DISC1,TPRG1L,MECP2,MTMR2,GSK3B,CLSTN2,BDNF,PRKAR1B,GRIN2B,SNAP25,GRIK3,LRFN2,EPHB1,SIPA1L1,LRRK4,FYN,MME,GRIK2,IGSF11,CELF4,SLC1A1,PTPRD,PLCL1,NLG4X,PRKCE,PRKCB,ADCY8,LRRTM1,CASK,APP,DGKB,GRIN2A,RIMS3,OPHN1,CD38,NTRK2,STXBP5,RAP1A,TNR,CHRNA3,CHRNA5,GRID2,RASGRF2,ADORA2A,CACNG2,NF1,EIF4E,RELN,GRM5,PPP3CA,DGKI,SLC24A2,ELAVL4,GRM7,RIMS1,NLGN1,AKAP7,MAPK8IP2,NSG1,JAK2,MIR320B2,TNF,ARF1,CLSTN1,TSHZ3,GRIK4,KIT,RAPGEF2,GRM4,EPHB2,PACSIN2,P2RX1,PLAT,UNC13A,NTF3,DGKZ,MIR433,PTPRA,STX3,KMO,LGI1,PLCL2,BTBD9,CACNB2,FMR1,JPH4,CACNA1A,PRKCG,DTNBP1,RAP1B,DLGAP2,LRP8,SNCAIP,NGF,PPP1R9A</i>
GO:0040011	locomotion	9.068578831592224e-14	<i>SRGAP2B,TPTE,CDH4,PLCB1,CMKLR1,DAB1,FMNL2,MAPK14,DSCAM,TPTE2,PTPRT,DCC,DUSP22,FBLN1,ITGA2,SUN2,EPHA6,NRXN1,ZRANB1,NRXN3,DOCK2,NRG3,SLC9B1,TGFBF3,CDH13,TF,PLGRKT,PIK3C2B,SDCCAG8,GADD45A,ADAMTSL1,PLXNA4,FLRT2,GPC3,NRG1,RFFL,MCTP1,ASTN2,SH3RF2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR3,RBFOX2,DNAH6,TIAMI,RHOC,LDLRAD4,DPSL2,NKD1,SCAI,SPEF2,FBXO31,CNTN4,ARID5B,PHACTR1,ROBO2,SPOCK3,EPHA3,DCLK1,AGT,PSTPIP2,FSIP2,RHOJ,RCAN1,CDH2,LOXL2,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,GPC6,DBH,FMNL3,RIN3,TRIO,LAMA4,SLIT2,TLL8,PDCD6,GPC5,IGF1R,VCAN,PTPRG,KRT2,VCL,CELSR1,MBOAT7,ASTN1,STK24,FRMD5,TRPM2,CTNNA3,NTNG1,CATSPER2,LRRK2,NTRK3,ANKS1A,RNF165,DISC1,HEXB,EMB,SH3BP1,IER2,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,ATP1A4,VAV3,FUT4,S100A11,SEMA5A,BDNF,RYK,DNAAF2,DNAH3,LAMA3,NR2F2,PMNL,TNS1,PLXNA2,BCL2,RALBP1,ARHGAP24,EPHB1,VANGL2,NR4A2,EPHA7,FYN,CHN1,NR4A1,CD44,KANK1,ENPP2,DCDC2,LAMB4,UNC5C,PALLD,NLRP12,MTOR,LDB2,CHRM1,FAT3,MEGF9,BMPER,BBS2,CEP85L,EPB41L4B,SOX8,PRKCE,FAM19A4,FOXO3,MITF,KALRN,DLC1,EDNRB,ROBO1,SATB2,FAP,FLT1,CENPV,TACR3,KDR,PRCP,CHL1,APP,NRP1,PTPRM,ELMO1,ADTRP,TTC12,SEMA3C,ADAM17,CAMK1D,ELP3,ETS1,PRTG,RPS6KA5,ITGA11,ATRN1,GRIN2A,OPHN1,CCDC88A,RIN2,ALCAM,DNAH8,HDAC4,PDE4B,JAM2,MAPRE2,NTRK2,PRKG1,CDC42BP4,STARD13,RABGEF1,GLI3,CLDN1,DOCK4,SRP54,TGFBF1,CYSLTR1,EPHA5,TNR,PEAK1,IL16,EP300,DSCAML1,CYP7B1,ADORA2A,EFNA5,MERTK,TAC4,MAGI2,NF1,SORL1,TTC8,D MRT1,RELN,SLC9C1,GRM5,HDAC9,KIRREL3,SELE,MGAT5,NUMB,NPHP4,RALA,NAV3,JAG1,MEOX2,PPP3CA,KLF7,CXADR,DOCK10,GPC4,PTPRU,SH3KBP1,JAK2,SPNS2,SMAD3,CD300A,PLXNB1,CDK1,HDAC7,TNF,LRCH1,OVOL2,DLG5,LGR6,ARID2,SPAG16,ADORA3,DOCK1,EPSS8,SMOC2,SULF1,C5AR1,PIK3R3,CNTN6,EFNB2,AMOTL1,NET1,SELP,CTNNA1,CDKL5,EFHC2,EGF,KIT,SLIT3,PIK3C2G,TRPV4,DNAH11,EFNB1,PTPRO,RAPGEF2,MYPN,SEMA3E,FGF13,MARVELD3,ARMC2,EPHB2,ABCC1,ERBB4,FER,MAP3K3,LRP5,SLAMF1,ABL2,BSG,F11R,GAS8,SETD2,ARHGAP35,CD2AP,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,KIF24,NHLH2,ARF4,MYH9,TEKT4,NEDD9,PDGFD,PIK3CD,ENPEP,PLAT,WDCP,ATS2,FGFR1,TGBL1,ITGB7,JMY,NTF3,BDKRB1,DGKZ,SEMA3A,MARK2,ZMIZ1,SRGAP3,FERMT2,MAP2K5,MARK1,SMPD3,TNN,CLN6,DAB2,LCP1,STX3,ACTN4,ADAM10,CCL7,ITGA3,LGI1,LECT2,PIN1,SYNPO2,TRPM4,NME8,CLASP1,HGF,MYLK,CAPN7,SLC26A8,NCAM1,NFASC,INSR,MACF1,PAK1,SKI,AKT3,PRKX,ULK4,CRMP1,CCDC141,GNAI3,FUT8,SPRED1,NTN4,PTPRF,DEFA1B,PTPRR,EXT1,TYMP,UMOD,DOCK7,EL</i>

			<p>MO2,HDAC5,TDGF1,LYVE1,TREM1,ADARBI,NDE1,PRKCQ,STAT3,A MOT,PAK3,USH2A,LGALS9,LRP8,EFCAB1,APC,BMPRIA,DPP4,ITG A1,KIAA0319,PRKCA,SPINT2,CTSH,RGCC,SRGAPI,CCL14,CCL15,C CL15- CCL14,IL6R,CLASP2,MAP2K1,SOS1,VPS35,FGF1,TBX20,RGN,RREB1</p>
GO:00485 13	animal organ developm ent	2.0260736979837825 e-13	<p>MACROD2,PLCB1,DAB1,MAPK14,DSCAM,RUNX1,MYO18B,DCC,WL S,RBFOX1,AKAP13,LARGE,SORBS2,SLC24A3,NPHP3,ITGA2,KCNQ1, SUN2,CA10,NRXN1,SLC1A2,SDK2,DOCK2,TNC,POTEE,MS4A1,PAX7 ,CHODL,MTPN,SHANK2,NRG3,SMYD2,ARNT2,OLFM3,TGFBF3,ANK 2,ANKH,CSMD1,IGSF3,TF,BCAN,TMEM108,ACIN1,PLXNA4,FLRT2, GPC3,NRG1,PSMB2,HYDIN,IL4R,ALDH1A2,CECR2,NLN,PLCE1,SEM A6D,CTNNA2,CCR1,CFTR,RBFOX2,TIAM1,LDLRAD4,DPYSL2,MYO3 A,NKD1,TACC2,ALK,UTRN,SPEF2,CNTN4,ARID5B,PHACTR1,ROBO 2,C2CD3,EPHA3,DCLK1,AJAPI,AGT,ATAT1,WDR11,ATP6V0D1,RHO J,RCAN1,CDH2,FHL2,FOXN3,LOXL2,MDGA2,LAMA2,GREB1L,NEG R1,OTC,GNB4,SEMA3D,NTN1,GPC6,NELL1,TRAPPC9,ZNRF3,FTO,H DAC2,HTRA1,SLIT2,TFAP2D,PDCD6,RPS6KA2,IGF1R,KTRT5,MDM2 ,SLC24A4,SMAD1,ADAMTS6,PTPRG,DMD,HCN1,SYT1,BASP1,KRT2, SIPAIL3,TEAD1,CELSR1,FSHR,MBOAT7,NRIP1,PLAC1,WWOX,ATRX ,TRPM2,RYR2,NTNG1,TENM4,LRRK2,RORB,STRC,PIR,KIF26B,NTRK 3,RORA,PRICKLE2,CHD7,DISC1,SOX6,MECP2,SEMA4D,GSK3B,LGR 5,SLC8A1,SNRK,FLVCR1,TGFB2,FMN1,LCE2B,LCE2C,PLCD3,RIPPL Y3,SEMA5A,ACSBG1,KRT74,PRKCH,RYK,KCNC1,PCDH15,EML1,AB I3BP,SGCD,WDR72,GRIN2B,POLE,EXT2,LAMA3,RAG1,RAG2,ABCB5 ,ANKRD6,NR2F2,NR5A2,PML,PPARGC1A,SGCG,AKAP6,CNTNAP2,F BN1,PLXNA2,BCL2,RXFP2,ZNF675,EPHB1,CSGALNACT1,DISP1,LR P2,MMP16,TMEM100,NF1A,VANGL2,NR4A2,EPHA7,FYN,KCNE2,AD AMTS18,NR4A1,SMARCA4,CD44,ABCB10,ACTN2,ATF6,ATP8A2,KLF I3,MME,EXOC4,LAMB4,ZNF516,CELF4,SERPINB7,TPO,UNC5C,MY LK3,SLC1A1,UGCG,ZFPM2,PALLD,RARB,RFX4,ETV6,MTOR,ROR1,L DB2,FAT3,MEGF9,PKP2,BMPER,BBS2,MATN3,ZFP64,COL11A1,PLN ,CTNNBIP1,KLHL1,SOX8,DSG4,IFT88,NLGN4X,HELLS,KMT2A,VDR ,FOXO3,MITF,CAPN3,KALRN,DLC1,EDNRB,ROBO1,RXFP1,SATB2,F LTI,NASP,NOX4,ZNF148,CDH17,GRHL2,COL2A1,NEBL,TRAF3IP2,C R1,EYA4,SEC24B,MDM1,PKHD1,STK3,TGM2,VASH2,KDR,PPHLN1, EDA,ABCA12,APP,CALCRL,COL18A1,NRP1,PTPRM,LGR4,EGFLAM, IMMP2L,LCE6A,THRB,KCNK2,SEMA3C,ADAM17,TSPEAR,IGF2R,AT F2,ETS1,EFEMP1,TGFB1I1,TCF7L2,AFF2,ITGA11,ZNF830,ABAT,AT RNL1,FRAS1,GRIN2A,DLX6- AS1,HRNR,OPHN1,TRPS1,ZNF568,CASP5,TUB,CHRD1,STK36,UPB I,BCL2L1,ADAMTS16,HDAC4,MYO16,SOX5,GHR,NTRK2,PRKG1,RA SGRP1,CAMK4,SDK1,SPRED2,GLI3,KAZN,SMCHD1,CACNA1C,CLD N1,SPRR2B,SPRR2E,CERS3,CRB1,SAFB2,SRP54,TGFBF1,PRDX4,DY M,EPAH5,THEMIS,TNR,KRTAP6- I,SLC6A17,TENM3,CHST11,CPE,EP300,DSCAML1,TBX3,CYP7B1,SP RR4,TRIOBP,ATXN1,GAB2,PCSK5,TP73,GRID2,PSMA1,FLNB,FAM20 A,MERTK,SPRR2G,BRD1,MAGI2,NF1,RGS7,SORL1,BICC1,IFT80,TEA D4,TTC8,DMRT1,ASXL1,POR,RELN,TNFRSF11B,TSHZ1,HDAC9,IL18 R1,KIRREL3,NDRG2,NUMB,NPHP4,TBX15,FBXL17,JAG1,MEOX2,PP P3CA,KLF7,NEB,PLS1,CXADR,MAS1,WWTR1,KL,DOCK10,ELAVL4, MNAT1,SEC63,CNTN1,GPC4,TRIM16,GABPA,KAT7,L3MBTL3,FHOD 3,FREM1,N4BP2L2,PTPRU,ARHGAP5,CTTNBP2,SSUH2,AK8,MEGF1 I,SYCP2,LRRK1,GABRA5,JAK2,SHOX2,SOBP,SPNS2,AH11,SMAD3,SE RPINB12,COL8A1,PLXNB1,RDH10,TCF12,ANHX,CDK1,HIVEP3,LTB P,PRRC2C,TNF,COBL,NHS,OVOL2,ZFPM1,CHKB,BMP15,DLG5,PHEX ,SIM2,ARID2,MMP20,PAXBPI,FREM2,HMGA2,MYO6,DOCK1,KIF18 A,PCDH19,RAB23,MBOAT2,TPD52,DAAM2,SULF1,LRP4,XYLT1,EFN B2,HERC1,PHF8,SPATA5,ZNF423,ALPK2,CTNNA1,MAMLD1,MYH14, PRKARIA,TNFRSF19,ARHGAP11B,BPTF,DYNC2H1,MLLT3,CD109,E GF,MIP,CMA1,FOXP4,KIT,SLIT3,TNFSF8,TRPV4,CC2D2A,CPS1,DN AH11,EDAR,EFNB1,PTPRO,RAPGEF2,DNAJB6,ESR1,SEMA3E,UBE3 A,FGF13,GABRB2,PLAG1,SGCZ,EPHB2,FNDC3A,KRT76,MECOM,TF DP2,TOX,ERBB4,MINPP1,SLITRK6,SPTA1,FNIP1,LRP5,TTL5,MYH1 5,SLAMF1,BSG,FARP2,GAS8,SETD2,ALX4,AP2B1,ARHGAP35,NSUN2 ,SGMS2,CCL3,FGF7,LAMA1,MYO7B,PREX1,SEMA5B,SPRED3,NHLH 2,PSG9,SULF2,MYH9,SOX4,PDGFD,PIK3CD,AGTPBP1,ASGR2,ITGA 8,ARID4A,ENPEP,FAM172A,MYO3B,PDZD7,WDP,CDH23,FGFR1, MEF2A,RYR1,ARID4B,ASXL3,BPGM,IL23R,P2RX7,SCUBE1,AR,BCOR ,CASP7,FGL2,SUFU,EYA1,IFNA8,IL1RL2,HLA- DRA,L3MBTL1,SEMA3A,ANKRD11,CDC73,MEIS2,ZMIZ1,FLT3,PDLI M5,PPARGC1B,TRIM72,FERMT2,HCN4,LTBR,MAP2K5,MARK1,PAP A42,SMPD3,DAB2,GPR55,LCPI,PBX1,RNF207,SRD5A2,ADAM10,DA AM1,FGF12,ITGA3,PLCL2,LRIG1,TRPM4,SHROOM4,BMP6,CIT,CLA</p>

			<p><i>SPI, TGFA, TMOD1, GAS2, HGF, MYLK, PRPSAP2, CALCR, CENPF, FLII, ZBTB16, ELN, INSR, PSMB7, SKI, AKT3, CTDP1, ENPP1, LIMK2, PAX3, WDR7, ATP5J, FPGS, KLF6, PRKX, EVC, MAD1L1, MFNG, RPRGRI1, CCDC141, PCK1, PDE6B, PPARA, TTN, ZFH2, CIGALT1, COL19A1, FHL1, MYH7, TAF1, CHD5, PPP2R3C, SPRED1, CHSY1, LCE1F, NTN4, BTRC, ESRP2, EXT1, MDM4, MYH6, NCAPH2, NCOA1, PRLR, SCO2, UMOD, ADAMTS5, CBFA2T3, DOCK7, FBXW11, HDAC5, KLHL3, TDGF1, A2M, SLC38A10, SLC40A1, STIM1, TTC39C, ADARB1, KCNC2, MYH11, NDE1, POU2AF1, SCEL, STAT3, TP63, BRIP1, HPN, USH2A, BLNK, DHRS2, DHRS7B, DTNBP1, LCE2A, LGALS9, LRP8, MAPKAPK2, UPK3A, BMPR1A, CSN3, PRKCA, SPINT2, UBASH3B, VLDLR, KRT75, ABII, CTSH, NCAPG2, RGCC, IL6R, LC E4A, MAP2K6, TFIP11, CLASP2, MAP2K1, SOS1, TPH1, COL6A3, FGF1, MCOLN3, TBX20, DCHS2, RGN, RREB1, TBX18</i></p>
GO:0098742	cell-cell adhesion via plasma-membrane adhesion molecules	7.431719455873718e-13	<p><i>CDH4, PCDH9, DAB1, MAPK14, DSCAM, PTPRT, NRXN1, SDK2, CDH13, LRRC4C, NRG1, LRFN5, UNC5D, PCDH11X, PCDH7, CNTN4, ROBO2, CDH11, CDH2, CDH9, HMCN1, GPC6, PCDH17, CDH8, DSC3, CLDN14, CELSR1, NTNG1, TENM4, EMB, TGFB2, CLSTN2, PCDH15, CDH12, LRRC4, CDH6, IGSF11, CDHR4, PALLD, FAT3, PTPRD, DSG4, CDH18, ROBO1, CDH17, PTPRM, TENM2, KIFAP3, ALCAM, SDK1, CLDN1, CRB1, TENM3, DSCAML1, GRID2, EFNA5, IGSF21, KIRREL3, SELE, IL1RAP, CXADR, GPC4, NLGN1, CADM3, PCDH19, CNTN6, CLSTN1, SELP, TENM1, IL1RAPL1, MYPN, BSG, CLDN11, CDH23, MAP2K5, PCDHGA1, PCDHGA10, PCDHGA11, PCDHGA12, PCDHGA2, PCDHGA3, PCDHGA4, PCDHGA5, PCDHGA6, PCDHGA7, PCDHGA8, PCDHGA9, PCDHGB1, PCDHGB2, PCDHGB3, PCDHGB4, PCDHGB6, PCDHGB7, CD84, PTPRF, UMOD, DCHS2</i></p>
GO:0030029	actin filament-based process	9.535668302169923e-13	<p><i>FMNL2, CDC42EP3, AKAP13, SORBS2, KCNQ1, SUN2, DOCK2, MTPN, FGD6, ANK2, KCND3, TF, KCNE1, CTNNA2, RHOC, ARFIP1, UTRN, PHACTR1, EPHA3, PHACTR3, PSTPIP2, RHOJ, PARK2, CORO2B, FRMPD4, SED3, FMNL3, SLIT2, DMD, CELSR1, FMN2, FRMD5, TRPM2, CTNNA3, RYR2, DIAPH2, NTRK3, PDXP, SH3BP1, FRMD6, FMN1, SEMA5A, LLGL2, PCDH15, SGCD, WASF1, ARHGAP12, MYH8, BCL2, KCNJ3, SIPA1L1, ARHGEF10, MICAL3, KCNE2, FLNC, PDE4D, KANK1, ACTN2, FRMD3, RAP1GDS1, MYLK3, PALLD, STRIP1, MTOR, GAS7, PKP2, ERMN, ATP1A1, PLN, EPB41L4B, KLHL1, EHP1, PRKCE, CAPN3, CCDC88C, DLC1, NEBL, THSD7B, NRP1, SHROOM3, ARHGEF18, ELMO1, PARVG, CDC42BP, DIAPH3, OPHN1, CCDC88A, CNN3, PDE4B, PRKG1, CDC42BP, STARD13, CACNA1C, TGFBRI, EPHA5, CACNA2D1, TRIOBP, PARVB, TRPM7, FLNB, EFNA5, SPECC1L, NF1, ARHGAP6, TTC8, SELE, RHPN2, NPHP4, RALA, NEB, PLS1, CAPZB, CXADR, MPRIP, FHOD3, SH3KBP1, PHACTR2, CACNA1D, MYH4, JAK2, SMAD3, BALAP2L1, TNF, COBL, FCHSD2, ARF1, CALD1, MYO6, EPS8, DAAM2, AMOTL1, CTNNA1, SCN1A, TENM1, ARHGEF11, MYH14, PRKAR1A, FAM171A1, SPIRE2, KIT, TRPV4, DNAJB6, MYPN, SEMA3E, SPECC1, FGF13, NUP155, WIPF2, FER, SPTA1, ABL2, F11R, FARP2, ARHGAP35, CD2AP, FGF7, MYO7B, PREX1, ARHGAP25, FGD4, MYH9, PACSIN2, NEDD9, SPTB, KCNE4, AUTS2, MEF2A, JMY, NTF3, EPB41L3, PDLIM5, PPARGC1B, FERMT2, HCN4, LCP1, RNF207, ACTN4, DAAM1, FGF12, SYNPO2, THSD7A, TRPM4, EPDR1, SHROOM4, CIT, CLASP1, SMTNL2, TMOD1, GAS2, MYO1B, CACNB2, ELN, NOS1AP, ARHGAP28, PAK1, LIMK2, TESK2, TTN, MYH7, PGM5, MYH6, ELMO2, MYH11, AMOT, PAK3, DTNBP1, MYOM2, ABII, RGCC, SPTBN4, CLASP2, PPP1R9A</i></p>
GO:0032879	regulation of localization	1.1197348698292729e-12	<p><i>SRGAP2B, PLCB1, CMKLRI, MAPK14, ABCG8, ASIC2, RAB27A, CACNA1E, KCNJ6, PTPRT, ANK3, WLS, DUSP22, FBLN1, ITGA2, ABCG1, KCNQ1, SUN2, GRIN3A, NRXN1, NRXN3, SLC1A2, RAB5A, DOCK2, PCNT, RIMS2, NRG3, TGFBRI, CDH13, ANK2, KCND3, DPP10, TF, SCN8A, KCNE1, GADD45A, KCNJ15, SYT17, PLXNA4, KCNG3, FLRT2, GPC3, NRG1, STXBP6, SHISA6, RFFL, SPIDR, IL4R, RYR3, MCTP1, ASTN2, SH3RF2, UNC5D, SEMA6D, ABHD17C, CTNNA2, CCR1, CFTR, TIAM1, PM20D1, RHOC, LDLRAD4, RASGRF1, ARFIP1, NKD1, SCAI, PIK3C3, UTRN, FBXO31, RAB7A, PHACTR1, SPOCK3, EPHA3, DCLK1, AGT, SHISA9, RHOJ, CDH2, PARK2, LAMA2, CORO2B, CYBB, MCTP2, SEMA3D, DACH1, NTN1, TRIM22, TRIM5, KCNH1, ZNF268, GPC6, USP6, PCDH17, KCNMA1, RIN3, APBA2, FTO, LAMA4, SLIT2, PDCC6, STXBP4, GPC5, IGF1R, MX2, SYT9, KCNK17, PTPRG, PXX, DMD, HCN1, SYT1, CACNA2D3, CACNG3, VCL, FGF14, GSG1L, STK24, DPP6, FRMD5, TRPM2, CNIH3, CTNNA3, RYR2, NTNG1, CATSPER2, DHRS7C, LRRK2, KCNH5, NTRK3, ILDR1, CHD7, KCNK13, SH3BP1, MCP2, MTMR2, SEMA4D, GSK3B, SLC8A1, PRKD1, TGFB2, DNAJC6, FUT4, S100A11, SEMA5A, SLC5A3, BDNF, LLGL2, PRKAR1B, PRKCH, KCNC1, LAMA3, NKAIN2, NR2F2, PLEKHM2, SNAP25, PML, USP36, AKAP6, PLXNA2, BCL2, KCNJ3, SLC30A5, DISP1, NKAIN3, NSF, FRMD4A, ITPR2, FYN, KCNE2, PARN, HECW1, NEU3, RCVRN, RHBDD1, PDE4D, KANK1, ENP2, ACTN2, ATP8A2, KCNS3, KCNIP4, UNC5C, KCND2, SCN1A, SLC1A1, MTOR, CADPS, LDB2, CHRM1, CTDSPL2, PKP2, UBXN2B, ABCA13, BMP</i></p>

			<p>ER,BBS2,ARL6IP5,ATP1A1,EPM2A,PLN,EPB41L4B,PRKCE,KMT2A,P RRCB,STON1,ADCY8,EFHB,FOXO3,LRRTM1,MITF,RAB31,SCP2,TRA PPC12,CAPN3,ITLN1,KALRN,DLC1,EDNRB,MSR1,ROBO1,TBC1D4,B NIP3L,FLT1,SGIP1,KCNC4,TACR3,SEC24B,ACSL5,PKHD1,TGM2,KD R,PRCP,CASK,ABCA12,APP,NRP1,PTPRM,ADTRP,SEMA3C,ADAM17 ,CAMK1D,ELP3,ETSI,GOPC,ROS1,TM9SF4,TCF7L2,BICD1,ABAT,RI MS3,SGK2,OPHN1,CCDC88A,CD38,RIN2,TUB,BCL2L1,HDAC4,PDE 4B,JAM2,MAPRE2,PRKG1,ACSL4,DNM3,STARD13,COMMD1,KCTD7 ,RABGEF1,GLI3,CACNA1C,CLDN1,STXBP5,DOCK4,RAP1A,TGFBRI, KCNJ12,EPHA5,IL16,RAPGEF1,CHRNA3,CHRNA5,SCFD1,TTC39B,C ACNA2D1,CACNA2D4,STX8,CLIC6,GAB2,SYCP1,IFNGR2,RASGRF2, ADORA2A,CAMK2G,EFNA5,MERTK,TAC4,CACNG2,MAGI2,NF1,RGS 7,KCNQ5,SORL1,TTC8,RELN,GRM5,HDAC9,PTPN9,SELE,DYNC1H1, MGAT5,NUMB,RALA,ADCYAP1R1,NAV3,JAG1,MEOX2,PPP3CA,KCN B2,KLF7,PLS1,DGKI,PER1,TBC1D5,WWTR1,ANKRD13A,DOCK10,PL SCR1,ATP9A,CNTN1,GPC4,GRM7,RIMS1,GPSM2,KAT7,STIM2,BORA, NLGN1,PTPRU,AKAP7,MAPK8IP2,CACNA1D,TPCN2,JAK2,AHI1,SM AD3,CD300A,NOS1,PLXNB1,CDK1,HDAC7,NVL,TNF,LRCH1,SNX5,P OMC,TMC2,DLG5,LGR6,ARID2,KCNK10,ADORA3,ARF1,MYO6,POL R1A,DOCK1,RUFY1,TSPAN13,ANO1,GCLC,KCNA6,RAB23,SMOC2,S ULF1,C5AR1,LRP4,PIK3R3,EFNB2,KCNH8,SAE1,TRDN,AMOTL1,SE LP,CTNNA1,SCN1A,TENM1,KCNH7,MYRIP,EGF,PTPN14,SEC16B,IL IRAPL1,KIT,TRPV4,ABCA5,DNAH11,KCNAB1,PTPRO,RAPGEF2,DN AJB6,HTR2C,SEMA3E,SLC30A8,FGF13,MARVELD3,EPHB2,NDFIP2, DAPK1,ERBB4,FER,MAP3K3,CACNG6,LRP5,SLAMF1,ABL2,BSG,GA S8,SETD2,AP2B1,CD2AP,NSUN2,PTPRK,ATP8A1,CCL3,FGF7,LAMA 1,SEMA5B,KIF2A,PACSIN2,PTGER3,SOX4,NEDD9,P2RX1,PDGFR,P K3CD,KCNE4,WDCP,FGFR1,MEF2A,OCLN,RYR1,UNC13B,MAP2,N TF3,P2RX7,PLA2G4A,RAPGEF4,RASA3,AR,RABGAP1L,SCAMP5,SUF U,CEP250,DENND5B,RBM4,BDKRB1,GNL3,PRKAA2,SEMA3A,THAD A,GNB5,REEP2,SRGAP3,FERMT2,HCN4,MAP2K5,SMPD3,TNN,DAB2 ,HDAC8,LCP1,RNF207,STX3,SYT2,ACTN4,ADAM10,CCL7,FGF12,IT GA3,KCNJ16,KMO,STAC,MYOM1,NUP153,PIN1,SYNPO2,TRPM4,AB CA8,BMP6,BTBD9,CHRM3,CLASP1,HGF,MYLK,CALCR,CAPN7,CAC NB2,NOS1AP,INSR,MACF1,PAK1,AKT3,ENPP1,FMR1,LIMK2,DKC1, PRKX,ULK4,MAD1L1,CD84,JPH4,PPARA,TTN,CORIN,FAM3D,FHL1, GNA13,NUP214,CACNA1A,SPRED1,SCN9A,C2,PTPRR,RIT2,PRKCG, UMOD,DOCK7,HDAC5,TDGF1,LYVE1,STIM1,ADARB1,KCNC2,STAT 3,USP7,AMOT,PAK3,PIK3R2,CASQ2,DTNBP1,RAP1B,LGALS9,SNCAI P,EFCAB1,APC,BMPRI1,DPP4,PRKCA,PTGES,SPINT2,UBASH3B,CT SH,DHX9,RGCC,RPH3AL,SRGAP1,IL6R,MAP2K6,SLAH3,SPTBN4,CL ASP2,MAP2K1,VPS35,C1QTNF3,FGF1,MCOLN3,C6ORF106,RGN,RR EB1</p>
GO:0006811	ion transport	1.519661758667789e-12	<p>PIEZO2,GABRB3,ABCC10,GABRG3,ASIC2,CACNA1E,KCNJ6,ANO2,A NK3,GRIK1,SLC24A3,KCNQ1,GRIN3A,NRXN1,SLC1A2,MS4A1,GRIA1 ,PKD1L1,SLC9B1,TRPM3,ANO4,ANK2,ANKH,KCND3,FAM155A,SLC 12A1,DPP10,TF,SCN8A,KCNE1,KCNJ15,SYT17,KCNG3,SCARA5,SHIS A6,RYR3,SLCO3A1,CCR1,CFTR,PM20D1,RASGRF1,GRID1,SLC36A2,S LC17A3,UTRN,SLC44A1,AGT,SHISA9,CHRM5,ATP6V0D1,PARK2,CY BB,KCNH1,SLC22A23,SLC5A4,CP,KCNMA1,CYB5R2,SLC44A5,SLC24 A4,SYT9,GABRG1,KCNK17,PXK,TRPC5,DMD,HCN1,SYT1,CACNA2D 3,CACNG3,NOX5,FGF14,GSGL,GRM1,SLC39A11,DPP6,TRP M2,CNIH3,RYR2,CATSPER2,DHRS7C,SLC1A3,KCNH5,SLC4A4,CHD7 ,KCNK13,EMB,SLC8A1,PRKD1,FLVCR1,ATP1A4,SLC5A3,SLCO2B1,Z DHHC17,KCNC1,GRIN2B,NKAIN2,SNAP25,PML,AKAP6,GRIK3,SN P23,BCL2,RALBP1,KCNJ3,SLC30A5,LRP2,NKAIN3,NSF,ITPR2,ABCC 9,FYN,KCNE2,SLC26A7,HECW1,RCVRN,PDE4D,ACTN2,GABRB1,KC NS3,GRIK2,KCNIP4,KCND2,SCN11A,SLC1A1,MFSD12,CHRM1,PKP2 ,SLC35F3,ARL6IP5,ATP1A1,EPM2A,PLN,SLCO1B1,SLCO1B3,HEPHL 1,PRKCE,SLC2A9,ATP6V1D,PRKCB,VDR,EFHB,SLC47A1,CAPN3,ED NRB,SLC12A8,KCNC4,CR1,GABRA2,CASK,APP,CALCRL,KCNK2,SLC 38A7,PEX5L,GOPC,ROS1,ABAT,GRIN2A,SLC30A7,PDE4B,GLRA2,NT RK2,ACSL4,MGST1,SLC5A10,COMMD1,CACNA1C,NIPA2,CYSLTR1, KCNJ12,SLC13A4,SLC25A21,SLC6A17,IL16,CHRNA3,CHRNA5,SLC16 A7,CACNA2D1,CACNA2D4,CLIC6,GLRA1,GRID2,IFNGR2,RASGRF2, TRPM7,ADORA2A,CAMK2G,CACNG2,NF1,RGS7,KCNQ5,MICU1,RE LN,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,ATP10A,PPP3CA,TMEM16 3,KCNB7,SLC7A1,PER1,SLC24A2,SLC38A6,SLC5A1,CNTN1,GRM7,G ABRA3,STIM2,SLC22A2,NLGN1,P2RX6,SLC22A3,AKAP7,MAPK8IP2, CACHD1,CACNA1D,GABRA5,TPCN2,SLC5A8,NOS1,MAGT1,SLC39A 10,TNF,PANX1,TMC2,KCNT2,TMC5,KCNK10,GRIA3,TSPAN13,ANO1, KCNA6,SLC7A7,TRPC4,CNGB3,KCNH8,TRDN,ANO10,SLC15A1,LRR C8C,LRRRC8D,SCN1A,ABCG2,GRIK4,GABRR2,KCNH7,TMEM150C,E</p>

			GF,TRPV4,KCNAB1,SLCO4C1,HTR2C,SLC30A8,FGF13,GABRB2,SLC22A15,ANO3,EPHB2,NDFIP2,ABCC1,DAPK1,CACNG6,FLVCR2,ABC C11,ATP8A1,CCL3,MCUR1,SLC39A12,P2RX1,KCNE4,CNGA4,SFXN3,CDH23,RYR1,GLRA3,P2RX7,PLA2G4A,RASA3,BDKRB1,BDKRB2,THADA,GNB5,GRIA2,ATP6V1H,HCN4,SCNN1A,ATP13A3,RNF207,SYT2,ACTN4,FGF12,KCNJ16,KMO,KCNN3,SLC16A4,STAC,TRPM4,ABCC2,CHRM3,CNGB1,TMCO3,MYLK,SLC38A4,CALCR,SLC13A3,SLC26A8,CACNB2,NOS1AP,ENPP1,FMR1,MICU2,ATP5J,GABRA1,GABRR3,CD84,JPH4,FHL1,SLC22A5,CACNA1A,TRPM1,SCN9A,ATP6V1E1,UMOD,KLHL3,SLC24A5,SLC38A10,SLC40A1,STIM1,TRPM6,KCNC2,SLC22A10,SLC22A25,SLC9A9,HPN,CASQ2,DTNBPI,SLC28A3,TMEM175,CNNM3,SLC7A8,TMEM63A,TUSC3,PTGES,UBASH3B,SLC9A2,GABRG2,MAP2K6,SLC16A12,SPTBN4,MCOLN3,ATP6V1E2,RGN
GO:0010975	regulation of neuron projection development	2.0042182105554602e-12	CDH4,DAB1,DSCAM,DCC,CHODL,FSTL4,LRRC4C,PLXNA4,SEMA6D,SPOCK1,CTNNA2,TIAM1,DPYSL2,CBFA2T2,ALK,FBXO31,ROBO2,EPHA3,AGT,CDH2,ZNF804A,NEGR1,SEMA3D,NTN1,HDAC2,SLIT2,IGF1R,PTPRG,TRPC5,DMD,CSMD3,STK24,NTNG1,LRRK2,NTRK3,DISC1,SEMA4D,GSK3B,PRKD1,SEMA5A,BDNF,RYK,SNAP25,PLXNA2,SIPTA1L1,EPHA7,FYN,CHN1,HECW1,PMP22,KANK1,ATP8A2,ROR1,FA T3,PTPRD,TIAM2,KALRN,ROBO1,TANC2,NRP1,SEMA3C,CAMK1D,C CDC88A,CD38,DENND5A,NTRK2,DNM3,RAP1A,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP300,GRID2,CAMK2G,EFNA5,MAGI2,RELN,PTPN9,MAP3K13,PPP3CA,ELAVL4,CNTN1,DGUOK,NLGN1,SHOX2,KI DINS220,PLXNB1,COBL,PPFIA2,BCL11A,LRP4,EFNB2,CDKL5,EFH C2,IL1RAPL1,TRPV4,PTPRO,RAPGEF2,SEMA3E,UBE3A,FGF13,EPH B2,TOX,ABL2,ARHGAP35,SEMA5B,SLC39A12,MAP2,BHLHB9,SEMA 3A,MARK2,PDLIM5,MARK1,DAB2,ITGA3,HGF,MACF1,PAK1,ULK4,CRMP1,PTPRF,RIT2,ISLR2,PAK3,DTNBPI,GAK,LRP8,KIAA0319,NG F,VLDLR,MAP2K1
GO:0006810	transport	2.550459407950314e-12	IGHV1OR21-1,PIEZO2,GABRB3,ABCC10,GABRG3,MAPK14,ABCG8,TRAPPC8,HNRNPA1L2,ASIC2,CTBP2,TMPRSS15,RAB27A,CACNA1E,KCNJ6,ANXA 8L1,ANO2,ANK3,IGHV4-31,HEATR5A,IGHV3-64,WLS,RBFOX1,SYN3,AKAP13,SNX31,VPS13D,GRIK1,IGHV1OR15-9,SLC24A3,IGHV4OR15-8,NPHP3,ITGA2,ABCG1,TMPRSS2,KCNQ1,SUN2,GRIN3A,NRXN1,TM PRSS3,SGSM1,NRXN3,SLC1A2,RAB5A,DOCK2,PCNT,MS4A1,RIMS2, GRIA1,CLEC16A,PKD1L1,DLG2,SLC9B1,TRPM3,ANO4,CDH13,ANK 2,TBC1D22A,ANKH,GRAMD1C,KCND3,LRP1B,FAM155A,SYNDIG1,S LC12A1,DPP10,TF,SCN8A,KCNE1,CEP41,TMEM108,KCNJ15,SYT17, KCNG3,GPC3,FBLN5,NRG1,SCARA5,STXBP6,PSMB2,SHISA6,IL4R,E NTHD1,CECR2,RYR3,MCTP1,ASTN2,SYT16,SLCO3A1,CCR1,CFTR,B BS9,SCFD2,PCTP,PM20D1,AGBL4,DNAJC15,RASGRF1,DPYSL2,GRI D1,SLC6A2,ARFIP1,SLC17A3,PIK3C3,UTRN,SPEF2,FAM3B,ERC1,KL RF2,RAB7A,TAPBP,EPHA3,PTPRN2,DCLK1,SLC44A1,AGT,ATG4C,E RC2,SHISA9,CHRM5,VTI1A,WDR11,ATP6V0D1,RHOJ,CDH2,PARK2, LOXL2,RN7SL659P,CYBB,MCTP2,SYTL5,DNAH9,NTN1,KCNH1,SLC2 2A23,SLC5A4,CP,DENND2A,RNF185,USP6,ITSN1,NCF4,PCDH17,KC NMA1,RIN3,APBA2,CYB5R2,PDCD6,STXBP4,SLC44A5,IGF1R,MX2,S LC24A4,E2F3,NUTF2,SYT9,TMEM241,CCDC91,GABRG1,KCNK17,P XK,SLC14A2,TRPC5,DMD,HCN1,SYT1,CACNA2D3,CACNG3,NOX5,F GF14,FSHR,GSG1L,GRIA4,GRM1,FMN2,HNRNPA2B1,SORCS2,JAKM IP1,SLC39A11,DPP6,TRPM2,CNIH3,IPO13,RYR2,OCA2,KIF3B,UNC1 3C,CATSPER2,DHRS7C,LRRK2,SLC1A3,KCNH5,KXD1,ILDR1,SLC4A 4,CHD7,DPY30,KCNK13,EMB,SH3BP1,MTMR2,GSK3B,SLC8A1,PRK D1,SERPINA5,FLVCR1,TGFB2,ATP1A4,MFSD9,VAV3,ATP9B,DNAJC 6,SLC5A3,SLCO2B1,LLGL2,PRKAR1B,ZDHHC17,KCNC1,DNAAF2,S NX24,WASF1,GRIN2B,ZDHHC14,EXT2,NKAIN2,ABCB5,MREG,SNAP 25,SNAP25-AS1,PITPNC1,PML,STOML1,SYBU,USP36,ARHGAP12,AKAP6,GRIK3, IGHV3-16,SNAP23,BCL2,CHMP4C,RALBP1,KCNJ3,SLC30A5,DISP1,LRP2,N KAIN3,NSF,FRMD4A,ITPR2,CD163,CD163L1,GDAP1,ABCC9,CYB56 1A3,MICAL3,RPGR,FYN,KCNE2,SLC26A7,NR4A1,HECW1,NEU3,RCV RN,RHBDD1,PDE4D,ATP10B,ENPP2,ABCB10,ACTN2,ATP8A2,GABR B1,CSNK1G3,EXOC4,KCNS3,GRIK2,KCNIP4,KCND2,SCN11A,SLC1A 1,UGCG,AGAP1,MFSD12,CADPS,TMPRSS4,VPS26B,CHRM1,CTDSP L2,PKP2,RANBP17,ABCA13,CCDC88B,SLC35F3,BBS2,HBE1,ARL61P 5,ATP1A1,EPM2A,PLN,SLCO1B1,SLCO1B3,ZMAT3,EVI5,EXOC6B,HE PHL1,EHBP1,IFT88,NLGN4X,PRKCE,SLC2A9,ATP6V1D,KMT2A,PRK CB,STON1,STON1-GTF2A1L,VDR,ADCY8,EFHB,FAM19A4,IGF2BP3,LRRTM1,RAB31,SC P2,SLC47A1,TRAPPC12,CAPN3,ITLN1,KALRN,CCDC88C,EDNRB,MS

			<p> <i>R1, TANC2, TBC1D4, BNIP3L, NASP, SGIP1, SLC12A8, STX12, CDH17, KCNC4, NBAS, TRAF3IP2, VPS37B, CBLN4, CRI, GABRA2, SEC24B, ACSL5, SK3, TGM2, CASK, IGHV4-28, ABCA12, APP, CALCRL, NRPI, RN7SL674P, TSNARE1, ELMO1, ADTRP, IMMP2L, PRELID2, KCNK2, SLC38A7, CAMK1D, IGF2R, ATF2, GC, PEX5L, SLC35F4, GOPC, ROS1, SMG6, TM9SF4, KPNB1, TCF7L2, BICD1, C</i> <i>CT6B, PARD3, THOC2, ABAT, FRAS1, GRIN2A, GRIP1, RIMS3, SGK2, KIFAP3, OPHN1, BCLAF1, SAMD9, SLC35F2, CCDC88A, CD38, DENND5A, RIN2, SLC30A7, TUB, NCF2, RNF126, SMG7, STK36, BCL2L1, PDE4B, GHR, GLRA2, NTRK2, ACSL4, MGST1, SLC5A10, DNM3, RASGRP1, TRAPPC10, ARR3, COMMD1, KCTD7, RAB11FIP4, RABGEF1, STARD4, C17ORF75, GLI3, CACNA1C, CLDN1, COG7, KIF16B, NIPA2, STXBP5, RAP1A, SRP54, CYSLTR1, KCNJ12, SVOPL, EPHA5, SLC13A4, VPS53, CUX1, SLC25A21, SLC6A17, CPE, IL16, PTTG1IP, RAPGEF1, STARD5, CHRNA3, CHRNA5, RAB2A, SLC16A7, SCFD1, SPAG17, TBX3, TTC39B, CACNA2D1, CACNA2D4, STX8, ATXN1, CLIC6, GAB2, GLRA1, HBD, PCSK5, GRID2, IFNGR2, N</i> <i>PC1, RASGRF2, SAMM50, TMEM50B, TRPM7, PSMA1, SV2B, VPS39, SPG11, ADORA2A, ADRBK2, CAMK2G, DYNC1I2, EFNA5, MERTK, CACNG2, MAGI2, NF1, RGS7, GOT2, GULP1, KCNQ5, SORL1, BID, TTC8, MICU1, R</i> <i>ELN, SLC39A8, SLC9C1, GRM5, IGHV4-4, SELE, SNUPN, DYNC1H1, PLSCR4, DDC, NUMB, IGHV3OR16-12, RALA, ADCYAP1R1, SLC35A5, ATP10A, EXOC5, MAN1A1, PPP3CA, T</i> <i>BC1D3B, TMEM163, KCNB2, KLF7, PLS1, SH3GL2, SLC7A1, SNX25, ATP8B4, CXADR, DGKI, GNPTAB, PER1, SLC24A2, TBC1D5, ANKRD13A, C</i> <i>LB, PLSCR1, SEC63, SLC38A6, SLC5A1, ATP9A, CNTN1, GRM7, RIMS1, GABRA3, STIM2, SLC22A2, NLGN1, P2RX6, SLC35F1, SH3KBP1, SLC22A3, N</i> <i>PR3, OSBPL5, AKAP7, MAPK8IP2, CACHD1, CACNA1D, LRRPPRC, NSG1, VPS37A, GABRA5, TPCN2, JAK2, SLC5A8, SPNS2, AH11, SLC25A48, S</i> <i>AD3, VPS41, XKR4, CD300A, NOS1, CDK1, HGSNAT, MAGT1, MCM3AP, SLC39A10, TNF, PANX1, SNX5, CPT1B, POMC, PPPIA2, TMC2, BLOC1S6, FCHSD2, TRIM23, KCNT2, TMC5, KCNK10, SPAG16, ADORA3, ARF1, M</i> <i>O6, DOCK1, GRIA3, IGLC2, IGLL5, KIF18A, RUFY1, TSPAN13, ANO1, GC</i> <i>LC, KCNA6, QKI, RAB23, TPD52, SLC7A7, TOMM34, TRPC4, LRP4, CNGB3, EFN</i> <i>B2, KCNH8, RAB24, RSRG1, SAE1, SHFM1, TRDN, ANO10, SLC15A1, CLSTN1, LRRC8C, LRRC8D, CSE1L, NSG2, SCN1A, TENM1, ABCG2, D</i> <i>MBT1, GRIK4, WDR35, ARHGAP11B, DYNC2H1, GABRR2, KCNH7, MYRIP, STX16, STX16-</i> <i>NPEPL1, TMEM150C, EGF, MIP, PTPN14, SEC16B, SPIRE2, VPS8, IL1RA</i> <i>PL1, KIT, KPNB3, TRPV4, ABCA10, ABCA5, ABCA6, DNAH11, KCNAB1, N</i> <i>APG, SLC40C1, HTR2C, SLC30A8, UBE3A, FGF13, GABRB2, GRM4, NUP155, SLC22A15, ANO3, EPHB2, IGHV3-</i> <i>72, NDFIP2, ABCC1, DAPK1, ERBB4, FER, CACNG6, FLVCR2, IFT43, LRP5, XKR7, SLAMF1, ABCC11, ABL2, BSG, F11R, GAS8, SETD2, TMEM50A, V</i> <i>PS13C, AP2B1, CD2AP, NSUN2, SV2C, ATP8A1, CCL3, FGF7, MCUR1, M</i> <i>O7B, ARHGAP25, IPO11, SPA17, ARF4, ARFGAP3, MYH9, PACSIN2, PTGER3, SLC2A13, SLC39A12, SOX4, SPRN, MIPEP, OSCP1, P2RX1, PIK3CD, R</i> <i>GPDI, AGTPBP1, ASGR2, KCNE4, CNGA4, PLAT, SFXN3, TNKS, UNC13A, VPS45, CDH23, MEF2A, OCLN, RYR1, TBC1D9, UNC13B, GLRA3, M</i> <i>AP2, NTF3, P2RX7, PLA2G4A, RAPGEF4, SORCS1, ARRDC4, RASA3, ZDHHC11, ZDHHC11B, ZDHHC9, ATG2B, COG1, KIAA1109, RABGAP1L, SCA</i> <i>MP5, SNX30, SUFU, DENND5B, EXOC2, RBM4, BDKRB1, BDKRB2, AFTP</i> <i>H, THADA, ANXA11, AQP10, GNB5, GRIA2, KIF4A, MOGAT2, PROS1, REEP2, LDLRAD3, SNX7, TRIM72, VPS16, ATP6V1H, HCN4, SCNN1A, SMPD3, A</i> <i>TP13A3, DAB2, LCP1, RNF207, STX3, SYT2, ACTN4, ADAM10, BLOC1S5, FGF12, KCNJ16, KMO, TXNDC5, KCNN3, RFTN1, RNASEH2B-</i> <i>AS1, SLC16A4, STAC, MYOM1, NUP153, TRPM4, ABCA8, ABCC2, BMP6, B</i> <i>TBD9, CHRM3, CLASP1, EIF4ENIF1, SIDT1, CNGB1, PCDHGA3, TMCO3, G3BP2, MYLK, SLC38A4, CALCR, CENPF, MYO1B, OSBPL3, RN7SL318P, SLC13A3, SLC26A8, TLK1, CACNB2, NOS1AP, OSBPL10, SNAP29, INSR, MACF1, PAK1, PSMB7, CHM, ENPPI1, FMRI, MICU2, THEM4, ATP5J, GABRA1, IGHV1-69, MON2, ABCD1, AMPH, CHKA, GABRR3, IGHV1-46, AP1G2, CD84, EPG5, ESYT2, JPH4, PPARA, SIL1, SORT1, TNFAIP8L3, TTN, CORIN, FAM3D, FHL1, HEATR5B, NUP214, SLC22A5, CACNA1A, TRPM1, SCN9A, ATP6V1E1, C2, IGHV1-18, NUP62CL, OPTN, RIT2, EXT1, IFT81, PRKCG, PRLR, UMOD, DOCK7, ELMO2, FBXW11, ICK, KLHL3, GOSR2, SLC24A5, SLC38A10, SLC40A1, S</i> <i>TIMI, TRPM6, KCNC2, NDE1, SLC22A10, SLC22A25, SLC9A9, STAT3, USP7, DNMI1P46, HPN, PIK3R2, SLC15A5, CASQ2, DTNBP1, GAK, RAP1B, SLC28A3, TMEM175, CNNM3, LGALS9, LRP8, SNCAIP, MAPKAPK2, SLC7A8, TMEM63A, TUSC3, UPK3A, CKAP5, CSN3, HDLBP, PTGES, SRP19, UBASH3B, VLDLR, EXOC6, DHX9, RGCC, RPH3AL, SLC9A2, GABRG2, MAP2K6, NCALD, OSBPL1A, SIAH3, SLC16A12, SPTBN4, AP5M1, CLASP2, MAP2K1, TPH1, VPS35, CIQTNF3, MCOLN3, ATP6V1E2, RGN, RN7SL673P</i> </p>
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GO:0034329	cell junction assembly	2.6808689704299873e-12	GABRB3,DSCAM,ASIC2,DUSP22,ITGA2,NRXN1,NRXN3,SDK2,CTNND2,SHANK2,ANK2,SYNDIG1,FLRT2,NRG1,LRFN5,RHOC,ILIRAPL2,ROBO2,EPHA3,AGT,CDH11,CDH2,CDH9,CORO2B,NEGR1,NTN1,TLN2,GPC6,PCDH17,MYO9A,CDH8,CNTN5,CLDN14,VCL,NTRK3,SH3BP1,MECP2,SEMA4D,LINGO2,CLSTN2,FMN1,BDNF,PRKCH,RYK,CNTNAP2,TNS1,BCL2,CDH10,EPHB1,CDH12,LRR4,CDH6,EPHA7,THBS2,ACTN2,PKP2,PTPRD,NLGN4X,CDH18,LRTM1,DLC1,GRHL2,CBLN4,GABRA2,KDR,APP,NRP1,PKP4,PARD3,OPHN1,NTRK2,DNM3,SDK1,CLDN1,FRMPD2,RAP1A,PEAK1,RAPGEF1,GRID2,EFNA5,ARHGAP6,KIRREL3,LRTM3,NPHP4,ILIRAP,GPC4,NLGN1,SMAD3,PLXNB1,HDAC7,TNF,DLG5,LRP4,EFNB2,CLSTN1,CTNNA1,ILIRAPL1,TRPV4,PTPRO,RAPGEF2,FGF13,GABRB2,MARVELD3,EPHB2,TBCD,ERBB4,SLITRK6,F11R,CLDN11,PTPRK,WDPCP,OCLN,BHLHB9,EPB4IL3,PDLIM5,PTPRA,FERMT2,CLASP1,PKP1,MACF1,TESK2,GABRA1,MPDZ,AMOT,RAP1B,APC,PRKCA,GABRG2,CLASP2,VPS35
GO:0031344	regulation of cell projection organization	3.333890180514201e-12	CDH4,DAB1,CDC42EP3,DSCAM,DCC,ITGA2,NRXN1,RAB5A,CHODL,FSTL4,LRR4C,SDCCAG8,PLXNA4,PLCE1,SEMA6D,SPOCK1,CTNNA2,TIAM1,DPYSL2,CBFA2T2,ALK,FBXO31,ROBO2,EPHA3,AGT,CDH2,ZNF804A,NEGR1,SEMA3D,NTN1,HDAC2,MYO9A,SLIT2,IGF1R,CEP97,PTPRG,TRPC5,DMD,CSMD3,STK24,TRPM2,NTNG1,LRRK2,NTRK3,DISC1,WRAP73,SEMA4D,GSK3B,PRKD1,SEMA5A,BDNF,RYK,GRIN2B,SNAP25,PLXNA2,ARHGAP24,SIPA1L1,EPHA7,FYN,CHN1,CD44,HECW1,PMP22,KANK1,ENPP2,ATP8A2,DCDC2,MTOR,ROR1,MOV10,FAT3,ERMN,PTPRD,TIAM2,IFT88,KALRN,ROBO1,TANC2,NRP1,TENM2,SEMA3C,CAMK1D,GRIP1,CCDC88A,CD38,DENND5A,ADAMTS16,HDAC4,NTRK2,DNM3,RAP1A,TGFBF1,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP300,GRID2,CAMK2G,EFNA5,MAGI2,RELN,PTPN9,MAP3K13,RALA,PPP3CA,PLS1,CAPZB,ELAVL4,CNTN1,DGUOK,NLGN1,SHOX2,KIDINS220,PLXNB1,COBL,PPFIA2,BCL11A,EPSS8,CCP110,LRP4,EFNB2,TENM1,CDKL5,EFHC2,ILIRAPL1,KIT,TRPV4,PTPRO,RAPGEF2,SEMA3E,UBE3A,FGF13,EPHB2,TOX,FER,ABL2,ARHGAP35,SEMA5B,CDKL1,SLC39A12,WDPCP,AUTS2,OCLN,MAP2,P2RX7,BHLHB9,SEMA3A,MARK2,PDLIM5,MARK1,DAB2,ITGA3,HGF,MACF1,PAK1,FMR1,LIMK2,ULK4,CRMP1,PTPRF,RIT2,ISLR2,PAK3,DTNBP1,GAK,LRP8,APC,KIAA0319,NGF,VLDLR,MAP2K1,VPS35,ATMIN,RREB1
GO:0003013	circulatory system process	1.0535248154043366e-11	ASIC2,SVEP1,AKAP13,SLC24A3,KCNQ1,TNNI3K,SLC1A2,CELF2,ANK2,KCND3,KCNE1,RYR3,SLCO3A1,SLC44A1,AGT,CORO2B,DBH,KCNMA1,SLIT2,RP56K2,MDM2,DMD,FSHR,CTNNA3,RNLS,RYR2,SLC1A3,SLC44A,CHD7,MECP2,SLC8A1,TGFB2,ATP1A4,SLC5A3,SLCO2B1,SGCD,EXT2,NR2F2,SGCG,ACSM3,KCNJ3,LRP2,ABCC9,FYN,KCNE2,PDE4D,TBXAS1,NAV2,RAP1GDS1,MYLK3,SLC1A1,MTOR,PKP2,ATP1A1,PLN,CTNNBIP1,EDNRB,NOX4,TACR3,PRCP,SERPING1,IMMP2L,THRB,ABAT,CD38,ADAMTS16,HDAC4,PDE4B,PRKG1,CACNA1C,DIOCK4,CYSLTR1,KCNJ12,SLC6A17,SLC16A7,CACNA2D1,PCSK5,TRHDE,ADORA2A,TAC4,MEOX2,SH3GL2,SLC7A1,CXADR,WWTR1,KL,SLC5A1,SLC22A2,SLC22A3,NPR3,CACNA1D,JAK2,SHOX2,SMAD3,NOS1,TNF,SNX5,POMC,ADORA3,GCLC,TRDN,SCN1A,ABCG2,CMA1,TRPV4,CPS1,PTPRO,FGF13,NUP155,SGCZ,ABCC1,LRP5,ARHGAP35,ATP8A1,SLC2A13,P2RX1,KCNE4,ENPEP,MEF2A,OCLN,AR,BDKRB1,BDKRB2,ADRA1B,SEMA3A,PDE5A,FERMT2,HNC4,RNF207,FGF12,TRPM4,ABCC2,BMP6,CHRM3,SMTNL2,FLI1,SLC13A3,CACNB2,ELN,NOS1AP,INSR,PDE3A,ARHGAP42,PPARA,TTN,CORIN,GNA13,MYH7,SLC22A5,QRFPE,EXT1,MYH6,UMOD,AMOT,CASQ2,SLC7A8,ITGA1,ASB3,MAP2K6,NCALD,SLC16A12,SPTBN4,TBX20,TBX18
GO:0120035	regulation of plasma membrane bounded cell projection organization	1.1859210347085754e-11	CDH4,DAB1,CDC42EP3,DSCAM,DCC,NRXN1,RAB5A,CHODL,FSTL4,LRR4C,SDCCAG8,PLXNA4,PLCE1,SEMA6D,SPOCK1,CTNNA2,TIAM1,DPYSL2,CBFA2T2,ALK,FBXO31,ROBO2,EPHA3,AGT,CDH2,ZNF804A,NEGR1,SEMA3D,NTN1,HDAC2,SLIT2,IGF1R,CEP97,PTPRG,TRPC5,DMD,CSMD3,STK24,TRPM2,NTNG1,LRRK2,NTRK3,DISC1,WRAP73,SEMA4D,GSK3B,PRKD1,SEMA5A,BDNF,RYK,GRIN2B,SNAP25,PLXNA2,ARHGAP24,SIPA1L1,EPHA7,FYN,CHN1,CD44,HECW1,PMP22,KANK1,ENPP2,ATP8A2,DCDC2,MTOR,ROR1,FAT3,PTPRD,TIAM2,IFT88,KALRN,ROBO1,TANC2,NRP1,TENM2,SEMA3C,CAMK1D,CCDC88A,CD38,DENND5A,ADAMTS16,HDAC4,NTRK2,DNM3,RAP1A,TGFBF1,TNR,CUX1,TENM3,RAPGEF1,CHRNA3,EP300,GRID2,CAMK2G,EFNA5,MAGI2,RELN,PTPN9,MAP3K13,RALA,PPP3CA,PLS1,CAPZB,ELAVL4,CNTN1,DGUOK,NLGN1,SHOX2,KIDINS220,PLXNB1,COBL,PPFIA2,BCL11A,EPSS8,CCP110,LRP4,EFNB2,TENM1,CDKL5,EFHC2,ILIRAPL1,KIT,TRPV4,PTPRO,RAPGEF2,SEMA3E,UBE3A,FGF13,EPHB2,TOX,FER,ABL2,ARHGAP35,SEMA5B,CDKL1,SLC39A12,WDPCP,AUTS2,OCLN,MAP2,P2RX7,BHLHB9,SEMA3A,MARK2,PDLIM5,MARK1,DAB2,ITGA3,HGF,MACF1,PAK1,FMR1,LIMK2,ULK4,CRMP1,PT

			<p>PRF, RIT2, ISLR2, PAK3, DTNBP1, GAK, LRP8, APC, KIAA0319, NGF, VLDLR, MAP2K1, VPS35, ATMIN, RREB1</p>
GO:0051234	establishment of localization	1.340984783725342e-11	<p>IGHV1OR21-1, PIEZO2, GABRB3, ABCC10, GABRG3, MAPK14, ABCG8, TRAPPC8, HNRNP A1L2, ASIC2, CTBP2, TMPRSS15, RAB27A, CACNA1E, KCNJ6, ANXA8L1, ANO2, ANK3, IGHV4-31, HEATR5A, IGHV3-64, WLS, RBFOX1, SYN3, AKAP13, SNX31, VPS13D, GRIK1, IGHV1OR15-9, SLC24A3, IGHV4OR15-8, NPHP3, ITGA2, ABCG1, TMPRSS2, KCNQ1, SUN2, GRIN3A, NRXN1, TMPRSS3, SGSM1, NRXN3, SLC1A2, RAB5A, DOCK2, PCNT, MS4A1, RIMS2, GRIA1, CLEC16A, PKD1L1, DLG2, SLC9B1, TRPM3, ANO4, CDH13, ANK2, TBC1D22A, ANKH, GRAMD1C, KCND3, LRP1B, FAM155A, SYNDIG1, SLC12A1, DPP10, TF, SCN8A, KCNE1, CEP41, TMEM108, KCNJ15, SYT17, KCNG3, GPC3, FBLN5, NRG1, SCARA5, STXBP6, PSMB2, SHISA6, SPIDR, IL4R, ENTHD1, CECR2, RYR3, MCTP1, ASTN2, SYT16, SLC03A1, CCR1, C FTR, BBS9, SCFD2, PCTP, PM20D1, AGBL4, DNAJC15, RASGRF1, DPYSL2, GRID1, SLC6A2, ARFIP1, SLC17A3, PIK3C3, UTRN, SPEF2, FAM3B, ER C1, KLRF2, RAB7A, TAPBP, EPHA3, PTPRN2, DCLK1, SLC44A1, AGT, ATG4C, ERC2, SHISA9, CHRM5, VT11A, WDR11, ATP6V0D1, RHOJ, CDH2, P ARK2, LOXL2, RN7SL659P, CORO2B, CYBB, MCTP2, SYTL5, DNAH9, NTN1, KCNH1, SLC22A23, SLC5A4, CP, DENND2A, RNF185, USP6, ANKFN1, ITSNI, NCF4, PCDH17, KCNMA1, RIN3, APBA2, CYB5R2, PDCD6, STXB P4, SLC44A5, IGF1R, MDM2, MX2, SLC24A4, E2F3, NUTF2, SYT9, TMEM241, CCDC91, GABRG1, KCNK17, PXX, SLC14A2, TRPC5, DMD, HCN1, SY T1, CACNA2D3, CACNG3, NOX5, FGF14, FSHR, GSG1L, GRIA4, GRM1, F MN2, HNRNPA2B1, SORCS2, JAKMIP1, SLC39A11, DPP6, WDR83OS, TR PM2, CNIH3, IPO13, RYR2, OCA2, KIF3B, UNC13C, CATSPER2, DHRS7C, LRRK2, SLC1A3, KCNH5, KXD1, NUSAP1, ILDR1, SLC44A, CHD7, DPY30, KCNK13, EMB, SH3BP1, MTMR2, GSK3B, SLC8A1, PRKD1, SERPINA5, F LVCR1, TGFB2, ATP1A4, MFSD9, VAV3, ATP9B, DNAJC6, SLC5A3, SLCO 2B1, LLLGL2, PRKAR1B, ZDHHC17, KCNC1, DNAAF2, SNX24, WASF1, GR IN2B, ZDHHC14, EXT2, NKA1N2, ABCB5, MREG, SNAP25, SNAP25-AS1, PITPNC1, PML, STOML1, SYBU, USP36, ARHGAP12, AKAP6, GRIK3, IGHV3-16, SNAP23, BCL2, CHMP4C, RALBP1, KCNJ3, SLC30A5, DISP1, LRP2, N KAIN3, NSF, FRMD4A, ITPR2, CD163, CD163L1, GDAP1, ABCC9, CYB56 1A3, MICAL3, RPGR, FYN, KCNE2, SLC26A7, NR4A1, HECW1, NEU3, RCV RN, RHBDD1, PDE4D, ATP10B, ENPP2, ABCB10, ACTN2, ATP8A2, GABR B1, CSNK1G3, EXOC4, KCNS3, GRIK2, KCNP4, KCND2, SCN11A, SLC1A 1, UGCG, AGAP1, MFSD12, CADPS, TMPRSS4, VPS26B, CHRM1, CTDSP L2, PKP2, RANBP17, UBXLN2B, ABCA13, CCDC88B, SLC35F3, BBS2, HBE 1, ARL6IP5, ATP1A1, EPM2A, PLN, SLC01B1, SLC01B3, ZMAT3, EVI5, EX OC6B, HEPHL1, EHBP1, IFT88, NLGN4X, PRKCE, SLC2A9, ATP6V1D, K MT2A, PRKCB, STON1, STON1-GTF2A1L, VDR, ADCY8, EFHB, FAM19A4, IGF2BP3, LRRTM1, RAB31, SC P2, SLC47A1, TRAPPC12, CAPN3, ITLN1, KALRN, PARD3B, CCDC88C, E DNRB, MSR1, TANC2, TBC1D4, BNIP3L, NASP, SGIP1, SLC12A8, STX12, C DH17, KCNC4, NBAS, TRAF3IP2, VPS37B, CBLN4, CRI, GABRA2, SEC24 B, ACSL5, PKHD1, STK3, TGM2, CASK, IGHV4-28, ABCA12, APP, CALCRL, NRPI, RN7SL674P, TSNAE1, ELMO1, ADTR P, IMMP2L, PRELID2, KCNK2, SLC38A7, CAMK1D, IGF2R, ATF2, GC, PE X5L, SLC35F4, GOPC, ROS1, SMG6, TM9SF4, KPNB1, TCF7L2, BICD1, C CT6B, PARD3, THOC2, ABAT, FRAS1, GRIN2A, GRIP1, RIMS3, SGK2, KIF AP3, OPHN1, BCLAF1, SAMD9, SLC35F2, CCDC88A, CD38, DENND5A, R IN2, SLC30A7, TUB, NCF2, RNF126, SMG7, STK36, BCL2L1, PDE4B, GHR, GLRA2, NTRK2, ACSL4, MGST1, SLC5A10, DNM3, RASGRP1, TRAPPC10, ARR3, COMMD1, KCTD7, RAB11FIP4, RABGEF1, STARD4, C17ORF75, GLI3, CACNA1C, CLDN1, COG7, KIF16B, NIP2, STXBP5, LAMP5, RAP1 A, SRP54, CYSLTR1, KCNJ12, SVOPL, EPHA5, SLC13A4, VPS53, CUX1, SLC25A21, SLC6A17, CPE, IL16, PTTG1IP, RAPGEF1, STARD5, CHRNA3, C HRNA5, RAB2A, SLC16A7, SCFD1, SPAG17, TBX3, TTC39B, CACNA2D1, CACNA2D4, STX8, ATXN1, CLIC6, GAB2, GLRA1, HBD, PCSK5, GRID2, IF NGR2, NPC1, PIBF1, RASGRF2, SAMM50, TMEM50B, TRPM7, PSMA1, SV 2B, VPS39, SPG11, ADORA2A, ADRBK2, CAMK2G, DYNC1I2, EFNA5, ME RTK, CACNG2, MAGI2, NF1, RGS7, GOT2, GULP1, KCNQ5, SORL1, BID, T TC8, MICU1, RELN, SLC39A8, SLC9C1, GRM5, IGHV4-4, SELE, SNUPN, DYNC1H1, PLSCR4, DDC, NUMB, IGHV3OR16-12, RALA, ADCYAP1R1, SLC35A5, ATP10A, EXOC5, MAN1A1, PPP3CA, T BC1D3B, TMEM163, KCNB2, KLF7, PLS1, SH3GL2, SLC7A1, SNX25, ATP 8B4, CXADR, DGKI, GNPTAB, PER1, SLC24A2, TBC1D5, ANKRD13A, CB LB, PLSCR1, SEC63, SLC38A6, SLC5A1, ATP9A, CNTN1, GRM7, RIMS1, G ABRA3, GPM2, STIM2, SLC22A2, NLGN1, P2RX6, SLC35F1, SH3KBPI, S LC22A3, NPR3, OSBPL5, AKAP7, MAPK8IP2, CACHD1, CACNA1D, LRPP</p>

			<p>RC,NSG1,VPS37A,GABRA5,TPCN2,JAK2,SLC5A8,SPNS2,AH11,SLC25A48,SMAD3,VPS41,XKR4,CD300A,NOS1,CDK1,HGSNAT,MAGT1,MC3AP,SLC39A10,TNF,PANX1,SNX5,CPT1B,POMC,PPF1A2,TMC2,BLOC1S6,FCHSD2,TRIM23,KCNT2,TMC5,KCNK10,SPAG16,ADORA3,ARF1,MYO6,DOCK1,GRIA3,IGLC2,IGLL5,KIF18A,RUFY1,TSPAN13,ANO1,GCLC,KCNA6,OKI,RAB23,TPD52,SLC7A7,TOMM34,TRPC4,LRP4,CNGB3,EFNB2,KCNH8,RAB24,RSRC1,SAE1,SHFM1,TRDN,ANO10,SLC15A1,CLSTN1,INSC,LRRC8C,LRRC8D,CSE1L,NSG2,SCN1A,TENM1,ABCG2,DMBT1,GRIK4,WDR35,ARHGAP11B,DYNC2H1,GABRR2,KCNH7,MYRIP,STX16,STX16-NPEPL1,TMEM150C,EGF,MIP,PTPN14,SEC16B,SPIRE2,VPS8,IL1RAPL1,KIT,KPNA3,TRPV4,ABCA10,ABCA5,ABCA6,DNAH11,KCNAB1,NAPG,SLCO4C1,HTR2C,SLC30A8,UBE3A,FGF13,GABRB2,GRM4,NUP155,SLC22A15,ANO3,EPHB2,IGHV3-72,NDFIP2,ABCC1,DAPK1,ERBB4,FER,CACNG6,FLVCR2,IFT43,LRP5,XKR7,SLAMF1,ABCC11,ABL2,BSG,F11R,GAS8,SETD2,TMEM50A,VPS13C,AP2B1,CD2AP,NSUN2,SV2C,ATP8A1,CCL3,FGF7,MCUR1,MYO7B,ARHGAP25,IPO11,REEP1,SPA17,ARF4,ARFGAP3,MYH9,PACSN2,PTGER3,SLC2A13,SLC39A12,SOX4,SPRN,MIPEP,OSCP1,P2RX1,PIK3CD,RGPD1,AGTPBP1,ASGR2,ITGA8,KCNE4,CNGA4,PDZD7,PLAT,SFXN3,TNKS,UNC13A,VPS45,WDPCP,CDH23,MEF2A,OCNL,RYR1,TBC1D9,UNC13B,GLRA3,MAP2,NTF3,P2RX7,PLA2G4A,RAPGEF4,SORCS1,ARRDC4,RASA3,ZDHHC11,ZDHHC11B,ZDHHC9,ATG2B,COG1,KIAA1109,RABGAP1L,SCAMP5,SNX30,SUFU,DENND5B,EXOC2,RBM4,BDKRB1,BDKRB2,AFTPH,THADA,ANXA1,AQP10,GNB5,GRIA2,KIF4A,MOGAT2,PROS1,REEP2,LDLRAD3,SNX7,TRIM72,VPS16,ATP6V1H,HCN4,MARK1,SCNN1A,SMPD3,ATP13A3,DAB2,LCP1,RNF207,STX3,SYT2,ACTN4,ADAM10,BLOC1S5,FGF12,KCNJ16,KMO,TXNDC5,KCNN3,RFTN1,RNASEH2B-AS1,SLC16A4,STAC,MYOM1,NUP153,TRPM4,ABCA8,ABCC2,BMP6,BTBD9,CHRM3,CLASP1,EIF4ENIF1,SIDT1,CNGB1,PCDHGA3,TMCO3,G3BP2,MYLK,SLC38A4,CALCR,CENPF,MYO1B,OSBPL3,RN7SL318P,SLC13A3,SLC26A8,TLK1,CACNB2,NOS1AP,OSBPL10,SNAP29,INSR,MACF1,PAK1,PSMB7,CHM,ENPP1,FMR1,LIMK2,MICU2,THEM4,ATP5J,DKC1,GABRA1,IGHV1-69,MON2,ABCD1,AMPH,CHKA,GABRR3,IGHV1-46,MAD1L1,AP1G2,CD84,EPG5,ESYT2,JPH4,PPARA,SIL1,SORT1,TNFAIP8L3,TTN,CORIN,FAM3D,FHL1,HEATR5B,NUP214,SLC22A5,CACNA1A,TRPM1,SCN9A,ATP6V1E1,C2,IGHV1-18,NUP62CL,OPTN,RIT2,EXT1,IFT81,PRKCG,PRLR,UMOD,DOCK7,ELMO2,FBXW11,ICK,KLHL3,GOSR2,SLC24A5,SLC38A10,SLC40A1,STIM1,TRPM6,KCNC2,NDE1,SLC22A10,SLC22A25,SLC9A9,STAT3,USP7,DNM1P46,HPN,PIK3R2,SLC15A5,USH2A,CASQ2,DTNBP1,GAK,RAP1B,SLC28A3,TMEM175,CNNM3,LGALS9,LRP8,SNCAIP,MAPKAPK2,SLC7A8,TMEM63A,TUSC3,UPK3A,CKAP5,CSN3,HDLBP,PTGES,SRP19,UBASH3B,VLDLR,EXOC6,DHX9,RGCC,RPH3AL,SLC9A2,GABRG2,MAP2K6,NCALD,OSBPL1A,SLAH3,SLC16A12,SPTBN4,AP5M1,CLASP2,MAP2K1,TPH1,VPS35,C1QTNF3,MCOLN3,ATP6V1E2,RGN,RN7SL673P</p>
GO:0055085	transmembrane transport	1.7185660776443625e-11	<p>PIEZO2,GABRB3,ABCC10,GABRG3,MAPK14,ABCG8,ASIC2,CACNA1E,KCNJ6,ANO2,ANK3,GRIK1,SLC24A3,ABCG1,KCNQ1,GRIN3A,NRXN1,SLC1A2,GRIA1,PKD1L1,SLC9B1,TRPM3,ANO4,ANK2,ANKH,KCND3,FAM155A,SLC12A1,DPP10,SCN8A,KCNE1,KCNJ15,KCNG3,GPC3,SCARA5,PSMB2,SHISA6,RYR3,SLCO3A1,CFTR,PM20D1,DNAJC15,RASGRF1,GRID1,SLC6A2,SLC17A3,UTRN,SLC44A1,AGT,SHISA9,ATP6V0D1,CYBB,KCNH1,SLC22A23,SLC5A4,RNF185,KCNMA1,STXBPA,SLC44A5,SLC24A4,TMEM241,GABRG1,KCNK17,SLC14A2,TRPC5,DMD,HCN1,CACNA2D3,CACNG3,NOX5,FGF14,GSG1L,GRIA4,GRM1,SLC39A11,DPP6,TRPM2,CNIH3,RYR2,OCA2,CATSPER2,DHRS7C,SLC1A3,KCNH5,SLC4A4,CHD7,KCNK13,EMB,SLC8A1,PRKD1,FLVCR1,ATP1A4,MFSD9,SLC5A3,SLCO2B1,ZDHHC17,KCNC1,GRIN2B,ABCB5,SNAP25,AKAP6,GRIK3,BCL2,RALBP1,KCNJ3,SLC30A5,LRP2,ITPR2,ABCC9,CYB561A3,FYN,KCNE2,SLC26A7,HECW1,PDE4D,ABCB10,ACTN2,GABRB1,KCNS3,GRIK2,KCNIP4,KCND2,SCN11A,SLC1A1,MFSD12,ABCA13,ARL6IP5,ATP1A1,EPM2A,PLN,SLCO1B1,SLCO1B3,PRKCE,SLC2A9,ATP6V1D,PRKCB,SLC47A1,CAPN3,ITLN1,EDNRB,SLC12A8,CDH17,KCNC4,GABRA2,ACSL5,ABCA12,APP,KCNK2,SLC38A7,GCPEX5L,SLC35F4,GOPC,GRIN2A,SLC35F2,SLC30A7,PDE4B,SLR42,SLC5A10,COMMD1,CACNA1C,NIP42,SRP54,KCNJ12,SVOPL,SLC13A4,SLC25A21,SLC6A17,CHRNA3,CHRNA5,SLC16A7,CACNA2D1,CACNA2D4,CLIC6,GLRA1,GRID2,IFNGR2,RASGRF2,TRPM7,PSMA1,SV2B,CACNG2,RGS7,KCNQ5,MICU1,RELN,SLC39A8,SLC9C1,GRM5,SLC35A5,ATP10A,TMEM163,KCNB2,SLC7A1,SLC24A2,SEC63,SLC38A6,SL</p>

			<p>C5A1, GABRA3, STIM2, SLC22A2, NLGN1, P2RX6, SLC35F1, SLC22A3, AKAP7, MAPK8IP2, CACHD1, CACNA1D, GABRA5, TPCN2, SLC5A8, SPNS2, SLC25A48, NOS1, MAGT1, SLC39A10, TNF, PANX1, CPT1B, TMC2, KCNT2, TMC5, KCNK10, GRIA3, TSPAN13, ANO1, KCNA6, SLC7A7, TRPC4, CNGB3, KCNH8, TRDN, ANO10, SLC15A1, LRRC8C, LRRC8D, SCN1A, ABCG2, GRIK4, GABRR2, KCNH7, TMEM150C, MIP, TRPV4, ABCA10, ABCA5, ABCA6, KCNAB1, SLC04C1, HTR2C, SLC30A8, FGF13, GABRB2, SLC22A15, ANO3, EPHB2, ABCC1, DAPK1, CACNG6, FLVCR2, ABCC11, SV2C, ATP8A1, CCL3, MCUR1, SLC2A13, SLC39A12, OSCP1, P2RX1, KCNE4, CNGA4, SFXN3, MEF2A, OCLN, RYR1, GLRA3, P2RX7, RASA3, BDKRB1, THADA, AQP10, GNB5, GRIA2, ATP6V1H, HCN4, SCNN1A, ATP13A3, RNF207, ACTN4, FGF12, KCNJ16, KCNN3, SLC16A4, STAC, TRPM4, ABCA8, ABCC2, CHRM3, CNGB1, TMC03, SLC38A4, CALCR, SLC13A3, SLC26A8, CACNB2, NOS1AP, INSR, PSMB7, ENPP1, FMR1, MICU2, ATP5J, GABRA1, ABCD1, GABRR3, JPH4, SORT1, FHL1, SLC22A5, CACNA1A, TRPM1, SCN9A, ATP6V1E1, SLC24A5, SLC38A10, SLC40A1, STIM1, TRPM6, KCNC2, SLC22A10, SLC22A25, SLC9A9, HPN, SLC15A5, CASQ2, SLC28A3, TMEM175, CNNM3, SLC7A8, TMEM63A, TUSC3, UBASH3B, SLC9A2, GABRG2, SLC16A12, MCOLN3, ATP6V1E2, RGN</p>
GO:0034220	ion transmembrane transport	1.9527491540557424e-11	<p>PIEZO2, GABRB3, GABRG3, ASIC2, CACNA1E, KCNJ6, ANO2, ANK3, GRIK1, SLC24A3, KCNQ1, GRIN3A, NRXN1, SLC1A2, GRIA1, PKD1L1, SLC9B1, TRPM3, ANO4, ANK2, ANKH, KCND3, FAM155A, SLC12A1, DPP10, SCN8A, KCNE1, KCNJ15, KCNG3, SCARA5, SHISA6, RYR3, CFTR, PM20D1, RASGRF1, GRID1, SLC6A2, SLC17A3, UTRN, AGT, SHISA9, ATP6V0D1, CYBB, KCNH1, KCNMA1, SLC24A4, GABRG1, KCNK17, TRPC5, DMD, HCN1, CACNA2D3, CACNG3, NOX5, FGF14, GSG1L, GRIA4, GRM1, SLC39A11, DPP6, TRPM2, CNH3, RYR2, CATSPER2, DHRS7C, SLC1A3, KCNH5, SLC4A4, CHD7, KCNK13, EMB, SLC8A1, PRKD1, ATP1A4, ZDHHC17, KCNC1, GRIN2B, SNAP25, AKAP6, GRIK3, KCNJ3, SLC30A5, LRP2, ITPR2, ABCC9, FYN, KCNE2, SLC26A7, HECW1, PDE4D, ACTN2, GABRB1, KCNS3, GRIK2, KCNIP4, KCND2, SCN11A, SLC1A1, MFSD12, ARL6IP5, ATP1A1, EPM2A, PLN, PRKCE, SLC2A9, ATP6V1D, SLC47A1, CAPN3, EDNRB, SLC12A8, KCNC4, GABRA2, APP, KCNK2, SLC38A7, PEX5L, GOPC, GRIN2A, SLC30A7, PDE4B, GLRA2, SLC5A10, COMMD1, CACNA1C, NIPA2, KCNJ12, SLC13A4, SLC25A21, SLC6A17, CHRNA3, CHRNA5, SLC16A7, CACNA2D1, CACNA2D4, CLIC6, GLRA1, GRID2, IFNGR2, RASGRF2, TRPM7, CACNG2, RGS7, KCNQ5, MICU1, RELN, SLC39A8, SLC9C1, GRM5, ATP10A, TMEM163, KCNB2, SLC7A1, SLC24A2, SLC5A1, GABRA3, STIM2, SLC22A2, NLGN1, P2RX6, AKAP7, MAPK8IP2, CACHD1, CACNA1D, GABRA5, TPCN2, SLC5A8, NOS1, MAGT1, SLC39A10, TNF, PANX1, TMC2, KCNT2, TMC5, KCNK10, GRIA3, TSPAN13, ANO1, KCNA6, TRPC4, CNGB3, KCNH8, TRDN, ANO10, SLC15A1, LRRC8C, LRRC8D, SCN1A, GRIK4, GABRR2, KCNH7, TMEM150C, TRPV4, KCNAB1, HTR2C, SLC30A8, FGF13, GABRB2, ANO3, EPHB2, ABCC1, DAPK1, CACNG6, ATP8A1, CCL3, MCUR1, SLC39A12, P2RX1, KCNE4, CNGA4, SFXN3, RYR1, GLRA3, P2RX7, RASA3, BDKRB1, THADA, GNB5, GRIA2, ATP6V1H, HCN4, SCNN1A, ATP13A3, RNF207, ACTN4, FGF12, KCNJ16, KCNN3, STAC, TRPM4, CHRM3, CNGB1, TMC03, CALCR, SLC13A3, SLC26A8, CACNB2, NOS1AP, FMR1, MICU2, ATP5J, GABRA1, GABRR3, JPH4, FHL1, SLC22A5, CACNA1A, TRPM1, SCN9A, ATP6V1E1, SLC24A5, SLC40A1, STIM1, TRPM6, KCNC2, SLC9A9, HPN, CASQ2, SLC28A3, TMEM175, SLC7A8, TMEM63A, TUSC3, UBASH3B, SLC9A2, GABRG2, SLC16A12, MCOLN3, ATP6V1E2, RGN</p>
GO:0009888	tissue development	3.1375770929342685e-11	<p>PLCB1, MAPK14, RUNX1, MYO18B, SVEP1, WLS, RBFOX1, AKAP13, SORBS2, SLC24A3, NPHP3, ITGA2, KCNQ1, TNC, MTPN, TGFB3, ANKH, CSMD1, PLXNA4, GPC3, NRG1, ETS2, PSMB2, HYDIN, ALDH1A2, CECR2, NLN, ASTN2, SEMA6D, CCR1, CFTR, TIAM1, RHOC, COL22A1, LDLRAD4, CBFA2T2, NKD1, ARID5B, ROBO2, C2CD3, EPHA3, PRKACB, COL15A1, AJAPI, AGT, RCAN1, CDH2, FHL2, LOXL2, LAMA2, GREB1L, SEMA3D, NTN1, GPC6, NELL1, ZNRF3, FTO, HDAC2, MYO9A, SLIT2, PDCD6, KRT25, MDM2, SLC24A4, SMAD1, DMD, BASP1, KRT2, SIPA1L3, VCL, CELSR1, FSHR, ATRX, RYR2, NTNG1, TENM4, STRC, KIF26B, PRICKLE2, CHD7, SH3BP1, SOX6, SEMA4D, GSK3B, LGR5, SLC8A1, FRMD6, TGFB2, FMN1, LCE2B, LCE2C, SEMA5A, KRT74, PRKCH, RIPK4, RYK, PCDH15, SGCD, WDR72, EXT2, LAMA3, ANKRD6, NR2F2, NR5A2, PML, PPARGC1A, SGCG, ARHGAP12, AKAP6, PLXNA2, BCL2, RAD51B, ARHGAP24, EPHB1, CSGA, LNACT1, LRP2, TMEM100, VANGL2, EPHA7, NR4A1, CD44, CASP6, PDE4D, PYY, ACTN2, TNMD, EXOC4, LAMB4, ZNF516, SERPINB7, UNC5C, MYLK3, UCGG, ZFPM2, PALLD, RARB, MTOR, ROR1, LDB2, MEGF9, PKP2, BMPER, MATN3, PGK1, ZFP64, COL11A1, PLN, CTNBP1, SOX8, DSG4, VDR, CCDC88C, DLC1, EDNRB, ROBO1, RXFP1, SATB2, NOX4, GRHL2, COL2A1, NEBL, SEC24B, PKHD1, STK3, TGM2, KDR, PPHLN1, EDA, ABCA12, COL18A1, NRP1, SHROOM3, LGR4, EGFLAM, LCE6A, THRB, KCNK2, SEMA3C, ADAM17, TSPEAR, ATF2, EFEMP1, ROS1, TGFB11, TCF7L2,</p>

			<p> <i>ATRNLI,FRASI,HRNR,OPHN1,TRPS1,CNN3,ADAMTS16,HDAC4,SOX5,GHR,STARD13,SPRED2,GLI3,KAZN,CLDN1,KIF16B,SPRR2B,SPRR2E,CERS3,RAP1A,SAFB2,TGFBRI,KRTAP6-1,CHST11,RAPGEF1,EP300,TBX3,CYP7B1,SPRR4,TRIOBP,TP73,PSMA1,FLNB,FAM20A,SPRR2G,MAGI2,NF1,SORL1,IFT80,TTC8,DMRT1,ASXL1,POR,HDAC9,COL12A1,RALA,EXOC5,FBXL17,JAG1,MEOX2,PP3CA,KLF7,NEB,PLS1,CXADR,WWTR1,KL,GSTA2,GPC4,TRIM16,FHOD3,EHF,JAK2,SHOX2,AH11,SMAD3,COL8A1,RDH10,CDK1,HIVEP3,ITPK1,TNF,COBL,OVOL2,ZFPM1,BMP15,DLG5,PHEX,ARID2,MM P20,FREM2,HMGA2,MYO6,SULT1B1,MBOAT2,SULF1,LRP4,EFNB2,ALPK2,DMBT1,MYH14,PRKAR1A,TNFRSF19,BPTF,MLLT3,CD109,EGF,TRPV4,CC2D2A,CPS1,EDAR,EFNB1,PTPRO,RAPGEF2,ESR1,SEMA3E,SGCZ,FNDC3A,KRT76,TOX,ERBB4,MINPP1,SLITRK6,LRP5,MYH15,BSG,F11R,SETD2,ALX4,ARHGAP35,NSUN2,SGMS2,CCL3,FGF7,LAMA1,SEMA5B,SPRED3,SULF2,SOX4,PDGFD,PIK3CD,ASGR2,ITGA8,ARID4A,FAM172A,PDZD7,WDPKP,CDH23,FGFR1,MEF2A,RYR1,ARID4B,KEAP1,P2RX7,SCUBE1,AR,BCOR,KIAA1109,SUFU,EYA1,SEMA3A,CDC73,PDLIM5,FERMT2,HCN4,MARK1,SMPD3,DAB2,PBX1,RNF207,DAAM1,ITGA3,POU2F3,RPS6KA6,TRPM4,BMP6,CLASPI,TMOD1,HGF,MYLK,CENPF,ZBTB16,ELN,INSR,PAK1,PSMB7,SKI,CTDPI,ENPP1,PRKX,EVC,PCK1,PPARA,TTN,C1GALT1,COL19A1,GNAI3,MYH7,SIPR3,SPRED1,AKR1C2,CHSY1,KRT4,LCE1F,NTN4,BTRC,PGM5,ESRP2,EXT1,MDM4,MYH6,PRLR,UMOD,KLHL3,SLC40A1,STIM1,ADARB1,MYH11,SECL,TP63,HPN,USH2A,DHRS7B,RAP1B,LCE2A,UPK3A,BMPRI1,SPINT2,ABI1,CTSH,RGCC,EDA2R,IL6R,LCE4A,FTIP11,CLASP2,MAP2K1,SOS1,FGF1,MCOLN3,TBX20,RREB1,TBX18</i> </p>
GO:0050793	regulation of developmental process	9.45561093895826e-11	<p> <i>ISM1,CDH4,ZHX3,PLCB1,CMKLR1,DAB1,OMA1,GTTF2,FMNL2,CDC42EP3,MAPK14,DSCAM,RUNX1,ASIC2,DCC,RBFOX1,FBLN1,NPHP3,ABCG1,GRIN3A,NRXN1,ZRANB1,PLEKHB2,CHODL,RIMS2,MTPN,FGD6,TGFB3,FSTL4,LRRC4C,ANKH,RUNX1T1,SYNDIG1,GADD45A,PCP4,ACIN1,SYT17,PLXNA4,FLRT2,GPC3,NRG1,PSMB2,IL4R,NLN,SUZ12,SEMA6D,CCR1,CCR3,CFTR,RBFOX2,TIAM1,RHOC,AGBL4,LDLRAD4,DYSL2,NKD1,ALK,ZNF536,FBXO31,CNTN4,ROBO2,EPHA3,AJAPI,AGT,ATAT1,RHOJ,CDH2,PARK2,LOXL2,LAMA2,KIR2DL4,CYBB,SEMA3D,NTN1,ZNF268,GPC6,NELL1,SETD3,ZNRF3,FMNL3,TRIO,FTO,HDAC2,LAMA4,MYO9A,SLIT2,PDCD6,IGF1R,MDM2,PALMD,SMAD1,TRPC5,DMD,SYT1,BASP1,KRT2,VCL,CELSR1,CSMD3,FSHR,MAEL,STK24,NTNG1,TENM4,LRRK2,RORB,NTRK3,RORA,PRICKLE2,CHD7,DISC1,HEXB,GLIS1,SOX6,MECP2,MTMR2,SEMA4D,GSK3B,LINGO2,SLC8A1,PRKD1,FLVCR1,TGFB2,CLSTN2,PRAMEF12,SEMA5A,BDNF,PRKCH,RYK,ABI3BP,KDM4C,LAMA3,RAG1,RAG2,ANKRD6,PML,PPARGC1A,AKAP6,FBN1,PLXNA2,BCL2,RALBP1,ZNF675,EPHB1,SIPA1L1,LRP2,TMEM100,VANGL2,EPHA7,ZBTB7C,FYN,CHN1,C44,HECW1,THBS2,FOXO1,KANK1,ENPP2,ABCB10,ATP8A2,KLF13,MME,TNMD,CELF4,MYLK3,ZFPM2,RARB,STRIP1,MTOR,ROR1,MOV10,FAT3,PKP2,BMPER,ERMN,PTPRD,TIAM2,BBS2,PGK1,CTNNBIP1,SOX8,PRKCB,VDR,FOXO3,LRRTM1,MITF,CAPN3,KALRN,DLC1,EDNRB,MSR1,ROBO1,TANC2,FLT1,GRHL2,TCF4,MAPK9,ZNF277,CRI,SEC24B,PKHD1,STK3,TGM2,VASH2,KDR,ARHGAP15,ABCA12,APP,NRP1,PTPRM,SHROOM3,ARHGEF18,LGR4,ST7,KCNK2,SEMA3C,CAMK1D,MAP3K5,ATF2,ETS1,NR2C2,EFEMP1,PRTG,TGFB1I1,TCF7L2,PARD3,GRIPI,TRPS1,RIN2,HDAC4,SOX5,DNMT1,GHR,JAM2,NTRK2,DNM3,RASGRP1,CAMK4,SDK1,SPRED2,GLI3,RAP1A,TGFBRI,CYSLTR1,ADAM12,DICER1,TNR,CUX1,CHRNA3,HMG20A,TBX3,WIF1,TRIOBP,TP73,GRID2,PARVB,PSMA1,ADCK1,EFNA5,BRD1,MAGI2,NF1,SORL1,TEAD4,DMRT1,ASXL1,EIF4E,POR,RELN,TNFRSF11B,GRM5,HDAC9,LRRTM3,NAPEPLD,NUMB,MAP3K13,RALA,IL1RAP,ATP10A,JAG1,PPP3CA,KLF7,PLS1,CAPZB,WWTR1,KL,ELAVL4,GPC4,RIMS1,TRIM16,GABPA,KAT7,TMEM135,AGGF1,ASAP1,N4BP2L2,NLGN1,SH3KBP1,JAK2,SHOX2,AH11,SMAD3,PLXNB1,TCF12,CDK1,HDAC7,TNF,COBL,OVOL2,ZFPM1,PPFIA2,BLOC1S6,DLG5,MMP20,BRINP1,BCL11A,HMGA2,NEK4,DOCK1,EPS8,MBOAT2,DAAM2,SMOC2,SULF1,CSAR1,LRP4,EFNB2,CLSTN1,ALPK2,CTNNA1,WDFY2,CDKL5,MYH14,FAM171A1,MLLT3,CD109,EGF,CMA1,IL1RAPL1,KIT,TRPV4,VWC2,ABCA5,RAPGEF2,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,UBE3A,DNMBP,FGF13,PLAG1,EPHB2,TOX,ERBB4,MAP3K3,RBM19,SLITRK6,SPTA1,FNIP1,LRP5,CAMP,F11R,ARHGAP35,NSUN2,SGMS2,CCL3,FGF7,LAMA1,PREX1,SEMA5B,SPRED3,FGD4,PSG9,MYH9,SLC39A12,SOX4,NEDD9,PIK3CD,KDM3A,UNC13A,WDPKP,FGFR1,MAP2,IL23R,KEAP1,NTF3,P2RX7,AR,BCOR,FGL2,KIAA1109,SUFU,EYA1,ILIRL2,RBM4,HLA-DRA,BHLHB9,L3MBTL1,NEK5,SEMA3A,CDC73,EPB41L3,MARK2,MEIS2,PDE5A,ZMIZ1,PDLIM5,PPARGC1B,TRIM72,FERMT2,MARK1,S</i> </p>

			MPD3,TNN,ZC3H13,DAB2,GPR55,PBX1,RNF207,SYT2,ACTN4,ADAM10,BLOC1S5,CCL7,DAAM1,EEF1E1,PRAMEF8,NREP,RPS6KA6,TRPM4,BMP6,CLASP1,EIF4ENIF1,CFDP1,GAS2,HGF,CENPF,SCUBE3,ZBTB16,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CTDP1,ENPP1,FMR1,JDP2,PRKX,PCK1,PPARA,SORT1,ZFH2,GNA13,PPP2R3C,SIPR3,SPRED1,NTN4,PTPRF,RBL1,CCDC3,MYH6,NCOA1,PRLR,TYMP,DOCK7,HDAC5,AKAP2,STIM1,STAT3,TP63,AMOT,HPN,ISLR2,PAK3,USH2A,DTNBP1,LGALS9,LRP8,APC,BMPRI1,KIAA0319,NGF,PRKCA,UBASH3B,VLDLR,ADAMTS20,CTSH,RGCC,CYB5D2,GPR21,IL6R,SPITBN4,CLASP2,MAP2K1,PRAMEF7,SOS1,TPH1,VPS35,FGF1,TBX20, RGN,RREB1,TBX18
GO:0051128	regulation of cellular component organization	1.3533079549239339e-10	CDH4,PLCB1,DAB1,OMA1,CDC42EP3,MAPK14,DSCAM,RUNX1,ASIC2,DCC,DUSP22,AKAP13,VPS13D,ITGA2,ATF7IP,NRXN1,RAB5A,CHODL,RIMS2,MTPN,SHANK2,NRG3,LEC16A,FSTL4,CDH13,LRRC4C,CSNK2A1,PDE4DIP,SYNDIG1,TF,ERCC4,SDCCAG8,PRDM9,PSMC6,SYT17,PLXNA4,FLRT2,GPC3,FBLN5,NRG1,STXBP6,SPIDR,IL4R,LRFN5,MCTP1,PLCE1,STK38L,SEMA6D,SPOCK1,ABHD17C,CTNNA2,TIAM1,RHOC,LDLRAD4,DNAJC15,DPYSL2,ARFIP1,CBFA2T2,IL1RAPL2,ALK,FBXO31,RAB7A,ROBO2,EPHA3,AGT,ATAT1,CDH2,PARK2,CORO2B,FRMPD4,ZNF804A,NEGR1,SEMA3D,NTN1,GPC6,RIN3,HDAC2,MYO9A,SLIT2,CDH8,RPS6KA2,LCMT1,IGF1R,SYT9,CEP97,PTPRG,SACS,TRPC5,DMD,SYT1,VCL,NOX5,CELSR1,CSMD3,FSHR,GSGL1,HNRNP2B1,SKAP1,STK24,ATRX,TRPM2,NTNG1,LRRK2,IGFBP7,NTRK3,NUSAP1,IQCI-SCHIP1,DISC1,PAN3,WRAP73,CDC42,PDXP,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LINGO2,PRKD1,TGFB2,CLSTN2,FMN1,DNAJC6,SEMA5A,BDNF,PRKCH,RYK,WASF1,GRIN2B,PLEKHM2,SNAP25,PML,PPARGC1A,USP36,AKAP6,CNTNAP2,LRFN2,PLXNA2,BCL2,CHMP4C,RALBP1,ARHGAP24,EPHB1,SIPA1L1,ARHGEF10,EPHA7,FYN,PARN,CHN1,SMARCA4,CD44,HECW1,NEU3,PMP22,THBS2,KANK1,ENPP2,ACTN2,ATP8A2,CCDC2,MYLK3,RERG,GNB4,MTOR,RMI2,ROR1,MOV10,FAT3,ABCA13,ERMN,PTPRD,SCAF8,TIAM2,OGFOD1,EPM2A,CTNBNIP1,HAS3,IFT88,PRKCE,STON1,LRRTM1,RAB31,TRAPPC12,KALRN,DLC1,ROBO1,TANC2,TBC1D4,BNIP3L,FAP,SGIP1,CDH17,CENPV,MAPK9,MDM1,PKHD1,KDR,PPLN1,APP,DGKB,NRP1,ARHGEF18,TENM2,ADTRP,SEMA3C,ADAM17,CAMK1D,ROSI,SMG6,TRABD2B,BICD1,TLK2,GRIP1,SGK2,OPHN1,CCDC88A,CD38,DEND5A,BCL2L1,ADAMTS16,HDAC4,DNMT1,MAPRE2,NTRK2,ACSL4,DNM3,RABGEF1,ZNF207,CLDN1,MORC2,STXBP5,RAP1A,TGFBF1,EPHA5,TNR,CUX1,PEAK1,TENM3,RAPGEF1,CHRNA3,EP300,SCFD1,TRIOBP,GRID2,ADCK1,CAMK2G,EFNA5,MAGI2,SORL1,ARHGAP6,BID,TTC8,DMRT1,RELN,PTPN9,SELE,DYNC1H1,LRRTM3,NUMB,RHPN2,MAP3K13,NPHP4,RALA,IL1RAP,NAV3,ATP10A,PPP3CA,NEB,PLS1,CAPZB,TBC1D5,ANKRD13A,ELAVL4,MNAT1,CNTN1,DGUOK,GPC4,RIMS1,TMEM67,GPSM2,L3MBTL3,TMEM135,ASAP1,BORA,FHOD3,NLGN1,CTTNBP2,RAD51AP1,DDX3X,SHOX2,AHI1,SMAD3,BAIAP2L1,CD300A,KIDINS220,PLXNB1,DCBLD2,NBN,TNF,COBL,PPFIA2,ADNP2,DLG5,FCHSD2,INO80,SCAF4,AFAP1,ARF1,BCL11A,KIF18A,RUFY1,GCCLC,PMEPA1,EPS8,CCP110,LRP4,EFNB2,NET1,PHF8,CLSTN1,SELP,TENM1,ARHGEF11,CDKL5,EFHC2,MLLT3,EGF,IL1RAPL1,KIT,SLIT3,TRPV4,PTPRO,RAPGEF2,DNAJB6,ESR1,SEMA3E,UBE3A,EBAG9,FGF13,EPHB2,RNF4,TBCD,TOX,FER,SLITRK6,SPTA1,FNIP1,LRP5,SLAMF1,ABL2,F11R,FARP2,VPS13C,AP2B1,ARHGAP35,CD2AP,ATP8A1,SEMA5B,CDKL1,ARF4,MYH9,NSMCE2,PACSIN2,SLC39A12,SPTB,SEERTAD2,TNKS,UNC13A,WDCP,APTS2,OCN,UNC13B,MAP2,SLX1B,SOST,NTF3,P2RX7,TEX14,AR,KIAA1109,SCAMP5,SNX30,C10ORF90,BDKRB1,BHLHB9,GNL3,L3MBTL1,PRKAA2,SEMA3A,CDC73,EPB4IL3,MARK2,PDLIM5,PTPR4,SNX7,FERMT2,MAP2K5,MARK1,PAPPA2,SMPD3,DAB2,HDAC8,LCPI,SYT2,ADAM10,ITGA3,LGII,PIN1,SYNP02,BMP6,BTBD9,CIT,CLASP1,TGFA,TMOD1,G3BP2,HGF,RASSF8,CENPF,TLK1,ELN,ARHGAP28,INSR,MACF1,PAK1,PDE3A,CDC16,CTDPI,ENPP1,FMR1,LIMK2,CHFR,DKC1,ULK4,BMF,CRMP1,MAD1L1,PPARA,CLIP1,FHL1,KATNBL1,FNIP2,ESR2,PTPRF,MPDZ,RIT2,G3BP1,PRKCQ,USP7,AMOT,HPN,ISLR2,PAK3,DTNBP1,GAK,RAP1B,LRP8,SNCAIP,APC,CKAP5,DPP4,KIAA0319,NGF,VLDLR,MTRF1,OSGIN2,RGCC,TFIP11,SPTBN4,CLASP2,MAP2K1,VPS35,TBX20,ATMIN,RREB1
GO:0051239	regulation of multicellular organism	1.9144579307097004e-10	ISMI,CDH4,PLCB1,CMKLR1,DAB1,OMA1,GTTF2,MAPK14,ABCG8,DSCAM,RUNX1,ASIC2,DCC,FBLN1,NPHP3,ITGA2,KCNQ1,NRXN1,TNIN3K,CHODL,RIMS2,MTPN,CELF2,TGFBF3,FSTL4,ANK2,ANKH,KCND3,SYNDIG1,TF,KCNE1,TMEM108,GADD45A,ACIN1,PLXNA4,FLRT2,NRG1,SHISA6,IL4R,RYR3,PLCE1,KSR2,SEMA6D,CCR1,CCR3,CFT R,RBFOX2,DTX4,PCTP,TIAM1,LDLRAD4,ZBTB20,BTN2A1,FBXO31,

	al process		<p> <i>KLRF2,ROBO2,AJAP1,AGT,SHISA9,FBXO32,RHOJ,LOXL2,DLGAP1,LAMA2,KIR2DL4,CORO2B,CYBB,SEMA3D,NTN1,TKX,NELL1,DBH,TSPAN8,SETD3,KCNMA1,FTO,HDAC2,LAMA4,SLIT2,PDCD6,IGF1R,MDM2,SMAD1,NOVA1,PTPRG,PDE9A,TRPC5,DMD,BASPI,VCL,NOX5,FSHR,GRM1,MAEL,CTNNA3,RNLS,RYR2,TENM4,LRKK2,NTRK3,RORA,CHD7,DISC1,SH3BP1,SOX6,MECP2,MTMR2,SEMA4D,GSK3B,LINGO2,SLC8A1,PRKD1,FLVCR1,OGT,TGFB2,CLSTN2,SEMA5A,SLC5A3,BDNF,PRKCH,RYK,POLR3C,ABI3BP,LAMA3,RAG1,RAG2,NR2F2,PML,PPARGC1A,AKAP6,FBN1,NLRP2,NLRP7,PLXNA2,BCL2,ZNF675,EPHB1,KCNJ3,IL12RB2,LRP2,TMEM100,NR4A2,ABCC9,EPHA7,KCNE2,ADAMTS18,NR4A1,THBS2,FOXO1,PDE4D,TBXAS1,ENPP2,ABC B10,ATP8A2,KLF13,MME,TNMD,IGSF11,ZNF516,CELF4,SERPINB7,SCN11A,SLC1A1,ZFPM2,RARB,NLRP12,MTOR,DDX21,PKP2,BMPER,CCDC88B,PTPRD,TIAM2,BBS2,PGK1,PLCL1,ATP1A1,PLN,CTNNB1,P1,EPB41L4B,SOX8,NLGN4X,PRKCE,PRKCB,VDR,FAM19A4,FOXO3,IGF2BP3,LRRTM1,MITF,CAPN3,KALRN,EDNRB,ROBO1,FAP,FLT1,GRHL2,MAP3K7,TACR3,CR1,STK3,TGM2,VASH2,KDR,PRCP,ABCA12,APP,CALCRL,NRP1,PTPRM,LGR4,SERPING1,ADTRP,CD58,KAT5,THRB,KCNK2,SEMA3C,ADAM17,TFPI,ATF2,ETS1,NR2C2,EFEMP1,PRTG,TGFB11I,RPS6KA5,TCF7L2,PAR3,TRAF3,ABAT,TRPS1,CD38,RIN2,HDAC4,PDE4B,SOX5,GHR,JAM2,MAPRE2,NTRK2,PRKG1,RASGRP1,STARD13,CAMK4,RABGEF1,SPRED2,GLI3,CACNA1C,DOCK4,TGFBFRI,CYSLTR1,KCNJ12,MGLL,PRDX4,ADAM12,DICER1,TNR,CUX1,IL16,CD96,CHRNA3,TBX3,CACNA2D1,DIO2,GLRA1,TP73,GRID2,PIBF1,PPP1R12B,ADORA2A,CAMK2G,EFNA5,MERTK,TAC4,BRD1,NF1,SORL1,TEAD4,DMRT1,POR,RELN,TNFRSF11B,GRM5,HDAC9,IL18R1,IL1RL1,DYNC1H1,LRRTM3,NDRG2,NUMB,MAP3K13,ILIRAP,NAV3,JAG1,MEOX2,PPP3CA,KCNB2,KLF7,PLS1,CXADR,PER1,WWTR1,KL,CBLB,RIMS1,TRIM16,GABPA,KAT7,AGGF1,NLGN1,AKIRIN2,RNF128,NPR3,CACNA1D,DDX3X,JAK2,SHOX2,AHI1,SMAD3,NOS1,PLXNB1,CDK1,HDAC7,LTB,TNF,OVOL2,PANX1,SNX5,ZFPM1,POMC,DLG5,MLIP,MMP20,BRINP1,PRG3,ADORA3,BCL11A,CLEC4A,HMGA2,DOCK1,LTBP1,MBOAT2,DAAM2,SMOC2,SULF1,C5AR1,LRP4,EFNB2,TRDN,ZNF423,CLSTN1,ALPK2,CTNNA1,TSHZ3,CDKL5,CD109,EGF,ALDH1A1,CMA1,ILIRAPL1,KIT,TRPV4,PTPRO,RAPGEF2,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,FGF13,MARVELD3,NUP155,PLAG1,EPHB2,TOX,ERBB4,MAP3K3,RBM19,SLITRK6,PTH2R,SLAMF1,BSG,CAMP,F11R,SETD2,CD2AP,SGMS2,CCL3,FGF7,LAMA1,SEMA5B,SPRED3,IL20RA,PSG9,SULF2,PTGER3,SLC39A12,SOX4,P2RX1,PIK3CD,KCNE4,KDM3A,PLAT,WDPCP,FGFR1,MEF2A,UNC13B,MAP2,STIL23R,KEAP1,P2RX7,AR,BCOR,FGL2,KIAA1109,SCAMP5,IL1RL2,N4BP1,BDKRB2,HLA-DRA,ADRA1B,BHLHB9,L3MBTL1,SEMA3A,CDC73,MEIS2,PDE5A,PROSI,ZMIZ1,PPARGC1B,ESRRG,FERMT2,HCN4,MAP2K5,MARK1,SMPD3,ZC3H13,DAB2,GPR55,PBX1,RNF207,ADAM10,FGF12,ITGA3,PLCL2,PPM1B,RFTN1,RPS6KA6,TRPM4,CD226,BMP6,CHRM3,CLASP1,SMTNL2,HGF,CALCR,CAPN7,ZBTB16,CACNB2,NOS1AP,INSR,MACF1,PDE3A,SKI,AKT3,CTDP1,ELF1,ENPP1,FMRI,LITAF,PRKX,ABCD1,AIM2,ARHGAP42,CD84,JPH4,PCK1,PPARA,ZFHX2,CORIN,MYH7,SLC22A5,PPP2R3C,S1PR3,SPRED1,CHSY1,NTN4,PRDM16,PTPRR,MYH6,PRLR,TYMP,ADAMTS5,DOCK7,G3BP1,HDAC5,TDGF1,STIM1,PEMT,POU2AF1,PRKCQ,STAT3,TP63,AMOT,HPN,ISLR2,PAK3,CASQ2,DHRS7B,DLGAP2,LGALS9,LRP8,MAPKAPK2,APC,BMPRI4,KIAA0319,NGF,PRKCA,PTGES,UBASH3B,ASB3,CTSH,DHX9,RGCC,GPR21,IL6R,MAP2K6,SPTBN4,CLASP2,MAP2K1,SOS1,TPH1,C1QTNF3,FGF1,TBX20,C6ORF106,RGN,RREB1,TBX18</i> </p>
GO:0051674	localization of cell	3.718576471083065e-10	<p> <i>SRGAP2B,TPTE,PLCB1,CMKLR1,DAB1,FMNL2,TPTE2,PTPRT,DCC,DUSP22,FBLN1,ITGA2,SUN2,ZRANB1,NRG3,SLC9B1,TGFBR3,CDH13,TF,PIK3C2B,SDCCAG8,GADD45A,PLXNA4,FLRT2,GPC3,NRG1,RFIL,MCTP1,ASTN2,SH3RF2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CCR3,RBFOX2,DNAH6,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,SPEF2,FBXO31,ARID5B,PHACTR1,SPOCK3,EPHA3,DCLK1,AGT,PSTPIP2,FSIP2,RHOJ,CDH2,LOXL2,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,GPC6,DBH,FMNL3,RIN3,LAMA4,SLIT2,TLL8,PDCD6,GPC5,IGF1R,VCAN,PTPRG,KRT2,VCL,CELSR1,MBOAT7,ASTN1,STK24,FRMD5,TRPM2,CTNNA3,NTNG1,CATSPER2,LRKK2,NTRK3,ANKS1A,DISC1,HEXB,SH3BP1,IER2,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,ATP1A4,VA V3,FUT4,S100A11,SEMA5A,DNAAF2,DNAH3,LAMA3,NR2F2,PML,TN S1,PLXNA2,BCL2,ARHGAP24,EPHB1,VANGL2,NR4A2,FYN,NR4A1,CD44,KANK1,ENPP2,DCDC2,LAMB4,UNC5C,PALLD,NLRP12,MTOR,LDB2,FAT3,MEGF9,BMPER,BBS2,CEP85L,EPB41L4B,SOX8,PRKCE,FAM19A4,FOXO3,MITF,DLC1,EDNRB,ROBO1,SATB2,FAP,FLT1,CENPV,TACR3,KDR,PRCP,CHL1,APP,NRP1,PTPRM,ELMO1,ADTRP,TT</i> </p>

			<p>C12,SEMA3C,ADAM17,CAMK1D,ELP3,ETSI,ITGA11,ATRNLI,OPHN1,CCDC88A,RIN2,DNAH8,HDAC4,PDE4B,JAM2,MAPRE2,NTRK2,PRKG1,CDC42BPA,STARD13,RABGEF1,GLI3,CLDN1,DOCK4,SRP54,TGFBF1,TNR,PEAK1,IL16,CYP7B1,MERTK,TAC4,MAGI2,NF1,SORLI,DMRT1,RELN,SLC9C1,HDAC9,KIRREL3,SELE,MGAT5,NUMB,NPHP4,NAV3,JAG1,MEOX2,PPP3CA,CXADR,DOCK10,GPC4,PTPRU,SH3KBP1,JAK2,SPNS2,SMAD3,CD300A,PLXNB1,CDK1,HDAC7,TNF,LRCH1,OVOL2,DLG5,LGR6,ARID2,SPAG16,ADORA3,DOCK1,EPS8,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,NET1,SELP,CTNNA1,CDKL5,EFHC2,EGF,KIT,PIK3C2G,TRPV4,DNAH11,EFNB1,PTPRO,RAPGEF2,SEMA3E,FGF13,MARVELD3,ARMC2,EPHB2,ABCC1,ERBB4,FER,MAP3K3,LRP5,SLAMF1,ABL2,BSG,F11R,GAS8,SETD2,ARHGAP35,C D2AP,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,KI F2A,NHLH2,ARF4,MYH9,TEKT4,NEDD9,PDGFD,PIK3CD,ENPEP,PLAT,WDPCP,AUTS2,FGFR1,ITGBL1,ITGB7,JMY,NTF3,BDKRB1,DGKZ,SEMA3A,MARK2,ZMIZ1,SRGAP3,FERMT2,MAP2K5,MARK1,SMPD3,TNN,DAB2,LCPI,ACTN4,ADAM10,CCL7,ITGA3,PIN1,SYNPO2,TRPM4,NME8,CLASP1,HGF,MYLK,CAPN7,SLC26A8,INSR,MACF1,PAK1,SKI,AKT3,PRKX,ULK4,CCDC141,GNA13,FUT8,SPRED1,NTN4,PTPRF,DEFA1B,PTPRR,EXT1,UMOD,DOCK7,ELMO2,HDAC5,TDGF1,LYVE1,TREM1,ADARB1,NDE1,PRKCQ,STAT3,AMOT,PAK3,USH2A,LGALS9,LRP8,EFCAB1,APC,BMPRI1,DPP4,ITGA1,KIAA0319,PRKCA,SPINT2,CTSH,RGCC,SRGAP1,CCL14,CCL15,CCL15-CCL14,IL6R,CLASP2,MAP2K1,SOS1,FGF1,TBX20,RGN,RREB1</p>
GO:0048870	cell motility	3.718576471083065e-10	<p>SRGAP2B,TPTE,PLCB1,CMKLR1,DAB1,FMNL2,TPTE2,PTPRT,DCC,DUSP22,FBLN1,ITGA2,SUN2,ZRANB1,NRG3,SLC9B1,TGFBF3,CDH13,TF,PIK3C2B,SDCCAG8,GADD45A,PLXNA4,FLRT2,GPC3,NRG1,RF,FL,MCTP1,ASTN2,SH3RF2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CCR3,RBFOX2,DNAH6,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,SPF2,FBXO31,ARID5B,PHACTR1,SPOCK3,EPHA3,DCLK1,AGT,PSTPIP2,FSIP2,RHOJ,CDH2,LOXL2,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,GPC6,DBH,FMNL3,RIN3,LAMA4,SLIT2,TLL8,PDCD6,GPC5,IGF1R,VCAN,PTPRG,KRT2,VCL,CELSR1,MBOAT7,ASTN1,STK24,FRMD5,TRPM2,CTNNA3,NTNG1,CATSPER2,LRRK2,NTRK3,ANKS1A,DISC1,HEXB,SH3BP1,IER2,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,ATP1A4,VA V3,FUT4,S100A11,SEMA5A,DNAF2,DNAH3,LAMA3,NR2F2,PML,TN S1,PLXNA2,BCL2,ARHGAP24,EPHB1,VANGL2,NR4A2,FYN,NR4A1,C D44,KANK1,ENPP2,DCDC2,LAMB4,UNC5C,PALLD,NLRP12,MTOR,LDB2,FAT3,MEGF9,BMPER,BBS2,CEP85L,EPB41L4B,SOX8,PRKCE,FAM19A4,FOXO3,MITF,DLC1,EDNRB,ROBO1,SATB2,FAP,FLT1,CENPV,TACR3,KDR,PRCP,CHL1,APP,NRP1,PTPRM,ELMO1,ADTRP,TT C12,SEMA3C,ADAM17,CAMK1D,ELP3,ETSI,ITGA11,ATRNLI,OPHN1,CCDC88A,RIN2,DNAH8,HDAC4,PDE4B,JAM2,MAPRE2,NTRK2,PRKG1,CDC42BPA,STARD13,RABGEF1,GLI3,CLDN1,DOCK4,SRP54,TGFBF1,TNR,PEAK1,IL16,CYP7B1,MERTK,TAC4,MAGI2,NF1,SORLI,DMRT1,RELN,SLC9C1,HDAC9,KIRREL3,SELE,MGAT5,NUMB,NPHP4,NAV3,JAG1,MEOX2,PPP3CA,CXADR,DOCK10,GPC4,PTPRU,SH3KBP1,JAK2,SPNS2,SMAD3,CD300A,PLXNB1,CDK1,HDAC7,TNF,LRCH1,OVOL2,DLG5,LGR6,ARID2,SPAG16,ADORA3,DOCK1,EPS8,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,NET1,SELP,CTNNA1,CDKL5,EFHC2,EGF,KIT,PIK3C2G,TRPV4,DNAH11,EFNB1,PTPRO,RAPGEF2,SEMA3E,FGF13,MARVELD3,ARMC2,EPHB2,ABCC1,ERBB4,FER,MAP3K3,LRP5,SLAMF1,ABL2,BSG,F11R,GAS8,SETD2,ARHGAP35,C D2AP,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,KI F2A,NHLH2,ARF4,MYH9,TEKT4,NEDD9,PDGFD,PIK3CD,ENPEP,PLAT,WDPCP,AUTS2,FGFR1,ITGBL1,ITGB7,JMY,NTF3,BDKRB1,DGKZ,SEMA3A,MARK2,ZMIZ1,SRGAP3,FERMT2,MAP2K5,MARK1,SMPD3,TNN,DAB2,LCPI,ACTN4,ADAM10,CCL7,ITGA3,PIN1,SYNPO2,TRPM4,NME8,CLASP1,HGF,MYLK,CAPN7,SLC26A8,INSR,MACF1,PAK1,SKI,AKT3,PRKX,ULK4,CCDC141,GNA13,FUT8,SPRED1,NTN4,PTPRF,DEFA1B,PTPRR,EXT1,UMOD,DOCK7,ELMO2,HDAC5,TDGF1,LYVE1,TREM1,ADARB1,NDE1,PRKCQ,STAT3,AMOT,PAK3,USH2A,LGALS9,LRP8,EFCAB1,APC,BMPRI1,DPP4,ITGA1,KIAA0319,PRKCA,SPINT2,CTSH,RGCC,SRGAP1,CCL14,CCL15,CCL15-CCL14,IL6R,CLASP2,MAP2K1,SOS1,FGF1,TBX20,RGN,RREB1</p>
GO:0048583	regulation of response to stimulus	6.478985427223598e-10	<p>IGHV1OR21-1,TPTE,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,TPTE2,SH3RF3,CTBP2,LYPD6,PTPRT,IGHV4-31,IGHV3-64,WLS,TIMP3,DUSP22,AKAP13,FBLN1,IGHV1OR15-9,IGHV4OR15-8,NPHP3,ITGA2,RGS6,VRK2,GRIN3A,NRXN1,ZRANB1,DOK5,DOCK2,CTNND2,MS4A1,RIMS2,MTPN,SHANK2,SMYD2,CLEC16A,TGFBF3,FTSL4,CDH13,RNF152,NXN,CSNK2A1,ERCC4,TMEM108,CHEK2,GADD45A,PLXNA4,GPC3,FBLN5,NRG1,PSMB2,SHISA6,RFFL,SPIDR,IL</p>

			<p>4R,LRFN5,MCTP1,GGT1,PLCE1,SH3RF2,SEMA6D,CTNNA2,CCRI,TIAMI,RHOC,LDLRAD4,RGS7BP,RASGRF1,CBF42T2,NKD1,SCAI,BTN2A1,ALK,PTPRE,ZNF536,RAB7A,RGL2,S100B,ROBO2,ZNF366,C2CD3,PRKACB,PXDN,CRNN,AJAP1,LEMD3,AGT,SHISA9,FBXO32,WDR11,RCAN1,CDH2,PARK2,FHL2,DLGAP1,KIR2DL1,KIR2DL4,BPIFB1,CORO2B,PSPC1,SEMA3D,TRIM22,TRIM5,USP25,TKX,GPC6,RNF185,DBH,ITSN1,TSPAN8,ZNRF3,RIN3,TRIO,HDAC2,HTRA1,MYO9A,SLIT2,PDCD6,GPC5,LCMT1,IGF1R,MDM2,SLC24A4,TMPRSS6,NR3C2,PDE9A,DMD,KCTD8,CACNG3,SIPA1L3,FSHR,GSG1L,GRM1,FMN2,SKAPI,STK24,WDR83,WWOX,TRPM2,CNIH3,CAMTA1,LRRK2,MAPK10,IGFBP7,NTRK3,RORA,CD8B,GGT2,IQCJ-SCHIP1,ANKS1A,RNF165,DISC1,SH3BP1,MTMR2,SEMA4D,GSK3B,LGR5,MAGI3,PRKD1,ERCC6,OGT,TGFB2,VAV3,C8A,SEMA5A,BDNF,LGL2,PRKCH,RBMS3,RYK,ZDHHC17,POLR3C,WASF1,KDM4C,OTUD7A,RAG1,SIK2,ANKRD6,ARHGAP8,PRR5,PML,ARHGAP12,AKAP6,FBN1,IGHV3-16,TAOK3,BCL2,RALBP1,ZNF675,ARHGAP24,EPHB1,SIPA1L1,LRP2,TMEM100,DEPTOR,NR4A2,ARHGEF10,EPHA7,PSD3,FYN,ADAMTS18,CHN1,SMARCA4,CD44,HECW1,NEU3,RNF213,FOXO1,PDE4D,KANK1,ARHGEF3,ATF6,DCDC2,GRK5,TNMD,CSNK1G3,GRIK2,IGSF11,CELF4,UGCG,RFX4,GNG4,NLRP12,MTOR,RMI2,ROR1,CTDSPL2,DX21,BMPER,PTPRD,TIAM2,BBS2,ARL6IP5,CTNNBIP1,ZMYND11,NLGN4X,PRKCE,HELLS,PRKCB,ADCY8,EFHB,FAM19A4,FOXO3,CAPN3,KALRN,PJA1,TTL12,CCDC88C,DLC1,EDNRB,OASL,ROBO1,FAP,FLT1,NOX4,COL2A1,MAP3K7,MAPK9,PREX2,TRAF3IP2,ZNF277,CR1,EYA4,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,ARHGAP15,CASK,EDA,IGHV4-28,APP,CALCRL,NRP1,UACA,ARHGEF18,LGR4,LINC00473,SERPING1,ADTRP,KCNK2,SEMA3C,ADAM17,CAMK1D,MAP3K5,TSPEAR,TFPI,ETSI,GRK6,PEX5L,PIK3R5,SAMSN1,ROS1,TGFB11,DOT1L,RGS16,TCF7L2,TNFRSF10B,TRABD2B,BICD1,RALGAPA2,TRAF3,ABAT,OPHN1,BCLAF1,SGMS1,CASP5,CCDC88A,CD38,MOB3B,RNF43,TUB,CHRD1,RNF126,STK36,BCL2L1,GUCY2F,HDAC4,PDE4B,GHR,MAPRE2,NTRK2,PRKG1,BRD4,RASGRP1,STARD13,ARR3,LY86,RABGEF1,SPRED2,GLI3,SMCHD1,CLDN1,RAP1A,SAFB2,TGFB1,MGLL,LCP2,THEMIS,TNR,NCOA5,CHST11,IL16,PTTG1IP,RAPGEF1,CD96,EP300,WIF1,CYP7B1,GRAMD4,GAB2,TP73,GRID2,IFNGR2,PIBF1,RASGRF2,PSMA1,ADORA2A,ADRBK2,CAMK2G,RALGPS1,CACNG2,MAGI2,NF1,RALGPS2,RGS7,SORL1,STRN3,ARHGAP6,BICC1,BID,IFT80,TRIM59,DMRT1,LZTR1,ASXL1,MICU1,POR,RELN,GRM5,IGHV4-4,IL18R1,IL1RL1,SELE,MGAT5,NAPEPLD,NDRG2,IGHV3OR16-12,MAP3K13,NLK,NPHP4,ADCYAP1R1,FBXL17,JAG1,PPP3CA,JRK,KLF7,SNX25,DGKI,MAS1,PER1,WWTR1,KL,C6,CBLB,PLSCR1,DOK6,GPC4,RIMS1,TRIM16,WDR59,KAT7,NLGN1,PTPRU,AKIRIN2,ARHGAP5,RPS20,RAD51AP1,AKAP7,LRRK1,MAPK8IP2,VEPH1,DDX3X,CNOT7,ZNF622,ARHGAP39,JAK2,SHOX2,SPNS2,SMAD3,BALAP2L1,CD300A,MAP2K4,PLXNB1,AATF,HDAC7,SLC39A10,TNF,OVOL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,BMP15,DLG5,AFAP1,LGR6,ARID2,MLIP,SHC2,HMGA2,NEK4,AGO3,IGLC2,IGLL5,GCLC,PMEP1,UBE2V1,EP58,LTBP1,DAAM2,SMOC2,SULF1,C5AR1,DEF6,LRP4,CNTN6,EFNB2,NET1,ZNF423,SELP,ALPK2,CTNNA1,TENM1,ARHGEF11,GSKIP,TNFRSF19,ARHGAP11B,DYNC2H1,MLLT3,SIPA1L2,CD109,EGF,SPIRE2,CMA1,KIT,SLIT3,UBR2,TRPV4,VWC2,C8B,EDAR,PTPRO,RAPGEF2,DNAJB6,ESR1,HTR2C,SEMA3E,UBE3A,DNMBP,GRM4,MARVELD3,EPHB2,IGHV3-72,MECOM,NDFIP2,ABCC1,DAPK1,ERBB4,FER,MAP3K3,FNIP1,SLAMF1,ABL2,DEPDC5,F11R,GAS8,SETD2,VPS13C,ARHGAP35,CD2AP,CCL3,PREX1,SEMA5B,SPRED3,TNFAIP8L2,VWF,ARHGAP25,FGD4,IL20RA,LRRC70,PSG9,SULF2,PTGER3,SOX4,GARNL3,PDGFD,PIK3CD,UBE2N,ITGA8,PUM1,IRAK2,PLAT,TNKS,AUTS2,CDK19,FGFR1,MEF2A,OCLN,PDE11A,RGS3,UNC13B,SOST,IL23R,NTF3,P2RX7,PLA2G4A,SCUBE1,RASA3,ZDHHC11,AMFR,APIP,AR,FGL2,SUFU,EYA1,IFNA8,IL1RL2,N4BP1,BDKRB2,HLA-DRA,ADRA1B,ARMC9,DGKZ,PRKAA2,SEMA3A,TLE4,ARHGAP10,CD73,PDE5A,PROS1,ZMIZ1,FLT3,SRGAP3,TRIM72,FERMT2,LTBR,MAP2K5,TNN,C9,DAB2,GPR55,STX3,ACTN4,ADAM10,CCL7,EEF1E1,EEF1E1-BLOCIS5,ITGA3,FANCB,NREP,PLCL2,PPM1B,RFTN1,PIN1,RPS6KA6,TRPM4,CD226,PIP5K1B,STK38,BMP6,CIT,CLASPI,TGFA,GAS2,HGF,MYLK,RALGAP1,RGS12,CALCR,SCUBE3,CNKS2,NCAM1,NOS1AP,ARHGAP28,IL18RAP,INSR,MACF1,PAK1,PDE3A,PSMB7,SKI,AKT3,CTDP1,ELF1,ENPP1,FMR1,LITAF,IGHV1-69,RRAGC,ULK4,ABCD1,EVC,IGHV1-</p>
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			46,MAD1L1,MFNG,AIM2,ARHGAP42,CD84,EPG5,PCCK1,PPARA,TNF AIP8L3,GNA13,MYH7,TAF1,CHD5,FUT8,PPP2R3C,SPRED1,AKR1C2,CHSY1,ESR2,PRDM16,PTPRF,RBL1,ZNF451,BTRC,C2,CCDC3,CFB,I GHV1-18,OPTN,PTPRR,RIT2,IFT81,NCOA1,PRKCG,PRLR,FBXW11,G3BP1,TDGF1,A2M,PRKCQ,SCEL,STAT3,SUSD4,TP63,USP7,AMOT,DOCK3,PAK3,PIK3R2,TBL1X,BLNK,DTNBP1,RAP1B,DLGAP2,KSRI,LGALS9,LRP8,NFAT5,ALPK1,IL10RB,MAPKAPK2,AOAH,APC,BMPRI4,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,UBASH3B,ADAMTS20,MTMR4,CTSH,DHX9,NCAPG2,RGCC,RPH3AL,USP18,CCL14,CCL15,EDA2R,GPR21,IL6R,MAP2K6,RIC8B,TFIP11,CLASP2,MAP2K1,SOS1,VPS35,C1QTNF3,FGF1,TBX20,C6ORF106,CRADD,NLRC5,RGN,RREB1,TBX18
GO:0007156	homophilic cell adhesion via plasma membrane adhesion molecules	6.90978944836597e-10	CDH4,PCDH9,DSCAM,PTPRT,SDK2,CDH13,PCDH11X,PCDH7,CNTN4,ROBO2,CDH11,CDH2,CDH9,HMCN1,PCDH17,CDH8,DSC3,CELSR1,EMB,CLSTN2,PCDH15,CDH10,CDH12,CDH6,IGSF11,CDHR4,PALLD,FAT3,DSG4,CDH18,ROBO1,CDH17,PTPRM,SDK1,TENM3,DSCAMLI,IGSF21,KIRREL3,CADM3,PCDH19,CNTN6,CLSTN1,MYPN,BSG,CDH23,PCDHGA1,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGA2,PCDHGA3,PCDHGA4,PCDHGA5,PCDHGA6,PCDHGA7,PCDHGA8,PCDHGA9,PCDHGB1,PCDHGB2,PCDHGB3,PCDHGB4,PCDHGB6,PCDHGB7,CD84,DCHS2
GO:0061564	axon development	7.074629377760878e-10	CDH4,DAB1,DSCAM,NCAM2,ANK3,DCC,EPHA6,NRXN1,NRXN3,TNC,CHODL,FSTL4,LRRC4C,ADAMTSL1,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,TIAM1,DPYSL2,CNTN4,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,LAMA2,SEMA3D,NTN1,TRIO,SLIT2,IGF1R,TRPC5,VCML,STK24,NTNG1,RNF165,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHC17,LAMA3,PLXNA2,BCL2,EPHB1,SIPA1L1,NR4A2,EPHA7,FYN,CHN1,ATP8A2,UNC5C,PALLD,TIAM2,KALRN,ROBO1,VASH2,CHL1,APP,NRP1,PTPRM,SEMA3C,PRTG,RPS6KA5,PAR3,OPHN1,ALCAM,NTRK2,GLI3,EPHA5,TNR,DSCAML1,SPG11,EFNA5,TTCC8,RELN,NUMB,MAP3K13,KLF7,GRM7,JAK2,SHOX2,PLXNB1,COBL,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CTNNA1,CDKL5,SLIT3,EFNB1,PTPRM,MYPN,SEMA3E,FGF13,EPHB2,SLITRK6,BSG,ARHGAP35,LAMA1,SEMA5B,AUTS2,MAP2,SEMA3A,MARK2,TNN,LGII,NREP,NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,PTPRF,EXT1,DOCK7,ADARB1,PRKCQ,ISLR2,PAK3,CRTAC1,KIAA0319,NGF,SPTBN4,CLASP2,MAP2K1,SOS1
GO:0048522	positive regulation of cellular process	7.102607949059883e-10	IGHV1OR21-1,TASPI,FANK1,CDH4,ZHX3,PLCB1,KMT2C,CMKLR1,DAB1,OMA1,DUX4,GTF21,CDC42EP3,MAPK14,DSCAM,ARID1B,RUNX1,SH3RF3,ASIC2,CTBP2,RAB27A,PCBD2,PRIM2,LYPD6,ANK3,IGHV4-31,BCL2L13,IGHV3-64,WLS,TIMP3,DUSP22,AKAP13,FBLN1,ERG,VPS13D,ZNF292,IGHV1OR15-9,IGHV4OR15-8,ITGA2,ABCG1,KCNQ1,DPF3,SUN2,ATF7IP,EPHA6,NRXN1,ZRANB1,DOK5,SLC1A2,RAB5A,TNC,PCNT,CHODL,RIMS2,MTPN,SHANK2,NRG3,CLEC16A,ARNT2,TGFBR3,CDH13,RNF152,ANK2,CSNK2A1,PDE4DIP,SYNDIG1,DPP10,ZNF112,ZNF229,TF,PLGRKT,KCNE1,SAMD4A,TMEM108,CHEK2,GADD45A,PRDM9,PCP4,PSMC6,ACIN1,SYT17,PLXNA4,FLRT2,TOX3,GPC3,NRG1,ETS2,PSMB2,NPAS3,SPIDR,IL4R,ALDH1A2,ST8SIA1,SUZ12,PLCE1,SH3RF2,GLP2R,SEMA6D,ABHD17C,SLCO3A1,CCR1,CCR3,CFTR,TIAM1,RHOC,AGBL4,ZNF91,RASGRF1,ZBTB20,TET3,CBFA2T2,NKD1,HPSE2,ALK,UTRN,FBXO31,RAB7A,RGL2,ARID5B,S100B,ROBO2,EPHA3,CRNN,AGT,ATAT1,RHOJ,CDH2,PARK2,BANP,LGALS14,LOXL2,LAMA2,CDC5L,KIR2DL4,FRMPD4,ZNF804A,NEGR1,BRF1,SEMA3D,NTN1,TRIM22,TRIM5,ZNF268,DCUNID4,TKX,RNF185,NELL1,SETD3,KCNMA1,ZNF845,FTO,HDAC2,HTRA1,SLIT2,TFAP2D,PDCD6,RPS6KA2,STXBP4,GPC5,IGF1R,MDM2,SMAD1,E2F3,SYT9,ZBED4,TMPRSS6,ZNF850,CTNBL1,NR3C2,TRPC5,DMD,SYT1,CACNG3,NOX5,TEAD1,FSHR,GRM1,FMN2,HNRNP2B1,NRIP1,SKAP1,STK24,WWOX,ATRX,FRMD5,PARP16,TRPM2,RYR2,USP16,KIF3B,TENM4,CAMTA1,HSPB8,LRRK2,RORB,SLC1A3,KIF26B,NTRK3,NUSAP1,RORA,ILDR1,IQCS-SCHIP1,SLC4A4,CHD7,RNF165,DISC1,HEXB,PAN3,WRAP73,CDCA2,GLIS1,PDXP,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LINGO2,SLC8A1,ZNF841,CDC14A,PRKD1,ERCC6,OGT,RNF144A,TGFB2,CLSTN2,FMN1,PRAMEF12,VAV3,FUT4,S100A11,SEMA5A,SLC5A3,BDNF,PRKCH,RYK,ZDHC17,KCNC1,ABI3BP,EDIL3,WASF1,GRIN2B,KDM4C,RAG1,ANKRD6,ARHGAP8,NR2F2,PLEKHM2,PRR5,PTGFR,SNAP25,NR5A2,PML,PPARGC1A,RNF180,TRUB2,USP36,AKAP6,CN

			<p> TNAP2,IGHV3- I6,NLRP2,PLXNA2,TAOK3,BCL2,RAD51B,RALBP1,EPHB1,SMARCE1,IL12RB2,KLF12,LRP2,NSF,TMEM100,FRMD4A,NF1A,NR4A2,ARHGEF10,EPHA7,ZBTB7C,FYN,KCNE2,PARN,NR4A1,SMARCA4,CD44,NEU3,RCVRN,RHBDD1,THBS2,FOXO1,RNF144B,KANK1,ENPP2,ABCB10,ACTN2,ARHGEF3,ATF6,ATP8A2,BACH1,DCDC2,GRK5,KLF13,MME,RNF217,CSNK1G3,GRIK2,IGSF11,ZNF516,CELF4,SERPINB7,UNC5C,APBB2,EIF3E,MYLK3,NAMPT,SLC1A1,ZFPM2,GLIS3,RARB,RFX4,ETV6,NLRP12,MTOR,ROR1,CADPS,LDB2,MOV10,CHRM1,CTDSPL2,DDX21,UBXN2B,ABCA13,BMPER,CCDC88B,PTPRD,SCAF8,TIAM2,ZNF521,ZFP64,ARL6IP5,EPM2A,NOL11,CLYBL,CTNNBIP1,EPB41L4B,SOX8,HAS3,PRKCE,EIF2S1,UTF2A1L,KMT2A,PRKCB,VDR,ADCY8,FHL5,FOXO3,LRRTM1,MITF,RAB31,SCP2,TRAPPC12,CAPN3,ITLN1,KALRN,CREB5,DLC1,EDNRB,MSR1,OASL,ROBO1,SATB2,TDRD3,BNIP3L,FAP,FLT1,NOX4,SGIP1,ZNF148,CDH17,CENPV,GRHL2,TCF4,MAP3K7,MAPK9,NR3C1,TACR3,TRAF3IP2,CRI,EYA4,SPON1,ACSL5,PKHD1,STK3,SUPT3H,TGM2,VASH2,ZNF585A,KDR,PPHLN1,CASK,EDA,IGHV4-28,PCOLCE2,ABCA12,APP,CALCRL,NRP1,UACA,LGR4,TENM2,ADTAP,EGFLAM,KAT5,THRB,KCNK2,SEMA3C,ADAM17,CAMK1D,DIS3L2,MAP3K5,PKP4,IGF2R,ZER1,ATF2,ELP3,ETS1,NR2C2,PIK3R5,ROS1,TGFB1I1,TM9SF4,DOT1L,PSIP1,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,BICD1,PARD3,TRAF3,ABAT,GRIN2A,GRIP1,PXT1,RIMS3,DLX6-AS1,KIFAP3,BCLAF1,CCDC88A,CD38,MOB3B,MRPS27,RIN2,STK36,BCL2L1,HDAC4,SOX5,DNMT1,GHR,JAM2,MAPRE2,NTRK2,ACSL4,DNM3,BRD4,RASGRP1,CAMK4,COMMD1,LY86,SPRED2,STARD4,GLI3,SMCHD1,CLDN1,MORC2,STXBP5,DOCK4,RAP1A,TGFBF1,DICER1,EPHA5,LCP2,TNR,CUX1,TENM3,PTTG1IP,RAPGEF1,ZNF729,CHRNA3,EP300,TBX3,WIF1,CACNA2D1,CYP7B1,GRAMD4,TRIOBP,BRD7,GAB2,TP73,GRID2,IFNGR2,PIBF1,RASGRF2,PSMA1,ONECUT3,ADCK1,ADORA2A,EFNA5,FAM20A,MERTK,TAC4,BRD1,CACNG2,MAGI2,NF1,RFC3,RGS7,SORL1,STRN3,ZNF615,BID,ELK3,TEAD4,DMRT1,ASXL1,EIF4E,POR,RELN,GRM5,HDAC9,IGHV4-4,IL18R1,IL1RL1,PTPN9,SELE,DYNC1H1,LRRTM3,MGAT5,NAPEPLD,NUMB,TNFAIP8,CCDC57,IGHV3OR16-12,MAP3K13,NPHP4,RALA,ADCYAP1R1,EGLN3,IL1RAP,NAV3,ATP10A,FBXL5,JAG1,MEOX2,PPP3CA,JRK,KLF7,PLS1,SLC7A1,DGKI,MASS1,PER1,SLC24A2,TBC1D5,WWTR1,KL,CBLB,ELAVL4,MNAT1,PLSCR1,CNTN1,DOK6,RIMS1,TRIM16,WDR59,GABPA,GPSM2,KAT7,SSBP2,STIM2,SLC22A2,AGGF1,ASAP1,BORA,N4BP2L2,NLGN1,PTPRU,AKIRIN2,RNF128,RPS20,SH3KBP1,RAD51AP1,AKAP7,LRRK1,MAPK8IP2,ZNF208,DDX3X,EGFL6,NSG1,CNOT7,MAML3,EHF,ZNF622,DNMT3B,JAK2,LMO7,SHOX2,AH11,SMAD3,BAIAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,COL8A1,PLXNB1,RDH10,TCF12,AATF,CDK1,HDAC7,HIVEP3,MIR320B2,NBN,NVL,SLC39A10,TNF,COBL,OVOL2,SNX5,TNIP1,ZFPM1,CSPPI,ILF3,POMC,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,FCHSD2,INO80,LGR6,MAGI1,ARID2,MLIP,PAXBP1,SHC2,BRINP1,BCL11A,HMGA2,MYO6,NEK4,YAF2,AGO3,DOCK1,IGLC2,IGLL5,ANO1,CDC20B,GCLC,UBE2V1,EPS8,DAAM2,SMOC2,SULF1,ANKRD31,C5ARI,CCP110,LRP4,PIK3R3,WDR5,CNTN6,EFNB2,SAE1,TRDN,NET1,PHF8,ZNF423,CDC14B,CLSTN1,SELP,CHD6,CTNNA1,TENM1,TSHZ3,WDFY2,ZNF407,ARHGEF11,CDKL5,GSKIP,TNFRSF19,ZNF345,BPTF,DYNC2H1,MLLT3,MYRIP,EGF,MIP,SEC16B,SPIRE2,IL1RAPL1,KIT,TNFSF8,TNRC6B,ZNF600,BLM,TRPV4,VWC2,EDAR,EFNB1,RAPGEF2,REG1B,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,SLC30A8,UBE3A,FGF13,GRM4,PLAG1,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,TFDP2,TOX,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,SLITRK6,SPTA1,FNIP1,LRP5,ZNF507,RPS27L,SLAMF1,ABL2,BSG,CAMP,F11R,GAS8,ALX4,AP2B1,ARHGAP35,CD2AP,ATP8A1,CCL3,FGF7,PREX1,SEMA5B,VWF,GLYR1,IL20RA,NHLH2,SULF2,ARF4,MYH9,NSMCE2,SLC2A13,SOX4,ST18,CAB39L,KIF23,NEDD9,P2RX1,PDGFD,PIK3CD,PRR16,UBE2N,AGTPBP1,ITGA8,PUM1,ARID4A,DDBI,KDM3A,SERTAD2,TNKS,UNC13A,AUTS2,CDK19,FGFR1,MEF2A,OCLN,UNC13B,ARID4B,MAP2,SLX1B,SOST,ASXL3,IL23R,JMY,KEAP1,NTF3,P2RX7,PLA2G4A,SCUBE1,ARRDC4,TOX2,ZNF544,AR,SCAMP5,SNX30,TRERF1,CEP250,EYA1,IFNA8,IL1RL2,RBM4,SRPK2,BDKRB1,HLA-DRA,ADRA1B,ARMC9,BHLHB9,DGKZ,GNL3,MIR433,NEK5,PRKAA2,RLF,SEMA3A,CDC73,MARK2,MEIS2,PDE5A,ZMIZ1,FLT3,NFIC,PPARGC1B,SNX7,DYNAP,ESRRG,FERMT2,LTBR,MAP2K5,SMPD3,CLN6,DAB2,GPR55,HDAC8,LCP1,PBX1,RNF207,STX3,SYT2,TCL1B,ACTN4,ADAM10,BLOC1S5,CCL7,EEF1E1,EEF1E1- </p>
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			<p>BLOC1S5,ITGA3,KMO,POU2F3,PRAMEF8,FANCB,LGII,PPM1B,QRI CHI,STAC,MYOM1,PIN1,SYNPO2,TRPM4,CD226,TCF20,BMP6,CIT, CIZ1,CLASP1,EIF4ENIF1,CARF,NCOA2,TGFA,CREM,G3BP2,HGF,M YLK,POU2F1,CALCR,CAPN7,FLII,POMT2,SCUBE3,ZBTB16,CACNB 2,CTIF,NOS1AP,IL18RAP,INSR,LARP4B,MACF1,PAK1,PDE3A,PSMB 7,SKI,AKT3,CDC16,ELF1,FMR1,LIMK2,LITAF,PAX3,CHFR,DKC1,IG HV1-69,JDP2,KLF6,RRAGC,ABCD1,BMF,EVC,IGHV1- 46,MAD1L1,MFNG,AIM2,PCK1,PPARA,SPIB,TNFAIP8L3,TTN,CLIP1, KATNBL1,TAF1,CHD5,FNIP2,PPP2R3C,SIPR3,SPRED1,AKR1C2,CH SY1,ESR2,PRDM16,ZNF451,BTRC,CCDC3,FBLN2,IGHV1- 18,MLLT10,OPTN,RIT2,ESRP2,NCOA1,PRKCG,PRLR,CBFA2T3,DOC K7,FBXW11,G3BP1,HDAC5,TDGF1,ZNF493,LYVE1,SLC40A1,STAT4, STIM1,KCNC2,POU2AF1,PRKCQ,SCEL,STAT3,TFEC,TP63,USP7,ZN F721,AMOT,DOCK3,HPN,ISLR2,PAK3,PIK3R2,STK17B,TBL1X,CASQ 2,DITNBP1,RAP1B,KSR1,LGALS9,LRP8,NFAT5,ALPK1,GTPBP1,IL10R B,APC,BMPRI1,CKAP5,DPP4,ITGA1,KCTD20,KIAA0319,NGF,PRKC A,PTGES,UBE2E2,VLDLR,ADAMTS20,PILRB,ABI1,CTSH,DHX9,RGC C,RPH3AL,CCL14,CCL15,CYB5D2,EDA2R,IL6R,MAP2K6,CLASP2,M AP2K1,PRAMEF7,RGMB,SOS1,TPH1,VPS35,C1QTNF3,FGF1,RAD18, TBX20,ATMIN,CRADD,NLRC5,RGN,RREB1</p>
GO:0007409	axonogenesis	7.736782930598098e-10	<p>CDH4,DAB1,DSCAM,ANK3,DCC,EPHA6,NRXN1,NRXN3,CHODL,FST L4,LRRC4C,ADAMTSL1,PLXNA4,FLRT2,UNC5D,SEMA6D,CTNNA2,T IAM1,DPYSL2,CNTN4,S100B,ROBO2,EPHA3,DCLK1,CDH11,CDH2,L AMA2,SEMA3D,NTN1,TRIO,SLIT2,IGF1R,TRPC5,VCL,NTNG1,RNF16 5,DISC1,EMB,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,ZDHHC17,LAMA 3,PLXNA2,BCL2,EPHB1,SIPA1L1,NR4A2,EPHA7,FYN,CHN1,ATP8A2, UNC5C,PALLD,TLAM2,KALRN,ROBO1,CHL1,APP,NRP1,PTPRM,SE MA3C,PRTG,RPS6KA5,PARD3,OPHN1,ALCAM,NTRK2,GLI3,EPHA5, TNR,DSCAMLI,SPG11,EFNA5,TTC8,RELN,NUMB,MAP3K13,KLF7,S HOX2,PLXNB1,COBL,LGR6,BCL11A,LRP4,CNTN6,EFNB2,CDKL5,SL IT3,EFNB1,PTPRO,MYPN,SEMA3E,FGF13,EPHB2,SLITRK6,BSG,AR HGAP35,LAMA1,SEMA5B,AUTS2,MAP2,SEMA3A,MARK2,TNN,LGII, NCAM1,NFASC,MACF1,PAK1,CRMP1,CCDC141,EXT1,DOCK7,ADA RB1,PRKCQ,ISLR2,PAK3,KIAA0319,NGF,SPTBN4,CLASP2,MAP2K1, SOS1</p>
GO:0048518	positive regulation of biological process	7.962146216503805e-10	<p>IGHV1OR21- 1,TASPI,FANK1,CDH4,ZHX3,PLCB1,KMT2C,CMKLR1,DAB1,OMA1, DUX4,GTF2I,CDC42EP3,MAPK14,DSCAM,ARID1B,RUNX1,SH3RF3, ASIC2,CTBP2,RAB27A,PCBD2,PRIM2,LYPD6,ANK3,IGHV4- 31,BCL2L13,IGHV3- 64,WLS,TIMP3,DUSP22,AKAP13,FBLN1,ERG,VPS13D,ZNF292,IGHV 1OR15-9,SLC24A3,IGHV4OR15- 8,ITGA2,ABCG1,TMPRSS2,KCNQ1,DPF3,SUN2,ATF7IP,EPHA6,NRX N1,ZRANB1,DOK5,SLC1A2,RAB5A,DOCK2,TNC,PCNT,MS4A1,CHOD L,RIMS2,MTPN,SHANK2,NRG3,CLEC16A,ARNT2,TGFBR3,CDH13,R NF152,ANK2,CSNK2A1,PDE4DIP,SYNDIG1,DPP10,ZNF112,ZNF229, TF,PLGRKT,KCNE1,SAMD4A,TMEM108,CHEK2,GADD45A,PRDM9, PCP4,PTSMC6,ACIN1,SYT17,PLXNA4,FLRT2,TOX3,GPC3,NRG1,ETS2, PSMB2,NPAS3,SPIDR,IL4R,ALDH1A2,ST8SIA1,SUZ12,PLCE1,SH3RF 2,KSR2,GLP2R,SEMA6D,ABHD17C,SLCO3A1,CCR1,CCR3,CFTF,TIA M1,RHOC,AGBL4,ZNF91,RASGRF1,ZBTB20,TET3,CBFA2T2,NKD1,H PSE2,BTN2A1,ALK,UTRN,FBXO31,KLRF2,RAB7A,RGL2,ARID5B,S10 0B,ROBO2,EPHA3,CRNN,AGT,ATAT1,RHOJ,CDH2,PARK2,BANP,LG ALS14,LOXL2,LAMA2,CDC5L,KIR2DL4,CORO2B,FRMPD4,ZNF804A, CYBB,NEGR1,PSPC1,BRF1,SEMA3D,NTN1,TRIM22,TRIM5,ZNF268,D CUN1D4,TKX,RNF185,NELL1,DBH,SETD3,KCNMA1,ZNF845,FTO,H DAC2,HTRA1,SLIT2,TFAP2D,PDCD6,RPS6KA2,STXBP4,GPC5,IGF1R ,MDM2,SLC24A4,SMAD1,E2F3,SYT9,ZBED4,TMPRSS6,ZNF850,CTN NBL1,NR3C2,PDE9A,TRPC5,DMD,SYT1,BASPI,CACNG3,KRT2,NOX5 ,TEAD1,FSHR,GRAM1,FMN2,HNRNP2B1,NRIP1,SKAP1,STK24,WWO X,ATRX,FRMD5,PARP16,TRPM2,RYR2,USP16,KIF3B,TENM4,CAMTA 1,HSPB8,LRRK2,RORB,SLC1A3,KIF26B,NTRK3,NUSAP1,RORA,ILDR 1,IQCJ- SCHIP1,SLC4A4,CHD7,RNF165,DISC1,HEXB,PAN3,WRAP73,CDCA2, GLIS1,PDXP,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,LIN GO2,SLC8A1,ZNF841,CDC14A,PRKD1,ERCC6,OGT,RNF144A,TGFB 2,CLSTN2,FMN1,PRAMEF12,VAV3,C8A,FUT4,S100A11,SEMA5A,SLC 5A3,BDNF,PRKCH,RBMS3,RYK,ZDHHC17,KCNC1,POLR3C,ABI3BP, EDIL3,WASF1,GRIN2B,KDM4C,RAG1,RAG2,ANKRD6,ARHGAP8,NR2 F2,PLEKHM2,PRR5,PTGFR,SNAP25,NR5A2,PML,PPARGC1A,RNF18 0,TRUB2,USP36,AKAP6,CNTNAP2,IGHV3- 16,NLRP2,PLXNA2,TAOK3,BCL2,RAD51B,RALBP1,EPHB1,SMARCE1 ,IL12RB2,KLF12,LRP2,NSF,TMEM100,FRMD4A,NFIA,NR4A2,ARHGE</p>

			<p> F10,EPHA7,ZBTB7C,FYN,KCNE2,PARN,NR4A1,SMARCA4,CD44,HECW1,NEU3,RCVRN,RHBDD1,THBS2,FOXO1,PDE4D,RNF144B,TBXAS1,KANK1,ENPP2,ABCB10,ACTN2,ARHGEF3,ATF6,ATP8A2,BACH1,DCDC2,GRK5,KLF13,MME,RNF217,CSNK1G3,GRIK2,IGSF11,ZNF516,CELF4,SERPINB7,UNC5C,APBB2,EIF3E,MYLK3,NAMPT,SLC1A1,ZFPM2,GLIS3,RARB,RFX4,ETV6,NLRP12,MTOR,ROR1,CADPS,LDB2,MOV10,TMPRSS4,CHRM1,CTDSPL2,DDX21,PKP2,UBXN2B,ABCA13,BMPER,CCDC88B,PTPRD,SCAF8,TIAM2,ZNF521,ZFP64,ARL6IP5,ATPIA1,EPM2A,NOL11,CLYBL,CTNNBIP1,EPB41L4B,SOX8,HAS3,PRKCE,EIF2S1,GTF2A1L,KMT2A,PRKCB,VDR,ADCY8,FHL5,FOXO3,LRRTM1,MITF,RAB31,SCP2,TRAPPC12,CAPN3,ITLN1,KALRN,CREB5,DLCI,EDNRB,MSR1,OASL,ROBO1,SATB2,TDRD3,BNIP3L,FAP,FLT1,NOX4,SGIP1,ZNF148,CDH17,CENPV,GRHL2,TCF4,MAP3K7,MAPK9,NBAS,NR3C1,TACR3,TRAF3IP2,VPS37B,CR1,EYA4,SPON1,ACSL5,PKHD1,STK3,SUPT3H,TGM2,VASH2,ZNF585A,KDR,PPHLN1,CASK,EDA,IGHV4-28,PCOLCE2,ABCA12,APP,CALCRL,NRP1,UACA,LGR4,SERPING1,TENM2,ADTRP,CD58,EGFLAM,KAT5,THRB,FUBP1,KCNK2,SEMA3C,ADAM17,CAMK1D,DIS3L2,MAP3K5,PKP4,IGF2R,ZER1,ATF2,ELP3,ETS1,NR2C2,PIK3R5,ROS1,TGFB11,TM9SF4,DOT1L,PSIP1,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,BICD1,PARD3,TRAF3,ABAT,GRIN2A,GRIPI,PXT1,RIMS3,SGK2,DLX6-AS1,KIFAP3,BCLAF1,CCDC88A,CD38,MOB3B,MRPS27,RIN2,TUB,STK36,BCL2L1,HDAC4,PDE4B,SOX5,DNMT1,GHR,JAM2,MAPRE2,NTRK2,ACSL4,DNM3,BRD4,RASGRP1,CAMK4,COMMD1,KCTD7,LY86,RABGEF1,SPRED2,STARD4,GLI3,SMCHD1,CLDN1,MORC2,STXBP5,DOCK4,RAP1A,TGFBRI,CYSLTR1,ADAM12,DICER1,EPHA5,LCP2,THEMIS,TNR,CUX1,TENM3,IL16,PTTG1IP,RAPGEF1,ZNF729,CHRNA3,EP300,TBX3,WIF1,CACNA2D1,CYP7B1,DIO2,GRAMD4,TRIOBP,BRD7,GAB2,GLRA1,TP73,GRID2,IFNGR2,PIBF1,RASGRF2,PSMA1,ONECUT3,ADCK1,ADORA2A,EFNA5,FAM20A,MERTK,TAC4,BRD1,CACNG2,MAGI2,NF1,RFC3,RGS7,SORL1,STRN3,ZNF615,BID,ELK3,TEAD4,DMRT1,ASXL1,EIF4E,POR,RELN,GRM5,HDAC9,IGHV4-4,IL18R1,IL1RL1,PTPN9,SELE,DYNC1H1,LRRTM3,MGAT5,NAPEPLD,NUMB,TNFAIP8,CCDC57,IGHV3OR16-12,MAP3K13,NPHP4,RALA,ADCYAP1R1,EGLN3,IL1RAP,NAV3,ATP10A,FBXL5,JAG1,MEOX2,PPP3CA,JRK,KLF7,PLS1,SLC7A1,DGKI,MASS1,PER1,SLC24A2,TBC1D5,WWTR1,KL,C6,CBLB,ELAVL4,MNAT1,PLSCR1,CNTN1,DOK6,RIMS1,TRIM16,WDR59,GABPA,GPSM2,KAT7,SSBP2,STIM2,SLC22A2,AGGF1,ASAP1,BORA,N4BP2L2,NLGN1,PTPRU,AKIRIN2,RNF128,RPS20,SH3KBP1,RAD51AP1,AKAP7,LRRK1,MAPK8IP2,ZNF208,CACNA1D,DDX3X,EGFL6,NSG1,CNOT7,MAML3,EHF,ZNF622,DNMT3B,JAK2,LMO7,SHOX2,AHII,SMAD3,BALAP2L1,CD300A,KIDINS220,MAP2K4,NOS1,COL8A1,PLXNB1,RDH10,TCF12,AATF,CDK1,HDAC7,HIVEP3,LTB,MIR320B2,NBN,NVL,SLC39A10,TNF,COL,OVOL2,PANX1,SNX5,TNIP1,ZFPM1,CSPP1,ILF3,POMC,PRDM15,ADNP2,BLOC1S6,BMP15,DLG5,FCHSD2,INO80,LGR6,MAGI1,RXFP4,ARID2,MLIP,PAXBP1,SHC2,BRINP1,PRG3,BCL11A,HMGA2,MYO6,NEK4,YAF2,AGO3,DOCK1,IGLC2,IGLL5,ANO1,CDC20B,GCLC,QKI,UBE2V1,EPS8,DAAM2,SMOC2,SULF1,ANKRD31,C5AR1,CCPI10,LRP4,PIK3R3,WDR5,CNTN6,EFNB2,SAE1,TRDN,NET1,PHF8,ZNF423,CD14B,CLSTN1,SELP,CHD6,CTNNA1,TENM1,TSHZ3,WDFY2,ZNF407,ARHGEF11,CDKL5,GSKIP,TNFRSF19,ZNF345,BPTF,DYNC2H1,MLLT3,MYRIP,EGF,MIP,SEC16B,SPIRE2,CMA1,IL1RAPL1,KIT,TNFSF8,TNRC6B,ZNF600,BLM,TRPV4,VWC2,ABCA5,C8B,EDAR,EFNB1,RAPGEF2,REG1B,ESR1,HTR2C,JAK1,NCMAP,SEMA3E,SLC30A8,UBE3A,FGF13,GRM4,PLAG1,EPHB2,IGHV3-72,MECOM,NDFIP2,RNF4,TFDP2,TOX,ABCC1,DAP,DAPK1,ERBB4,FER,MAML2,MAP3K3,RBM19,SLITRK6,SPTA1,FNIP1,LRP5,PTH2R,ZNF507,RPS27L,SLAMF1,ABL2,BSG,CAMP,F11R,GAS8,SETD2,ALX4,AP2B1,ARHGAP35,CD2AP,ATP8A1,CCL3,FGF7,PREX1,SEMA5B,VWF,GLYR1,IL20RA,LRRC70,NHLH2,PSG9,SULF2,ARF4,MYH9,NSMCE2,PTGER3,SLC2A13,SLC39A12,SOX4,ST18,CAB39L,KIF23,NEDD9,P2RX1,PDGFD,PIK3CD,PRR16,UBE2N,AGTPBP1,ITGA8,PUM1,ARID4A,DDDB1,KDM3A,PLAT,SERTAD2,TNKS,UNC13A,AUTS2,CDK19,FGFR1,MEF2A,OCLN,UNC13B,ARID4B,MAP2,SLX1B,SOST,ASXL3,IL23R,JMY,KEAP1,NTF3,P2RX7,PLA2G4A,SCUBE1,ARRDC4,TOX2,ZNF544,AR,PVT1,SCAMP5,SNX30,TREX1,CEP250,DENND5B,EYA1,IFNA8,IL1RL2,RBM4,SRPK2,BDKRB1,HLA-DRA,ADRA1B,ARMC9,BHLHB9,DGKZ,GNL3,MIR433,NEK5,PRKAA2,RLF,SEMA3A,CDK73,MARK2,MEIS2,PDE5A,ZMIZ1,FLT3,NFIC,PPARGC1B,SNX7,DYNAP,ESRRG,FERMT2,LTB,MAP2K5,MARK1,SMPD3,C9,CLN6,DAB2,GPR55,HDAC8,LCP1,PBX1,RNF207,STX3,SYT2,TC </p>
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			<p> <i>L1B,ACTN4,ADAM10,BLOC1S5,CCL7,EEF1E1,EEF1E1-BLOC1S5,FGF12,ITGA3,KMO,POU2F3,PRAMEF8,FANCB,LGII,PLC L2,PPM1B,QRICH1,RFTN1,STAC,MYOM1,PIN1,SYNPO2,TRPM4,CD2 26,TCF20,ABCA8,BMP6,CHRM3,CIT,CIZ1,CLASP1,EIF4ENIF1,SMTN L2,CARF,CNGB1,NCOA2,TGFA,CREM,G3BP2,HGF,MYLK,PKP1,PO U2F1,CALCR,CAPN7,FLII,POMT2,SCUBE3,ZBTB16,CACNB2,CTIF, NOS1AP,IL18RAP,INSR,LARP4B,MACF1,PAK1,PDE3A,PSMB7,SKI,A KT3,CDC16,ELF1,FMR1,LIMK2,LITAF,PAX3,CHFR,DKC1,IGHV1- 69,JDP2,KLF6,RRAGC,ABCD1,BMF,EVC,IDE,IGHV1- 46,MAD1L1,MFNG,AIM2,CD84,PCK1,PPARA,SPIB,TNFAIP8L3,TTN, CLIP1,FHL1,KATNB1,SLC22A5,TAF1,CHD5,FNIP2,PPP2R3C,S1PR 3,SPRED1,AKR1C2,CHSY1,ESR2,PRDM16,ZNF451,BTRC,C2,CCDC3, CFB,FBLN2,IGHV1- 18,MLLT10,OPTN,RIT2,ESRP2,NCOA1,PRKCG,PRLR,CBFA2T3,DOC K7,FBXW11,G3BP1,HDAC5,TDGF1,ZNF493,A2M,LYVE1,SLC40A1,ST AT4,STIM1,ADARB1,KCNC2,PEMT,POU2AF1,PRKCQ,SCEL,STAT3,S USD4,TFEC,TP63,USP7,ZNF721,AMOT,DOCK3,HPN,ISLR2,PAK3,PI K3R2,STK17B,TBL1X,BLNK,CASQ2,DTNBP1,RAP1B,KSR1,LGALS9,L RP8,NFAT5,ALPK1,GTPBP1,IL10RB,MAPKAPK2,APC,BMPRI1,CKA P5,DPP4,ITGA1,KCTD20,KIAA0319,NGF,PRKCA,PTGES,UBE2E2,VL DLR,ADAMTS20,PILRB,ABII,CTSH,DHX9,RGCC,RPH3AL,CCL14,CC L15,CYB5D2,EDA2R,GPR21,IL6R,MAP2K6,SPTBN4,CLASP2,MAP2K 1,PRAMEF7,RGMB,SOS1,TPH1,VPS35,C1QTNF3,FGF1,PLB1,RAD18, TBX20,ATMIN,CRADD,NLRC5,RGN,RREB1</i> </p>
GO:0016477	cell migration	8.745221378372606e-10	<p> <i>SRGAP2B,PLCB1,CMKLR1,DAB1,FMNL2,PTPRT,DCC,DUSP22,FBL N1,ITGA2,SUN2,ZRANB1,NRG3,TGFBR3,CDH13,PIK3C2B,SDCCAG8 ,GADD45A,PLXNA4,FLRT2,GPC3,NRG1,RFFL,MCTP1,ASTN2,SH3RF 2,UNC5D,SEMA6D,SPOCK1,CTNNA2,CCR1,CCR3,RBFOX2,TIAM1,R HOC,LDLRAD4,NKD1,SCAI,FBXO31,ARID5B,PHACTR1,EPHA3,DCL K1,AGT,PSTPIP2,RHOJ,CDH2,LOXL2,LAMA2,SEMA3D,DACH1,NTN 1,ZNF268,GPC6,DBH,FMNL3,RIN3,LAMA4,SLIT2,PDCC6,GPC5,IGF 1R,VCAN,PTPRG,KRT2,VCL,CELSR1,MBOAT7,ASTN1,STK24,FRMD5 ,TRPM2,CTNNA3,NTNG1,LRRK2,NTRK3,ANKS1A,DISC1,HEXB,SH3B P1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,VAV3,FUT4,S100A11,SE MA5A,LAMA3,NR2F2,PML,TNS1,PLXNA2,BCL2,ARHGAP24,EPHB1, VANGL2,NR4A2,FYN,NR4A1,CD44,KANK1,ENPP2,CCDC2,LAMB4,U NC5C,PALLD,NLRP12,MTOR,LDB2,FAT3,MEGF9,BMPER,CEP85L,E PB41L4B,SOX8,PRKCE,FAM19A4,FOXO3,MITF,DLC1,EDNRB,ROBO 1,SATB2,FAP,FLT1,CENPV,KDR,PRCP,CHL1,APP,NRP1,PTPRM,EL MO1,ADTRP,SEMA3C,ADAM17,CAMK1D,ELP3,ETSI,ITGA11,ATRN1, OPHN1,CCDC88A,RIN2,HDAC4,PDE4B,JAM2,MAPRE2,NTRK2,PR KG1,CDC42BP4,STARD13,RABGEF1,GLI3,CLDN1,DOCK4,SRP54,T GFBR1,TNR,PEAK1,IL16,CYP7B1,MERTK,MAGI2,NF1,SORL1,DMRT 1,RELN,HDAC9,KIRREL3,SELE,MGAT5,NUMB,NAV3,JAG1,MEOX2,P PP3CA,CXADR,DOCK10,GPC4,PTPRU,SH3KBP1,JAK2,SPNS2,SMAD 3,CD300A,PLXNB1,CDK1,HDAC7,TNF,LRCH1,OVOL2,DLG5,LGR6,A RID2,ADORA3,DOCK1,EPSS,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2, AMOTL1,NET1,SELP,CTNNA1,CDKL5,EGF,KIT,PIK3C2G,TRPV4,EF NBI,PTPRO,RAPGEF2,SEMA3E,FGF13,MARVELD3,EPHB2,ABCC1, ERBB4,FER,MAP3K3,LRP5,SLAMF1,BSG,F11R,SETD2,ARHGAP35,C D2AP,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,KI F2A,NHLH2,ARF4,MYH9,NEDD9,PDGFD,PIK3CD,ENPEP,TRPV4,WD PCP,AUTS2,FGFR1,ITGBL1,ITGB7,NTF3,BDKRB1,DGKZ,SEMA3A,M ARK2,ZMIZ1,SRGAP3,FERMT2,MAP2K5,MARK1,SMPD3,TNN,DAB2, LCP1,ACTN4,ADAM10,CCL7,ITGA3,SYNPO2,TRPM4,CLASP1,HGF, MYLK,CAPN7,INSR,MACF1,PAK1,AKT3,PRKX,ULK4,CCDC141,GNA 13,FUT8,SPRED1,NTN4,PTPRF,DEFA1B,PTPRR,EXT1,UMOD,DOCK 7,ELMO2,HDAC5,TDGF1,LYVE1,TREM1,ADARB1,NDE1,PRKCQ,STA T3,AMOT,PAK3,USH2A,LGALS9,LRP8,APC,BMPRI1,DPP4,ITGA1,KI AA0319,PRKCA,CTSH,RGCC,SRGAP1,CCL14,CCL15,CCL15- CCL14,IL6R,CLASP2,SOS1,FGF1,TBX20,RREB1</i> </p>
GO:0007166	cell surface receptor signaling pathway	9.470270501784736e-10	<p> <i>IGHV1OR21- 1,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,LYPD6,PTPRT,IGHV4- 31,DCC,IGHV3-64,SVEP1,WLS,TIMP3,DUSP22,GRIK1,IGHV1OR15- 9,SORBS2,IGHV4OR15- 8,NPHP3,ITGA2,EPHA6,VRK2,GRIN3A,FCRL2,NRXN1,SHC3,ZRANB1 ,DOK5,RAB5A,CTNND2,MS4A1,RIMS2,GRIA1,NRG3,TGFBR3,FSTL4, CDH13,NXN,CSNK2A1,TF,TMEM108,GADD45A,PLXNA4,FLRT2,GP C3,NRG1,PSMB2,SHISA6,RFFL,IL4R,PLCE1,UNC5D,GLP2R,SEMA6 D,CCR1,CCR3,DTX4,TIAM1,LDLRAD4,GRID1,CBFA2T2,IL1RAPL2,N KD1,MX1,BTN2A1,ALK,PTPRE,RAB7A,ARID5B,ROBO2,C2CD3,EPH A3,PRKACB,PXDN,LEMD3,AGT,WDR11,CDH2,PARK2,KIR2DL1,SE MA3D,TRIM5,TXK,GPC6,DBH,ZNRF3,TRIO,HDAC2,HTRA1,SLIT2,P</i> </p>

			<p>DCD6,STXBP4,GPC5,IGF1R,SMAD1,TMPRSS6,PTPRG,CELSR1,FSH R,GRIA4,GRM1,SKAP1,WWOX,LRRK2,MAPK10,NTRK3,RORA,CD8B,PRICKLE2,ANKS1A,RNF165,DISC1,SH3BP1,MECP2,MTMR2,SEMA4D,GSK3B,LGR5,PRKD1,ERCC6,OGT,TGFB2,ATP1A4,VAV3,ANKS1B,SEMA5A,BDNF,LLGL2,PRKCH,RBMS3,RYK,ZDHHC17,WASF1,GRIN2B,LAMA3,SIK2,ANKRD6,PML,FBN1,GRIK3,IGHV3-16,PLXNA2,BCL2,ZNF675,EPHB1,IL12RB2,SIPA1L1,LRP2,TMEM100,VANGL2,CDH6,DEPTOR,NR4A2,EPHA7,FYN,ADAMTS18,CHN1,SMA RCA4,CD44,HECW1,NEU3,RNF213,FOXO1,PDE4D,KANK1,DCDC2,GRK5,TNMD,CSNK1G3,GRIK2,IGSF11,CELF4,UNC5C,SLC1A1,UGCG,RFX4,NLRP12,ROR1,CTDSPL2,BMPER,PTPRD,BBS2,EPM2A,PLN,CTNNBIP1,ZMYND11,DSG4,NLGN4X,PRKCE,PRKCB,FOXO3,MITF,KALRN,TTL12,CCDC88C,EDNRB,OASL,ROBO1,FLT1,CDH17,COL2A1,MAP3K7,MAPK9,TRAF3IP2,CR1,EYA4,ACSL5,STK3,KDR,EDA,IGHV4-28,APP,CALCRL,NRP1,LGR4,RANBP10,SEMA3C,ADAM17,TSPEAR,IGF2R,ATF2,GRK6,EFEMP1,ROS1,TGFB11,DOT1L,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,ITGA11,TRAF3,ABAT,GRIN2A,CCDC88A,C D38,FAM83B,RNF43,CHRD1,RNF126,STK36,BCL2L1,GUCY2F,PDE4B,GHR,GLRA2,NTRK2,FAM83G,PTPDC1,LY86,RABGEF1,SPRED2,GLI3,KIF16B,RAP1A,TGFBRI,CYSLTR1,ADAM12,EPHA5,LCPC2,THEMIS,NCOA5,CHST11,CPE,RAPGEF1,CHRNA3,CHRNA5,EP300,WIF1,BRD7,GAB2,GLRA1,COL4A6,GRID2,IFNGR2,PIBF1,PSMA1,ADORA2A,CABIN1,EFNA5,MERTK,GUCY2C,MAGI2,NF1,SORL1,BICC1,BID,IFT80,DMRT1,POR,RELN,GRM5,IGHV4-4,IL18R1,IL1RL1,MGAT5,NDRG2,IGHV3OR16-12,NLK,NPHP4,ADCYAP1R1,IL1RAP,FBXL17,JAG1,PPP3CA,JRK,SNX25,DGKI,WWTR1,KL,CBLB,PLSCR1,CNTN1,DOK6,GPC4,GRM7,RIMS1,ITGAE,NLGN1,P2RX6,PTPRU,BTBD11,LRRK1,MAPK8IP2,VEPH1,DDX3X,CNOT7,GMD5,MAML3,JAK2,SHOX2,AHI1,SMAD3,BAIAP2L1,CD300A,KIDINS220,MAP2K4,PLXNB1,LTB,SLC39A10,TNF,OVOL2,SNX5,PRDM15,BMP15,DLG5,LGR6,MAGI1,SHC2,ADORA3,CLEC4A,DOCK1,GRIA3,IGLC2,IPLL5,GCLC,PMEP1,LTBP1,DAAM2,SMOC2,SULF1,C5AR1,LRP4,PIK3R3,CNTN6,EFNB2,AMOTL1,ZNF423,ALPK2,CTNNA1,GRIK4,GSKIP,TNFRSF19,DYNC2H1,MLLT3,CD109,EGF,KIT,SLIT3,TNFSF8,VWC2,CC2D2A,EFNB1,PTPRO,RAPGEF2,JAK1,SEMA3E,GRM4,EPHB2,IGHV3-72,DAPK1,ERBB4,FER,MAML2,LRP5,PTH2R,SHCBP1,SLAMF1,BSG,FARP2,GAS8,COMMD7,PTPRK,CCL3,FGF7,LAMA1,RNF138,SEMA5B,SPRED3,IL20RA,ITGA9,PSG9,SULF2,MYH9,SOX4,ST18,NEDD9,P2RX1,PDGFD,PIK3CD,UBE2N,ASGR2,ITGA8,DDBI,IRAK2,PLAT,TNK3,WDPCP,FGFR1,UNC13B,GLRA3,ITGBL1,SOST,IL23R,ITGB7,NTF3,P2RX7,SCUBE1,AMFR,AR,SUFU,EYA1,IFNA8,IL1RL2,BDKRB2,ARMC9,DGKZ,PRKAA2,SEMA3A,TLE4,CDC73,GRIA2,MARK2,ZMIZ1,FLT3,PTPRA,TRIM72,FERMT2,LTBR,MAP2K5,MARK1,SMPD3,TNN,DAB2,ACTN4,ADAM10,CCL7,DAAM1,FGF12,ITGA3,NREP,PLCL2,PPM1B,RFTN1,PINI,TRPM4,CD226,BMP6,TGFA,WDR12,GAS2,HGF,CALCR,SCUBE3,NCAM1,IL18RAP,INSR,MACF1,PAK1,PSMB7,SKI,ELF1,ENPPI,FMR1,IGHV1-69,EVC,IDE,IGHV1-46,MFNG,AIM2,CSF2RB,EVC2,PPARA,SORT1,FUT8,S1PR3,SPRED1,TRPM1,CHSY1,PRDM16,PTPRF,ZNF451,BTRC,CCDC3,IGHV1-18,PTPRR,EXT1,IFT81,PRLR,UMOD,FBXW11,G3BP1,TDGF1,STAT4,PRKCQ,SCEL,STAT3,TP63,PAK3,PIK3R2,TBL1X,BLNK,LRP8,IL10RB,MAPKAPK2,APC,BMPRI1A,ITGA1,KIAA0319,NGF,PRKCA,UBASH3B,VLDLR,GPR75,MTMR4,PILRB,ABI1,FCRL5,TRBV6-8,USP18,CCL14,CCL15,EDA2R,GPR21,IL6R,CLASP2,RGMB,SOS1,VP S35,FGF1,TBX20,CRADD,NLRC5,TBX18</p>
GO:0006812	cation transport	1.941362988831853e-9	<p>PIEZO2,ASIC2,CACNA1E,KCNJ6,ANK3,SLC24A3,KCNQ1,GRIN3A,NRXN1,SLC1A2,MS4A1,PKD1L1,SLC9B1,TRPM3,ANK2,KCND3,FAM155A,SLC12A1,DPP10,TF,SCN8A,KCNE1,KCNJ15,SYT17,KCNG3,SCAR A5,SHISA6,RYR3,CCR1,PM20D1,RASGRF1,SLC6A2,SLC17A3,UTRN,SLC44A1,AGT,SHISA9,CHRM5,ATP6V0D1,PARK2,KCNH1,SLC5A4,CP,KCNMA1,SLC44A5,SLC24A4,SYT9,KCNK17,TRPC5,DMD,HCN1,SYT1,CACNA2D3,CACNG3,NOX5,FGF14,GSGL,SLC39A11,DPP6,TRPM2,CNIH3,RYR2,CATSPER2,DHRS7C,SLC1A3,KCNH5,SLC4A4,CHD7,KCNK13,SLC8A1,PRKD1,FLVCR1,ATP1A4,SLC5A3,ZDHHC17,KCNC1,GRIN2B,NKAIN2,SNAP25,PML,AKAP6,SNAP23,BCL2,RALBP1,KCNJ3,SLC30A5,LRP2,NKAIN3,NSF,ITPR2,ABCC9,FYN,KCNE2,HECW1,RCVRN,PDE4D,ACTN2,KCNS3,KCNIP4,KCND2,SCN11A,SLC1A1,MFSD12,PKP2,SLC35F3,ATP1A1,EPM2A,PLN,HEPHL1,PRKCE,SLC2A9,ATP6V1D,PRKCB,VDR,EFHB,SLC47A1,CAPN3,EDNRB,SLC12A8,KCNC4,CASK,APP,CALCRL,KCNK2,SLC38A7,PEX5L,ABAT,GRIN2A,SLC30A7,PDE4B,SLC5A10,COMMD1,CACNA1C,NIPA2,CYSLTR1,KCNJ12,SL</p>

			<p>C13A4,SLC6A17,IL16,CHRNA3,CACNA2D1,CACNA2D4,IFNGR2,RASGRF2,TRPM7,ADORA2A,CAMK2G,CACNG2,RGS7,KCNQ5,MICU1,RELN,SLC39A8,SLC9C1,ADCYAP1R1,PPP3CA,TMEM163,KCNB2,SLC7A1,PER1,SLC24A2,SLC38A6,SLC5A1,CNTN1,STM2,SLC22A2,NLGN1,P2RX6,SLC22A3,AKAP7,MAPK8IP2,CACHD1,CACNA1D,TPCND2,SLC5A8,NOS1,MAGT1,SLC39A10,PANX1,TMC2,KCNT2,KCNK10,TSPA1N13,ANO1,KCNA6,TRPC4,CNGB3,KCNH8,TRDN,ANO10,SLC15A1,SCN1A,KCNH7,EGF,TRPV4,KCNAB1,HTR2C,SLC30A8,FGF13,EPHB2,NDFIP2,DAPK1,CACNG6,FLVCR2,ATP8A1,CCL3,MCUR1,SLC39A12,P2RX1,KCNE4,CNGA4,SFXN3,CDH23,RYR1,P2RX7,RASA3,BDKRB1,THADA,GNB5,ATP6V1H,HCN4,SCNN1A,ATP13A3,RNF207,SYT2,ACTN4,FGF12,KCNJ16,KCNN3,STAC,TRPM4,CNGB1,TMCO3,MYLK,SLC38A4,CALCR,SLC13A3,CACNB2,NOS1AP,FMR1,MICU2,ATP5J,CD84,JPH4,FHL1,SLC22A5,CACNA1A,TRPM1,SCN9A,ATP6V1E1,UMOD,KLHL3,SLC24A5,SLC38A10,SLC40A1,STIM1,TRPM6,KCNC2,SLC9A9,HPN,CASQ2,DTNBP1,SLC28A3,TMEM175,SLC7A8,TMEM63A,TUSC3,UBASH3B,SLC9A2,SPTBN4,MCOLN3,ATP6V1E2,RGN</p>
GO:000987	animal organ morphogenesis	2.488102334471033e-9	<p>MAPK14,DSCAM,NPHP3,ITGA2,KCNQ1,SDK2,TNC,NRG3,OLFM3,TGFBF3,CSMD1,FLRT2,GPC3,NRG1,PSMB2,ALDH1A2,CTNNA2,CFTR,TIAM1,MYO3A,NKD1,SPEF2,ARID5B,ROBO2,C2CD3,AJAP1,AGT,CDH2,FHL2,FOXN3,LAMA2,GREB1L,NTN1,GPC6,ZNRF3,HDAC2,HTRA1,SLIT2,MDM2,SLC24A4,HCN1,BASP1,CELSR1,WWOX,RYR2,NTNG1,LRRK2,RORB,STRC,KIF26B,PRICKLE2,CHD7,SOX6,FLVCR1,TGFB2,FMN1,RYK,PCDH15,WDR72,EXT2,LAMA3,ANKRD6,NR5A2,PML,FBN1,BCL2,EPHB1,CSGALNACT1,LRP2,MMP16,TMEM100,VANGL2,ATP8A2,EXOC4,LAMB4,SLC1A1,ZFPM2,RARB,MTOR,ROR1,FAT3,MEGF9,PKP2,BBS2,COL11A1,CTNNBIP1,SOX8,VDR,FOXO3,DLC1,ROBO1,SATB2,GRHL2,COL2A1,SEC24B,PKHD1,TGM2,KDR,EDA,COL18A1,NRP1,PTPRM,LGR4,EGFLAM,THRB,SEMA3C,TSPEAR,ATF2,EMP1,ATRNL1,FRAS1,ADAMTS16,SOX5,GHR,NTRK2,SDK1,GLI3,CRB1,TGFBF1,TENM3,CHST11,CPE,EP300,DSCAML1,TBX3,CYP7B1,TRIOBP,PSMA1,FAM20A,MAGI2,NF1,IFT80,TTC8,ASXL1,POR,TNFRSF11B,TSHZ1,TBX15,JAG1,PLS1,WWTR1,GPC4,FREM1,SSUH2,MEGF11,SYCP2,SHOX2,SOBP,AH11,SMAD3,COL8A1,RDH10,TNF,OVOL2,ZFPM1,DLG5,PHEX,ARID2,MMP20,MYO6,RAB23,SULF1,LRP4,EFNB2,ALPK2,CTNNA1,MLLT3,SLIT3,TRPV4,DNAH11,EDAR,ESR1,PLAG1,EPHB2,ERBB4,SLITRK6,LRP5,BSG,SETD2,ALX4,FGF7,LAMA1,SULF2,SOX4,AGTPBP1,ITGA8,MYO3B,PDZD7,WDPCP,CDH23,FGFR1,RYR1,ASXL3,P2RX7,AR,BCOR,SUFU,EYA1,SEMA3A,ANKRD11,MEIS2,MIZ1,PPARGC1B,PAPPA2,SMPD3,DAB2,PBX1,RNF207,DAAMI,LRI1,LRG1,BMP6,TGFA,HGF,MYLK,FLI1,ELN,INSR,PSMB7,SKI,AKT3,PAX3,PRKX,RPGRI1,PPARA,TTN,FHL1,MYH7,CHSY1,NTN4,BTRC,ESRP2,EXT1,MDM4,MYH6,ADAMTS5,FBXW11,KLHL3,SLC40A1,STIM1,TTC39C,ADARB1,STAT3,TP63,HPN,USH2A,BMPR1A,CTSH,MAP2K1,SOS1,FGF1,TBX20,TBX18</p>
GO:0022603	regulation of anatomical structure morphogenesis	2.5144827158225935e-9	<p>ISM1,CDH4,DAB1,OMA1,GTF2I,FMNL2,CDC42EP3,DSCAM,RUNX1,DCC,FBLN1,NPHP3,ZRANB1,CHODL,RIMS2,FGD6,FSTL4,LRRC4C,GADD45A,SYT17,PLXNA4,GPC3,PSMB2,SEMA6D,CCR3,TIAM1,RHOC,NKD1,FBXO31,ROBO2,AJAP1,AGT,RHOJ,CDH2,PARK2,CYBB,SEMA3D,NTN1,GPC6,ZNRF3,FMNL3,MYO9A,SLIT2,PDCD6,PALMD,SMAD1,TRPC5,SYT1,CELSR1,NTNG1,TENM4,LRRK2,PRICKLE2,DISC1,HEXB,MECP2,SEMA4D,GSK3B,PRKD1,TGFB2,SEMA5A,BDNF,RYK,ANKRD6,PML,PLXNA2,RALBP1,SIPA1L1,VANGL2,EPHA7,FYN,CHN1,CD44,HECW1,THBS2,KANK1,ENPP2,TNMD,STRIP1,ROR1,MOV10,BMPER,ERMN,PTPRD,TIAM2,PGK1,SOX8,PRKCB,KALRN,DLC1,ROBO1,TANC2,FLT1,SEC24B,PKHD1,VASH2,KDR,ARHGAP15,NRP1,PTPRM,SHROOM3,ARHGEF18,LGR4,SEMA3C,ATF2,ETS1,GRIP1,NTRK2,DNM3,CYSLTR1,ADAM12,TNR,CUX1,CHRNA3,TRIOBP,PARVB,PSMA1,ADCK1,EFNA5,MAGI2,NF1,RELN,TNFRSF11B,MAP3K13,RALA,ATP10A,PPP3CA,CAPZB,GPC4,RIMS1,TMEM135,AGGF1,NLGN1,SH3KBP1,SHOX2,AH11,PLXNB1,TNF,PPFIA2,BCL11A,HMGA2,DOCK1,EPS8,SMOC2,SULF1,C5AR1,LRP4,EFNB2,CDKL5,MYH14,FAM171A1,MLLT3,EGF,CMA1,IL1RAPL1,KIT,RAPGEF2,ESR1,JAK1,SEMA3E,UBE3A,DNMBP,FGF13,EPHB2,SPTA1,CAMP,F11R,ARHGAP35,CCL3,FGF7,PREX1,SEMA5B,FGD4,MYH9,SLC39A12,NEDD9,PIK3CD,UNC13A,WDPCP,MAP2,AR,BHLHB9,SEMA3A,EPB41L3,MARK2,PDLIM5,FERMT2,DAB2,RNF207,SYT2,ACTN4,CCL7,DAAMI,CLASP1,CFDP1,GAS2,HGF,MACF1,PAK1,PSMB7,AKT3,GNA13,SPRED1,NTN4,AKAP2,STIM1,STAT3,AMOT,HPN,ISLR2,PAK3,DTNBP1,LRP8,BMPR1A,KIAA0319,NGF,PRKCA,CTSH,RGCC,CLASP2,MAP2K1,VPS35,FGF1,RREB1,TBX18</p>
GO:00485	negative	2.517346107203332e-	<p>FANK1,CAST,SRGAP2B,TPTE,ZHX3,PLCB1,DAB1,OMA1,DUX4,MAPK14,DSCAM,TPTE2,RUNX1,ASIC2,CTBP2,SERPINA1,ANXA8L1,PTPR</p>

23	regulation of cellular process	9	<p> <i>T,ANK3,DCC,TIMP3,ZNF397,DUSP22,FBLN1,NPHP3,ABCG1,RGS6,KCNQ1,DPF3,ATF7IP,NRXN1,PAX7,MTPN,SHANK2,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,TGFBR3,FSTL4,CDH13,RNF152,ANK2,RTN1,NXN,RUNX1T1,CSNK2A1,ERCC4,KCNE1,SAMD4A,EIF4EBP3,CHEK2,GADD45A,PRDM9,ACIN1,PLXNA4,TOX3,GPC3,NRG1,STXBP6,ETS2,PSMB2,SHISA6,RFFL,IL4R,ALDH1A2,LRFN5,RYR3,MCTP1,SUZ12,ASTN2,SH3RF2,SEMA6D,SPOCK1,ABHD17C,CTNNA2,RBFOX2,PM20D1,AGBL4,BEND5,LDLRAD4,DNAJC15,RGS7BP,ZNF91,ZBTB20,ARFIP1,CBFA2T2,NKD1,SCA1,PTPRE,SORCS3,ZNF536,FBXO31,RAB7A,CNTN4,RGL2,ARID5B,ROBO2,SPOCK3,ZNF366,EPHA3,PRKACB,DCLK1,PXDN,AJAP1,LEMD3,AGT,CST2,MAGEB3,AVEN,RCAN1,CDH2,PARK2,FHL2,FOXN3,LOXL2,CDC5L,KIR2DL4,KIR3DL2,BPIFB1,CORO2B,PSPC1,SEMA3D,DACH1,NTN1,TP53I11,TRIM22,USP25,ZNF268,CP,NELL1,PCDH17,PHC1,ZNRF3,RIN3,TRIO,FTO,HDAC2,HTRA1,SLIT2,TFAP2D,ZBTB34,KCTD1,PDCC6,RPS6KA2,LCMT1,IGF1R,MDM2,SLC24A4,SMAD1,E2F3,TMPRSS6,CEP97,PTPRG,SACS,TRPC5,DM2,STK33,BASP1,VCL,GRIA4,FMN2,HNRNP,A2B1,MAEL,NFE2L3,NRIP1,PRKAR2A,SORCS2,INPP5A,STK24,WWOX,ATRX,FRMD5,PARP16,TRPM2,RYR2,DHRS7C,LRRK2,RORB,IGFBP7,NTRK3,RORA,IQCJ-SCHIP1,CHD7,OVGP1,PAN3,GLIS1,SH3BP1,SOX6,MECP2,MTMR2,SEMA4D,OSK3B,SLC8A1,PRKD1,SERPINA4,SERPINA5,ERCC6,OGT,TGFB2,PRAMEF12,PIWIL4,RIPPLY3,S100A11,SEMA5A,BDNF,PRKAR1B,PRKCH,RBMS3,RYK,ABI3BP,GRIN2B,KDM4C,OTUD7A,RAG1,RAG2,SAMD13,ANKRD6,NR2F2,PTGFR,PCBP3,PML,PPARGC1A,USP36,ARHGAP12,AKAP6,FBN1,PPP4R4,GRIK3,NLRP7,PLXNA2,TAOK3,BCL2,CHMP4C,MXI1,ZNF675,ARHGAP24,EPHB1,SMARCE1,SKAP2,KLF12,LRP2,FRMD4A,ITPR2,DEPTOR,NR4A2,EPHA7,ZBTB7C,DPT,RBAK,FYN,KCNE2,PARN,ADAMTS18,NR4A1,SMARCA4,CD44,HECW1,NEU3,PMP22,RHBDD1,RNF213,FOXO1,PDE4D,RBBP8,RNF144B,KANK1,ACTN2,ATP8A2,BACH1,CST9L,GRK5,KLF13,PACRG,TNMD,GRIK2,CELF4,SERPINB7,APBB2,EIF3E,SLC1A1,ZFPM2,ZNF141,GLIS3,RARB,RERG,RFX4,ETV6,GNG4,NLRP12,MFSD12,MTOR,RMI2,LDB2,MOV10,CTDSPL2,FAT3,PKP2,UBXN2B,BMPER,PTPRD,SCAF8,ARL6IP5,ATP1A1,EPM2A,PLN,CTNNBIP1,SOX8,ZMYND11,NLGN4X,PRKCE,EIF2S1,HELLS,KMT2A,PRKCB,VDR,ADCY8,FOXO3,IGF2BP3,LRRTM1,MTF,SCMH1,CAPN3,KALRN,TTL12,CCDC88C,DLCL1,EDNRB,ROBO1,SATB2,TBC1D4,BNIP3L,FAP,FLT1,NOX4,ZNF148,GRHL2,TSC22D3,COL2A1,NBAS,NR3C1,TRAF3IP2,CR1,EYA4,SPON1,MDM1,PKHD1,STK3,KDR,PPHLN1,CASK,CHL1,ABCA12,APP,COL18A1,NRPI,PTPRM,UACA,ARHGEF18,LGR4,LINC00473,SERPING1,TENM2,ADTAP,KAT5,THRB,CPEB2,KCNK2,SEMA3C,ADAM17,CAMK1D,DIS3L2,TFPI,ATF2,ETS1,NR2C2,SAMSN1,EFEMP1,GOPC,PRTG,SMG6,TGFB11,DOT1L,RGS16,RPS6KA5,TCF7L2,TRABD2B,BICD1,PARD3,TLK2,ZNF830,ABAT,KIFAP3,OPHN1,BCLAF1,TRPS1,ZNF568,CD38,DENN5A,RNF43,CHRD1,RNF126,BCL2L1,HDAC4,MYO16,PDE4B,TIMP2,BACE2,DNMT1,GHR,JAM2,NTRK2,PRKG1,ACSL4,DNM3,BRD4,STAR1D3,ARR3,COMMD1,RABGEF1,SPRED2,GLI3,SMCHD1,ZNF207,ACNA1C,RAP1A,TGFBRI,PRDX4,DICER1,TNR,CUX1,NCOA5,CHST11,MAGEA11,PTTG1IP,RAPGEF1,EP300,MORC3,HMG20A,SCFD1,TBX3,WIF1,CYP7B1,GRAMD4,TRIOBP,ATXN1,BRD7,GLRA1,TP73,GRIID2,NPC1,PIBF1,PSMA1,FHIT,ADCK1,ADORA2A,ADRBK2,EFNA5,MEK2,ERK1,ERK2,NF1,RGS7,TFF1,SORL1,STRN3,ARHGAP6,BICC1,BID,ELK3,IFT80,TRIM59,DMRT1,LZTR1,ASXL1,EIF4E,POR,GRM5,HDAC9,PTPN9,MGAT5,NDRG2,NUMB,RHPN2,SP2,TNFAIP8,NLK,NPHP4,TBX15,ADCYAP1R1,NAV3,JAG1,MEOX2,PPP3CA,KLF3,KLF7,MYT1L,SH3GL2,SNX25,CAPZB,DGKI,MAS1,PER1,SATB1,SLC24A2,WWTR1,ANKRD13A,CBLB,ELAVL4,MAGEB2,MNAT1,ATP9A,DGUOK,GRM7,PMEM67,GABPA,KAT7,L3MBTL3,ZNF540,FHOD3,N4BP2L2,NLGN1,PTPRU,THAP7,AKIRIN2,RPS20,NPR3,SYCP2,LRRK1,MAPK8IP2,VEPH1,DDX3X,LRPPRC,RBL2,CNOT7,GABRA5,TPCN2,DNMT3B,JAK2,SHOX2,AH11,SMAD3,CD300A,MAP2K4,NOS1,SERPINB12,PLXNB1,ZNF337,AATF,CDK1,DCBLD2,HDAC7,NBN,SLC39A10,TAGLN3,TNF,LRCH1,OVOL2,SNX5,TNIP1,ZFPM1,EIF3A,ILF3,PRDM15,ADNP2,DLG5,SCAF4,SIM2,ARID2,MLIP,BRINP1,FAM220A,PRG3,SRSF4,ADORA3,ARF1,BCL11A,HMGA2,POLR1A,YAF2,ZNF705A,AGO3,GCLC,PMEP1,RAB23,EPS8,LTBP1,DAAM2,L3MBTL4,SULF1,CCP110,LRP4,WDR5,EFNB2,MXD3,TRDN,HERC1,PHF8,ZNF423,CDC14B,ALPK2,CTNNA1,TENM1,TSHZ3,ZNF93,GSKIP,PRKAR1A,ZNF345,BPTF,MLLT3,CD109,PTPN14,FOXP4,GBE1,IL1RAPL1,KIT,SLIT3,TNRC6B,UBR2,BLM,TRPV4,VWC2,ABCA5,KCNAB1,PTPRO,RAPGEF2,DNAJB6,ESR1,HTR2C,SEMA3E,UBE3A,FGF13,GABRB2,MARVELD3,EPHB2,MECOM,TBCD,TFDP2,DAP,DAPK1,ERBB4,FER,MAP3K3,SPTA1,FNIP1,LRP5,MLALRD1,ZNF439,RPS27L,SLAMF1,ABL2,DEPDC5,F11R,GAS8,YPS13C </i> </p>
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			<p>,AP2B1, ARHGAP35, CD2AP, COMMD7, NSUN2, PTPRK, CCL3, SEMA5B, SPRED3, TNFAIP8L2, ARHGAP25, GCFC2, SULF2, ARF4, MYH9, PACS1 N2, SOX4, ST18, SPTB, AGTPBP1, KCNE4, PUM1, ARID4A, DDB1, KDM3A, PLAT, SERTAD2, TNKS, BCL7A, DAPL1, MEF2A, OCLN, PARP15, PDE11A, RGS3, RYR1, ZCCHC17, ZNF85, DAD1, MAP2, SLX1B, SOST, NTF3, P2RX7, TEX14, RASA3, AMFR, APIP, AR, BCOR, FGL2, SCAMP5, SUFU, TRERF1, EYA1, N4BP1, RBM4, BDKRB1, BDKRB2, BHLHB9, DGKZ, L3MBTL1, OGN, PI3, PRKAA2, SEMA3A, TAX1BP1, THADA, TLE4, ZNF202, ZNF558, ARHGAP10, CDC73, GNB5, MEIS2, PDE5A, PROS1, ZNF19, ZNF440, NFI C, PPARGC1B, SRGAP3, TRIM72, FERMT2, MAP2K5, MARK1, TNN, DAB2, GPR55, HDAC8, PBX1, ACTN4, ADAM10, EEF1E1, ITGA3, PRAMEF8, TXND5, FANCB, FRY, PLCL2, PPM1B, NUP153, PIN1, RPS6KA6, TRPM4, ERLIN1, STK38, ZNF674, BMP6, CIT, CLASP1, EIF4ENIF1, CDYL2, CFDP1, NCOA2, TGFA, TMOD1, CREM, HGF, PKP1, POU2F1, RGS12, CENPF, S H3BP5, ZBTB16, KDM4B, ARHGAP28, LARP4B, PAK1, PDE3A, PSMB7, SKI, AKT3, CTDP1, ELFI, ENPP1, FMR1, LIMK2, LITAF, CHFR, DKC1, JDP2, PHC2, ABCD1, BMF, CRMP1, MAD1L1, ARHGAP42, CD84, JPH4, PPARA, SORT1, TBX22, FAM3D, FHL1, GNA13, PPP1R13B, TAF1, CHD5, FNIP2, SIPR3, SPRED1, ESR2, KRT4, PRDM16, QSOX1, RBL1, ZNF451, BTRC, CDC3, HIRA, OPTN, PTPRR, RIT2, MDM4, PRKCG, PRLR, UMOD, ZNF354B, CBFA2T3, FBXW11, G3BP1, HDAC5, TDGF1, A2M, PI15, SERPINB8, SLC24A5, SLC40A1, ADARB1, PRKCQ, STAT3, TFEC, TP63, USP7, BRIP1, CDKN3, CST1, HPN, PIK3R2, TBL1X, USH2A, CASQ2, DHRS2, DTNBP1, GAK, RAP1B, LGALS9, MAPKAPK2, APC, BMPR1A, DPP4, ITGA1, KIAA0319, NGF, PRKCA, PTGES, SPINT2, UBASH3B, ADAMTS20, ITIH6, MTRR4, OSGIN2, PDS5A, ABI1, CTSH, DHX9, NCAPG2, RGCC, RPH3A, SRGAP1, USP18, GPR21, SIAH3, TFIP11, SPTBN4, CLASP2, MAP2K1, PRAMEF7, VP S35, ZBTB25, ZRANB3, C1QTNF3, COL6A3, MCOLN3, RAD18, TBX20, C6ORF106, CRADD, NLRC5, RGN, RREB1, TBX18</p>
GO:003001	metal ion transport	2.567154702662006e-9	<p>ASIC2, CACNA1E, KCNJ6, ANK3, SLC24A3, KCNQ1, GRIN3A, MS4A1, PKD1L1, SLC9B1, TRPM3, ANK2, KCND3, FAM155A, SLC12A1, DPP10, TF, SCN8A, KCNE1, KCNJ15, KCNG3, SCARA5, RYR3, CCR1, SLC6A2, SLC17A3, UTRN, AGT, KCNH1, SLC5A4, CP, KCNMA1, SLC24A4, KCNK17, TRPC5, DMD, HCN1, CACNA2D3, CACNG3, NOX5, FGF14, SLC39A11, DPP6, TRPM2, RYR2, CATSPER2, DHRS7C, SLC1A3, KCNH5, SLC4A4, CHD7, KCNK13, SLC8A1, PRKD1, FLVCR1, ATP1A4, SLC5A3, ZDHHC17, KCNC1, GRIN2B, NKAIN2, SNAP25, PML, AKAP6, BCL2, KCNJ3, SLC30A5, LRP2, NKAIN3, NSF, ITPR2, ABCC9, FYN, KCNE2, HECW1, RCVRN, PDE4D, ACTN2, KCNS3, KCNIP4, KCND2, SCN11A, SLC1A1, PKP2, ATP1A1, EPM2A, PLN, HEPHL1, PRKCE, PRKCB, VDR, EFHB, CAPN3, EDNRB, SLC12A8, KCNC4, CASK, CALCR1, KCNK2, SLC38A7, GRIN2A, SLC30A7, PDE4B, SLC5A10, COMMD1, CACNA1C, NIPA2, CYSLTR1, KCNJ12, SLC13A4, SLC6A17, IL16, CACNA2D1, CACNA2D4, TRPM7, ADORA2A, CAMK2G, CACNG2, RGS7, KCNQ5, MICU1, SLC39A8, SLC9C1, ADCYAP1R1, PPP3CA, TMEI163, KCNB2, PER1, SLC24A2, SLC38A6, SLC5A1, CNTN1, STIM2, AKAP7, CACHD1, CACNA1D, TPCN2, SLC5A8, NOS1, MAGT1, SLC39A10, PANX1, TMC2, KCNT2, KCNK10, TSPAN13, KCNA6, TRPC4, KCNH8, TRDN, SCN1A, KCNH7, EGF, TRPV4, KCNAB1, HTR2C, SLC30A8, FGF13, NDFIP2, CACNG6, FLVCR2, CCL3, MCUR1, SLC39A12, P2RX1, KCNE4, CDH23, RYR1, P2RX7, RASA3, BDKRB1, THADA, GNB5, HCN4, SCN1A, RNF207, ACTN4, FGF12, KCNJ16, KCNN3, STAC, TRPM4, MYLK, SLC38A4, CALCR, SLC13A3, CACNB2, NOS1AP, FMR1, MICU2, CD84, JPH4, FHL1, SLC22A5, CACNA1A, TRPM1, SCN9A, UMOD, KLHL3, SLC24A5, SLC38A10, SLC40A1, STIM1, TRPM6, KCNC2, SLC9A9, HPN, CASQ2, SLC28A3, TMEM175, TUSC3, UBASH3B, SLC9A2, SPTBN4, MCOLN3, RGN</p>
GO:0003012	muscle system process	4.286339434267508e-9	<p>DTNA, AKAP13, SORBS2, ITGA2, KCNQ1, TNNI3K, MTPN, ANK2, KCND3, MYH1, KCNE1, PLCE1, UTRN, MYOM3, AGT, FBXO32, SETD3, KCNMA1, HDAC2, PDE9A, DMD, CTNNA3, RYR2, SLC8A1, SNTB1, SGCD, MYH8, AKAP6, KCNJ3, KCNE2, NR4A1, FOXO1, PDE4D, ACTN2, ATP8A2, RAP1GDS1, APBB2, MTOR, PKP2, ATP1A1, PLN, FOXO3, EDNRB, TACR3, CALCR, SSPN, ABAT, CD38, HDAC4, PDE4B, PRKG1, CACNA1C, DOCK4, KCNJ12, CHRNA3, TBX3, CACNA2D1, GLRA1, PPP1R12B, CAMK2G, PPP3CA, KCNB2, P2RX6, CACNA1D, MYH4, TPCN2, SMAD3, NOS1, TNF, MLIP, CALD1, SULF1, TRDN, SCN1A, ARHGEF11, MYH14, MYH13, KIT, TRPV4, RSD1, FGF13, NUP155, SULF2, PTGER3, P2RX1, KCNE4, MEF2A, RYR1, SYNM, BDKRB2, ADRA1B, PDE5A, SMPX, PDLIM5, TRIM72, GNAO1, HCN4, RNF207, FGF12, STAC, MYOM1, TRPM4, CHRM3, TMOD1, MYLK, CACNB2, NOS1AP, CTDP1, ARHGAP42, PPARA, TTN, MYH7, MYBPC2, MYH6, S CO2, MYH11, CASQ2, MYOM2, PRKCA, ASB3, MAP2K6, TBX20</p>
GO:0009966	regulation of signal transducti	7.120171790632891e-9	<p>TPTE, PLCB1, CMKLR1, DAB1, MAPK14, TPTE2, SH3RF3, CTBP2, LYPD6, PTPRT, WLS, TIMP3, DUSP22, AKAP13, FBLN1, NPHP3, RGS6, VRK2, NRXN1, ZRANB1, DOK5, DOCK2, CTNND2, RIMS2, SHANK2, SMYD2, CLEC16A, TGFB3, FSTL4, CDH13, RNF152, NXN, CSNK2A1, TMEM108, CH</p>

	on		<p> <i>EK2,GADD45A,GPC3,NRG1,PSMB2,SHISA6,RFFL,PLCE1,SH3RF2,C</i> <i>CR1,TIAM1,RHOC,LDLRAD4,RGS7BP,RASGRF1,CBFA2T2,NKD1,SC</i> <i>AI,ALK,PTPRE,ZNF536,RAB7A,RGL2,S100B,ROBO2,ZNF366,C2CD3,</i> <i>PRKACB,PXDN,CRNN,LEMD3,AGT,SHISA9,WDR11,RCAN1,CDH2,P</i> <i>ARK2,FHL2,DLGAP1,BPIFB1,TRIM22,TRIM5,TKX,GPC6,DBH,ITSN1,</i> <i>ZNRF3,TRIO,HDAC2,HTRA1,MYO9A,SLIT2,PDCD6,GPC5,LCMT1,IG</i> <i>F1R,MDM2,SLC24A4,TMPRSS6,NR3C2,DMD,KCTD8,CACNG3,SIPA1</i> <i>L3,FSHR,SGS1L,GRM1,WDR83,WWOX,CNIH3,CAMTA1,LRRK2,IGF</i> <i>BP7,NTRK3,RORA,IQCJ-</i> <i>SCHIP1,ANKS1A,RNF165,DISC1,SH3BP1,MTMR2,SEMA4D,GSK3B,L</i> <i>GR5,MAGI3,PRKD1,ERCC6,OGT,TGFB2,VAV3,SEMA5A,BDNF,LLGL</i> <i>2,PRKCH,RBMS3,RYK,ZDHHHC17,WASF1,KDM4C,OTUD7A,SIK2,AN</i> <i>KRD6,ARHGAP8,PRR5,PML,ARHGAP12,AKAP6,FBN1,TRAF3IP2,EYA</i> <i>4,ACSL5,PKHD1,STK3,TGM2,KDR,PRCP,ARHGAP15,EDA,APP,NRP1</i> <i>,UACA,ARHGEF18,LGR4,LINC00473,ADAM17,MAP3K5,TSPEAR,GR</i> <i>K6,PEX5L,PIK3R5,ROS1,TGFB11,DOT1L,RGS16,TCF7L2,TNFRSF10</i> <i>B,TRABD2B,BICD1,RALGAP42,TRAF3,ABAT,OPHN1,BCLAF1,SGMS</i> <i>1,CCDC88A,MOB3B,RNF43,TUB,CHRD1,RNF126,STK36,BCL2L1,G</i> <i>UCY2F,PDE4B,GHR,MAPRE2,NTRK2,BRD4,RASGRP1,STARD13,ARR</i> <i>3,LY86,RABGEF1,SPRED2,GLI3,RAP1A,SAFB2,TGFBR1,MGLL,NCO</i> <i>A5,CHST11,PTTG1IP,RAPGEF1,EP300,WIF1,CYP7B1,GRAMD4,TP73</i> <i>,IFNGR2,PIBF1,RASGRF2,PSMA1,ADORA2A,ADRBK2,RALGPS1,CA</i> <i>CNG2,MAGI2,NF1,RALGPS2,RGS7,SORL1,STRN3,ARHGAP6,BICC1,</i> <i>BID,IFT80,TRIM59,DMRT1,LZTR1,ASXL1,POR,RELN,GRM5,IL18R1,</i> <i>MGAT5,NDRG2,MAP3K13,NLK,NPHP4,ADCYAP1R1,FBXL17,JAG1,J</i> <i>RK,SNX25,DGKI,PER1,WWTR1,KL,CBLB,PLSCR1,DOK6,GPC4,RIMS</i> <i>1,TRIM16,WDR59,NLGN1,PTPRU,ARHGAP5,RPS20,AKAP7,LRRK1,M</i> <i>APK8IP2,VEPH1,DDX3X,CNOT7,ZNF622,ARHGAP39,JAK2,SHOX2,S</i> <i>MAD3,BALAP2L1,CD300A,PLXNB1,AATF,HDAC7,SLC39A10,TNF,OV</i> <i>OL2,SNX5,TNIP1,EIF3A,POMC,PRDM15,BMP15,DLGS,AFAP1,LGR6,</i> <i>SHC2,AGO3,GCLC,PMEP1,UBE2V1,EPS8,LTBP1,DAAM2,SMOC2,S</i> <i>ULF1,C5AR1,DEF6,LRP4,CNTN6,NET1,ZNF423,SELP,ALPK2,CTNNA</i> <i>1,TENM1,ARHGEF11,GSKIP,TNFRSF19,ARHGAP11B,DYNC2H1,ML</i> <i>LT3,SIPA1L2,CD109,EGF,KIT,SLIT3,UBR2,TRPV4,VWEC2,EDAR,PTP</i> <i>RO,RAPGEF2,ESR1,HTR2C,UBE3A,DNMBP,GRM4,MARVELD3,EPH</i> <i>B2,MECOM,NDFIP2,DAPK1,ERBB4,FER,MAP3K3,FNIP1,SLAMF1,A</i> <i>BL2,DEPDC5,F11R,GAS8,ARHGAP35,CD2AP,CCL3,PREX1,SPRED3,</i> <i>VWF,ARHGAP25,FGD4,IL20RA,SULF2,SOX4,GARNL3,PDGFD,PIK3</i> <i>CD,UBE2N,ITGA8,PUM1,IRAK2,TNKS,AUTS2,FGFR1,PDE11A,RGS3,</i> <i>UNC13B,SOST,IL23R,NTF3,P2RX7,SCUBE1,RASA3,AMFR,APIR,AS</i> <i>UFU,EYA1,IFNA8,BDKRB2,ADRA1B,ARMC9,DGKZ,PRKAA2,SEMA3</i> <i>A,TLE4,ARHGAP10,CDC73,PDE5A,ZMIZ1,FLT3,SRGAP3,TRIM72,FE</i> <i>RMT2,LTBR,MAP2K5,TNN,DAB2,GPR55,ACTN4,ADAM10,CCL7,EEF</i> <i>1E1,EEF1E1-</i> <i>BLOC1S5,ITGA3,NREP,PLCL2,PPM1B,PIN1,RPS6KA6,TRPM4,CD22</i> <i>6,PIP5K1B,STK38,BMP6,CIT,TGFA,GAS2,HGF,RALGAP1,RGS12,C</i> <i>ALCR,SCUBE3,CNKS2,NCAM1,NOS1AP,ARHGAP28,INSR,MACF1,P</i> <i>AK1,PDE3A,PSMB7,SKI,AKT3,ELF1,ENPP1,LITAF,RRAGC,ULK4,EV</i> <i>C,MAD1L1,MFNG,ARHGAP42,PPARA,TNFAIP8L3,GNA13,TAF1,CH</i> <i>D5,SPRED1,AKR1C2,CHSY1,ESR2,PRDM16,ZNF451,BTRC,CCDC3,O</i> <i>PTN,PTPRR,RIT2,IFT81,NCOA1,PRLR,FBXW11,G3BP1,TDGF1,PRKC</i> <i>Q,SELE,STAT3,TP63,USP7,AMOT,DOCK3,PAK3,PIK3R2,TBL1X,DITN</i> <i>BPI,RAP1B,DLGAP2,KSR1,LGALS9,NFAT5,ALPK1,IL10RB,APC,BMP</i> <i>R1A,ITGA1,KIAA0319,NGF,PRKCA,UBASH3B,ADAMTS20,MTMR4,C</i> <i>TSH,NCAPG2,RPH3A,USP18,CCL14,CCL15,EDA2R,GPR21,IL6R,M</i> <i>AP2K6,RIC8B,MAP2K1,SOS1,VPS35,C1QTNF3,FGF1,TBX20,CRADD,</i> <i>NLR3,RGN,TBX18</i> </p>
GO:0007010	cytoskeleton organization	8.001092646867468e-9	<p> <i>FMNL2,CDC42EP3,CEP44,ANK3,AKAP13,SORBS2,TLL2,SUN2,ZRA</i> <i>NB1,DOCK2,PCNT,MTPN,FGD6,ANK2,PDE4DIP,TF,SDCCAG8,CHE</i> <i>K2,TUBGCP6,GADD45A,HYDIN,CECR2,PLCE1,CTNNA2,RHOC,DYP</i> <i>SL2,ARFIP1,TACC2,UTRN,SPEF2,PHACTR1,C2CD3,EPAH3,PHACTR</i> <i>3,PSTPIP2,FSIP2,ATAT1,RHOJ,PARK2,CORO2B,FRMPD4,TLN2,ANK</i> <i>FN1,SETD3,FMNL3,SLIT2,KRT25,CEP97,DMD,KRT2,SIPA1L3,CELS</i> <i>R1,FMN2,NCKAP5,ATRX,FRMD5,TRPM2,CTNNA3,DIAPH2,KIF3B,NT</i> <i>RK3,NUSAP1,IQCJ-</i> </p>

			<p>SCHIP1,DISC1,WRAP73,PDXP,SH3BP1,MECP2,GSK3B,CDC14A,FRMD6,FMN1,SEMA5A,KRT74,LLGL2,PCDH15,DNAF2,EMLI,WASF1,FIGN,TUBB1,ARHGAP12,BCL2,CHMP4C,SIPA1L1,ARHGEF10,MICAL3,FLNC,KANK1,ACTN2,ATP8A2,FRMD3,RAP1GDS1,MYLK3,PALLD,STRIP1,MTOR,GAS7,PKP2,UBXN2B,CCDC88B,ERMN,BBS2,EPB41L4B,KLHL1,EHBP1,PRKCE,CAPN3,PARD3B,CCDC88C,DLC1,LRRC49,MAP7,NEBL,MDM1,PKHD1,THSD7B,NRP1,SHROOM3,ARHGEF18,ELMO1,RANBP10,TTC12,CYLC2,PARVG,TUBAL3,CDC42BPG,DIAPH3,ATF2,KPNB1,BICD1,PARD3,OPHN1,CCDC88A,CNN3,DNAH8,MAPRE2,PRKG1,CDC42BPA,STARD13,NINL,ZNF207,TGFBF1,EPHA5,SIPAG17,TRIOBP,PARVB,PIBF1,TRPM7,CCDC170,FLNB,EFNA5,SPECCL1,NF1,ARHGAP6,TTC8,DYNC1H1,RHPN2,CCDC57,NPHP4,RALA,NAV3,NEB,PLS1,CAPZB,CXADR,CCSER2,STARD9,TMEM67,GPSM2,MPRIIP,BORA,FHOD3,MZT1,NLGN1,SH3KBP1,PHACTR2,JAK2,SMA D3,BAIAP2L1,PLXNB1,CDK1,TNF,COBL,FCHSD2,INO80,AFAP1,KATNAL1,SPAG16,ARF1,CALD1,MYO6,KIF18A,EPS8,DAAM2,CCP110,LRCH3,TRDN,AMOTL1,CDC14B,INSC,CTNNA1,TENM1,ARHGEF11,E FHC2,MYH14,PRKARIA,FAM171A1,SPIRE2,KIT,TRPV4,CC2D2A,DNAJB6,MYPN,SEMA3E,SPECC1,FGF13,ARMC2,KRT76,RNF4,TBCD,FER,SPTA1,TTL5,ABL2,F11R,FARP2,GAS8,SETD2,ARHGAP35,CD2A P,CCL3,FGF7,MYO7B,PRES1,ARHGAP25,FGD4,KIF2A,MYH9,PACSI N2,SLC39A12,KIF23,NEDD9,SPTB,TNKS,WDPCP,AUTS2,MEF2A,OC LN,SYNM,MAP2,JMY,NTF3,P2RX7,C10ORF90,CEP250,PRKAA2,ARHGAP10,EPB41L3,KIF4A,MARK2,PDLIM5,PPARGC1B,FERMT2,MAR K1,LCP1,ACTN4,CCL7,DAAM1,TTL11,SYNPO2,THSD7A,TUBA3C,S HROOM4,CIT,CLASP1,SMTNL2,KATNAL2,TMOD1,GAS2,PKP1,RASS F8,MYO1B,ELN,KATNA1,MAST4,NOS1AP,ARHGAP28,MACF1,PAK1, LIMK2,TESK2,ULK4,CRMP1,HEPACAM2,TTN,CLIP1,KATNB1,PPP 2R3C,KRT4,MPDZ,PGM5,MYH6,DOCK7,ELMO2,FBXW11,MYH11,N DE1,AMOT,PAK3,DTNBP1,MYOM2,APC,CKAP5,ABI1,RGCC,SPTBN4 ,CLASP2,PPP1R9A</p>
GO:0060078	regulation of postsynaptic membrane potential	2.001783020756635e-8	<p>GABRG3,GRIK1,GRIN3A,NRXN1,RIMS2,GRIA1,TMEM108,RGS7BP,GRID1,GABRG1,GRM1,LRRK2,MECP2,MTMR2,GSK3B,GRIN2B,GRIK3 ,GABRB1,GRIK2,IGSF11,CELF4,KCND2,CHRM1,NLGN4X,GABRA2,APP,ABAT,GRIN2A,GLRA2,CHRNA3,CHRNA5,GLRA1,GRID2,ADORA2A,RELN,GRM5,PPP3CA,DGKI,RIMS1,GABRA3,NLGN1,P2RX6,MAPK 8IP2,GABRA5,GRIK4,GABRR2,GABRB2,P2RX1,UNC13B,GLRA3,P2R X7,GABRA1,GABRG2</p>
GO:0098609	cell-cell adhesion	2.136245608226744e-8	<p>CDH4,PCDH9,DAB1,MAPK14,DSCAM,RUNX1,NCAM2,PTPRT,ANK3,IGSF5,DUSP22,NRXN1,NRXN3,SDK2,CTNND2,PKD1L1,DLG2,CDH1 3,LRRC4C,NRG1,STXBP6,IL4R,LRFN5,ASTN2,UNC5D,CTNNA2,PCDH11X,PCDH7,CNTN4,ROBO2,CRNN,CDH11,CDH2,CDH9,HMCN1,NEGR1,NTN1,TLN2,GPC6,PCDH17,CDH8,DSC3,CLDN14,VCL,CELSR 1,SKAP1,ASTN1,CTNNA3,NTNG1,TENM4,KIF26B,EMB,SEMA4D,TGFB2,CLSTN2,FUT4,S100A11,PCDH15,LAMA3,RAG1,RAG2,BCL2,CDH 10,CDH12,LRRC4,CDH6,EPHA7,FYN,ADAMTS18,CD44,MYL12A,IGSF11,CDHR4,PALLD,FAT3,PKP2,CCDC88B,PTPRD,DSG4,NLGN4X,CDH18,FOXO3,ROBO1,CDH17,CR1,LPP,PKHD1,ABCA12,PTPRM,TE NM2,VISG10,ADTRP,CD58,PKP4,ETS1,ABAT,KIFAP3,ALCAM,CNN3,JAM2,PRKG1,RASGRP1,SDK1,GLI3,CLDN1,CRB1,TNR,TENM3,RAPGEF1,DSCAML1,GRID2,ADORA2A,EFNA5,EMCN,IGSF21,SLC39A8,KIRREL3,SELE,NPHP4,IL1RAP,JAG1,SLC7A1,CXADR,CBLB,GPC4,N LGN1,PTPRU,MEGF11,CADM3,JAK2,BAIAP2L1,CD300A,TNF,TNIP1 ,DLG5,MAG11,PCDH19,CNTN6,EFNB2,CLSTN1,SELP,CTNNA1,TEN M1,PRKARIA,IL1RAPL1,KIT,TRPV4,EFNB1,DNAJB6,JAK1,MYPN,FNDC3A,FER,SPTA1,SLAMF1,BSG,F11R,CD2AP,CLDN11,TNFAIP8L2,MYH9,SOX4,ITGA8,CDH23,IL23R,ITGB7,FGL2,IL1RL2,HLA-DRA,PDE5A,ZMIZ1,PDLIM5,MAP2K5,BMP6,PCDHGA1,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGA2,PCDHGA3,PCDHGA4,PCDHGA 5,PCDHGA6,PCDHGA7,PCDHGA8,PCDHGA9,PCDHGB1,PCDHGB2 ,PCDHGB3,PCDHGB4,PCDHGB6,PCDHGB7,PKP1,ZBTB16,MAD1L1 ,CD84,GLDN,PCK1,PPARA,COL19A1,PTPRF,EXT1,UMOD,ELMO2,S ERPINB8,PRKCQ,LGALS9,NFAT5,DPP4,PRKCA,SPINT2,UBASH3B,RGCC,DCHS2</p>
GO:0030036	actin cytoskeleton organization	2.592209845480845e-8	<p>FMNL2,CDC42EP3,AKAP13,SORBS2,DOCK2,MTPN,FGD6,TF,CTNN A2,RHOC,ARFIP1,UTRN,PHACTR1,EPHA3,PHACTR3,PSTPIP2,RHO J,PARK2,CORO2B,FRMPD4,SETD3,FMNL3,SLIT2,DMD,CELSR1,FM N2,FRMD5,TRPM2,CTNNA3,DIAPH2,NTRK3,PDXP,SH3BP1,FRMD6,FMN1,SEMA5A,LLGL2,PCDH15,WASF1,ARHGAP12,BCL2,SIPA1L1,ARHGEF10,MICAL3,FLNC,KANK1,ACTN2,FRMD3,RAP1GDS1,MYLK3 ,PALLD,STRIP1,MTOR,GAS7,ERMN,EPB41L4B,KLHL1,EHBP1,PRKC</p>

			<i>E,CAPN3,DLC1,NEBL,THSD7B,NRP1,SHROOM3,ARHGEF18,ELMO1,PARVG,CDC42BPG,DIAPH3,OPHN1,CCDC88A,CNN3,PRKG1,CDC42BPA,STARD13,TGFBF1,EPHA5,TRIOBP,PARVB,TRPM7,FLNB,EFNA5,SPECC1L,NF1,ARHGAP6, TTC8,RHPN2,NPHP4,RALA,NEB,PLS1,CAPZB,CXADR,MPRIIP,FHOD3,SH3KBP1,PHACTR2,JAK2,SMAD3,BALAP2L1,TNF,COBL,FCHSD2,ARF1,CALD1,MYO6,EPSS8,DAAM2,AMOTL1,CTNNA1,TENM1,ARHGEF11,MYH14,PRKAR1A,FAM171A1,SPIRE2,KIT,TRPV4,DNAJB6,MYPN,SEMA3E,SPECC1,FER,SPTA1,ABL2,F11R,FARP2,ARHGAP35,CD2AP,FGF7,MYO7B,PREX1,ARHGAP25,FGD4,MYH9,PACSIN2,NEDD9,SPTB,AUTS2,MEF2A,JMY,NTF3,EPB41L3,PDLIM5,PPARGC1B,FERMT2,LCPI,ACTN4,DAAM1,SYNPO2,THSD7A,SHROOM4,CIT,CLASP1,SMTNL2,TMOD1,GAS2,MYO1B,ELN,NO51AP,ARHGAP28,PAK1,LIMK2,TESK2,TTN,PGM5,MYH6,ELMO2,MYH11,AMOT,PAK3,DTNBP1,MYOM2,ABII,RGCC,SPTBN4,CLASP2,PP1R9A</i>
GO:0006936	muscle contraction	2.6653708457207803e-8	<i>DTNA,ITGA2,KCNQ1,TNNI3K,ANK2,KCND3,MYH1,KCNE1,PLCE1,UTRN,MYOM3,AGT,SETD3,KCNMA1,DMD,CTNNA3,RYR2,SLC8A1,SNB1,SGCD,MYH8,KCNJ3,KCNE2,NR4A1,PDE4D,ACTN2,ATP8A2,RAP1GDS1,APBB2,MTOR,PKP2,ATP1A1,PLN,EDNRB,TACR3,CALCRL,SSPN,ABAT,CD38,HDAC4,PDE4B,PRKG1,CACNA1C,DOCK4,KCNJ12,CHRNA3,TBX3,CACNA2D1,GLRA1,PPP1R12B,KCNB2,P2RX6,CACNA1D,MYH4,TPCN2,NOS1,TNF,CALD1,SULF1,TRDN,SCN1A,ARHGEF11,MYH14,MYH13,KIT,TRPV4,RCS1D1,FGF13,NUP155,SULF2,PTGER3,P2RX1,KCNE4,RYR1,SYNM,BDKRB2,ADRA1B,PDE5A,SMPX,GNAO1,HCN4,RNF207,FGF12,STAC,MYOM1,TRPM4,CHRM3,TMOD1,MYLK,CACNB2,NOS1AP,ARHGAP42,TTN,MYH7,MYBPC2,MYH6,MYH11,CASQ2,MYOM2,ASB3,MAP2K6,TBX20</i>
GO:1905114	cell surface receptor signaling pathway involved in cell-cell signaling	3.467115484945542e-8	<i>MAPK14,LYPD6,WLS,NPHP3,NRXN1,ZRANB1,RAB5A,CTNND2,RIMS2,NXN,CSNK2A1,TMEM108,GPC3,PSMB2,SHISA6,TLAM1,NKD1,CDH2,PARK2,GPC6,ZNRF3,GPC5,CELSR1,WWOX,LRKK2,PRICKLE2,DISC1,MECP2,MTMR2,GSK3B,LGR5,SEMA5A,RBMS3,RYK,GRIN2B,ANKRD6,VANGL2,NR4A2,SMARCA4,HECW1,RNF213,FOXO1,KANK1,DCDC2,GRK5,CSNK1G3,GRIK2,IGSF11,CELF4,ROR1,EPM2A,CTNNBIP1,NLGN4X,FOXO3,MITF,CCDC88C,EDNRB,STK3,EDA,APP,LGR4,GRK6,TGFBF11,TCF7L2,TRABD2B,ABAT,GRIN2A,CCDC88A,RNF43,GLRA2,GLI3,CPE,RAPGEF1,CHRNA3,CHRNA5,WIF1,BRD7,GLRA1,GRID2,PSMA1,ADORA2A,MAGI2,BICC1,IFT80,RELN,NDRG2,NLK,NPHP4,PPP3CA,JRK,DGKI,WWTR1,GPC4,RIMS1,NLGN1,P2RX6,PTPRU,LRKK1,MAPK8IP2,DDX3X,SMAD3,PRDM15,LGR6,DAAM2,SULF1,LRP4,AMOTL1,ZNF423,ALPK2,GSKIP,MLLT3,EGF,PTPRO,LRP5,RNF138,SULF2,SOX4,P2RX1,DDBI,TNKS,UNC13B,GLRA3,SOST,P2RX7,AMFR,PRKAA2,TLE4,CDC73,MARK2,FERMT2,MARK1,TNN,DAB2,DAMI,ITGA3,PPM1B,PIN1,TRPM4,MACF1,PSMB7,SKI,BTRC,EXT1,FBXW11,G3BP1,SECEL,TBL1X,APC,VPS35,TBX18</i>
GO:0072359	circulatory system development	4.6199376352807536e-8	<i>ISM1,ITF21,MAPK14,RUNX1,MYO18B,SVEP1,AKAP13,SORBS2,NPHP3,KCNQ1,NRXN1,NRXN3,SMYD2,TGFBF3,CDH13,ANK2,NXN,GAD45A,PLXNA4,FLRT2,GPC3,NRG1,ALDH1A2,PLCE1,CCR3,COL22A1,ROBO2,C2CD3,COL15A1,AGT,WDR11,RHOJ,CDH2,FHL2,LOXL2,GREB1L,CYBB,FMNL3,LAMA4,SLIT2,PDCD6,RPS6KA2,IGF1R,MDM2,SMAD1,ADAMTS6,BASPI,NOX5,RYR2,TENM4,NTRK3,RORA,CHD7,SOX6,MECP2,SLC8A1,PRKD1,FLVCR1,TGFBF2,AV3,PLCD3,RIPPLY3,SEMA5A,ABI3BP,SGCD,NR2F2,PML,SGCG,AKAP6,FBN1,ARHGAP24,EPHB1,LRP2,TMEM100,VANGL2,NR4A1,RNF213,THBS2,FOXO1,ENPP2,ACTN2,TNMD,SERPINB7,MYLK3,SLC1A1,ZFPM2,RARB,MTOR,PKP2,BMPER,PGK1,COL11A1,PLN,PRKCB,DLC1,ROBO1,FAP,FLT1,NOX4,GRHL2,COL2A1,NEBL,TRAF3IP2,SEC24B,STK3,VASH2,KDR,PRCP,CALCRL,COL18A1,NRP1,PTPRM,ADTRP,IMMP2L,KCNK2,SEMA3C,ATF2,ETS1,TCF7L2,RIN2,DNMT1,NTRK2,STARD13,GLI3,CACNA1C,RAP1A,TGFBF1,CYSLTR1,ADAM12,CPE,RAPGEF1,EP300,TBX3,PCSK5,TP73,EMCN,WARS2,NF1,BICC1,ELK3,ASXL1,HDAC9,JAG1,MEOX2,NEB,CXADR,MNAT1,AGGF1,FHOD3,SHOX2,AHII,SMAD3,COL8A1,CDK1,HDAC7,TNF,OVOL2,ZFPM1,ARID2,CALD1,FREM2,HMGA2,QKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,ALPK2,PRKAR1A,DYNC2H1,EGF,PTPN14,CMA1,KIT,SLIT3,CC2D2A,DNAH11,RAPGEF2,JAK1,SEMA3E,SGCZ,EPHB2,TFDP2,ERBB4,MAP3K3,LRP5,BSG,CAMP,SETD2,AP2B1,LAMA1,MYH9,SLC39A12,SOX4,PDGFR,PIK3CD,ENPEP,WDPCP,MEF2A,RYR1,SCUBE1,BCOR,CASP7,SUFU,EYA1,SRPK2,ZMIZ1,PDLIM5,HCN4,MAP2K5,RNF207,ADAM10,FGF12,ITGA3,THSD7A,TGFA,HGF,MYLK,ELN,INSR,AKT3,CTDP1,PRKX,PARA,TTN,C1GALT1,GN1A3,MYH7,SPRED1,EXT1,MDM4,MYH6,TYMP,HDAC5,TDGF1,STIM1,MYH11,STAT3,AMOT,BMPRI1A,PRKCA,C1TSH,RGCC,IL6R,MAP2K1,SOS1,FGF1,TBX20,TBX18</i>
GO:00650	regulation	6.406033633947756e-	<i>FANK1,CAST,PLCB1,CMKLR1,DAB1,MAPK14,CTBP2,SERPINA1,CC</i>

09	of molecular function	8	<p>NG2, ANXA8L1, PRIM2, LYPD6, PTPRT, ANK3, BCL2L13, TIMP3, DUSP22, AKAP13, FBLN1, ITGA2, RGS6, KCNQ1, GABBR2, EPHA6, NRXN1, SGS M1, DOCK2, MTPN, NRG3, FGD6, TGFBF3, ANK2, TBC1D22A, CSNK2A1, ERCC4, KCNE1, GADD45A, PLXNA4, GPC3, NRG1, SHISA6, RFFL, SUZ12, PRMT8, PLCE1, SH3RF2, SPOCK1, SLC03A1, CFTR, TIAM1, PM20D1, RHOC, RASGRF1, ALK, UTRN, ERC1, RGL2, ARID5B, PHACTR1, SPOCK3, EPHA3, CRNN, AGT, PHACTR3, CST2, SHISA9, RCAN1, PARK2, DLGAP1, TRIM22, TRIM5, DCUN1D4, TXK, DENND2A, USP6, TRAPPC9, ITSN1, NCF4, RIN3, TRIO, HDAC2, MYO9A, SLIT2, PDCC6, IGF1R, SLC24A4, RAPGEF5, PXX, DMD, CACNG3, SIPA1L3, FGF14, FSHR, GSG1L, HNRNPA2B1, PRKAR2A, PARP16, CNH3, RYR2, XRCC4, LRRK2, MAPK10, NTRK3, DI SC1, SH3BP1, SEMA4D, GSK3B, LGR5, SLC8A1, PRKD1, SERPINA4, SERPINA5, ERCC6, TGFB2, VAV3, SLC5A3, BDNF, LLGL2, PRKAR1B, PRKCH, RIPK4, RYK, KCNC1, TOR1AIP1, GRIN2B, RAG1, ARHGAP8, NR2F2, PML, PPARGC1A, RNF180, ARHGAP12, AKAP6, PPP4R4, NLRP2, NLRP7, PLXNA2, TAOK3, BCL2, RALBP1, RXFP2, ZNF675, ARHGAP24, EPHB1, SIPA1L1, MMP16, DEPTOR, NR4A2, ARHGEF10, EPHA7, PSD3, ZBTB7C, RPGR, FYN, KCNE2, PARN, CHN1, NR4A1, SMARCA4, CD44, HECW1, RCVRN, PDE4D, ACTN2, ARHGEF3, CST9L, RAP1GDS1, SERPINB7, EIF3E, SLC1A1, AGAP1, NLRP12, MTOR, ROR1, LDB2, RASGEF1B, TIAM2, PLCL1, ARL6IP5, EPM2A, PLN, CTNNBIP1, EVI5, PRKCE, EIF2S1, KMT2A, PRKCB, VDR, ADCY8, EFHB, FAM19A4, CAPN3, KALRN, CCDC88C, DLC1, EDNRB, OASL, ROBO1, RXFP1, TBC1D4, FLT1, NOX4, GRHL2, MAP3K7, MAPK9, PREX2, CR1, SPON1, PKHD1, STK3, TGM2, KDR, ARHGAP15, EDA, PCOLCE2, APP, NRP1, UACA, ARHGEF18, ELMO1, LGR4, SERPINI1, CPEB2, ADAM17, CAMK1D, MAP3K5, PKP4, TFPI, ATF2, ELP3, PIK3R5, GOPC, ROS1, SMG6, DOT1L, RGS16, RPS6KA5, TCF7L2, TNFRSF10B, BICD1, RALGAP42, TRAF3, DOCK9, GRIN2A, SGK2, OPHN1, CCDC88A, DENND5A, MOB3B, RIN2, NCF2, STK36, HDAC4, PDE4B, TIMP2, GHR, MAPRE2, NTRK2, PRKG1, RASGRP1, STARD13, COMMD1, KCTD7, RABGEF1, RGL1, SPRED2, CACNA1C, STXBP5, DOCK4, RAP1A, TGFBF1, EPHA5, LCP2, RAPGEF1, CHRNA3, EP300, CACNA2D1, GRAMD4, PCSK5, IFNGR2, PIBF1, RASGRF2, ARHGEF33, PPP1R12B, ADORA2A, CABIN1, EFNA5, FAM20A, MERTK, RALGPS1, CACNG2, MAGI2, NF1, PPP6R2, RALGPS2, RFC3, RGS7, SORL1, ARHGAP6, BID, TTC8, POR, RELN, GRM5, HDAC9, IL18R1, SELE, MGAT5, TNFAIP8, MAP3K13, ADCYAP1R1, EGLN3, IL1RAP, PPP3CA, TBC1D3B, DGKI, MASI, TBC1D5, WWTR1, CBLB, DOCK10, MNAT1, PLSCR1, GRM7, RIMS1, AHS1, GPSM2, STIM2, SLC22A2, ASAP1, BORA, NLGN1, AKIRIN2, ARHGAP5, RPS20, NPR3, PHACTR2, AKAP7, MAPK8IP2, CACNA1D, DDX3X, RBL2, ARAP2, ZNF622, ARHGAP39, JAK2, SMAD3, CD300A, KIDINS220, NOS1, SERPINB12, PLXNB1, NBN, NVL, SLC39A10, TNF, LRCH1, ZFPM1, TRIM23, ADORA3, ARF1, HMG2, DOCK1, CDC20B, UBE2V1, CSAR1, DEF6, PIK3R3, ARHGEF6, SAE1, TRDN, TRIM41, HERC1, NET1, CDC14B, TENM1, ARHGEF11, CDKL5, GSKIP, PRKARIA, ARHGAP11B, SIPA1L2, CD109, EGF, ALDH1A1, KIT, MTRR, BLM, KCNAB1, PTPRO, RAPGEF2, DNAJB6, ESRI, DNMBP, FGF13, EPHB2, NDFIP2, TBCD, C14ORF39, DAP, DAPK1, ERBB4, FER, SPTA1, FNIP1, LRP5, RAPGEF6, RPS27L, SLAMF1, ABL2, ASAP2, DEPDC5, F11R, FARP2, GAS8, ARHGAP35, COMMD7, CCL3, PREX1, ARHGAP25, FGD4, NHLH2, ARF4, ARFGAP3, ST18, CAB39L, GARNL3, NEDD9, P2RX1, PDGFD, RGPDI, UBE2N, KCNE4, IRAK2, TNKS, FGFR1, RGS3, TBC1D9, DAD1, MAP2, IL23R, JMY, KEAP1, NTF3, P2RX7, RAPGEF4, TEX14, ARRD4, RASA3, RCAN2, AMFR, AR, RABGAP1L, SUFU, DENND5B, DGKZ, NEK5, PI3, TAX1BP1, THADA, ARHGAP10, GNB5, MARK2, PDE5A, PROS1, FLT3, PPARGC1B, SRGAP3, ATP6V1H, DYNAP, FERMT2, MAP2K5, CALML4, DAB2, GPR55, PBX1, RNF207, TCL1B, ACTN4, CCL7, ELP4, FGF12, FRY, PLCL2, STAC, PIN1, SYNPO2, STK38, CHRM3, CIT, CARF, TGFA, G3BP2, HGF, PRPSA2, RALGAP1, RGS12, CALCR, SH3BP5, CACNB2, NOS1AP, RALGDS, ARHGAP28, IL18RAP, INSR, PAK1, SKI, CHM, ENPP1, FMRI, LIMK2, DKC1, SBF2, CRMP1, IDE, MFNG, AIM2, ARHGAP42, DENND2D, JPH4, PPARA, SORT1, TNFAIP8L3, TTN, FHL1, GNA13, TAF1, WDR41, PPP2R3C, SPR ED1, ESR2, PTPRF, RBL1, BTRC, PPP2R2C, MYH6, PRLR, DOCK7, HDAC5, PSMD6, TDGF1, A2M, PI15, SERPINB8, STIM1, ADARB1, KCNC2, PRK CQ, STAT3, TP63, USP7, AMOT, CDKN3, CST1, DOCK3, PIK3R2, CASQ2, DHRS7B, DTNBP1, DLGAP2, KSRI, LGALS9, LRP8, APC, BMPRI1, ITGA1, NGF, PPP1R14A, SPINT2, UBASH3B, VLDLR, ITH6, PILRB, ABI1, CTSH, DHX9, NCAPG2, RGCC, SRGAP1, CCL14, CCL15, EDA2R, IL6R, MAP2K6, RIC8B, TFIP11, MAP2K1, SOS1, COL6A3, FGF1, C6ORF106, CRADD, NLRC5, RGN</p>
GO:0016310	phosphorylation	6.804932524827248e-8	<p>DAB1, MAPK14, DSCAM, CCNG2, HUNK, PTPRT, DUSP22, AKAP13, FBLN1, ERG, EPHA6, VRK2, NRXN1, FPGT, TNNI3K, NRG3, HUS1, AK5, TGFBF3, CSNK2A1, TF, PIK3C2B, CHEK2, GADD45A, NRG1, PLCE1, KSR2, STK38L, SLC03A1, LDLRAD4, ZB</p>

			<p>TB20,MYO3A,NME7,ALK,PIK3C3,ERC1,EPHA3,PRKACB,DCLK1,AGT,PARK2,TXK,TRIO,HDAC2,SLIT2,RPS6KA2,IGF1R,SMAD1,PXK,TRPC5,DMD,STK33,FSHR,PRKAR2A,STK24,WDR83,PARP16,TPK1,CKMT1B,LRRK2,MAPK10,VRK1,NTRK3,SLC4A4,PAN3,SEMA4D,GSK3B,SLC8A1,PRKD1,SNRK,ERCC6,OGT,TGFB2,VAV3,BDNF,PRKAR1B,PRKCH,RIPK4,RYK,SIK2,NR2F2,PRR5,PML,TAOK3,BCL2,RALBP1,ZNF675,EPHB1,IL12RB2,DEPTOR,EPHA7,FYN,CD44,PDE4D,ENPP2,GRK5,CSNK1G3,MYLK3,SLC1A1,NLRP12,MTOR,ROR1,LDB2,BMPER,P GK1,PLCL1,EPM2A,PRKCE,EIF2S1,PRKCB,ADCY8,ITLN1,KALRN,C CDC88C,EDNRB,ROBO1,FLT1,NOX4,RBKS,MAP3K7,MAPK9,STK3,KDR,CASK,PHKB,APP,DGKB,NRP1,ADTRP,ADAM17,CAMK1D,MAP3K5,CDC42BPG,ATF2,GRK6,PIK3R5,SAMSN1,EFEMP1,ROSI,CDK17,RPS6KA5,TNFRSF10B,PARD3,TLK2,SGK2,SGMS1,CCDC88A,MOB3B,STK36,AK7,GUCY2F,HDAC4,GHR,NTRK2,PRKG1,CDC42BPA,BRD4,RASGRP1,ARR3,CAMK4,RABGEF1,SPRED2,RAP1A,TGFBF1,PRDX4,EPHA5,LCP2,TOPI,PEAK1,CHRNA3,EP300,MORC3,PIBF1,TRPM7,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20A,MERTK,GUCY2C,MAGI2,NF1,SORL1,RELN,GRM5,MAP3K13,NLK,SH3GL2,SNX25,DGKI,GNPTAB,MAS1,WWTR1,CBLB,MNAT1,CNTN1,DGUOK,PDXK,MAPK4,BORA,SH3KBP1,AK8,AKAP7,LRRK1,DDX3X,RBL2,CNOT7,ZNF622,JAK2,ADK,CD300A,MAP2K4,NOS1,CDK1,ITPK1,NBN,TNF,C HKB,CHKB-CPT1B,ILF3,BMP15,STK32B,HMGA2,NEK4,STK32C,DYRK4,PMEP1A,C5AR1,LRP4,PIK3R3,GALK2,RSRC1,ALPK2,CDK8,TENM1,WDFY2,CDKL5,GSKIP,PRKAR1A,CD109,EGF,KIT,BLM,PIK3C2G,PTPRO,RAPGEF2,STK32A,JAK1,FGF13,AKAP10,EPHB2,DAPK1,ERBB4,FER,MAP3K3,FNIP1,LRP5,ABL2,CAMP,SGMS2,CCL3,CERK,FGF7,LAMA1,SPRED3,CDKL1,CAB39L,NEDD9,PDGFD,PIK3CD,PGM2L1,IRAK2,MYO3B,PANK3,TNKS,CDK19,FGFR1,OCLN,BPGM,IL23R,NTF3,P2RX7,TEX14,AR,PAPSS1,IFNA8,SRPK2,BDKRB1,BDKRB2,DGKZ,NEK5,PRKAA2,MARK2,PDE5A,FLT3,PPARGC1B,PTPRA,DYNAP,FERMT2,MAP2K5,MARK1,SMPD3,DAB2,TCL1B,ADAM10,PLCL2,PIN1,RPS6KA6,SYNPO2,PIP5K1B,STK38,BMP6,CIT,TGFA,HGF,MYLK,CALCR,SH3BP5,TLK1,MAST4,PI4KA,INSR,PAK1,AKT3,ENPP1,FMRI,LIMK2,TESK2,PRKX,ULK4,CHKA,PKC1,PPARA,TNFAIP8L3,TTN,TAF1,FNIP2,PP2R3C,SPRED1,RBL1,RIT2,PRKCG,PRLR,UMOD,CBFA2T3,DOCK7,ICK,STK35,TDGF1,ADPGK,IPMK,TRPM6,ADARB1,PRKCQ,STAT3,CDKN3,DOCK3,PAK3,PIK3R2,STK17B,DTNBP1,GAK,KSR1,LRP8,ALPK1,MAPKAPK2,APC,BMPRI1A,KCTD20,NGF,PPP1R14A,PRKCA,UBASH3B,VLDLR,PILRB,ABII,NCAPG2,RGCC,IL6R,MAP2K6,SPTBN4,MAP2K1,FGF1,DGKK,NLRC5,RGN</p>
GO:0044093	positive regulation of molecular function	9.552274688241664e-8	<p>FANK1,DAB1,MAPK14,CTBP2,PRIM2,ANK3,BCL2L13,AKAP13,FBLN1,ITGA2,RGS6,EPHA6,NRXN1,SGSM1,MTPN,NRG3,ANK2,TBC1D22A,NRG1,SLCO3A1,CFTR,TIAM1,RHOC,RASGRF1,ALK,ERC1,ARID5B,EPHA3,CRNN,AGT,PARK2,TRIM22,TRIM5,DCUN1D4,TXK,USP6,TRAPPC9,HDAC2,MYO9A,PDCD6,IGF1R,DMD,CACNG3,SIPA1L3,HNRNP A2B1,PARP16,RYR2,XRCC4,LRRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,PRKD1,ERCC6,TGFB2,VAV3,SLC5A3,BDNF,PRKCH,RIPK4,RYK,KCNCI,TOR1AIP1,GRIN2B,PML,PPARGC1A,AKAP6,NLRP2,TAOK3,BCL2,RALBP1,ARHGAP24,EPHB1,SIPA1L1,NR4A2,ARHGEF10,EPHA7,FYN,KCNE2,PARN,CHN1,SMARCA4,CD44,RCVRN,ACTN2,RAP1GDS1,EIF3E,SLC1A1,NLRP12,MTOR,ROR1,TIAM2,PLCL1,ARL6IP5,EVI5,EIF2S1,KMT2A,PRKCB,VDR,ADCY8,CAPN3,KALRN,DLC1,ROBO1,TBC1D4,FLT1,NOX4,GRHL2,MAP3K7,CR1,SPON1,STK3,TGM2,KDR,EDA,PCOLCE2,APP,NRP1,UACA,ADAM17,CAMK1D,MAP3K5,PKP4,ATF2,PIK3R5,ROSI,RGS16,RPS6KA5,TCF7L2,TNFRSF10B,RALGAP2,DOCK9,GRIN2A,SGK2,CCDC88A,MOB3B,STK36,HDAC4,GHR,MAPRE2,NTRK2,RASGRP1,KCTD7,CACNA1C,RAP1A,EPHA5,LCP2,RAPGEF1,CHRNA3,EP300,CACNA2D1,GRAMD4,IFNGR2,PIBF1,EFNA5,FAM20A,MERTK,CACNG2,MAGI2,NF1,RFC3,RGS7,SORL1,ARHGAP6,BID,POR,RELN,GRM5,IL18R1,SELE,MAP3K13,ADCYAP1R1,EGLN3,IL1RAP,PPP3CA,TBC1D3B,MAS1,TBC1D5,DOCK10,MNAT1,PLSCR1,ASHA1,STIM2,SLC22A2,ASAP1,BORA,AKIRIN2,NPR3,AKAP7,CACNA1D,DDX3X,ARAP2,ZNF622,JAK2,SMAD3,CD300A,NOS1,PLXNB1,NBN,NVL,SLC39A10,TNF,HMGA2,CDC20B,UBE2V1,C5AR1,TRDN,TRIM41,NET1,CDC14B,TENM1,CDKL5,SIPA1L2,EGF,KIT,RAPGEF2,ESR1,FGF13,EPHB2,DAP,DAPK1,ERBB4,FER,SPTA1,LRP5,RAPGEF6,RPS27L,ABL2,ASAP2,F11R,ARHGAP35,CCL3,PREX1,ARHGAP25,NHLH2,ARF4,STI8,CAB39L,GARNL3,NEDD9,P2RX1,PDGFD,UBE2N,IRAK2,TNKS,FGFR1,TBC1D9,IL23R,JMY,NTF3,P2RX7,ARRDC4,AMFR,AR,ABGAP1L,DGKZ,NEK5,GNB5,MARK2,PDE5A,FLT3,PPARGC1B,DYNAP,FERMT2,MAP2K5,GPR55,RNF207,TCL1B,ACTN4,CCL7,PLCL2,STAC,PIN1,TGFA,RALGAP1,CACNB2,NOS1AP,IL18RAP,INSR,PAK1,</p>

			SKI, FMRI, DKC1, IDE, MFNG, AIM2, ARHGAP42, TNFAIP8L3, GNA13, TAF1, WDR41, PPP2R3C, ESR2, BTRC, PRLR, DOCK7, HDAC5, TDGF1, STIM1, KCNC2, PRKCQ, STAT3, DOCK3, LGALS9, LRP8, BMPRI1A, ITGA1, NGF, VLDLR, PILRB, ABI1, CTSH, DHX9, RGCC, CCL14, CCL15, EDA2R, IL6R, MAP2K6, MAP2K1, FGF1, CRADD, RGN
GO:0098655	cation transmembrane transport	1.0249966991579541e-7	PIEZO2, ASIC2, CACNA1E, KCNJ6, ANK3, SLC24A3, KCNQ1, GRIN3A, NRXN1, SLC1A2, PKD1L1, SLC9B1, TRPM3, ANK2, KCND3, FAM155A, SLC12A1, DPP10, SCN8A, KCNE1, KCNJ15, KCNG3, SCARA5, SHISA6, RYR3, PM20D1, RASGRF1, SLC6A2, SLC17A3, UTRN, AGT, SHISA9, ATP6V0D1, KCNH1, KCNMA1, SLC24A4, KCNK17, TRPC5, DMD, HCN1, CACNA2D3, CACNG3, NOX5, FGF14, GSG1L, SLC39A11, DPP6, TRPM2, CNIH3, RYR2, CATSPER2, DHRS7C, SLC1A3, KCNH5, SLC4A4, CHD7, KCNK13, SLC8A1, PRKD1, ATP1A4, ZDHHC17, KCNC1, GRIN2B, SNAP25, AKAP6, KCNJ3, SLC30A5, ITPR2, ABCC9, FYN, KCNE2, HECW1, PDE4D, ACTN2, KCNS3, KCNIP4, KCND2, SCN11A, SLC1A1, MFSD12, ATP1A1, PLN, PRKCE, SLC2A9, ATP6V1D, SLC47A1, CAPN3, EDNRB, SLC12A8, KCNC4, APP, KCNK2, SLC38A7, PEX5L, GRIN2A, SLC30A7, PDE4B, SLC5A10, COMMD1, CACNA1C, NIPA2, KCNJ12, SLC6A17, CACNA2D1, CACNA2D4, IFNGR2, RASGRF2, TRPM7, CACNG2, RGS7, KCNQ5, MICU1, RELN, SLC39A8, SLC9C1, TMEM163, KCNB2, SLC7A1, SLC24A2, SLC5A1, STIM2, SLC22A2, NLGN1, P2RX6, AKAP7, MAPK8IP2, CACHD1, CACNA1D, TPCN2, NOS1, MAGT1, SLC39A10, PANX1, TMC2, KCNT2, KCNK10, TSPAN13, ANO1, KCNA6, TRPC4, CNGB3, KCNH8, TRDN, ANO10, SLC15A1, SCN1A, KCNH7, TRPV4, KCNAB1, HTR2C, SLC30A8, FGF13, EPHB2, DAPK1, CACNG6, ATP8A1, CCL3, MCUR1, SLC39A12, P2RX1, KCNE4, CNGA4, SFXN3, RYR1, P2RX7, RASA3, BDKRB1, THADA, GNB5, ATP6V1H, HCN4, SCNN1A, ATP13A3, RNF207, ACTN4, FGF12, KCNJ16, KCNN3, STAC, TRPM4, CNGB1, TMC03, CALCR, CACNB2, NOS1AP, FMRI, MICU2, ATP5J, JPH4, FHL1, SLC22A5, CACNA1A, TRPM1, SCN9A, ATP6V1E1, SLC24A5, SLC40A1, STIM1, TRPM6, KCNC2, SLC9A9, HPN, CASQ2, SLC28A3, TMEM175, SLC7A8, TMEM63A, TUSC3, UBASH3B, SLC9A2, MCOLN3, ATP6V1E2, RGN
GO:0007610	behavior	1.0974276134939049e-7	PLCB1, DAB1, DSCAM, KCNQ1, NRXN1, NRXN3, SLC1A2, SHANK2, GRIA1, ANKH, CSMD1, NRG1, RASGRF1, GRID1, ALK, SORCS3, S100B, CNTNAP4, AGT, RCAN1, PARK2, NEGR1, DACH1, ANKFN1, DBH, PCDH17, APBA2, HDAC2, SLC24A4, CELSR1, FSHR, GRM1, ASTN1, LRRK2, SLC1A3, CHD7, HEXB, MECP2, BDNF, PRKAR1B, PCDH15, GRIN2B, RAG1, SNAP25, RNF180, CNTNAP2, BCL2, NR4A2, FYN, PYY, ATP8A2, MME, NAV2, GRIK2, KCND2, SLC1A1, MTOR, BBS2, ARL6IP5, EPM2A, KLHL1, NLGN4X, PRKCE, ADCY8, LRRTM1, KALRN, SGIP1, PREX2, TACR3, CHL1, APP, THRB, KCNK2, AFF2, ABAT, GRIN2A, HDAC4, NTRK2, CAMK4, SDK1, GLI3, TNFR, CHRNA3, CHRNA5, EP300, ATXN1, GLRA1, NPC1, SPG11, ADORA2A, NF1, EIF4E, RELN, GRM5, KIRREL3, NPHP4, GPR176, DGKI, SLC24A2, ETV4, NLGN1, MAPK8IP2, GABRA5, SOBP, AH11, TANC1, RXFP4, BRINP1, KCNK10, EPS8, SCN1A, MYH14, KIT, DNAH11, HTR2C, UBE3A, FGF13, EPHB2, SLITRK6, ABL2, ATP8A1, CCL3, NHLH2, ARF4, AGTPBP1, ITGA8, PUM1, CDH23, NTF3, AMFR, BHLHB9, MEIS2, CLN6, FGF12, ITGA3, BTBD9, NCOA2, TMOD1, INSR, JPH4, PPARA, ZFHX2, QRFPP, SCN9A, EXTL1, PRKCG, ADARB1, STAT3, DPP4, NGF, VLDLR, GABRG2, SPTBN4, VPS35, MCOLN3
GO:0044057	regulation of system process	1.3372414868934918e-7	ABCG8, ASIC2, ITGA2, KCNQ1, NRXN1, TNIN3K, RIMS2, MTPN, CELF2, ANK2, KCND3, KCNE1, TMEM108, SHISA6, RYR3, PLCE1, AGT, SHISA9, FBXO32, DLGAP1, CORO2B, DBH, SETD3, KCNMA1, FTO, MDM2, PDE9A, DMD, GRM1, CTNNA3, RNLS, RYR2, TENM4, LRRK2, MECP2, MTMR2, SLC8A1, TGFB2, AKAP6, KCNJ3, TMEM100, ABCC9, KCNE2, NR4A1, FOXO1, PDE4D, TBXAS1, IGSF11, CELF4, SCN11A, SLC1A1, PKP2, ATP1A1, PLN, NLGN4X, FAM19A4, FOXO3, EDNRB, TACR3, APP, CALCRL, THRB, PAR3, ABAT, CD38, HDAC4, PDE4B, JAM2, PRKG1, CACNA1C, DOCK4, CYSLTR1, KCNJ12, MGLL, DICER1, TNFR, CHRNA3, CACNA2D1, GLRA1, PPIR12B, ADORA2A, CAMK2G, TAC4, RELN, PPP3CA, KCNB2, CXADR, RIMS1, NLGN1, CACNA1D, JAK2, SHOX2, SMAD3, NOS1, TNF, SNX5, POMC, MLIP, ADORA3, TRDN, TSHZ3, KIT, TRPV4, PTPRO, HTR2C, NCMA, FGF13, NUP155, CCL3, PTGER3, P2RX1, KCNE4, MEF2A, UNC13B, BDKRB2, ADRA1B, SEMA3A, PDE5A, HCN4, DAB2, RNF207, FGF12, TRPM4, BMP6, CHRM3, SMTNL2, HGF, CACNB2, NOS1AP, CTDPI, FMRI, ARHGAP42, PPARA, ZFHX2, CORIN, MYH7, SLC22A5, MYH6, TYMP, CASQ2, DLGAP2, PRKC4, ASB3, SPTBN4, TBX18
GO:0007411	axon guidance	1.5333534320379302e-7	CDH4, DSCAM, DCC, EPHA6, NRXN1, NRXN3, ADAMTSL1, PLXNA4, FLRT2, UNC5D, SEMA6D, DPYSL2, CNTN4, ROBO2, EPHA3, LAMA2, SEMA3D, NTN1, TRIO, SLIT2, RNF165, EMB, SEMA4D, SEMA5A, BDNF, RYK, LAMA3, PLXNA2, EPHB1, EPHA7, FYN, CHN1, UNC5C, PALLD, KALRN, ROBO1, CHL1, APP, NRP1, PTPRM, SEMA3C, PRTG, RPS6KA5, OPHN1, ALCAM, GLI3, EPHA5, TNFR, DSCAML1, EFNA5, TTC8, RELN, KLF7, PLXNB1, LGR6, CNTN6, EFN2B, SLIT3, EFN1B, PTPRO, MYPN, SEMA3E, EPHB2, B

			<i>SG, ARHGAP35, LAMA1, SEMA5B, SEMA3A, LGII, NCAMI, NFASC, CRMPI, CCDC141, EXT1, PRKCQ, SOS1</i>
GO:0098660	inorganic ion transmembrane transport	1.7635849012260985e-7	<i>GABRR3, GABRG3, ASIC2, CACNA1E, KCNJ6, ANO2, ANK3, SLC24A3, KCNQ1, GRIN3A, PKD1L1, SLC9B1, TRPM3, ANO4, ANK2, ANKH, KCND3, FAM155A, SLC12A1, DPP10, SCN8A, KCNE1, KCNJ15, KCNG3, SCAR5, RYR3, CFTR, PM20D1, SLC6A2, SLC17A3, UTRN, ATP6V0D1, KCNH1, KCNMA1, SLC24A4, GABRG1, KCNK17, TRPC5, DMD, HCN1, CACNA2D3, CACNG3, NOX5, FGF14, SLC39A11, DPP6, TRPM2, RYR2, CATSPER2, DHRS7C, SLC1A3, KCNH5, SLC4A4, CHD7, KCNK13, SLC8A1, PRKD1, ATP1A4, ZDHHC17, KCNC1, GRIN2B, SNAP25, AKAP6, KCNJ3, SLC30A5, ITPR2, ABCC9, FYN, KCNE2, SLC26A7, HECW1, PDE4D, ACTN2, GABRB1, KCNS3, KCNIP4, KCND2, SCN11A, SLC1A1, ATP1A1, PLN, PRKCE, SLC2A9, ATP6V1D, SLC47A1, CAPN3, EDNRB, SLC12A8, KCNC4, GABRA2, KCNK2, GRIN2A, PDE4B, GLRA2, SLC5A10, COMMD1, CACNA1C, NIPA2, KCNJ12, SLC13A4, SLC6A17, CACNA2D1, CACNA2D4, GLRA1, TRPM7, CACNG2, RGS7, KCNQ5, MICU1, SLC39A8, SLC9C1, GRM5, TMEM163, KCNB2, SLC24A2, SLC5A1, GABRA3, STIM2, AKAP7, CACHD1, CACNA1D, GABRA5, TPCN2, NOS1, MAGT1, SLC39A10, PANX1, TMC2, KCNT2, KCNK10, TSPAN13, ANO1, KCNA6, TRPC4, KCNH8, TRDN, SLC15A1, SCN1A, GABRR2, KCNH7, TRPV4, KCNAB1, HTR2C, SLC30A8, FGF13, GABRB2, ANO3, CACNG6, CCL3, MCUR1, SLC39A12, P2RX1, KCNE4, RYR1, GLRA3, P2RX7, RASA3, BDKRB1, THADA, GNB5, ATP6V1H, HCN4, SCN1A, RNF207, ACTN4, FGF12, KCNJ16, KCNN3, STAC, TRPM4, TMCO3, CALCR, SLC26A8, CACNB2, NOS1AP, FMR1, MICU2, ATP5J, GABRA1, GABRR3, JPH4, FHL1, CACNA1A, TRPM1, SCN9A, ATP6V1E1, SLC24A5, SLC40A1D, STIM1, TRPM6, KCNC2, SLC9A9, HPN, CASQ2, SLC28A3, TMEM175, TUSC3, UBASH3B, SLC9A2, GABRG2, MCOLN3, ATP6V1E2, RGN</i>
GO:0097485	neuron projection guidance	1.9291926831979745e-7	<i>CDH4, DSCAM, DCC, EPHA6, NRXN1, NRXN3, ADAMTSL1, PLXNA4, FLRT2, UNC5D, SEMA6D, DPYSL2, CNTN4, ROBO2, EPHA3, LAMA2, SEMA3D, NTN1, TRIO, SLIT2, RNF165, EMB, SEMA4D, SEMA5A, BDNF, RYK, LAMA3, PLXNA2, EPHB1, EPHA7, FYN, CHN1, UNC5C, PALLD, KALRN, ROBO1, CHL1, APP, NRP1, PTPRM, SEMA3C, PRTG, RPS6KA5, OPHN1, ALCAM, GLI3, EPHA5, TNF, DSCAML1, EFNA5, TTC8, RELN, KLF7, PLXNB1, LGR6, CNTN6, EFNB2, SLIT3, EFNB1, PTPRO, MYPN, SEMA3E, EPHB2, BSG, ARHGAP35, LAMA1, SEMA5B, SEMA3A, LGII, NCAMI, NFASC, CRMPI, CCDC141, EXT1, PRKCQ, SOS1</i>
GO:0071495	cellular response to endogenous stimulus	2.240928330776862e-7	<i>PLCB1, GABRB3, ARID1B, DUSP22, KCNQ1, NRXN1, SLC1A2, TGFB3, KCNE1, TMEM108, FLRT2, GPC3, SPIDR, RYR3, GLP2R, CFTR, RBFOX2, LDLRAD4, ALK, PTPRE, ROBO2, ZNF366, LEMD3, AGT, CHRM5, FBXO32, PARK2, CYBB, HDAC2, HTRA1, SLIT2, STXBP4, IGFBP1, MDM2, SMAD1, TMPPRS6, NR3C2, HCN1, FSHR, WWOX, TRPM2, RYR2, LRRK2, SLC1A3, IGFBP7, NTRK3, RNF165, PDXP, SOX6, GSK3B, LGR5, SLC8A1, OGT, TGFBR2, BDNF, WASF1, KDM4C, EXT2, SIK2, PTGFR, NR5A2, PAQR8, PML, AKAP6, FBN1, RXFP2, LRP2, TMEM100, ITPR2, NR4A2, FYN, GNRHR, NR4A1, SMARCA4, CD44, CASP6, FOXO1, PDE4D, KANK1, ACTN2, GABRB1, SLC1A1, UGCG, RARB, MTOR, CHRM1, CTDSP2, BMPER, BBS2, ATP1A1, DSG4, IFT88, PRKCE, PRKCB, ADCY8, FOXO3, RAB31, RXFP1, TBC1D4, COL2A1, MAP3K7, NR3C1, TGM2, KDR, PRCP, APP, LGR4, ADTRP, THRB, CPEB2, ADAM17, TFPI, ATF2, TGFB11, CHRDL1, BCL2L1, HDAC4, PDE4B, SOX5, DNMT1, GHR, GLRA2, NTRK2, FAM83G, GNG2, SPRED2, CLDN1, KIF16B, RAP1A, SFAF2, TGFB1, NCOA5, CHST11, RAPGEF1, EP300, CACNA2D1, CYP7B1, GLRA1, COL4A6, NPC1, PNPLA3, EFNA5, MAGI2, SORL1, STRN3, HTRA4, EIF4E, POR, GRM5, HDAC9, DDC, NLK, KLF3, SH3GL2, SNX25, MASI, PER1, KL, ELAVL4, GABPA, AKAP7, VEPHI, NSG1, JAK2, SMAD3, BAIAP2L1, KIDINS220, TNF, OVOL2, SNX5, BMP15, PHEX, BCL11A, ANO1, GCLC, PMEP1, LTBP1, SMOC2, SULF1, GNAL, PIK3R3, TRIM41, ZNF423, CTNNA1, NSG2, CD109, KIT, SLIT3, UBR2, BLM, VWC2, CPS1, RAPGEF2, ESR1, HTR2C, UBE3A, GABRB2, EPHB2, ABCC1, ERBB4, FER, SHCBP1, CAMP, PTPRK, FGF7, SPRED3, PSG9, SULF2, PDGFR, ITGA8, KDM3A, PLAT, FGFR1, RYR1, SOST, NTF3, P2RX7, AR, CASP7, TREM1, PRKAA2, GNB5, ZMIZ1, FLT3, PPARGC1B, PTPRA, TRIM72, ESRG, FERMT2, GNAO1, HCN4, SMPD3, DAB2, UROS, FGF12, ITGA3, NREP, PIN1, TRPM4, BMP6, CHRM3, NCOA2, SCUBE3, INSR, PAK1, PDE3A, SKI, ENPP1, RRAGC, IDE, PCK1, PPARA, SORT1, TAF1, CACNA1A, FUT8, SPRED1, AKR1C2, ESR2, PRDM16, ZNF451, DEFA1B, DEFA3, EXT1, NCOA1, PRLR, HDAC5, TDGF1, PRKCQ, STAT3, TP63, BRIPI, PIK3R2, CASQ2, DTNBP1, RAP1B, APC, BMP1A, NGF, SPINT2, MTMR4, CTSN, ACACA, GABRG2, GPR21, RGM, VPS35, FGF1, TBX20</i>
GO:0008015	blood circulation	2.2805770968113545e-7	<i>ASIC2, KCNQ1, TNNI3K, CELF2, ANK2, KCND3, KCNE1, RYR3, AGT, CORO2B, DBH, KCNMA1, SLIT2, RPS6KA2, MDM2, DMD, FSHR, CTNNA3, RNL5, RYR2, CHD7, MECP2, SLC8A1, TGFB2, SGCD, EXT2, NR2F2, SGCG, ACSM3, KCNJ3, ABCC9, KCNE2, PDE4D, TBXA1, NAV2, RAP1GDS1, MYLK3, SLC1A1, MTOR, PKP2, ATP1A1, PLN, CTNNB1, EDNRB, TACR3, PR</i>

			CP,SERPING1,IMMP2L,THRB,ABAT,CD38,ADAMTS16,HDAC4,PDE4B,PRKG1,CACNA1C,DOCK4,CYSLTR1,KCNJ12,CACNA2D1,PCSK5,TRHDE,ADORA2A,TAC4,MEOX2,SH3GL2,CXADR,KL,NPR3,CACNA1D,JAK2,SHOX2,SMAD3,NOS1,TNF,SNX5,POMC,ADORA3,GCLC,TRDN,SCN1A,CMA1,TRPV4,CPS1,PTPRO,FGF13,NUP155,SGCZ,LRP5,ARHGAP35,P2RX1,KCNE4,ENPEP,MEF2A,OCN,AR,BDKRB1,BDKRB2,ADRA1B,SEMA3A,PDE5A,FERMT2,HCN4,RNF207,FGF12,TRPM4,BMP6,CHRM3,SMTNL2,FLI1,CACNB2,ELN,NOS1AP,PDE3A,ARHGAP42,PPARA,TTN,CORIN,GNA13,MYH7,QRFP,EXT1,MYH6,UMOD,AMOT,CASQ2,ITGA1,ASB3,MAP2K6,NCALD,SPTBN4,TBX20,TBX18
GO:0060429	epithelium development	2.5065384292435467e-7	PLCB1,NPHP3,ITGA2,KCNQ1,TNC,CSMD1,PLXNA4,GPC3,NRG1,PSMB2,HYDIN,ALDH1A2,CECR2,ASTN2,TIAM1,RHOC,COL22A1,CBFA2T2,NKDI,ROBO2,C2CD3,PRKACB,COL15A1,AJAP1,AGT,CDH2,GRB1L,NTN1,GPC6,ZNRF3,HDAC2,MYO9A,SLIT2,KRT25,SMAD1,DMB1,BASPI,KRT2,SIPA1L3,VCL,CELSR1,FSHR,ATRX,RYR2,STRC,KIF26B,PRICKLE2,CHD7,SH3BP1,GSK3B,LGR5,FRMD6,TGFB2,FMN1,LCE2B,LCE2C,KRT74,PRKCH,RIPK4,RYK,PCDH15,LAMA3,ANKRD6,NR2F2,NR5A2,PML,ARHGAP12,PLXNA2,BCL2,RAD51B,ARHGAP24,LRP2,TMEM100,VANGL2,EPHA7,CD44,CASP6,PDE4D,PYY,TNMD,UGCG,PALLD,RARB,MTOR,ROR1,LDB2,BMPER,PGK1,CTNBP1,SOX8,DSG4,VDR,CCDC88C,DLC1,EDNRB,ROBO1,GRHL2,COL2A1,SEC24B,PKHD1,STK3,TGM2,KDR,PPLN1,EDA,ABCA12,COL18A1,NRP1,SHROOM3,LGR4,LCE6A,THRB,SEMA3C,ADAM17,ROS1,TGFB1I1,FRA1,HRNR,OPHN1,CNN3,ADAMTS16,STARD13,SPRED2,GLI3,KAZN,CALD1,SPRR2B,SPRR2E,CERS3,RAP1A,SAFB2,KRTAP6-1,RAPGEF1,EP300,TBX3,CYP7B1,SPRR4,TRIOBP,PSMA1,FLNB,SPR2G,MAGI2,NF1,TTC8,DMRT1,ASXL1,RALA,EXOC5,JAG1,MEOX2,KLF7,PLS1,WWTR1,GSTA2,GPC4,TRIM16,EHF,JAK2,AHI1,SMAD3,RDH10,CDK1,ITPK1,TNF,COBL,OVOL2,BMP15,DLG5,FREM2,MYO6,SULT1B1,SULF1,LRP4,EFNB2,DMBT1,TNFRSF19,MLLT3,CD109,EGF,CC2D2A,CPS1,EDAR,PTPRO,RAPGEF2,ESR1,SEMA3E,FNDC3A,ERBB4,SLITRK6,LRP5,BSG,F11R,SETD2,ALX4,ARHGAP35,NSUN2,FGF7,LAMA1,SPRED3,SOX4,PIK3CD,ARID4A,PDZD7,WDPCC,CDH23,ARID4B,KEAP1,SCUBE1,AR,KIAA1109,SUFU,EYA1,SEMA3A,FERMT2,DAB2,PBX1,RNF207,DAAM1,BMP6,CLASP1,TMOD1,HGF,PAK1,PSMB7,SKI,PRKX,PCK1,C1GALT1,GNA13,S1PR3,SPRED1,AKR1C2,KRT4,LCE1F,NTN4,BTRC,ESRP2,EXT1,PRLR,UMOD,KLHL3,SLC40A1,SCE1,TP63,USH2A,RAP1B,LCE2A,UPK3A,BMP1A,SPINT2,ABI1,CTSH,LCE4A,CLASP2,MAP2K1,SOS1,FGF1,MCOLN3,TBX20,RREB1,TBX18
GO:0006793	phosphorus metabolic process	3.9996109801219823e-7	ADCY2,TPTE,PLCB1,DAB1,MAPK14,DSCAM,TPTE2,GPHN,CCNG2,HUNK,PTPR2,DUSP22,AKAP13,FBLN1,ERG,ITGA2,EPHA6,VRK2,NRXN1,FPGT-TNNI3K,TNNI3K,CPPED1,NRG3,ACSS1,HUS1,DLG2,AK5,TGFB3,CNNK2A1,TF,PIK3C2B,CHEK2,GADD45A,NT5DC1,NRG1,PLCE1,KYN1,KSR2,STK38L,SLCO3A1,PPM1J,LDLRAD4,ZBTB20,FAR2,MYO3A,NME7,ALK,PTPRE,PIK3C3,ERC1,EPHA3,PRKACB,PTPRN2,DCLK1,SLC44A1,AGT,CHRM5,RCAN1,PARK2,PGAP3,ENTPD4,TKX,TNS3,TRIO,HDAC2,SLIT2,DYPD,ACSM2B,RPS6KA2,SLC44A5,IGF1R,SMAD1,PTPRG,PXK,PDE9A,TRPC5,DMD,STK33,FSHR,MBOAT7,PRKAR2A,INPP5A,STK24,LIP1,WDR83,PARP16,TPK1,AMPD3,CAMTA1,CKMT1B,LRRK2,MAPK10,VRK1,ELOVL7,NTRK3,RORA,SLC44A,HEXB,PAN3,CDCA2,PDXP,MECP2,MTMR2,SEMA4D,GSK3B,SLC8A1,CD14A,MAIG3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,VAV3,DNAJC6,ACSBG1,BDNF,PRKAR1B,PRKCH,RIPK4,RYK,SIK2,NR2F2,PRR5,PML,PPARGC1A,MYH8,PPP4R4,TAOK3,ACSM3,BCL2,RALBP1,ZNF675,EPHB1,IL12RB2,CSGALNACT1,DEPTOR,EPHA7,FYN,CD44,RCVRN,PDE4D,ENPP2,GRK5,CSNK1G3,MYLK3,NAMPT,SLC1A1,NLRP12,MTOR,ROR1,LDB2,CTDSPL2,BMPER,PTPRD,PGK1,PLCL1,ATP1A1,EPM2A,PRKCE,EIF2S1,PRKCB,ADCY8,SCP2,ITLN1,KALRN,CCDC88C,DLC1,EDNRB,ROBO1,FLT1,NOX4,PIGL,RBKS,MAP3K7,MAPK9,EYA4,ACSL5,STK3,KDR,CASK,PHKB,APP,DGKB,NRP1,PTPRM,LINC00473,ADTRP,ADAM17,CAMK1D,MAP3K5,CDC42BPG,ATF2,GRK6,PIK3R5,SAMSN1,EFEMP1,ROS1,SMG6,CDK17,RPS6KA5,TNFRSF10B,ACSM2A,PARD3,TLK2,SGK2,PYGL,SGMS1,CCDC88A,MOB3B,SMG7,STK36,UPB1,AK7,GUCY2F,HDAC4,PDE4B,GHR,NTRK2,PRKG1,ACSL4,CDC42BPA,BRD4,PTPDC1,RASGRP1,ARR3,CAMK4,RABGEF1,SPRED2,PPA2,RAP1A,TGFB1,PRDX4,EPHA5,LCP2,TOPI,PEAK1,CHRNA3,EP300,MORC3,DUSP23,PIBF1,PNPLA3,RRM1,TRPM7,CA3,FHIT,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20A,MERTK,GUCY2C,MAGI2,NF1,PPP6R2,SORL1,RELN,GRM5,PTPN9,MGAT5,ACYP2,NAPEPLD,MAP3K13,NLK,ADCYAP1R1,PPP3CA,SH3GL2,SNX25,DGKI,GNPTAB,MAS1,WWTR1,CBLB,MNAT1,PLSCR1,CNTN1,DGUOK,PDXK,FAM126B,MAPK4,BORA,PTPRU,SH3KBP1,AK8,OSBPL5,AKAP7,LRRK1,

			<p>DDX3X,RBL2,CNOT7,GMD5,PDE7A,ZNF622,JAK2,SLC5A8,ADK,SMAD3,CD300A,MAP2K4,NOS1,CDK1,ITPK1,NBN,SLC39A10,TNF,CHKB,CHKB-</p> <p>CPT1B,ILF3,PIGB,BMP15,NUDT4,PHEX,FAM220A,PLCH1,STK32B,HMGA2,NEK4,STK32C,SULT1B1,DYRK4,NANP,PMEPA1,RAB23,MB OAT2,C5AR1,LRP4,PIK3R3,CDS2,GALK2,RSRC1,CDC14B,ALPK2,CDK8,TENM1,WDFY2,CDKL5,GSKIP,MTMR10,PRKAR1A,CD109,EGF,PTPN14,KIT,BLM,ENTPD3,PIK3C2G,CPS1,PTPRO,RAPGEF2,STK32A,HTR2C,JAK1,FGF13,AKAP10,EPHB2,DAPK1,ERBB4,FER,MAP3K3,MINPPI,FNIP1,LRP5,ABL2,CAMP,PTPRK,SGMS2,CCL3,CERK,FGF7,LAMA1,SPRED3,CDKL1,CAB39L,FAR1,NEDD9,PDGFD,PIK3CD,PGM2L1,IRAK2,MYO3B,PANK3,TNKS,ADCY9,CDK19,FGFR1,OCLN,TT C7B,BPGM,IL23R,NTF3,P2RX7,PLA2G4A,TEX14,AR,PAPSSI,PIGK,EYA1,IFNA8,SRPK2,BDKRB1,BDKRB2,DGKZ,NEK5,PRKAA2,MARK2,PDE5A,FLT3,PPARGC1B,PTPRA,DYNAP,FERMT2,MAP2K5,MARK1,SMPD3,DAB2,TCL1B,ADAM10,KMO,NMNAT2,PGM2,PLCL2,PPM1B,PIN1,RPS6KA6,SYNPO2,IMPDH1,PIP5K1B,STK38,ABCA8,BMP6,CIT,TGFA,HGF,MYLK,PRPSAP2,TMEM68,CALCR,SH3BP5,TLK1,MAST4,OSBPL10,PI4KA,PNPLA7,INSR,PAK1,PTPN21,AKT3,CTDP1,DUSP11,ENPP1,FMR1,LIMK2,TESK2,ATP5J,FAM126A,PRKX,ULK4,ABCD1,CHK4,SAMD8,PCK1,PPARA,THTPA,TNFAIP8L3,TTN,TAF1,FNIP2,FUT8,PPP2R3C,SPRED1,PTPRF,RBL1,BTRC,PPP2R2C,PTPRR,RIT2,MYH6,PRKCG,PRLR,TYMP,UMOD,CBFA2T3,DOCK7,FBXW11,ICK,INPP4A,STK35,TDGF1,UGGT2,ADPGK,IPMK,TRPM6,ADARB1,MOCS2,PEMT,PRKCQ,STAT3,CDKN3,DOCK3,DPM1,MOCS3,PAK3,PIK3R2,STK17B,ACOT1,DHRS7B,DTNBP1,GAK,KSR1,LRP8,ACSM1,ALPK1,GDA,GTPBP1,MAPKAPK2,APC,BMPRI1,ITGA1,KCTD20,NGF,PPP1R14A,PRKCA,UBASH3B,VLDLR,MTMR4,PILRB,ABII,NCAPG2,RGCC,ACACA,IL6R,MAP2K6,SPTBN4,MAP2K1,PDE7B,DPYS,FGF1,PLB1,DGK,K,NLRC5,RGN</p>
GO:0035249	synaptic transmission, glutamatergic	6.105265706788573e-7	<p>GRIK1,NRXN1,GRID1,CDH2,PARK2,CDH8,SYT1,CACNG3,GRM1,UNC13C,LRRK2,DISC1,TPRG1L,GRIK3,GRIK2,OPHN1,TNR,GRID2,ADORA2A,CACNG2,NF1,RELN,GRM5,DGKI,GRM7,NLGN1,MAPK8IP2,TNF,TSHZ3,GRIK4,GRM4,P2RX1,PLAT,UNC13A,UNC13B,DGKZ,GRI A2,KMO,EXT1,DTNBP1</p>
GO:0016358	dendrite development	6.411653748901287e-7	<p>DAB1,DSCAM,DCC,GRIN3A,CTNND2,FSTL4,CTNNA2,RBFOX2,ALK,FBXO31,PHACTR1,DCLK1,NTN1,HDAC2,TRPC5,CSMD3,LRRK2,DISC1,MECP2,SEMA4D,GSK3B,EPHB1,SIPA1L1,FYN,SULT4A1,HECW1,DCDC2,FAT3,PTPRD,KLHL1,KALRN,TANC2,PREX2,APP,NRP1,CAMK1D,GRIPI,PRKG1,DNM3,SDK1,CUX1,CHRNA3,RELN,PPP3CA,KLF7,DOCK10,ELAVL4,ASAP1,NLGN1,MAPK8IP2,KIDINS220,COBL,PPF1A2,DLG5,BCL11A,LRP4,CDKL5,IL1RAPL1,RAPGEF2,UBE3A,EPHB2,ARF4,MEF2A,MAP2,BHLHB9,SEMA3A,PDLIM5,MARK1,FMR1,PAK3,DTNBP1,LRP8,KIAA0319,VLDLR,ABII</p>
GO:0006796	phosphate-containing compound metabolic process	6.427850734608992e-7	<p>ADCY2,TPTE,PLCB1,DAB1,MAPK14,DSCAM,TPTE2,GPHN,CCNG2,HUNK,PTPRT,DUSP22,AKAP13,FBLN1,ERG,ITGA2,EPHA6,VRK2,NRXN1,FPGT-TNNI3K,TNNI3K,CPPED1,NRG3,ACSS1,HUS1,DLG2,AK5,TGFBF3,C SNK2A1,TF,PIK3C2B,CHEK2,GADD45A,NT5DC1,NRG1,PLCE1,KYNU,KSR2,STK38L,SLCO3A1,PPM1J,LDLRAD4,ZBTB20,FAR2,MYO3A,NME7,ALK,PTPRE,PIK3C3,ERC1,EPHA3,PRKACB,PTPRN2,DCLK1,SLC44A1,AGT,CHRM5,RCAN1,PARK2,PGAP3,ENTPD4,TKX,TNS3,TRIO,HDAC2,SLIT2,DPYD,ACSM2B,RPS6KA2,SLC44A5,IGF1R,SMAD1,PTPRG,PXK,PDE9A,TRPC5,DMD,STK33,FSHR,MBOAT7,PRKAR2A,INPP5A,STK24,LIPI,WDR83,PARP16,TPK1,AMPD3,CAMTA1,CKMT1B,LRRK2,MAPK10,VRK1,ELOVL7,NTRK3,RORA,SLC44A,HEXB,PAN3,CDCA2,PDXP,MECP2,MTMR2,SEMA4D,GSK3B,SLC8A1,CDC14A,MAGI3,PLCH2,PRKD1,SNRK,ERCC6,OGT,TGFB2,VAV3,DNAJC6,ACSBG1,BDNF,PRKAR1B,PRKCH,RIPK4,RYK,SIK2,NR2F2,PRR5,PML,PPARGC1A,MYH8,PPP4R4,TAOK3,ACSM3,BCL2,RALBP1,ZNF675,EPHB1,IL12RB2,DEPTOR,EPHA7,FYN,CD44,RCVRN,PDE4D,ENPP2,GRK5,CSNK1G3,MYLK3,NAMPT,SLC1A1,NLRP12,MTOR,ROR1,LDB2,CTDSPL2,BMPER,PTPRD,PGK1,PLCL1,ATP1A1,EPM2A,PRKCE,EIF2S1,PRKCB,ADCY8,SCP2,ITLN1,KALRN,CCDC88C,DLC1,EDNRB,ROBO1,FLT1,NOX4,PIGL,RBKS,MAP3K7,MAPK9,EYA4,ACSL5,STK3,KDR,CASK,PHKB,APP,DGKB,NRP1,PTPRM,LINC00473,ADTRP,ADAM17,CAMK1D,MAP3K5,CDC42BPG,ATF2,GRK6,PIK3R5,SAMSN1,EFEMP1,ROS1,SMG6,CDK17,RPS6KA5,TNFRSF10B,ACSM2A,PARD3,TLK2,SGK2,PYGL,SGMS1,CCDC88A,MOB3B,SMG7,STK36,UPB1,AK7,GUCY2F,HDAC4,PDE4B,GHR,NTRK2,PRKG1,ACSL4,CDC42BP4,BRD4,PTPDC1,RASGRP1,ARR3,CAMK4,RABGEF1,SPRED2,PPA2,RAP1A,TGFBRI,PRDX4,EPHA5,LCP2,TOPI,PEAK1,CHRNA3,EP300,MORC3,DU</p>

			<p>SP23,PIBF1,PNPLA3,RRM1,TRPM7,CA3,FHIT,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20A,MERTK,GUCY2C,MAGI2,NF1,PPP6R2,SORL1,RELN,GRM5,PTPN9,MGAT5,ACYP2,NAPEPLD,MAP3K13,NLK,ADCYAP1R1,PPP3CA,SH3GL2,SNX25,DGKI,GNPTAB,MASI,WTR1,CBLB,MNAT1,PLSCR1,CNTN1,DGUOK,PDXK,FAM126B,MAPK4,BORA,PTPRU,SH3KBP1,AK8,OSBPL5,AKAP7,LRRK1,DDX3X,RBL2,CNOT7,PDE7A,ZNF622,JAK2,SLC5A8,ADK,SMAD3,CD300A,MAP2K4,NOS1,CDK1,ITPK1,NBN,SLC39A10,TNF,CHKB,CHKB-CPT1B,ILF3,PIGB,BMP15,NUDT4,FAM220A,PLCH1,STK32B,HMGA2,NEK4,STK32C,SULT1B1,DYRK4,NANP,PMEPA1,RAB23,MBOAT2,C5AR1,LRP4,PIK3R3,CDS2,GALK2,RSRC1,CDC14B,ALPK2,CDK8,TENM1,WDFY2,CDKL5,GSKIP,MTMR10,PRKAR1A,CD109,EGF,PTPN14,KIT,BLM,ENTPD3,PIK3C2G,CPS1,PTPRO,RAPGEF2,STK32A,HTR2C,JAK1,FGF13,AKAP10,EPHB2,DAPK1,ERBB4,FER,MAP3K3,MINPP1,FNIP1,LRP5,ABL2,CAMP,PTPRK,SGMS2,CCL3,CERK,FGF7,LAMA1,SPRED3,CDKL1,CAB39L,FAR1,NEDD9,PDGFD,PIK3CD,PGM2L1,IRAK2,MYO3B,PANK3,TNKS,ADCY9,CDK19,FGFR1,OCLN,TTC7B,BPGM,IL23R,NTF3,P2RX7,PLA2G4A,TEX14,AR,PAPSSI,PIGK,EYA1,IFNA8,SRPK2,BDKRB1,BDKRB2,DGKZ,NEK5,PRKAA2,MARK2,PDE5A,FLT3,PPARGC1B,PTPRA,DYNAP,FERMT2,MAP2K5,MARK1,SMPD3,DA B2,TCL1B,ADAM10,KMO,NMNAT2,PGM2,PLCL2,PPM1B,PIN1,RS6KA6,SYNPO2,IMPDH1,PIP5K1B,STK38,ABCA8,BMP6,CIT,TGFA,HGF,MYLK,PRPSAP2,TMEM68,CALCR,SH3BP5,TLK1,MAST4,OSBPL10,PI4KA,PNPLA7,INSR,PAK1,PTPN21,AKT3,CTDP1,DUSP11,ENPP1,FMR1,LIMK2,TESK2,ATP5J,FAM126A,PRKX,ULK4,ABCD1,CHKA,AMD8,PCK1,PPARA,THTPA,TNFAIP8L3,TTN,TAF1,FNIP2,PPP2R3C,SPRED1,PTPRF,RBL1,BTRC,PPP2R2C,PTPRR,RIT2,MYH6,PRKCG,PRLR,TYMP,UMOD,CBFA2T3,DOCK7,FBXW11,ICK,INPP4A,STK35,TDGF1,ADPGK,IPMK,TRPM6,ADARB1,MOCS2,PMT,PRKCQ,STAT3,CDKN3,DOCK3,DPM1,MOCS3,PAK3,PIK3R2,STK17B,ACOT1,DHRS7B,DTNBP1,GAK,KSR1,LRP8,ACSM1,ALPK1,GDA,GTPBP1,MAPKAPK2,APC,BMPRI1,ITGA1,KCTD20,NGF,PPP1R14A,PRKCA,UBASH3B,VLDLR,MTMR4,PILRB,ABII,NCAPG2,RGCC,ACACA,IL6R,MAP2K6,SPTBN4,MAP2K1,PDE7B,DPYS,FGF1,PLB1,DGKK,NLRC5,RGN</p>
GO:0048729	tissue morphogenesis	8.540962567763355e-7	<p>WLS,NPHP3,ITGA2,TNC,TGFBR3,CSMD1,GPC3,NRG1,PSMB2,ALDH1A2,CECR2,ASTN2,TIAM1,RHOC,NKD1,ROBO2,C2CD3,PRKACB,AJAP1,AGT,GREB1L,NTN1,GPC6,ZNRF3,MYO9A,SLIT2,KRT25,MDM2,SMAD1,VCL,CELSR1,RYR2,KIF26B,PRICKLE2,CHD7,SH3BP1,LGR5,TGFB2,FMN1,RIPK4,RYK,PCDH15,EXT2,LAMA3,ANKRD6,PML,ARHGAP12,BCL2,ARHGAP24,LRP2,TMEM100,VANGL2,EPHA7,CD44,EXOC4,ZFPM2,MTOR,ROR1,PKP2,COL11A1,CTNBP1,SOX8,VDR,DL C1,ROBO1,GRHL2,SEC24B,PKHD1,STK3,TGM2,KDR,NRP1,SHROOM3,LGR4,SEMA3C,ADAM17,TGFB11,FRAS1,OPHN1,ADAMTS16,STARD13,GLI3,TGFBR1,TBX3,CYP7B1,PSMA1,MAGI2,TTC8,RALA,EXOC5,JAG1,GPC4,SHOX2,AHI1,SMAD3,RDH10,TNF,COBL,OVOL2,ZFPM1,DLG5,FREM2,HMGA2,SULF1,EFNB2,PRKAR1A,MLLT3,EGF,CC2D2A,ESR1,SEMA3E,ERBB4,LRP5,BSG,SETD2,ARHGAP35,FGF7,LAMA1,SOX4,PIK3CD,ITGA8,AR,SUFU,EYA1,SEMA3A,FERMT2,DAB2,PBX1,RNF207,DAAM1,ITGA3,CLASP1,HGF,MYLK,PAK1,PSMB7,SKI,PRKX,TTN,GNA13,MYH7,NTN4,BTRC,ESRP2,EXT1,MDM4,MYH6,KLHL3,ADARB1,TP63,BMPRI1,SPINT2,CTSH,CLASP2,SOS1,FGF1,TBX20,RREB1,TBX18</p>
GO:0006468	protein phosphorylation	0.000001128493765535311	<p>DAB1,MAPK14,CCNG2,HUNK,PTPRT,DUSP22,AKAP13,FBLN1,ERG,EPHA6,VRK2,NRXN1,FPGT-TNNI3K,TNNI3K,NRG3,HUS1,TGFBR3,CSNK2A1,CHEK2,GADD45A,NRG1,PLCE1,KSR2,STK38L,SLCO3A1,LDLRAD4,MYO3A,ALK,PIK3C3,ERC1,EPHA3,PRKACB,DCLK1,AGT,PARK2,TXK,TRIO,HDAC2,SLIT2,RPS6KA2,IGF1R,SMAD1,PXK,TRPC5,DMD,STK33,FSHR,PRKAR2A,STK24,PARP16,LRRK2,MAPK10,VRK1,NTRK3,PAN3,SEMA4D,GSK3B,SLC8A1,PRKD1,SNRK,ERCC6,TGFB2,BDNF,PRKAR1B,PRKCH,RI PK4,RYK,SIK2,NR2F2,PRR5,PML,TAOK3,BCL2,RALBP1,ZNF675,EPHB1,IL12RB2,DEPTOR,EPHA7,FYN,CD44,PDE4D,ENPP2,GRK5,CSNK1G3,MYLK3,SLC1A1,NLRP12,MTOR,ROR1,BMPER,PLCL1,EPM2A,PRKCE,EIF2S1,PRKCB,ADCY8,ITLN1,KALRN,CCDC88C,EDNRB,ROBO1,FLT1,NOX4,MAP3K7,MAPK9,STK3,KDR,CASK,PHKB,APP,NRP1,ADTRP,ADAM17,CAMK1D,MAP3K5,CDC42BPG,ATF2,GRK6,PIK3R5,SAMSN1,EFEMP1,ROSI,CDK17,RPS6KA5,TNFRSF10B,PARD3,TLK2,SGK2,CCDC88A,MOB3B,STK36,GUCY2F,GHR,NTRK2,PRKG1,CD42BPA,BRD4,RASGRP1,ARR3,CAMK4,RABGEF1,SPRED2,RAP1A,TGFBR1,PRDX4,EPHA5,LCP2,TOPI,PEAK1,CHRNA3,MORC3,PIBF1,TRPM7,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20A,MERTK,GUCY2C,NF1,SORL1,RELN,GRM5,MAP3K13,NLK,SH3GL2,SNX25,MASI,WWTR1,CBLB,MNAT1,CNTN1,DGUOK,MAPK4,BORA,LRRK</p>

			<p>1,DDX3X,CNOT7,JAK2,CD300A,MAP2K4,NOS1,CDK1,NBN,TNF,ILF3,BMP15,STK32B,HMGA2,NEK4,STK32C,DYRK4,PMEPA1,C5AR1,LRP4,PIK3R3,RSRC1,ALPK2,CDK8,TENM1,WDFY2,CDKL5,GSKIP,PRKAR1A,CD109,EGF,KIT,BLM,PTPRO,RAPGEF2,STK32A,JAK1,FGF13,EPHB2,DAPK1,ERBB4,FER,MAP3K3,FNIP1,LRP5,ABL2,CAMP,CCL3,FGF7,LAMA1,SPRED3,CDKL1,CAB39L,NEDD9,PDGFD,PIK3CD,IRAK2,MYO3B,TNKS,CDK19,FGFR1,OCLN,IL23R,NTF3,P2RX7,TEX14,I FNA8,SRPK2,BDKRB1,BDKRB2,NEK5,PRKAA2,MARK2,PDE5A,FLT3,PTPRA,DYNAP,FERMT2,MAP2K5,MARK1,SMPD3,DAB2,TCL1B,ADAM10,PLCL2,PIN1,RPS6KA6,SYNPO2,STK38,BMP6,CIT,TGFA,HGF,MYLK,CALCR,SH3BP5,TLK1,MAST4,INSR,PAK1,AKT3,ENPP1,FMRI,LIMK2,TESK2,PRKX,ULK4,PCK1,TTN,TAF1,FNIP2,PPP2R3C,SPRED1,RIT2,PRKCG,PRLR,UMOD,DOCK7,ICK,STK35,TDGF1,TRPM6,ADARB1,PRKCQ,CDKN3,DOCK3,PAK3,STK17B,DTNBP1,GA,KSR1,LRP8,ALPK1,MAPKAPK2,APC,BMPRI4,NGF,PRKCA,UBASH3B,VLDLR,PILRB,ABI1,NCAPG2,RGCC,IL6R,MAP2K6,SPTBN4,MAP2K1,FGF1,RGN</p>
GO:0007416	synapse assembly	0.0000012363487349592484	<p>GABRB3,DSCAM,ASIC2,NRXN1,NRXN3,SDK2,SHANK2,SYNDIG1,FLRT2,NRG1,LRFN5,IL1RAPL2,ROBO2,CDH2,NEGR1,NTN1,GPC6,PCDH17,CNTN5,NTRK3,MECP2,SEMA4D,LINGO2,CLSTN2,BDNF,RYK,EPHB1,LRRRC4,EPHA7,THBS2,PTPRD,NLGN4X,LRRTM1,CBLN4,GABRA2,APP,NTRK2,DNM3,SDK1,GRID2,EFNA5,KIRREL3,LRRTM3,IL1RAP,GPC4,NLGN1,PLXNB1,DLG5,LRP4,EFNB2,CLSTN1,IL1RAPL1,FGF13,GABRB2,EPHB2,ERBB4,SLITRK6,BHLHB9,PDLIM5,GABRA1,GABRG2,VPS35</p>
GO:0009719	response to endogenous stimulus	0.000001260823438787054	<p>PLCB1,GABRB3,MAPK14,ARID1B,TIMP3,DUSP22,ITGA2,KCNQ1,NRXN1,SLC1A2,BCKDHB,PKD1L1,TGFBFR3,CDH13,KCNE1,TMEM108,FLRT2,GPC3,SPIDR,IL4R,RYR3,GLP2R,CFTR,RBFOX2,LDLRAD4,ALK,PTPRE,ROBO2,ZNF366,LEMD3,AGT,CHRM5,FBXO32,PARK2,FHL2,CYBB,OTC,HDAC2,HTRA1,SLIT2,STXBP4,IGF1R,MDM2,SLC24A4,SMAD1,TMPRSS6,NR3C2,HCN1,FSHR,WWOX,TRPM2,RYR2,LRRK2,SLC1A3,IGFBP7,NTRK3,RNF165,PDXP,SOX6,IER2,GSK3B,LGR5,SLC8A1,OGT,TGFB2,ACSBG1,BDNF,KCNC1,WASF1,KDM4C,EXT2,SIK2,PTGFR,NR5A2,PAQR8,PML,AKAP6,FBN1,BCL2,RXFP2,LRP2,TMEM100,ITPR2,NR4A2,FYN,GNRHR,NR4A1,SMARCA4,CD44,CASP6,FOXO1,PDE4D,KANK1,ACTN2,GABRB1,SLC1A1,UGCG,RARB,RERG,MTOR,CHRM1,CTDSPL2,BMPER,BBS2,ATP1A1,DSG4,IFT88,PRKCE,PRKCB,ADCY8,FOXO3,RAB31,EDNRB,RXFP1,TBC1D4,COL2A1,MAP3K7,NR3C1,TGM2,KDR,PRCP,APP,LGR4,ADTRP,THRB,CPEB2,ADAM17,TFPI,ATF2,TGFB1I1,CD38,CHRD1,BCL2L1,HDAC4,PDE4B,SOX5,TIMP2,DNMT1,GHR,GLRA2,NTRK2,FAM83G,GNG2,PAPPA,SPRED2,GLI3,CLDN1,KIF16B,RAP1A,SAFB2,TGFBR1,NCOA5,CHST11,RAPGEF1,EP300,CACNA2D1,CYP7B1,GLRA1,COL4A6,NPC1,PNPLA3,TPH2,EFNA5,MAGI2,TFE1,SORL1,STRN3,HTR4,EIF4E,POR,TNFRSF11B,GRM5,HDAC9,DDC,MXRA5,NLK,KLF3,SH3GL2,SNX25,MAS1,PER1,KL,ELAVL4,TRIM16,GABPA,PTPRU,AKAP7,VEPH1,NSG1,JAK2,SMA D3,BALAP2L1,KIDINS220,NOS1,TNF,OVOL2,SNX5,POMC,BMP15,PH EX,SRSF4,BCL11A,ANO1,GCLC,PMEPA1,LTBP1,SMOC2,SULF1,GN AL,PIK3R3,TRIM41,ZNF423,CTNNA1,NSG2,CD109,KIT,SLIT3,UBR2,BLM,TRPV4,VWC2,CPS1,RAPGEF2,REG1B,ESR1,HTR2C,UBE3A,GABRB2,EPHB2,ABCC1,ERBB4,FER,SHCBP1,BSG,CAMP,VPS13C,PTPRK,FGF7,SPRED3,PSG9,SULF2,PDGFD,ITGA8,KDM3A,PLAT,FGFR1,RYR1,SOST,NTF3,P2RX7,AR,CASP7,TRERF1,PRKAA2,GNB5,ZMIZ1,FLT3,PPARGC1B,PTPRA,TRIM72,ESRRG,FERMT2,GNAO1,HCN4,SMPD3,DAB2,SRD5A2,UROS,FGF12,ITGA3,NREP,PIN1,TRPM4,BMP6,CHRM3,NCOA2,CALCR,SCUBE3,INSR,PAK1,PDE3A,SKI,ENPP1,RRAGC,IDE,PCK1,PPARA,SORT1,TAF1,CACNA1A,FUT8,SPRED1,AKR1C2,ESR2,PRDM16,ZNF451,C2,DEFA1B,DEFA3,EXT1,NCOA1,PRLR,HDA C5,TDGF1,A2M,STAT4,KCNC2,PRKCQ,STAT3,TP63,BRIP1,HPN,PIK3R2,CASQ2,DTNBP1,RAP1B,APC,BMPRI4,NGF,SPINT2,MTMR4,CTSH,ACACA,GABRG2,GPR21,RGMB,VPS35,FGF1,TBX20</p>
GO:0051130	positive regulation of cellular component organization	0.0000018944896193183662	<p>CDH4,PLCB1,CDC42EP3,MAPK14,DSCAM,RUNX1,ASIC2,VPS13D,ITGA2,ATF7IP,NRXN1,CHODL,PDE4DIP,SYNDIG1,TF,PRDM9,PSMC6,PLXNA4,FLRT2,GPC3,NRG1,SPIDR,IL4R,PLCE1,TIAM1,RHOC,CBFA2T2,ALK,FBXO31,ROBO2,EPHA3,AGT,ATAT1,PARK2,FRMPD4,ZNF804A,NEGR1,NTN1,SLIT2,IGF1R,SYT9,TRPC5,DMD,SYT1,HNRNP42B1,SKAP1,STK24,ATRX,LRRK2,NTRK3,NUSAP1,DISC1,PAN3,WRAP73,PDXP,MECP2,SEMA4D,GSK3B,LINGO2,PRKD1,TGFB2,CLSTN2,FMN1,SEMA5A,BDNF,WASF1,PLEKHM2,PML,PPARGC1A,CNTNAP2,PLXNA2,RALBP1,EPHB1,ARHGEF10,FYN,PARN,THBS2,ENPP2,ACTN2,ATP8A2,MYLK3,MTOR,ROR1,ABCA13,PTPRD,TIAM2,HAS3,PRKCE,LRRTM1,RAB31,KALRN,ROBO1,SGIP1,CDH17,MAPK9,KDR,PPLN1,APP,NRP1,TENM2,CAMK1D,TRABD2B,BICD1,GRIP1,CCDC88A,HD</p>

			AC4,DNMT1,MAPRE2,NTRK2,DNM3,CLDN1,MORC2,RAP1A,TGFBR1,CUX1,TENM3,RAPGEF1,EP300,GRID2,ADCK1,EFNA5,MAGI2,BID,DMRT1,RELN,SELE,DYNC1H1,LRRTM3,MAP3K13,NPHP4,RALA,IL1RAP,NAV3,ATP10A,PPP3CA,TBC1D5,ELAVL4,CNTN1,GPSM2,ASAP1,NLGN1,RAD51AP1,DDX3X,SHOX2,AH11,SMAD3,BAIAP2L1,KIDINS220,PLXNB1,NBN,TNF,COBL,DLG5,FCHSD2,BCL11A,EPH2,CCP110,LRP4,CLSTN1,TENM1,CDKL5,EGF,IL1RAPL1,KIT,TRPV4,RAPGEF2,ESR1,EPHB2,TOX,FER,SLITRK6,FNIP1,LRP5,ABL2,AP2B1,ARHGAP35,ATP8A1,NSMCE2,TNKS,AUTS2,OCLN,UNC13B,SLX1B,NTF3,P2RX7,AR,SNX30,BHLHB9,GNL3,MARK2,SNX7,FERMT2,SMPD3,DAB2,LCP1,ITGA3,SYNPO2,CLASP1,TGFA,G3BP2,HGF,INSR,MACF1,PAK1,CD16,FMR1,DKC1,BMF,MAD1L1,CLIP1,KATNB1,FNIP2,RIT2,G3BP1,PRKCQ,AMOT,ISLR2,PAK3,DTNBP1,RAP1B,LRP8,APC,CKAP5,NGF,VLDLR,RGCC,CLASP2,MAP2K1,VPS35,ATMIN,RREB1
GO:0031346	positive regulation of cell projection organization	0.00000444270598906312	CDH4,CDC42EP3,DSCAM,ITGA2,CHODL,PLXNA4,PLCE1,TIAM1,CBFA2T2,ALK,FBXO31,ROBO2,EPHA3,AGT,ZNF804A,NEGR1,NTN1,SLIT2,IGF1R,TRPC5,DMD,STK24,NTRK3,DISC1,WRAP73,SEMA4D,PRKD1,SEMA5A,BDNF,PLXNA2,FYN,ENPP2,ATP8A2,MTOR,ROR1,PTPRD,TIAM2,KALRN,ROBO1,NRP1,TENM2,CAMK1D,GRIP1,CCDC88A,HDAC4,NTRK2,DNM3,RAP1A,TGFBR1,CUX1,TENM3,RAPGEF1,EP300,EFNA5,MAGI2,RELN,MAP3K13,RALA,ELAVL4,CNTN1,NLGN1,SHOX2,KIDINS220,PLXNB1,COBL,BCL11A,EPH2,CCP110,TENM1,CDKL5,IL1RAPL1,KIT,RAPGEF2,TOX,ABL2,ARHGAP35,AUTS2,OCLN,P2RX7,BHLHB9,MARK2,ITGA3,HGF,MACF1,FMR1,RIT2,ISLR2,PAK3,LRP8,APC,NGF,VLDLR,MAP2K1,ATMIN,RREB1
GO:0016192	vesicle-mediated transport	0.000004853822384894521	IGHV1OR21-1,TRAPPC8,CTBP2,TMPRSS15,RAB27A,ANXA8L1,ANK3,IGHV4-31,HEATR5A,IGHV3-64,SYN3,IGHV1OR15-9,IGHV4OR15-8,ITGA2,TMPRSS2,GRIN3A,NRXN1,TMPRSS3,NRXN3,RAB5A,DOCK2,RIMS2,GRIA1,CLEC16A,CDH13,ANK2,LRP1B,SYNDIG1,TF,TMEM108,SYT17,GPC3,NRG1,SCAR4,STXBP6,IL4R,ENTHD1,CECR2,MCTP1,SYT16,CCR1,CFTR,SCFD2,DPYSL2,ARFIP1,PIK3C3,ERC1,KLRF2,RAB7A,TAPBP,EPHA3,DCLK1,ERC2,VTI1A,WDR11,RHOJ,CDH2,PARK2,LOXL2,SYTL5,DENND2A,USP6,ITSN1,NCF4,PCDH17,RIN3,APBA2,PDCD6,IGF1R,SYT9,CCDC91,SYT1,CACNG3,FSHR,GSGL,FMN2,CNIH3,KIF3B,UNC13C,LRRK2,KXD1,ILDR1,DPY30,SH3BP1,MTMR2,GSK3B,PRKD1,VAV3,ATP9B,DNAJC6,LLGL2,PRKAR1B,WASF1,SNAP25,ARHGAP12,IGHV3-16,SNAP23,CHMP4C,RALBP1,LRP2,NSF,CD163,CD163L1,MICAL3,FYN,NEU3,ENPP2,ACTN2,CSNK1G3,EXOC4,SLC1A1,CADPS,TMPRSS4,VPS26B,ABCA13,BBS2,EVI5,EXOC6B,EHBP1,NLGN4X,PRKCE,PRKCB,STON1,STON1-GTF2A1L,FAM19A4,LRRTM1,RAB31,TRAPPC12,KALRN,MSR1,TBC1D4,SGIP1,STX12,NBAS,SEC24B,TGM2,CASK,IGHV4-28,ABCA12,APP,CALCRL,NRP1,TSNARE1,ELMO1,CAMK1D,IGF2R,GOPC,TM9SF4,BICD1,GRIP1,RIMS3,OPHN1,SAMD9,DENND5A,RIN2,TUB,NCF2,RNF126,BCL2L1,GHR,DNM3,RASGRP1,TRAPPC10,ARR3,COMMD1,RAB11FIP4,RABGEF1,C17ORF75,COG7,KIF16B,STXBP5,RAP1A,VPS53,CUX1,RAPGEF1,CHRNA5,RAB2A,SCFD1,STX8,GAB2,NPC1,TMEM50B,VPS39,SPG11,ADORA2A,ADRBK2,MERTK,CACNG2,MAGI2,GULP1,SORL1,IGHV4-4,SELE,DDC,NUMB,IGHV3OR16-12,RALA,EXOC5,PPP3CA,SH3GL2,DGKI,TBC1D5,ANKRD13A,PLSCR1,ATP9A,RIMS1,NLGN1,SH3KBP1,OSBPL5,NSG1,TPCN2,AH11,VPS41,XKR4,CD300A,TNF,SNX5,BLOC1S6,FCHSD2,TRIM23,ARF1,MYO6,DOCK1,IGLC2,IGLL5,RUFY1,LRP4,EFNB2,CLSTN1,NSG2,DMBT1,STX16,STX16-NPEPL1,EGF,SEC16B,SPIRE2,VPS8,IL1RAPL1,KIT,NAPG,SLC30A8,UBE3A,EPHB2,IGHV3-72,FER,LRP5,XKR7,SLAMF1,ABL2,TMEM50A,VPS13C,AP2B1,CD2AP,CCL3,ARHGAP25,ARF4,ARFGAP3,MYH9,PACSIN2,P2RX1,PIK3CD,ASGR2,UNC13A,VPS45,UNC13B,NTF3,P2RX7,RAPGEF4,SORCS1,COG1,KIAA1109,RABGAP1L,SCAMP5,EXOC2,ANXA11,PROS1,LDLRAD3,SNX7,TRIM72,VPS16,ATP6V1H,SMPD3,DAB2,STX3,SYT2,TXNDC5,BTBD9,CLASP1,PCDHGA3,MYO1B,CACNB2,SNAP29,INSR,MACF1,PAK1,CHM,ENPP1,FMR1,IGHV1-69,MON2,AMPH,IGHV1-46,AP1G2,CD84,EPG5,ESYT2,sort1,HEATR5B,C2,IGHV1-18,OPTN,RIT2,PRKCG,ELMO2,GOSR2,USP7,DTNBP1,GAU,RAP1B,TMEM175,LGALS9,LRP8,MAPKAPK2,VLDLR,EXOC6,RPH3AL,NCALD,OSBPL1A,SPTBN4,AP5M1,CLASP2,MAP2K1,TPH1,VPS35
GO:0042221	response to chemical	0.000008306606189987014	ADCY2,CDH4,PLCB1,CMKLR1,GABRB3,MAPK14,ABCG8,DSCAM,ARID1B,GPHN,CTBP2,OR11H1,OR4M2,PTPR,ANK3,DCC,TIMP3,DUSP22,ITGA2,ABCG1,KCNQ1,EPHA6,OR4K15,VRK2,GRIN3A,NRXN1,DOK5,NRXN3,SLC1A2,DOCK2,OR8U1,BCKDHB,SHANK2,GRIA1,NR

			<p> G3,DLG2,TGFBR3,CDH13,ANK2,NXN,GRAMD1C,TF,PLGRKT,HLC5,KCNE1,TMEM108,CHEK2,OR4C12,ADAMTSL1,PSMC6,SYT17,PLXNA4,FLRT2,GPC3,FBLN5,NRG1,PSMB2,AOX1,RFFL,SPIDR,IL4R,ALDH1A2,RYR3,GGT1,UNC5D,KYNU,GLP2R,SEMA6D,CCR1,CCR3,CFTR,RBFOX2,LDLRAD4,ZBTB20,DYSL2,IL1RAPL2,OR4A5,SLC17A3,MXI1,ALK,PTPRE,PIK3C3,CNTN4,ARID5B,ROBO2,ZNF366,EPHA3,PTPRN2,PXDN,CRNN,LEMD3,OR8K3,AGT,CST2,CHRM5,FBXO32,ATP6V0D1,PARK2,FHL2,LOXL2,LAMA2,OR4K13,CYBB,OTC,OR4M1,OR4N2,SEMA3D,NTN1,OR52N5,TRIM5,KCNH1,USP25,TKX,RNF185,DBH,FXO27,KCNMA1,RIN3,TRIO,HDAC2,HTRA1,SLIT2,ACSM2B,AHRR,PD CD6,OR2L13,RPS6KA2,STXBP4,IGF1R,MDM2,MX2,SLC24A4,SMAD1,SYT9,OR11G2,OR9Q1,TMPRSS6,NR3C2,OR8K5,DMD,HCN1,SYT1,FSHR,FMN2,NRIP1,STK24,WDR83,WWOX,ATRX,PARP16,TRPM2,RNLS,RYR2,OR2M5,HSPB8,LRRK2,RORB,SLC1A3,IGFBP7,NTRK3,RORA,GGT2,ILDR1,CHD7,RNF165,EMB,PDXP,SOX6,IER2,SEMA4D,GSK3B,LGR5,SLC8A1,PRKD1,ERCC6,OGT,TGFB2,VAI3,AFF3,SEMA5A,ACSBG1,BDNF,RYK,ZDHHC17,KCNC1,DNAAF2,DNAJB4,WASF1,GRIN2B,KDM4C,OR6N1,EXT2,LAMA3,SIK2,NR2F2,PTGFR,NR5A2,PAQR8,PM L,PPARGC1A,AKAP6,FBN1,NLRP7,PLXNA2,BCL2,RALBP1,RFXFP2,ZNF675,EPHB1,IL12RB2,SLC30A5,LRP2,TMEM100,ITPR2,GDAP1,NR4A2,ABCC9,EPHA7,FYN,GNRHR,KCNE2,CHN1,NR4A1,SMARCA4,CD44,RHBDD1,CASP6,FOXO1,PDE4D,TBXAS1,KANK1,ENPP2,ABCB10,ACTN2,ATF6,BACH1,GABRB1,MME,PACRG,TNMD,CPNE4,TPO,UNC5C,KCND2,MYLK3,SCN11A,SLC1A1,UGCG,PALLD,RARB,REGR,NLRP12,MTOR,VPS26B,CHRM1,CTDSPL2,DDX21,BMPER,BBS2,HBE1,OR51B2,OR51I1,PGK1,ARL6IP5,ATP1A1,DSG4,IFT88,OR4K17,OR8J3,PRKCE,EIF2S1,HELLS,PRKCB,VDR,ADCY8,FAM19A4,FOXO3,RAB31,SLC47A1,CAPN3,KALRN,TLL12,EDNRB,MSR1,OASL,ROBO1,RFXP1,SATB2,TBC1D4,BNIP3L,FLT1,NASP,NOX4,COL2A1,MAP3K7,MAPK9,NR3C1,TACR3,TRAF3IP2,ZNF277,OR4C15,TGM2,KDR,PRCP,CASK,CHL1,EDA,PCOLCE2,ABCA12,APP,CALCRL,NRP1,PTPRM,LGR4,ADTRP,CD58,KAT5,THRB,CPEB2,KCNK2,SEMA3C,ADAM17,CAMK1D,MAP3K5,IGF2R,TFPI,ATF2,ETS1,MT1HL1,PRTG,TGFB1I1,OR10R2,RPS6KA5,TCF7L2,TRAF3,ABAT,GRIN2A,OPHN1,BCLAF1,HSPA4L,CD38,ALCAM,CHRD1,RNF126,BCL2L1,ABTB2,HDAC4,PDE4B,SOX5,TIMP2,DNMT1,GHR,GLRA2,NTRK2,CPNE8,FAM83G,MGST1,NGG2,PAPPA,LY86,RABGEF1,SDK1,SPRED2,GLI3,OR5L2,CLDN1,KIF16B,OR11L1,DOCK4,PXDNL,RAP1A,SAFB2,SRP54,TGFBRI,CYSLTR1,PRDX4,EPHA5,TAS2R38,TNR,TOPI,NCOA5,TAS2R1,CHST11,IL16,RAPGEF1,CD96,CHRNA3,CHRNA5,EP300,DSCAML1,SCFD1,CACNA2D1,CYP7B1,DIO2,STX8,GLRA1,HBD,TP73,COL4A6,IFNGR2,NPC1,OR4C5,PNPLA3,CA3,PSMA1,TPH2,FLNB,ADORA2A,EFNA5,CACNG2,GUCY2C,MAGI2,NF1,RFC3,RGS7,TFF1,GOT2,SORL1,STRN3,OR5K4,TT C8,HTR4,ASXL1,EIF4E,MICU1,POR,RELN,TNFRSF11B,GRM5,HDAC9,IL18R1,IL1RL1,SELE,PLSCR4,DDC,MXRA5,NLK,RALA,ADCYAP1R1,EGLN3,IL1RAP,JAG1,MAN1A1,PPP3CA,KLF3,KLF7,SH3GL2,SNX25,CXADR,GLDC,MAS1,PER1,KL,ELAVL4,GSTA2,MNAT1,PLSCR1,SLC5A1,TMEM67,TRIM16,GABPA,KAT7,TMEM135,NLGN1,P2RX6,PTPRU,AKIRIN2,GBP2,GBP7,AKAP7,FOXRED2,MSRA,VEPH1,DDX3X,NSG1,CNOT7,ZNF622,JAK2,SMAD3,BALAP2L1,KIDINS220,NOS1,PLXNB1,TMTC4,CDK1,MIR320B2,TNF,LRCH1,OVOL2,PANX1,SNX5,TNIP1,POMC,ADNP2,BMP15,PHEX,RBM11,LGR6,OR11A1,OR5V1,BRINP1,SRSF4,BCL11A,KIF18A,SULT1B1,ANO1,GCLC,PMEPA1,EPS8,LTBPI,CYP3A5,SMOC2,SULF1,C5AR1,GNAL,PIK3R3,CNTN6,EFNB2,RSRC1,TRIM41,NET1,ZNF423,LRRC8C,LRRC8D,SELP,CHD6,CTNNA1,NSG2,ABCG2,DMBT1,EFHC2,GSKIP,TNFRSF19,WDR35,CD109,ALDH1A1,CMA1,IL1RAPL1,KIT,SLIT3,UBR2,BLM,OR7A5,PIK3C2G,TRPV4,VWC2,CPS1,EFNB1,PTPRO,RAPGEF2,RCSD1,REG1B,ESR1,HTR2C,JAK1,MYPN,SEMA3E,SLC30A8,UBE3A,GABRB2,EPHB2,RNF4,ABCC1,DAPK1,ERBB4,FER,LRP5,SHCBP1,SLAMF1,ABL2,BSG,CAMP,OR4C6,SETD2,VPS13C,ARHGAP35,COMMD7,PTPRK,CCL3,FGF7,LAMA1,PREX1,SEMA5B,SPRED3,IL20RA,ITGA9,LRRC70,PSG9,SULF2,CYP2E1,SOX4,ST18,OSCP1,P2RX1,PDGFD,PIK3CD,ITGA8,IRAK2,KDM3A,PLAT,CDK19,DAPL1,FGFR1,MEF2A,RYR1,UNC13B,DAD1,GLRA3,SOST,IL23R,KEAP1,NTF3,P2RX7,PLA2G4A,TEX14,RNMT,AMFR,AR,CASP7,GSTM4,TRETF1,IFNA8,IL1RL2,MGST3,RBM4,BDKRB1,BDKRB2,MIR431,MIR433,PRKAA2,SEMA3A,TLE4,ANXA11,AQP10,CDC73,GNB5,MEIS2,ZMIZ1,FLT3,PPARGC1B,PTPRA,TRIM72,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,MAP2K5,SMPD3,DAB2,SRD5A2,STX3,SYT2,UROS,ACTN4,ADAM10,CCL7,EEF1E1,FGF12,ITGA3,KMO,LG11,M TIF,NREP,OR10K2,OR4C46,QRICH1,RFTN1,LECT2,PINI,TRPM4,ERLIN1,NME8,BMP6,CHRM3,CARF,CNGB1,NCOA2,HGF,MYLK,CALCR,CENPF,SCUBE3,SNN,NCAM1,NFASC,IL18RAP,INSR,PAK1,PDE3A,P </p>
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			SMB7,SKI,ENPPI,FMR1,LITAF,RRAGC,ABCD1,CRMP1,IDE,AIM2,CDC141,CSF2RB,EPG5,PCK1,PPARA,SORT1,TTN,SLC22A5,TAF1,CACNA1A,FUT8,SPRED1,AKR1C2,ESR2,PRDM16,SCN9A,ZNF451,BTRC,C2,CCDC3,DEFA1B,DEFA3,OPTN,EXT1,MDM4,NCOA1,PRKCG,PRLR,TYMP,UMOD,ELMO2,HDAC5,OR51L1,TDGF1,UGGT2,A2M,SEL1L2,SLC40A1,STAT4,STIM1,TREM1,TRPM6,KCNC2,OR4C16,PRKCO,SAT3,TP63,AMOT,BRIP1,CST1,HPN,PAK3,PIK3R2,CASQ2,DHRS2,D TNBP1,RAP1B,LGALS9,LRP8,NFAT5,OR2T4,TASIR1,ACSM1,IL10RB,MAPKAPK2,SLC7A8,APC,BMPRIA,DPP4,ITGA1,NGF,PRKCA,PTGES,SPINT2,GBP4,GPR75,MTMR4,CTSH,DHX9,RGCC,USP18,ACACA,CC L14,CCL15,CCL15-CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,MAP2K1,RGMB,SOS1,VPS35,FGF1,TBX20,NLRC5
GO:0050770	regulation of axonogenesis	0.00000837404057340657	CDH4,DAB1,DSCAM,DCC,CHODL,FSTL4,LRRC4C,PLXNA4,SEMA6D,TIAM1,ROBO2,CDH2,SEMA3D,NTN1,SLIT2,TRPC5,DISC1,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,PLXNA2,SIPA1L1,EPHA7,CHN1,TIAM2,ROBO1,NRP1,SEMA3C,NTRK2,TNR,EFNA5,MAP3K13,SHOX2,PLXNB1,BCL11A,LRP4,CDKL5,SEMA3E,FGF13,EPHB2,ARHGAP35,SEMA5B,MAP2,SEMA3A,MARK2,MACF1,PAK1,ISLR2,PAK3,KIAA0319,NGF,MAP2K1
GO:0099003	vesicle-mediated transport in synapse	0.000010598635393112712	CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,SYNDIG1,NRG1,ERC2,CDH2,ITSN1,PCDH17,APBA2,SYT9,SYT1,GSGL1,UNC13C,LRRK2,GSK3B,DNAJC6,PRKAR1B,SNAP25,SNAP23,CADPS,ABCA13,NLGN4X,PRKCB,STON1,CASK,RIMS3,OPHN1,DNM3,STXBP5,RAP1A,CHRNA5,ADORA2A,DDC,NUMB,DGKI,RIMS1,NLGN1,NSG1,BLOC1S6,EFNB2,CLSTN1,AP2B1,P2RX1,UNC13A,UNC13B,P2RX7,RAPGEF4,KIAA1109,STX3,SYT2,BTBD9,CACNB2,SNAP29,FMR1,AMPH,PRKCG,D TNBP1,GA,K,RAP1B,VPS35
GO:0007626	locomotor y behavior	0.000011503187196032292	DAB1,DSCAM,SHANK2,ANKH,NRG1,ALK,RCAN1,PARK2,NEGR1,ANKFN1,DBH,APBA2,CELSR1,FSHR,GRM1,ASTN1,LRRK2,CHD7,HEXB,MECP2,PCDH15,SNAP25,NR4A2,NAV2,KCND2,SLC1A1,MTOR,KLHL1,PRKCE,ADCY8,LRRTM1,KALRN,PRES2,CHL1,APP,ABAT,TNR,CHRNA3,GLRA1,NPC1,SPG11,ADORA2A,RELN,GRM5,ELAVL4,SOBP,E PS8,SCN1A,HTR2C,UBE3A,SLITRK6,AGTPBP1,PUM1,CDH23,CLN6,FGF12,BTBD9,NCOA2,TMOD1,QRFP,DPP4,SPTBN4,VPS35,MCOLN3
GO:0050807	regulation of synapse organization	0.00001210735750467593	MAPK14,ASIC2,NRXN1,SHANK2,SYNDIG1,FLRT2,LRFN5,ABHD17C,CTNNA2,IL1RAPL2,ROBO2,CDH2,FRMPD4,ZNF804A,NEGR1,NTN1,GPC6,CDH8,LRK2,NTRK3,DISC1,SEMA4D,LINGO2,CLSTN2,BDNF,GRIN2B,LRFN2,EPHB1,SIPA1L1,EPHA7,FYN,THBS2,PTPRD,LRRTM1,KALRN,TANC2,APP,DGKB,NTRK2,DNM3,GRID2,EFNA5,BLOC1S6,LR TM3,IL1RAP,GPC4,NLGN1,CTTNBP2,TNF,PPFIA2,DLG5,LRP4,CLSTN1,CDKL5,IL1RAPL1,PTPRO,UBE3A,EPHB2,SLITRK6,ARF4,BHLH B9,PDLIM5,PAK3,DTNBP1,LRP8,VPS35
GO:0048589	developmental growth	0.000014036656634136342	CDH4,PLCB1,MAPK14,DSCAM,RUNX1,DCC,AKAP13,LARGE,SORBS2,SLC1A2,EYS,RIMS2,MTPN,TGFBR3,FSTL4,TMEM108,SYT17,PLXNA4,NRG1,SEMA6D,DYSL2,NKD1,ARID5B,DCLK1,AGT,WDR11,PARK2,SEMA3D,NTN1,TKX,APBA2,FTO,SLIT2,SMAD1,CPO,TRPC5,DMD,SYT1,BASPI,VCL,MAEL,ATRX,TENM4,KIF26B,CHD7,DISC1,SEMA4D,GSK3B,ERCC6,FLVCR1,TGFB2,FMN1,SEMA5A,BDNF,RYK,PCDH15,WASF1,RAG2,AKAP6,BCL2,RAD51B,EPHA7,ATP8A2,ZFPM2,RARB,MTOR,BBS2,NLGN4X,FOXO3,CAPN3,GRHL2,STK3,APP,NRP1,KCNK2,SEMA3C,ATF2,ZNF830,ALCAM,GHR,GLI3,TGFBR1,TNR,CHST11,EP300,TP73,SPG11,EFNA5,MAGI2,IFT80,TTC8,POR,SP2,MAP3K13,PPP3CA,PLS1,SH3GL2,WWTR1,RIMS1,SMAD3,PTGFRN,RDH10,CDK1,NBN,COBL,LGR6,ARID2,BCL11A,LRP4,CDKL5,PRKAR1A,SLIT3,ESR1,SEMA3E,UBE3A,FGF13,PLAG1,ERBB4,SLITRK6,FGF7,SEMA5B,UNC13A,AUTS2,MAP2,AR,SEMA3A,ZMIZ1,PDLIM5,SMPD3,TNN,SYT2,GAS2,INSR,MACF1,CTDP1,EVC,PPARA,EXT1,MYH6,PRLR,ADARBI,STAT3,ISLR2,BMPRIA,KIAA0319,NGF,NCAPG2,GPR21,SPTBN4,CLASP2,SOS1,FGF1,TBX20
GO:0051049	regulation of transport	0.000014061392601604238	MAPK14,ABCG8,ASIC2,RAB27A,CACNA1E,KCNJ6,ANK3,WLS,ITGA2,ABCG1,KCNQ1,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,DOCK2,PCNT,RIMS2,CDH13,ANK2,KCND3,DPP10,TF,SCN8A,KCNE1,KCNJ15,SYT17,KCNG3,GPC3,NRG1,STXBP6,SHISA6,IL4R,MCTP1,CCRI,CFTR,PM20D1,RASGRF1,ARFIP1,PIK3C3,UTRN,RAB7A,EPHA3,AGT,SHISA9,CDH2,PARK2,CYBB,MCTP2,KCNH1,USP6,KCNMA1,RIN3,APBA2,STXBP4,MX2,SYT9,KCNK17,PXK,DMD,HCN1,SYT1,CACNA2D3,CACNG3,FGF14,GSGL1,DPP6,TRPM2,CNIH3,RYR2,CATSPER2,DHRS7C,LRRK2,KCNH5,ILDRI,CHD7,KCNK13,MTMR2,GSK3B,SLC8A1,PRKD1,TGFB2,DNAJC6,LLGL2,PRKAR1B,KCNC1,NKAIN2,SNAP25,PML,USP36,AKAP6,BCL2,KCNJ3,SLC30A5,DISP1,NKAIN3,NSF,FRMD4A,FYN,KCNE2,HECW1,NEU3,RCVRN,RHBDD1,PDE4D,ACTN2,ATP8A2

			,KCNS3,KCNIP4,KCND2,SCN11A,SLC1A1,CADPS,CHRM1,CTDSPL2,PKP2,ABCA13,ARL6IP5,ATP1A1,EPM2A,PLN,PRKCE,KMT2A,PRKC B,STON1,ADCY8,EFHB,LRRTM1,RAB31,SCP2,CAPN3,ITLN1,KALRN,EDNRB,TBC1D4,BNIP3L,SGIP1,KCNC4,SEC24B,ACSL5,TGM2,CASK,ABCA12,APP,NRP1,ADTRP,CAMK1D,GOPC,ROSI,TM9SF4,TCF7L2,BICD1,ABAT,RIMS3,SGK2,OPHN1,CD38,TUB,PDE4B,ACSL4,DNM3,COMMD1,KCTD7,RABGEF1,GLI3,CACNA1C,STXBP5,RAP1A,KCNJ12,EPHA5,IL16,RAPGEF1,CHRNA3,CHRNA5,SCFD1,TTC39B,CACNA2D1,CACNA2D4,CLIC6,GAB2,IFNGR2,RASGRF2,ADORA2A,CAMK2G,EFNA5,MERTK,CACNG2,MAGI2,NF1,RGS7,KCNQ5,SORL1,RELN,GRM5,SELE,DYNCH1,NUMB,RALA,ADCYAP1R1,PPP3CA,KCNB2,KLF7,DGKI,PER1,TBC1D5,ANKRD13A,PLSCR1,ATP9A,CNTN1,GRM7,RIMS1,STIM2,NLGN1,AKAP7,MAPK8IP2,CACNA1D,TPCN2,JAK2,AHI1,SMAD3,CD300A,NOS1,CDK1,TNF,SNX5,POMC,TMC2,KCNK10,ADORA3,ARF1,MYO6,RUFY1,TSPAN13,ANO1,GCLC,KCNA6,RAB23,EFNB2,KCNH8,SAE1,TRDN,SCN1A,TENM1,KCNH7,MYRIP,EGF,PTPN14,SECI16B,IL1RAPL1,ABCA5,KCNAB1,HTR2C,SLC30A8,FGF13,EPHB2,NDFIP2,DAPK1,FER,CACNG6,LRP5,SLAMF1,ABL2,BSG,SETD2,AP2B1,CD2AP,NSUN2,ATP8A1,CCL3,PACSIN2,PTGER3,SOX4,P2RX1,KCNE4,MEF2A,OCN,UNC13B,MAP2,NTF3,P2RX7,PLA2G4A,RAPGEF4,SCAMP5,SUFU,DENND5B,RBM4,BDKRB1,THADA,GNB5,REEP2,HCN4,SMPD3,DAB2,LCP1,RNF207,SYT2,ACTN4,FGF12,KCNJ16,KMO,SATAC,MYOM1,NUP153,TRPM4,ABCA8,BMP6,BTBD9,CHRM3,CLASP1,MYLK,CALCR,CACNB2,NOS1AP,INSR,ENPP1,FMR1,CD84,JPH4,PPARA,TTN,CORIN,FAM3D,FHL1,NUP214,CACNA1A,SCN9A,CRT2,PRKCG,UMOD,STIM1,KCNC2,USP7,PIK3R2,CASQ2,DTNBP1,RAP1B,LGALS9,SNCAIP,PTGES,UBASH3B,DHX9,RGCC,RPH3AL,MAP2K6,SLAH3,SPTBN4,CLASP2,MAP2K1,VPS35,C1QTNF3,RGN
GO:0043085	positive regulation of catalytic activity	0.00001555612364406294	DAB1,MAPK14,PRIM2,BCL2L13,AKAP13,FBLN1,ITGA2,RGS6,EPHA6,NRXN1,SGSM1,NRG3,TBC1D22A,NRG1,TIAM1,RHOC,RASGRF1,ALK,EPHA3,AGT,DCUN1D4,TKX,USP6,MYO9A,PDCCD6,IGF1R,SIPA1L3,HNRNPA2B1,PARP16,XRCC4,LRRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,PRKD1,ERCC6,TGFB2,VA3,SLC5A3,RYK,GRIN2B,PML,NLRP2,TAOK3,BCL2,RALBP1,ARHGAP24,EPHB1,SIPA1L1,NR4A2,ARHGEF10,EPHA7,FYN,PARN,CHN1,CD44,RCVRN,RAP1GDS1,SLC1A1,NLRP12,MTOR,ROR1,TIAM2,ARL6IP5,EVI5,VDR,ADCY8,KALRN,DLCI,ROBO1,TBC1D4,FLT1,NOX4,GRHL2,MAP3K7,CRI,STK3,TGM2,KDR,PCOLCE2,APP,UACA,ADAM17,MAP3K5,PKP4,PIK3R5,ROSI,RGS16,TNFRSF10B,RALGAP2,DOCK9,GRIN2A,CCDC88A,MOB3B,GHR,MAPRE2,NTRK2,RASGRP1,CACNA1C,RAP1A,EPHA5,LCP2,RAPGEF1,CHRNA3,GRAMD4,PIBF1,EFNA5,FAM20A,MERTK,MAGI2,NF1,RFC3,RGS7,SORL1,ARHGAP6,BID,POR,RELN,GRM5,SELE,MAP3K13,ADCYAP1R1,EGLN3,TBC1D3B,MAS1,TBC1D5,DOCK10,MNAT1,PLSCR1,SLC22A2,ASAP1,BORA,AKIRIN2,NPR3,CACNA1D,DDX3X,ARAP2,ZNF622,JAK2,SMAD3,CD300A,NOS1,PLXNB1,NBN,NVL,SLC39A10,TNF,HMGA2,CDC20B,C5ARI,NET1,CDC14B,TENM1,CDKL5,SIPA1L2,EGF,KIT,RAPGEF2,ESR1,FGF13,EPHB2,DAP,DAPK1,ERBB4,RAPGEF6,RPS27L,ABL2,ASAP2,F11R,ARHGAP35,CCL3,PREX1,ARHGAP25,ARF4,STI8,CAB39L,GARNL3,NEDD9,P2RX1,PDGFD,UBE2N,TNKS,FGFR1,TBC1D9,IL23R,NTF3,P2RX7,ARRDC4,RABGAP1L,DGKZ,NEK5,GNB5,MARK2,PDE5A,FLT3,PPARGC1B,DYNAP,FERMT2,MAP2K5,GP R55,TCL1B,CCL7,PINI,TGFA,RALGAP1,NOS1AP,INSR,PAK1,DKC1,AIM2,ARHGAP42,TNFAIP8L3,GNA13,WDR41,PPP2R3C,BTRC,PRLR,DOCK7,TDGF1,STIM1,PRKCQ,STAT3,DOCK3,LGALS9,LRP8,BMPRI1A,ITGA1,VLDLR,PILRB,ABII,CTSH,DHX9,RGCC,CCL14,CCL15,IL6R,MAP2K6,MAP2K1,FGF1,CRADD,RGN
GO:0048813	dendrite morphogenesis	0.00001651765995126705	DSCAM,CTNND2,CTNNA2,RBFOX2,FBXO31,PHACTR1,DCLK1,TRPC5,LRRK2,SEMA4D,GSK3B,EPHB1,SIPA1L1,FYN,SULT4A1,HECW1,DCDC2,PTPRD,KALRN,TANC2,PREX2,NRP1,DNM3,CUX1,CHRNA3,RELN,PPP3CA,KLF7,DOCK10,ELAVL4,NLGN1,MAPK8IP2,KIDINS220,PPFIA2,LRP4,CDKL5,IL1RAPL1,RAPGEF2,UBE3A,EPHB2,MEF2A,MAP2,BHLHB9,SEMA3A,PDLIM5,PAK3,DTNBP1,LRP8,VLDLR,ABII
GO:0034765	regulation of ion transmembrane transport	0.000017482929573183124	ASIC2,CACNA1E,KCNJ6,ANK3,KCNQ1,NRXN1,ANK2,KCND3,DPP10,SCN8A,KCNE1,KCNJ15,KCNG3,SHISA6,CFTR,PM20D1,RASGRF1,UTRN,AGT,SHISA9,CYBB,KCNH1,KCNMA1,KCNK17,DMD,HCN1,CACNA2D3,CACNG3,FGF14,GSG1L,DPP6,CNIH3,RYR2,CATSPER2,DHRS7C,KCNH5,CHD7,KCNK13,SLC8A1,PRKD1,KCNK1,AKAP6,KCNJ3,SLC30A5,FYN,KCNE2,HECW1,PDE4D,ACTN2,KCNS3,KCNIP4,KCND2,SCN11A,ARL6IP5,PLN,PRKCE,CAPN3,KCNC4,APP,GOPC,PDE4B,COMMD1,CACNA1C,KCNJ12,CACNA2D1,CACNA2D4,CLIC6,IFNGR2,RASGRF2,CACNG2,RGS7,KCNQ5,RELN,GRM5,KCNB2,STIM2,NLGN1,AKAP7,MAPK8IP2,CACNA1D,TPCN2,NOS1,TNF,TMC2,KCNK10,TSPAN13,KCNA6,KCNH8,TRDN,SCN1A,KCNH7,KCNAB1,FGF13,E

			<i>PHB2,DAPK1,CACNG6,P2RX1,KCNE4,P2RX7,BDKRBI,THADA,GNB5,HNCN4,RNF207,ACTN4,FGF12,KCNJ16,STAC,CHRM3,CALCR,CACNB2,NOS1AP,FMR1,JPH4,FHL1,CACNA1A,SCN9A,STIM1,KCNC2,CASQ2,UBASH3B,RGN</i>
GO:0007264	small GTPase mediated signal transduction	0.0000199435797890263	<i>DAB1,CDC42EP3,AKAP13,DOCK2,CDH13,NRG1,PLCE1,KS2R,TIAM1,RHOC,RASGRF1,SCAI,RGL2,RHOJ,NTN1,ITSN1,TRIO,MYO9A,SLIT2,RAPGEF5,SIPA1L3,CELSR1,SH3BP1,PRKD1,OGT,TGFB2,VAV3,WASF1,ARHGAP8,ARHGAP12,RALBP1,ARHGAP24,SIPA1L1,ARHGEF10,PSD3,CHN1,KANK1,ARHGEF3,RERG,GRAP2,RASGEF1B,TIAM2,KALRN,CCDC88C,DLC1,ROBO1,PREX2,TGM2,RAB30,ARHGAP15,NRP1,ARHGEF18,ELMO1,KPNB1,RALGAP2,DOCK9,OPHN1,CCDC88A,RIN2,DNMT1,MAPRE2,RASGRP1,STARD13,RABGEF1,RGL1,DOCK4,RAP1A,RAPGEF1,RASGRF2,RALGPS1,NF1,RALGPS2,ARHGAP6,LZTR1,RELN,RALA,ADCYAP1R1,DGKI,DOCK10,GPSM2,ARHGAP5,ARHGAP39,DOCK1,RUFY1,EPS8,DEF6,NET1,ARHGEF11,ARHGAP11B,SIPA1L2,CTNNAL1,RAPGEF2,DNMBP,EPHB2,RAPGEF6,ABL2,F11R,FARP2,ARHGAP35,CD2AP,PREX1,ARHGAP25,FGD4,GARNL3,AUTS2,RAPGEF4,RASA3,ARHGAP10,SRGAP3,GPR55,ITGA3,G3BP2,RALGAP1,RALGDS,ARHGAP28,CHM,RRAGC,ARHGAP42,GN13,RIT2,DOCK7,G3BP1,AMOT,DOCK3,RAP1B,KSRI,NGF,SOS1,RREB1</i>
GO:0016055	Wnt signaling pathway	0.000022623154442051518	<i>MAPK14,LYPD6,WLS,NPHP3,ZRANB1,RAB5A,CTNND2,NXN,CSNK2A1,GPC3,PSMB2,SHISA6,TIAM1,NKD1,CDH2,PARK2,GPC6,ZNRF3,GPC5,CELSR1,WWOX,LRRK2,PRICKLE2,DISC1,GSK3B,LGR5,SEMA5A,RBMS3,RYK,ANKRD6,VANGL2,NR4A2,SMARCA4,HECW1,RNF213,FOXO1,KANK1,DCDC2,GRK5,CSNK1G3,ROR1,EPM2A,CTNNBIP1,FOXO3,MITF,CCDC88C,EDNRB,STK3,EDA,APP,LGR4,GRK6,TGFB11,TCF7L2,TRABD2B,CCDC88A,RNF43,GLI3,CPE,RAPGEF1,WIF1,BRD7,PSMA1,MAGI2,BICC1,IFT80,NDRG2,NLK,NPHP4,JRK,WWTR1,GPC4,PTPRU,LRRK1,DDX3X,SMAD3,PRDM15,LGR6,DAAM2,SULF1,LRP4,AMOTL1,ALPK2,GSKIP,MLLT3,EGF,PTPRO,LRP5,RNF138,SULF2,SOX4,DDBI,TNKS,SOST,AMFR,PRKAA2,TLE4,CDC73,MARK2,FERMT2,MARK1,TNN,DAB2,DAAM1,ITGA3,PPM1B,PIN1,TRPM4,MACF1,PSMB7,SKI,BTRC,EXT1,FBXW11,G3BP1,SCEL,TBL1X,APC,VPS35,TBX18</i>
GO:0198738	cell-cell signaling by wnt	0.000029453380023739894	<i>MAPK14,LYPD6,WLS,NPHP3,ZRANB1,RAB5A,CTNND2,NXN,CSNK2A1,GPC3,PSMB2,SHISA6,TIAM1,NKD1,CDH2,PARK2,GPC6,ZNRF3,GPC5,CELSR1,WWOX,LRRK2,PRICKLE2,DISC1,GSK3B,LGR5,SEMA5A,RBMS3,RYK,ANKRD6,VANGL2,NR4A2,SMARCA4,HECW1,RNF213,FOXO1,KANK1,DCDC2,GRK5,CSNK1G3,ROR1,EPM2A,CTNNBIP1,FOXO3,MITF,CCDC88C,EDNRB,STK3,EDA,APP,LGR4,GRK6,TGFB11,TCF7L2,TRABD2B,CCDC88A,RNF43,GLI3,CPE,RAPGEF1,WIF1,BRD7,PSMA1,MAGI2,BICC1,IFT80,NDRG2,NLK,NPHP4,JRK,WWTR1,GPC4,PTPRU,LRRK1,DDX3X,SMAD3,PRDM15,LGR6,DAAM2,SULF1,LRP4,AMOTL1,ALPK2,GSKIP,MLLT3,EGF,PTPRO,LRP5,RNF138,SULF2,SOX4,DDBI,TNKS,SOST,AMFR,PRKAA2,TLE4,CDC73,MARK2,FERMT2,MARK1,TNN,DAB2,DAAM1,ITGA3,PPM1B,PIN1,TRPM4,MACF1,PSMB7,SKI,BTRC,EXT1,FBXW11,G3BP1,SCEL,TBL1X,APC,VPS35,TBX18</i>
GO:0035637	multicellular organismal signaling	0.000029605506304703138	<i>ANK3,ITGA2,KCNQ1,TNNI3K,ANK2,KCND3,SCN8A,KCNE1,RYR3,AGT,CHRM5,CACNG3,CTNNA3,RYR2,SLC8A1,CNTNAP2,KCNJ3,ABCC9,KCNE2,PDE4D,GRIK2,KCND2,SCN11A,PKP2,ATP1A1,PLN,NTRK2,CACNA1C,TNR,CACNA2D1,GLRA1,CACNG2,CXADR,CACNA1D,TRDN,SCN1A,MYH14,NUP155,P2RX1,KCNE4,MEF2A,HNCN4,RNF207,FGF12,TRPM4,CACNB2,NFASC,FMR1,CORIN,SCN9A,TYMP,CASQ2,SPBN4,TBX18</i>
GO:1901888	regulation of cell junction assembly	0.000029941710445904082	<i>ASIC2,DUSP22,NRXN1,SYNDIG1,FLRT2,LRFN5,IL1RAPL2,ROBO2,EPHA3,AGT,NEGR1,NTN1,GPC6,VCL,NTRK3,SEMA4D,LINGO2,CLSTN2,FMN1,BDNF,PRKCH,CNTNAP2,EPHB1,EPHA7,THBS2,PTPRD,LRRMT1,DLC1,KDR,APP,NRP1,NTRK2,CLDN1,RAP1A,PEAK1,RAPGEF1,GRID2,EFNA5,ARHGAP6,LRRTM3,NPHP4,IL1RAP,GPC4,NLGN1,SMAD3,TNF,DLG5,CLSTN1,IL1RAPL1,RAPGEF2,EPHB2,SLITRK6,F11R,WDPCC,BHLHB9,PDLIM5,PTPRA,FERMT2,CLASP1,MACF1,RAP1B,CLASP2,VPS35</i>
GO:0007167	enzyme linked receptor protein signaling pathway	0.00003506272212559739	<i>PLCB1,MAPK14,PTPRT,SVEP1,DUSP22,EPHA6,NRXN1,SHC3,DOK5,NRG3,TGFB3,FSTL4,CDH13,TF,TMEM108,FLRT2,GPC3,NRG1,PLCE1,TIAM1,LDLRAD4,ALK,PTPRE,RAB7A,ARID5B,EPHA3,LEMD3,AGT,TRIO,HTRA1,PDCCD6,STXBP4,IGF1R,SMAD1,TMPRSS6,PTPRG,FSHR,NTRK3,CD8B,ANKS1A,RNF165,GSK3B,PRKD1,OGT,TGFB2,ANKS1B,BDNF,RYK,ZDHHC17,WASF1,SIK2,PML,FBN1,EPHB1,SIPA1L1,LRP2,TMEM100,EPHA7,FYN,CHN1,NEU3,FOXO1,KANK1,TNMD,RORI,CTDSP2,BMPER,PTPRD,DSG4,PRKCB,KALRN,ROBO1,FLT1,MAP3K7,KDR,NRP1,ADAM17,IGF2R,ATF2,EFEMP1,ROSI,TGFB11,RPS6KA5,CCDC88A,FAM83B,CHRD1,RNF126,GUCY2F,GHR,NTRK2,F</i>

			AM83G,RABGEF1,SPRED2,KIF16B,TGFBF1,EPHA5,LCP2,NCOA5,C HST11,RAPGEF1,CHRNA3,EP300,GAB2,COL4A6,EFNA5,MERTK,GU CY2C,MAGI2,NF1,SORL1,DMRT1,NLK,SNX25,WWTR1,KL,CBLB,DO K6,PTPRU,BTBD11,VEPH1,JAK2,AH11,SMAD3,BAIAP2L1,OVOL2,SN X5,BMP15,SHC2,PMEP1,LTBP1,SMOC2,SULF1,PIK3R3,EFNB2,ZN F423,CD109,EGF,KIT,VWC2,EFNB1,RAPGEF2,EPHB2,ERBB4,FER,S HCBP1,PTPRK,FGF7,SPRED3,PSG9,SULF2,NEDD9,PDGFD,PIK3C D,ITGA8,PLAT,FGFR1,SOST,NTF3,AR,BDKRB2,ZMIZ1,FLT3,PTPRA, TRIM72,FERMT2,SMPD3,DAB2,FGF12,ITGA3,NREP,PIN1,BMP6,TG FA,HGF,SCUBE3,INSR,PAK1,SKI,ENPP1,IDE,PPARA,SORT1,FUT8,S PRED1,PRDM16,PTPRF,ZNF451,PTPRR,EXT1,PRLR,TDGF1,PRKCQ ,STAT3,PAK3,PIK3R2,BLNK,MAPKAPK2,APC,BMPR1A,ITGA1,KIAA0 319,NGF,UBASH3B,MTMR4,PILRB,ABI1,GPR21,CLASP2,RGMB,SOS 1,FGF1,TBX20
GO:00016 55	urogenital system developm ent	0.0000371984809385 24965	NPHP3,TNC,GPC3,ALDH1A2,PLCE1,ARID5B,ROBO2,AGT,GREB1L, SLIT2,SMAD1,ADAMTS6,BASP1,LRRK2,KIF26B,LGR5,TGFB2,FMN1, FBN1,BCL2,LRP2,NF1A,VANGL2,EPHA7,MME,SERPINB7,RARB,BMP ER,CTNNBIP1,SOX8,IFT88,HELLS,EDNRB,TRAF3IP2,PKHD1,NRP1, LGR4,FRAS1,ADAMTS16,GLI3,TGFBF1,CYP7B1,PCSK5,TP73,MAGI2 ,NF1,BICC1,TTC8,ASXL1,KIRREL3,JAG1,WWTR1,AH11,SMAD3,RDH 10,DLG5,FREM2,SULF1,LRP4,EFNB2,DYNC2H1,CC2D2A,PTPRO,ES R1,UBE3A,PLAG1,EPHB2,ERBB4,AP2B1,SULF2,SOX4,PDGFD,ITGA 8,ENPEP,WDCP,AR,EYA1,PBX1,ITGA3,BMP6,CENPF,ZBTB16,PRK X,CIGALT1,EXT1,PRLR,UMOD,KLHL3,TP63,UPK3A,CTSH,IL6R,FG F1,DCHS2,RGN,TBX18
GO:00432 69	regulation of ion transport	0.0000404005790794 4521	ASIC2,CACNA1E,KCNJ6,ANK3,KCNQ1,NRXN1,ANK2,KCND3,DPP10 ,TF,SCN8A,KCNE1,KCNJ15,SYT17,KCNG3,SHISA6,CCR1,CFTR,PM2 OD1,RASGRF1,UTRN,AGT,SHISA9,PARK2,CYBB,KCNH1,KCNMA1,SY T9,KCNK17,PXK,DMD,HCN1,SYT1,CACNA2D3,CACNG3,FGF14,GS G1L,DPP6,CNIH3,RYR2,CATSPER2,DHRS7C,KCNH5,CHD7,KCNK13 ,SLC8A1,PRKD1,KCNC1,NKAIN2,PML,AKAP6,BCL2,KCNJ3,SLC30A5 ,NKAIN3,FYN,KCNE2,HECW1,RCVRN,PDE4D,ACTN2,KCNS3,KCNIP 4,KCND2,SCN11A,CHRM1,PKP2,ARL6IP5,ATP1A1,PLN,PRKCE,EFH B,CAPN3,KCNC4,CASK,APP,GOPC,ROS1,ABAT,PDE4B,ACSL4,COM MD1,CACNA1C,KCNJ12,IL16,CHRNA3,CACNA2D1,CACNA2D4,CLIC 6,IFNGR2,RASGRF2,ADORA2A,CAMK2G,CACNG2,RGS7,KCNQ5,RE LN,GRM5,ADCYAP1R1,KCNB2,PER1,CNTN1,GRM7,STIM2,NLGN1,A KAP7,MAPK8IP2,CACNA1D,TPCN2,NOS1,TNF,TMC2,KCNK10,TPA N13,KCNA6,KCNH8,TRDN,SCN1A,KCNH7,EGF,KCNAB1,FGF13,EP HB2,DAPK1,CACNG6,CCL3,P2RX1,KCNE4,P2RX7,PLA2G4A,BDKRB 1,THADA,GNB5,HCN4,RNF207,SYT2,ACTN4,FGF12,KCNJ16,KMO,S TAC,CHRM3,MYLK,CALCR,CACNB2,NOS1AP,FMR1,CD84,JPH4,FH L1,CACNA1A,SCN9A,STIM1,KCNC2,CASQ2,DTNBP1,PTGES,UBASH 3B,MAP2K6,SPTBN4,RGN
GO:00508 03	regulation of synapse structure or activity	0.0000424749132353 6258	MAPK14,ASIC2,NRXN1,SHANK2,SYNDIG1,FLRT2,LRFN5,ABHD17C, CTNNA2,IL1RAPL2,ROBO2,CDH2,FRMPD4,ZNF804A,NEGR1,NTN1, GPC6,CDH8,LRRK2,NTRK3,DISC1,SEMA4D,LINGO2,CLSTN2,BDNF, GRIN2B,LRFN2,EPHB1,SIPA1L1,EPHA7,FYN,THBS2,PTPRD,LRRTM 1,KALRN,TANC2,APP,DGKB,NTRK2,DNM3,GRID2,EFNA5,RELN,LR RTM3,IL1RAP,GPC4,NLGN1,CTTNBP2,TNF,PPFIA2,DLG5,LRP4,CLS TN1,CDKL5,IL1RAPL1,PTPRO,UBE3A,EPHB2,SLITRK6,ARF4,BHLH B9,PDLIM5,PAK3,DTNBP1,LRP8,VPS35
GO:00030 15	heart process	0.0000451233032051 4802	AKAP13,KCNQ1,TNNI3K,CELF2,ANK2,KCND3,KCNE1,RYR3,AGT,R PS6KA2,MDM2,DMD,CTNNA3,RNLS,RYR2,SLC8A1,TGFB2,SGCD,EX T2,SGCG,KCNJ3,ABCC9,FYN,KCNE2,PDE4D,SLC1A1,MTOR,PKP2,A TP1A1,PLN,EDNRB,NOX4,TACR3,THRB,HDAC4,PDE4B,CACNA1C,K CNJ12,CACNA2D1,CXADR,WWTR1,CACNA1D,JAK2,SHOX2,NOS1,T NF,ADORA3,TRDN,SCN1A,FGF13,NUP155,SGCZ,KCNE4,MEF2A,AD RA1B,SEMA3A,PDE5A,HCN4,RNF207,FGF12,TRPM4,CACNB2,NOS1 AP,TTN,CORIN,MYH7,EXT1,MYH6,CASQ2,ASB3,MAP2K6,SPTBN4,T BX18
GO:00991 73	postsynap se organizati on	0.0000479935291309 1713	GPHN,NRXN1,CTNND2,TMEM108,SHISA6,ABHD17C,CDH2,FRMPD 4,ZNF804A,IGF1R,LRRK2,NTRK3,MTMR2,GRIN2B,LRFN2,EPHB1,SI PA1L1,LRRK4,EPHA7,FYN,PTPRD,NLGN4X,KALRN,TANC2,DGKB,N RP1,OPHN1,DNM3,GRID2,RELN,IL1RAP,DOCK10,NLGN1,ARHGAP 39,PPFIA2,TANC1,ARF1,LRP4,CDKL5,IL1RAPL1,UBE3A,EPHB2,AR F4,BHLHB9,PDLIM5,ADAM10,ITGA3,CNKSR2,NOS1AP,INSR,PAK3, DTNBP1,LRP8,VPS35
GO:00720 01	renal system developm ent	0.0000510223795299 7825	NPHP3,GPC3,ALDH1A2,PLCE1,ARID5B,ROBO2,AGT,GREB1L,SLIT2 ,SMAD1,ADAMTS6,BASP1,LRRK2,KIF26B,LGR5,TGFB2,FMN1,FBN1, BCL2,LRP2,NF1A,VANGL2,EPHA7,MME,SERPINB7,RARB,BMPER,C TNNBIP1,SOX8,IFT88,HELLS,EDNRB,TRAF3IP2,PKHD1,NRP1,LGR4 ,FRAS1,ADAMTS16,GLI3,TGFBF1,PCSK5,TP73,MAGI2,NF1,BICC1,T

			TC8,ASXL1,KIRREL3,JAG1,WWTR1,AH11,SMAD3,RDH10,DLG5,FRE M2,SULF1,LRP4,EFNB2,DYNC2H1,CC2D2A,PTPRO,ERBB4,AP2B1,S ULF2,SOX4,PDGFD,ITGA8,ENPEP,WDPCP,EYA1,PBX1,ITGA3,BMP 6,CENPF,ZBTB16,PRKX,C1GALT1,EXT1,UMOD,KLHL3,UPK3A,CTS H,IL6R,FGF1,DCHS2,RGN,TBX18
GO:00485 19	negative regulation of biological process	0.0000513278105734 5126	LINC00273,ISM1,FANK1,CAST,SRGAP2B,TPTE,ZHX3,PLCB1,CMKL R1,DAB1,OMA1,DUX4,UTF21,MAPK14,ABCG8,DSCAM,TPTE2,MIR6 63A,RUNX1,ASIC2,CTBP2,SERPINA1,ANXA8L1,PTPRT,MIR1185- 1,MIR1185- 2,MIR134,MIR154,MIR300,MIR323B,MIR376C,MIR381,MIR382,MIR4 85,MIR487A,MIR487B,MIR539,MIR544A,MIR654,MIR655,MIR889,AN K3,DCC,TIMP3,ZNF397,DUSP22,FBLN1,SLC24A3,NPHP3,ABCG1,R GS6,KCNQ1,DPF3,ATF7IP,GRIN3A,NRXN1,MIR369,MIR410,MIR656, PAX7,MTPN,SHANK2,GRIA1,NRG3,SMYD2,CLEC16A,HUS1,TGFBR3 ,FSTL4,CDH13,RNF152,ANK2,RTN1,NXN,RUNX1T1,CSNK2A1,ERCC 4,KCNE1,SAMD4A,MIR99A,MIRLET7C,EIF4EBP3,CHEK2,GADD45A, PRDM9,PSMC6,ACIN1,PLXNA4,TOX3,GPC3,NRG1,STXBP6,ETS2,PS MB2,SHISA6,RFFL,IL4R,ALDH1A2,LRFN5,RYR3,MCTP1,MIR17HG,S UZ12,ASTN2,SH3RF2,SEMA6D,SPOCK1,ABHD17C,CTNNA2,CCRI1,R BFOX2,MIR551B,PCTP,PM20D1,AGBL4,BEND5,LDLRAD4,DNAJC15 ,RGS7BP,ZNF91,ZBTB20,ARFIP1,CBFA2T2,NKD1,SCAI,MX1,ALK,PT PRE,SORCS3,ZNF536,FBXO31,RAB7A,CNTN4,RGL2,ARID5B,ROBO2, SPOCK3,ZNF366,EPHA3,PRKACB,DCLK1,PXDN,AJAP1,LEMD3,AG T,CST2,MAGEB3,AVEN,RCAN1,CDH2,PARK2,BANP,FHL2,FOXN3,L OXL2,CDC5L,KIR2DL4,KIR3DL2,BPIFB1,CORO2B,PSPC1,SEMA3D, DACH1,NTN1,TP53I11,TRIM22,TRIM5,USP25,ZNF268,CP,NELL1,TS PAN8,PCDH17,PHC1,ZNRF3,KCNMA1,RIN3,TRIO,FTO,HDAC2,HTR A1,LAMA4,SLIT2,TFAP2D,ZBTB34,KCTD1,HSA-MIR- 490,PDCD6,RPS6KA2,LCMT1,IGF1R,MDM2,SLC24A4,SMAD1,E2F3, NOVA1,TMPRSS6,CEP97,PTPRG,PXK,SACS,TRPC5,DMD,STK33,BAS P1,VCL,FSHR,GRIA4,FMN2,HNRNPA2B1,MAEL,NFE2L3,NRIP1,PRK AR2A,SORCS2,INPP5A,STK24,WWOX,ATRX,FRMD5,PARP16,TRPM2, RNLS,RYR2,DHRS7C,LINC00472,LRRK2,MIR495,MIR543,RORB,IGFB P7,NTRK3,RORA,IQCJ- SCHIP1,CHD7,OVGP1,PAN3,GLIS1,SH3BP1,SOX6,MECP2,MTMR2,S EMA4D,GSK3B,SLC8A1,PRKD1,SERPINA4,SERPINA5,ERCC6,OGT,T GFB2,PRAMEF12,PIWIL4,RIPPLY3,S100A11,SEMA5A,BDNF,PRKAR 1B,PRKCH,RBMS3,RYK,ABI3BP,GRIN2B,KDM4C,OTUD7A,RAG1,RA G2,SAMD13,ANKRD6,NR2F2,PTGFR,PCBP3,PML,PPARGC1A,USP36 ,ARHGAP12,AKAP6,FBN1,PPP4R4,GRIK3,NLRP7,PLXNA2,TAOK3,B CL2,CHMP4C,MXI1,ZNF675,ARHGAP24,EPHB1,MOV10L1,SMARCE 1,SKAP2,KLF12,LRP2,FRMD4A,ITPR2,SND1,DEPTOR,NR4A2,EPHA7 ,MIR648,ZBTB7C,DPT,RBAK,FYN,KCNE2,PARN,ADAMTS18,NR4A1,S MARCA4,CD44,HECW1,NEU3,PMP22,RHBDD1,RNF213,THBS2,FOX O1,PDE4D,RBBP8,RNF144B,KANK1,ACTN2,ATP8A2,BACH1,CST9L, GRK5,KLF13,PACRG,TNMD,GRIK2,CELF4,SERPINB7,APBB2,EIF3E, SLC1A1,ZFPM2,ZNF141,GLIS3,RARB,RERG,RFX4,ETV6,GN4A,NLRP 12,MFSD12,MTOR,RMI2,LDB2,MOV10,TMPRSS4,CTDSPL2,FAT3,PK P2,UBXN2B,BMPER,PTPRD,SCAF8,BBS2,PGK1,PLCL1,ARL6IP5,AT P1A1,EPM2A,PLN,CTNNBIP1,SOX8,ZMYND11,MIR491,NLGN4X,PRK CE,EIF2S1,HELLS,KMT2A,PRKCB,VDR,ADCY8,FOXO3,IGF2BP3,LR RTM1,MITF,SCMH1,CAPN3,KALRN,TTL12,CCDC88C,DLC1,EDNR B,MSR1,OASL,ROBO1,SATB2,TBC1D4,BNIP3L,FAP,FLT1,NOX4,ZNF 148,CENPV,GRHL2,TSC22D3,COL2A1,NBAS,NR3C1,TRAF3IP2,CRI1, EYA4,SPON1,MDM1,PKHD1,STK3,KDR,PPHLN1,CASK,CHL1,ABCA1 2,APP,CALCRL,COL18A1,NRP1,PTPRM,UACA,ARHGEF18,LGR4,LIN C00473,SERPING1,TENM2,ADTRP,KAT5,THRB,CPEB2,KCNK2,SEM A3C,ADAM17,CAMK1D,DIS3L2,TFPI,ATF2,ETS1,NR2C2,SAMSN1,EF EMP1,GOPC,PRTG,ROS1,SMG6,TGFB111,DOT1L,RGS16,RPS6KA5,T CF7L2,TRABD2B,AFF2,BICD1,PARD3,TLK2,ZNF830,ABAT,GRIN2A, MIR183,MIR96,KIFAP3,OPHN1,BCLAF1,TRPS1,ZNF568,CD38,DENN D5A,RNF43,CHRD11,RNF126,SMG7,BCL2L1,HDAC4,MYO16,PDE4B ,TIMP2,BACE2,DNMT1,GHR,JAM2,MIR605,NTRK2,PRKG1,ACSL4,D NM3,BRD4,STARD13,ARR3,COMMD1,RABGEF1,SPRED2,GLI3,SMC HD1,ZNF207,CACNA1C,MORC2,DOCK4,RAP1A,TGFB11,PRDX4,DI CER1,TNR,CUX1,NCOA5,CHST11,MAGEA11,PTTG1IP,RAPGEF1,CD 96,EP300,MORC3,HMG20A,SCFD1,TBX3,TTC39B,WIF1,CYP7B1,GR AMD4,PRAMENP,TRIOBP,ATXN1,BRD7,GLRA1,TP73,GRID2,NPC1,P IBF1,PSMA1,FHIT,ADCK1,ADORA2A,ADRBK2,EFNA5,MERTK,TAC4 ,MAG12,NF1,RGS7,TFF1,SORL1,STRN3,ARHGAP6,BICC1,BID,ELK3,I FT80,TRIM59,TTC8,DMRT1,LZTR1,ASXL1,EIF4E,POR,TNFRSF11B,G RM5,HDPAC9,IL18R1,IL1RL1,PTPN9,MGAT5,NDRG2,NUMB,RHPN2,S P2,TNFAIP8,NLK,NPHP4,TBX15,ADCYAP1R1,NAV3,JAG1,MEOX2,P

			<p>PP3CA,KLF3,KLF7,MYT1L,SH3GL2,SNX25,CAPZB,DGKI,MASI,PER1,SATB1,SLC24A2,WWTR1,ANKRD13A,CBLB,ELAVL4,MAGEB2,MNAT1,PLSCR1,ATP9A,DGUOK,GRM7,TMEM67,GABPA,KAT7,L3MBTL3,MIR105-1,MIR105-2,MIR767,ZNF540,ASAP1,FHOD3,N4BP2L2,NLGN1,PTPRU,THAP7,KIRIN2,RNF128,RPS20,NPR3,SYCP2,LRRK1,MAPK8IP2,VEPH1,DDX3X,LRPPRC,RBL2,CNOT7,GABRA5,TPCN2,DNMT3B,JAK2,SHOX2,AHII,SMAD3,CD300A,MAP2K4,NOS1,SERPINB12,PLXNB1,ZNF337,AATF,CDK1,DCBLD2,HDAC7,MIR320B2,NBN,SLC39A10,TAGLN3,TNF,LRCH1,OVOL2,SNX5,TNIP1,ZFPM1,EIF3A,ILF3,POMC,PRDM15,ADNP2,DLG5,SCAF4,SIM2,ARID2,MLIP,BRINP1,FAM220A,PRG3,SRSF4,ADORA3,ARF1,BCL11A,CLEC4A,HMGA2,POLR1A,YAF2,ZNF705A,AGO3,GCLC,PMEP1,RAB23,EPSS8,LTBP1,DAA2,L3MBTL4,SULF1,CCP110,LRP4,WDR5,EFNB2,MXD3,PIWIL3,TRDN,HERC1,PHF8,ZNF423,CDC14B,ALPK2,CTNNA1,TENM1,TSHZ3,ZNF93,GSKIP,MIR765,PRKAR1A,ZNF345,BPTF,MLLT3,CD109,EGF,PTPN14,ALDH1A1,FOXP4,GBE1,IL1RAPL1,KIT,SLIT3,TNRC6B,UBR2,BLM,TRPV4,VWCF2,ABC A5,KCNAB1,PTPRO,RAPGEF2,DNAJB6,ESR1,HTR2C,SEMA3E,UBE3A,FGF13,GABRB2,MARVELD3,PLAG1,EPHB2,MECOM,NDFIP2,TBCD,TFDP2,DAP,DAPK1,ERBB4,FER,MAP3K3,SPTA1,TDRKH,FNIP1,LRP5,MALRD1,ZNF439,RPS27L,SLAMF1,ABL2,DEPDC5,F11R,GAS8,VPS13C,AP2B1,ARHGAP35,CD2AP,COMMD7,NSUN2,PTPRK,CCL3,SEMA5B,SPRED3,TNF AIP8L2,ARHGAP25,BTBD17,GCFC2,PSG9,SULF2,ARF4,MYH9,PACSIN2,PTGER3,SOX4,ST18,SPTB,AGTPBP1,DNM3OS,KCNE4,MIR214,PUM1,ARID4A,DDDB1,FAM172A,KDM3A,PLAT,SERTAD2,TNKS,BCL7A,DAPL1,MEF2A,OCLN,PARP15,PDE11A,RGS3,RYR1,ZCCHC17,ZNF85,DAD1,MAP2,SLX1B,SOST,ASXL3,IL23R,NTF3,P2RX7,TEX14,RASA3,AMFR,APIP,AR,BCOR,FGL2,PVT1,SCAMP5,SUFU,TRERF1,UPK3B,EYA1,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,BHLHB9,DGKZ,L3MBTL1,MIR127,MIR136,MIR431,MIR432,MIR433,ONGN,PI3,PRKAA2,SEMA3A,TAX1BP1,THADA,TLE4,ZNF202,ZNF558,ARHGAP10,CDC73,GNB5,MEIS2,PDE5A,PROS1,ZNF19,ZNF440,NFIC,PPARGC1B,SRGAP3,TRIM72,FERMT2,MAP2K5,MARK1,SMPD3,TNN,DAB2,GPR55,HDAC8,PBX1,ACTN4,ADAM10,EEF1E1,ITGA3,PRAMEF8,TXNDC5,FANCB,FRY,MTIF,PLCL2,PPM1B,NUP153,PINI,RPS6KA6,TRPM4,ERLIN1,STK38,ZNF674,ABCC2,BMP6,CIT,CLASP1,EIF4ENIF1,CDYL2,CFDP1,NCOA2,TGFA,TMOD1,CREM,HGF,PKP1,POU2F1,RGS12,CALCR,CENPF,MIR489,MIR653,SH3BP5,ZBTB16,CTIF,KDM4B,MIR556,ARHGAP28,LARP4B,PAK1,PDE3A,PSMB7,SKI,AKT3,CTDP1,ELF1,ENPP1,FMRI,LIMK2,LITAF,MIR361,CHFR,DKC1,JDPA2,PHC2,ABCD1,BMF,CRMP1,MAD1L1,ARHGAP42,CD84,JPH4,PPARA,SORT1,TBX22,FAM3D,FHL1,GNA13,PPP1R13B,TAF1,CHD5,FNIP2,SIPR3,SPRED1,CHSY1,ESR2,KRT4,PRDM16,QSOX1,RBL1,ZNF451,BTRC,CCDC3,HIRA,OPTN,PTPRR,RIT2,MDM4,PRKCG,PRLR,UMOD,ZNF354B,ADAMTS5,CBFA2T3,DOCK7,FBXW11,G3BP1,HDAC5,TDGF1,A2M,MYEF2,PII5,SERPINB8,SLC24A5,SLC40A1,ADARBI,PRKCQ,STAT3,SUSD4,TFEC,TP63,USP7,AMOT,BRIP1,CDKN3,CST1,HPN,PIK3R2,TBL1X,USH2A,CASQ2,DHRS2,DTNBP1,GAK,RAP1B,LGALS9,GTPBP1,MAPKAPK2,AOAH,APC,BMPRI1,DPP4,ITGA1,KIAA0319,NGF,PRKCA,PTGES,SPINT2,UBASH3B,ADAMTS20,ITIH6,MTMR4,OSGIN2,PDS5A,ABII,CTSH,DHX9,NCAPG2,RGCC,RPH3AL,SRGAP1,USP18,GPR21,IL6R,MAP2K6,SIAH3,TFIP11,SPTBN4,CLASP2,MAP2K1,PRAMEF7,TPH1,VPS35,ZBTB25,ZRANB3,C1QTNF3,COL6A3,MCOLN3,RAD18,TBX20,C6ORF106,CRADDD,NLRC5,RGN,RREB1,TBX18</p>
GO:0042330	taxis	0.0000598372609790643	<p>CDH4,CMKLR1,MAPK14,DSCAM,DCC,ITGA2,EPHA6,NRXN1,NRXN3,DOCK2,NRG3,CDH13,PLGRKT,ADAMTSL1,PLXNA4,FLRT2,NRG1,UNC5D,SEMA6D,CCR1,CCR3,DPYSL2,CNTN4,ROBO2,EPHA3,LAMA2,SEMA3D,NTN1,RIN3,TRIO,SLIT2,TRPM2,NTRK3,RNF165,EMB,SEMA4D,PRKD1,TGFB2,VAV3,SEMA5A,BDNF,RYK,LAMA3,PLXNA2,RALBP1,EPHB1,EPHA7,FYN,CHN1,NR4A1,ENPP2,UNC5C,PALLD,FAM19A4,KALRN,EDNRB,ROBO1,FLT1,KDR,CHL1,APP,NRP1,PTPRM,SEMA3C,ADAM17,CAMK1D,PRTG,RPS6KA5,OPHN1,ALCAM,PDE4B,GLI3,DOCK4,SRP54,CYSLTR1,EPHA5,TNR,IL16,EP300,DSCAML1,CYP7B1,EFNA5,TTC8,RELN,RALA,KLF7,CXADR,SMAD3,PLXNB1,LGR6,SMOC2,C5AR1,CNTN6,EFNB2,KIT,SLIT3,PIK3C2G,TRPV4,EFNB1,PTPRO,MYPN,SEMA3E,EPHB2,ABCC1,FER,SLAMF1,BSG,ARHGAP35,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,PDGFD,PIK3CD,FGFR1,NTF3,SEMA3A,STX3,ADAM10,CCL7,LGI1,LECT2,TRPM4,HGF,NCA M1,NFASC,CRMP1,CCDC141,DEFA1B,EXT1,TYMP,ELMO2,TREM1,PRKCQ,AMOT,LGALS9,DPP4,ITGA1,CCL14,CCL15,CCL15-CCL14,IL6R,MAP2K1,SOS1,FGF1</p>
GO:00069	chemotaxi	0.0000680615217205	<p>CDH4,CMKLR1,MAPK14,DSCAM,DCC,ITGA2,EPHA6,NRXN1,NRXN3,DOCK2,NRG3,CDH13,PLGRKT,ADAMTSL1,PLXNA4,FLRT2,NRG1,</p>

35	s	0448	<p>UNC5D,SEMA6D,CCR1,CCR3,DPYSL2,CNTN4,ROBO2,EPHA3,LAMA2,SEMA3D,NTN1,RIN3,TRIO,SLIT2,TRPM2,NTRK3,RNF165,EMB,SEMA4D,PRKD1,TGFB2,VA3,SEMA5A,BDNF,RYK,LAMA3,PLXNA2,RALBP1,EPHB1,EPHA7,FYN,CHN1,NR4A1,ENPP2,UNC5C,PALLD,FAM19A4,KALRN,EDNRB,ROBO1,FLT1,KDR,CHL1,APP,NRP1,PTPRM,SEMA3C,ADAMI7,CAMK1D,PRTG,RPS6KA5,OPHN1,ALCAM,PDE4B,GLI3,DOCK4,SRP54,CYSLTR1,EPHA5,TNR,IL16,DSCAML1,CYP7B1,EFNA5,TTC8,RELN,RALA,KLF7,CXADR,SMAD3,PLXNB1,LGR6,SMOC2,C5ARI,CNTN6,EFNB2,KIT,SLIT3,PIK3C2G,TRPV4,EFNB1,PTPRO,MYPN,SEMA3E,EPHB2,ABCC1,FER,SLAMF1,BSG,ARHGAP35,CCL3,FGF7,LAMA1,PREX1,SEMA5B,ITGA9,PDGFD,PIK3CD,FGFR1,NTF3,SEMA3A,STX3,ADAM10,CCL7,LGI1,LECT2,TRPM4,HGF,NCAM1,NFASC,CRMP1,CCDC141,DEFA1B,EXT1,TYMP,ELMO2,TREM1,PRKCQ,AMOT,LGALS9,DPP4,ITGA1,CCL14,CCL15,CCL15-CCL14,IL6R,MAP2K1,SOS1,FGF1</p>
GO:0040012	regulation of locomotion	0.00007125005461022637	<p>SRGAP2B,PLCB1,CMKLR1,DSCAM,PTPRT,DUSP22,FBLN1,ITGA2,UN2,NRG3,CDH13,TF,GADD45A,PLXNA4,FLRT2,NRG1,RFFL,MCTP1,SH3RF2,UNC5D,SEMA6D,CTNNA2,CCR1,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,FBXO31,PHACTR1,ROBO2,SPOCK3,AGT,RHOJ,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,RIN3,LAMA4,SLIT2,PDCC6,IGF1R,PTPRG,VCL,STK24,FRMD5,NTNG1,LRRK2,NTRK3,SH3BP1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,FUT4,S100A11,SEMA5A,RYK,LAMA3,NR2F2,PLXNA2,BCL2,KANK1,ENPP2,UNC5C,MTOR,LDB2,CHRM1,BMPER,BBS2,EPB41L4B,PRKCE,FOXO3,MITF,DLC1,ROBO1,FLT1,TACR3,KDR,PRCP,APP,NRP1,PTPRM,ADTRP,SEMA3C,ADAMI7,CAMK1D,ELP3,ETS1,RIN2,HDAC4,JAM2,MAPRE2,PRKG1,STARD13,RABGEF1,CLDN1,DOCK4,TGFB1,IL16,ADORA2A,TAC4,MAGI2,NF1,SORL1,RELN,GRM5,HDAC9,SELE,MGAT5,NUMB,NAV3,JAG1,MEOX2,PPP3CA,DOCK10,PTPRU,JAK2,SMAD3,CD300A,PLXNB1,HDAC7,TNF,LRCH1,DLG5,LGR6,ARID2,ADORA3,DOCK1,SMOC2,SULF1,C5ARI,PIK3R3,EFNB2,AMOTL1,SELP,CTNNA1,EGF,KIT,TRPV4,PTPRO,RAPGEF2,SEMA3E,MARVELD3,EPHB2,ERBB4,FER,MAP3K3,SLAMF1,ABL2,BSG,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,SEMA5B,KIF2A,NEDD9,PDGFD,PIK3CD,WDPCC,FGFR1,NTF3,BDKRB1,SEMA3A,SRGAP3,FERMT2,MAP2K5,SMPD3,TNN,DAB2,STX3,ACTN4,ADAM10,CCL7,ITGA3,PINI,SYNPO2,CLASP1,HGF,MYLK,CAPN7,INSR,MACF1,PAK1,AKT3,PRKX,ULK4,GNA13,SPRED1,PTPRR,DOCK7,HDAC5,TDGF1,LYVE1,ADARB1,STAT3,AMOT,PAK3,LGALS9,EFCAB1,APC,BMPRI4,DPP4,PRKCA,SPINT2,CTSH,RGCC,SRGAP1,IL6R,CLASP2,VPS35,FGF1,RGN,RREB1</p>
GO:0050790	regulation of catalytic activity	0.00007487013475332203	<p>CAST,PLCB1,DAB1,MAPK14,SERPINA1,CCNG2,ANXA8L1,PRIM2,PTPRT,BCL2L13,TIMP3,DUSP22,AKAP13,FBLN1,ITGA2,RGS6,GABBR2,EPHA6,NRXN1,SGSM1,DOCK2,NRG3,FGD6,TBC1D22A,CSNK2A1,GADD45A,PLXNA4,GPC3,NRG1,RFFL,SUZ12,PLCE1,SH3RF2,SPOCK1,TIAM1,RHOC,RASGRF1,ALK,RGL2,PHACTR1,SPOCK3,EPHA3,AGT,PHACTR3,CST2,RCAN1,PARK2,DCUN1D4,TXK,DENND2A,USP6,ITSN1,NCF4,RIN3,TRIO,MYO9A,SLIT2,PDCC6,IGF1R,RAPGEF5,SIPA1L3,FSHR,HNRNPA2B1,PRKAR2A,PARP16,XRCC4,LRRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,LGR5,SLC8A1,PRKD1,SERPINA4,SERPINA5,ERCC6,TGFB2,VA3,SLC5A3,LLGL2,PRKAR1B,RYK,GRIN2B,RAG1,ARHGAP8,NR2F2,PML,RNF180,ARHGAP12,PPP4R4,NLRP2,NLRP7,PLXNA2,TAOK3,BCL2,RALBP1,RXFP2,ZNF675,ARHGAP24,EPHB1,SIPA1L1,MMP16,DEPTOR,NR4A2,ARHGEF10,EPHA7,PSD3,RPGR,FYN,PARN,CHN1,NR4A1,CD44,RCVRN,ARHGEF3,CST9L,RAP1GDS1,SERPINB7,SLC1A1,AGAP1,NLRP12,MTOR,ROR1,LDB2,RASGEF1B,TIAM2,ARL6IP5,EPM2A,PLN,EVI5,PRKCE,EIF2S1,VDR,ADCY8,CAPN3,KALRN,CCDC88C,DLC1,EDNRB,OASL,ROBO1,RXFP1,TBC1D4,FLT1,NOX4,GRHL2,MAP3K7,PREX2,CRI,STK3,TGM2,KDR,ARHGAP15,PCOLCE2,APP,NRP1,UACA,ARHGEF18,ELMO1,LGR4,SERPING1,CPEB2,ADAMI7,MAP3K5,PKP4,TFPI,ELP3,PIK3R5,ROS1,SMG6,RGS16,TNFRSF10B,BICD1,RALGAP2,DOCK9,GRIN2A,OPHN1,CCDC88A,DENND5A,MOB3B,RIN2,NCF2,TIMP2,GHR,MAPRE2,NTRK2,PRKG1,RASGRP1,STARD13,RABGEF1,RGL1,SPRED2,CACNA1C,STXBP5,DOCK4,RAP1A,EPHA5,LCP2,RAPGEF1,CHRNA3,GRAMD4,PCSK5,PIBF1,RASGRF2,ARHGEF33,PPP1R12B,ADORA2A,CABIN1,EFNA5,FAM20A,MERTK,RALGPS1,MAGI2,NF1,PPP6R2,RALGPS2,RFC3,RGS7,SORL1,ARHGAP6,BID,TTC8,POR,RELN,GRM5,HDAC9,SELE,MGAT5,TNFAIP8,MAP3K13,ADCYAP1R1,EGLN3,TBC1D3B,DGKI,MAS1,TBC1D5,WTR1,CBLB,DOCK10,MNAT1,PLSCR1,GRM7,RIMS1,GPSM2,SLC22A2,ASAP1,BORA,AKIRIN2,ARHGAP5,RPS20,NPR3,PHACTR2,CACNA1D,DDX3X,RBL2,ARAP2,ZNF622,ARHGAP39,JAK2,SMAD3,CD300A,KIDINS220,NOS1,SERPINB12,PLXNB1,NBN,NVL,SLC39A10,TNF,LRC,H1,TRIM23,ADORA3,ARF1,HMGA2,DOCK1,CDC20B,C5ARI,DEF6,P</p>

			<p>IK3R3, ARHGEF6, SAE1, HERC1, NET1, CDC14B, TENM1, ARHGEF11, CDKL5, GSKIP, PRKAR1A, ARHGAP11B, SIPA1L2, CD109, EGF, ALDH1A1, KIT, MTRR, BLM, PTPRO, RAPGEF2, DNAJB6, ESRI, DNMBP, FGF13, EPHB2, TBCD, DAP, DAPK1, ERBB4, FNIP1, LRP5, RAPGEF6, RPS27L, SLAMF1, ABL2, ASAP2, DEPDC5, F11R, FARP2, ARHGAP35, CCL3, PREX1, ARHGAP25, FGD4, ARF4, ARFGAP3, ST18, CAB39L, GARNL3, NEDD9, P2RX1, PDGFD, RGPDI, UBE2N, TNKS, FGFR1, RGS3, TBC1D9, DAD1, IL23R, NTF3, P2RX7, RAPGEF4, ARDC4, RASA3, RCAN2, RABGAP1L, DENND5B, DGKZ, NEK5, PI3, ARHGAP10, GNB5, MARK2, PDE5A, PROS1, FLT3, PPARGC1B, SRGAP3, ATP6V1H, DYNAP, FERMT2, MAP2K5, CALML4, DAB2, GPR55, TCL1B, CCL7, ELP4, FRY, PIN1, SYNPO2, STK38, CIT, TGF A, HGF, PRPSAP2, RALGAP1, RGS12, SH3BP5, NOS1AP, RALGDS, ARHGAP28, INSR, PAK1, CHM, LIMK2, DKC1, SBF2, AIM2, ARHGAP42, DENND2D, SORT1, TNFAIP8L3, TTN, GNA13, WDR41, PPP2R3C, SPRED1, RBL1, BTRC, PPP2R2C, PRLR, DOCK7, PSMD6, TDGF1, A2M, PI15, SERPINB8, STIM1, ADARB1, PRKCQ, STAT3, TP63, AMOT, CDKN3, CST1, DOCK3, PIK3R2, DTNBP1, KSR1, LGALS9, LRP8, APC, BMPR1A, ITGA13, IGFBP1R14A, SPINT2, UBASH3B, VLDLR, ITIH6, PILRB, ABI1, CTSH, DHX9, NCAPG2, RGCC, SRGAP1, CCL14, CCL15, IL6R, MAP2K6, RIC8B, TFIP11, MAP2K1, SOS1, COL6A3, FGF1, CRADD, NLRC5, RGN</p>
GO:0071310	cellular response to organic substance	0.0000799980713282013	<p>ADCY2, PLCB1, CMKLRI, GABRB3, MAPK14, ARID1B, CTBP2, PTPRT, TIMP3, DUSP22, ITGA2, KCNQ1, VRK2, NRXN1, DOK5, SLC1A2, TGFB3, GRAMD1C, KCNE1, TMEM108, CHEK2, FLRT2, GPC3, PSMB2, RFFL, SPIR, IL4R, ALDH1A2, RYR3, GLP2R, CCR1, CCR3, CFTR, RFXO2, LDLRAD4, ZBTB20, IL1RAPL2, MX1, ALK, PTPRE, ARID5B, ROBO2, ZNF366, EPHA3, PTPRN2, PXDN, CRNN, LEMD3, AGT, CHRM5, FBXO32, PARK2, CYBB, TRIM5, TXK, RNF185, HDAC2, HTRA1, SLIT2, PDCD6, RPS6KA2, STXBP4, IGFBP1, MDM2, SMAD1, TMPRSS6, NR3C2, DMD, HCN1, FSHR, NRIP1, WWOX, PARP16, TRPM2, RYR2, HSPB8, LRRK2, RORB, SLC1A3, IGFBP7, NTRK3, RORA, ILDR1, RNF165, PDXP, SOX6, GSK3B, LGR5, SLC8A1, PRKD1, OGT, TGFB2, BDNF, ZDHHC17, WASF1, KDM4C, EXT2, SIK2, PTGFR, NR5A2, PAQR8, PML, AKAP6, FBN1, NLRP7, BCL2, RXFP2, ZNF675, IL12RB2, LRP2, TMEM100, ITPR2, GDAPI, NR4A2, FYN, GNRHR, NR4A1, SMARCA4, CD44, RHBDD1, CASP6, FOXO1, PDE4D, KANK1, ABCB10, ACNT2, ATF6, GABRB1, MME, PACRG, TNMD, MYLK3, SLC1A1, UGCG, RARB, NLRP12, MTOR, VPS26B, CHRM1, CTDSPL2, BMPER, BBS2, ARL6IP5, ATP1A1, DSG4, IFT88, PRKCE, EIF2S1, HELLS, PRKCB, VDR, ADCY8, FOXO3, RAB31, TTLL12, EDNRB, MSRI, OASL, ROBO1, RXFP1, SATB2, TBC1D4, FLT1, NOX4, COL2A1, MAP3K7, NR3C1, TRAF3IP2, TGM2, KDR, PRCIP, CASK, EDA, PCOLCE2, ABCA12, APP, CALCL, NRPI, LGR4, ADTRP, CD58, KAT5, THRB, CPEB2, ADAM17, MAP3K5, TFPI, ATF2, TGFB11, RPS6KA5, TRAF3, BCLAF1, CHRDL1, RNF126, BCL2L1, HDAC4, PDE4B, SOX5, DNMT1, GHR, GLRA2, NTRK2, FAM83G, MGST1, GNG2, LY86, RABGEF1, SPRED2, CLDN1, KIF16B, RAPIA, SAFB2, TGFBRI, EPHA5, NCOA5, CHST11, RAPGEF1, EP300, CACNA2D1, CYP7B1, STX8, GLRA1, COL4A6, IFNGR2, NPC1, PNPLA3, PSMA1, FLNB, EFNA5, MAGI2, NF1, SORL1, STRN3, HTR4, EIF4E, POR, GRM5, HDAC9, IL18R1, IL1RL1, PLSCR4, DDC, NLK, IL1RAP, PPP3CA, KLF3, KLF7, SH3GL2, SNX25, GLDC, MAS1, PER1, KL, ELAVL4, GABPA, GBP2, GBP7, AKAP7, VEPH1, NSG1, CNOT7, JAK2, SMAD3, BAIAP2L1, KIDINS220, NOS1, TMTC4, MIR320B2, TNF, LRCH1, OVOL2, SNX5, TNIP1, ADNP2, BMP15, PHEX, BRINP1, BCL11A, KIF18A, ANO1, GCLC, PMEP1, EPS8, LTBP1, SMOC2, SULF1, GNAL, PIK3R3, EFN2, TRIM41, ZNF423, CTNNA1, NSG2, EFHC2, TNFRSF19, WDR35, CD109, CMA1, IL1RAPL1, KIT, SLIT3, UBR2, BLM, VWC2, CPS1, RAPGEF2, ESRI, HTR2C, JAK1, UBE3A, GABRB2, EPHB2, ABCC1, DAPK1, ERBB4, FERL, LRP5, SHCBP1, ABL2, CAMP, COMMD7, PTPRK, CCL3, FGF7, SPRED3, IL20RA, PSG9, SULF2, SOX4, ST18, PDGFD, PIK3CD, ITGA8, IRAK2, KDM3A, PLAT, CDK19, FGFR1, RYR1, UNC13B, SOST, IL23R, KEAP1, NTF3, P2RX7, TEX14, RNMT, AMFR, AR, CASP7, TRERF1, IFNA8, IL1RL2, MIR431, MIR433, PRKAA2, TLE4, CDC73, GNB5, ZMIZ1, FLT3, PPARGC1B, PTPRA, TRIM72, DYNAP, ESRRG, FERMT2, GNAO1, HCN4, MAP2K5, SMPD3, DAB2, UROS, ACTN4, CCL7, EEF1E1, FGF12, ITGA3, KMO, NREP, QRICHI, PINI, TRPM4, BMP6, CHRM3, NCOA2, HGF, SCUBE3, IL18RAP, INSR, PAK1, PDE3A, PSMB7, SKI, ENPP1, LITAF, RRAGC, IDE, AIM2, CSF2RB, EPG5, PCK1, PPARA, SORT1, TAF1, CACNA1A, FUT8, SPRED1, AKR1C2, ESR2, PRDM16, ZNF451, BTRC, CCDC3, DEFA1B, DEFA3, OPTN, EXT1, NCOA1, PRLR, UMOD, HDAC5, TDGF1, UGGT2, STAT4, PRKCQ, STAT3, TP63, BRIP1, PAK3, PIK3R2, CASQ2, DTNBP1, RAP1B, LGALS9, LRP8, NFAT5, IL10RB, MAPKAPK2, APC, BMPR1A, NGF, PRKCA, SPINT2, GBP4, GPR75, MTMR4, CTSH, DHX9, USP18, ACACA, CCL14, CCL15, EDA2R, GABRG2, GPR21, IL6R, MAP2K6, RGM, SOS1, VPS35, FGF1, TBX20, NLRC5</p>
GO:00508	nervous	0.0000840790851052	<p>PIEZO2, PLCB1, GABRB3, GABRG3, ASIC2, OR11H1, NCAM2, OR4M2, ANK3, RFXO1, TIMP3, ITGA2, LOXHD1, KCNQ1, OR4K15, GRIN3A, NRX</p>

77	system process	9409	<p><i>N1, TMPRSS3, NRXN3, EYS, OR8U1, RIMS2, SHANK2, GRIA1, TRPM3, CSMD1, SCN8A, KCNE1, TMEM108, OR4C12, SHISA6, CTNNA2, BBS9, RBF OX2, RASGRF1, MYO3A, OR4A5, SORCS3, S100B, OR8K3, AGT, CST2, SHISA9, CHRM5, VT11A, RCAN1, PARK2, DLGAP1, HMCN1, OR4K13, DNAH9, OR4M1, OR4N2, OR52N5, ANKFN1, DBH, MYO9A, CNTN5, OR2L13, RPS 6KA2, SLC24A4, OR11G2, OR9Q1, GABRG1, OR8K5, DMD, CACNG3, GRM1, JAKMIP1, OR2M5, TENM4, CAMTA1, LRRK2, RORB, SLC1A3, STRC, CHD7, HEXB, MECP2, MTMR2, GSK3B, CDC14A, BDNF, PRKAR1B, PCDH15, GRIN2B, OR6N1, RAG1, SNAP25, MYH8, CNTNAP2, EPHB1, LRP2, T MEM100, RPGR, FYN, NR4A1, RCVRN, ATF6, ATP8A2, DCD2, GABRB1, MME, NAV2, GRIK2, IGSF11, CELF4, KCND2, SCN11A, SLC1A1, MTOR, R OR1, RLBP1, CHRM1, BBS2, OR51B2, OR51I1, ARL6IP5, COL11A1, EPM2 A, NLGN4X, OR4K17, OR8J3, GTF2A1L, ADCY8, FAM19A4, KALRN, EDN RB, COL2A1, EYA4, GABRA2, OR4C15, CHL1, APP, COL18A1, THRB, KCN K2, TSPEAR, EFEMP1, OR10R2, RGS16, AFF2, PARD3, ABAT, GRIN2A, T UB, GUCY2F, SRRM4, GLRA2, JAM2, NTRK2, ARR3, CAMK4, OR5L2, OR1 1L1, CRB1, USP53, MGLL, DICER1, TAS2R38, TNR, TAS2R1, CHRNA3, CH RNA5, EP300, CACNA2D4, TRIOBP, ATXN1, GLRA1, GRID2, OR4C5, ADO RA2A, TAC4, CACNG2, NF1, IMPG1, OR5K4, TTC8, RELN, GRM5, PPP3C A, DGKI, SLC24A2, ELAVL4, GRM7, RIMS1, GABRA3, NLGN1, P2RX6, LM FPL3, MAPK8IP2, TMPRSS11E, CACNA1D, GABRA5, SOBP, DRH10, TM TC4, MAGT1, NBN, RRH, TNF, TANC1, TMC2, POU6F2, OR11A1, OR5V1, B RINP1, KCNK10, SPAG16, MYO6, ANO1, C5AR1, GNAL, CNGB3, HERC1, S CN1A, TSHZ3, MYH14, GABRR2, TMEM150C, MIP, KIT, OR7A5, DNAH11, RCSD1, HTR2C, NCMA, UBE3A, FGF13, GABRB2, EPHB2, SLITRK6, OR 4C6, ATP8A1, CCL3, MYO7B, SEMA5B, ARF4, P2RX1, AGTPBP1, ITGA8, C NGA4, MYO3B, PDZD7, CDH23, DAPL1, SYNM, UNC13B, GLRA3, NTF3, P 2RX7, AMFR, CEP250, EYA1, BDKRB1, HLA- DRA, BHLHB9, MEIS2, REEP2, SCNN1A, CLN6, FGF12, ITGA3, OR10K2, OR4C46, STAC, LRIG1, SHROOM4, BTBD9, CNGB1, HGF, OBP2A, CACN B2, NFASC, INSR, CHM, FMR1, PAX3, GABRA1, GABRR3, RRGRI1, JPH4 ,PDE6B, ZFHX2, MYH7, TRPM1, SCN9A, TECTA, PRKCG, TYMP, OR51L1 ,ADARB1, OR4C16, CST1, HPN, TBL1X, USH2A, DLGAP2, OR2T4, TAS1R1 ,TUSC3, NGF, PTGES, VLDLR, GABRG2, SPTBN4, VPS35</i></p>
GO:0031345	negative regulation of cell projection organization	0.0001092666872059904	<p><i>DAB1, DCC, NRXN1, FSTL4, SEMA6D, SPOCK1, CBFA2T2, SEMA3D, NT N1, HDAC2, SLIT2, CEP97, PTPRG, TRPC5, LRRK2, SEMA4D, SEMA5A, R YK, GRIN2B, ARHGAP24, EPHA7, FYN, PMP22, KANK1, FAT3, NRP1, SE MA3C, CD38, DENND5A, DNM3, TNR, PTPN9, PPP3CA, CAPZB, DGUOK ,NLGN1, BCL11A, CCP110, LRP4, EFNB2, TRPV4, PTPRO, RAPGEF2, SE MA3E, UBE3A, FGF13, EPHB2, SEMA5B, MAP2, SEMA3A, DAB2, ITGA3, LIMK2, CRMP1, RIT2, DTNBP1, GAK, KIAA0319</i></p>
GO:0008038	neuron recognition	0.00011321077544026716	<p><i>DSCAM, NCAM2, CNTN4, ROBO2, EPHA3, OPCML, EMB, SEMA5A, CNT NAP2, NTM, PALLD, ROBO1, APP, NRP1, DSCAML1, CNTN6, MYPN, EPH B2, BSG, ARHGAP35, SEMA3A, TNN, EXT1, CRTAC1</i></p>
GO:0010033	response to organic substance	0.00011537629567855529	<p><i>ADCY2, PLCB1, CMKLR1, GABRB3, MAPK14, ARID1B, CTBP2, PTPRT, TI MP3, DUSP22, ITGA2, ABCG1, KCNQ1, VRK2, GRIN3A, NRXN1, DOK5, SL C1A2, BCKDHB, TGFBR3, CDH13, ANK2, GRAMD1C, HLCS, KCNE1, TM EM108, CHEK2, PSMC6, FLRT2, GPC3, PSMB2, RFFL, SPIDR, IL4R, ALD H1A2, RYR3, GGT1, KYNU, GLP2R, CCR1, CCR3, CFTR, RBOX2, LDLRA D4, ZBTB20, IL1RAPL2, MX1, ALK, PTPRE, PIK3C3, ARID5B, ROBO2, ZN F366, EPHA3, PTPRN2, PXDN, CRNN, LEMD3, AGT, CHRM5, FBXO32, PA RK2, FHL2, CYBB, OTC, TRIM5, USP25, TXK, RNF185, DBH, FBXO27, KC NMA1, HDAC2, HTRA1, SLIT2, PDCD6, RPS6KA2, STXBP4, IGF1R, MDM 2, MX2, SLC24A4, SMAD1, TMPRSS6, NR3C2, DMD, HCN1, FSHR, NRIP1, WDR83, WWOX, ATRX, PARP16, TRPM2, RNLS, RYR2, HSPB8, LRRK2, RO RB, SLC1A3, IGFBP7, NTRK3, RORA, GGT2, ILDR1, RNF165, PDXP, SOX6 ,IER2, GSK3B, LGR5, SLC8A1, PRKD1, OGT, TGFB2, AFF3, ACSBG1, BDN F, ZDHHC17, KCNC1, DNAAF2, DNAJB4, WASF1, GRIN2B, KDM4C, EXT 2, SIK2, NR2F2, PTGFR, NR5A2, PAQR8, PML, AKAP6, FBN1, NLRP7, BCL 2, RXFP2, ZNF675, IL12RB2, LRP2, TMEM100, ITPR2, GDAP1, NR4A2, AB CC9, FYN, GNRHR, NR4A1, SMARCA4, CD44, RHBDD1, CASP6, FOXO1, P DE4D, TBXAS1, KANK1, ABCB10, ACTN2, ATF6, GABRB1, MME, PACRG, TNMD, MYLK3, SLC1A1, UGCG, RARB, RERG, NLRP12, MTOR, VPS26B, CHRM1, CTDSPL2, DDX21, BMPER, BBS2, HBE1, ARL6IP5, ATP1A1, DS G4, IFT88, PRKCE, EIF2S1, HELLS, PRKCB, VDR, ADCY8, FOXO3, RAB31 ,TTL12, EDNRB, MSRI, OASL, ROBO1, RXFP1, SATB2, TBC1D4, FLT1, N ASP, NOX4, COL2A1, MAP3K7, NR3C1, TACR3, TRAF3IP2, TGM2, KDR, P RCP, CASK, EDA, PCOLCE2, ABCA12, APP, CALCL, NRPI, LGR4, ADTR P, CD58, KAT5, THRB, CPEB2, ADAM17, MAP3K5, IGF2R, TFPI, ATF2, TG FB111, RPS6KA5, TCF7L2, TRAF3, ABAT, GRIN2A, BCLAF1, HSPA4L, CD 38, CHRDL1, RNF126, BCL2L1, HDAC4, PDE4B, SOX5, TIMP2, DNMT1, G HR, GLRA2, NTRK2, FAM83G, MGS1, GNG2, PAPP4, LY86, RABGEF1, S</i></p>

			<p>DK1,SPRED2,GLI3,CLDN1,KIF16B,RAP1A,SAFB2,TGFBRI,EPHA5,NCOA5,CHST11,RAPGEF1,CD96,CHRNA3,EP300,CACNA2D1,CYP7B1,DIO2,STX8,GLRA1,TP73,COL4A6,IFNGR2,NPC1,PNPLA3,CA3,PSMA1,TPH2,FLNB,ADORA2A,EFNA5,MAGI2,NF1,RFC3,RGS7,TFF1,GO T2,SORL1,STRN3,HTR4,ASXL1,EIF4E,POR,TNFRSF11B,GRM5,HDAC9,IL18R1,IL1RL1,SELE,PLSCR4,DDC,MXRA5,NLK,ADCYAP1R1,IL1RAP,JAG1,MAN1A1,PPP3CA,KLF3,KLF7,SH3GL2,SNX25,GLDC,MAS1,PER1,KL,ELAVL4,PLSCR1,TMEM67,TRIM16,GABPA,KAT7,P2RX6,PTPRU,AKIRIN2,GBP2,GBP7,AKAP7,FOXRED2,VEPH1,NSG1,CNOT7,AK2,SMAD3,BALAP2L1,KIDINS220,NOS1,TMTC4,CDK1,MIR320B2,TNF,LRCH1,OVOL2,PANX1,SNX5,TNIP1,POMC,ADNP2,BMP15,PHEX,BRINP1,SRSF4,BCL11A,KIF18A,ANO1,GCLC,PMEP1,EPH8,LTPB1,S MOC2,SULF1,C5AR1,GNAL,PIK3R3,EFNB2,TRIM41,ZNF423,SELP,C TNN1,NSG2,DMBT1,EFHC2,TNFRSF19,WDR35,CD109,ALDH1A1,C MA1,IL1RAPL1,KIT,SLIT3,UBR2,BLM,TRPV4,VWC2,CPS1,RAPGEF2,REG1B,ESR1,HTR2C,JAK1,SLC30A8,UBE3A,GABRB2,EPHB2,ABCC1,DAPK1,ERBB4,FER,LRP5,SHCBP1,ABL2,BSG,CAMP,SETD2,VPS13C,COMMD7,PTPRK,CCL3,FGF7,SPRED3,IL20RA,LRRRC70,PSG9,SULF2,CYP2E1,SOX4,ST18,P2RX1,PDGFD,PIK3CD,ITGA8,IRAK2,KDM3A,PLAT,CDK19,FGFR1,RYR1,UNC13B,GLRA3,SOST,IL23R,KEAP1,NTF3,P2RX7,TEX14,RNMT,AMFR,AR,CASP7,TRERF1,IFNA8,IL1RL2,BDKRB1,MIR431,MIR433,PRKAA2,TLE4,CDC73,GNB5,MEIS2,ZMIZ1,FLT3,PPARGC1B,PTPRA,TRIM72,DYNAP,ESRRG,FERMT2,GNAO1,HCN4,MAP2K5,SMPD3,DAB2,SRD5A2,UROS,ACTN4,ADAM10,CCL7,EEF1E1,FGF12,ITGA3,KMO,NREP,QRICH1,RFTN1,PIN1,TRPM4,ERLIN1,BMP6,CHRM3,NCOA2,HGF,CALCR,SCUBE3,IL18RAP,INSR,PAK1,PDE3A,PSMB7,SKI,ENPP1,FMR1,LITAF,RRAGC,IDE,AIM2,CSF2RB,EPG5,PCK1,PPARA,SORT1,TAF1,CACNA1A,FUT8,SPRED1,AKR1C2,ESR2,PRDM16,ZNF451,BTRC,C2,CCDC3,DEFA1B,DEFA3,OPTN,EXT1,NCOA1,PRKCG,PRLR,UMOD,HDAC5,TGDF1,UGGT2,A2M,SEL1L2,STAT4,KCNC2,PRKCQ,STAT3,TP63,BRIP1,HPN,PAK3,PIK3R2,CASQ2,DTNBP1,RAP1B,LGALS9,LRP8,NFAT5,IL10RB,MAPKAPK2,APC,BMPRI1,NGF,PRKC4,SPINT2,GBP4,GPR75,MTMR4,CTSH,DHX9,USP18,ACACA,CCL14,CCL15,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,RGMB,SOS1,VPS35,FGF1,TBX20,NLRC5</p>
GO:0051056	regulation of small GTPase mediated signal transduction	0.00012333240011992895	<p>AKAP13,DOCK2,NRG1,PLCE1,TIAM1,RASGRF1,SCAI,RGL2,ITSN1,TRIO,MYO9A,SLIT2,SIPA1L3,SH3BP1,OGT,TGFB2,VAV3,ARHGAP8,ARHGAP12,RALBP1,ARHGAP24,SIPA1L1,ARHGEF10,PSD3,CHN1,KANK1,ARHGEF3,TIAM2,KALRN,DLC1,ROBO1,PREX2,TGM2,ARHGAP15,NRPI,ARHGEF18,RALGAP2,OPHN1,MAPRE2,RASGRP1,STARD13,RABGEF1,RAPGEF1,RASGRF2,RALGPS1,NF1,RALGPS2,ARHGAP6,LZTR1,RELN,ADCYAP1R1,DGKI,ARHGAP5,ARHGAP39,EPH8,DEF6,NET1,ARHGEF11,ARHGAP11B,SIPA1L2,DNMBP,EPHB2,ABL2,F11R,ARHGAP35,CD2AP,PREX1,ARHGAP25,FGD4,GARNL3,AUTS2,RASA3,ARHGAP10,SRGAP3,GPR55,ITGA3,RALGAP1,ARHGAP28,ARHGAP42,GNA13,RIT2,AMOT,DOCK3,NGF,SOS1</p>
GO:0099643	signal release from synapse	0.00012748616221482597	<p>CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,MCTP1,PTPRN2,ERC2,PARK2,MCTP2,APBA2,SYT9,SYT1,UNC13C,LRRK2,GSK3B,SNAP25,SNAP23,NR4A1,CADPS,PRKCB,CASK,RIMS3,STXBP5,RAP1A,CHRNA3,CHRNA5,ADORA2A,NF1,DGKI,RIMS1,NLGN1,BLOC1S6,GRM4,P2RX1,UNC13A,UNC13B,P2RX7,STX3,SYT2,KMO,CACNB2,SNAP29,FMR1,PRKCG,DTNBP1,RAP1B,SNCAIP</p>
GO:0007269	neurotransmitter secretion	0.00012748616221482597	<p>CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,MCTP1,PTPRN2,ERC2,PARK2,MCTP2,APBA2,SYT9,SYT1,UNC13C,LRRK2,GSK3B,SNAP25,SNAP23,NR4A1,CADPS,PRKCB,CASK,RIMS3,STXBP5,RAP1A,CHRNA3,CHRNA5,ADORA2A,NF1,DGKI,RIMS1,NLGN1,BLOC1S6,GRM4,P2RX1,UNC13A,UNC13B,P2RX7,STX3,SYT2,KMO,CACNB2,SNAP29,FMR1,PRKCG,DTNBP1,RAP1B,SNCAIP</p>
GO:0002009	morphogenesis of an epithelium	0.00013774009007127367	<p>NPHP3,TNC,CSMD1,GPC3,PSMB2,ALDH1A2,CECR2,ASTN2,TIAM1,RHOC,NKX1,C2CD3,PRKACB,AJAP1,AGT,GREB1L,NTN1,GPC6,ZNF3,MYO9A,SLIT2,KRT25,VCL,CELSR1,RYR2,KIF26B,PRICKLE2,SH3BP1,LGR5,TGFB2,FMN1,RIK4,RYK,PCDH15,LAMA3,ANKRD6,PML,ARHGAP12,BCL2,ARHGAP24,LRP2,VANGL2,EPHA7,CD44,MTOR,RORI,CTNBP1,SOX8,VDR,DLC1,GRHL2,SEC24B,PKHD1,STK3,TGM2,KDR,NRP1,SHROOM3,LGR4,SEMA3C,ADAM17,TGFB1,FRAS1,OPHN1,ADAMTS16,STARD13,GLI3,TBX3,CYP7B1,PSMA1,MAGI2,TT C8,RALA,EXOC5,JAG1,GPC4,AH1,SMAD3,RDH10,TNF,COBL,OVOL2,DLG5,FREM2,SULF1,EFNB2,MLLT3,EGF,CC2D2A,ESR1,SEMA3E,ERBB4,LRP5,BSG,SETD2,ARHGAP35,FGF7,LAMA1,SOX4,PIK3CD,AR,SUFU,EYA1,SEMA3A,FERMT2,DAB2,PBX1,RNF207,DAAM1,CLASP1,HGF,PAK1,PSMB7,SKI,PRKX,GNA13,NTN4,BTRC,ESRP2,EXT1,KLHL3,TP63,SPINT2,CTSH,CLASP2,SOS1,FGF1,TBX20,RREB1,TBX18</p>
GO:00226	regulation	0.0001393230488770	<p>FMNL2,CDC42EP3,FBLN1,ZRANB1,RIMS2,FGD6,SYT17,PLXNA4,RH</p>

04	of cell morphogenesis	2676	OC,FBXO31,RHOJ,PARK2,FMNL3,MYO9A,PALMD,SYT1,NTNG1,HEXB,SEMA4D,PLXNA2,FYN,CD44,KANK1,ENPP2,STRIP1,MOV10,ERMN,PTPRD,KALRN,DLC1,KDR,ARHGAP15,NRP1,SHROOM3,ARHGEF18,GRIPI,CUX1,TRIOBP,PARVB,EFNA5,RELN,MAP3K13,ATP10A,CAPIZB,RLMS1,SH3KBP1,PLXNB1,BCL11A,DOCK1,EPH8,CDKL5,MYH14,FAM171A1,IL1RAPL1,KIT,SEMA3E,DNMBP,SPTA1,F11R,ARHGAP35,CCL3,PREX1,FGD4,MYH9,NEDD9,UNC13A,WDPCP,BHLHB9,EPB41L3,MARK2,FERMT2,DAB2,SYT2,ACTN4,CCL7,CFDP1,GAS2,MACFI,GNAI3,AKAP2,HPN,PAK3,LRP8,RREB1
GO:0070887	cellular response to chemical stimulus	0.00014641344677934545	ADCY2,PLCB1,CMKLR1,GABRB3,MAPK14,ARID1B,CTBP2,PTPRT,ANK3,TIMP3,DUSP22,ITGA2,KCNQ1,VRK2,NRXN1,DOK5,SLC1A2,GR1A1,DLG2,TGFBR3,NXN,GRAMD1C,TF,KCNE1,TMEM108,CHEK2,SYT17,PLXNA4,FLRT2,GPC3,FBLN5,PSMB2,AOX1,RFFL,SPIDR,IL4R,ALDH1A2,RYR3,GLP2R,CCR1,CCR3,CFTR,RBFOX2,LDLRAD4,ZBTB20,IL1RAPL2,MX1,ALK,PTPRE,ARID5B,ROBO2,ZNF366,EPHA3,PTPRN2,PXDN,CRNN,LEMD3,AGT,CHRM5,FBXO32,ATP6V0D1,PARK2,CYBB,NTN1,TRIM5,KCNH1,TKK,RNF185,RIN3,HDAC2,HTRA1,SLIT2,ACSM2B,AHRR,PDCD6,RPS6KA2,STXBP4,IGF1R,MDM2,SMAD1,SYT9,TMPRSS6,NR3C2,DMD,HEN1,SYT1,FSHR,FMN2,NRIP1,STK24,WWOX,ATRX,PARP16,TRPM2,RYR2,HSPB8,LRRK2,RORB,SLC1A3,IGFBP7,NTRK3,RORA,ILDR1,RNF165,PDXP,SOX6,GSK3B,LGR5,SLC8A1,PRKD1,OGT,TGFB2,VA3,SEMA5A,BDNF,RYK,ZDHHC17,WASF1,KDM4C,EXT2,SIK2,PTGFR,NR5A2,PAQR8,PML,PPARGC1A,AKAP6,FBN1,NLRP7,BCL2,RXFP2,ZNF675,EPHB1,IL12RB2,LRP2,TMEM100,ITPR2,CDAP1,NR4A2,FYN,GNRHR,KCNE2,NR4A1,SMARCA4,CD44,RHBD1,CASP6,FOXO1,PDE4D,KANK1,ABCBI0,ACTN2,ATF6,BACH1,GABRB1,MME,PACRG,TNMD,CPNE4,TPO,UNC5C,KCND2,MYLK3,SLC1A1,UGCG,RARB,NLRP12,MTOR,VPS26B,CHRM1,CTDPSL2,BMPER,BBS2,HBE1,PGK1,ARL6IP5,ATP1A1,DSG4,IFT88,PRKCE,EIF2S1,HELLS,PRKCB,VDR,ADCY8,FAM19A4,FOXO3,RAB31,CAPN3,TTL12,EDNRB,MSR1,OASL,ROBO1,RXFP1,SATB2,TBC1D4,BNIP3,FLT1,NOX4,COL2A1,MAP3K7,MAPK9,NR3C1,TRAF3IP2,ZNF277,TGM2,KDR,PRCP,CASK,EDA,PCOLCE2,ABCA12,APP,CALCRL,NRP1,LGR4,ADTAP,CD58,KAT5,THRB,CPEB2,KCNK2,ADAM17,CAMK1D,MAP3K5,TFPI,ATF2,MT1HL1,TGFB111,RPS6KA5,TRAF3,BCLAF1,CHRD1,RNF126,BCL2L1,ABTB2,HDAC4,PDE4B,SOX5,DNMT1,GHR,GLRA2,NTRK2,CPNE8,FAM83G,MGST1,GNG2,LY86,RABGEF1,SPRED2,CLDN1,KIF16B,DOCK4,PXDNL,RAP1A,SAFB2,SRP54,TGFBRI,PRDX4,EPHA5,NCOA5,CHST11,IL16,RAPGEF1,CHRNA3,EP300,CACNA2D1,CYP7B1,STX8,GLRA1,HBD,COL4A6,IFNGR2,NPC1,PNPLA3,PSMA1,TPH2,FLNB,EFNA5,MAGI2,NF1,SORL1,STRN3,HTR4,EIF4E,MICU1,POR,GRM5,HDAC9,IL18R1,IL1RL1,PLSCR4,DDC,NLK,EGLN3,IL1RAP,PPP3CA,KLF3,KLF7,SH3GL2,SNX25,CXADR,GLDC,MAS1,PER1,KL,ELAVL4,GSTA2,GABPA,NLGN1,GBP2,GBP7,AKAP7,MSRA,VEPH1,DDX3X,NSG1,CNOT7,ZNF622,JAK2,SMAD3,BALAP2L1,KIDINS220,NOS1,MTMTC4,CDK1,MIR320B2,TNF,LRCH1,OVOL2,SNX5,TNIP1,ADNP2,BMPI5,PHOX,RBM11,BRINP1,BCL11A,KIF18A,SULT1B1,ANO1,GCLC,PMEPA1,EPH8,LTBP1,CYP3A5,SMOC2,SULF1,C5AR1,GNAL,PIK3R3,EFNB2,TRIM41,NET1,ZNF423,LRR8C8,LRR8C8D,CHD6,CTNNA1,NSG2,ABCG2,EFHC2,GSKIP,TNFRSF19,WDR35,CD109,ALDH1A1,CMA1,IL1RAPL1,KIT,SLIT3,UBR2,BLM,TRPV4,VWC2,CPS1,PTPRO,RAPGEF2,RCSD1,ESR1,HTR2C,JAK1,UBE3A,GABRB2,EPHB2,ABCC1,DAPK1,ERBB4,FER,LRP5,SHCBP1,SLAMF1,ABL2,BSG,CAMP,COMMD7,PTPRK,CCL3,FGF7,PREX1,SPRED3,IL20RA,ITGA9,PSG9,SULF2,CYP2E1,SOX4,ST18,PDGFD,PIK3CD,ITGA8,IRAK2,KDM3A,PLAT,CDK19,FGFR1,MEF2A,RYR1,UNC13B,SOST,IL23R,KEAP1,NTF3,P2RX7,PLA2G4A,TEX14,RNMT,AMFR,AR,CASP7,GSTM4,TRERF1,IFNA8,IL1RL2,MGST3,BDKRB2,MIR431,MIR433,PRKAA2,TLE4,CDC73,GNB5,ZMIZI,FLT3,PPARGC1B,PTPRA,TRIM72,DYNAP,ESRRG,FERMT2,GNAO1,HEN4,MAP2K5,SMPD3,DAB2,SYT2,UROD,ACTN4,ADAM10,CCL7,EEF1E1,FGF12,ITGA3,KMO,MT1F,NREP,QRICH1,PINI,TRPM4,NME8,BMP6,CHRM3,CARF,NCOA2,HGF,MYLK,SCUBE3,IL18RAP,INSR,PAK1,PDE3A,PSMB7,SKI,ENPP1,FMR1,LITAF,RRAGC,ABCD1,IDE,AIM2,CSF2RB,EPG5,PKK1,PPARA,SORT1,TA1,CACNA1A,FUT8,SPRED1,AKR1C2,ESR2,PRDM16,ZNF451,BTRC,CCDC3,DEFA1B,DEFA3,OPTN,EXT1,MDM4,NCOA1,PRLR,UMOD,ELMO2,HDAC5,TGDF1,UGGT2,SLC40A1,STAT4,TREM1,KCNC2,PRKCQ,STAT3,TP63,BRIP1,PAK3,PIK3R2,CASQ2,DHRS2,DTNBP1,RAP1B,LGALS9,LRP8,NFAT5,ACSM1,IL10RB,MAPKAPK2,APC,BMPRI1,DPP4,ITGA1,NGF,PRKCA,PTGES,SPINT2,GBP4,GPR75,MTMR4,CTSH,DHX9,RGCC,USP18,ACACA,CCL14,CCL15,CCL15-CCL14,EDA2R,GABRG2,GPR21,IL6R,MAP2K6,RGMB,SOS1,VPS35,FGF1,TBX20,NLRC5

GO:0098662	inorganic cation transmembrane transport	0.00015322865158968937	ASIC2,CACNA1E,KCNJ6,ANK3,SLC24A3,KCNQ1,GRIN3A,PKD1L1,SLC9B1,TRPM3,ANK2,KCND3,FAM155A,SLC12A1,DPP10,SCN8A,KCNE1,KCNJ15,KCNG3,SCAR45,RYR3,PM20D1,SLC6A2,SLC17A3,UTRN,ATP6V0D1,KCNH1,KCNMA1,SLC24A4,KCNK17,TRPC5,DMD,HCN1,CACNA2D3,CACNG3,NOX5,FGF14,SLC39A11,DPP6,TRPM2,RYR2,CATSPER2,DHRS7C,SLC1A3,KCNH5,SLC4A4,CHD7,KCNK13,SLC8A1,PRKD1,ATP1A4,ZDHHC17,KCNK1,GRIN2B,SNAP25,AKAP6,KCNJ3,SLC30A5,ITPR2,ABCC9,FYN,KCNE2,HECW1,PDE4D,ACTN2,KCNS3,KCNIP4,KCND2,SCN11A,SLC1A1,ATP1A1,PLN,PRKCE,SLC2A9,ATP6V1D,SLC47A1,CAPN3,EDNRB,SLC12A8,KCNC4,KCNK2,GRIN2A,PD4B,SLC5A10,COMMD1,CACNA1C,NIP42,KCNJ12,SLC6A17,CACNA2D1,CACNA2D4,TRPM7,CACNG2,RGS7,KCNQ5,MICU1,SLC39A8,SLC9C1,TMEM163,KCNB2,SLC24A2,SLC5A1,STIM2,AKAP7,CACHD1,CACNA1D,TPCN2,NOS1,MAGT1,SLC39A10,PANX1,TMC2,KCNT2,KCNK10,TSPAN13,KCNA6,TRPC4,KCNH8,TRDN,SLC15A1,SCN1A,KCNH7,TRPV4,KCNAB1,HTR2C,SLC30A8,FGF13,CACNG6,CCL3,MCUR1,SLC39A12,P2RX1,KCNE4,RYR1,P2RX7,RASA3,BDKRB1,THADA,GNB5,ATP6V1H,HCN4,SCNN1A,RNF207,ACTN4,FGF12,KCNJ16,KCNN3,STAC,TRPM4,TMCO3,CALCR,CACNB2,NOS1AP,FMR1,MICU2,ATP5J,PH4,FHL1,CACNA1A,TRPM1,SCN9A,ATP6V1E1,SLC24A5,SLC40A1,STIM1,TRPM6,KCNC2,SLC9A9,HPN,CASQ2,SLC28A3,TMEM175,TUSC3,UBASH3B,SLC9A2,MCOLN3,ATP6V1E2,RGN
GO:0042592	homeostatic process	0.0001632496472591159	CMKLR1,OMA1,MAPK14,ABCG8,ANK3,LARGE,SLC24A3,NPH3,ABCG1,KCNQ1,TMPRSS3,POTEE,MS4A1,GRIA1,SLC9B1,TGFBR3,ANK2,CSMD1,FAM155A,SLC12A1,TF,ACIN1,SCAR45,IL4R,RYR3,PLCE1,KSR2,CCR1,CCR3,CFTR,RBFOX2,PCTP,PM20D1,ZBTB20,SLC6A2,ALK,FAM3B,RAB7A,PRKACB,PTPRN2,AGT,ATP6V0D1,CDH2,PARK2,LAMA2,OTC,CP,DBH,KCNMA1,FTO,LAMA4,STXBP4,IGF1R,SLC24A4,SMAD1,NOVA1,TMPRSS6,TRPC5,DMD,VCL,NOX5,FSHR,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,RORA,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,ERCC6,FLVCR1,OGT,ATP1A4,PIWIL4,NBEA,PCDH15,SGCD,GRIN2B,EXT2,RAG1,RAG2,PTGFR,NR5A2,PML,PPARGC1A,AKAP6,ACSM3,BCL2,ZNF675,SLC30A5,ITPR2,CYB561A3,FYN,SMARCA4,FOXO1,PDE4D,TBXAS1,ABCB10,KLF13,GRIK2,ZNF516,RAPIGDS1,APBB2,SLC1A1,UGCG,LDB2,BBS2,PLCL1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,FOXO3,CAPN3,EDNRB,NOX4,SGIP1,SLC12A8,TSC22D3,COL2A1,MALL,TRAF3IP2,PKHD1,TGM2,KDR,PRCP,ABCA12,APP,LGR4,ADAM17,ETS1,MT1HL1,OIT3,TM9SF4,TCF7L2,ACSM2A,ZNF830,ABAT,GRIN2A,HRNR,PYGL,CD38,SLC30A7,TUB,PDE4B,BACE2,JAM2,COMMD1,KCTD7,CACNA1C,CLDN1,CRB1,CYSLTR1,PRDX4,EPAH5,NCOA5,TTC39B,CACNA2D1,CYP7B1,DIO2,NPC1,PNPLA3,TRPM7,ADCK1,ADORA2A,EFNA5,EMCN,FAM20A,MERTK,TAC4,BRD1,NF1,TFF1,ASXL1,MICU1,SLC39A8,SLC9C1,TNFRSF11B,GRM5,HDAC9,IL18R1,DYNCH1,NAPEPLD,NPH4,ADCYA1P1R1,CYP39A1,FBXL5,PPP3CA,KLF7,SH3GL2,CXADR,SLC24A2,WWTR1,KL,DOCK10,KAT7,L3MBTL3,STIM2,NPR3,LRRK1,ACOX3,DDX3X,TPCN2,JAK2,SPNS2,SMAD3,NOS1,TMTC4,MIR320B2,SLC39A10,TNF,SNX5,ZFPM1,POMC,ARID2,ARF1,ANO1,GCLC,TRPC4,C5AR1,MYCT1,TRDN,ZNF423,LRRK8,DMXL1,NELL2,ALDH1A1,CMA1,KIT,POTEF,TRPV4,ABCA5,CPS1,ESR1,HTR2C,SLC30A8,UBE3A,SGCZ,SPTA1,LRP5,MALRD1,PTH2R,ABL2,BSG,F11R,CCL3,MCUR1,IL20RA,PTGER3,SLC39A12,SOX4,P2RX1,PIK3CD,ASGR2,ARID4A,DDB1,KDM3A,CDH23,OCLN,RYR1,UNC13B,BPGM,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,PRKAA2,THADA,FLT3,PPARGC1B,ATP6V1H,ESRRG,HCN4,SCNN1A,ATP13A3,CLN6,GPR55,CCL7,MT1F,PLCL2,TRPM4,BMP6,BTBD9,CNGB1,CALCR,CACNB2,INSR,AKT3,ENPP1,MICU2,TMTC2,ABCD1,IDE,JPH4,PCK1,POLD1,CORIN,FHL1,GNA13,SLC22A5,CACNA1A,PPP2R3C,S1PR3,TRPM1,PRDM16,EXT1,PRLR,SCO2,UMOD,ADAMTS5,DOCK7,KLHL3,SLC24A5,SLC40A1,STIM1,PEMT,SLC9A9,STAT3,TP63,PIK3R2,USH2A,CASQ2,DHRS7B,TMEM175,CNNM3,LGALS9,ACSM1,SLC7A8,UPK3A,APC,PRKCA,PTGES,UBASH3B,CTSH,NCAPG2,RPH3A,SLC9A2,ACACA,CCL14,CCL15,GPR21,MAP2K6,SOS1,C1QTNF3,MCOLN3,RGN
GO:0051270	regulation of cellular component movement	0.0001662145296019042	SRGAP2B,PLCB1,CMKLR1,PTPRT,DUSP22,FBLN1,ITGA2,SUN2,NRG3,TGFBR3,CDH13,ANK2,TF,GADD45A,PLXNA4,FLRT2,NRG1,RFFL,MCTP1,SH3RF2,UNC5D,SEMA6D,CTNNA2,CCR1,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,FBXO31,PHACTR1,SPOCK3,AGT,RHOJ,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,RIN3,LAMA4,SLIT2,PDCC6,IGF1R,PTPRG,VCL,STK24,FRMD5,CTNNA3,RYR2,NTNG1,NTRK3,SH3BP1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,FUT4,S100A11,SEMA5A,LAMA3,NR2F2,PLXNA2,BCL2,PDE4D,KANK1,ENPP2,UNC5C,MTOR,LDB2,PKP2,BMPER,BBS2,PLN,EPB41L4B,PRKCE,FOXO3,MITF,DLCL1,ROBO1,FLT1,TACR3,PKHD1,KDR,PRCP,APP,NRP1,PTPRM,ADTRP,SE

			MA3C,ADAM17,CAMK1D,ELP3,ETSI,RIN2,HDAC4,PDE4B,JAM2,MAPRE2,PRKG1,STARD13,RABGEF1,CACNA1C,CLDN1,DOCK4,TGFBF1,TAC4,MAGI2,NF1,SORL1,RELN,HDAC9,SELE,MGAT5,NUMB,NAV3,JAG1,MEOX2,PPP3CA,DOCK10,PTPRU,JAK2,SMAD3,CD300A,PLXNB1,HDAC7,TNF,LRCH1,DLG5,LGR6,ARID2,ADORA3,DOCK1,SMOC2,SULF1,C5AR1,PIK3R3,AMOTL1,SELP,CTNNA1,EGF,KIT,TRPV4,DNAH11,PTPRO,RAPGEF2,SEMA3E,FGF13,MARVELD3,EPHB2,ERBB4,FER,MAP3K3,SLAMF1,ABL2,BSG,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,SEMA5B,KIF2A,NEDD9,PDGFD,PIK3CD,WDPCP,FGFR1,MAP2,NTF3,BDKRB1,SEMA3A,SRGAP3,FERMT2,HCN4,MAP2K5,SMPD3,TNN,DAB2,ACTN4,ADAM10,CCL7,ITGA3,PIN1,SYNPO2,TRPM4,CLASP1,HGF,MYLK,CAPN7,INSR,MACF1,PAK1,AKT3,PRKX,ULK4,GNA13,SPRED1,PTPRR,DOCK7,HDAC5,TDGF1,LYVE1,ADARB1,STAT3,AMOT,PAK3,LGALS9,EFCAB1,APC,BMPRIA,DPP4,PRKCA,SPINT2,C TSH,RGCC,SRGAP1,IL6R,CLASP2,FGF1,RGN,RREB1
GO:0007507	heart development	0.00017363405514758798	MAPK14,RUNX1,MYO18B,AKAP13,SORBS2,NPHP3,KCNQ1,SMYD2,TGFBF3,ANK2,PLXNA4,FLRT2,GPC3,NRG1,ALDH1A2,PLCE1,ROBO2,C2CD3,AGT,WDR11,FHL2,GREB1L,SLIT2,RPS6KA2,IGF1R,MDM2,SMAD1,ADAMTS6,BASPI,RYR2,TENM4,NTRK3,CHD7,SOX6,SLC8A1,TGFB2,RIPPLY3,ABI3BP,SGCD,SGCG,AKAP6,FBN1,LRP2,TMEM100,VANGL2,ACTN2,MYLK3,ZFPM2,RARB,MTOR,PKP2,COL11A1,PLN,DLC1,ROBO1,NOX4,GRHL2,COL2A1,NEBL,TRAF3IP2,SEC24B,STK3,KDR,CALCRL,NRP1,KCNK2,SEMA3C,ATF2,GLI3,CACNA1C,TGFBF1,CPE,EP300,TBX3,PCSK5,TP73,NF1,BICC1,ASXL1,HDAC9,JAG1,NEB,CXADR,MNAT1,FHOD3,SHOX2,AHI1,SMAD3,CDK1,OVOL2,ZFPM1,ARID2,FREM2,EFNB2,ALPK2,PRKARIA,DYNC2H1,SLIT3,CC2D2A,DNAH11,SGCZ,TFDP2,ERBB4,SETD2,AP2B1,SOX4,MEF2A,RYR1,SCUBE1,BCOR,CASP7,SUFU,EYA1,ZMIZ1,PDLIM5,HCN4,MAP2K5,RNF207,FGF12,ITGA3,ELN,INSR,CTDP1,PPARA,TTN,MYH7,SPRED1,EXT1,MDM4,MYH6,TDGF1,MYH11,BMPRIA,MAP2K1,SOS1,TBX20,TBX18
GO:0060047	heart contraction	0.00021033078687065517	KCNQ1,TNNI3K,CELF2,ANK2,KCND3,KCNE1,RYR3,AGT,RPS6KA2,MDM2,DMD,CTNNA3,RNLS,RYR2,SLC8A1,TGFB2,SGCD,EXT2,SGCG,KCNJ3,ABCC9,KCNE2,PDE4D,SLC1A1,MTOR,PKP2,ATP1A1,PLN,EDNRB,TACR3,THRB,HDAC4,PDE4B,CACNA1C,KCNJ12,CACNA2D1,CXADR,CACNA1D,JAK2,SHOX2,NOS1,TNF,ADORA3,TRDN,SCN1A,FGF13,NUP155,SGCZ,KCNE4,MEF2A,ADRA1B,SEMA3A,PDE5A,HCN4,RNF207,FGF12,TRPM4,CACNB2,NOS1AP,TTN,CORIN,MYH7,EXT1,MYH6,CASQ2,ASB3,MAP2K6,SPTBN4,TBX18
GO:0001505	regulation of neurotransmitter levels	0.00022493485193682112	CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,COMT,PRIMA1,MCTP1,SLC6A2,PTPRN2,ERC2,PAH,PARK2,MCTP2,DBH,APBA2,SYT9,SYT1,FSHR,UNC13C,LRRK2,SLC1A3,GSK3B,SNAP25,SNAP23,NR4A1,CADPS,PRKCB,GABRA2,CASK,ABAT,RIMS3,STXBP5,RAP1A,CHRNA3,CHRNA5,ADORA2A,NF1,DGKI,RIMS1,SLC22A2,NLGN1,SLC22A3,NOS1,BLOC1S6,GRM4,P2RX1,AGTPBP1,UNC13A,UNC13B,P2RX7,STX3,SYT2,KMO,GAD2,CACNB2,SNAP29,FMRI,PRKCG,DTNBP1,RAP1B,SNCAIP
GO:0001822	kidney development	0.00025212172986310036	NPHP3,GPC3,ALDH1A2,PLCE1,ARID5B,ROBO2,AGT,GREB1L,SLIT2,SMAD1,ADAMTS6,BASPI,LRRK2,KIF26B,TGFB2,FMN1,FBN1,BCL2,LRP2,VANGL2,EPHA7,MME,SERPINB7,RARB,BMPER,CTNNBIP1,SOX8,IFIT88,HELLS,EDNRB,TRAF3IP2,PKHD1,NRP1,LGR4,FRAS1,ADAMTS16,GLI3,TGFBF1,PCSK5,TP73,MAGI2,NF1,BICC1,ASXL1,KIRREL3,JAG1,WWTR1,AHI1,SMAD3,RDH10,DLG5,FREM2,SULF1,LRP4,EFNB2,DYNC2H1,CC2D2A,PTPRO,ERBB4,AP2B1,SULF2,SOX4,PDGFD,ITGA8,ENPEP,WDPCP,EYA1,PBX1,ITGA3,BMP6,CENPF,ZBTB16,PRKX,CIGALT1,EXT1,UMOD,KLHL3,UPK3A,CTSH,IL6R,FGF1,DCHS2,RGN
GO:0048646	anatomical structure formation involved in morphogenesis	0.00026800770696805236	ISMI,GTF2I,MAPK14,DSCAM,RUNX1,WLS,AKAP13,NPHP3,ITGA2,NRXN1,NRXN3,SDK2,MTPN,NRG3,TGFBF3,CDH13,ANK2,SDCCAG8,GADD45A,ETSI,IL4R,ALDH1A2,CECR2,CCR3,CFTR,COL22A1,NKD1,ROBO2,PRKACB,COL15A1,AGT,RHOJ,FHL2,LOXL2,CYBB,KCNH1,FMNL3,HDAC2,HTRA1,SLIT2,PDCD6,TM4SF1,SLC24A4,SMAD1,NOX5,CELSR1,MBOAT7,TENM4,KIF26B,RORA,MECP2,MTMR2,PRKD1,TGFB2,FMN1,VAV3,PLCD3,SEMA5A,WDR72,KDM4C,EXT2,LAMA3,PML,PLXNA2,ARHGAP24,EPHB1,LRP2,TMEM100,VANGL2,NR4A1,PMMP22,RNF213,THBS2,ENPP2,ACTN2,ATP8A2,TNMD,EXOC4,MYLK3,SLC1A1,FAT3,BMPER,PGK1,COL11A1,SOX8,PRKCB,CAPN3,DLC1,ROBO1,FAP,FLT1,GRHL2,COL2A1,NEBL,SEC24B,STK3,TGM2,VASH2,KDR,PRCP,EDA,CALCRL,COL18A1,NRP1,PTPRM,SHROOM3,ADTRP,SEMA3C,ADAM17,ATF2,ETSI,OPHN1,JAM2,STARD13,SDK1,GLI3,KIF16B,CRB1,TGFBF1,CYSLTR1,RRP7A,ADAM12,DICER1,EP300,TBX3,GRID2,EMCN,FAM20A,NF1,ELK3,TEAD4,RELN,HDAC9,COL12A1,RALA,JAG1,MEOX2,NEB,GABPA,AGGF1,FHOD3,MEGF11,AHI1,S

			MAD3,NOS1,PTGFRN,COL8A1,RDH10,HDAC7,TNF,COBL,OVOL2,ZFPM1,TANC1,MMP20,CALD1,HMGA2,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,HERC1,PRKAR1A,CD109,EGF,PTPN14,CMA1,CC2D2A,EDAR,JAK1,MYPN,NCMAP,SEMA3E,EPHB2,MAP3K3,BSG,CAMP,SETD2,ARHGAP35,MYH9,SLC39A12,SOX4,PIK3CD,AGTPBP1,ITGA8,ENPEP,MEF2A,AR,SUFU,EYA1,SRPK2,CDC73,EPB41L3,PPARGC1B,MAP2K5,SMPD3,ITGA3,THSD7A,CLASP1,TGFA,TMOD1,HGF,SKI,AKT3,PRKX,MFNG,PPARA,TTN,C1GALT1,GNA13,SPRED1,PGM5,EXT1,MYH6,TYMP,ADAMTS5,HDAC5,TDGF1,SLC40A1,STIMI,MYH11,STAT3,TP63,AMOT,LRP8,MYOM2,BMPRI1A,PRKCA,SPINT2,ABI1,C TSH,RGCC,CLASP2,MAP2K1,FGF1,TBX20,TBX18
GO:0034762	regulation of transmembrane transport	0.00031809760616583827	MAPK14,ASIC2,CACNA1E,KCNJ6,ANK3,KCNQ1,NRXN1,SLC1A2,ANK2,KCND3,DPP10,SCN8A,KCNE1,KCNJ15,KCNG3,GPC3,SHISA6,CFTR,PM20D1,RASGRF1,UTRN,AGT,SHISA9,CYBB,KCNH1,KCNMA1,STXBP4,KCNK17,DMD,HCN1,CACNA2D3,CACNG3,FGF14,GSGL,DPP6,CNIH3,RYR2,CATSPER2,DHRS7C,KCNH5,CHD7,KCNK13,SLC8A1,PRKD1,KCNC1,AKAP6,BCL2,KCNJ3,SLC30A5,FYN,KCNE2,HECW1,PDE4D,ACTN2,KCNS3,KCNIP4,KCND2,SCN11A,ARL6IP5,PLN,PRKCE,PRKCB,CAPN3,ITLN1,KCNC4,ACSL5,APP,GOPC,PDE4B,COMMD1,CACNA1C,KCNJ12,CACNA2D1,CACNA2D4,CLIC6,IFNGR2,RASGRF2,CACNG2,RGS7,KCNQ5,RELN,GRM5,KCNB2,STIM2,NLGN1,AKAP7,MAPK8IP2,CACNA1D,TPCN2,NOS1,TNF,TMC2,KCNK10,TSPAN13,KCNA6,KCNH8,TRDN,SCN1A,KCNH7,KCNAB1,FGF13,EPHB2,DAPK1,CACNG6,P2RX1,KCNE4,MEF2A,OCLN,P2RX7,BDKRB1,THADA,GNB5,HCN4,RNF207,ACTN4,FGF12,KCNJ16,STAC,CHRM3,CALCR,CACNB2,NOS1AP,INSR,ENPP1,FMR1,JPH4,FHL1,CACNA1A,SCN9A,STIMI,KCNC2,CASQ2,UBASH3B,RGN
GO:0009605	response to external stimulus	0.0003198031729690194	IGHV1OR21-1,MACROD2,CDH4,PIEZO2,ZPLD1,CMKLR1,OMA1,MAPK14,ABCG8,DSCAM,ASIC2,RAB27A,IGHV4-31,DCC,IGHV3-64,IGHV1OR15-9,IGHV4OR15-8,ITGA2,KCNQ1,EPHA6,GRIN3A,NRXN1,NRXN3,SLC1A2,DOCK2,EYS,MS4A1,BCKDHB,MTPN,SHANK2,COMT,NRG3,CLEC16A,PKD1L1,TRPM3,CDH13,RNF152,CSDM1,TF,PLGRKT,HLC3,PIK3C2B,ANKHD1,GADD45A,ADAMTSL1,PLXNA4,FLRT2,GPC3,NRG1,PSMB2,IL4R,ALDH1A2,LRFN5,GGT1,UNC5D,KYNU,SEMA6D,CTNNA2,CCR1,CCR3,AGBL4,DNAJC15,DPYSL2,MX1,ALK,PIK3C3,KLRF2,CNTN4,ROBO2,B3GALT5,EPHA3,DCLK1,AJAP1,AGT,ZFYVE1,CDH2,PARK2,LAMA2,HMCN1,KIR2DL4,KIR3DL1,BPIFB1,TRIM51,CYBB,OTC,PSPC1,SEMA3D,NTN1,TRIM22,TRIM5,TKX,TSPAN8,RIN3,TRIO,HDAC2,HTRA1,SLIT2,RNASET2,STXBP4,REG4,IGF1R,MX2,SLC24A4,TRIM48,DMD,STK24,WDR83,TRPM2,RYR2,LRRK2,SLC1A3,STRC,NTRK3,RORA,GGT2,CHD7,RNF165,EMB,MECP2,SEMA4D,SLC8A1,PRKD1,ERCC6,OGT,TGFB2,VAI3,C8A,SEMA5A,BDNF,RYK,KCNC1,PCDH15,POLR3C,LAMA3,RAG2,SIK2,PLEKHM2,PTGFR,PML,PPARGC1A,CNTNAP2,IGHV3-16,NAALADL2,NLRP2,NLRP7,PLXNA2,TRDV3,BCL2,RALBP1,EPHB1,IL12RB2,TRDV1,GDAP1,NR4A2,ABCC9,EPHA7,FYN,ADAMTS18,CHN1,NR4A1,RCVRN,RNF213,FOXO1,ENPP2,ATP8A2,CST9L,GRIK2,UNC5C,SLC1A1,PALLD,NLRP12,MTOR,MOV10,VPS26B,DDX21,CCDC88B,BBS2,COL11A1,ZMYND11,PRKCE,EIF2S1,VDR,ADCY8,FAM19A4,FOXO3,CAPN3,ITLN1,KALRN,TLL12,EDNRB,OASL,ROBO1,BNIP3L,FAP,FLT1,SGIP1,DEFB116,MAP3K7,TRAF3IP2,CR1,KDR,RPL30,CASK,CHL1,IGHV4-28,APP,CALCRL,DGKB,NRP1,PTPRM,SHROOM3,LGR4,SERPING1,ADTRP,CD58,KCNK2,SEMA3C,ADAM17,CAMK1D,MAP3K5,TFPI,ATF2,ETS1,PRTG,RPS6KA5,TNFRSF10B,TRAF3,ABAT,GRIN2A,OPHN1,TC4,PYGL,CASP5,ALCAM,NCF2,BCL2L1,GUCY2F,HDAC4,PDE4B,GHR,PRKG1,BRD4,RASGRP1,LY86,RABGEF1,GLI3,CLDN1,CRB1,DOC K4,SRP54,USP53,CYSLTR1,MGLL,EPHA5,TNR,IL16,CD96,EP300,DS CAML1,CACNA2D4,CYP7B1,DIO2,STX8,GLRA1,GRID2,IFNGR2,CA3,PSMA1,TPH2,FLNB,ADORA2A,EFNA5,FAM20A,TAC4,CACNG2,SORL1,TRIM59,TTC8,HTRA4,CRISP3,POR,RELN,TNFRSF11B,IGHV4-4,IL1RL1,SELE,PLSCR4,NAPEPLD,IGHV3OR16-12,RALA,IL1RAP,FBXL17,KLF7,CXADR,MAS1,PER1,SLC24A2,TBC1D5,KL,C6,PLSCR1,WDR59,TMEM135,AKIRIN2,GBP2,GBP7,SLC22A3,DDX3X,CNOT7,JAK2,SMAD3,VPS41,BAIAP2L1,MAP2K4,NOS1,WDFY4,PLXNB1,RRH,TNF,TNIP1,ILF3,POMC,TMC2,BLOC1S6,PHEX,TRA V24,TRIM23,LGR6,ARF1,CLEC4A,HMGA2,IGLC2,IGLL5,ANO1,GCLC,SMOC2,C5AR1,CNTN6,EFNB2,TRDN,TRIM41,SELP,SCN1A,DMBT1,MYH13,TMEM150C,CD109,CMA1,KIT,SLIT3,TNFSF8,PIK3C2G,TRPV4,C8B,CPS1,EFNB1,PTPRO,REG1B,ESR1,HTR2C,JAK1,MYPN,SEMA3E,SLC30A8,ANO3,EPHB2,IGHV3-

			72,ABCC1,DAP,DAPK1,FER,SLITRK6,FNIP1,SLAMF1,BSG,CAMP,DEPDC5,F11R,SETD2,ARHGAP35,CCL3,FGF7,LAMA1,PREX1,SEMA5B,TNFAIP8L2,BTBD17,ITGA9,CYP2E1,PTGER3,PDGFD,PIK3CD,PUM1,IRAK2,PDZD7,PLAT,CDK19,DAPL1,FGFR1,DAD1,SOST,IL23R,JMY,NTF3,P2RX7,ZDHHC11,FGL2,CEP250,IFNA8,IL1RL2,N4BP1,RBM4,SRPK2,BDKRB1,MIR431,MIR433,PI3,PRKAA2,SEMA3A,CDC73,MEIS2,PROS1,LTBR,C9,SRD5A2,STX3,ADAM10,BLOC1S5,CCL7,KMO,LG11,PPM1B,LECT2,TRPM4,CD226,BMP6,CLASP1,CNGB1,G3BP2,HGF,PRB3,NCAM1,NFASC,IL18RAP,PAK1,PSMB7,FMR1,LITAF,IGHV1-69,RRAGC,CRMP1,IGHV1-46,AIM2,CCDC141,CD84,CSF2RB,PCK1,PDE6B,PPARA,TTN,SLC22A5,PPP2R3C,TRPM1,CHSY1,PTPRF,C2,CFB,DEFA1B,DEFA3,IGHV1-18,OPTN,EXT1,NCOA1,PRKCG,PRLR,TYMP,UMOD,ADAMTS5,ELMO2,G3BP1,TDGF1,A2M,TREM1,ADARB1,POU2AF1,PRKCQ,SCEL,SUSD4,AMOT,BRIP1,DEFB127,HPN,PAK3,LGALS9,LRP8,ALPK1,IL10RB,MAPKAPK2,AOAH,DPP4,ITGA1,KIAA0319,PRKCA,PTGES,UBASH3B,GBP4,DHX9,USP18,CCL14,CCL15,CCL15-CCL14,IL6R,CLASP2,MAP2K1,SOS1,TRAV6,VPS35,C1QTNF3,FGF1,C6ORF106,CRADD,NLRC5
GO:0040007	growth	0.00035649035660828	CDH4,PLCB1,MAPK14,DSCAM,RUNX1,DCC,AKAP13,LARGE,SORBS2,SLC1A2,EYS,RIMS2,MTPN,NRG3,TGFBF3,FSTL4,CSNK2A1,TMEM108,SYT17,PLXNA4,GPC3,FBLN5,NRG1,PLCE1,SEMA6D,SPOCK1,DPYSL2,NKD1,ARID5B,DCLK1,AGT,WDR11,PARK2,SEMA3D,NTN1,TKK,APBA2,FTO,SLIT2,SMAD1,CPO,TRPC5,DMD,SYT1,BASP1,VCL,FSHR,MAEL,MORF4L1,ATRX,TENM4,IGFBP7,KIF26B,CHD7,DISC1,SEMA4D,GSK3B,ERCC6,FLVCR1,TGFB2,FMN1,SEMA5A,BDNF,RYK,PCHD15,WASF1,RAG2,PML,AKAP6,BCL2,RAD51B,EPHA7,SMARCA4,ATP8A2,IGSF11,ZFPM2,RARB,RERG,GNG4,MTOR,TMPRSS4,BBS2,EPM2A,ZMAT3,NLGN4X,FOXO3,CAPN3,GRHL2,STK3,APP,NRP1,KAT5,KCNK2,SEMA3C,ADAM17,ATF2,ROS1,ZNF830,SGK2,CD38,ALCAM,BCL2L1,GHR,ACSL4,GLI3,TGFBF1,TNR,CHST11,EP300,TP73,SPG11,EFNA5,MAGI2,IFT80,TTC8,POR,SP2,MAP3K13,PPP3CA,PLS1,SH3GL2,WWTR1,RIMS1,ENOX2,DDX3X,SMAD3,PTGFRN,RDH10,CDK1,DCBLD2,NBN,COBL,ADNP2,INO80,LGR6,ARID2,BCL11A,HMGA2,UBE2E3,LRP4,NET1,CLSTN1,ARHGEF11,CDKL5,PRKAR1A,SLIT3,ESR1,SEMA3E,UBE3A,EBAG9,FGF13,PLAG1,ERBB4,SLITRK6,FGF7,SEMA5B,NEDD9,SERTAD2,UNC13A4,AUTS2,MAP2,AR,KIAA1109,BDKRB1,SEMA3A,CDC73,EPB41L3,ZMIZ1,PDLIM5,MAP2K5,PAPP42,SMPD3,TNN,DAB2,SYT2,ADAM10,LGI1,MT1F,RFTN1,GAS2,INSR,MACF1,CTDP1,ENPP1,EVC,PPARA,FHL1,ESR2,EXT1,MYH6,PRLR,ADARB1,PRKCQ,STAT3,HPN,ISLR2,BMPRI1A,KIAA0319,NGF,OSGIN2,NCAPG2,GPR21,SPTBN4,CLASP2,SOS1,FGF1,TBX20
GO:0035239	tube morphogenesis	0.0003905032426077029	ISM1,GF2F1,MAPK14,RUNX1,MYO18B,NPH3,NRXN1,NRXN3,TGFBF3,CDH13,CSMD1,SDCCAG8,GADD45A,GPC3,CECR2,CCR3,COL22A1,C2CD3,PRKACB,COL15A1,AGT,RHOJ,CDH2,LOXL2,GREB1L,CYBB,NTN1,FMNL3,SLIT2,PDCC6,SMAD1,NOX5,CELSR1,RYR2,KIF26B,RORA,CHD7,MECP2,LGR5,PRKD1,TGFB2,FMN1,VAV3,PLCD3,SEMA5A,SGCD,NR2F2,PML,BCL2,ARHGAP24,EPHB1,LRP2,TMEM100,VANG2,EPHA7,NR4A1,RNF213,THBS2,ENPP2,TNMD,SLC1A1,ZFPM2,BMPER,PGK1,CTNBP1,SOX8,PRKCB,VDR,DLC1,ROBO1,FAP,FLT1,GRHL2,SEC24B,PKHD1,STK3,TGM2,VASH2,KDR,PRCP,EDA,CALCRL,COL18A1,NRP1,PTPRM,SHROOM3,LGR4,ADTRP,ATF2,ETSI,RIN2,ADAMTS16,NTRK2,STARD13,GLI3,RAP1A,TGFBF1,CYSLTR1,ADAM12,TBX3,EMCN,WARS2,NF1,ELK3,HDAC9,RALA,JAG1,MEOX2,AGGF1,SHOX2,AH11,SMAD3,COL8A1,RDH10,HDAC7,TNF,COBL,OVOL2,DLG5,ARID2,CALD1,HMGA2,OKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,EGF,CMA1,CC2D2A,EDAR,RAPGEF2,ESR1,JAK1,SEMA3E,EPHB2,MAP3K3,LRP5,BSG,CAMP,SETD2,ARHGAP35,LAMA1,MYH9,SLC39A12,SOX4,PIK3CD,ENPEP,AR,SUFU,EYA1,SRPK2,ZMIZ1,MAP2K5,PBX1,RNF207,THSD7A,TGFA,HGF,MYLK,PAK1,SKI,AKT3,PRKX,C1GALT1,GNA13,SPRED1,BTRC,ESRP2,EXT1,TYMP,HDAC5,KLHL3,TDGF1,STIM1,STAT3,TP63,AMOT,BMPRI1A,PRKCA,SPIN2,CTSH,RGCC,SOS1,FGF1,TBX20
GO:0071805	potassium ion transmembrane transport	0.00040559165545673746	KCNJ6,ANK3,SLC24A3,KCNQ1,ANK2,KCND3,SLC12A1,DPP10,KCN E1,KCNJ15,KCNG3,KCNH1,KCNMA1,SLC24A4,KCNK17,HCN1,DPP6,SLC1A3,KCNH5,KCNK13,ATP1A4,KCN C1,SNAP25,AKAP6,KCNJ3,ABCC9,KCNE2,ACTN2,KCNS3,KCNIP4,KCND2,ATP1A1,SLC12A8,KCN C4,KCNK2,KCNJ12,RGS7,KCNQ5,SLC9C1,KCNB2,SLC24A2,AKAP7,CACNA1D,KCNT2,KCNK10,KCNA6,KCNH8,KCNH7,KCNAB1,KCNE4,HCN4,RNF207,KCNJ16,KCNN3,NOS1AP,FHL1,SLC24A5,KCNC2,SLC9A9,HPN,CASQ2,TMEM175,SLC9A2
GO:20001	regulation	0.0004199408360073	SRGAP2B,PLCB1,CMKLR1,PTPR,PTPR2,DUSP22,FBLN1,ITGA2,SUN2,NRG3,CDH13,TF,GADD45A,PLXNA4,FLRT2,NRG1,RFFL,MCTP1,SH3R

45	of cell motility	123	<p>F2,UNC5D,SEMA6D,CTNNA2,CCR1,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,FBXO31,PHACTR1,SPOCK3,AGT,RHOJ,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,RIN3,LAMA4,SLIT2,PDCCD6,IGF1R,PTPRG,VCL,STK24,FRMD5,NTNG1,NTRK3,SH3BP1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,FUT4,S100A11,SEMA5A,LAMA3,NR2F2,PLXNA2,BCL2,KANK1,ENPP2,UNC5C,MTOR,LDB2,BMPER,BBS2,EPB41L4B,PRKCE,FOXO3,MITF,DLC1,ROBO1,FLT1,TACR3,KDR,PRCP,APP,NRP1,PTPRM,ADTRP,SEMA3C,ADAM17,CAMK1D,ELP3,ETSI,RIN2,HDAC4,JAM2,MAPRE2,PRKG1,STARD13,RABGEF1,CLDN1,DOCK4,TGFBF1,TAC4,MAGI2,NF1,SORL1,RELN,HDAC9,SELE,MGAT5,NUMB,NAV3,JAG1,MEOX2,PPP3CA,DOCK10,PTPRU,JAK2,SMAD3,CD300A,PLXNB1,HDAC7,TNF,LRCH1,DLG5,LGR6,ARID2,ADORA3,DOCK1,SMOC2,SULF1,C5AR1,PIK3R3,AMOTL1,SELP,CTNNA1,EGF,KIT,TRPV4,RAPGEF2,SEMA3E,MARVELD3,EPHB2,ERBB4,FER,MAP3K3,SLAMF1,ABL2,BSG,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,SEMA5B,KIF2A,NEDD9,PDGFD,PIK3CD,WDPCP,FGFR1,NTF3,BDKRB1,SEMA3A,SRGAP3,FERMT2,MAP2K5,SMPD3,TNN,DAB2,ACTN4,ADAM10,CCL7,ITGA3,PIN1,SYNPO2,CLASP1,HGF,MYLK,CAPN7,INSR,MACF1,PAK1,AKT3,PRKX,ULK4,GNA13,SPRED1,PTPRR,DOCK7,HDAC5,TDGF1,LYVE1,ADARBI,STAT3,AMOT,PAK3,LGALS9,EFCAB1,APC,BMPRI1,DPP4,PRKCA,SPINT2,CTSH,RGCC,SRGAP1,IL6R,CLASP2,FGF1,RCN,RREB1</p>
GO:0035295	tube development	0.00044838776289950265	<p>ISM1,GTTF2,MAPK14,RUNX1,MYO18B,NPHP3,KCNQ1,NRXN1,NRXN3,TGFBF3,CDH13,CSMD1,SDCCAG8,GADD45A,PLXNA4,GPC3,ALDH1A2,CECR3,CCR3,COL22A1,CBFA2T2,ROBO2,C2CD3,PRKACB,COL15A1,AGT,RHOJ,CDH2,LOXL2,GREB1L,CYBB,OTC,NTN1,FUNL3,SLIT2,PDCCD6,SMAD1,BASP1,NOX5,CELSR1,ATRX,RYR2,KIF26B,RORA,CHD7,MECP2,LGR5,PRKD1,TGFB2,FMN1,VAIV3,PLCD3,SEMA5A,SGCD,NR2F2,PML,PLXNA2,BCL2,ARHGAP24,EPHB1,LRP2,TMEM100,VANGL2,EPHA7,NR4A1,RNF213,THBS2,PYY,ENPP2,MME,TNMD,SLC1A1,ZFPM2,RARB,BMPER,PGK1,CTNNBIP1,SOX8,PRKCB,VDR,DLC1,EDNRB,ROBO1,RXFPI,FAP,FLT1,GRHL2,COL2A1,SEC24B,PKHD1,STK3,TGM2,VASH2,KDR,PRCP,EDA,ABCA12,CALCRL,COL18A1,NRP1,PTPRM,SHROOM3,LGR4,ADTRP,THRB,SEMA3C,ATP2,ETSI,RIN2,ADAMTS16,NTRK2,STARD13,GLI3,RAP1A,TGFBF1,CYSLTR1,ADAM12,EP300,TBX3,PCSK5,EMCN,WARS2,NF1,ELK3,TTC8,ASXL1,HDAC9,RALA,JAG1,MEOX2,WWTR1,AGGF1,SHOX2,AH11,SMAD3,COL8A1,RDH10,HDAC7,ITPK1,TNF,COBL,OYOL2,DLG5,PHEX,SIM2,ARID2,CALD1,HMGA2,KIF18A,QKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,EGF,CMA1,KIT,CC2D2A,CPS1,EDAR,RAPGEF2,ESR1,JAK1,SEMA3E,EPHB2,MAP3K3,LRP5,BSG,CAMP,SETD2,ALX4,ARHGAP35,FGF7,LAMA1,MYH9,SLC39A12,SOX4,PIK3CD,ENPEP,AR,SUFU,EYA1,SRPK2,ZMIZ1,MAP2K5,SMPD3,PBX1,RNF207,ITGA3,THSD7A,TGFA,HGF,MYLK,PAK1,SKI,AKT3,PRKX,C1GALT1,GNA13,SPRED1,BTRC,ESRP2,EXT1,TYMP,UMOD,HDAC5,KLHL3,TDGF1,STIM1,STAT3,TP63,AMOT,BRIP1,BMPRI1,PRKCA,SPINT2,CTSH,RGCC,MAP2K1,SOS1,FGF1,TBX20</p>
GO:0030334	regulation of cell migration	0.00045137191200111016	<p>SRGAP2B,PLCB1,CMKLR1,PTPRT,DUSP22,FBLN1,ITGA2,SUN2,NR3G3,CDH13,GADD45A,PLXNA4,FLRT2,NRG1,RFFL,MCTP1,SH3RF2,UNC5D,SEMA6D,CTNNA2,CCR1,TIAM1,RHOC,LDLRAD4,NKD1,SCAI,FBXO31,PHACTR1,AGT,RHOJ,LAMA2,SEMA3D,DACH1,NTN1,ZNF268,RIN3,LAMA4,SLIT2,PDCCD6,IGF1R,PTPRG,VCL,STK24,FRMD5,NTNG1,NTRK3,SH3BP1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,FUT4,S100A11,SEMA5A,LAMA3,NR2F2,PLXNA2,BCL2,KANK1,ENPP2,UNC5C,MTOR,LDB2,BMPER,EPB41L4B,PRKCE,FOXO3,MITF,DLC1,ROBO1,FLT1,KDR,PRCP,APP,NRP1,PTPRM,ADTRP,SEMA3C,ADAM17,CAMK1D,ELP3,ETSI,RIN2,HDAC4,JAM2,MAPRE2,PRKG1,STARD13,RABGEF1,CLDN1,DOCK4,TGFBF1,MAGI2,NF1,SORL1,RELN,HDAC9,SELE,MGAT5,NUMB,NAV3,JAG1,MEOX2,PPP3CA,DOCK10,PTPRU,JAK2,SMAD3,CD300A,PLXNB1,HDAC7,TNF,LRCH1,DLG5,LGR6,ARID2,ADORA3,DOCK1,SMOC2,SULF1,C5AR1,PIK3R3,AMOTL1,SELP,EGF,KIT,TRPV4,RAPGEF2,SEMA3E,MARVELD3,EPHB2,ERBB4,FER,MAP3K3,SLAMF1,BSG,PTPRK,ATP8A1,CCL3,FGF7,LAMA1,SEMA5B,KIF2A,NEDD9,PDGFD,PIK3CD,WDPCP,FGFR1,NTF3,BDKRB1,SEMA3A,SRGAP3,FERMT2,MAP2K5,SMPD3,TNN,DAB2,ACTN4,ADAM10,CCL7,ITGA3,SYNPO2,CLASP1,HGF,MYLK,CAPN7,INSR,MACF1,PAK1,AKT3,PRKX,ULK4,GNA13,SPRED1,PTPRR,DOCK7,HDAC5,TDGF1,LYVE1,ADARBI,STAT3,AMOT,PAK3,LGALS9,APC,BMPRI1,DPP4,PRKCA,CTSH,RGCC,SRGAP1,IL6R,CLASP2,FGF1,RREB1</p>
GO:0055080	cation homeostasis	0.0004832049327445401	<p>CMKLR1,ANK3,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,SLC12A1,TF,SCAR45,RYR3,PLCE1,CCR1,CCR3,CFTR,RAB7A,AGT,ATP6V0D1,PARK2,OTC,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,SGCD,</p>

			GRIN2B,EXT2,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,SLC12A8,PKHD1,TGM2,KDR,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,COMMD1,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,ADORA2A,FAM20A,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,FBXL5,SLC24A2,KL,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,SNX5,ARF1,TRPC4,C5AR1,TRDN,DMXL1,TRPV4,ESR1,HTR2C,SLC30A8,UBE3A,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP6V1H,SCNN1A,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,BTBD9,CALCR,CACNB2,MICU2,TMTC2,JPH4,CORIN,GNA13,CACNA1A,S1PR3,TRPM1,EXT1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,SLC9A9,CASQ2,TMEM175,CNNM3,SLC7A8,UPK3A,UBASH3B,SLC9A2,CCL14,CCL15,MCOLN3,RGN
GO:0099504	synaptic vesicle cycle	0.0005123731856145241	CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,RAB5A,RIMS2,SYNDIG1,ERC2,CDH2,ITSN1,PCDH17,APBA2,SYT9,SYT1,UNC13C,LRRK2,GSK3B,DNAJC6,PRKAR1B,SNAP25,SNAP23,CADPS,ABCA13,NLGN4X,PRKCB,STON1,CASK,RIMS3,OPHN1,DNM3,STXBP5,RAP1A,CHRNA5,ADORA2A,DDC,DGKI,RIMS1,NLGN1,BLOC1S6,P2RX1,UNC13A,UNC13B,P2RX7,RAPGEF4,KIAA1109,STX3,SYT2,BTBD9,CACNB2,SNAP29,FMR1,AMPH,PRKCG,DTNBP1,GAK,RAP1B
GO:0098771	inorganic ion homeostasis	0.0005469476737069162	CMKLR1,ANK3,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,SLC12A1,TF,SCARA5,RYR3,PLCE1,CCR1,CCR3,CFTR,RAB7A,AGT,ATP6V0D1,PARK2,OTC,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,SGCD,GRIN2B,EXT2,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,TBXAS1,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,SLC12A8,PKHD1,TGM2,KDR,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,COMMD1,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,ADORA2A,FAM20A,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,FBXL5,SLC24A2,KL,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,SNX5,ARF1,TRPC4,C5AR1,TRDN,DMXL1,TRPV4,ESR1,HTR2C,SLC30A8,UBE3A,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP6V1H,SCNN1A,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,BTBD9,CALCR,CACNB2,ENPP1,MICU2,TMTC2,JPH4,CORIN,GNA13,CACNA1A,S1PR3,TRPM1,EXT1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,SLC9A9,CASQ2,TMEM175,CNNM3,SLC7A8,UPK3A,UBASH3B,SLC9A2,CCL14,CCL15,MCOLN3,RGN
GO:0018193	peptidyl-amino acid modification	0.0005770296629945985	KMT2C,AGBL1,MAPK14,DUSP22,TTL2,EPHA6,VRK2,NRXN1,SMYD2,CSNK2A1,CEP41,CHEK2,GADD45A,PRDM9,NRG1,PRMT8,STK38L,AGBL4,TET3,ALK,SPOCK3,EPHA3,DCLK1,AGT,ATAT1,LOXL2,TKX,SETD3,HDAC2,TTL8,RPS6KA2,IGF1R,MDM2,TRPC5,DMD,MORF4L1,ATRX,LRRK2,VRK1,NTRK3,DYP30,GALNTL6,MECP2,SEMA4D,GSK3B,PRKD1,ERCC6,OGT,BDNF,PRKCH,RYK,ZDHHC17,MGAT2,KDM4C,ZDHHC14,PML,PPARGC1A,BCL2,EPHB1,IL12RB2,EPHA7,FYN,CD44,PDE4D,ENPP2,CSNK1G3,SETD7,SLC1A1,PHF20,MTOR,ROR1,OGFOD1,PLCL1,EPM2A,PRKCE,KMT2A,PRKCB,CAPN3,DPH6,FLT1,NOX4,MAP3K7,MAPK9,SUPT3H,KDR,APP,NRP1,EGFLAM,KAT5,ZZ3,ADAM17,CAMK1D,CDC42BPG,ATF2,SAMSN1,EFEMP1,ROS1,DOT1L,RPS6KA5,PARD3,TLK2,SGK2,HDAC4,DNMT1,GHR,NTRK2,CD42BP4,BRD4,CAMK4,SPRED2,TGFBF1,PRDX4,EPHA5,TOPI,PEAK1,EP300,MORC3,HMG20A,BRD7,PIBF1,EFNA5,MERTK,BRD1,POR,RELN,GRM5,HDAC9,MGAT5,MAP3K13,NLK,EGLN3,PER1,CBLB,CNTN1,TRIM16,KAT7,THAP7,LRRK1,CNOT7,DNMT3B,JAK2,CD300A,MAP2K4,NOS1,CDK1,HDAC7,MAGT1,MCM3AP,TNF,DYP19L1,STK32B,BCL11A,HMGA2,STK32C,DYRK4,LRP4,WDR5,SAE1,STT3A,TENM1,EGF,KIT,STK32A,JAK1,EPHB2,MECOM,ERBB4,FER,FNIP1,TTL5,ABL2,SETD2,FGF7,GLYR1,NSMCE2,SOX4,NEDD9,PDGFD,AGTPBP1,WDR82,ARID4A,KDM3A,TNKS,AUTS2,FGFR1,ARID4B,DAD1,IL23R,NTF3,ZDHHC11,ZDHHC11B,ZDHHC9,BCOR,EYA1,IFNA8,SRPK2,BDKRB2,GNL3,PRKAA2,RLF,MARK2,ZMIZ1,FLT3,MAP2K5,MARK1,TCL1B,PLCL2,TTL11,PHF20L1,PIN1,RPS6KA6,TRPM4,STK38,BMP6,CIT,TGFA,HGF,CALCR,DYP19L2,SH3BP5,TLK1,KDM4B,MAST4,NOS1AP,INSR,PAK1,AKT3,TESK2,PRKX,MSL2,PCK1,TTN,TAF1,CHD5,FNIP2,FUT8,KANSL1,SPRED1,PRDM16,ZNF451,NCOA1,PRKCG,PRLR,UMOD,DOCK7,TDGF1,UGGT2,PRKCQ,DOCK3,DYP19L3,LRP8,MAPKAPK2,TUSC3,NGF,PRKCA,ABI1,NCAPG2,DPH1,IL6R,MAP2K6,SPTBN4,MAP2K1,ART4
GO:00069	organelle	0.0005879964474120	PLCB1,KMT2C,OMA1,FMNL2,CDC42EP3,ARID1B,TRAPPC8,CEP44,RAB27A,ANXA8L1,HSF2BP,ANK3,AKAP13,VPS13D,SORBS2,NPHP3,

96	organizati on	972	<p> <i>TLL2,KCNQ1,DPF3,SUN2,NUBPL,ATF7IP,NRXN1,ZRANB1,RAB5A,DOCK2,PCNT,MTPN,SMYD2,CLEC16A,HUS1,FGD6,ANK2,PDE4DIP,TF,ERCC4,PIK3C2B,SDCCAG8,CEP41,TMEM108,CHEK2,TUBGCP6,GADD45A,PRDM9,ACIN1,CHAF1A,STXBP6,RAD51D,HYDIN,CECR2,CHCHD6,CLVS2,SUZ12,PLCE1,CTNNA2,BBS9,RHOC,DNAJC15,DPYSL2,REEP3,TET3,ARFIP1,TACC2,PIK3C3,UTRN,SPEF2,RAB7A,PHACTR1,C2CD3,EPHA3,LEMD3,PHACTR3,PSTPIP2,FSIP2,ATAT1,VTI1A,WDR11,ATP6V0D1,RHOJ,ZFYVE1,CDH2,PARK2,BANP,LOXL2,CORO2B,FRMPD4,TLN2,ANKFN1,SETD3,FMNL3,HDAC2,SLIT2,PWP2,TLL8,DYNLL2,PDCD6,RPS6KA2,LCMT1,KRT25,SYT9,CEP97,DMD,SYT1,KRT2,SIPA1L3,CELSR1,FSHR,FMN2,HNRNPA2B1,MAEL,MORF4L1,NCKAP5,MRPS11,WDR83OS,ATRX,ACTR5,FRMD5,TRPM2,CTNNA3,USP16,DIAPH2,KIF3B,TOP3A,UNC13C,LRRK2,VRRK1,NTRK3,NUSAP1,IQCJ-SCHIP1,CHD7,DISC1,DPY30,HEXB,PAN3,WRAP73,CDCA2,PDXP,SH3BP1,MECP2,GSK3B,CDC14A,PRKD1,ERCC6,FRMD6,OGT,FMN1,VAV3,SEMA5A,KRT74,LLGL2,PCDH15,DNAAF2,EMLI,TOR1AIP1,HPS3,WASF1,KDM4C,RAG1,RAG2,FIGN,MREG,PLEKHM2,SNAP25,TUBB1,PML,PPARGC1A,USP36,ARHGAP12,SNAP23,BCL2,CHMP4C,RAD51B,RALBP1,MOV10L1,SMARCE1,SIPA1L1,LRRC4,VANGL2,GDAP1,ARHGEF10,MICAL3,RPGR,PARN,SMARCA4,FLNC,RNF213,KANK1,ATP10B,ACTN2,ATP8A2,DCDC2,FRMD3,NAV2,RAP1GDS1,MYLK3,SETD7,PALLD,PHF20,RFX4,STRIP1,MTOR,RMI2,GAS7,PKP2,UBXN2B,CCDC88B,ERMN,PTPRD,BBS2,MCM3,OGFOD1,EPM2A,CHCHD3,BANF2,EPB41L4B,KLHL1,ZMYND11,EHBP1,IFT88,PRKCE,ATP6V1D,EIF2S1,HELLS,KMT2A,PRKCB,RAB31,SCMH1,SCP2,TRAPPC12,CAPN3,PARD3B,CCDC88C,DLC1,SATB2,TBC1D4,TDRD3,BNIP3L,NASP,STX12,CENPV,LRRC49,MAP7,MAPK9,NEBL,NR3C1,VPS37B,EYA4,SECD2B,MDM1,PKHD1,THSD7B,KDR,PPHLN1,RAB30,TMEM138,NRP1,SHROOM3,TSNARE1,ARHGEF18,ELMO1,IMMP2L,KAT5,RANBP10,ITC12,CYLC2,DIS3L2,PARVG,TUBAL3,CDC42BPG,DIAPH3,ATF2,ETSI,PEXS,SMG6,DOT1L,KPNB1,TCF7L2,TEP1,AFF2,BICD1,PARD3,TLK2,ZNF830,KIFAP3,OPHN1,SAMD9,CCDC88A,TUB,CNN3,STK36,BCL2L1,ADAMTS16,DNAH8,HDAC4,DNMT1,MAPRE2,PRKG1,M1AP,CDC42BPA,BRD4,PTPDC1,STARD13,NINL,SMCHD1,ZNF207,COG7,MORC2,TGFBF1,RRP7A,DYM,EPHA5,TOPI,ITGB3BP,CHAF1B,EP300,RAB2A,SYNE1,CSR2BP,HMG20A,SCFD1,SPAG17,STX8,TRIOBP,SYCP1,GRID2,PARVB,PIBF1,PNPLA3,SAMM50,TRPM7,CCDC170,VPS39,FLNB,SPG11,ADCK1,CABIN1,EFNA5,SPECC1L,BRD1,NF1,RFC3,ARHGAP6,BID,CEP89,IFT80,MND1,TTC8,DMRT1,ASXL1,RELN,USP3,HDAC9,DYNCH1H1,RHPN2,CCDC57,NPHP4,RALA,ILIRAP,NAV3,EXOC5,NEB,PLS1,ATP8B4,CAPZB,CXADR,GNPTAB,SATB1,WWTR1,CESER2,MNAT1,STARD9,TMEM67,GPSM2,KAT7,L3MBTL3,MPRIIP,TMEM135,ASAP1,BORA,FHOD3,MZT1,NLGN1,SH3KBP1,PHACTR2,RAD51API,SYCP2,DDX3X,RBL2,CNOT7,VPS37A,TPCN2,JAK2,AHI1,RP A1,SMAD3,VPS41,BALAP2L1,PTGFRN,PLXNB1,CDK1,HDAC7,MCM3AP,NBN,PRRC2C,TNF,COBL,ATXN10,BLOC1S6,FCHSD2,INO80,AFAPI,ARID2,KATNAL1,SPAG16,ARF1,CALD1,HMGA2,MYO6,KIF18A,GCCLC,RAB23,ACTR8,EPSS8,NUDCD3,DAAM2,L3MBTL4,PABPC1L,TOMM34,ANKRD31,CCP110,CISD2,LRCCH3,WDR5,CDS2,SAE1,TRDN,A MOTL1,PHF8,TMEM11,ZNF423,CDC14B,INSC,CHD6,CTNNA1,TENM1,ARHGEF11,CDKL5,EFHC2,MYH14,PRKARIA,WDR35,ARHGAP11B,BPTF,DYNC2H1,FAM171A1,MLLT3,STX16,EGF,SEC16B,SPIRE2,VPS8,KIT,UBR2,BLM,TRPV4,CC2D2A,DNAJB6,ESR1,MYPN,SEMA3E,SPECC1,FGF13,NUP155,ARMC2,KRT76,MECOM,RNF4,TBCD,TOX,C14ORF39,ERBB4,FER,SPTA1,TDRKH,IFT43,LRP5,TTL5,RPS27L,S LAMF1,ABL2,F11R,FARP2,GAS8,SETD2,VPS13C,ARHGAP35,CD2AP,CCL3,FGF7,MYO7B,PREX1,ARHGAP25,CDKL1,FGD4,KIF2A,MCM9,REEP1,ARF4,ARFGAP3,MYH9,NSMCE2,PACSIN2,SLC39A12,TEKT4,KIF23,MIPEP,NEDD9,SPTB,AGTPBP1,ARID4A,FAM172A,KDM3A,TNKS,UNC13A,WDPCP,AUTS2,MEF2A,MGME1,OCLN,SYNM,UNC13B,ARID4B,MAP2,SLX1B,JMY,NTF3,P2RX7,TEX14,BRD9,ATG2B,BCOR,COG1,HIGD1B,SNX30,C10ORF90,CEP250,EYA1,SRPK2,ARMC9,CENPP,GNL3,L3MBTL1,PRKAA2,ARHGAP10,EPB41L3,KIF4A,MARK2,REEP2,PDLIM5,PPARGC1B,SNX7,VPS16,FERMT2,MARK1,SMPD3,CLN6,HDAC8,LCP1,STX3,ACTN4,BLOC1S5,CCL7,DAAM1,TLL11,NUP153,PINI,SYNPO2,THSD7A,TUBA3C,NME8,SCLT1,SHROOM4,CIT,CLASPI,EIF4ENIF1,SMTNL2,COX16,KATNAL2,PCDHGA3,TGFA,TMEM170A,TMOD1,G3BP2,GAS2,HGF,PKP1,RASSF8,SPATA6,CENPF,MYO1B,TLK1,ELN,KATNA1,KDM4B,MAST4,NOS1AP,SNAP29,ARHGAP28,INSR,MACF1,PAK1,PDE3A,SMIM20,AKT3,CDC16,CTDP1,LIMK2,TESK2,THEM4,CHFR,DKC1,ULK4,ABCD1,BMF,CRMP1,HEPACAM2,MAD1L1,RPGRIPI,ESYT2,SORT1,TTN,CLIP1,KATNBL1,SMARCA1,CH </i> </p>
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			D5,KANSLI,PPP2R3C,KRT4,PRDM16,RBL1,HIRA,MPDZ,OPTN,PGM5,EXT1,IFT81,MYH6,NCAPH2,SCO2,TYMP,UMOD,DOCK7,ELMO2,FBXW11,G3BP1,HDAC5,ICK,TTC29,GOSR2,TTC39C,MYH11,NDE1,PRKCQ,SHPRH,TP63,USP7,AMOT,BRIP1,PAK3,DTNBP1,GAK,TMEM175,ZNF518A,MYOM2,ALPK1,APC,CKAP5,PRKCA,PDS5A,ABII,DHX9,NCAPG2,RGCC,MDN1,SLAH3,TFIP11,SPTBN4,CLASP2,MAP2K1,VPS35,ZRANB3,ATMIN,GOLGA6D,GOLGA8J,PPP1R9A,ZNF501
GO:0048017	inositol lipid-mediated signaling	0.0006227315114778355	TPTE,PLCB1,TPTE2,PIK3C2B,PLCE1,PIK3C3,PLCB4,RGL2,CRNN,A GT,KCNH1,IGF1R,FSHR,NTRK3,SEMA4D,PLCH2,OGT,TGFB2,PLCD3,PRR5,ROR1,PLCL1,FLT1,PREX2,KDR,PIK3R5,MYO16,NTRK2,RASGRP1,GAB2,NF1,RELN,NPR3,JAK2,PLXNB1,TNF,PLCH1,MUC5AC,SELPEL,EGF,KIT,PIK3C2G,UBE3A,ERBB4,PDGFD,PIK3CD,FGFR1,FLT3,PLCL2,PIP5K1B,HGF,PI4KA,INSR,TNFAIP8L3,PIK3R2
GO:0048015	phosphatidylinositol-mediated signaling	0.0006851599055189232	TPTE,PLCB1,TPTE2,PIK3C2B,PLCE1,PIK3C3,PLCB4,RGL2,CRNN,A GT,KCNH1,IGF1R,FSHR,NTRK3,SEMA4D,PLCH2,OGT,TGFB2,PLCD3,PRR5,ROR1,PLCL1,FLT1,PREX2,KDR,PIK3R5,MYO16,NTRK2,RASGRP1,GAB2,NF1,RELN,NPR3,JAK2,PLXNB1,TNF,PLCH1,MUC5AC,SELPEL,EGF,KIT,PIK3C2G,UBE3A,ERBB4,PDGFD,PIK3CD,FGFR1,FLT3,PLCL2,PIP5K1B,HGF,PI4KA,INSR,PIK3R2
GO:0050919	negative chemotaxis	0.0007044960968940587	NRG3,PLXNA4,FLRT2,NRG1,SEMA6D,ROBO2,SEMA3D,NTN1,SLIT2,SEMA4D,SEMA5A,RYK,EPHA7,UNC5C,ROBO1,SEMA3C,LGR6,SLIT3,SEMA3E,SEMA5B,SEMA3A,DPP4
GO:0010977	negative regulation of neuron projection development	0.0007433403169721776	DAB1,DCC,FSTL4,SEMA6D,SPOCK1,CBFA2T2,SEMA3D,NTN1,HDAC2,PTPRG,LRRK2,SEMA4D,SEMA5A,RYK,EPHA7,PMP22,KANK1,FA T3,NRP1,SEMA3C,CD38,DENND5A,DNM3,TNR,PTPN9,DGUOK,NLGN1,BCL11A,LRP4,EFNB2,TRPV4,PTPRO,SEMA3E,UBE3A,FGF13,EPHB2,SEMA5B,MAP2,SEMA3A,DAB2,CRMP1,RIT2,DTNBP1,GAK,KIAA0319
GO:0006836	neurotransmitter transport	0.0007873653154562602	CTBP2,SYN3,GRIN3A,NRXN1,NRXN3,SLC1A2,RAB5A,RIMS2,MCTP1,SLC6A2,PTPRN2,ERC2,PARK2,MCTP2,APBA2,SYT9,SYT1,UNC13C,LRRK2,SLC1A3,GSK3B,SNAP25,SNAP23,NR4A1,SLC1A1,CADPS,PRKCB,GABRA2,CASK,RIMS3,STXBP5,RAP1A,SLC6A17,CHRNA3,CHRNA5,SV2B,ADORA2A,NF1,DDC,DGKI,RIMS1,SLC22A2,NLGN1,SLC22A3,NOS1,BLOC1S6,GRM4,SV2C,P2RX1,UNC13A,UNC13B,P2RX7,STX3,SYT2,KMO,CACNB2,SNAP29,FMR1,PRKCG,DTNBP1,RAP1B,SNCAIP
GO:0002027	regulation of heart rate	0.0008461597099623309	KCNQ1,TNNI3K,ANK2,KCND3,KCNE1,AGT,MDM2,DMD,CTNNA3,RNLS,RYR2,SLC8A1,KCNJ3,KCNE2,PDE4D,SLC1A1,PKP2,PLN,EDNRB,TACR3,CACNA1C,CACNA2D1,CACNA1D,SHOX2,TNF,KCNE4,ADRA1B,SEMA3A,HCN4,TRPM4,CACNB2,NOS1AP,MYH7,MYH6,CASQ2,SPTBN4
GO:0050801	ion homeostasis	0.0008945146795402421	CMKLR1,ANK3,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,SLC12A1,TF,SCAR45,RYR3,PLCE1,CCR1,CCR3,CFTR,RAB7A,AGT,ATP6V0D1,PARK2,OTC,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,SGCD,GRIN2B,EXT2,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,TBXAS1,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,SLC12A8,PKHD1,TGM2,KDR,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,COMMD1,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,ADORA2A,FAM20A,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,FBXL5,SLC24A2,KL,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,SNX5,ARF1,GCLC,TRPC4,C5ARI,TRDN,DMXL1,TRPV4,CPS1,ESR1,HTR2C,SLC30A8,UBE3A,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP6V1H,HCN4,SCNN1A,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,BTBD9,CALCR,CACNB2,ENPP1,MICU2,TMTC2,ABCD1,JPH4,CORIN,FHL1,GNAI3,CACNA1A,PPP2R3C,SIPR3,TRPM1,EXT1,SCO2,UMOD,KLHL3,SLC24A5,SLC40A1,STIM1,SLC9A9,CASQ2,TMEM175,CNNM3,SLC7A8,UPK3A,UBASH3B,SLC9A2,CCL14,CCL15,MCOLN3,RGN
GO:0007417	central nervous system development	0.0009309739948361401	MACROD2,PLCB1,DAB1,ASIC2,DCC,WLS,GRIK1,SUN2,CA10,NRXN1,SHC3,SLC1A2,POTEE,MTPN,SHANK2,NRG3,ARNT2,BCAN,TMEM108,PLXNA4,NRG1,HYDIN,ALDH1A2,SUZ12,SEMA6D,SPOCK1,DRP2,CTNNA2,RBFOX2,AGBL4,DYPYL2,ILIRAPL2,TACC2,ALK,SPEF2,CNTN4,PHACTR1,S100B,ROBO2,C2CD3,DCLK1,ATAT1,ATP6V0D1,CDH11,CDH2,PARK2,MDGA2,NEGR1,GNB4,TRAPPC9,TRIO,HDAC2,SLIT2,TFAP2D,IGF1R,SMAD1,VCAN,PTPRG,DMD,SYT1,BASPI,CELSR1,MBAT7,ATRX,TENM4,LRRK2,NTRK3,RORA,CHD7,DISC1,SOX6,MECP2,GSK3B,SLC8A1,SEMA5A,RYK,KCNC1,EML1,GRIN2B,NR2F2,CNTNAP2,PLXNA2,BCL2,EPHB1,LRP2,NR4A2,EPHA7,FYN,GABRB1,NA

			<i>V2,UNC5C,SLC1A1,RARB,RFX4,MTOR,ROR1,BBS2,KLHL1,SOX8,NLGN4X,FOXO3,KALRN,DLC1,ROBO1,SATB2,ZNF148,GRHL2,COL2A1,SEC24B,STK3,APP,NRP1,IMMP2L,ATF2,ELP3,AFF2,ABAT,GRIN2A,DLX6-AS1,OPHN1,CASP5,STK36,MYO16,NTRK2,PRKG1,GLI3,EPHA5,TNR,SLC6A17,DSCAML1,TBX3,ATXN1,TP73,GRID2,ADORA2A,NF1,RGS7,TTC8,RELN,HAPLN1,KIRREL3,NDRG2,NUMB,PPP3CA,SH3GL2,MAS1,ELAVL4,MNAT1,CNTN1,CHST8,CTTNBP2,AK8,GABRA5,AH11,TAGLN3,TNF,DLG5,POU6F2,PCDH19,DAAM2,TRPC4,C5AR1,CNTN6,HERC1,PHF8,SPATA5,ZNF423,CTNNA1,ARHGAP11B,BPTF,DYNC2H1,EGF,CMA1,RAPGEF2,UBE3A,FGF13,EPHB2,TOX,ERBB4,GAS8,SETD2,ARHGAP35,NHLH2,SOX4,AGTPBP1,ITGA8,MAP2,SUFU,SEMA3A,JRKL,MEIS2,ZMIZ1,PBX1,SRD5A2,RPS6KA6,SHROOM4,CENPF,ZBTB16,SKI,AKT3,ATP5J,FPGS,CCDC141,ZFHX2,TAF1,CHD5,EXT1,DOCK7,FBXW11,ADARBI,KCNC2,NDE1,STAT3,DTNBP1,LRP8,BMPRI1,VLDLR,SPTBN4,MAP2K1,SOS1,TBX20</i>
GO:0055065	metal ion homeostasis	0.0011035068701208696	<i>CMKLR1,ANK3,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,ANK2,FAM155A,SLC12A1,TF,SCARA5,RYR3,PLCE1,CCR1,CCR3,AGT,ATP6V0D1,PARK2,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,SLC1A3,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,SGCD,GRIN2B,EXT2,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,SLC12A8,PKHD1,TGM2,KDR,APP,MT1HL1,GRIN2A,CD38,SLC30A7,COMMD1,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,ADCTA2,FAM20A,TAC4,MICU1,SLC39A8,GRM5,ADCYAP1R1,FBXL5,SLC24A2,KL,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,SNX5,ARF1,TRPC4,C5AR1,TRDN,TRPV4,ESR1,HTR2C,SLC30A8,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,SCNN1A,ATP13A3,GPR55,CCL7,MT1F,TRPM4,BMP6,BTBD9,CALCR,CACNB2,MICU2,TMTC2,JPH4,CORIN,GN A13,CACNA1A,S1PR3,TRPM1,EXT1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,CASQ2,CNNM3,SLC7A8,UPK3A,UBASH3B,CCL14,CCL15,MCOLN3,RGN</i>
GO:0050954	sensory perception of mechanical stimulus	0.001134780787498328	<i>PIEZO2,ASIC2,ITGA2,LOXHD1,KCNQ1,TMPRSS3,KCNE1,MYO3A,CNTN5,SLC1A3,STRC,CHD7,HEXB,CDC14A,PCDH15,LRP2,FYN,DCDC2,NAV2,ROR1,COL11A1,COL2A1,EYA4,THRB,TSPEAR,TUBB,SRRM4,USP53,TRIOBP,GRM7,LHFPL3,CACNA1D,GABRA5,SOBP,TMTC4,TNF,TMC2,MYO6,SCN1A,MYH14,KIT,GABRB2,SLITRK6,MYO7B,MYO3B,PDZD7,CDH23,EYA1,LRIG1,PAX3,TECTA,HPN,TBLIX,USH2A,SPTBN4</i>
GO:0007420	brain development	0.0012207569366897086	<i>MACROD2,PLCB1,DAB1,WLS,SUN2,CA10,NRXN1,SLC1A2,POTEE,MTPN,SHANK2,NRG3,ARNT2,BCAN,TMEM108,PLXNA4,NRG1,HYDIN,ALDH1A2,SEMA6D,CTNNA2,RBFOX2,DYSL2,TACC2,ALK,SPEF2,CNTN4,PHACTR1,ROBO2,C2CD3,DCLK1,ATAT1,ATP6V0D1,CDH2,NEGR1,GNB4,TRAPPC9,SLIT2,TFAP2D,IGF1R,SMAD1,PTPRG,DMD,SYT1,BASPI,MBOAT7,ATRX,LRRK2,RORA,CHD7,DISC1,SOX6,MECP2,GSK3B,SLC8A1,SEMA5A,RYK,KCNC1,EML1,GRIN2B,NR2F2,CNTNAP2,PLXNA2,BCL2,EPHB1,LRP2,NR4A2,EPHA7,FYN,UNC5C,SLC1A1,RARB,RFX4,BBS2,KLHL1,NLGN4X,FOXO3,DLC1,ROBO1,SATB2,ZNF148,GRHL2,SEC24B,APP,NRP1,IMMP2L,ATF2,AFF2,ABAT,GRIN2A,DLX6-AS1,OPHN1,CASP5,STK36,MYO16,NTRK2,PRKG1,GLI3,EPHA5,TNR,SLC6A17,DSCAML1,TBX3,ATXN1,GRID2,NF1,RGS7,TTC8,RELN,KIRREL3,NDRG2,NUMB,PPP3CA,MAS1,ELAVL4,MNAT1,CNTN1,CTTNBP2,AK8,GABRA5,AH11,DLG5,PCDH19,HERC1,PHF8,SPATA5,ZNF423,CTNNA1,ARHGAP11B,BPTF,DYNC2H1,EGF,CMA1,RAPGEF2,UBE3A,FGF13,EPHB2,TOX,ERBB4,GAS8,SETD2,ARHGAP35,NHLH2,AGTPBP1,ITGA8,SEMA3A,MEIS2,ZMIZ1,PBX1,SRD5A2,SHROOM4,CENPF,SKI,AKT3,ATP5J,FPGS,CCDC141,ZFHX2,TAF1,CHD5,EXT1,DOCK7,FBXW11,KCNC2,NDE1,DTNBP1,LRP8,BMPRI1,MAP2K1,SOS1</i>
GO:0050890	cognition	0.001250296541215369	<i>PLCB1,NRXN1,NRXN3,SHANK2,GRIA1,CSMD1,RASGRF1,SORCS3,S100B,AGT,RCAN1,PARK2,DBH,JAKMIP1,CHD7,MECP2,BDNF,PRKAR1B,GRIN2B,RAG1,SNAP25,CNTNAP2,FYN,MME,SLC1A1,CHRM1,ARL6IP5,EPM2A,NLGN4X,GTF2A1L,ADCY8,KALRN,CHL1,APP,KCNK2,AFF2,GRIN2A,NTRK2,CAMK4,TNR,EP300,ATXN1,NF1,TTC8,RELN,GRM5,DGKI,SLC24A2,ELAVL4,MAPK8IP2,TMPRSS11E,GABRA5,SOBP,MAGT1,TNF,TANC1,BRINP1,KCNK10,C5AR1,KIT,DNAH11,UBE3A,FGF13,EPHB2,ATP8A1,ARF4,ITGA8,NTF3,AMFR,HLA-DRA,BHLHB9,MEIS2,ITGA3,SHROOM4,BTBD9,INSR,JPH4,PRKCG,TUSC3,NGF,VLDLR</i>
GO:19025	regulation	0.0012784995553090	<i>TPTE,PLCB1,CMKLR1,MAPK14,TPTE2,SH3RF3,WLS,TIMP3,DUSP22</i>

31	of intracellular signal transduction	633	,AKAP13,FBLN1,VRK2,NRXN1,DOK5,DOCK2,SHANK2,SMYD2,CLEC16A,CDH13,RNF152,CHEK2,GADD45A,NRG1,RFFL,PLCE1,SH3RF2,CCR1, TIAM1, RHOC, RASGRF1, SCAI, ALK, RGL2, S100B, CRNN, LEMD3, AGT, RCAN1, CDH2, PARK2, FHL2, TRIM22, TRIM5, ITSN1, TRIO, MYO9A, SLIT2, PDCD6, LCM1, IGF1R, MDM2, SLC24A4, NR3C2, DMD, SIPA1L3, FSHR, GRM1, WDR83, CAMTA1, LRRK2, NTRK3, RORA, IQCJ-SCHIP1, SH3BP1, SEMA4D, GSK3B, MAGI3, PRKD1, OGT, TGF2, VAV3, SEMA5A, RYK, ZDHHC17, OTUD7A, ANKRD6, ARHGAP8, PRR5, PML, ARHGAP12, AKAP6, TAOK3, BCL2, RALBP1, ZNF675, ARHGAP24, EPHB1, SIPA1L1, LRP2, TMEM100, DEPTOR, ARHGEF10, EPHA7, PSD3, FYN, CHN1, CD44, FOXO1, PDE4D, KANK1, ARHGEF3, GRIK2, NLRP12, MTOR, ROR1, DDX21, BMPER, TIAM2, ARL6IP5, ZMYND11, PRKCE, HELLS, PRKCB, EFHB, CAPN3, KALRN, PJA1, DLC1, OASL, ROBO1, FLT1, NOX4, MAP3K7, PREX2, TRAF3IP2, PKHD1, STK3, TGM2, KDR, ARHGAP15, EDA, APP, NRPI, UACA, ARHGEF18, LINC00473, MAP3K5, PEX5L, PIK3R5, ROSSI, TCF7L2, TNFRSF10B, RALGAP2, TRAF3, OPHN1, BCLAF1, SGMS1, MOB3B, BCL2L1, GHR, MAPRE2, NTRK2, BRD4, RASGRP1, LRRK1, RABGEF1, SPRED2, RAP1A, TGFBRI, PTTG1IP, RAPGEF1, EP300, TP73, RASGRF2, RALGPS1, MAGI2, NF1, RALGPS2, SORL1, ARHGAP6, BID, TRIM59, LZTR1, RELN, GRM5, IL18R1, NDRG2, MAP3K13, ADCYAP1R1, DGKI, PER1, KL, DOK6, WDR59, NLGN1, ARHGAP5, RPS20, AKAP7, LRRK1, MAPK8IP2, DDX3X, ZNF622, ARHGAP39, JAK2, CD300A, PLXNB1, HDAC7, TNF, TNIP1, EIF3A, POMC, PRDM15, DLG5, SHC2, AGO3, UBE2V1, EPS8, C5AR1, DEF6, NET1, SELP, TENM1, ARHGEF11, TNFRSF19, ARHGAP11B, SIPA1L2, EGF, KIT, UBR2, TRPV4, EDAR, RAPGEF2, ESR1, HTR2C, UBE3A, DNMBP, GRM4, MARVELD3, EPHB2, MECOM, NDFIP2, ERBB4, MAP3K3, FNIP1, SLAMF1, ABL2, DEPDC5, F11R, ARHGAP35, CD2AP, CCL3, PREX1, SPRED3, VWF, ARHGAP25, FGD4, IL20RA, GARNL3, PDGFR, PIK3CD, UBE2N, PUM1, AUTS2, FGFR1, PDE11A, NTF3, P2RX7, RASA3, APIP, AR, BDKRB2, ADRA1B, PRKAA2, SEMA3A, ARHGAP10, PDE5A, FLT3, SRGAP3, FERMT2, LTBR, MAP2K5, DAB2, GPR55, ACTN4, CCL7, EEF1E1, EEF1E1- BLOC1S5, ITGA3, PPM1B, PIN1, RPS6KA6, PIP5K1B, STK38, CIT, TGFA, HGF, RALGAP1, CALCR, NOS1AP, ARHGAP28, INSR, PAK1, PDE3A, AKT3, LITAF, RRAGC, ULK4, MAD1L1, ARHGAP42, PPARA, TNFAIP8L3, GN A13, TAF1, CHD5, SPRED1, AKR1C2, BTRC, OPTN, PTPRR, RIT2, FBXW1, TDGF1, USP7, AMOT, DOCK3, PAK3, PIK3R2, RAP1B, KSR1, LGALS9, NFAT5, ALPK1, ITGA1, NGF, PRKCA, CCL14, CCL15, EDA2R, IL6R, MAP2K6, MAP2K1, SOS1, CIOTNF3, FGF1, RGN
GO:0051966	regulation of synaptic transmission, glutamatergic	0.0012859686131720396	GRIK1, NRXN1, CDH2, SYTI, CACNG3, GRM1, LRRK2, DISC1, TPRG1L, GRIK3, GRIK2, OPHN1, TNF, ADORA2A, CACNG2, RELN, GRM5, DGKI, GRM7, NLGN1, MAPK8IP2, TNF, TSHZ3, GRM4, UNC13A, DGKZ, KMO, DTNBP1
GO:0006897	endocytosis	0.0013627884595334323	IGHV1OR21-1, TMPRSS15, IGHV4-31, HEATR5A, IGHV3-64, IGHV1OR15-9, IGHV4OR15-8, ITGA2, TMPRSS2, TMPRSS3, RAB5A, DOCK2, GRIA1, CDH13, ANK2, LRP1B, TF, TMEM108, GPC3, NRG1, SCARA5, ENTHD1, MCTP1, DPYSL2, PIK3C3, RAB7A, EPHA3, RHOJ, LOXL2, ITSN1, RIN3, SYTI, CACNG3, GSG1L, LRRK2, ILDR1, SH3BP1, MTMR2, PRKD1, ATP9B, DNACJC6, WASF1, SNAP25, ARHGAP12, IGHV3-16, RALBP1, LRP2, CD163, CD163L1, NEU3, ENPP2, CSNK1G3, TMPRSS4, ABCA13, EHBP1, NLGN4X, STON1, STON1-GTF2A1L, LRRMT1, RAB31, MSRI, SGIP1, IGHV4-28, APP, CALCRL, ELMO1, IGF2R, BICD1, OPHN1, RIN2, TUB, BCL2L1, GHR, DNMT3, ARR3, RABGEF1, NPC1, ADRBK2, CACNG2, MAGI2, GULP1, SORL1, IGHV4-4, SELE, NUMB, IGHV3OR16-12, PPP3CA, SH3GL2, TBC1D5, ANKRD13A, ATP9A, NLGN1, SH3KBP1, TPCN2, AH11, XKR4, CD300A, SNX5, FCHSD2, ARF1, MYO6, DOCK1, IGLC2, IGLL5, RUFY1, LRP4, EFN2, DMBT1, EGF, UBE3A, IGHV3-72, LRP5, XKR7, ABL2, AP2B1, CD2AP, ARHGAP25, MYH9, PACSIN2, ASGR2, NTF3, KIAA1109, RABGAP1L, SCAMP5, LDLRAD3, ATP6V1H, DAB2, SYT2, BTBD9, INSR, ENPP1, FMR1, IGHV1-69, AMPH, IGHV1-46, APIG2, ESYT2, SORT1, HEATR5B, IGHV1-18, RIT2, DTNBP1, GAK, LRP8, MAPKAPK2, VLDLR
GO:0006941	striated muscle contraction	0.0013869882952329794	DTNA, KCNQ1, TNNI3K, ANK2, KCND3, KCNE1, DMD, CTNNA3, RYR2, SLC8A1, SGCD, MYH8, KCNJ3, KCNE2, NR4A1, PDE4D, ATP8A2, MTOR, PKP2, ATP1A1, PLN, HDAC4, PDE4B, CACNA1C, CACNA2D1, CACNA1D, NOS1, TNF, SCN1A, ARHGEF11, MYH14, TRPV4, RASD1, FGF13, NUP15

	n		5,KCNE4,SYNM,ADRA1B,PDE5A,SMPX,HCN4,RNF207,FGF12,STAC,TRPM4,CACNB2,NOS1AP,TTN,MYH7,MYH6,CASQ2,ASB3,MAP2K6
GO:0043087	regulation of GTPase activity	0.0013924722471696908	RGS6,SGSM1,FGD6,TBC1D22A,PLXNA4,TIAM1,RASGRF1,EPHA3,USP6,MYO9A,SIPA1L3,LRRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,NAV3,ARHGAP12,PLXNA2,RALBP1,ARHGAP24,SIPA1L1,ARHGEF10,CHN1,RAP1GDS1,MTOR,TIAM2,EVI5,EIF2S1,KALRN,TBC1D4,TGM2,ARHGAP15,CPEB2,PKP4,RGS16,RALGAP2,DOCK9,MAPRE2,NTRK2,PRKG1,RASGRP1,RAP1A,EPHA5,RAPGEF1,EFNA5,NF1,RGS7,ARHGAP6,TTC8,TBC1D3B,DGK1,TBC1D5,CBLB,DOCK10,ASAP1,ARAP2,PLXNB1,LRCH1,NET1,CDKL5,SIPA1L2,RAPGEF2,RAPGEF6,ASAP2,F11R,ARHGAP35,CCL3,PREX1,ARHGAP25,FGD4,GARNL3,NEDD9,TBC1D9,NTF3,RASA3,RABGAP1L,GNB5,FERMT2,CCL7,PIN1,RALGAP1,SBF2,ARHGAP42,WDR41,DOCK7,AMOT,CCL14,CCL15,RGN
GO:0055006	cardiac cell development	0.001451861312028437	MYO18B,AKAP13,SORBS2,TGFBR3,AGT,FHL2,SLC8A1,SGCD,AKAP6,ACTN2,MYLK3,MTOR,NEBL,TBX3,JAG1,NEB,CXADR,FHOD3,SHOX2,CDK1,ALPK2,MEF2A,PDLIM5,CTDP1,PPARA,TTN,MYH6,MYH11,BMPRI1,TBX18
GO:0007605	sensory perception of sound	0.0015086788756330345	ASIC2,LOXHD1,KCNQ1,TMPRSS3,KCNE1,MYO3A,CNTN5,SLC1A3,STRC,CHD7,HEXB,CDC14A,PCDH15,LRP2,DCDC2,NAV2,ROR1,COL11A1,COL2A1,EYA4,THRB,TSPEAR,TUB,SRRM4,USP53,TRIOBP,GRM7,LHFPL3,CACNA1D,GABRA5,SOBP,TMTC4,TMC2,MYO6,MYH14,KIT,GABRB2,SLITRK6,MYO7B,MYO3B,PDZD7,CDH23,EYA1,LRIG1,PAX3,TECTA,HPN,TBLIX,USH2A,SPTBN4
GO:2000026	regulation of multicellular organismal development	0.0015172478068950011	ISM1,CDH4,PLCB1,DAB1,UTF2,MAPK14,DSCAM,RUNX1,ASIC2,DCN,NPHP3,NRXN1,CHODL,TGFBR3,FSTL4,ANKH,SYNDIG1,GADD45A,ACINI,PLXNA4,FLRT2,NRG1,IL4R,SEMA6D,CCR1,CCR3,CFTR,RBFOX2,TIAM1,FBXO31,ROBO2,AJAP1,AGT,RHOJ,LOXL2,LAMA2,CYBB,SEMA3D,NTN1,NELL1,HDAC2,LAMA4,SLIT2,PDCC6,SMAD1,TRPC5,BASPI,VCL,FSHR,TENM4,NTRK3,CHD7,DISC1,SOX6,MECP2,MTMR2,SEMA4D,LINGO2,SLC8A1,PRKD1,TGFB2,CLSTN2,SEMA5A,BDNF,PRKCH,RYK,LAMA3,RAG1,RAG2,PML,AKAP6,FBN1,PLXNA2,ZNF675,EPHB1,LRP2,TMEM100,EPHA7,THBS2,ENPP2,ABC10,KLF13,MME,TNMD,ZFPM2,RARB,MTOR,BMPER,PTPRD,TIAM2,PGK1,CTNNBIP1,SOX8,PRKCB,VDR,FOXO3,LRRTM1,MITF,CAPN3,KALRN,ROBO1,FLT1,GRHL2,CRI,TGM2,VASH2,KDR,ABCA12,NRP1,PTPRM,KCNK2,SEMA3C,ATF2,ETS1,NR2C2,EFEMP1,PRTG,PARD3,TRPS1,SOX5,JAM2,NTRK2,RASGRP1,CAMK4,SPRED2,GLI3,TGFBR1,CYSLTR1,ADAM12,DICER1,TNR,CUX1,TBX3,TP73,GRID2,EFNA5,BRD1,NF1,SORL1,POR,RELN,GRM5,LRRTM3,NUMB,MAP3K13,IL1RAP,JAG1,PPP3CA,KLF7,WWTR1,KL,TRIM16,GABPA,KAT7,AGGF1,NLGN1,SHOX2,AH11,SMAD3,PLXNB1,CDK1,TNF,OVOL2,ZFPM1,DLG5,MMP20,BRINP1,BCL11A,HMGA2,MBOAT2,DAAM2,SMOC2,SULF1,CSAR1,LRP4,CLSTN1,CTNNA1,CDKL5,CD109,EGF,CMA1,IL1RAPL1,KIT,RAPGEF2,JAK1,NCMAP,SEMA3E,FGF13,PLAG1,EPHB2,TOX,ERBB4,RBM19,SLITRK6,CAMP,F11R,SGMS2,CCL3,LAMA1,SEMA5B,SPRED3,PSG9,SLC39A12,SOX4,PIK3CD,WDPCC,MAP2,IL23R,KEAP1,P2RX7,BCOR,FGL2,KIAA1109,IL1RL2,HLA-DRA,BHLHB9,L3MBTL1,SEMA3A,CDC73,MEIS2,ZMIZ1,PPARGC1B,SMPD3,GPR55,ADAM10,RPS6KA6,TRPM4,BMP6,CLASP1,HGF,ZBTB16,INSR,MACF1,SKI,AKT3,CTDP1,ENPP1,PRKX,PCK1,PPARA,PPP2R3C,S1PR3,SPRED1,MYH6,PRLR,TYMP,DOCK7,STIM1,STAT3,TP63,AMOT,ISLR2,PAK3,LGALS9,LRP8,BMPRI1,KIAA0319,NGF,PRKCA,UBASH3B,CTSH,RGCC,CLASP2,MAP2K1,SOS1,FGF1,TBX20,RGN,TBX18
GO:0030111	regulation of Wnt signaling pathway	0.0015828650547260003	MAPK14,LYPD6,WLS,NPHP3,ZRANB1,CTNND2,NXN,CSNK2A1,GPC3,PSMB2,SHISA6,TIAM1,NKD1,CDH2,PARK2,ZNRF3,GPC5,WWOX,LRRK2,DISC1,GSK3B,LGR5,SEMA5A,RBMS3,ANKRD6,SMARCA4,HECW1,RNF213,FOXO1,KANK1,DCDC2,CSNK1G3,CTNNBIP1,FOXO3,CDC88C,STK3,EDA,APP,LGR4,TCF7L2,TRABD2B,RNF43,GLI3,RAPGEF1,WIF1,PSMA1,BICC1,IFT80,NLK,NPHP4,JRK,WWTR1,PTPRU,LRRK1,DDX3X,SMAD3,PRDM15,LGR6,DAAM2,SULF1,LRP4,ALPK2,GSKIP,MLLT3,EGF,PTPRO,SULF2,SOX4,TNKS,SOST,AMFR,TLE4,CD73,TNN,DAB2,ITGA3,PPM1B,PIN1,TRPM4,MACF1,PSMB7,SKI,BTRC,G3BP1,SECEL,TBLIX,APC,VPS35,TBX18
GO:0060322	head development	0.001686591513451691	MACROD2,PLCB1,DAB1,WLS,SUN2,CA10,NRXN1,SLC1A2,POTEE,MTN,SHANK2,NRG3,ARNT2,BCAN,TMEM108,PLXNA4,NRG1,HYDIN,ALDH1A2,SEMA6D,CTNNA2,RBFOX2,DPSYL2,TACC2,ALK,SPEF2,CNTN4,ARID5B,PHACTR1,ROBO2,C2CD3,DCLK1,ATAT1,WDR11,ATP6V0D1,CDH2,NEGR1,GNB4,TRAPPC9,SLIT2,TFAP2D,IGF1R,SMAD1,PTPRG,DMD,SYT1,BASPI,MBOAT7,ATRX,LRRK2,RORA,CHD7,DISC1,SOX6,MECP2,GSK3B,SLC8A1,FLVCR1,SEMA5A,RYK,KCNC1,EML1,GRIN2B,NR2F2,CNTNAP2,PLXNA2,BCL2,EPHB1,LRP2,NR4A2,EPH

			A7,FYN,UNC5C,SLC1A1,RARB,RFX4,BBS2,KLHL1,NLGN4X,FOXO3,DLC1,ROBO1,SATB2,ZNF148,GRHL2,COL2A1,SEC24B,APP,NRP1,IMP2L,ATF2,AFF2,ABAT,GRIN2A,DLX6-ASI,OPHN1,CASP5,STK36,MYO16,NTRK2,PRKG1,GLI3,EPHA5,TNR,SLC6A17,EP300,DSCAML1,TBX3,ATXN1,GRID2,DDX10,NF1,RGS7,TTTC8,RELN,KIRREL3,NDRG2,NUMB,PPP3CA,MAS1,ELAVL4,MNAT1,CNTN1,CTTNBP2,AK8,GABRA5,AH11,DLG5,PCDH19,HERC1,PHF8,SPATA5,ZNF423,CTNNA1,ARHGAP11B,BPTF,DYNC2H1,EGF,CMA1,RAPGEF2,UBE3A,FGF13,EPHB2,TOX,ERBB4,GAS8,SETD2,ARHGAP35,NHLH2,AGTPBP1,ITGA8,SEMA3A,ANKRD11,MEIS2,ZMIZ1,PBX1,SRD5A2,SHROOM4,CENPF,SKI,AKT3,LIMK2,ATP5J,FPGS,CCDC141,ZFHX2,TAF1,CHD5,EXT1,DOCK7,FBXW11,KCNC2,NDE1,DTNBP1,LRP8,BMPRI4,MAP2K1,SOS1
GO:1903522	regulation of blood circulation	0.0019131116961912525	ASIC2,KCNQ1,TNNI3K,CELF2,ANK2,KCND3,KCNE1,RYR3,AGT,DBH,MDM2,DMD,CTNNA3,RNLS,RYR2,SLC8A1,TGFB2,KCNJ3,ABCC9,KCNE2,PDE4D,TBXAS1,SLC1A1,PKP2,ATP1A1,PLN,EDNRB,TACR3,THRHR,CD38,HDAC4,PDE4B,CACNA1C,DOCK4,CYSLTR1,ROBO2,CACNA2D1,CXADR,CACNA1D,JAK2,SHOX2,NOS1,TNF,ADORA3,TRDN,FGF13,NUP155,P2RX1,KCNE4,MEF2A,BDKRB2,ADRA1B,SEMA3A,PDE5A,HCN4,RNF207,TRPM4,CHRM3,SMTNL2,CACNB2,NOS1AP,ARHGAP42,CORIN,MYH7,MYH6,CASQ2,ASB3,SPTBN4,TBX18
GO:0043062	extracellular structure organization	0.0022898721202166614	THSD4,RUNX1,FBLN1,ITGA2,COL23A1,ADAMTSL3,FLRT2,FBLN5,COL22A1,HPSE2,PXDN,COL15A1,AGT,LOXL2,TMPRSS6,ADAMTS6,FSHR,NTNG1,TGFB2,COL24A1,ABI3BP,ADAMTS17,WDR72,CSGALNCTI,MMP16,DPT,ADAMTS18,LAMB4,COL11A1,HAS3,RXFPI,FAP,COL2A1,APP,COL18A1,ADTRP,EGFLAM,ST7,ADAMTS16,TGFBRI,PRDX4,TNR,COL4A6,NF1,IMPG1,SLC39A8,TNFRSF11B,COL12A1,ITGA5,COL21A1,EGFL6,SMAD3,COL8A1,TNF,MMP20,SMOC2,SULF1,CMA1,DNAJB6,ITGA9,SULF2,ITGA8,TEX14,SMPD3,LCP1,ADAM10,ITGA3,CLASP1,GAS2,ELN,COL19A1,NTN4,QSOX1,FBLN2,EXT1,ADAMTS5,MYH11,HPN,NID2,DPP4,SPINT2,ADAMTS20,RGCC,CLASP2
GO:0001944	vasculature development	0.002348755008938253	ISM1,ITGF2,MAPK14,RUNX1,MYO18B,SVEP1,NRXN1,NRXN3,TGFB3,CDH13,GADD45A,GPC3,ALDH1A2,CCR3,COL22A1,ROBO2,COL15A1,AGT,RHOJ,CDH2,LOXL2,CYBB,FMNL3,LAMA4,SLIT2,PDCD6,MDM2,SMAD1,ADAMTS6,NOX5,RORA,CHD7,MECP2,PRKD1,FLVCR1,TGFB2,VAV3,PLCD3,SEMA5A,SGCD,NR2F2,PML,ARHGAP24,EPHB1,LRP2,TMEM100,NR4A1,RNF213,THBS2,FOXO1,ENPP2,TNMD,SERPINB7,SLC1A1,ZFPM2,BMPER,PGK1,PRKCB,ROBO1,FAP,FLT1,SEC24B,VASH2,KDR,PRCP,CALCRL,COL18A1,NRP1,PTPRM,ADTRP,IMMP2L,SEMA3C,ATF2,ETS1,TCF7L2,RIN2,DNMT1,NTRK2,STARD13,GLI3,RAP1A,TGFBRI,CYSLTR1,ADAM12,RAPGEF1,TBX3,PCSK5,EMCN,WARS2,NF1,ELK3,HDAC9,JAG1,MEOX2,AGGF1,COL8A1,HDAC7,TNF,OVOL2,ARID2,CALD1,HMGA2,QKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,DYNC2H1,EGF,PTPN14,CMA1,KIT,RAPGEF2,JAK1,SEMA3E,EPHB2,MAP3K3,LRP5,BSG,CAMP,SETD2,AP2B1,LAMA1,MYH9,SLC39A12,SOX4,PDGFD,PIK3CD,ENPEP,SUFU,EYA1,SRPK2,ZMIZ1,MAP2K5,ADAM10,THSD7A,TGFA,HGF,MYLK,AKT3,PRKX,C1GALT1,GNAI3,SPRED1,TYMP,HDAC5,TDGF1,STIM1,STAT3,AMOT,BMPRI4,PRKCA,CTSH,RGCC,IL6R,MAP2K1,SOS1,FGF1,TBX20
GO:0051963	regulation of synapse assembly	0.002564567214437317	ASIC2,NRXN1,SYNDIG1,FLRT2,LRFN5,IL1RAPL2,ROBO2,NEGR1,NTN1,GPC6,NTRK3,SEMA4D,LINGO2,CLSTN2,BDNF,EPHB1,EPHA7,THBS2,PTPRD,LRRTM1,APP,NTRK2,GRID2,EFNA5,LRRTM3,IL1RAP,GPC4,NLGN1,DLG5,CLSTN1,IL1RAPL1,EPHB2,SLITRK6,BHLHB9,PDLM5,VPS35
GO:0006464	cellular protein modification process	0.002568625421892404	TPTE,MACROD2,KMT2C,DAB1,AGBL1,MAPK14,TPTE2,GPHN,SH3RF3,CCNG2,HUNK,PTPRT,DUSP22,AKAP13,FBLN1,ERG,MGAT4C,LARGE,TTL2,ST6GALNAC3,EPHA6,VRK2,NRXN1,ZRANB1,FPGT-TNNI3K,TNNI3K,CPPED1,NRG3,SMYD2,HUS1,TGFB3,RNF152,NXN,CSNK2A1,HLC5,CEP41,CHEK2,GADD45A,PRDM9,NRG1,PSMB2,RFLL,ST8SIA1,SUZ12,PRMT8,PLCE1,SH3RF2,KSR2,STK38L,ABHD17C,SLCO3A1,DTX4,PPMIJ,AGBL4,LDLRAD4,MYO3A,TET3,ALK,PTPRE,PIK3C3,ERC1,FBXO31,SPOCK3,B3GALT5,EPHA3,PRKACB,PTPRN2,DCLK1,AGT,UBE2R2,ATXN3L,ATAT1,FBXO32,RCAN1,KLHL25,PAK2,PGAP3,LOXL2,TRIM51,FBXL7,TRIM22,TRIM5,TRIM9,USP25,DUNCUN1D4,TKX,RNF185,USP40,USP6,FBXO27,PHC1,SETD3,ZNRF3,TIRIO,ATE1,HDAC2,SLIT2,TTL8,PDCD6,RPS6KA2,LCMT1,IGF1R,MDM2,SMAD1,STAMBPL1,TTTC3,PTPRG,PXK,TRIM48,TRPC5,DMD,STK33,KRT2,FSHR,MORF4L1,PRKAR2A,STK24,PDZRN3,GALNT14,MAN2B1,ATRX,PARP16,TPP2,USP16,CAMTA1,LRRK2,MAPK10,VRK1,NTRK3,RNF165,DYP30,PAN3,CDCA2,GALNTL6,KCTD9,PDXP,MECP2,MTMR2,SEMA4D,GSK3B,SLC8A1,CDC14A,PRKD1,SNRK,G2E3,ERC6,OGT,RNF144A,TGFB2,DNAJC6,FUT4,BDNF,PRKARI,PRKCH,RIPK4,RVK,ZDHHC17,MGAT2,KDM4C,OTUD7A,ZDHHC14,EXT2,RAG

			<p> <i>I, RAG2, SIK2, MKRN3, NR2F2, PRR5, PML, PPARGC1A, RNF180, USP36, MYH8, PPP4R4, TAOK3, BCL2, RALBP1, ZNF675, EPHB1, IL12RB2, DEP TOR, EPHA7, FYN, CD44, HECW1, RHBDD1, RNF213, FOXO1, PDE4D, RNF144B, ENPP2, GRK5, RNF217, CSNK1G3, MYLK3, SETD7, SLC1A1, UGCG, MAN1C1, PHF20, NLRP12, MTOR, ROR1, UBE2L6, CTDSPL2, BMPE R, PTPRD, OGFOD1, PLCL1, EPM2A, PRKCE, EIF2S1, KMT2A, PRKCB, A DCY8, CAPN3, DPH6, ITLN1, KALRN, PJA1, TTLL12, CCDC88C, DLCL1, E DNRB, ROBO1, FLT1, NOX4, PIGL, MAP3K7, MAPK9, TRAF3IP2, EYA4, S TK3, SUPT3H, TGM2, KDR, CASK, PHKB, RNF182, APP, NRP1, PTPRM, A DTRP, EGFLAM, KAT5, ST3GAL3, ZZZ3, ADAM17, CAMK1D, MAP3K5, C DC42BPG, ATF2, GRK6, PIK3R5, SAMSNI, EFEMP1, ROS1, CDK17, DOT 1L, RPS6KA5, TNFRSF10B, TRABD2B, PARD3, TLK2, TRAF3, SGK2, CCD C88A, MOB3B, RNF43, RNF126, STK36, GUCY2F, HDAC4, DNMT1, GHR, NTRK2, PRKG1, CDC42BPA, BRD4, PTPDC1, RASGRP1, ARR3, CAMK4, COMMD1, RABGEF1, SPRED2, COG7, PP42, SPRR2E, RAP1A, TGFBRI, USP53, PRDX4, EPHA5, LCP2, TOP1, PEAK1, B4GALT3, CPE, PTTG1IP, S UMF1, CHRNA3, EP300, MORC3, HMG20A, DUSP23, GCNT7, DNMT1, B RD7, NPC1, PIBF1, TRPM7, PSMA1, ADCK1, ADORA2A, ADRBK2, CAMK 2G, EFNA5, FAM20A, MERTK, UBE3C, BRD1, GUCY2C, MAGI2, NF1, PPP 6R2, USP17L5, SORL1, ASB13, TRIM59, LZTR1, ASXL1, POR, RELN, SLC39 A8, USP3, GRM5, HDAC9, PTPN9, ST6GALNAC5, MGAT5, MAP3K13, NL K, EGLN3, FBXL17, FBXL5, MAN1A1, PPP3CA, SH3GL2, SNX25, MAS1, P ER1, WWTR1, CBLB, MNAT1, CNTN1, DGUOK, TRIM16, KAT7, MAPK4, B ORA, PTPRU, THAP7, RNF128, RPS20, LRRK1, MSRA, DDX3X, CNOT7, P A RP8, DNMT3B, JAK2, LMO7, CD300A, MAP2K4, NOS1, TMTC1, TMTC4, C DK1, HDAC7, MAGT1, MCM3AP, NBN, RRR, SLC39A10, TNF, TNIP1, ILF3 ,PIGB, BMP15, PHEX, TRIM23, DPY19L1, PAXBP1, FAM220A, STK32B, B CL11A, HMG2A, NEK4, UBE2E3, STK32C, CDC20B, DYRK4, GALNT8, GC LC, PMPA1, UBE2V1, C5AR1, LRP4, PIK3R3, WDR5, RSRC1, SAE1, STT3 A, TRIM41, HERC1, PHF8, CDC14B, ALPK2, CDK8, CUL2, TENM1, WDFY 2, CDKL5, GSKIP, PRKAR1A, CD109, EGF, PTPN14, KIT, UBR2, BLM, PTP RO, RAPGEF2, STK32A, JAK1, UBE3A, FGF13, EPHB2, MECOM, NDFIP2 ,RNF4, DAPK1, ERBB4, FER, MAP3K3, MINPP1, RSPRY1, FNIP1, LRP5, T TLL5, ABL2, CAMP, SETD2, PTPRK, CCL3, FGF7, LAMA1, RNF138, SPRE D3, CDKL1, GLYR1, ARF4, NSMCE2, SOX4, CAB39L, NEDD9, PDGFD, PI K3CD, UBE2N, AGTPBP1, WDR82, ARID4A, DDB1, IRAK2, KDM3A, MYO 3B, PLAT, TNKS, AUTS2, CDK19, FGFR1, OCLN, PARP15, ARID4B, DAD1, IL23R, KEAP1, MACROD1, NTF3, P2RX7, TEX14, ARRDC4, ZDHHC11, Z DHHC11B, ZDHHC9, AMFR, BCOR, PIGK, TRERF1, C10ORF90, EYA1, IF NA8, N4BP1, SRPK2, BDKRB1, BDKRB2, GNL3, NEK5, PI3, PRKAA2, RLF, CDC73, MARK2, PDE5A, ZMIZ1, FLT3, PTPRA, TRIM72, DYNAP, FERMT 2, MAP2K5, MARK1, SMPD3, DAB2, HDAC8, TCL1B, ADAM10, FRY, PLCL 2, PPM1B, TTLL11, PHF20L1, PIN1, RPS6KA6, SYNPO2, TRPM4, STK38, B MP6, CHRM3, CIT, GALNT5, TGFA, HGF, MYLK, USP31, CALCR, DPY19L 2, POMT2, SH3BP5, TLK1, ZBTB16, KDM4B, MAST4, NOS1AP, INSR, PAK 1, PSMB7, PTPN21, SKI, AKT3, CDC16, CHM, CTDPI, DUSP11, ENPPI, F MR1, LIMK2, TESK2, CHFR, JDP2, PRKX, TMTC2, ULK4, MSL2, SENP8, P CK1, TTN, C1GALT1, SMARCA1, ST6GAL2, TAF1, CHD5, FKN, PDK1, PTPR E, PIK3C3, ERC1, FBXO31, SPOCK3, B3GALT5, EPHA3, PRKACB, PTPRN 2, DCLK1, AGT, UBE2R2, ATXN3L, ATAT1, FBXO32, RCAN1, KLHL25, P A RK2, PGAP3, LOXL2, TRIM51, FBXL7, TRIM22, TRIM5, TRIM9, USP25, D CUN1D4, TXK, RNF185, USP40, USP6, FBXO27, PHC1, SETD3, ZNRF3, T RIO, ATE1, HDAC2, SLIT2, TTLL8, PDCD6, RPS6KA2, LCMT1, IGF1R, MD M2, SMAD1, STAMBPL1, TTC3, PTPRG, PXX, TRIM48, TRPC5, DMD, STK 33, KRT2, FSHR, MORF4L1, PRKAR2A, STK24, PDZRN3, GALNT14, MAN 2B1, ATRX, PARP16, TPP2, USP16, CAMTA1, LRRK2, MAPK10, VRK1, NT RK3, RNF165, DPY30, PAN3, CDCA2, GALNTL6, KCTD9, PDXP, MECP2,</i> </p>
GO:0036211	protein modification process	0.002568625421892404	<p> <i>TPTE, MACROD2, KMT2C, DAB1, AGBL1, MAPK14, TPTE2, GPHN, SH3R F3, CCNG2, HUNK, PTPRT, DUSP22, AKAP13, FBLN1, ERG, MGAT4C, LA RGE, TTLL2, ST6GALNAC3, EPHA6, VRK2, NRXN1, ZRANB1, FPGT- TNNI3K, TNNI3K, CPPED1, NRG3, SMYD2, HUS1, TGFB3, RNF152, NX N, CSNK2A1, HLCS, CEP41, CHEK2, GADD45A, PRDM9, NRG1, PSMB2, R FFL, ST8SIA1, SUZ12, PRMT8, PLCE1, SH3RF2, KSR2, STK38L, ABHD17 C, SLCO3A1, DTX4, PPM1J, AGBL4, LDLRAD4, MYO3A, TET3, CLK, PTPR E, PIK3C3, ERC1, FBXO31, SPOCK3, B3GALT5, EPHA3, PRKACB, PTPRN 2, DCLK1, AGT, UBE2R2, ATXN3L, ATAT1, FBXO32, RCAN1, KLHL25, P A RK2, PGAP3, LOXL2, TRIM51, FBXL7, TRIM22, TRIM5, TRIM9, USP25, D CUN1D4, TXK, RNF185, USP40, USP6, FBXO27, PHC1, SETD3, ZNRF3, T RIO, ATE1, HDAC2, SLIT2, TTLL8, PDCD6, RPS6KA2, LCMT1, IGF1R, MD M2, SMAD1, STAMBPL1, TTC3, PTPRG, PXX, TRIM48, TRPC5, DMD, STK 33, KRT2, FSHR, MORF4L1, PRKAR2A, STK24, PDZRN3, GALNT14, MAN 2B1, ATRX, PARP16, TPP2, USP16, CAMTA1, LRRK2, MAPK10, VRK1, NT RK3, RNF165, DPY30, PAN3, CDCA2, GALNTL6, KCTD9, PDXP, MECP2,</i> </p>

			<p>MTMR2,SEMA4D,GSK3B,SLC8A1,CDC14A,PRKD1,SNRK,G2E3,ERC6,OGT,RNF144A,TGFB2,DNAJC6,FUT4,BDNF,PRKAR1B,PRKCH,RIPK4,RYK,ZDHHHC17,MGAT2,KDM4C,OTUD7A,ZDHHHC14,EXT2,RAG1,RAG2,SIK2,MKRN3,NR2F2,PRR5,PML,PPARGC1A,RNF180,USP36,MYH8,PPP4R4,TAOK3,BCL2,RALBP1,ZNF675,EPHB1,IL12RB2,DEPTOR,EPHA7,FYN,CD44,HECW1,RHBDD1,RNF213,FOXO1,PDE4D,RNF144B,ENPP2,GRK5,RNF217,CSNK1G3,MYLK3,SETD7,SLC1A1,UGCG,MAN1C1,PHF20,NLRP12,MTOR,ROR1,UBE2L6,CTDSPL2,BMPER,PTPRD,OGFOD1,PLCL1,EPM2A,PRKCE,EIF2S1,KMT2A,PRKCB,ADCY8,CAPN3,DPH6,ITLN1,KALRN,PJA1,TTL12,CCDC88C,DLC1,EDNDRB,ROBO1,FLT1,NOX4,PIGL,MAP3K7,MAPK9,TRAF3IP2,EYA4,STK3,SUPT3H,TGM2,KDR,CASK,PHKB,RNF182,APP,NRP1,PTPRM,ADTRP,EGFLAM,KAT5,ST3GAL3,ZZZ3,ADAM17,CAMK1D,MAP3K5,CD42BPG,ATF2,GRK6,PIK3R5,SAMSN1,EFEMP1,ROS1,CDK17,DOT1L,RPS6KA5,TNFRSF10B,TRABD2B,PARD3,TLK2,TRAF3,SGK2,CCDC88A,MOB3B,RNF43,RNF126,STK36,GUCY2F,HDAC4,DNMT1,GHR,NTRK2,PRKG1,CDC42BPA,BRD4,PTPDC1,RASGRP1,ARR3,CAMK4,COMMD1,RABGEF1,SPRED2,COG7,PPA2,SPRR2E,RAP1A,TGFBRI,USP53,PRDX4,EPHA5,LCP2,TOP1,PEAK1,B4GALT3,CPE,PTTG1IP,SUMF1,CHRNA3,EP300,MORC3,HMG20A,DUSP23,GCNT7,TRIOBP,BRD7,NPC1,PIBF1,TRPM7,PSMA1,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20A,MERTK,UBE3C,BRD1,GUCY2C,MAGI2,NF1,PPP6R2,USP17L5,SORL1,ASB13,TRIM59,LZTR1,ASXL1,POR,RELN,SLC39A8,USP3,GRM5,HDAC9,PTPN9,ST6GALNAC5,MGAT5,MAP3K13,NLK,EGLN3,FBXL17,FBXL5,MAN1A1,PPP3CA,SH3GL2,SNX25,MAS1,PER1,WWTR1,CBLB,MNAT1,CNTN1,DGUOK,TRIM16,KAT7,MAPK4,BORA,PTPRU,THAP7,RNF128,RPS20,LRRK1,MSRA,DDX3X,CNO17,PARP8,DNMT3B,JAK2,LMO7,CD300A,MAP2K4,NOS1,TMTC1,TMTC4,CDK1,HDAC7,MAGT1,MCM3AP,NBN,RRH,SLC39A10,TNF,TNIP1,ILF3,PIGB,BMP15,PHEX,TRIM23,DYI19L1,PAXBP1,FAM220A,STK32B,BCL11A,HMGA2,NEK4,UBE2E3,STK32C,CDCC20B,DYRK4,GALNT8,GC1C,PMEP1,UBE2V1,C5AR1,LRP4,PIK3R3,WDR5,RSRC1,SAE1,STT3A,TRIM41,HERC1,PHF8,CDC14B,ALPK2,CDK8,CUL2,TENM1,WDFY2,CDKL5,GSKIP,PRKAR1A,CD109,EGF,PTPN14,KIT,UBR2,BLM,PTPRO,RAPGEF2,STK32A,JAK1,UBE3A,FGF13,EPHB2,MECOM,NDIFP2,RNF4,DAPK1,ERBB4,FER,MAP3K3,MINPP1,RSPRY1,FNIP1,LRP5,TLL5,ABL2,CAMP,SETD2,PTPRK,CCL3,FGF7,LAMA1,RNF138,SPRED3,CDKL1,GLYR1,ARF4,NSMCE2,SOX4,CAB39L,NEDD9,PDGFD,PIK3CD,UBE2N,AGTPBP1,WDR82,ARID4A,DDBI,IRAK2,KDM3A,MYO3B,PLAT,TNKS,AUTS2,CDK19,FGFR1,OCN,PARP15,ARID4B,DAD1,IL23R,KEAP1,MACROD1,NTF3,P2RX7,TEX14,ARRDC4,ZDHHHC11,ZDHHHC11B,ZDHHHC9,AMFR,BCOR,PIGK,TRERF1,C10ORF90,EYA1,IFNA8,N4BP1,SRPK2,BDKRB1,BDKRB2,GNL3,NEK5,PI3,PRKAA2,RLF,CDK73,MARK2,PDE5A,ZMIZ1,FLT3,PTPRA,TRIM72,DYNAP,FERMT2,MAP2K5,MARK1,SMPD3,DAB2,HDAC8,TCL1B,ADAM10,FRY,PLCL2,PPM1B,TTL11,PHF20L1,PIN1,RPS6KA6,SYNPO2,TRPM4,STK38,BMP6,CHRM3,CIT,GALNT5,TGFA,HGF,MYLK,USP31,CALCR,DYI19L2,PTM2,SH3BP5,TLK1,ZBTB16,KDM4B,MAST4,NOS1AP,INSR,PAK1,PSMB7,PTPN21,SKI,AKT3,CDC16,CHM,CTDP1,DUSP11,ENPP1,FMRI,LIMK2,TESK2,CHFR,JDP2,PRKX,TMTC2,ULK4,MSL2,SENP8,PKCK1,TTN,C1GALT1,SMARCA1,ST6GAL2,TAF1,CHD5,FNIP2,FUT8,KANSL1,PPP2R3C,SPRED1,PRDM16,PTPRF,USP29,ZNF451,BTRC,PPP2R2C,PTPRR,RIT2,EXT1,MYH6,NCOA1,PRKCG,PRLR,UMOD,DOCK7,FBXW11,HDAC5,ICK,KLHL3,MTFMT,STK35,TDGF1,UGGT2,WDR70,SEL1L2,TRPM6,ADARB1,FBXL18,PRKCQ,SHPRH,USP7,CDKN3,DOCK3,DPM1,DYI19L3,MOC53,PAK3,STK17B,TBLIX,DTNBP1,GAK,UBE2U,KSR1,LRP8,ALPK1,MAPKAPK2,TUSC3,APC,BMPRI1,ITGA1,NGF,PRKCA,TULP4,UBASH3B,UBE2E2,VLDLR,ASB3,MTMR4,PILRB,ABI1,NCAPG2,RGCC,USP18,DPH1,IL6R,MAP2K6,SLAH3,SPTBN4,MAP2K1,ALG12,ART4,FGF1,RAD18,USP12,RGN</p>
GO:0001568	blood vessel development	0.0026199242429430945	<p>ISM1,GTTF2,MAPK14,RUNX1,MYO18B,NRXN1,NRXN3,TGFB3,CDH13,GADD45A,GPC3,ALDH1A2,CCR3,COL22A1,ROBO2,COL15A1,AGT,RHOJ,CDH2,LOXL2,CYBB,FMNL3,LAMA4,SLIT2,PDCC6,MDM2,SMAD1,ADAMTS6,NOX5,RORA,CHD7,MECP2,PRKD1,FLVCR1,TGFB2,VAV3,PLCD3,SEMA5A,SGCD,NR2F2,PML,ARHGAP24,EPHB1,LRP2,TMEM100,NR4A1,RNF213,THBS2,FOXO1,ENPP2,TNMD,SERPINB7,SLC1A1,ZFPM2,BMPER,PGK1,PRKCB,ROBO1,FAP,FLT1,SEC24B,VASH2,KDR,PRCP,CALCRL,COL18A1,NRP1,PTPRM,ADTRP,SEMA3C,ATF2,ETSI,TCF7L2,RIN2,NTRK2,STARD13,GLI3,RAP1A,TGFBRI,CYSLTR1,ADAM12,RAPGEF1,TBX3,PCSK5,EMCN,WARS2,NF1,ELK3,HDAC9,JAG1,MEOX2,AGGF1,COL8A1,HDAC7,TNF,OVOL2,ARID2,CALD1,HMGA2,QKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,DYNC2H1,EGF,CMA1,RAPGEF2,JAK1,SEMA3E,EPHB2,MAP3K3,LRP5,</p>

			<i>BSG,CAMP,SETD2,AP2B1,LAMA1,MYH9,SLC39A12,SOX4,PDGFD,PIK3CD,ENPEP,SUFU,EYA1,SRPK2,ZMIZ1,MAP2K5,THSD7A,TGFA,HGF,MYLK,AKT3,PRKX,C1GALT1,GNAI3,SPRED1,TYMP,HDAC5,TDGF1,STIM1,STAT3,AMOT,BMPRI1,PRKCA,CTSH,RGCC,IL6R,MAP2K1,SOS1,FGF1,TBX20</i>
GO:0048878	chemical homeostasis	0.0026379091128199686	<i>CMKLR1,ABCG8,ANK3,SLC24A3,ABCG1,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,CSMD1,FAM155A,SLC12A1,TF,SCAR45,RYR3,PLCE1,CCR1,CCR3,CFTR,ZBTB20,FAM3B,RAB7A,PRKACB,PTPRN2,AGT,ATP6V0D1,PARK2,OTC,CP,DBH,KCNMA1,STXBP4,IGF1R,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,FSHR,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,RORA,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCRI,ATP1A4,SGCD,GRIN2B,EXT2,PTGFR,NR5A2,PML,PPARGC1A,AKAP6,ACSM3,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,SMARCA4,FOXO1,PDE4D,TBXAS1,GRIK2,RAP1GDS1,SLC1A1,UGCG,ATP1A1,PLN,HEPFL1,PRKCE,PRKCB,VDR,ADCY8,FOXO3,CAPN3,EDNRB,NOX4,SLC12A8,MALL,PKHD1,TGM2,KDR,PRCP,ABCA12,APP,MT1HL1,OIT3,TM9SF4,TCF7L2,ACSM2A,GRIN2A,HRNR,PYGL,CD38,SLC30A7,BACE2,COMMD1,KCTD7,CACNA1C,CLDN1,CYSLTR1,EPHA5,NCOA5,TTC39B,CACNA2D1,CYP7B1,NPC1,PNPLA3,TRPM7,ADCK1,ADORA2A,EFNA5,FAM20A,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,HDA C9,ADCYAP1R1,CYP39A1,FBXL5,PPP3CA,KLF7,SLC24A2,KL,STIM2,ACOX3,DDX3X,TPCN2,JAK2,SMAD3,NOS1,TMTC4,MIR320B2,SLC39A10,SNX5,POMC,ARF1,ANO1,GCLC,TRPC4,C5AR1,TRDN,LRRRC8D,DMXL1,CMA1,TRPV4,ABCA5,CPS1,ESR1,HTR2C,SLC30A8,UBE3A,LRP5,MALRD1,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,SOX4,P2RX1,ASGR2,DDBI,CDH23,RYR1,UNC13B,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,PRKAA2,THADA,ATP6V1H,HCN4,SCNN1A,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,BTBD9,CALCR,CACNB2,INSR,ENPP1,MICU2,TMTC2,ABCD1,JPH4,PCK1,POLD1,CORIN,FHL1,GNA13,CACNA1A,PPP2R3C,SIPR3,TRPM1,EXT1,SCO2,UMOD,KLHL3,SLC24A5,SLC40A1,STIM1,SLC9A9,STAT3,TP63,PIK3R2,CASQ2,TMEM175,CNNM3,ACSM1,SLC7A8,UPK3A,UBASH3B,CTSH,RPH3AL,SLC9A2,ACACA,CCL14,CCL15,GPR21,C1QTNF3,MCOLN3,RGN</i>
GO:0045229	external encapsulating structure organization	0.0030033911568376937	<i>THSD4,RUNX1,FBLN1,ITGA2,COL23A1,ADAMTSL3,FLRT2,FBLN5,COL22A1,HPSE2,PXDN,COL15A1,AGT,LOXL2,TMPRSS6,ADAMTS6,FSHR,NTNG1,TGFB2,COL24A1,ABI3BP,ADAMTS17,WDR72,CSGALNACTI,MMP16,DPT,ADAMTS18,LAMB4,COL11A1,HAS3,RXFPI,FAP,COL2A1,APP,COL18A1,ADTRP,EGFLAM,ST7,HRNR,ADAMTS16,TGFBRI,PRDX4,TNR,COL4A6,NF1,IMPG1,SLC39A8,TNFRSF11B,COL12A1,ITGAE,COL21A1,EGFL6,SMAD3,COL8A1,TNF,MMP20,SMOC2,SULF1,CMA1,DNAJB6,ITGA9,SULF2,ITGA8,SMPD3,LCPI,ADAM10,ITGA3,CLASP1,GAS2,ELN,COL19A1,NTN4,QSOX1,FBLN2,EXT1,ADAMTS5,MYH11,HPN,NID2,DPP4,SPINT2,ADAMTS20,RGCC,CLASP2</i>
GO:0016079	synaptic vesicle exocytosis	0.003027017983120912	<i>CTBP2,GRIN3A,NRXN3,RAB5A,RIMS2,ERC2,APBA2,SYT9,SYTI,UNC13C,LRRK2,GSK3B,SNAP25,SNAP23,CADPS,PRKCB,CASK,RIMS3,STXBP5,RAP1A,CHRNA5,ADORA2A,DGKI,RIMS1,NLGN1,BLOC1S6,P2RX1,UNC13A,UNC13B,P2RX7,STX3,SYT2,CACNB2,SNAP29,FMRI,PRKCG,DITNBP1,RAP1B</i>
GO:0031589	cell-substrate adhesion	0.003053564880272794	<i>DUSP22,FBLN1,ITGA2,CDH13,FBLN5,SPOCK1,TIAMI,UTRN,EPHA3,AJAP1,CORO2B,DMD,VCL,SKAP1,NTNG1,STRC,DISC1,GSK3B,FMN1,ABI3BP,EDIL3,BCL2,EPHB1,CD44,KANK1,ACTN2,LAMB4,MEGF9,PRKCE,DLC1,PKHD1,KDR,CASK,EDA,NRP1,EGFLAM,PARVG,ITGA11,ATRNL1,RIN2,PEAK1,CD96,TRIOBP,PARVB,TRPM7,EFNA5,MERTK,NF1,ARHGAP6,JAG1,FREM1,EGFL6,JAK2,SMAD3,COL8A1,PPF1A2,DOCK1,VWC2,PTPRO,SEMA3E,TBCD,FER,PTPRK,PREX1,VWF,NEDD9,ITGA8,WDCP,ITGBL1,ITGB7,PTPRA,FERMT2,TNN,DAB2,ACTN4,ITGA3,EPDR1,CLASP1,MACF1,TESK2,PRKX,NTN4,FBLN2,TECTA,LYVE1,USH2A,NID2,ITGA1,CLASP2,RREB1</i>
GO:0007215	glutamate receptor signaling pathway	0.0032903300652445612	<i>PLCB1,GRIK1,GRIN3A,GRIA1,GRID1,GRIA4,GRM1,GRIN2B,GRIK3,FYN,GRIK2,SLC1A1,APP,GRIN2A,GRID2,GRM5,GRM7,GRIA3,GRIK4,GRM4,GRIA2,FMRI,TRPM1</i>
GO:0051960	regulation of nervous system development	0.0033936722050743467	<i>CDH4,DAB1,DSCAM,ASIC2,DCC,NPHP3,NRXN1,CHODL,FSTL4,SYNDIG1,PLXNA4,FLRT2,SEMA6D,TIAMI,FBXO31,ROBO2,SEMA3D,NTN1,HDAC2,SLIT2,TRPC5,TENM4,NTRK3,CHD7,DISC1,MTMR2,SEMA4D,LINGO2,CLSTN2,SEMA5A,BDNF,PRKCH,RK,PLXNA2,EPHB1,LRP2,EPHA7,THBS2,MME,MTOR,PTPRD,TIAM2,SOX8,LRRTM1,KALRN,ROBO1,TGM2,NRP1,SEMA3C,PRTG,PARD3,JAM2,NTRK2,GLI3,DICER1,TNR,CUX1,TP73,GRID2,EFNA5,NF1,SORL1,RELN,GRM5,LRRTM3,NUMB,MAP3K13,IL1RAP,PPP3CA,NLGN1,SHOX2,PLXNB1,TNF,DLG5,BRINP1,BCL11A,DAAM2,LRP4,CLSTN1,CTNNA1,CDKL5,IL1RAPL1,KIT,RAPGEF2,NCMAP,SEMA3E,FGF13,PLAG1,EPHB2,SLITRK</i>

			6,SEMA5B,MAP2,BHLHB9,SEMA3A,HGF,MACF1,SKI,TYMP,DOCK7,ISLR2,PAK3,LRP8,BMPRI1,KIAA0319,NGF,MAP2K1
GO:0055013	cardiac muscle cell development	0.003585796063452421	MYO18B,AKAP13,SORBS2,AGT,FHL2,SLC8A1,SGCD,AKAP6,ACTN2,MYLK3,MTOR,NEBL,TBX3,NEB,CXADR,FHOD3,SHOX2,CDK1,ALPK2,MEF2A,PDLIM5,CTDP1,PPARA,TTN,MYH6,MYH11,BMPRI1,TBX18
GO:008601	cardiac muscle cell action potential	0.003585796063452421	ANK3,KCNQ1,ANK2,KCND3,KCNE1,DMD,CTNNA3,RYR2,SLC8A1,KCNJ3,KCNE2,PKP2,ATP1A1,CACNA1C,CACNA2D1,CXADR,CACNA1D,SCN1A,FGF13,NUP155,KCNE4,HCN4,RNF207,FGF12,TRPM4,CACNB2,NOS1AP,TBX18
GO:0008016	regulation of heart contraction	0.003612264069926909	KCNQ1,TNNI3K,CELF2,ANK2,KCND3,KCNE1,RYR3,AGT,MDM2,DM D,CTNNA3,RNLS,RYR2,SLC8A1,TGFB2,KCNJ3,ABCC9,KCNE2,PDE4D,SLC1A1,PKP2,ATP1A1,PLN,EDNRB,TACR3,THRB,HDAC4,PDE4B,CACNA1C,KCNJ12,CACNA2D1,CXADR,CACNA1D,JAK2,SHOX2,NOS1,TNF,ADORA3,TRDN,FGF13,NUP155,KCNE4,MEF2A,ADRA1B,SEMA3A,PDE5A,HCN4,RNF207,TRPM4,CACNB2,NOS1AP,CORIN,MYH7,MYH6,CASQ2,ASB3,SPTBN4,TBX18
GO:0048588	developmental cell growth	0.003774409372219028	CDH4,DSCAM,DCC,AKAP13,SORBS2,RIMS2,FSTL4,TMEM108,SYT17,PLXNA4,SEMA6D,DYSL2,DCLK1,AGT,PARK2,SEMA3D,NTN1,SLIT2,TRPC5,SYT1,VCL,DISC1,SEMA4D,GSK3B,SEMA5A,BDNF,RYK,WSF1,AKAP6,EPHA7,APP,NRP1,SEMA3C,ALCAM,TNR,SPG11,EFNA5,MAP3K13,SH3GL2,RIMS1,COBL,BCL11A,CDKL5,SLIT3,SEMA3E,FGF13,SEMA5B,UNC13A,AUTS2,MAP2,SEMA3A,PDLIM5,TNN,SYT2,MACF1,CTDP1,PPARA,EXT1,ISLR2,KIAA0319,NGF,CLASP2
GO:0018105	peptidyl-serine phosphorylation	0.0038508227395507937	MAPK14,VRK2,NRXN1,CSNK2A1,CHEK2,GADD45A,STK38L,DCLK1,RPS6KA2,DMD,LRRK2,VRK1,NTRK3,GSK3B,PRKD1,ERCC6,BDNF,PRKCH,BCL2,CD44,PDE4D,CSNK1G3,SLC1A1,MTOR,PLCL1,EPM2A,PRKCE,PRKCB,MAPK9,APP,CAMK1D,RPS6KA5,TLK2,SGK2,NTRK2,CAMK4,TGFBF1,TOPI,MORC3,MAP3K13,NLK,NOS1,CDK1,TNF,STK32B,HMGA2,STK32C,DYRK4,TENM1,STK32A,FNIP1,TNKS,NTF3,IFN4,SRPK2,BDKRB2,PRKAA2,MARK2,MARK1,TCL1B,PLCL2,RPS6KA6,STK38,HGF,CALCR,TLK1,MAST4,PAK1,AKT3,PRKX,PCK1,TAF1,FNIP2,PRKCG,DOCK7,TDGF1,PRKCQ,MAPKAPK2,NGF,PRKCA,SPBN4
GO:0030198	extracellular matrix organization	0.0039038803118613343	THSD4,RUNX1,FBLN1,ITGA2,COL23A1,ADAMTSL3,FLRT2,FBLN5,COL22A1,HPSE2,PXDN,COL15A1,AGT,LOXL2,TMPRSS6,ADAMTS6,FSHR,NTNG1,TGFB2,COL24A1,ABI3BP,ADAMTS17,WDR72,CSGALNACT1,MMP16,DPT,ADAMTS18,LAMB4,COL11A1,HAS3,RXFP1,FAP,COL2A1,APP,COL18A1,ADTRP,EGFLAM,ST7,ADAMTS16,TGFBF1,PRDX4,TNR,COL4A6,NF1,IMPG1,SLC39A8,TNFRSF11B,COL12A1,ITGAE,COL21A1,EGFL6,SMAD3,COL8A1,TNF,MMP20,SMOC2,SULF1,CM A1,DNAJB6,ITGA9,SULF2,ITGA8,SMPD3,LCP1,ADAM10,ITGA3,CLASP1,GAS2,ELN,COL19A1,NTN4,QSOX1,FBLN2,EXT1,ADAMTS5,MYH11,HPN,NID2,DPP4,SPINT2,ADAMTS20,RGCC,CLASP2
GO:0048585	negative regulation of response to stimulus	0.003932303858383546	DAB1,MAPK14,PTPRT,TIMP3,DUSP22,FBLN1,NPHP3,RGS6,GRIN3A,NRXN1,SHANK2,TGFBF3,FSTL4,RNF152,NXN,CSNK2A1,ERCC4,CH EK2,GPC3,NRG1,PSMB2,SHISA6,RFFL,IL4R,LRFN5,MCTP1,SH3RF2,SEMA6D,CTNNA2,LDLRAD4,RGS7BP,CBFA2T2,NKD1,SCAI,PTPRE,ZNF536,RAB7A,ROBO2,ZNF366,PRKACB,PXDN,AJAP1,LEMD3,AGT,RCAN1,CDH2,PARK2,FHL2,KIR2DL4,BPIFB1,SEMA3D,USP25,TSPA N8,ZNRF3,RIN3,HTRA1,SLIT2,PDCD6,IGF1R,MDM2,SLC24A4,TMPRSS6,DMD,WWOX,LRRK2,RORA,SH3BP1,MTMR2,SEMA4D,GSK3B,ERCC6,TGFB2,SEMA5A,BDNF,RBMS3,RYK,OTUD7A,ANKRD6,ARHGA P12,FBN1,TAOK3,BCL2,ZNF675,ARHGAP24,LRP2,DEPTOR,NR4A2,FYN,ADAMTS18,SMARCA4,CD44,HECW1,RNF213,FOXO1,PDE4D,KANK1,TNMD,CELF4,RFX4,NLRP12,MTOR,RMI2,CTDSPL2,BMPER,PTPRD,BBS2,CTNBNIP1,ZMYND11,NLGN4X,HELLS,PRKCB,ADCY8,F OXO3,TTL12,CCDC88C,DLC1,ROBO1,FAP,COL2A1,CR1,EYA4,PK HD1,STK3,CASK,CALCRL,NRP1,UACA,LGR4,LINC00473,SERPING1,ADTRP,SEMA3C,ADAM17,TFPI,SAMSN1,TGFBF11,RGS16,TCF7L2,T RABD2B,BICD1,ABAT,RNF43,CHRD1,RNF126,BCL2L1,PDE4B,PRK G1,BRD4,ARR3,RABGEF1,SPRED2,GLI3,SMCHD1,TGFBF1,TNR,NC OA5,CHST11,PTTG1IP,RAPGEF1,CD96,WIF1,CYP7B1,GRAMD4,GRID2,PIBF1,PSMA1,ADORA2A,ADRBK2,MAGI2,NF1,RGS7,SORL1,STR N3,BICC1,BID,IFT80,TRIM59,LZTR1,ASXL1,GRM5,IL1RL1,NDRG2,N LK,NPHP4,KLF7,SNX25,PER1,WWTR1,CBLB,PTPRU,MAPK8IP2,VEP H1,DDX3X,CNOT7,SMAD3,CD300A,AATF,HDAC7,TNF,OVOL2,SNX5,TNIP1,EIF3A,PRDM15,DLG5,MLIP,HMGA2,GCLC,PMEP1,LTBP1,SULF1,LRP4,ALPK2,CTNNA1,MLLT3,CD109,SLIT3,UBR2,VWC2,PTP

			RO,ESR1,SEMA3E,MARVELD3,EPHB2,MECOM,FER,MAP3K3,FNIP1,SLAMF1,ABL2,DEPDC5,VPS13C,ARHGAP35,CD2AP,SEMA5B,SPRED3,TNFAIP8L2,ARHGAP25,SULF2,PLAT,PDE11A,RGS3,SOST,P2RX7,RASA3,AMFR,AR,FGL2,SUFU,EYA1,BDKRB2,DGKZ,PRKAA2,SEMA3A,TLE4,PROS1,TRIM72,MAP2K5,TNN,DAB2,ITGA3,FANCB,PLCL2,PPM1B,PIN1,RPS6KA6,STK38,CIT,CLASP1,TGFA,HGF,RGS12,PDE3A,PSMB7,SKI,AKT3,ELF1,ENPP1,LITAF,MAD1L1,ARHGAP42,CD84,PPARA,SPRED1,PRDM16,RBL1,ZNF451,BTRC,CCDC3,OPTN,PTPRR,FBXW11,G3BP1,A2M,PRKCQ,SUSD4,TP63,PIK3R2,LGALS9,AOAH,APC,DPP4,ITGA1,KIAA0319,UBASH3B,MTMR4,RPH3AL,USP18,GPR21,TFIP11,CLASP2,VPS35,C1QTNF3,TBX20,C6ORF106,NLRC5,TBX18
GO:1902476	chloride transmembrane transport	0.004523782674922888	GABRB3,GABRG3,ANO2,ANO4,SLC12A1,CFTR,GABRG1,SLC1A3,SLC26A7,GABRB1,SLC1A1,SLC12A8,GABRA2,GLRA2,GLRA1,GABRA3,GABRA5,ANO1,GABRR2,GABRB2,ANO3,GLRA3,SLC26A8,GABRA1,GABRR3,GABRG2
GO:0010243	response to organonitrogen compound	0.004707326426909229	PLCB1,GABRB3,MAPK14,ARID1B,ITGA2,KCNQ1,SLC1A2,BCKDHB,TGFBF3,CDH13,HLCS,KCNE1,PSMC6,PSMB2,SPIDR,RYR3,KYNU,GPL2R,CFTR,ALK,PTPRE,PIK3C3,AGT,CHRM5,PARK2,CYBB,OTC,USP25,RNF185,DBH,FBXO27,HDAC2,SLIT2,STXBP4,IGF1R,MDM2,SLC24A4,HCCN1,TRPM2,RNLS,RYR2,LRRK2,SLC1A3,PDXP,GSK3B,SLC8A1,OGT,KCNC1,SIK2,AKAP6,FBN1,ITPR2,NR4A2,ABCC9,FYN,GNRHR,NR4A1,RHBDD1,CASP6,FOXO1,PDE4D,KANK1,ACTN2,GABRB1,SLC1A1,MTOR,CHRM1,PRKCE,PRKCB,ADCY8,FOXO3,RAB31,EDNRB,TBC1D4,TACR3,TGM2,APP,ADTRP,CPEB2,ATF2,ABAT,GRIN2A,BCL2L1,PDE4B,DNMT1,GHR,GLRA2,NTRK2,GNG2,SDK1,RAP1A,NCOA5,RAPGEF1,CACNA2D1,GLRA1,TP73,COL4A6,NPC1,PNPLA3,ADORA2A,RGS7,TFF1,SORL1,HTR4,POR,GRM5,HDAC9,DDC,JAG1,MAN1A1,PPP3CA,KLF3,GLDC,MAS1,PER1,KL,ELAVL4,TMEM67,TRIM16,GABPA,KAT7,P2RX6,AKAP7,FOXRED2,NSG1,JAK2,BALAP2L1,CDK1,TNF,ANX1,SNX5,POMC,PHEX,SRSF4,BCL11A,ANO1,GCLC,C5AR1,GNAL,PIK3R3,TRIM41,CTNNA1,NSG2,UBR2,BLM,TRPV4,CPS1,RAPGEF2,REG1B,HTR2C,UBE3A,GABRB2,EPHB2,ABCC1,FER,BSG,CAMP,VPS13C,CYP2E1,P2RX1,PDGFD,PLAT,RYR1,GLRA3,P2RX7,AMFR,CASP7,GNB5,FLT3,PPARGC1B,PTPRA,TRIM72,GNAO1,HCN4,SMPD3,SRD5A2,UROS,TRPM4,ERLIN1,CHRM3,CALCR,INSR,PDE3A,ENPP1,RAGC,IDE,PCK1,PPARA,SORT1,TAF1,CACNA1A,EXT1,PRKCG,UMOD,HDAC5,UGGT2,SEL1L2,STAT4,KCNC2,PRKCQ,STAT3,BRIP1,PIK3R2,CASQ2,DTNBP1,RAP1B,APC,GABRG2,GPR21,VPS35
GO:0106027	neuron projection organization	0.0049918721516623256	CTNND2,ZNF804A,IGF1R,LRRK2,MTMR2,GSK3B,GRIN2B,EPHB1,SIPIA1L1,FYN,KALRN,TANC2,APP,DNM3,RELN,PLS1,DOCK10,NLGN1,PPFIA2,TANC1,ARF1,UBE3A,EPHB2,BHLHB9,PDLIM5,ITGA3,INSR,ABCD1,PAK3,DTNBP1,LRP8,VPS35
GO:0010647	positive regulation of cell communication	0.005015821296598484	PLCB1,SH3RF3,CTBP2,LYPD6,ANK3,WLS,TIMP3,DUSP22,AKAP13,ITGA2,NRXN1,ZRANB1,DOK5,RIMS2,SHANK2,CLEC16A,TGFBF3,CDH13,CSNK2A1,TMEM108,GADD45A,GPC3,NRG1,PSMB2,PLCE1,SH3RF2,CCR1,CFTR,RHOC,RASGRF1,NKD1,ALK,RGL2,S100B,ROBO2,AGT,CDH2,PARK2,LAMA2,TRIM22,TRIM5,TKK,GPC5,IGF1R,NR3C2,SYT1,CACNG3,FSHR,GRM1,WWOX,TRPM2,CAMTA1,LRRK2,SLC1A3,NTRK3,ILDR1,IQCJ-SCHIP1,RNF165,DISC1,MECP2,SEMA4D,GSK3B,LGR5,PRKD1,TGFB2,CLSTN2,SEMA5A,BDNF,PRKCH,RYK,ZDHHC17,WASF1,GRIN2B,ANKRD6,ARHGAP8,PRR5,SNAP25,PML,AKAP6,TAOK3,LRP2,FYN,SMARCA4,CD44,NEU3,KANK1,ARHGEF3,ATF6,DCDC2,MME,CSNK1G3,GRIK2,IGSF11,SLC1A1,NLRP12,ROR1,DDX21,BMPER,ARL6IP5,PRKCE,PRKCB,ADCY8,LRRTM1,OASL,ROBO1,FLT1,NOX4,MAP3K7,MAPK9,TRAF3IP2,STK3,TGM2,KDR,EDA,APP,NRP1,LGR4,ADAM17,MAP3K5,PIK3R5,TGFB11,TCF7L2,TNFRSF10B,TRAF3,ABAT,GRIN2A,RIMS3,BCLAF1,CCDC88A,CD38,STK36,GHR,MAPRE2,NTRK2,ACSL4,BRD4,RASGRP1,LY86,SPRED2,RAP1A,TGFBF1,TNR,RAPGEF1,EP300,TP73,PIBF1,RASGRF2,PSMA1,ADORA2A,CACNG2,NF1,SORL1,BID,ASXL1,POR,RELN,GRM5,IL18R1,MGAT5,MAP3K13,ADCYAP1R1,JAG1,JRK,DGKI,SLC24A2,KL,DOK6,RIMS1,TRIM16,WDR59,NLGN1,RPS20,LRRK1,MAPK8IP2,DDX3X,NSG1,ZNF622,JAK2,SHOX2,SMAD3,CD300A,PLXNB1,MIR320B2,SLC39A10,TNF,SNX5,POMC,PRDM15,BMPI5,DLG5,LGR6,SHC2,AGO3,ANO1,UBE2V1,DAAM2,SMOC2,SULF1,C5AR1,CNTN6,TRDN,NET1,ZNF423,CLSTN1,SELP,CTNNA1,TENM1,TSHZ3,GSKIP,TNFRSF19,DYNC2H1,MLLT3,MYRIP,EGF,KIT,TRPV4,EDAR,RAPGEF2,HTR2C,SLC30A8,UBE3A,GRM4,EPHB2,NDFIP2,ERBB4,MAP3K3,FNIP1,SLAMF1,F11R,GAS8,CCL3,VWF,IL20RA,SULF2,SOX4,PDGFD,PIK3CD,UBE2N,ITGA8,PUM1,TNKS,AUTS2,FGFR1,IL23R,NTF3,P2RX7,SCUBE1,AR,ADRA1B,ARMC9,MIR433,SEMA3A,IL23R,NTF3,P2RX7,SCUBE1,AR,ADRA1B,ARMC9,MIR433,SEMA3A,

			<i>CDC73,PDE5A,ZMIZ1,FLT3,FERMT2,LTBR,MAP2K5,DAB2,GPR55,STX3,ACTN4,CCL7,EEF1E1,EEF1E1-BLOC1S5,KMO,LGII,PPM1B,PINI,TRPM4,CD226,BMP6,TGFA,HGF,CALCR,SCUBE3,CACNB2,NOS1AP,INSR,MACF1,PAK1,PSMB7,SKI,AKT3,FMRI,LITAF,RRAGC,EVC,MFNG,TNFAIP8L3,CHD5,SPRED1,AKR1C2,CHSY1,RIT2,PRKCG,PRLR,TDGF1,SCEL,STAT3,TP63,TBL1X,DTNBP1,RAP1B,KSR1,LGALS9,NFAT5,ALPK1,IL10RB,BMPR1A,ITGA1,KIAA0319,NGF,PRKCA,ADAMTS20,CTSH,RPH3AL,CCL14,CCL15,EDA2R,IL6R,MAP2K6,MAP2K1,SOS1,VPS35,C1QTNF3,FGF1,TBX20,CRADD,NLRC5</i>
GO:0099560	synaptic membrane adhesion	0.005128724176777235	<i>MAPK14,NRXN1,LRRC4C,NRG1,LRFN5,GPC6,PCDH17,NTNG1,LRRC4,PTPRD,EFNA5,IL1RAP,GPC4,NLGN1,PTPRF</i>
GO:0007214	gamma-aminobutyric acid signaling pathway	0.005128724176777235	<i>GABRB3,GABRG3,GABBR2,GABRG1,GABRB1,PLCL1,GABRA2,GABRA3,GABRA5,GABRR2,GABRB2,PLCL2,GABRA1,GABRR3,GABRG2</i>
GO:0007169	transmembrane receptor protein tyrosine kinase signaling pathway	0.0052118455571643066	<i>PLCB1,MAPK14,PTPRT,SVEP1,EPHA6,NRXN1,SHC3,DOK5,NRG3,FSHL4,CDH13,TMEM108,FLRT2,NRG1,PLCE1,TIAM1,ALK,PTPRE,RAB7A,ARID5B,EPHA3,AGT,PDCD6,STXBP4,IGF1R,PTPRG,FSHR,NTRK3,CD8B,ANKS1A,GSK3B,PRKD1,OGT,ANKS1B,BDNF,RYK,ZDHC17,WASF1,SIK2,EPHB1,SIPA1L1,EPHA7,FYN,CHN1,NEU3,FOXO1,KANK1,TNMD,ROR1,PRKCB,KALRN,ROBO1,FLT1,KDR,NRP1,ADAM17,IGF2R,EFEMP1,ROS1,RPS6KA5,CCDC88A,FAM83B,RNF126,GHR,NTRK2,RABGEF1,KIF16B,EPHA5,LCP2,NCOA5,RAPGEF1,CHRNA3,GAB2,COLA4A,EFNA5,MERTK,NF1,SORL1,KL,CBLB,DOK6,JAK2,AHI1,BAIAP2L1,SNX5,SHC2,SMOC2,SULF1,PIK3R3,EFNB2,EGF,KIT,EFNB1,RAPGEF2,EPHB2,ERBB4,FER,SHCBP1,FGF7,SULF2,NEDD9,PDGFD,PIK3CD,PLAT,FGFR1,NTF3,AR,BDKRB2,FLT3,PTPRA,TRIM72,SMPD3,FGF12,TGFA,HGF,INSR,PAK1,ENPP1,IDE,SORT1,PTPRR,EXT1,PRLR,PRKCQ,STAT3,PAK3,PIK3R2,BLNK,MAPKAPK2,APC,ITGA1,NGF,UBASH3B,PILRB,ABII,GPR21,CLASP2,SOS1,FGF1</i>
GO:0051345	positive regulation of hydrolase activity	0.005393920243867876	<i>BCL2L13,FBLN1,ITGA2,RGS6,SGSM1,TBC1D22A,TIAM1,RHOC,RASGRF1,AGT,TKX,USP6,MYO9A,PDCD6,SIPA1L3,LRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,PRKD1,GRIN2B,PML,NLRP2,RALBP1,ARHGAP24,SIPA1L1,ARHGEF10,FYN,CHN1,RAP1GDS1,SLC1A1,NLRP12,MTOR,TIAM2,ARL6IP5,EVI5,KALRN,DLC1,ROBO1,TBC1D4,FLT1,CRI1,TGM2,PCOLCE2,APP,UACA,MAP3K5,PKP4,RGS16,RALGAP42,DOCK9,GRIN2A,MAPRE2,RASGRP1,RAP1A,RAPGEF1,GRAMD4,MAGI2,NF1,RGS7,ARHGAP6,BID,SELE,ADCYAP1R1,EGLN3,TBC1D3B,TBC1D5,DOCK10,SLC22A2,ASAP1,AKIRIN2,DDX3X,ARAP2,JAK2,SMAD3,CD300A,PLXNB1,SLC39A10,TNF,C5AR1,NET1,CDKL5,SIPA1L2,KIT,RAPGEF2,ESR1,DAP,DAPK1,RAPGEF6,RPS27L,ABL2,ASAP2,F11R,ARHGAP35,CCL3,PREX1,ARHGAP25,ARF4,STI8,GARNL3,NEDD9,P2RX1,FGFR1,TBC1D9,NTF3,RABGAP1L,NEK5,GNB5,PPARGC1B,FERMT2,GPR55,CCL7,PINI,RALGAP1,AIM2,ARHGAP42,GNA13,WDR41,DOCK7,STAT3,LGALS9,ITGA1,CTSH,CCL14,CCL15,CRADD,RGN</i>
GO:0031323	regulation of cellular metabolic process	0.005441283583880026	<i>TASPI1,FANK1,CAST,ZHX3,PLCB1,KMT2C,KHDRBS2,ZNF595,CMKLRI,DAB1,DUX4,UTF2,ZNF717,MAPK14,DSCAM,ARID1B,RUNX1,ORC3,CTBP2,SERPINA1,TSHZ2,CCNG2,RAB27A,PCBD2,ANXA8L1,PRI-M2,PTPRT,BCL2L13,RBFOX1,TIMP3,ZNF397,ZSCAN30,DUSP22,AKAP13,FBLN1,ERG,VPS13D,ZNF292,ITGA2,ABCG1,DPF3,ATF7IP,EPHA6,NRXN1,ISX,ZNF578,PAX7,MTPN,NRG3,ZNF732,SMYD2,CELFL2,CLEC16A,HUS1,ARNT2,CDH13,RNF152,RTN1,NXN,RUNX1T1,CSNK2A1,ZNF678,ZNF112,ZNF229,ZNF285,TF,PLGRKT,ERCC4,SAMD4A,EIF4EBP3,CHEK2,ZNF486,GADD45A,PRDM9,PSMC6,ACIN1,ZNF331,TOX3,GPC3,FBLN5,NRG1,ETS2,PSMB2,RFFL,NPAS3,SPIDR,EWSR1,NLN,SUZ12,LCORL,PLCE1,SH3RF2,SPOCK1,SLCO3A1,RBFOX2,ZNF420,ZNF257,MED13L,AGBL4,BEND5,LDLRAD4,DNAJC15,ZNF91,ZBTB20,TET3,CBFA2T2,SCAI,ALK,ZNF536,ERC1,ARID5B,SPOCK3,ZNF366,EPHA3,CRNN,AGT,CST2,MAGEB3,CHRM5,ATP6V0D1,RCAN1,KLHL25,PARK2,BANP,FHL2,FOXN3,LOXL2,CDC5L,PSPC1,BRF1,DACH1,TRIM22,TRIM5,USP25,ZBTB88,ZNF268,DCUN1D4,TKX,CP,RNF185,ZNF232,NELL1,TRAPPC9,PHC1,SETD3,RIN3,ZNF845,FTO,HDAC2,SLIT2,TFAP2D,ZBTB34,KCTD1,AHRR,PDCD6,ZSCAN5,LCMT1,IGF1R,MDM2,SMAD1,E2F3,NOVA1,ZBED4,FOXD4L4,TMPRSS6,ZNF567,ZNF850,NR3C2,TRPC5,DMD,BASPI1,NOX5,TEAD1,FSHR,GSGL,MBOAT7,FMN2,HNRNPA2B1,MAEL,MORF4L1,NFE2L3,NRIP1,PRKAR2A,SKAPI,WWOX,ATRX,ACTR5,PARP16,USP16,CAMTA1,HSPB</i>

			<p> 8,LRK2,MAPK10,RORB,PIR,ZFP30,ZNF607,NTRK3,RORA,SLC44A,CHD7,ZNF26,DISC1,HEXB,PAN3,CDCA2,GLIS1,SOX6,IER2,MECP2,MTMR2,SEMA4D,GSK3B,SLC8A1,ZNF432,ZNF841,PRKD1,SERPINA4,SERPINA5,ERCC6,OGT,RNF144A,TGFB2,PRAMEF12,VAV3,AFF3,DACH2,PIWIL4,RIPPLY3,S100A11,SLC5A3,BDNF,PRKAR1B,PRKCH,RI PK4,RYK,POLR3C,GRIN2B,KDM4C,RAG1,SAMD13,ZNF433,NR2F2,PRR5,NR5A2,PCBP3,PML,PPARGC1A,RNF180,TRUB2,USP36,ZNF627,MED15,PPP4R4,NLRP2,NLRP7,TAOK3,ZNF610,BCL2,MXI1,RALBP1,ZNF675,EPHB1,SMARCE1,KLF12,LRP2,NSF,NFIA,SND1,DEPTOR,NR4A2,ZNF677,EPHA7,ZBTB7C,RBAK,RBAK-RBAKDN,FYN,KCNE2,PARN,NR4A1,SMARCA4,CD44,EIF4G3,RCVRN,RHBDD1,FOXO1,PDE4D,RBBP8,RNF144B,ENPP2,ABCB10,ACTN2,ATF6,BACH1,CST9L,KLF13,RNF217,EXOC4,ZNF516,CELF4,SERPINB7,APBB2,EIF3E,NAMPT,SETD7,SLC1A1,ZFPM2,ZNF141,ZNF429,ZSCAN5A,GLIS3,PHF20,RARB,RFX4,ETV6,NLRP12,MFSD12,MTOR,RM12,ROR1,LDB2,MOV10,VPS26B,ZNF510,BMPER,SCAF8,ZNF521,OGFOD1,PLCL1,ZFP64,ZNF483,ARL6IP5,ATP1A1,EPM2A,NOL11,CLYBL,CTNNBIP1,SOX8,ZMYND11,HAS3,HIVEP2,PRKCE,ATP6V1D,EIF2S1,GTTF2A1L,KMT2A,PRKCB,VDR,ADCY8,FHL5,FOXO3,IGF2BP3,LRRTM1,MITF,SCMH1,SCP2,CAPN3,DPH6,ITLN1,CCDC88C,CREB5,DLC1,EDNRB,OASL,ROBO1,SATB2,TDRD3,BNIP3L,FLT1,NOX4,ZNF148,GRHL2,TCF4,TSC22D3,ZNF573,ZNF720,MAP3K7,MAPK9,NBAS,NR3C1,TACR3,TRAF3IP2,CRI,EYA4,SPON1,PKHD1,STK3,SUPT3H,ZNF585A,KDR,PPhLN1,PRCP,CASK,EDA,PCOLCE2,APP,NRP1,UACA,LGR4,SERPING1,TENM2,ADTRP,KAT5,THRB,CPEB2,FUBP1,KCNK2,ZNF667,ZNF98,ADAM17,CAMK1D,DIS3L2,MAP3K5,TFPI,ZER1,ATF2,ELP3,ETS1,NR2C2,PIK3R5,SAMSN1,EFEMP1,ROSI,SMG6,TGFB1I1,CDK17,DOT1L,PSIP1,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,ZNF443,ZNF490,ZNF709,ZNF799,AFF2,PARD3,TLK2,TRAF3,ZNF830,ABAT,GRIN2A,DLX6-ASI,OPHN1,BCLAF1,TRPS1,ZNF568,CCDC88A,CD38,KHDRBS3,MOB3B,MRP27,ZBED5,SMG7,STK36,BCL2L1,HDAC4,SOX5,SRRM4,TIMP2,BACE2,DNMT1,GHR,NTRK2,BRD4,PKNOX2,RASGRP1,ARR3,CAMK4,COMMD1,RABGEF1,SPIN3,SPRED2,STARD4,GLI3,SMCHD1,KIF16B,RAP1A,SAFB2,TGFBRI,ZBTB41,DICER1,EPHA5,LCP2,CUX1,NCOA5,ITGB3BP,MAGEA11,PTTG1IP,ZNF729,CHRNA3,EP300,ELAVL2,HMG20A,SCFD1,TBX3,DIO2,GRAMD4,ATXN1,BRD7,TP73,NPC1,PIBF1,PSMA1,FHIT,ONECUT3,ADORA2A,EFNA5,FAM20A,MERTK,MAGI2,NF1,PPP6R2,RFC3,ZNF525,ZNF765,SORL1,STRN3,ZNF615,BID,ELK3,TEAD4,DMRT1,ASXL1,EIF4E,POR,RELN,SLC39A8,TSHZ1,GRM5,HDAC9,IL18R1,NECAB1,SELE,LRRTM3,MGAT5,NUMB,SP2,TNFAIP8,MAP3K13,NLK,TBX15,ADCYAP1R1,EGLN3,IL1RAP,FBXL5,JAG1,MEOX2,PPP3CA,KLF3,KLF7,MYT1L,SH3GL2,SNX25,MAS1,PER1,SATB1,TBC1D5,WWTR1,ANKRD13A,CBLB,ELAVL4,MAGEB2,MNAT1,PLSCR1,CNTN1,TRIM16,ZNF736,GABPA,KAT7,L3MBTL3,SSBP2,ZNF540,ZNF571,SLC22A2,BORA,N4BP2L2,THAP7,AKIRIN2,RNF128,RPS20,ZNF562,RAD51AP1,LRRK1,ZNF208,DDX3X,LRPPRC,NSG1,RBL2,CNOT7,MAML3,EHF,TPCN2,ZNF622,DNMT3B,JAK2,LMO7,SHOX2,AHI1,SMAD3,CD300A,NOS1,SERPINB12,RDH10,TCF12,ZNF337,AATF,ANHX,CDK1,HDAC7,HIVEP3,NBN,NVL,SLC39A10,TAGLN3,TNF,OVOL2,SNX5,TNIP1,ZFPM1,ILF3,POMC,PRDM15,ADNP2,BMP15,INO80,POU6F2,RBM11,SCAF4,SIM2,ARID2,MLIP,PAXBP1,FAM220A,PRG3,SRSF4,ADORA3,ARF1,BCL11A,HMGA2,MYO6,NEK4,TAF1D,YAF2,ZNF41,ZNF705A,ZNF880,AGO3,PAPOLA,CDC20B,GCLC,PMEPA1,QKI,UBE2V1,ZNF664,ZNF728,ZNF879,ACTR8,SP140,SP140L,L3MBTL4,SLC7A7,SMOC2,ANKRD31,C5AR1,CISD2,LRP4,PIK3R3,WDR5,EFNB2,MXD3,PIWIL3,SAE1,TRIM41,HERC1,PHF8,ZNF423,CDC14B,CHD6,TENM1,TSHZ3,WDFY2,ZNF407,ZNF93,ARHGEF11,GSKIP,MAMLD1,PRKARIA,ZNF345,BPTF,MLLT3,CD109,EGF,PTPN14,SPIRE2,FOX P4,KIT,TNFSF8,TNRC6B,ZNF600,BLM,TRPV4,PTPRO,RAPGEF2,ZIM3,DNAJB6,ESR1,HTR2C,UBE3A,FGF13,PLAG1,EPHB2,MECOM,NDFIP2,RNF4,TFDP2,TOX,C14ORF39,DAP,DAPK1,ERBB4,FER,MAML2,FNIP1,LRP5,MALRD1,ZNF439,ZNF507,RPS27L,ABL2,CAMP,DEDC5,SETD2,VPS13C,ALX4,COMMD7,NSUN2,PTPRK,FGF7,SPRED3,ZNF189,GCFC2,GLYR1,NHLH2,ARF4,EEFSEC,MYH9,SLC2A13,SOX4,ST18,CAB39L,NEDD9,P2RX1,PDGFD,PRR16,UBE2N,AGTPBP1,ITGA8,PUM1,ARID4A,DDBI,FAM172A,IRAK2,KDM3A,PLAT,SERTAD2,TNKS,ZFP82,AUTS2,BCL7A,DAPL1,FGFR1,MEF2A,OCLN,PARP15,ZCHCH17,ZNF85,ARID4B,SLX1B,SOST,ASXL3,IL23R,JMY,KEAP1,NTF3,P2RX7,ARRDC4,BRD9,TOX2,ZNF544,AR,BCOR,SNX30,SUFU,TRERF1,EYA1,IFNA8,N4BP1,RBM4,SRPK2,BDKRB1,BDKRB2,DGKZ,GNL3,L3MBTL1,NEK5,PI3,PRKAA2,RLF,TAX1BP1,TLE4,ZNF202,ZNF558,CD73,MARK2,MEIS2,PDE5A,PROS1,ZMIZ1,ZNF19,ZNF440,ZNF670, </p>
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			<p>ZNF695,FLT3,NFIC,PPARGC1B,SNX7,ATP6V1H,DYNAP,ESRRG,FERMT2,MAP2K5,SMPD3,CLN6,DAB2,HDAC8,PBX1,TCL1B,ACTN4,ELP4,POU2F3,PRAMEF8,FANCB,FRY,PLCL2,QRICH1,SSX5,PHF20L1,PI N1,SYNPO2,ERLIN1,KRBOX4,STK38,TCF20,ZNF674,BMP6,CIZ1,EIF4ENIF1,CARF,CDYL2,EBF1,NCOA2,TGFA,CREM,G3BP2,HGF,PKP1,POU2F1,ZNF665,ZNF730,CALCR,CENPF,FLI1,POMT2,SH3BP5,ZBTB16,CTIF,KDM4B,NOS1AP,ZNF57,IL18RAP,INSR,LARP4B,PAK1,PSMB7,SKI,CTDP1,ELF1,ENPP1,FMR1,LIMK2,LITAF,PAX3,CHFR,DKC1,JDP2,KLF6,PHC2,RRAGC,ZNF605,ABCD1,BMF,IDE,SAMD8,AIM2,PCK1,PPARA,SPIB,TBX22,TNFAIP8L3,TTN,ZFHX2,SMARCA1,TAF1,WDR41,CHD5,FNIP2,PPP2R3C,SPRED1,ESR2,PRDM16,QSOX1,RBL1,ZNF451,ATP6V1E1,BTRC,HIRA,MLLT10,OPTN,RIT2,ZNF713,ESRP2,MDM4,NCOA1,PRKCG,PRLR,ZNF354B,CBFA2T3,DOCK7,FBXW11,HDAC5,TDGF1,WDR70,ZNF493,A2M,MYEF2,PII5,SERPINB8,SLC24A5,SLC40A1,STAT4,ZNF623,ADARB1,POU2AF1,PRKCQ,STAT3,TFEC,TP63,USP7,ZNF721,BRIP1,CDKN3,CST1,DOCK3,HPN,PAK3,PIK3R2,TBL1X,DHRS7B,DTNBP1,ZNF518A,KSR1,LGALS9,LRP8,NFAT3,ZNF697,GTPBP1,IL10RB,MAPKAPK2,AHNAK2,APC,BMPRI1,ITGA1,KCTD20,NGF,PPP1R14A,PRKCA,SPINT2,UBASH3B,VLDLR,DRAM1,ITIH6,MTMR4,MTRF1,PDS5A,PILRB,ABI1,CTSH,DHX9,NCAPG2,RGCC,DPH1,EBF4,EDA2R,IL6R,MAP2K6,SRRD,TFIP11,SPTBN4,MAP2K1,PRAMEF7,RGMB,VPS35,ZBTB25,ZRANB3,C1QTNF3,COL6A3,FGF1,NSUN3,TBX20,ZNF527,ATMIN,ATP6V1E2,CRADD,NLRC5,RGN,RREB1,TBX18,ZFP2,ZNF501</p>
GO:0045595	regulation of cell differentiation	0.00553324177402709	<p>CDH4,ZHX3,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,RUNX1,DCC,RBFOX1,FBLN1,NPHP3,ABCG1,PLEKHB2,CHODL,FSTL4,RUNX1T1,PCP4,ACIN1,PLXNA4,NRG1,PSMB2,IL4R,NLN,SUZ12,SEMA6D,CCR1,RBFOX2,TIAM1,LDLRAD4,DPYSL2,ALK,ZNF536,FBXO31,CNTN4,ROBO2,EPHA3,AJAP1,AGT,ATAT1,LOXL2,SEMA3D,NTN1,ZNF268,NELL1,SETD3,TRIO,FTO,HDAC2,SLIT2,MDM2,SMAD1,TRPC5,DMD,VCLF,FSHR,TENM4,LRRK2,RORB,NTRK3,RORA,CHD7,DISC1,GLIS1,SOX6,MECP2,SEMA4D,GSK3B,PRKD1,TGFB2,PRAMEF12,SEMA5A,BDNF,PRKCH,RYK,ABI3BP,KDM4C,RAG1,RAG2,AKAP6,FBN1,PLXNA2,BCL2,ZNF675,EPHB1,LRP2,TMEM100,EPHA7,ZBTB7C,FOXO1,KANK1,ABCB10,KLF13,MME,MYLK3,ZFPM2,RARB,MTOR,PKP2,PTPRD,TIAM2,CTNBP1,SOX8,VDR,FOXO3,MITF,CAPN3,KALRN,EDNRB,MSR1,ROBO1,GRHL2,TCF4,MAPK9,CR1,STK3,TGM2,KDR,ABCA12,APP,NRP1,ST7,SEMA3C,MAP3K5,ETS1,EFEMP1,PRTG,TGFB11,TCF7L2,TRPS1,RIN2,HDAC4,SOX5,DNMT1,GHR,NTRK2,RASGRP1,CAMK4,SPRED2,GLI3,RAP1A,TGFB1,DICER1,TNR,CUX1,HMG20A,TBX3,WIF1,TRIOBP,TP73,PSMA1,EFNA5,BRD1,NF1,SORL1,ASXL1,EIF4E,PO R,RELN,GRM5,HDAC9,NAPEPLD,NUMB,MAP3K13,JAG1,PPP3CA,KLF7,WWTR1,TRIM16,GABPA,KAT7,N4BP2L2,NLGN1,JAK2,SHOX2,AH1,SMAD3,PLXNB1,TCF12,CDK1,HDAC7,TNF,OVOL2,ZFPM1,BLOCIS6,BRINP1,BCL11A,DOCK1,MBOAT2,DAAM2,LRP4,EFNB2,CTNNA1,WDFY2,CDKL5,CD109,IL1RAPL1,KIT,TRPV4,VWC2,ABCA5,RAPGEF2,HTR2C,SEMA3E,FGF13,PLAG1,EPHB2,TOX,FNIP1,LRP5,F11R,NSUN2,CCL3,PREX1,SEMA5B,SPRED3,PSG9,SOX4,NEDD9,KDM3A,FGFR1,MAP2,IL23R,KEAP1,NTF3,AR,FGL2,KIAA1109,SUFU,EYA1,IL1RL2,RBM4,HLA-DRA,BHLHB9,L3MBTL1,NEK5,SEMA3A,CDC73,MEIS2,PDE5A,ZMIZ1,PPARGC1B,TRIM72,FERMT2,MARK1,TNN,DAB2,GPR55,PBX1,ACTN4,BLOCIS5,PRAMEF8,NREP,TRPM4,BMP6,CLASP1,EIF4ENIF1,HGF,SCUBE3,ZBTB16,MACF1,PDE3A,PSMB7,SKI,CTDP1,ENPP1,JDP2,PRKX,PCK1,PPARA,SORT1,ZFHX2,PPP2R3C,S1PR3,SPRED1,CCDC3,NCOA1,PRLR,DOCK7,HDAC5,STAT3,TP63,HPN,ISLR2,PAK3,USH2A,LGALS9,LRP8,APC,BMPRI1,KIAA0319,NGF,PRKCA,UBASH3B,ADAMTS20,RGCC,CYB5D2,IL6R,CLASP2,MAP2K1,PRAMEF7,SOS1,TPH1,TBX20,RREB1</p>
GO:0061061	muscle structure development	0.0057168063734673235	<p>PLCB1,MAPK14,MYO18B,RBFOX1,AKAP13,LARGE,SORBS2,PAX7,CHODL,MTPN,TGFB3,ANK2,NRG1,IL4R,NLN,NKD1,UTRN,ARID5B,AGT,RCAN1,CDH2,FHL2,LAMA2,KCNH1,SETD3,MDM2,SMAD1,DM D,BASPI,RYR2,RORA,CHD7,RNF165,SOX6,MECP2,SLC8A1,TGFB2,BDNF,SGCD,NR2F2,SGCG,AKAP6,BCL2,EPHB1,DISP1,LRP2,NR4A1,F LNC,ACTN2,MYLK3,ZFPM2,RARB,MTOR,PKP2,COL11A1,SOX8,CAPN3,EDNRB,NOX4,NEBL,MAP3K5,TCF7L2,ITGA11,HDAC4,DNMT1,JAM2,TGFB1,ADAM12,EP300,SYNE1,TBX3,FLNB,NF1,TEAD4,HDAC9,JAG1,MEOX2,PPP3CA,NEB,CXADR,FHOD3,SHOX2,SMAD3,NOS1,PTGFRN,TCF12,CDK1,HIVEP3,TNF,ZFPM1,CHKB,TANC1,PAXBP1,QKI,EFNB2,ALPK2,MYH14,PRKAR1A,KIT,MYPN,SGCZ,MYH15,ALX4,MYH9,ITGA8,MEF2A,RYR1,RBM4,NEK5,PDLIM5,TRIM72,ACTN4,TMOD1,MYLK,CENPF,ELN,SKI,CTDP1,PAX3,EVC,PPARA,SORT1,TTN,COL19A1,FHL1,MYH7,HIRA,PGM5,MYH6,ADAMTS5,HDAC5,MYEF</p>

			2,ADARBI,MYH11,MYOM2,BMPRI1,COL6A3,TBX20,TBX18
GO:0030048	actin filament-based movement	0.005832350977187024	KCNQ1,SUN2,ANK2,KCND3,KCNE1,CTNNA3,RYR2,FRMD6,SGCD,M YH8,KCNJ3,KCNE2,PDE4D,PKP2,ATP1A1,PLN,CCDC88C,PDE4B,C ACNA1C,CACNA2D1,CACNA1D,MYH4,MYO6,SCN1A,MYH14,FGF13,NUP155,WIPF2,MYO7B,MYH9,KCNE4,HCN4,RNF207,ACTN4,FGF12,TRPM4,EPDR1,MYO1B,CACNB2,NOS1AP,MYH7,MYH6
GO:0006813	potassium ion transport	0.00586354801350348	KCNJ6,ANK3,SLC24A3,KCNQ1,ANK2,KCND3,SLC12A1,DPP10,KCN EI,KCNJ15,KCNG3,KCNH1,KCNMA1,SLC24A4,KCNK17,HCN1,DPP 6,SLC1A3,KCNH5,KCNK13,ATP1A4,KCNK1,SNAP25,AKAP6,KCNJ3, NSF,ABCC9,KCNE2,ACTN2,KCNS3,KCNIP4,KCND2,ATP1A1,SLC12A 8,KCNC4,KCNK2,KCNJ12,RGS7,KCNQ5,SLC9C1,KCNB2,SLC24A2,A KAP7,CACNA1D,NOS1,KCNT2,KCNK10,KCNA6,KCNH8,KCNH7,KC NAB1,KCNE4,HCN4,RNF207,KCNJ16,KCNN3,NOS1AP,FHL1,SLC24A 5,KCNC2,SLC9A9,HPN,CASQ2,TMEM175,SLC9A2
GO:0001508	action potential	0.0066419514702476205	ANK3,KCNQ1,ANK2,KCND3,SCN8A,KCNE1,DMD,CTNNA3,RYR2,SL C8A1,AKAP6,KCNJ3,KCNE2,GRIK2,KCND2,SCN11A,PKP2,ATP1A1, NTRK2,CACNA1C,USP53,CACNA2D1,GLRA1,CXADR,AKAP7,CACNA 1D,TNF,SCN1A,MYH14,FGF13,NUP155,P2RX1,KCNE4,HCN4,RNF20 7,FGF12,TRPM4,CACNB2,NOS1AP,FMRI,SCN9A,KCNC2,TBX18
GO:0099175	regulation of postsynapse organization	0.006754547208698056	NRXN1,ABHD17C,CDH2,ZNF804A,LRRK2,NTRK3,GRIN2B,LRFN2,SI PA1L1,EPHA7,FYN,PTPRD,KALRN,TANC2,DGKB,DNM3,GRID2,REL N,IL1RAP,NLGN1,PPFIA2,CDKL5,IL1RAPL1,UBE3A,ARF4,BHLHB9, PDLIM5,PAK3,DTNBP1,LRP8,VPS35
GO:0001764	neuron migration	0.006764242015739457	DAB1,DCC,NRG3,SDCCAG8,FLRT2,NRG1,ASTN2,UNC5D,SPOCK1,C TNNA2,FBXO31,PHACTR1,DCLK1,NTN1,CELSR1,ASTN1,NTNG1,NT RK3,DISC1,NR2F2,NR4A2,FYN,DCDC2,FAT3,CEP85L,SATB2,CHL1, NRP1,ELP3,NTRK2,PRKG1,RELN,KIRREL3,CDKL5,RAPGEF2,FGF1 3,AUTS2,FGFR1,SEMA3A,MARK2,ZMIZ1,MARK1,TNN,ITGA3,ULK4, NDE1,STAT3,KIAA0319,TBX20
GO:0051094	positive regulation of developmental process	0.00703691994893597	CDH4,ZHX3,PLCB1,CMKLR1,DAB1,MAPK14,DSCAM,RUNX1,ASIC2, NRXN1,CHODL,RIMS2,TGFBF3,SYNDIG1,PCP4,ACINI,SYT17,PLXN A4,FLRT2,NRG1,IL4R,CCR1,CCR3,CFTR,TIAMI,ALK,FBXO31,ROBO 2,AGT,PARK2,LOXL2,KIR2DL4,CYBB,NTN1,ZNF268,NELL1,SETD3,H DACC2,SLIT2,PDCCD6,IGF1R,MDM2,SMAD1,TRPC5,DMD,SYT1,BASP I,KRT2,STK24,TENM4,CHD7,DISC1,SOX6,SEMA4D,GSK3B,LINGO2,S LC8A1,PRKD1,TGFB2,CLSTN2,SEMA5A,BDNF,PRKCH,ABI3BP,RAG 1,RAG2,PML,PPARGC1A,AKAP6,PLXNA2,BCL2,RALBP1,EPHB1,LRP 2,TMEM100,ZBTB7C,THBS2,ENPP2,ABCB10,ATP8A2,MME,MYLK3,Z FPM2,MTOR,BMPER,PTPRD,TIAM2,CTNNBIP1,SOX8,PRKCB,VDR,F OXO3,LRRTM1,CAPN3,KALRN,MSR1,ROBO1,FLT1,TCF4,MAPK9,CR 1,STK3,TGM2,VASH2,KDR,NRP1,LGR4,MAP3K5,ETS1,NR2C2,TGFB1 I1,TCF7L2,GRIP1,RIN2,SOX5,GHR,NTRK2,RASGRP1,GLI3,RAP1A,T GFBR1,CYSLTR1,ADAM12,DICER1,CUX1,WIF1,TRIOBP,TP73,GRID 2,EFNA5,BRD1,SORL1,TEAD4,DMRT1,POR,RELN,GRM5,LRRTM3,N APEPLD,NUMB,MAP3K13,RALA,IL1RAP,JAG1,PLS1,WWTR1,KL,ELA VL4,RIMS1,TRIM16,KAT7,AGGF1,NLGN1,JAK2,SHOX2,AH11,SMAD3 ,PLXNB1,TCF12,CDK1,TNF,COBL,OVOL2,BLOC1S6,DLG5,BRINP1, BCL11A,HMGA2,DOCK1,SMOC2,C5AR1,EFNB2,CLSTN1,WDFY2,CD KL5,EGF,CMA1,IL1RAPL1,KIT,VWC2,RAPGEF2,HTR2C,JAK1,PLAG 1,EPHB2,TOX,ERBB4,RBM19,SLITRK6,LRP5,CAMP,F11R,PREX1,SL C39A12,SOX4,NEDD9,PIK3CD,UNC13A,FGFR1,IL23R,P2RX7,AR,IL1 RL2,RBM4,HLA-DRA,BHLHB9,NEK5,SEMA3A,PDE5A,ZMIZ1,PPARGC1B,FERMT2,D AB2,SYT2,BLOC1S5,EEF1E1,TRPM4,BMP6,CLASP1,HGF,SCUBE3,Z BTB16,INSR,MACF1,PDE3A,AKT3,FMRI,PCK1,PPP2R3C,CCDC3,NC OA1,STIM1,STAT3,TP63,AMOT,ISLR2,PAK3,LGALS9,LRP8,BMPRI1, NGF,PRKCA,VLDLR,ADAMTS20,CTSH,RGCC,CYB5D2,GPR21,IL6R,S PTBN4,CLASP2,MAP2K1,TPH1,VPS35,FGF1,TBX20,RREB1
GO:0023056	positive regulation of signaling	0.008555069505963566	PLCB1,SH3RF3,CTBP2,LYPD6,WLS,TIMP3,DUSP22,AKAP13,ITGA2, NRXN1,ZRANB1,DOK5,RIMS2,SHANK2,CLEC16A,TGFBF3,CDH13,C SNK2A1,TMEM108,GADD45A,GPC3,NRG1,PSMB2,PLCE1,SH3RF2,C CR1,CFTR,RHOC,RASGRF1,NKD1,ALK,RGL2,S100B,ROBO2,AGT,C DH2,PARK2,LAMA2,TRIM22,TRIM5,TKX,GPC5,IGF1R,NR3C2,SYT1, CACNG3,FSHR,GRM1,WWOX,TRPM2,CAMTA1,LRRK2,SLC1A3,NTR K3,ILDR1,IQCJ-SCHIP1,RNF165,DISC1,MECP2,SEMA4D,GSK3B,LGR5,PRKD1,TGFB 2,CLSTN2,SEMA5A,BDNF,PRKCH,RYK,ZDHC17,WASF1,GRIN2B,A NKRD6,ARHGAP8,PRR5,SNAP25,PML,AKAP6,TAOK3,LRP2,NSF,FY

			<p>N,SMARCA4,CD44,NEU3,KANK1,ARHGEF3,ATF6,DCDC2,MME,CSN K1G3,GRIK2,IGSF11,SLC1A1,NLRP12,ROR1,DDX21,BMPER,ARL6IP 5,PRKCE,PRKCB,ADCY8,LRRTM1,OASL,ROBO1,FLT1,NOX4,MAP3K 7,MAPK9,TRAF3IP2,STK3,TGM2,KDR,EDA,APP,NRP1,LGR4,ADAMI 7,MAP3K5,PIK3R5,TGFB111,TCF7L2,TNFRSF10B,TRAF3,ABAT,GRIN 2A,RIMS3,BCLAF1,CCDC88A,CD38,STK36,GHR,MAPRE2,NTRK2,AC SL4,BRD4,RASGRP1,LY86,SPRED2,RAP1A,TGFBRI,TNR,RAPGEF1,E P300,TP73,PIBF1,RASGRF2,PSMA1,ADORA2A,CACNG2,NF1,SORL1, BID,ASXL1,POR,RELN,GRM5,IL18R1,MGAT5,MAP3K13,ADCYAP1R1 ,JAG1,JRK,DGKI,SLC24A2,KL,DOK6,RIMS1,TRIM16,WDR59,NLGN1, RPS20,LRRK1,MAPK8IP2,DDX3X,NSG1,ZNF622,JAK2,SHOX2,SMAD 3,CD300A,PLXNB1,MIR320B2,SLC39A10,TNF,SNX5,POMC,PRDM15, BMP15,DLG5,LGR6,SHC2,AGO3,ANO1,UBE2V1,DAAM2,SMOC2,SU LFI,C5AR1,CNTN6,NET1,ZNF423,CLSTN1,SELP,CTNNA1,TENM1,TS HZ3,GSKIP,TNFRSF19,DYNC2H1,MLLT3,MYRIP,EGF,KIT,TRPV4,ED AR,RAPGEF2,HTR2C,SLC30A8,UBE3A,GRM4,EPHB2,NDFIP2,ERBB 4,MAP3K3,FNIP1,SLAMF1,F11R,GAS8,CCL3,VWF,IL20RA,SULF2,SO X4,PDGFD,PIK3CD,UBE2N,ITGA8,PUM1,TNKS,AUTS2,FGFR1,IL23 R,NTF3,P2RX7,SCUBE1,AR,ADRA1B,ARMC9,MIR433,SEMA3A,CDC7 3,PDE5A,ZMIZ1,FLT3,FERMT2,LTBR,MAP2K5,DAB2,GPR55,STX3,A CTN4,CCL7,EEF1E1,EEF1E1- BLOC1S5,KMO,LGII,PPM1B,PIN1,TRPM4,CD226,BMP6,TGFA,HGF, CALCR,SCUBE3,CACNB2,NOS1AP,INSR,MACF1,PAK1,PSMB7,SKI,A KT3,FMR1,LITAF,RRAGC,EVC,MFNG,TNFAIP8L3,CHD5,SPRED1,A KRIC2,CHSY1,RIT2,PRKCG,PRLR,TDGF1,SCEL,STAT3,TP63,TBL1X, DTNBP1,RAP1B,KSRI,LGALS9,NFAT5,ALPK1,IL10RB,BMPRI1,ITGA 1,KIAA0319,NGF,PRKCA,ADAMTS20,CTSH,RPH3AL,CCL14,CCL15,E DA2R,IL6R,MAP2K6,MAP2K1,SOS1,VPS35,C1QTNF3,FGF1,TBX20,C RADD,NLRC5</p>
GO:00513 36	regulation of hydrolase activity	0.0085711246406082 17	<p>CAST,SERPINA1,ANXA8L1,BCL2L13,TIMP3,FBLN1,ITGA2,RGS6,SGS M1,FGD6,TBC1D22A,CSNK2A1,PLXNA4,GPC3,RFFL,SPOCK1,TIAM 1,RHOC,RASGRF1,SPOCK3,EPAH3,AGT,CST2,RCAN1,TXK,USP6,MY O9A,PDCC6,SIPA1L3,LRRK2,NTRK3,SH3BP1,SEMA4D,GSK3B,PRKD 1,SERPINA4,SERPINA5,TGFB2,VAV3,GRIN2B,RAG1,PML,ARHGAP1 2,PPP4R4,NLRP2,NLRP7,PLXNA2,RALBP1,ARHGAP24,SIPA1L1,ARH GEF10,EPAH7,FYN,CHN1,NR4A1,CD44,CST9L,RAP1GDS1,SERPINB 7,SLC1A1,NLRP12,MTOR,TIAM2,ARL6IP5,EPM2A,EVI5,EIF2S1,KAL RN,DLC1,OASL,ROBO1,TBC1D4,FLT1,CRI,TGM2,ARHGAP15,PCOL CE2,APP,UACA,SERPING1,CPEB2,MAP3K5,PKP4,TFP1,RGS16,BICD 1,RALGAP42,DOCK9,GRIN2A,TIMP2,MAPRE2,NTRK2,PRKGI,RASG RP1,RAP1A,EPAH5,RAPGEF1,GRAMD4,PCSK5,ADORA2A,EFNA5,M AGI2,NF1,PPP6R2,RGS7,SORL1,ARHGAP6,BID,TTC8,POR,HDAC9,S ELE,MGAT5,TNFAIP8,ADCYAP1R1,EGLN3,TBC1D3B,DGKI,TBC1D5 ,CBLB,DOCK10,SLC22A2,ASAP1,AKIRIN2,DDX3X,ARAP2,JAK2,SMA D3,CD300A,NOS1,SERPINB12,PLXNB1,SLC39A10,TNF,LRCH1,C5AR 1,NET1,CDKL5,SIPA1L2,CD109,KIT,RAPGEF2,DNAJB6,ESR1,DAP,D APK1,FNIP1,RAPGEF6,RPS27L,ABL2,ASAP2,F11R,ARHGAP35,CCL3 ,PREX1,ARHGAP25,FGD4,ARF4,ST18,GARNL3,NEDD9,PRKGI,FGFR 1,TBC1D9,NTF3,RASA3,RABGAP1L,NEK5,PI3,GNB5,PROS1,PPARG C1B,FERMT2,MAP2K5,GPR55,CCL7,PIN1,HGF,RALGAP41,SBF2,AI M2,ARHGAP42,SORT1,GNAI3,WDR41,DOCK7,A2M,PII5,SERPINB8, STAT3,TP63,AMOT,CST1,LGALS9,ITGA1,NGF,SPINT2,ITIH6,CTSH,C CL14,CCL15,COL6A3,CRADD,RGN</p>
GO:00434 12	macromol ecule modificati on	0.0088461618781698 3	<p>TPTE,MACROD2,KMT2C,DAB1,AGBL1,MAPK14,TPTE2,GPHN,SH3R F3,CCNG2,HUNK,PTPRT,DUSP22,AKAP13,FBLN1,ERG,MGAT4C,LA RGE,TTL2,ST6GALNAC3,ATF7IP,EPAH6,VRK2,NRXN1,ZRANB1,FP GT- TNNI3K,TNNI3K,CPPED1,NRG3,SMYD2,HUS1,TGFB3,RNF152,NX N,CSNK2A1,HLC5,CEP41,CHEK2,GADD45A,PRDM9,NRG1,PSMB2,R FFL,ST8SIA1,SUZ12,PRMT8,PLCE1,SH3RF2,KSR2,STK38L,ABHD17 C,SLCO3A1,DTX4,PPMIJ,AGBL4,LDLRAD4,MYO3A,TET3,ALK,PTPR E,PIK3C3,ERC1,FBXO31,SPOCK3,B3GALT5,EPAH3,PRKACB,PTPRN 2,DCLK1,AGT,UBE2R2,ATXN3L,ATAT1,FBXO32,RCAN1,KLHL25,PA RK2,PGAP3,LOXL2,TRIM51,FBXL7,TRIM22,TRIM5,TRIM9,USP25,D CUN1D4,TXK,RNF185,USP40,USP6,FBXO27,PHC1,SETD3,ZNRF3,T RIO,ATE1,FTO,HDAC2,SLIT2,TTL8,PDCC6,RPS6KA2,LCMT1,IGF1 R,MDM2,SMAD1,STAMBPL1,TTC3,PTPRG,PXK,TRIM48,TRPC5,DM D,STK33,KRT2,FSHR,MAEL,MORF4L1,PRKAR2A,STK24,PDZRN3,GA LNT14,MAN2B1,ATRX,PARP16,TPP2,USP16,CAMTA1,LRRK2,MAPK1 0,VRK1,NTRK3,RNF165,DPY30,PAN3,CDCA2,GALNTL6,KCTD9,PDX P,MECP2,MTMR2,SEMA4D,GSK3B,SLC8A1,CDC14A,PRKD1,SNRK, G2E3,ERCC6,OGT,RNF144A,TGFB2,WDR4,DNAJC6,FUT4,PIWIL4,B DNF,PRKAR1B,PRKCH,RIPK4,RYK,ZDHHHC17,MGAT2,KDM4C,OTU</p>

			<p>D7A,ZDHHCI4,EXT2,RAG1,RAG2,SIK2,MKRN3,NR2F2,PRR5,PML,P PARGC1A,RNF180,TRUB2,USP36,MYH8,DTWD2,PPP4R4,TAOK3,BC L2,RALBP1,ZNF675,EPHB1,MOV10L1,IL12RB2,DEPTOR,EPHA7,FY N,PARN,CD44,HECW1,RHBDD1,RNF213,FOXO1,PDE4D,RNF144B,E NPP2,GRK5,RNF217,TRMT61B,CSNK1G3,CMTR2,MYLK3,SETD7,SL C1A1,UGCG,MAN1C1,PHF20,NLRP12,MTOR,ROR1,UBE2L6,CTDSP L2,BMPER,PTPRD,OGFOD1,PLCL1,CDKAL1,EPM2A,ADARB2,PRKC E,EIF2S1,HELLS,KMT2A,PRKCB,ADCY8,CAPN3,DPH6,ITLN1,KALR N,PJA1,TTL12,CCDC88C,DLC1,EDNRB,ROBO1,FLT1,NOX4,GRHL2 ,PIGL,MAP3K7,MAPK9,TRAF3IP2,EYA4,STK3,SUPT3H,TGM2,KDR,C ASK,PHKB,RNF182,APP,NRP1,PTPRM,ADTRP,EGFLAM,KAT5,ST3G AL3,ZZZ3,ADAM17,CAMK1D,MAP3K5,CDC42BPG,ATF2,ELP3,GRK6 ,PIK3R5,SAMSN1,EFEMP1,ROS1,CDK17,DOT1L,RPS6KA5,TNFRSF1 0B,TRABD2B,PARD3,TLK2,TRAF3,SGK2,CCDC88A,MOB3B,RNF43,R NF126,STK36,GUCY2F,HDAC4,DNMT1,GHR,NTRK2,PRKG1,AICF,C DC42BPA,BRD4,PTPDC1,RASGRP1,ARR3,CAMK4,COMMD1,RABGE F1,SPRED2,COG7,PPA2,SPRR2E,RAP1A,TGFBF1,USP53,PRDX4,EP HA5,LCP2,TOPI,PEAK1,B4GALT3,CPE,PTTG1IP,SUMF1,CHRNA3,E P300,MORC3,HMG20A,DUSP23,GCNT7,TRIOBP,BRD7,NPC1,PIBF1, TRPM7,PSMA1,ADCK1,ADORA2A,ADRBK2,CAMK2G,EFNA5,FAM20 A,MERTK,UBE3C,BRD1,GUCY2C,MAGI2,NF1,PPP6R2,USP17L5,SO RL1,ASB13,TRIM59,LZTR1,ASXL1,POR,RELN,SLC39A8,USP3,GRM5, HDAC9,PTPN9,ST6GALNAC5,MGAT5,MAP3K13,NLK,EGLN3,FBXL1 7,FBXL5,MAN1A1,PPP3CA,SH3GL2,SNX25,MAS1,PER1,WWTR1,CBL B,MNAT1,CNTN1,DGUOK,TRIM16,KAT7,MAPK4,BORA,PTPRU,THA P7,RNF128,RPS20,LRRK1,MSRA,DDX3X,CNOT7,PARP8,DNMT3B,JA K2,LMO7,CD300A,MAP2K4,NOS1,TMTC1,TMTC4,CDK1,HDAC7,MA GT1,MCM3AP,NBN,RRH,SLC39A10,TNF,TNIP1,ILF3,PIGB,BMP15,M RM1,PHEX,TRIM23,DYI19L1,PAXBP1,FAM220A,STK32B,BCL11A,H MGA2,NEK4,UBE2E3,STK32C,CDC20B,DYRK4,GALNT8,GCLC,PME PA1,UBE2V1,C5AR1,LRP4,PIK3R3,WDR5,RSRC1,SAE1,STT3A,TRIM4 1,HERC1,PHF8,CDC14B,ALPK2,CDK8,CUL2,TENM1,WDFY2,CDKL5 ,GSKIP,PRKAR1A,CD109,EGF,PTPN14,KIT,MTRR,UBR2,BLM,PTPR O,RAPGEF2,STK32A,JAK1,UBE3A,FGF13,EPHB2,MECOM,NDFIP2, RNF4,TOX,DAPK1,ERBB4,FER,MAP3K3,MINPP1,RSRYP1,TDRKH,F NIP1,LRP5,TTL5,ABL2,CAMP,SETD2,NSUN2,PTPRK,CCL3,FGF7,L AMA1,RNF138,SPRED3,CDKL1,GLYR1,ARF4,NSMCE2,SOX4,CAB39 L,NEDD9,PDGFD,PIK3CD,UBE2N,AGTPBP1,WDR82,ARID4A,DDDB1, IRAK2,KDM3A,MYO3B,PLAT,TNKS,AUTS2,CDK19,FGFR1,OCLN,PA RP15,ARID4B,DAD1,IL23R,KEAP1,MACROD1,NTF3,P2RX7,TEF14,A RRDC4,RNMT,ZDHHCI1,ZDHHCI1B,ZDHHCI9,AMFR,BCOR,PIGK,T RERF1,TRMT11,C10ORF90,EYA1,IFNA8,N4BP1,SRPK2,BDKRB1,BD KRB2,GNL3,NEK5,PI3,PRKAA2,RLF,THADA,CDC73,MARK2,PDE5A, MZI1,FLT3,PTPRA,TRIM72,DYNAP,FERMT2,MAP2K5,MARK1,SMP D3,ZC3H13,DAB2,HDAC8,TCL1B,ADAM10,ELP4,FRY,PLCL2,PPM1B ,TTL11,PHF20L1,PIN1,RPS6KA6,SYNPO2,TRPM4,STK38,BMP6,CH RM3,CIT,GALNT5,TGFA,HGF,MYLK,USP31,CALCR,DYI19L2,POMT 2,SH3BP5,TLK1,ZBTB16,KDM4B,MAST4,NOS1AP,INSR,PAK1,PSMB7 ,PTPN21,SKI,AKT3,CDC16,CHM,CTDP1,DUSP11,ENPPI,FMR1,LIM K2,TESK2,TRMU,CHFR,DKC1,JDP2,PRKX,TMTC2,ULK4,MSL2,SEN P8,PCK1,TTN,C1GALT1,SMARCA1,ST6GAL2,TAF1,CHD5,FNIP2,F UT8,KANSL1,PPP2R3C,SPRED1,PRDM16,PTPRF,USP29,ZNF451,BT RC,PPP2R2C,PTPRR,RIT2,EXT1,MYH6,NCOA1,PRKCG,PRLR,UMOD ,DOCK7,FBXW11,HDAC5,ICK,KLHL3,MTFMT,STK35,TDGF1,UGGT 2,WDR70,SEL1L2,TRPM6,ADARB1,FBXL18,PRKCQ,SHPRH,USP7,C DKN3,DOCK3,DPM1,DYI19L3,MOCS3,PAK3,STK17B,TBL1X,DTNBP 1,GAK,UBE2U,KSR1,LRP8,ALPK1,MAPKAPK2,TUSC3,APC,BMPRI1A, ITGA1,NGF,PRKCA,TULP4,UBASH3B,UBE2E2,VLDLR,ASB3,MTMR4 ,PILRB,AB11,NCAPG2,RGCC,USP18,DPH1,IL6R,MAP2K6,SLAH3,SPT BN4,MAP2K1,ALG12,ART4,FGF1,NSUN3,RAD18,USP12,RGN</p>
GO:0048738	cardiac muscle tissue developm ent	0.008856308224651357	<p>MAPK14,RUNX1,MYO18B,AKAP13,SORBS2,TGFBF3,NRG1,ALDH1A 2,AGT,FHL2,SMAD1,RYR2,TENM4,CHD7,SOX6,SLC8A1,TGFB2,SGC D,SGCG,AKAP6,LRP2,ACTN2,MYLK3,ZFPM2,RARB,MTOR,PKP2,CO L11A1,PLN,NOX4,NEBL,KCNK2,TGFBF1,TBX3,TP73,NEB,CXADR,F HOD3,SHOX2,CDK1,ZFPM1,ARID2,EFNB2,ALPK2,PRKAR1A,SGCZ, ERBB4,MEF2A,PDLIM5,HCN4,CTDP1,PPARA,TTN,MYH7,MYH6,MY H11,BMPRI1A,TBX20,TBX18</p>
GO:0086003	cardiac muscle cell contractio n	0.009130163383532277	<p>KCNQ1,ANK2,KCND3,KCNE1,CTNNA3,RYR2,SGCD,KCNJ3,KCNE2, PDE4D,PKP2,ATP1A1,PLN,PDE4B,CACNA1C,CACNA2D1,CACNA1D ,SCN1A,FGF13,NUP155,KCNE4,HCN4,RNF207,FGF12,TRPM4,CACN B2,NOS1AP</p>

GO:0090132	epithelium migration	0.009573701307053149	<i>ITGA2, CDH13, GADD45A, AGT, RHOJ, LOXL2, SLIT2, PDCD6, PTPRG, KRT2, SH3BP1, MECP2, PRKD1, TGFB2, SEMA5A, NR2F2, NR4A1, KANK1, ENPP2, MTOR, BMPER, EPB41L4B, PRKCE, ROBO1, FAP, GRHL2, KDR, PRCP, NRP1, PTPRM, ADTRP, ADAMI7, ETS1, RIN2, MAPRE2, STARD13, TGFBRI, NF1, HDAC9, MEOX2, HDAC7, TNF, DOCK1, SMOC2, PIK3R3, EFNB2, EGF, KIT, MARVELD3, MAP3K3, BSG, FGF7, MYH9, PIK3CD, WPCP, FGFR1, SEMA3A, MAP2K5, ITGA3, CLASP1, CAPN7, MACF1, AKT3, PRKX, SPRED1, PTPRR, HDAC5, TDGF1, AMOT, DPP4, PRKCA, CTSH, RGCC, CLASP2, FGF1, RREB1</i>
GO:0035235	ionotropic glutamate receptor signaling pathway	0.010003371902679284	<i>GRIK1, GRIN3A, GRIA1, GRID1, GRIA4, GRIN2B, GRIK3, GRIK2, APP, GRIN2A, GRID2, GRIA3, GRIK4, GRIA2</i>
GO:1990806	ligand-gated ion channel signaling pathway	0.010003371902679284	<i>GRIK1, GRIN3A, GRIA1, GRID1, GRIA4, GRIN2B, GRIK3, GRIK2, APP, GRIN2A, GRID2, GRIA3, GRIK4, GRIA2</i>
GO:0120031	plasma membrane bounded cell projection assembly	0.010471385489500716	<i>CDC42EP3, NPHP3, KCNQ1, NRXN1, RAB5A, PCNT, FGD6, CDH13, SDC CAG8, CEP41, HYDIN, PLCE1, BBS9, SPEF2, C2CD3, FSIIP2, ATAT1, WDR11, ATP6V0D1, NTN1, SLIT2, TTLL8, DYNLL2, CEP97, DMD, VCL, TRPM2, KIF3B, DISC1, WRAP73, CDC14A, VAV3, PCDH15, DNAAF2, ARHGAP24, VANG2, RPGR, PMP22, KANK1, ACTN2, DCDC2, RFX4, MTOR, BBS2, IFT88, ATP6V1D, LRRC49, PKHD1, TMEM138, NRP1, TENM2, TTC12, OPHN1, CCDC88A, STK36, ADAMTS16, DNAH8, HDAC4, DNM3, PTPDC1, TGFBRI, SPAG17, PARVB, PIBF1, CEP89, IFT80, TTC8, CCDC57, RALA, EXOC5, CAPZB, WWTR1, TMEM67, ASAP1, NLGN1, AH11, COBL, ATXN10, SPAG16, RAB23, EPS8, NUDCD3, CCP110, ARHGEF6, ZNF423, CDC14B, TENM1, CDKL5, WDR35, DYNC2H1, KIT, CC2D2A, PTPRO, RAPGEF2, ARMC2, FER, IFT43, RAPGEF6, GAS8, ARHGAP35, CD2AP, CDKL1, FGD4, ARF4, TEK4, WPCP, AUTS2, OCLN, P2RX7, CEP250, ARMC9, NME8, SCLT1, MYLK, SPATA6, SNAP29, FMRI, LIMK2, RPGRIP1, IFT81, ICK, TTC39C, ALPK1, APC, ATMIN</i>
GO:0061337	cardiac conduction	0.010833989567407899	<i>KCNQ1, TNNI3K, ANK2, KCND3, KCNE1, RYR3, AGT, CTNNA3, RYR2, SLC8A1, KCNJ3, ABCC9, KCNE2, PDE4D, PKP2, ATP1A1, PLN, CACNA1C, CACNA2D1, CXADR, CACNA1D, TRDN, NUP155, KCNE4, MEF2A, HCN4, RNF207, TRPM4, CACNB2, CORIN, CASQ2, SPTBN4, TBX18</i>
GO:0010648	negative regulation of cell communication	0.011270397114651939	<i>DAB1, MAPK14, PTPRT, TIMP3, DUSP22, FBLN1, NPHP3, RGS6, SHANK2, GRIA1, TGFBRI, FSTL4, RNF152, NXN, CSNK2A1, CHEK2, GPC3, NRG1, PSMB2, SHISA6, RFFL, SH3RF2, LDLRAD4, RGS7BP, CBFA2T2, NKD1, SCAI, PTPRE, SORCS3, ZNF536, RAB7A, ZNF366, PRKACB, PXDN, LEMD3, AGT, RCAN1, CDH2, PARK2, FHL2, BPIFB1, PCDH17, ZNRF3, HTRA1, SLIT2, PDCD6, IGF1R, MDM2, SLC24A4, TMPRSS6, DMD, SORCS2, WWOX, LRK2, RORA, SH3BP1, MTMR2, GSK3B, TGFB2, BDNF, RBMS3, OTUD7A, ANKRD6, ARHGAP12, FBN1, GRIK3, TAOK3, BCL2, ZNF675, ARHGAP24, LRP2, DEPTOR, NR4A2, SMARCA4, CD44, HECW1, RNF213, FOXO1, PDE4D, KANK1, TNMD, GRIK2, CELF4, RFX4, NLRP12, MTOR, CTDSPL2, BMPER, PTPRD, CTNNBIP1, ZMYND11, NLGN4X, HELLS, PRKCB, ADCY8, FOXO3, KALRN, TTLL12, CCDC88C, DLCL1, ROBO1, COL2A1, EYA4, PKHD1, STK3, NRP1, UACA, LGR4, LINC00473, ADAMI7, TGFBRII, RGS16, TCF7L2, TRABD2B, BICD1, CD38, RNF43, CHRDL1, RNF126, BCL2L1, PDE4B, BRD4, ARR3, RABGEF1, SPRED2, GLI3, RAP1A, TGFBRI, TNFR, NCOA5, CHST11, PTTG1IP, RAPGEF1, WIF1, CYP7B1, GRAMD4, GLRA1, GRID2, PIBF1, PSMA1, ADRBK2, MAGI2, NF1, RGS7, SORL1, STRN3, BICCI, BID, IFT80, TRIM59, LZTR1, ASXL1, GRM5, NDRG2, NLK, NPHP4, PP3CA, KLF7, SNX25, DGKI, PER1, SLC24A2, WWTR1, CBLB, PTPRU, MAPK8IP2, VEPH1, DDX3X, CNOT7, SMAD3, CD300A, AATF, HDAC7, TNF, OVOL2, SNX5, TNIP1, EIF3A, PRDM15, DLG5, ARF1, GCLC, PMEPA1, LTBPI, SULFI, LRP4, ALPK2, CTNNA1, MLLT3, CD109, SLIT3, UBR2, VWC2, PTPRO, ESRI, MARVELD3, EPHB2, MECOM, FNIP1, SLAMF1, ABL2, DEPD5, ARHGAP35, CD2AP, SPRED3, ARHGAP25, SULF2, PDE11A, RGS3, SOST, P2RX7, RASA3, AMFR, AR, SUFU, EYA1, BDKRB2, DGKZ, PRKAA2, TLE4, TRIM72, MAP2K5, TNN, DAB2, ITGA3, PLCL2, PPM1B, PIN1, RPS6KA6, STK38, CIT, TGFA, HGF, RGS12, PDE3A, PSMB7, SKI, ELF1, ENPP1, FMRI, LITAF, MAD1L1, ARHGAP42, PPARA, FAM3D, SPRED1, PRDM16, ZNF451, BTRC, CCDC3, OPTN, PTPRR, FBXW11, G3BP1, PRKQ, TP63, PIK3R2, RAP1B, APC, ITGA1, UBASH3B, MTMR4, RPH3AL, USP18, GPR21, C1QTNF3, TBX20, NLRC5, TBX18</i>
GO:00725	divalent	0.0118488444300199	<i>CMKLR1, ANK3, SLC24A3, MS4A1, GRIA1, ANK2, FAM155A, RYR3, PLCE</i>

07	inorganic cation homeostasis	15	<i>1,CCR1,CCR3,AGT,PARK2,SLC24A4,TRPC5,DMD,GRM1,TRPM2,RYR2,DHRS7C,CHD7,DISC1,HEXB,SLC8A1,PRKD1,SGCD,GRIN2B,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,FYN,PDE4D,GRIK2,RAP1GDS1,SLC1A1,PLN,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,PKHD1,TGM2,KDR,APP,MT1HL1,GRIN2A,CD38,SLC30A7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,FAM20A,TAC4,MICU1,SLC39A8,GRM5,ADCYAP1R1,SLC24A2,KL,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,TRPC4,C5AR1,TRDN,TRPV4,ESR1,HTR2C,SLC30A8,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP13A3,GPR55,CCL7,MT1F,TRPM4,CALCR,CACNB2,MICU2,TMTC2,JPH4,GNAI3,CACNA1A,SIPR3,TRPM1,UMOD,SLC24A5,STIM1,CASQ2,CNNM3,UBASH3B,CCL14,CCL15,MCOLN3,RGN</i>
GO:0010631	epithelial cell migration	0.012446069463704646	<i>ITGA2,CDH13,GADD45A,AGT,RHOJ,LOXL2,SLIT2,PDCC6,PTPRG,KRT2,SH3BP1,MECP2,PRKD1,TGFB2,SEMA5A,NR2F2,NR4A1,KANK1,ENPP2,MTOR,BMPER,EPB41L4B,PRKCE,ROBO1,FAP,KDR,PRCP,NRP1,PTPRM,ADTRP,ADAM17,ETSI,RIN2,MAPRE2,STARD13,TGFBF1,NF1,HDAC9,MEOX2,HDAC7,TNF,DOCK1,SMOC2,PIK3R3,EFNB2,EGF,KIT,MARVELD3,MAP3K3,BSG,FGF7,MYH9,PIK3CD,WDPCE,FGFR1,SEMA3A,MAP2K5,ITGA3,CLASP1,CAPN7,MACF1,AKT3,PRKX,SPRED1,PTPRR,HDAC5,TDGF1,AMOT,DPP4,PRKCA,CTSH,RGCC,CCLASP2,FGF1,RREB1</i>
GO:0071417	cellular response to organonitrogen compound	0.013299734403707332	<i>PLCB1,GABRB3,ARID1B,KCNQ1,SLC1A2,KCNE1,SPIDR,RYR3,GLP2R,CFTR,ALK,PTPRE,AGT,CHRM5,PARK2,CYBB,HDAC2,SLIT2,STXB4,IGF1R,MDM2,HCN1,TRPM2,RYR2,LRRK2,SLC1A3,PDXP,GSK3B,SLC8A1,OGT,SIK2,AKAP6,FBN1,ITPR2,NR4A2,FYN,GNRHR,NR4A1,CASP6,FOXO1,PDE4D,KANK1,ACTN2,GABRB1,SLC1A1,MTOR,CHRM1,PRKCB,ADCY8,FOXO3,RAB31,TBC1D4,TGM2,APP,CPEB2,ATF2,BCL2L1,PDE4B,DNMT1,GHR,GLRA2,NTRK2,GNG2,RAP1A,NCOA5,RAPGEF1,CACNA2D1,GLRA1,COL4A6,PNPLA3,SORL1,HTR4,POR,GRM5,HDAC9,DDC,KLF3,MAS1,KL,GABPA,AKAP7,NSG1,JAK2,BAIAP2L1,TNF,SNX5,BCL11A,ANO1,GCLC,GNAL,PIK3R3,TRIM41,CTNNA1,NSG2,UBR2,BLM,CPS1,RAPGEF2,HTR2C,GABRB2,EPHB2,ABCC1,FER,CAMP,PDGFD,PLAT,RYR1,P2RX7,CASP7,GNB5,PTPR4,TRIM72,GNAO1,HCN4,SMPD3,UROS,TRPM4,CHRM3,INSR,PDE3A,ENPP1,RAGC,IDE,PCK1,TAI1,CACNA1A,HDAC5,PRKCQ,STAT3,BRIP1,PIK3R2,CASQ2,DTNBP1,RAP1B,APC,GABRG2,GPR21,VPS35</i>
GO:0023057	negative regulation of signaling	0.013464846832860112	<i>DAB1,MAPK14,PTPRT,TIMP3,DUSP22,FBLN1,NPHP3,RGS6,SHANK2,GRI1A1,TGFBF3,FSTL4,RNF152,NXN,CSNK2A1,CHEK2,GPC3,NRG1,PSMB2,SHISA6,RFFL,SH3RF2,LDLRAD4,RGS7BP,CBFA2T2,NKD1,SCAI,PTPRE,SORCS3,ZNF536,RAB7A,ZNF366,PRKACB,PXDN,LEMD3,AGT,RCAN1,CDH2,PARK2,FHL2,BPIFB1,PCDH17,ZNRF3,HTRA1,SLIT2,PDCC6,IGF1R,MDM2,SLC24A4,TMPRSS6,DMD,SORCS2,WWOX,LRRK2,RORA,SH3BP1,MTMR2,GSK3B,TGFB2,BDNF,RBMS3,OTU7A,ANKRD6,ARHGAP12,FBN1,GRIK3,TAOK3,BCL2,ZNF675,ARHGAP24,LRP2,DEPTOR,NR4A2,SMARCA4,CD44,HECW1,RNF213,FOXO1,PDE4D,KANK1,TNMD,GRIK2,CELF4,RFK4,NLRP12,MTOR,CTDSP12,BMPER,PTPRD,CTNNBIP1,ZMYND11,NLGN4X,HELLS,PRKCB,ADCY8,FOXO3,KALRN,TLL12,CCDC88C,DLC1,ROBO1,COL2A1,EYA4,PKHD1,STK3,NRP1,UACA,LGR4,LINC00473,ADAM17,TGFBF11,RGS16,TCF7L2,TRABD2B,BICD1,CD38,RNF43,CHRD1,RNF126,BCL2L1,PDE4B,BRD4,ARR3,RABGEF1,SPRED2,GLI3,RAP1A,TGFBF1,TNR,NCOA5,CHST11,PTTG1IP,RAPGEF1,WIF1,CYP7B1,GRAMD4,GLRA1,GRID2,PIBF1,PSMA1,ADRBK2,MAGI2,NF1,RGS7,SORL1,STRN3,BIC1,BID,IFT80,TRIM59,LZTR1,ASXL1,GRM5,NDRG2,NLK,NPHP4,PPP3CA,KLF7,SNX25,DGKI,PER1,SLC24A2,WWTR1,CBLB,PTPRU,MAPK8IP2,VEPH1,DDX3X,CNOT7,SMAD3,CD300A,AATF,HDAC7,TNF,OVOL2,SNX5,TNIP1,EIF3A,PRDM15,DLG5,ARF1,GCLC,PMEP1,LTPP1,SULF1,LRP4,ALPK2,CTNNA1,MLLT3,CD109,SLIT3,UBR2,VWC2,PTPRO,ESR1,MARVELD3,EPHB2,MECOM,FNIP1,SLAMF1,ABL2,DEPDC5,ARHGAP35,CD2AP,SPRED3,ARHGAP25,SULF2,PDE11A,RGS3,SOST,P2RX7,RASA3,AMFR,AR,SUFU,EYA1,BDKRB2,DGKZ,PRKAA2,TLE4,TRIM72,MAP2K5,TNN,DAB2,ITGA3,PLCL2,PPM1B,PINI,RPS6K46,STK38,CIT,TGFA,HGF,RGS12,PDE3A,PSMB7,SKI,ELF1,ENPP1,FMR1,LITAF,MAD1L1,ARHGAP42,PPARA,FAM3D,SPRED1,PRDM16,ZNF451,BTRC,CCDC3,OPTN,PTPRR,FBXW11,G3BP1,PRKCQ,TP63,PIK3R2,RAP1B,APC,ITGA1,UBASH3B,MTMR4,RPH3AL,USP18,GPR21,C1QTNF3,TBX20,NLRCS,TBX18</i>
GO:0051641	cellular localization	0.013477210140969332	<i>DAB1,MAPK14,TRAPPC8,GPHN,CTBP2,RAB27A,ANXA8L1,ANK3,HEATR5A,WLS,SYN3,AKAP13,SNX31,VPS13D,ABCG1,KCNQ1,SUN2,GRI1N3A,NRXN1,SGSM1,NRXN3,SLC1A2,RAB5A,DOCK2,PCNT,MS4A1,RIMS2,CLEC16A,DLG2,CDH13,ANK2,TBC1D22A,KCND3,FAM155A,SYNDIG1,DPP10,KCNE1,TMEM108,GPC3,FBLN5,NRG1,STXBP6,SHISA</i>

			<p>6,SPIDR,IL4R,RYR3,MCTP1,ASTN2,ABHD17C,CFTR,BBS9,SCFD2,AGBL4,DNAJC15,SLC6A2,ARFIP1,PIK3C3,ERC1,KLRF2,RAB7A,C2CD3,EPHA3,PTPRN2,DCLK1,AGT,ERC2,FSIP2,VTI1A,WDR11,ATP6V0D1,CDH2,PARK2,BANP,RN7SL659P,MCTP2,SYTL5,NTN1,DENND2A,GP C6,USP6,ANKFN1,ITSN1,PCDH17,APBA2,PDCD6,STXBP4,GPC5,MDM2,MX2,SLC24A4,E2F3,NUTF2,SYT9,CCDC91,DMD,SYT1,CACNG3,VCL,NOX5,CELSR1,SGG1L,FMN2,HNRNPA2B1,SKAP1,SORCS2,DPP6,WDR83OS,ATRX,TRPM2,IPO13,RYR2,XRCC4,KIF3B,UNC13C,DHRS7C,LRRK2,KXD1,NUSAP1,CHD7,DISC1,DPY30,WRAP73,MTMR2,GSK3B,SLC8A1,PRKD1,FLVCR1,FRMD6,DNAJC6,SLC5A3,BDNF,LLGL2,PRKAR1B,PRKCH,TOR1AIP1,WASF1,WDR72,GRIN2B,ZDHHC14,MREG,PLEKHM2,SNAP25,SNAP25-AS1,PML,SYBU,USP36,AKAP6,CNTNAP2,SNAP23,BCL2,CHMP4C,KCNJ3,NSF,ITPR2,LRRC4,GDAP1,RPGR,FYN,KCNE2,NR4A1,RHBDD1,PDE4D,ABCB10,ACTN2,PACRG,EXOC4,GRIK2,KCNIP4,SLC1A1,MTOR,CADPS,VPS26B,CHRM1,CTDSPL2,PKP2,RANBP17,UBXN2B,ABCA13,CCDC88B,BBS2,ARL6IP5,ATP1A1,EPM2A,PLN,EVI5,EXOC6B,IFT88,NLGN4X,PRKCE,ATP6V1D,PRKCB,STON1,ADCY8,RAB31,SCP2,TRAPPC12,CAPN3,PARD3B,CCDC88C,TANC2,TBC1D4,BNIP3L,STX12,MAP7,TRAF3IP2,VPS37B,SEC24B,PKHD1,STK3,PPLH1,CASK,ABCA12,APP,NRP1,RN7SL674P,TSNARE1,IMMP2L,IGF2R,ATF2,PEX5L,GOPC,SMG6,TM9SF4,KPNB1,TCF7L2,BICD1,PARD3,THOC2,GRIN2A,GRIPI,RIMS3,KIFAP3,OPHN1,CCDC88A,DENND5A,SLC30A7,TUBB,RNF126,SMG7,BCL2L1,MAPRE2,A1CF,DNM3,RASGRP1,TRAPPC10,COMMD1,RAB11FIP4,RABGEF1,STARD4,C17ORF75,GLI3,CACNA1C,COG7,KIF16B,STXBP5,CRB1,LAMP5,RAP1A,SRP54,EPHA5,VPS53,CPE,PTTG1IP,CHRNA3,CHRNA5,MORC3,RAB2A,SYNE1,SCFD1,CACNA2D1,STX8,ATXN1,GAB2,GRID2,NPC1,PIBF1,SAMM50,TMEM50B,VPS39,SPG11,ADORA2A,DYNC112,EFNA5,CACNG2,MAGI2,NF1,SORL1,BID,IFT80,TTC8,RELN,SLC39A8,PTPN9,SNUPN,DYNC1H1,DDC,NUMB,NPHP4,RALA,ADCYAP1R1,EXOC5,MAN1A1,PPP3CA,TBC1D3B,KCNB2,KLF7,PLS1,DGKI,GNPTAB,SLC24A2,TBC1D5,TSPAN33,WWTR1,ANKRD13A,CBLB,SEC63,ATP9A,GPC4,RIMS1,FAM126B,GP SM2,KAT7,SLC22A2,NLGN1,PTPRU,GBP2,RNF128,SLC22A3,OSBPL5,CACNA1D,DDX3X,LRPPRC,NSG1,VPS37A,TPCN2,JAK2,AH11,RAPI1,SMAD3,VPS41,CD300A,NOS1,CDK1,HGSNAT,MCM3AP,NVL,TNF,SNX5,CPT1B,PPF1A2,BLOC1S6,TRIM23,ARF1,MYO6,POLR1A,KIF18A,ANO1,GCLC,RAB23,NUDCD3,PABPC1L,TOMM34,LRP4,EFNB2,RAB24,RSRC1,SAE1,SHFM1,TRDN,ZNF423,CLSTN1,INSC,CSE1L,CTNNA1,NSG2,TENM1,WDR35,ARHGAP11B,DYNC2H1,MYRIP,STX16,STX16-NPEPL1,EGF,PTPN14,SEC16B,SPIRE2,KIT,KPNA3,TRPV4,CC2D2A,DNAH11,NAPG,RAPGEF2,DNAJB6,ESR1,HTR2C,SLC30A8,FGF13,GRM4,NUP155,EPHB2,NDFIP2,ERBB4,FER,IFT43,LRP5,RAPGEF6,BSG,F11R,GAS8,SETD2,TMEM50A,VPS13C,AP2B1,CD2AP,NSUN2,PTPRK,CCL3,FGF7,MYO7B,GPR158,IPO11,MCM9,REEP1,ARF4,ARFGAP3,MYH9,PACSIN2,SPRN,MIEP,P2RX1,PIK3CD,RGPD1,AGTPBP1,KCNE4,PLAT,TNKS,UNC13A,VPS45,MEF2A,OCLN,RYR1,TBC1D9,UNC13B,MAP2,TTC7B,ITGB7,P2RX7,RAPGEF4,RASA3,ZDHHC11,ZDHHC11B,ZDHHC9,AR,KIAA1109,PIGK,RABGAP1L,SUFU,CEP250,EXOC2,RBM4,BDKRB1,AFTPH,GNL3,EPB41L3,KIF4A,MARK2,PROS1,REEP2,SNX7,VPS16,FERMT2,MARK1,SMPD3,DAB2,HDAC8,LCPI1,RNF207,STX3,SYT2,ACTN4,ADAM10,BLOC1S5,ITGA3,KMO,LGII,RFTN1,RNASEH2B-AS1,STAC,NUP153,PIN1,TRPM4,BTBD9,CIZ1,CLASP1,EIF4ENIF1,CNGB1,PCDHGA3,CALCR,CENPF,MYO1B,RN7SL318P,TLK1,ZBTB16,CACNB2,NFASC,NOS1AP,SNAP29,MACF1,CHM,FMRI,LIMK2,THEM4,ATP5J,DKC1,FAM126A,MON2,RRAGC,ABCD1,AMPH,MAD1L1,AP1G2,CD84,EPG5,ESYT2,JPH4,SIL1,SORT1,HEATR5B,NUP214,TRPM1,NUP62CL,OPTN,RIT2,IFT81,PRKCG,UMOD,DOCK7,FBXW11,ICK,NDE1,STAT3,USP7,AMOT,DNM1P46,PIK3R2,CASQ2,DTNBP1,GAK,RAPI1B,LGALS9,SNCAIP,APC,SRP19,UBASH3B,ASB3,EXOC6,DHX9,RPH3AL,SLAH3,SPTBN4,AP5M1,CLASP2,MAP2K1,TPH1,VPS35,MCOLN3,C6ORF106,RN7SL673P</p>
GO:0040013	negative regulation of locomotion	0.014274458618863232	<p>SRGAP2B,PLCB1,PTPRT,DUSP22,FBLN1,NRG3,GADD45A,NRG1,MCTP1,SEMA6D,LDLRAD4,SCAI,ROBO2,SPOCK3,SEMA3D,DACH1,RIN3,SLIT2,PTPRG,VCL,STK24,FRMD5,MECP2,SEMA4D,SEMA5A,RYK,NR2F2,BCL2,KANK1,FOXO3,MITF,DLC1,ROBO1,NRP1,PTPRM,ADT RP,SEMA3C,PRKG1,STARD13,RABGEF1,ADORA2A,MAGI2,NF1,GRM5,NAV3,JAG1,MEOX2,PTPRU,CD300A,TNF,LRCH1,DLG5,ARID2,ADORA3,SULF1,CTNNA1,PTPRO,SEMA3E,MARVELD3,PTPRK,SEMA5B,SEMA3A,SRGAP3,MAP2K5,TNN,PIN1,CLASP1,GNA13,SPRED1,PTPRR,HDAC5,ADARB1,STAT3,BMPRIA,DPP4,SPINT2,RGCC,SRGAP1,CLASP2,RGN</p>

GO:0030031	cell projection assembly	0.014378355412506023	CDC42EP3,NPHP3,KCNQ1,NRXN1,RAB5A,PCNT,FGD6,CDH13,SDC CAG8,CEP41,HYDIN,PLCE1,BBS9,SPEF2,C2CD3,FSIP2,ATAT1,WDR11,ATP6V0D1,RHOJ,NTN1,SLIT2,TLL8,DYNLL2,CEP97,DMD,VCL,T RPM2,KIF3B,DISC1,WRAP73,CDC14A,VAV3,PCDH15,DNAAF2,ARH GAP24,VANGL2,RPGR,PMP22,KANK1,ACTN2,DCDC2,RFK4,MATK, BBS2,IFT88,ATP6V1D,LRRC49,PKHD1,TMEM138,NRP1,TENM2,TTC12,PARVG,OPHN1,CCDC88A,STK36,ADAMTS16,DNAH8,HDAC4,DN M3,PTPDC1,TGFBR1,SPAG17,PARVB,PIBF1,CEP89,IFT80,TTC8,CC DC57,RALA,EXOC5,CAPZB,WWTR1,TMEM67,ASAP1,NLGN1,AHI1,C OBL,ATXN10,SPAG16,RAB23,EPS8,NUDCD3,CCP110,ARHGEF6,ZN F423,CDC14B,TENM1,CDKL5,WDR35,DYNC2H1,KIT,CC2D2A,PTPR O,RAPGEF2,ARMC2,FER,IFT43,RAPGEF6,GAS8,ARHGAP35,CD2AP, CDKL1,FGD4,ARF4,TEKT4,WDPKP,AUTS2,OCLN,P2RX7,CEP250,A RMC9,NME8,SCLT1,MYLK,SPATA6,SNAP29,FMR1,LIMK2,RPGRIPI,I FT81,ICK,TTC39C,ALPK1,APC,ATMIN
GO:0086019	cell-cell signaling involved in cardiac conduction	0.01458911398166589	KCNQ1,ANK2,RYR2,KCNJ3,PKP2,CACNA1C,CACNA2D1,CXADR,CACNA1D,NUP155,HNC4,RNF207,TRPM4,CACNB2,CASQ2,TBX18
GO:0140352	export from cell	0.01553184527725008	CTBP2,RAB27A,WLS,SYN3,ABCG1,KCNQ1,GRIN3A,NRXN1,NRXN3,R AB5A,RIMS2,KCND3,KCNE1,SYT17,STXBP6,IL4R,MCTP1,SYT16,CCR1,CFTR,SCFD2,ARFIP1,SLC17A3,PIK3C3,FAM3B,KLRF2,RAB7A,PTP RN2,AGT,ERC2,PARK2,MCTP2,SYTL5,ITSN1,APBA2,STXBP4,SLC24A4,SYT9,SYT1,TRPM2,UNC13C,LRRK2,ILDR1,SLC4A4,CHD7,GSK3B,SLC8A1,TGFB2,ATP1A4,LLGL2,SNAP25,SNAP23,RALBP1,DISP1,NSF,FRMD4A,MICAL3,KCNE2,NR4A1,EXOC4,CADPS,ATP1A1,EXOC6B,PRKCE,PRKCB,ADCY8,RAB31,SLC47A1,KALRN,EDNRB,CBLN4,CASK,ABCA12,ADTRP,TCF7L2,ABAT,RIMS3,CD38,NTRK2,ACSL4,RASGRP1,RABGEF1,STXBP5,RAP1A,EPHA5,CPE,CHRNA3,CHRNA5,TBX3,GAB2,PCSK5,ADORA2A,CAMK2G,EFNA5,MERTK,NF1,RALA,EXOC5,PPP3CA,KLF7,DGKI,GNPTAB,ATP9A,GRM7,RIMS1,SLC22A2,NLGN1,TPCN2,JAK2,CD300A,TNF,POMC,BLOC1S6,KCNT2,ADORA3,ANO1,ABCG2,MYRIP,IL1RAPL1,KIT,TRPV4,HTR2C,SLC30A8,GRM4,ABCI1,FER,LRP5,BSG,CD2AP,CCL3,FGF7,ARFGAP3,MYH9,SOX4,OSCP1,P2RX1,PIK3CD,KCNE4,UNC13A,UNC13B,P2RX7,PLA2G4A,RAPGEF4,SCAMP5,EXOC2,TRIM72,SMPD3,DAB2,STX3,SYT2,KMO,MYOM1,TRPM4,BMP6,CLASPI,CACNB2,SNAP29,PAK1,FMR1,CD84,TTN,FAM3D,SLC22A5,PRKCG,SLC40A1,DTNBP1,RAP1B,LGALS9,SNCAIP,PTGES,EXOC6,RGCC,RPH3A,MAP2K6,CLASP2,TPH1,VPS35,C1QTNF3
GO:0055082	cellular chemical homeostasis	0.015623947446860565	CMKLR1,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,TF,SCARA5,RYR3,PLCE1,CCR1,CCR3,CFTR,ZBTB20,RAB7A,PTPRN2,AGT,ATP6V0D1,CP,KCNMA1,STXBP4,IGF1R,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,FSHR,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,GRIN2B,PTGFR,PML,PPARGC1A,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,SMARCA4,FOXO1,PDE4D,TBXAS1,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPH1,PRKCE,PRKCB,VDR,ADCY8,FOXO3,CAPN3,EDNRB,NOX4,PKHD1,TGM2,ABCA12,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,KCTD7,CACNA1C,CYSLTR1,EPHA5,CACNA2D1,TRPM7,EFNA5,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYA P1R1,PPP3CA,KLF7,SLC24A2,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,MIR320B2,SLC39A10,ARF1,ANO1,GCLC,TRPC4,C5AR1,TRDN,LRR8D,DMXL1,CMA1,TRPV4,ESR1,HTR2C,SLC30A8,UBE3A,LRP5,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,SOX4,P2RX1,CDH23,RYR1,UNC13B,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,PRKAA2,THADA,ATP6V1H,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,CALCR,CACNB2,ENPP1,MICU2,JPH4,PCK1,GNA13,CACNA1A,S1PR3,TRPM1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,SLC9A9,PIK3R2,CASQ2,TMEM175,UBASH3B,SLC9A2,CCL14,CCL15,C1QTNF3,MCOLN3,RGN
GO:0044087	regulation of cellular component biogenesis	0.01569801355162859	CDC42EP3,ASIC2,DUSP22,ATF7IP,NRXN1,RAB5A,MTPN,PDE4DIP,SYNDIG1,SDCCAG8,PSMC6,FLRT2,NRG1,STXBP6,SPIDR,LRFN5,PLCE1,RHOC,LDLRAD4,DNAJC15,IL1RAPL2,RAB7A,ROBO2,EPHA3,AGT,ATAT1,PARK2,CORO2B,NEGR1,NTN1,GPC6,SLIT2,LCMT1,CEP97,SACS,VCL,SKAP1,TRPM2,LRRK2,NTRK3,PAN3,WRAP73,MECP2,SEMA4D,GSK3B,LINGO2,CLSTN2,FMN1,BDNF,PRKCH,CNTNAP2,CHMP4C,ARHGAP24,EPHB1,ARHGEF10,EPHA7,THBS2,KANK1,DCDC2,MTOR,LDB2,PTPRD,CTNNBIP1,HAS3,IFT88,PRKCE,LRRTM1,TRAPPC12,DLC1,CDH17,MAPK9,MDM1,KDR,PPLN1,APP,NRP1,ARHG

			EF18,TENM2,TRABD2B,CCDC88A,ADAMTS16,HDAC4,DNMT1,NTRK2,DNM3,CLDN1,MORC2,STXBP5,RAP1A,TGFBF1,PEAK1,RAPGEF1,EP300,SCFD1,TRIOBP,GRID2,EFNA5,SORL1,ARHGAP6,BID,TTC8,DYNC1H1,LRRTM3,RHPN2,NPHP4,RALA,IL1RAP,NAV3,CAPZB,GPC4,GPSM2,L3MBTL3,ASAP1,FHOD3,NLGN1,DDX3X,SMAD3,BAIAP2L1,TNF,COBL,DLG5,FCHSD2,BCL11A,PMEPA1,EP58,CCP110,PHF8,CLSTN1,SELP,TENM1,CDKL5,IL1RAPL1,KIT,RAPGEF2,DNAJB6,ESR1,EPHB2,RNF4,TBCD,FER,SLITRK6,SPTA1,FNIP1,F11R,FARP2,ARHGAP35,CDKL1,SLC39A12,SPTB,WDPCP,AUTS2,OCLN,UNC13B,MAP2,SLX1B,SOST,P2RX7,SNX30,C10ORF90,BHLHB9,PRKAA2,PDLIM5,PTPRA,SNX7,FERMT2,SMPD3,LCPI,SYNPO2,CLASP1,TMOD1,G3BP2,ELN,ARHGAP28,MACF1,PAK1,FMR1,LIMK2,BMF,SAMD8,CLIP1,FNIP2,G3BP1,AMOT,PAK3,RAP1B,SNCAIP,APC,CKAP5,PRKCA,RGCCT,TFIP11,SPTBN4,CLASP2,VPS35,TBX20,ATMIN
GO:0006816	calcium ion transport	0.015878865787249067	CACNA1E,SLC24A3,GRIN3A,MS4A1,PKD1L1,TRPM3,ANK2,FAM155A,RYR3,CCR1,AGT,SLC24A4,TRPC5,DMD,CACNA2D3,CACNG3,TRPM2,RYR2,CATSPER2,DHRS7C,CHD7,SLC8A1,PRKD1,GRIN2B,PML,AKAP6,BCL2,ITPR2,FYN,KCNE2,RCVRN,PDE4D,EPM2A,PLN,PRKCE,PRKCB,VDR,EFHB,CAPN3,EDNRB,CASK,CALCRL,GRIN2A,PDE4B,CACNA1C,CYSLTR1,IL16,CACNA2D1,CACNA2D4,TRPM7,ADORA2A,CAMK2G,CACNG2,MICU1,ADCYAP1R1,PPP3CA,SLC24A2,STIM2,CACHD1,CACNA1D,TPCN2,NOS1,PANX1,TMC2,TSPAN13,TRPC4,TRDN,EGF,TRPV4,HTR2C,CACNG6,CCL3,MCUR1,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,THADA,GNB5,STAC,TRPM4,MYLK,CALCR,CACNB2,NOS1AP,FMR1,MICU2,CD84,JPH4,CACNA1A,TRPM1,SLC24A5,STIM1,TRPM6,CASQ2,UBASH3B,MCOLN3,RGN
GO:0001667	ameboid cell migration	0.01618945711428509	ITGA2,CDH13,GADD45A,GPC3,RFFL,SEMA6D,ARID5B,AGT,RHOJ,CDH2,LOXL2,SEMA3D,SLIT2,PDCD6,PTPRG,KRT2,SH3BP1,MECP2,SEMA4D,SLC8A1,PRKD1,TGFB2,SEMA5A,NR2F2,PML,TNS1,NR4A1,KANK1,ENPP2,MTOR,BMPER,EPB41L4B,SOX8,PRKCE,EDNRB,ROBO1,FAP,CENPV,KDR,PRCP,NRP1,PTPRM,ADTRP,SEMA3C,ADAM17,ETS1,RIN2,MAPRE2,STARD13,TGFBF1,NF1,HDAC9,MEOX2,HDAC7,TNF,OVOL2,DOCK1,SMOC2,PIK3R3,EFNB2,AMOTL1,EGF,KIT,EFNB1,SEMA3E,MARVELD3,ERBB4,FER,MAP3K3,LRP5,BSG,FGF7,SEMA5B,MYH9,PIK3CD,WDPCP,FGFR1,ITGB7,SEMA3A,MAP2K5,ITGA3,CLASP1,CAPN7,MACF1,AKT3,PRKX,SPRED1,PTPRR,HDAC5,TGDF1,AMOT,PAK3,DPP4,PRKCA,CTSH,RGCC,CLASP2,FGF1,RREB1
GO:0070588	calcium ion transmembrane transport	0.016263968027817766	CACNA1E,SLC24A3,GRIN3A,PKD1L1,TRPM3,ANK2,FAM155A,RYR3,SLC24A4,TRPC5,DMD,CACNA2D3,CACNG3,TRPM2,RYR2,CATSPER2,DHRS7C,CHD7,SLC8A1,PRKD1,GRIN2B,AKAP6,ITPR2,FYN,KCNE2,PDE4D,PLN,PRKCE,CAPN3,EDNRB,GRIN2A,PDE4B,CACNA1C,CACNA2D1,CACNA2D4,TRPM7,CACNG2,MICU1,SLC24A2,STIM2,CACHD1,CACNA1D,TPCN2,NOS1,PANX1,TMC2,TSPAN13,TRPC4,TRDN,TRPV4,HTR2C,CACNG6,CCL3,MCUR1,P2RX1,RYR1,P2RX7,RASA3,BDKRB1,THADA,GNB5,STAC,TRPM4,CALCR,CACNB2,NOS1AP,FMR1,MICU2,JPH4,CACNA1A,TRPM1,SLC24A5,STIM1,TRPM6,CASQ2,UBASH3B,MCOLN3,RGN
GO:0001763	morphogenesis of a branching structure	0.01687701306534911	CSMD1,GPC3,AGT,GREB1,SLIT2,CELSR1,LRRK2,PML,BCL2,EPHA7,ERMN,CTNBP1,SOX8,VDR,GRHL2,PKHD1,TGM2,KDR,NRP1,LGR4,SEMA3C,ADAMTS16,GLI3,TBX3,MAP3K13,SHOX2,RDH10,TNF,DLG5,BCL11A,SULF1,EGF,ESR1,SEMA3E,LRP5,SETD2,FGF7,LAMA1,AR,EPHA2,SEMA3A,PBX1,HGF,PAK1,GNA13,NTN4,BTRC,ESRP2,EXT1,TGDF1,TP63,SPINT2,CTSH,FGF1,TBX20
GO:0006873	cellular ion homeostasis	0.017577002328586392	CMKLR1,SLC24A3,KCNQ1,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,TF,SCARA5,RYR3,PLCE1,CCR1,CCR3,CFTR,RAB7A,AGT,ATP6V0D1,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,GRIN2B,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,TBXAS1,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,PKHD1,TGM2,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,SLC24A2,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,ARF1,TRPC4,C5AR1,TRDN,DMXL1,TRPV4,ESR1,HTR2C,SLC30A8,UBE3A,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP6V1H,ATP13A3,CLN6,GPR55,CCL7,MTIF,TRPM4,BMP6,CALCR,CACNB2,ENPP1,MICU2,JPH4,GNA13,CACNA1A,SIPR3,TRPM1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,SLC9A9,CASQ2,TMEM175,UBASH3B,SLC9A2,CCL14,CCL15,MCOLN3,RGN
GO:0060048	cardiac muscle	0.018507733458641738	KCNQ1,TNNI3K,ANK2,KCND3,KCNE1,DMD,CTNNA3,RYR2,SLC8A1,SGCD,KCNJ3,KCNE2,PDE4D,MTOR,PKP2,ATP1A1,PLN,HDAC4,PDE4B,CACNA1C,CACNA2D1,CACNA1D,NOS1,SCN1A,FGF13,NUP155,

	contraction		<i>KCNE4,ADRA1B,PDE5A,HCN4,RNF207,FGF12,TRPM4,CACNB2,NOS1AP,TTN,MYH7,MYH6,CASQ2,ASB3,MAP2K6</i>
GO:0038180	nerve growth factor signaling pathway	0.01943409692731481	<i>BDNF,RAP1A,RAPGEF1,MAGI2,KIDINS220,RAPGEF2,NTF3,SORT1,NGF</i>
GO:0030003	cellular cation homeostasis	0.019516699484072822	<i>CMKLR1,SLC24A3,TMPRSS3,MS4A1,GRIA1,SLC9B1,ANK2,FAM155A,TF,SCARA5,RYR3,PLCE1,CCR1,CCR3,CFTR,RAB7A,AGT,ATP6V0D1,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,LRRK2,SLC1A3,SLC4A4,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,GRIN2B,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHL1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,PKHD1,TGM2,APP,MT1HL1,TM9SF4,GRIN2A,CD38,SLC30A7,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,TAC4,MICU1,SLC39A8,SLC9C1,GRM5,ADCYAP1R1,SLC24A2,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,ARF1,TRPC4,C5AR1,TRDN,DMXL1,TRPV4,ESR1,HTR2C,SLC30A8,UBE3A,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP6V1H,ATP13A3,CLN6,GPR55,CCL7,MT1F,TRPM4,BMP6,CALCR,CACNB2,MICU2,JPH4,GNAI3,CACNA1A,SIPR3,TRPM1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,SLC9A9,CASQ2,TMEM175,UBASH3B,SLC9A2,CCL14,CCL15,MCOLN3,RGN</i>
GO:0018209	peptidyl-serine modification	0.020343009985200555	<i>MAPK14,VRK2,NRXN1,CSNK2A1,CHEK2,GADD45A,STK38L,SPOCK3,DCLK1,RPS6KA2,DMD,LRRK2,VRK1,NTRK3,GSK3B,PRKD1,ERCC6,BDNF,PRKCH,BCL2,CD44,PDE4D,CSNK1G3,SLC1A1,MTOR,PLCL1,EPM2A,PRKCE,PRKCB,MAPK9,APP,EGFLAM,CAMK1D,RPS6KA5,TLK2,SGK2,NTRK2,CAMK4,TGFBF1,TOP1,MORC3,MAP3K13,NLK,NOS1,CDK1,TNF,STK32B,HMGA2,STK32C,DYRK4,TENM1,STK32A,FNIP1,TNKS,NTF3,IFNA8,SRPK2,BDKRB2,PRKAA2,MARK2,MARK1,TC11B,PLCL2,RPS6KA6,STK38,HGF,CALCR,TLK1,MAST4,PAK1,AKT3,PRKX,PKC1,TAF1,FNIP2,PRKCG,DOCK7,TDGF1,PRKCQ,MAPKAPK2,NGF,PRKCA,SPTBN4</i>
GO:0090130	tissue migration	0.021043161899018878	<i>ITGA2,CDH13,GADD45A,AGT,RHOJ,LOXL2,SLIT2,PDCC6,PTPRG,KRT2,SH3BP1,MECP2,PRKD1,TGFB2,SEMA5A,NR2F2,NR4A1,KANK1,ENPP2,MTOR,BMPER,EPB41L4B,PRKCE,ROBO1,FAP,GRHL2,KDR,PRCP,NRPI,PTPRM,ADTRP,ADAM17,ETS1,RIN2,MAPRE2,STARD13,TGFBF1,NF1,HDAC9,MEOX2,HDAC7,TNF,DOCK1,SMOC2,PIK3R3,EFNB2,EGF,KIT,MARVELD3,MAP3K3,BSG,FGF7,MYH9,PIK3CD,WDPDP,FGFR1,SEMA3A,MAP2K5,ITGA3,CLASP1,CAPN7,MACF1,AKT3,PRKX,SPRED1,PTPRR,HDAC5,TDGF1,AMOT,DPP4,PRKCA,CTSH,RGCC,CLASP2,FGF1,RREB1</i>
GO:0070252	actin-mediated cell contraction	0.021482673472451214	<i>KCNQ1,ANK2,KCND3,KCNE1,CTNNA3,RYR2,FRMD6,SGCD,MYH8,KCNJ3,KCNE2,PDE4D,PKP2,ATP1A1,PLN,CCDC88C,PDE4B,CACNA1C,CACNA2D1,CACNA1D,MYH4,SCN1A,FGF13,NUP155,KCNE4,HCN4,RNF207,FGF12,TRPM4,EPDR1,CACNB2,NOS1AP,MYH7,MYH6</i>
GO:0071407	cellular response to organic cyclic compound	0.022710957174709206	<i>ADCY2,PLCB1,GABRB3,ITGA2,KCNQ1,SLC1A2,GRAMD1C,KCNE1,CHBK2,SPIDR,RYR3,CFTR,RBFOX2,ALK,ZNF366,CHRM5,FBXO32,PAK2,HDAC2,IGF1R,SMAD1,NR3C2,HCN1,FSHR,NRIP1,TRPM2,RYR2,LRRK2,SLC1A3,RORA,PDXP,GSK3B,SLC8A1,KDM4C,PAQR8,AKAP6,ITPR2,GDAP1,SMARCA4,CASP6,PDE4D,GABRB1,SLC1A1,CHRM1,ARL6IP5,ATP1A1,VDR,ADCY8,FOXO3,MSR1,NR3C1,TGM2,APP,ADTRP,KAT5,TFPI,PDE4B,GNG2,RAP1A,SAFB2,RAPGEF1,EP300,CYP7B1,NPC1,PNPLA3,EFNA5,STRN3,HTR4,EIF4E,PER1,GABPA,AKAP7,NSG1,JAK2,TNF,PHOX,KIF18A,GCLC,PMEP1,GNAL,CTNNA1,NSG2,BLM,CPS1,RAPGEF2,ESR1,HTR2C,UBE3A,GABRB2,CCL3,KDM3A,PLAT,RYR1,P2RX7,AR,CASP7,TRERF1,GNB5,ZMIZ1,FLT3,PPARGC1B,DYNAP,ESRRG,GNAO1,HCN4,DAB2,TRPM4,CHRM3,PAK1,PDE3A,EPG5,PKC1,PPARA,TAF1,ESR2,BTRC,DEFA1B,DEFA3,TP63,PAK3,CASQ2,DTNBP1,RAP1B,LRP8,DHX9,GABRG2,VPS35</i>
GO:1990089	response to nerve growth factor	0.023155206472470116	<i>TMEM108,NTRK3,BDNF,KCNC1,WASF1,FOXO3,APP,NTRK2,RAP1A,RAPGEF1,MAGI2,SH3GL2,ELAVL4,KIDINS220,RAPGEF2,UBE3A,NTF3,SORT1,KCNC2,NGF</i>
GO:0048167	regulation of	0.023362510384379	<i>RAB5A,RIMS2,SHANK2,GRIA1,SHISA6,MCTP1,RASGRF1,SORCS3,ERCC1,CNTN4,S100B,AGT,ERC2,SHISA9,SORCS2,UNC13C,MECP2,GSK3B,GRIN2B,SNAP25,SIPA1L1,MME,GRIK2,IGSF11,SLC1A1,ADCY8,LR</i>

	synaptic plasticity		<i>RTM1,APP,GRIN2A,RIMS3,CD38,NTRK2,TNR,GRID2,RASGRF2,ADO RA2A,NF1,RELN,GRM5,DGKI,SLC24A2,RIMS1,NSG1,MIR320B2,ARF1,TSHZ3,KIT,RAPGEF2,EPHB2,PLAT,MIR433,STX3,FMR1,JPH4,PRKCG</i>
GO:0051962	positive regulation of nervous system development	0.02363718579042553	<i>CDH4,DSCAM,ASIC2,NRXN1,CHODL,SYNDIG1,PLXNA4,FLRT2,TIAM1,FBXO31,ROBO2,NTN1,HDAC2,SLIT2,TRPC5,TENM4,DISC1,SEMA4D,LINGO2,CLSTN2,SEMA5A,BDNF,PRKCH,PLXNA2,EPHB1,LRP2,THBS2,MME,MTOR,PTPRD,TIAM2,SOX8,LRRTM1,KALRN,ROBO1,TGM2,NRP1,NTRK2,GLI3,DICER1,CUX1,TP73,GRID2,EFNA5,RELN,GRM5,LRRTM3,NUMB,MAP3K13,IL1RAP,NLGN1,SHOX2,PLXNB1,TNF,DLG5,BCL11A,CLSTN1,CDKL5,IL1RAPL1,KIT,PLAG1,EPHB2,SLITRK6,BHLHB9,MACF1,ISLR2,PAK3,LRP8,NGF,MAP2K1</i>
GO:0086002	cardiac muscle cell action potential involved in contraction	0.025849595953408147	<i>KCNQ1,ANK2,KCND3,KCNE1,CTNNA3,RYR2,KCNJ3,KCNE2,PKP2,ATP1A1,CACNA1C,CACNA2D1,CACNA1D,SCN1A,NUP155,KCNE4,RNF207,FGF12,TRPM4,CACNB2,NOS1AP</i>
GO:0043547	positive regulation of GTPase activity	0.0264423039106978	<i>RGS6,SGSM1,TBC1D22A,TIAM1,RASGRF1,USP6,MYO9A,SIPA1L3,NTRK3,SH3BP1,SEMA4D,GSK3B,RALBP1,ARHGAP24,SIPA1L1,ARHGEF10,CHN1,RAP1GDS1,TIAM2,EVI5,KALRN,TBC1D4,TGM2,PKP4,RGS16,RALGAP2,DOCK9,MAPRE2,RASGRP1,RAP1A,RAPGEF1,NF1,RGS7,ARHGAP6,TBC1D3B,TBC1D5,DOCK10,ASAP1,ARAP2,PLXNB1,NET1,CDKL5,SIPA1L2,RAPGEF2,RAPGEF6,ASAP2,F11R,ARHGAP35,CCL3,PREX1,ARHGAP25,GARNL3,NEDD9,TBC1D9,NTF3,RABGAP1L,GNB5,FERMT2,CCL7,PIN1,RALGAP1,ARHGAP42,WDR41,DOCK7,CCL14,CCL15,RGN</i>
GO:0009968	negative regulation of signal transduction	0.027300446423223004	<i>DAB1,MAPK14,PTPRT,TIMP3,DUSP22,FBLN1,NPHP3,RGS6,SHANK2,TGFB3,FSTL4,RNF152,NXN,CSNK2A1,CHEK2,GPC3,NRG1,PSMB2,SHISA6,RFFL,SH3RF2,LDLRAD4,RGS7BP,CBFA2T2,NKD1,SCAI,PTPRE,ZNF536,RAB7A,ZNF366,PRKACB,PXDN,LEMD3,AGT,PLXNB1,CDH2,PARK2,FHL2,BPIFB1,ZNRF3,HTRA1,SLIT2,PDCD6,IGF1R,MDM2,SLC24A4,TMPRSS6,DMD,WWOX,LRRK2,RORA,SH3BP1,MTMR2,GSK3B,TGFB2,BDNF,RBMS3,OTUD7A,ANKRD6,ARHGAP12,FBN1,TAOK3,BCL2,ZNF675,ARHGAP24,LRP2,DEPTOR,NR4A2,SMARCA4,CD44,HECW1,RNF213,FOXO1,PDE4D,KANK1,TNMD,CELF4,RFX4,NLRP12,MTOR,CTDSP2,BMPEP,PTPRD,CTNNBIP1,ZMYND11,NLGN4X,HELLS,PRKCB,FOXO3,TTL12,CCDC88C,DLC1,ROBO1,COL2A1,EYA4,PKHD1,STK3,NRP1,UACA,LGR4,LINC00473,ADAM17,TGFB1I1,RGS16,TCF7L2,TRABD2B,BICD1,RNF43,CHRD1,RNF126,BCL2L1,PDE4B,BRD4,ARR3,RABGEF1,SPRED2,GLI3,TGFB1,NCOA5,CHST11,PTTG1IP,RAPGEF1,WIF1,CYP7B1,GRAMD4,PIBF1,PSMA1,ADRBK2,MAGI2,NF1,RGS7,SORL1,STRN3,BICC1,BID,IFT80,TRIM59,LZTR1,ASXL1,GRM5,NDRG2,NLK,NPHP4,SNX25,PER1,WWTR1,CBLB,PTPRU,MAPK8IP2,VEPH1,DDX3X,CNOT7,SMAD3,CD300A,AATF,HDC7,TNF,OVOL2,SNX5,TNIP1,EIF3A,PRDM15,DLG5,GCLC,PMEP1,LTBPI,SULF1,LRP4,ALPK2,CTNNA1,MLLT3,CD109,SLIT3,UBR2,VWC2,PTPRO,ESR1,MARVELD3,EPHB2,MECOM,FNIP1,SLAMF1,ABL2,DEPDC5,ARHGAP35,CD2AP,SPRED3,ARHGAP25,SULF2,PDE11A,RGS3,SOST,P2RX7,RASA3,AMFR,AR,SUFU,EYA1,BDKRB2,DGKZ,PRKAA2,TLE4,TRIM7,MAP2K5,TNN,DAB2,ITGA3,PLCL2,PPM1B,PIN1,RPS6KA6,STK38,CIT,TGFA,HGF,RGS12,PDE3A,PSMB7,SKI,ELF1,ENPP1,LITAF,MAD1L1,ARHGAP42,PPARA,SPRED1,PRDM16,ZNF451,BTRC,CCDC3,OPTN,PTPRR,FBXW11,G3BP1,PRKCQ,TP63,PIK3R2,APC,ITGA1,UBASH3B,MTMR4,RPH3A,USP18,GPR21,C1QTNF3,TBX20,NLRC5,TBX18</i>
GO:0045216	cell-cell junction organization	0.027409275713491728	<i>SVEP1,CTNND2,ANK2,RHOC,AGT,CDH11,CDH2,CDH9,TLN2,CDH8,CLDN14,VCL,TGFB2,PRKCH,CNTNAP2,CDH10,CDH12,CDH6,PKP2,NLGN4X,CDH18,GRHL2,PKHD1,PKP4,PARD3,CLDN1,FRMPD2,TGFB1,NUMB,NPHP4,CXADR,SMAD3,HDAC7,TNF,DLG5,EFNB2,CTNNA1,TRPV4,PTPRO,MARVELD3,EPHB2,TBCD,F11R,CLDN11,OCLN,EPB41L3,FERMT2,ADAM10,BMP6,PKP1,MPDZ,EXT1,AMOT,APC,PRKCA</i>
GO:0010604	positive regulation of macromol	0.02850741179241621	<i>TASPI,FANK1,PLCB1,KMT2C,DAB1,DUX4,GTF2I,MAPK14,ARID1B,RUNX1,CTBP2,RAB27A,PCBD2,PRIM2,ANK3,BCL2L13,AKAP13,FBLN1,ERG,ZNF292,SLC24A3,ITGA2,ABCG1,DPF3,ATF7IP,NRXN1,TNC,MTPN,NRG3,ARNT2,CDH13,ANK2,CSNK2A1,ZNF112,ZNF229,TF,PLGRKT,SAMD4A,CHEK2,PRDM9,PSMC6,TOX3,GPC3,NRG1,ETS2,NP</i>

	ecule metabolic process		<p>AS3,SPIDR,IL4R,ALDH1A2,SH3RF2,SLCO3A1,AGBL4,ZNF91,ZBTB20,TET3,NKD1,KLRF2,RAB7A,ARID5B,AGT,PARK2,BANP,CDC5L,KIR2DL4,ZNF804A,CYBB,BRF1,TRIM22,TRIM5,ZNF268,DCUN1D4,TXK,RNF185,SETD3,ZNF845,FTO,HDAC2,TFAP2D,PDCD6,RPS6KA2,IGF1R,MDM2,SLC24A4,SMAD1,E2F3,ZBED4,TMPRSS6,ZNF850,TRPC5,NOX5,TEAD1,FMN2,HNRNP2B1,NRIP1,SKAP1,WWOX,ATRX,PARP16,USP16,CAMTA1,LRRK2,RORB,NTRK3,RORA,CHD7,DISC1,HEXB,PAN3,CDCA2,GLIS1,IER2,MECP2,SEMA4D,GSK3B,ZNF841,PRKD1,ERCC6,OGT,RNF144A,TGFB2,BDNF,RBMS3,POLR3C,GRIN2B,NR2F2,PTGFR,NR5A2,PML,PPARGC1A,RNF180,TRUB2,NLRP2,TAOK3,BCL2,RALBP1,SMARCE1,IL12RB2,KLF12,LRP2,NSF,NFIA,NR4A2,EPHA7,ZBTB7C,FYN,KCNE2,PARN,NR4A1,SMARCA4,CD44,HECW1,RHBDD1,FOXO1,PDE4D,RNF144B,ENPP2,ABCB10,ACTN2,ATF6,BACH1,KLF13,RNF217,ZNF516,CELF4,SERPINB7,APBB2,EIF3E,NAMPT,SLC1A1,ZFPM2,GLIS3,RARB,RFX4,ETV6,NLRP12,MTOR,LDB2,MOV10,DDX21,CCDC88B,SCAF8,ZNF521,ZFP64,ARL6IP5,NOL11,EPB41L4B,SOX8,HAS3,GTTF2A1L,KMT2A,PRKCB,VDR,ADCY8,FHL5,FOXO3,MITF,CAPN3,ITLN1,CREB5,DLC1,EDNRB,ROBO1,SATB2,TDRD3,FLT1,NOX4,ZNF148,GRHL2,TCF4,MAP3K7,MAPK9,NBAS,NR3C1,TRAF3IP2,CR1,EYA4,SPON1,STK3,SUPT3H,ZNF585A,KDR,CASK,EDA,PCOLCE2,APP,NRP1,UACA,LGR4,ADTRP,CD58,KAT5,THRB,FUBP1,ADAM17,DIS3L2,MAP3K5,ZER1,ATF2,ETS1,NR2C2,PIK3R5,TGFB1I1,DOT1L,PSIP1,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,GRIN2A,DLX6-AS1,BCLAF1,CCDC88A,CD38,MOB3B,MRPS27,HDAC4,PDE4B,DNMT1,GHR,NTRK2,BRD4,RASGRP1,CAMK4,COMMD1,GLI3,SMCHD1,RAP1A,TGFBRI1,LCP2,IL16,PTTG1IP,ZNF729,CHRNA3,EP300,TBX3,GRAMD4,BRD7,TP73,PIBF1,ONECUT3,EFNA5,FAM20A,MAGI2,RFC3,SORL1,STRN3,ZNF615,BID,ELK3,TEAD4,DMRT1,ASXL1,RELN,GRM5,IL18R1,IL1RL1,SELE,LRRTM3,MAP3K13,EGLN3,IL1RAP,FBXL5,JAG1,MEOX2,PPP3CA,KLF7,MAS1,PER1,TBC1D5,WWTR1,CBLB,ELAVL4,MNAT1,PLSCR1,CNTN1,RIMS1,TRIM16,GABPA,KAT7,SSBP2,SLC22A2,BORA,AKIRIN2,RNF128,RAD51AP1,LRRK1,ZNF208,DDX3X,NSG1,CNOT7,MAML3,EHF,DNMT3B,JAK2,LMO7,AHI1,SMAD3,CD300A,NOS1,TCF12,AATF,CDK1,HIVEP3,LTB,NBN,NVL,SLC39A10,TNF,OVOL2,PANX1,SNX5,TNIP1,ZFPM1,ILF3,POMC,PRDM15,BMP15,INO80,ARID2,MLIP,PAXBP1,PRG3,BCL11A,HMGA2,MYO6,NEK4,YAF2,AGO3,CDC20B,GCLC,QKI,UBE2V1,SMOC2,SULF1,ANKRD31,C5AR1,LRP4,PIK3R3,WDR5,SAE1,PHF8,ZNF423,CDC14B,CHD6,TENM1,WFY2,ZNF407,ARHGEF11,ZNF345,BPTF,MLLT3,EGF,SEC16B,SPIRE2,KIT,TNFSF8,TNRC6B,ZNF600,BLM,TRPV4,EDAR,RAPGEF2,ESR1,UBE3A,FGF13,PLAG1,EPHB2,MECOM,NDFIP2,RNF4,TFDP2,TOX,DAPI,DAPK1,ERBB4,MAML2,FNIP1,LRP5,ZNF507,RPS27L,SLAMF1,BSG,CAMP,SETD2,ALX4,CCL3,FGF7,GLYR1,NHLH2,PSG9,SULF2,INF4,MYH9,SLC2A13,SOX4,ST18,CAB39L,NEDD9,P2RX1,PDGFD,PIK3CD,PRR16,UBE2N,AGTPBP1,ITGA8,PUM1,ARID4A,DDBI,KDM3A,SERTAD2,TNKS,AUTS2,FGFR1,MEF2A,OCLN,ARID4B,SLX1B,SOST,ASXL3,IL23R,JMY,KEAP1,NTF3,P2RX7,ARRDC4,TOX2,ZNF544,AR,PVT1,SCAMP5,TRERF1,EYA1,IFNA8,IL1RL2,SRPK2,GNL3,NEK5,PRKAA2,RLF,CDC73,MARK2,MEIS2,PDE5A,ZMIZ1,FLT3,NFIC,PPARGC1B,DYNAP,ESRRG,FERMT2,MAP2K5,MARK1,CLN6,DAB2,HDAC8,PBX1,RNF207,TCL1B,ACTN4,ITGA3,POU2F3,FANCB,QRICH1,RFTN1,MYOM1,PIN1,CD226,TCF20,BMP6,CIZ1,EIF4ENIF1,CARF,CNGB1,NCOA2,TGFA,CREM,HGF,PKP1,POU2F1,CALCR,FLII,POMT2,ZBTB16,CTIF,NOS1AP,INSR,LARP4B,PAK1,SKI,ELF1,FMR1,LIMK2,LITAF,PAX3,CHFR,DKC1,JDP2,KLF6,IDE,AIM2,CD84,PCK1,PPARA,SPIB,TTN,TAF1,FNIP2,PPP2R3C,ESR2,PRDM16,ZNF451,BTRC,MLLT10,RIT2,NCOA1,PRKCG,PRLR,CBFA2T3,DOCK7,FBXW11,G3BP1,HDAC5,TDGF1,ZNF493,SLC40A1,STAT4,POU2AF1,PRKCQ,STAT3,TFEC,TP63,USP7,ZNF721,DOCK3,HPN,PAK3,PIK3R2,TBL1X,BLNK,DITNBP1,LGALS9,LRP8,NFAT5,GTPBP1,MAPKAPK2,APC,BMPRI1,ITGA1,NGF,VLDLR,PILRB,ABI1,CTSH,DHX9,RGCC,IL6R,MAP2K6,MAP2K1,RGMB,VPS35,C1QTNF3,FGF1,TBX20,ATMIN,CRADD,NLR3,SGN,RREB1</p>
GO:0050772	positive regulation of axonogen esis	0.029396272615810848	<p>CDH4,DSCAM,CHODL,PLXNA4,TIAM1,ROBO2,NTN1,SLIT2,TRPC5,DISC1,SEMA4D,SEMA5A,BDNF,PLXNA2,TIAM2,ROBO1,NRP1,NTRK2,EFNA5,MAP3K13,SHOX2,PLXNB1,BCL11A,CDKL5,MACF1,ISLR2,NGF,MAP2K1</p>
GO:0051965	positive regulation of	0.03031662833971713	<p>ASIC2,NRXN1,SYNDIG1,FLRT2,SEMA4D,LINGO2,CLSTN2,BDNF,EPHB1,THBS2,PTPRD,LRRTM1,NTRK2,GRID2,EFNA5,LRRTM3,IL1RAP,NLGN1,DLG5,CLSTN1,IL1RAPL1,EPHB2,SLITRK6,BHLHB9</p>

	synapse assembly		
GO:0003018	vascular process in circulatory system	0.03032619258471738	ASIC2,SLC24A3,SLC1A2,SLCO3A1,SLC44A1,AGT,DBH,KCNMA1,SLIT2,SLC1A3,SLC4A4,SLC8A1,ATP1A4,SLC5A3,SLCO2B1,EXT2,LRP2,ABCC9,TBXAS1,RAP1GDS1,MYLK3,SLC1A1,CTNNBIP1,EDNRB,CD38,PRKG1,DOCK4,CYSLTR1,SLC6A17,SLC16A7,ADORA2A,SH3GL2,SLC7A1,SLC5A1,SLC22A2,SLC22A3,NPR3,NOS1,TNF,GCLC,ABCG2,TRPV4,CPS1,ABCC1,ARHGAP35,ATP8A1,SLC2A13,P2RX1,OCLN,BDKRB2,ADRA1B,FERMT2,TRPM4,ABCC2,BMP6,CHRM3,SMTNL2,SLC13A3,INSR,PDE3A,ARHGAP42,SLC22A5,EXT1,AMOT,SLC7A8,ITGA1,SLC16A12
GO:0031644	regulation of nervous system process	0.03049277664237256	ITGA2,NRXN1,RIMS2,TMEM108,SHISA6,AGT,SHISA9,DLGAP1,GRM1,TENM4,LRRK2,MTMR2,TMEM100,IGSF11,CELF4,SCN11A,NLGN4X,FAM19A4,EDNRB,APP,PAR3,ABAT,JAM2,MGLL,DICER1,TNR,GLRA1,TAC4,RELN,RIMS1,NLGN1,TNF,HTR2C,NCMAP,CCL3,UNC13B,FGF12,HGF,FMR1,ZFH2,TYMP,DLGAP2
GO:0048514	blood vessel morphogenesis	0.03049877217334423	ISM1,GT2F2,MAPK14,RUNX1,MYO18B,NRXN1,NRXN3,TGFBR3,CDH13,GADD45A,CCR3,COL22A1,COL15A1,AGT,RHOJ,CDH2,LOXL2,CYBB,FMNL3,SLIT2,PDCD6,SMAD1,NOX5,RORA,CHD7,MECP2,PRKD1,TGFB2,VAV3,PLCD3,SEMA5A,SGCD,NR2F2,PML,ARHGAP24,EPHB1,LRP2,TMEM100,NR4A1,RNF213,THBS2,ENPP2,TNMD,SLC1A1,ZFPM2,BMPER,PGK1,PRKCB,ROBO1,FAP,FLT1,SEC24B,VASH2,KDR,PRCP,CALCRL,COL18A1,NRP1,PTPRM,ADTRP,ATF2,ETS1,RIN2,NTRK2,STARD13,RAP1A,TGFB1,CYSLTR1,ADAM12,EMCN,WARS2,NF1,ELK3,HDAC9,JAG1,MEOX2,AGGF1,COL8A1,HDAC7,TNF,OVOL2,ARID2,CALD1,HMGA2,QKI,SMOC2,SULF1,C5AR1,PIK3R3,EFNB2,AMOTL1,EGF,CMA1,RAPGEF2,JAK1,SEMA3E,EPHB2,MAP3K3,LRP5,BSG,CAMP,SETD2,LAMA1,MYH9,SLC39A12,SOX4,PIK3CD,ENPEP,EYA1,SRPK2,ZMIZ1,MAP2K5,THSD7A,TGFA,HGF,MYLK,AKT3,PRKX,C1GALT1,GNA13,SPRED1,TYMP,HDAC5,TGDF1,STIM1,STAT3,AMOT,BMPRI1,PRKCA,CTSH,RGCC,SOS1,FGF1,TBX20
GO:0038179	neurotrophin signaling pathway	0.031658801640042734	DOK5,TMEM108,AGT,NTRK3,BDNF,ZDHHC17,WASF1,NTRK2,RAP1A,RAPGEF1,MAG12,KIDINS220,RAPGEF2,NTF3,SORT1,NGF,SOS1
GO:2001257	regulation of cation channel activity	0.03262266217641178	ANK3,KCNQ1,NRXN1,ANK2,KCNE1,SHISA6,RASGRF1,SHISA9,DMD,CACNG3,FGF14,GSG1L,CNIH3,KCNC1,AKAP6,KCNE2,PDE4D,ACTN2,PLN,APP,PDE4B,CACNA2D1,IFNGR2,RASGRF2,CACNG2,RELN,STIM2,NLGN1,AKAP7,MAPK8IP2,NOS1,TRDN,KCNAB1,FGF13,EPHB2,DAPK1,KCNE4,GNB5,RNF207,FGF12,STAC,CACNB2,NOS1AP,FMR1,JPH4,STIM1,KCNC2,CASQ2
GO:0019932	second-messenger-mediated signaling	0.034791584978153774	ADCY2,CMKLR1,CDH13,ANK2,NRG1,MCTP1,PLCE1,KSR2,CCR1,CCR3,AGT,RCAN1,FHL2,MCTP2,SLC24A4,PDE9A,DMD,INPP5A,TRPM2,RYR2,CAMTA1,LRRK2,GSK3B,SLC8A1,SGCD,GRIN2B,PTGFR,NR5A2,AKAP6,TMEM100,ITPR2,PDE4D,MTOR,PLN,EFHB,EDNRB,KDR,LINC00473,PEX5L,GRIN2A,GUCY2F,HDAC4,PRKG1,CACNA1C,EPHA5,GRM5,SELE,ADCYAP1R1,PPP3CA,PDE7A,TPCN2,NOS1,TNF,POMC,NUDT4,SELP,RAPGEF2,HTR2C,CCL3,PDE11A,P2RX7,RCAN2,PDE5A,TRPM4,CHRM3,NOS1AP,PDE3A,RIT2,KCNC2,CASQ2,KSRI,NFAT5,NCALD,PDE7B,PPP1R9A,RGN
GO:0006875	cellular metal ion homeostasis	0.03738479073982315	CMKLR1,SLC24A3,TMPRSS3,MS4A1,GRIA1,ANK2,FAM155A,TF,SCAR45,RYR3,PLCE1,CCR1,CCR3,AGT,ATP6V0D1,CP,KCNMA1,SLC24A4,TMPRSS6,TRPC5,DMD,NOX5,GRM1,TRPM2,RYR2,DHRS7C,SLC1A3,CHD7,DISC1,HEXB,SLC8A1,PRKD1,FLVCR1,ATP1A4,GRIN2B,PTGFR,PML,AKAP6,BCL2,SLC30A5,ITPR2,CYB561A3,FYN,PDE4D,GRIK2,RAP1GDS1,SLC1A1,ATP1A1,PLN,HEPHE1,PRKCE,PRKCB,VDR,ADCY8,CAPN3,EDNRB,PKHD1,TGM2,APP,MT1HL1,GRIN2A,CD38,SLC30A7,KCTD7,CACNA1C,CYSLTR1,CACNA2D1,TRPM7,TAC4,MICU1,SLC39A8,GRM5,ADCYAP1R1,SLC24A2,STIM2,TPCN2,JAK2,SMAD3,NOS1,TMTC4,SLC39A10,ARF1,TRPC4,C5AR1,TRDN,TRPV4,ESR1,HTR2C,SLC30A8,ABL2,CCL3,MCUR1,PTGER3,SLC39A12,P2RX1,CDH23,RYR1,P2RX7,RASA3,BDKRB1,BDKRB2,ADRA1B,THADA,ATP13A3,GPR55,CCL7,MT1F,TRPM4,BMP6,CALCR,CACNB2,MICU2,JPH4,GNAT13,CACNA1A,SIPR3,TRPM1,SCO2,UMOD,SLC24A5,SLC40A1,STIM1,CASQ2,UBASH3B,CCL14,CCL15,MCOLN3,RGN
GO:1901698	response to nitrogen compound	0.03749214238124647	PLCB1,GABRB3,MAPK14,ARID1B,ITGA2,KCNQ1,SLC1A2,BCKDHB,GRIA1,TGFBR3,CDH13,HLCS,KCNE1,PSMC6,PSMB2,SPIDR,RYR3,KYNU,GLP2R,CFTR,ALK,PTPRE,PIK3C3,AGT,CHRM5,PARK2,CYBB,OTC,USP25,RNF185,DBH,FBXO27,HDAC2,SLIT2,STXB4,IGF1R,MDM2,SLC24A4,HCN1,ATRX,TRPM2,RNLS,RYR2,LRRK2,SLC1A3,PDXP,

	d		GSK3B,SLC8A1,OGT,KCNC1,SIK2,AKAP6,FBN1,ITPR2,NR4A2,ABCC9,FYN,GNRHR,NR4A1,RHBDD1,CASP6,FOXO1,PDE4D,KANK1,ACTN2,GABRB1,SLC1A1,MTOR,CHRM1,DDX21,PRKCE,PRKCB,ADCY8,FOXO3,RAB31,EDNRB,TBC1D4,TACR3,TGM2,APP,ADTRP,CPEB2,MAP3K5,ATF2,ABAT,GRIN2A,BCL2L1,PDE4B,DNMT1,GHR,GLRA2,NTRK2,GNG2,SDK1,RAP1A,NCOA5,RAPGEF1,CHRNA3,CACNA2D1,GLRA1,TP73,COL4A6,NPC1,PNPLA3,ADORA2A,RGS7,TFF1,SORL1,HTR4,POR,GRM5,HDAC9,DDC,JAG1,MAN1A1,PPP3CA,KLF3,GLDC,MAS1,PER1,KL,ELAVL4,TMEM67,TRIM16,GABPA,KAT7,P2RX6,AKAP7,FOXRED2,NSG1,JAK2,BALP2L1,CDK1,TNF,PANX1,SNX5,POMC,PHEX,SRSF4,BCL11A,ANO1,GCLC,C5AR1,GNAL,PIK3R3,TRIM41,CTNNA1,NSG2,UBR2,BLM,TRPV4,CPS1,RAPGEF2,REG1B,HTR2C,UBE3A,GABRB2,EPHB2,ABCC1,FER,BSG,CAMP,VPS13C,CYP2E1,P2RX1,PDGFD,PLAT,RYR1,GLRA3,P2RX7,AMFR,CASP7,IFNA8,GNB5,FLT3,PPARGC1B,PTPRA,TRIM72,GNAO1,HCN4,SMPD3,SRD5A2,UROS,RFTN1,TRPM4,ERLIN1,CHRM3,CALCR,INSR,PDE3A,ENPP1,FMR1,RRAGC,IDE,EPG5,PCK1,PPARA,SORT1,TAF1,CACNA1A,EXT1,PRKCG,UMOD,HDAC5,UGGT2,SEL1L2,STAT4,KCNC2,PRKCQ,STAT3,BRIP1,PIK3R2,CASQ2,DTNBP1,RAP1B,APC,DHX9,GABRG2,GPR21,VPS35
GO:0060560	developmental growth involved in morphogenesis	0.03784132471948144	CDH4,DSCAM,DCC,RIMS2,FSTL4,TMEM108,SYT17,PLXNA4,SEMA6D,DPPYL2,NKD1,DCLK1,PARK2,SEMA3D,NTN1,SLIT2,TRPC5,SYT1,VCL,KIF26B,DISC1,SEMA4D,GSK3B,FMN1,SEMA5A,BDNF,RYK,WASF1,EPHA7,APP,NRP1,SEMA3C,ALCAM,TNR,SPG11,EFNA5,MAGI2,MAP3K13,SH3GL2,RIMS1,RDH10,COBL,BCL11A,CDKL5,SLIT3,ESR1,SEMA3E,FGF13,SEMA5B,UNC13A,AUTS2,MAP2,SEMA3A,TNN,SYT2,MACF1,EXT1,ISLR2,KIAA0319,NGF,CLASP2,FGF1
GO:0097061	dendritic spine organization	0.038566354663348845	CTNND2,ZNF804A,IGF1R,LRRK2,MTMR2,GRIN2B,EPHB1,SIPA1L1,FYN,KALRN,TANC2,DNM3,RELN,DOCK10,NLGN1,PPFIA2,TANC1,ARF1,UBE3A,EPHB2,BHLHB9,PDLIM5,ITGA3,INSR,PAK3,DTNBP1,LRP8,VPS35
GO:0009893	positive regulation of metabolic process	0.038780168948721244	TASPI,FANK1,PLCB1,KMT2C,CMKLR1,DAB1,OMA1,DUX4,GTF2I,MAPK14,DSCAM,ARID1B,RUNX1,CTBP2,RAB27A,PCBD2,PRIM2,ANK3,BCL2L13,AKAP13,FBLN1,ERG,VPS13D,ZNF292,SLC24A3,ITGA2,ABCG1,DPF3,ATF7IP,EPHA6,NRXN1,TNC,MTPN,NRG3,ARNT2,CDH13,RNF152,ANK2,CSNK2A1,ZNF112,ZNF229,TF,PLGRKT,SAMD4A,CHKE2,GADD45A,PRDM9,PSMC6,TOX3,GPC3,NRG1,ETS2,NPAS3,SPIDR,IL4R,ALDH1A2,SH3RF2,KSR2,SLCO3A1,AGBL4,ZNF91,ZBTB20,TEB3,NKD1,ALK,KLRF2,RAB7A,ARID5B,EPHA3,AGT,PARK2,BANP,CD5L,KIR2DL4,ZNF804A,CYBB,BRF1,TRIM22,TRIM5,ZNF268,DCUN1D4,TXK,RNF185,DBH,SETD3,ZNF845,FTO,HDAC2,TFAP2D,PDCC6,RPS6KA2,IGF1R,MDM2,SLC24A4,SMAD1,E2F3,ZBED4,TMPRSS6,ZNF850,TRPC5,NOX5,TEAD1,FMN2,HNRNPA2B1,NRIP1,SKAP1,WWOX,ATRX,PARP16,USP16,CAMTA1,HSPB8,LRRK2,RORB,NTRK3,RORA,SLC4A4,CHD7,DISC1,HEXB,PAN3,CDCA2,GLIS1,IER2,MECP2,SEMA4D,GSK3B,ZNF841,PRKD1,ERCC6,OGT,RNF144A,TGFB2,VAV3,SLC5A3,BDNF,RBMS3,RYK,POLR3C,GRIN2B,NR2F2,PRR5,PTGFR,NR5A2,PML,PPARGC1A,RNF180,TRUB2,NLRP2,TAOK3,BCL2,RALBP1,EPHB1,SMARCE1,IL12RB2,KLF12,LRP2,NSF,NFIA,NR4A2,EPHA7,ZBTB7C,FYN,KCNE2,PARN,NR4A1,SMARCA4,CD44,HECW1,RCVRN,RHBDD1,FOXO1,PDE4D,RNF144B,ENPP2,ABCB10,ACTN2,ATF6,BACH1,KLF13,RNF217,ZNF516,CELF4,SERPINB7,APBB2,EIF3E,NAMPT,SLC1A1,ZFPM2,GLIS3,RARB,RFX4,ETV6,NLRP12,MTOR,ROR1,LDB2,MOV10,DDX21,CCDC88B,SCAF8,ZNF521,ZFP64,ARL6IP5,EPM2A,NOLL1,CLYBL,EPB41L4B,SOX8,HAS3,PRKCE,GTF2A1L,KMT2A,PRKCB,VDR,ADCY8,FHL5,FOXO3,MITF,SCP2,CAPN3,ITLN1,CREB5,DLG1,EDNRB,ROBO1,SATB2,TDRD3,BNIP3L,FLT1,NOX4,ZNF148,GRHL2,TCF4,MAP3K7,MAPK9,NBAS,NR3C1,TRAF3IP2,CR1,EYA4,SPON1,STK3,SUPT3H,ZNF585A,KDR,CASK,EDA,PCOLCE2,APP,NRP1,UACA,LGR4,ADTRP,CD58,KAT5,THRB,FUBP1,ADAM17,CAMK1D,DIS3L2,MAP3K5,ZER1,ATF2,ETS1,NR2C2,PIK3R5,ROS1,TGFB1I1,DOT1L,PSIP1,RPS6KA5,TCF7L2,TNFRSF10B,TRABD2B,ABAT,GRIN2A,DLX6-AS1,BCLAF1,CCDC88A,CD38,MOB3B,MRPS27,HDAC4,PDE4B,DNMT1,GHR,NTRK2,BRD4,RASGRP1,CAMK4,COMMD1,STARD4,GLI3,SMCHD1,RAP1A,TGFBRI,EPHA5,LCP2,IL16,PTTG1IP,ZNF729,CHRNA3,EP300,TBX3,DIO2,GRAMD4,BRD7,TP73,PIBF1,ONECUT3,EFNA5,FAM20A,MERTK,MAGI2,RFC3,SORL1,STRN3,ZNF615,BID,ELK3,TEAD4,DMRT1,ASXL1,POR,RELN,GRM5,IL18R1,ILIRL1,SELE,DYNC1H1,LRRTM3,MAP3K13,ADCYAP1R1,EGLN3,ILIRAP,FBXL5,JAG1,MEOX2,PPP3CA,KLF7,MAS1,PER1,TBC1D5,WWTR1,CBLB,ELAVL4,MNAT1,PLSCR1,CNTN1,RIMS1,TRIM16,GABPA,KAT7,SSBP2,SLC22A2,BO

			<p> <i>R4, AKIRIN2, RNF128, RAD51AP1, LRRK1, ZNF208, DDX3X, NSG1, CNO T7, MAML3, EHF, ZNF622, DNMT3B, JAK2, LMO7, AH11, SMAD3, CD300 A, NOS1, RDH10, TCF12, AATF, CDK1, HIVEP3, LTB, NBN, NVL, SLC39A1 0, TNF, OVOL2, PANX1, SNX5, TNIP1, ZFPM1, ILF3, POMC, PRDM15, BM P15, INO80, ARID2, MLIP, PAXBP1, PRG3, BCL11A, HMGA2, MYO6, NEK 4, YAF2, AGO3, CDC20B, GCLC, QKI, UBE2V1, SMOC2, SULF1, ANKRD3 1, C5AR1, LRP4, PIK3R3, WDR5, SAE1, PHF8, ZNF423, CDC14B, CHD6, T ENM1, WDFY2, ZNF407, ARHGEF11, ZNF345, BPTF, MLLT3, EGF, SEC1 6B, SPIRE2, KIT, TNFSF8, TNRC6B, ZNF600, BLM, TRPV4, EDAR, RAPGE F2, ESR1, HTR2C, UBE3A, FGF13, PLAG1, EPHB2, MECOM, NDFIP2, RN F4, TFDP2, TOX, DAP, DAPK1, ERBB4, MAML2, FNIP1, LRP5, PTH2R, ZN F507, RPS27L, SLAMF1, BSG, CAMP, SETD2, ALX4, CCL3, FGF7, GLYR1, NHLH2, PSG9, SULF2, ARF4, MYH9, SLC2A13, SOX4, ST18, CAB39L, NED D9, P2RX1, PDGFD, PIK3CD, PRR16, UBE2N, AGTPBP1, ITGA8, PUM1, A RID4A, DDB1, KDM3A, SERTAD2, TNKS, AUTS2, FGFR1, MEF2A, OCLN, ARID4B, SLX1B, SOST, ASXL3, IL23R, JMY, KEAP1, NTF3, P2RX7, ARRD C4, TOX2, ZNF544, AR, PVT1, SCAMP5, SNX30, TRERF1, EYA1, IFN48, IL1R L2, SRPK2, DGKZ, GNL3, NEK5, PRKA2, RLF, CDC73, MARK2, MEIS2, P DE5A, ZMIZ1, FLT3, NFIC, PPARGC1B, SNX7, DYNAP, ESRRG, FERMT2, MAP2K5, MARK1, CLN6, DAB2, HDAC8, PBX1, RNF207, TCL1B, ACTN4, I TGA3, POU2F3, FANCB, QRIH1, RFTN1, MYOM1, PIN1, CD226, TCF20, BMP6, CIZ1, EIF4ENIF1, CARF, CNGB1, NCOA2, TGFA, CREM, HGF, PK P1, POU2F1, CALCR, FLI1, POMT2, ZBTB16, CTIF, NOS1AP, INSR, LARP 4B, PAK1, SKI, ELF1, FMRI, LIMK2, LITAF, PAX3, CHFR, DKC1, JDP2, KL F6, ABCD1, IDE, AIM2, CD84, PCK1, PPARA, SPIB, TNFAIP8L3, TTN, TAF 1, FNIP2, PPP2R3C, ESR2, PRDM16, ZNF451, BTRC, CCDC3, MLLT10, OP TN, RIT2, NCOA1, PRKCG, PRLR, CBF42T3, DOCK7, FBXW11, G3BP1, H DAC5, TDGF1, ZNF493, SLC40A1, STAT4, PEMT, POU2AF1, PRKCQ, STA T3, TFEC, TP63, USP7, ZNF721, DOCK3, HPN, PAK3, PIK3R2, TBL1X, BLN K, DTNBP1, LGALS9, LRP8, NFAT5, GTPBP1, IL10RB, MAPKAPK2, APC, BMPRI1A, ITGA1, KCTD20, NGF, VLDLR, PILRB, ABI1, CTSH, DHX9, RGC C, IL6R, MAP2K6, MAP2K1, RGM, VPS35, C1QTNF3, FGF1, TBX20, ATM IN, CRADD, NLRCS, RGN, RREB1</i> </p>
GO:1901699	cellular response to nitrogen compound	0.04169428592198603	<p> <i>PLCB1, GABRB3, ARID1B, KCNQ1, SLC1A2, GRIA1, KCNE1, SPIDR, RYR 3, GLP2R, CFTR, ALK, PTPRE, AGT, CHRM5, PARK2, CYBB, HDAC2, SLIT 2, STXBP4, IGF1R, MDM2, HCN1, ATRX, TRPM2, RYR2, LRRK2, SLC1A3, P DXP, GSK3B, SLC8A1, OGT, SIK2, AKAP6, FBN1, ITPR2, NR4A2, FYN, GN RHR, NR4A1, CASP6, FOXO1, PDE4D, KANK1, ACTN2, GABRB1, SLC1A1, MTOR, CHRM1, PRKCB, ADCY8, FOXO3, RAB31, TBC1D4, TGM2, APP, C PEB2, MAP3K5, ATF2, BCL2L1, PDE4B, DNMT1, GHR, GLRA2, NTRK2, G NG2, RAP1A, NCOA5, RAPGEF1, CHRNA3, CACNA2D1, GLRA1, COL4A6 , PNPLA3, SORL1, HTR4, POR, GRM5, HDAC9, DDC, KLF3, MASI, KL, GA BPA, AKAP7, NSG1, JAK2, BAIAP2L1, TNF, SNX5, BCL11A, ANO1, GCLC, GNAL, PIK3R3, TRIM41, CTNNA1, NSG2, UBR2, BLM, CPS1, RAPGEF2, H TR2C, GABRB2, EPHB2, ABCC1, FER, CAMP, PDGFD, PLAT, RYR1, P2RX 7, CASP7, GNB5, PTPRA, TRIM72, GNAO1, HCN4, SMPD3, UROS, TRPM4, CHRM3, INSR, PDE3A, ENPP1, FMRI, RRAGC, IDE, EPG5, PCK1, TAF1, C ACNA1A, HDAC5, KCNC2, PRKCQ, STAT3, BRIP1, PIK3R2, CASQ2, DTN BP1, RAP1B, APC, DHX9, GABRG2, GPR21, VPS35</i> </p>
GO:0014706	striated muscle tissue development	0.04261731173773004	<p> <i>MAPK14, RUNX1, MYO18B, RBFOX1, AKAP13, SORBS2, MTPN, TGFBF3, NRG1, ALDH1A2, NLN, AGT, RCAN1, FHL2, SMAD1, DMD, RYR2, TENM4, CHD7, SOX6, SLC8A1, TGFB2, SGCD, NR2F2, SGCG, AKAP6, BCL2, EPH B1, LRP2, NR4A1, ACTN2, MYLK3, ZFPM2, RARB, MTOR, PKP2, COL11A1 , PLN, SOX8, NOX4, NEBL, KCNK2, SEMA3C, HDAC4, TGFBF1, EP300, TB X3, TP73, FLNB, NF1, HDAC9, MEOX2, PPP3CA, NEB, CXADR, FHOD3, S HOX2, SMAD3, CDK1, HIVEP3, ZFPM1, ARID2, EFN2, ALPK2, MYH14, PRKAR1A, SGCZ, ERBB4, MYH15, MEF2A, RYR1, EYA1, PDLIM5, HCN4, CENPF, ELN, SKI, CTDP1, PPARA, TTN, COL19A1, MYH7, PGM5, MYH6, MYH11, BMPRI1, TBX20, TBX18</i> </p>
GO:0000165	MAPK cascade	0.043123957640463936	<p> <i>PLCB1, MAPK14, SH3RF3, TIMP3, DUSP22, AKAP13, FBLN1, VRK2, NRX N1, DOK5, TF, GADD45A, NRG1, PSMB2, PLCE1, SH3RF2, CCRI, ALK, AG T, CDH2, PARK2, TRIM5, IGF1R, SMAD1, DMD, FGF14, FSHR, GRM1, LR RK2, MAPK10, NTRK3, MAGI3, ERCC6, TGFB2, RYK, ZDHHC17, ANKRD 6, ARHGAP8, TAOK3, ZNF675, EPHB1, EPHA7, CD44, FOXO1, GRIK2, NL RP12, ROR1, BMPER, ARL6IP5, ZMYND11, PRKCE, ROBO1, FLT1, NOX4, MAP3K7, MAPK9, PKHD1, STK3, KDR, APP, NRPI, MAP3K5, ATF2, PIK3 R5, ROS1, TRAF3, GHR, NTRK2, RASGRP1, SPRED2, RAP1A, TGFBF1, RA PGEF1, TP73, PSM1, NF1, SORL1, GRM5, NDRG2, MAP3K13, NLK, PER 1, KL, DOK6, MAPK4, MAPK8IP2, ZNF622, JAK2, SMAD3, CD300A, MAP2 K4, CDK1, TNF, TNIP1, EIF3A, PRDM15, SHC2, C5AR1, ARHGEF6, TENM 1, TNFRSF19, EGF, KIT, TRPV4, EDAR, RAPGEF2, HTR2C, FGF13, GRM4, MARVELD3, EPHB2, MECOM, ERBB4, MAP3K3, SLAMF1, CCL3, SPRED 3, PDGFD, FGFR1, MEF2A, NTF3, P2RX7, ZDHHC9, AP1P, AR, ADRA1B, S</i> </p>

			<i>EMA3A,PDE5A,FLT3,FERMT2,LTBR,MAP2K5,DAB2,GPR55,CCL7,FGF12,PIN1,RPS6KA6,STK38,TGFA,HGF,CALCR,INSR,PAK1,PSMB7,ULK4,TNFAIP8L3,SPRED1,PTPRR,RIT2,TDGF1,PAK3,PIK3R2,RAP1B,KSRI,LGALS9,MAPKAPK2,ITGA1,PRKCA,CTSH,CCL14,CCL15,EDA2R,IL6R,MAP2K6,MAP2K1,FGF1</i>
GO:0030534	adult behavior	0.04469546572315622	<i>DAB1,NRXN1,NRXN3,SLC1A2,SHANK2,ALK,PARK2,DBH,PCDH17,HDAC2,CHD7,MECP2,PCDH15,RNF180,CNTNAP2,NR4A2,SLC1A1,BBS2,KLHL1,NLGN4X,KALRN,PREX2,CHL1,APP,ABAT,SDK1,CHRNA3,CHRNA5,GLRA1,NPC1,EPS8,SCN1A,SLITRK6,AGTPBP1,PUM1,FGF12,BTBD9,TMOD1,PPARA,ZFHX2,GABRG2,SPTBN4</i>
GO:0043408	regulation of MAPK cascade	0.048606927439895406	<i>PLCB1,SH3RF3,TIMP3,DUSP22,AKAP13,FBLN1,VRK2,NRXN1,DOK5,GADD45A,NRG1,PLCE1,SH3RF2,CCR1,ALK,AGT,CDH2,PARK2,TRIM5,IGF1R,DMD,FSHR,GRM1,LRRK2,NTRK3,MAGI3,TGFB2,RYK,ZDHHC17,ANKRD6,ARHGAP8,TAOK3,ZNF675,EPHB1,EPHA7,CD44,FOXO1,GRIK2,NLRP12,ROR1,BMPER,ARL6IP5,ZMYND11,PRKCE,ROBO1,FLT1,NOX4,MAP3K7,PKHD1,STK3,KDR,APP,NRP1,MAP3K5,PIK3R5,ROS1,TRAF3,GHR,NTRK2,RASGRP1,SPRED2,RAP1A,TGFBRI,RAPGEF1,TP73,NF1,SORL1,GRM5,NDRG2,MAP3K13,PER1,KL,DOK6,MAPK8IP2,ZNF622,JAK2,CD300A,TNF,TNIP1,EIF3A,PRDM15,SHC2,C5AR1,TENM1,TNFRSF19,EGF,KIT,TRPV4,EDAR,RAPGEF2,HTR2C,GRM4,MARVELD3,EPHB2,MECOM,ERBB4,MAP3K3,SLAMF1,CCL3,SPRED3,PDGFD,FGFR1,NTF3,P2RX7,APIP,AR,ADRA1B,SEMA3A,PDE5A,FLT3,FERMT2,LTBR,MAP2K5,DAB2,GPR55,CCL7,PIN1,RPS6KA6,STK38,TGFA,HGF,CALCR,INSR,PAK1,ULK4,TNFAIP8L3,SPRED1,PTPRR,RIT2,TDGF1,PAK3,PIK3R2,RAP1B,KSRI,LGALS9,ITGA1,PRKCA,CCL14,CCL15,EDA2R,IL6R,MAP2K6,MAP2K1,FGF1</i>
GO:0007157	heterophilic cell-cell adhesion via plasma membrane cell adhesion molecules	0.04896584934058215	<i>CDH4,NRXN1,CDH2,HMCN1,TENM4,PTPRD,TENM2,ALCAM,CRB1,TENM3,GRID2,IGSF21,SELE,CXADR,NLGN1,CADM3,SELP,TENM1,IL1RAPL1,UMOD</i>

Table S3. The overlap between the top 4920 genes possessing the most frequent DSBs and rDNA-contacting genes (4C). Related to the Venn diagram in Figure 1C.

Names	total	elements
4C DSBs	1772	<i>DDC8 ELMO2 RIT2 CD44 SAMD4A TRAF3IP2-AS1 PAX7 KCNMA1 C10orf90 PKNOX2 RALYL GPR98 BBOX1 ZNF799 GGT3P PTPRR NCF4 DDB1 SCAF8 EPB41L4B CNGB1 EP300 GPSM2 PRKCG KCNA6 PARN MSRB3 SEMA4D WSCD1 SLC12A8 TNS3 ZFYVE1 EVC MED13L CYP4F59P TEAD1 NFIA C15orf41 SYN3 RPS6KA5 MAPKAPK2 SUGCT STX8 EIF4G3 SLC02B1 PHF20 CPNE4 SLC8A1 GRK5 SEL1L3 SRRM4 FAM73A RRN3P2 RAPGEF6 ANKRD6 RSU1P2 ISM1 VAT1L FBXO31 RNF4 KIAA1211L FAM19A4 FPGT TRAPPC9 RPS11P6 MAP3K13 MMP16 CAMTA1 PLCL2 BDKRB1 NME8 CHFR TP53TG3C TF RSRC1 TOX3 CHST11 THRB DNAH11 SLC9A9 CDC42BPA B3GALT5 SAMM50 CDC42EP3 TSPAN7 MIR1185-1 FSIP1 GRIK2 HDAC1P2 MAPK10 QKI NCAM1 OTX2-AS1 MAN2B1 AGT KDM4B GNG12 FGF1 CHRMI GPATCH2 CDH8 KCNQ5 QRICH1 ZBTB20 HEPHL1 ARHGAP15 CCR3 HBG2 PALM2-AKAP2 LRRC53 TMEM161B-AS1 EMR1 ACAD11 NEGR1-IT1 SYTL5 HUS1 DYRK4 ZNF667 TFEC KCNJ6 STRIP1 ZNF709 BLOC1S5-TXNDC5 ZDHHC11B ITSNI NDRG2 GRIPI CPVL TLK1 UPK3B ASTN2 FAM177A1 TANC2 ZNF863P DEFA1B DLGAPI RCAN1 FAM193A TMEM189 SVOPL JAK2 LINC01028 AKAP2 LRP1B ZBTB8OS ABCG8 ARHGAP25 ANKRD20A5P KALRN CCDC60 RAB11FIP4 USH2A SUMF1 NF1 NEGR1 CACNG2 BTBD9 FPGT-TNNI3K VPS16 CCDC144A WIF1 CMKLR1 SLC44A5 MEGF11 SDK2 SPATS2L LINC00882 RNF43 TRHDE ZNF536 PROS1 PARVB PPP6R2 SETBP1 ZBTB7C MAST4 ZNF713 WDR26 NRXN1 DSCAM-IT1 AGBL1 PARK2 ARHGAP10 DPY19L2P2 IL1RAPL1 MAGI1 LAMA3 SLC14A2 BZRAP1-AS1 GSK3B PDXP KIR2DL1 ADAMTS17 PKP2 MTND6P3 NPHP3</i>

	<p> <i>ADCYAP1R1 ST6GALNAC3 SERPINA4 CTDPI ADAMTS6 SETD3 DPP6 MIR4713 PRELID2 GPR110 CD109 GRID1 RPS6KA2 SLC22A3 TDP1 GRIN3A LINC00504 SMOC2 NDE1 KCNH1 HLCS ACSS3 ZNF695 DCDC1 CACNA1C LMO7 CDRT4 MAN1A1 PCED1B NLGN4X FSD2 EXOC4 HEATR5A WDR70 EMB CKMT1B PNPLA3 FAM19A5 ANO4 PIK3C2B BBS9 GPR21 CTNNA1 LINC00595 MYO9A CCDC3 FOXN3 NTRK2 ENTHD1 OR5K4 PAK7 CHD7 WDFY3 PSMB7 ANKH MOV10L1 ANKRD20A14P ITGBL1 THSD7A NBEA FAM19A2 GBE1 CLASP1 SNX5 RASGEF1B AFAP1 SNORD115-35 TIAM2 OR51B2 SLX1B-SULT1A4 MYT1L TMPRSS3 SRGAP2B UPB1 IQCJ-SCHIP1 LRRC49 GUCY1B2 TAGLN3 CNTN1 ZNRF3 PALMD PLEKHB2 GLIS3 OR4K6P SP140 ANKRD36 MTATP8P1 HBE1 TFP1 NRG3 LINC00970 PTPRG PLAC1 LINC01094 BTBD11 DIO2 UNC13A SLC5A10 CABIN1 TRIOBP SYNE1 TUBA3FP NCOA1 MRPS31P5 CHEK2 FBXL17 PDZD2 DNAH10 GRIK3 PDE10A CACNB2 NUMB STXBP4 MED15 METTL24 RHOJ ESYT2 BRE ZBTB8B BACH1-IT2 PHEX ZNF730 SOX6 MECOM POTEM POLE SYBU PDE4DIP COL4A6 CATSPERB TRPM3 STK32B RSPRY1 NHS CNTNAP5 SHANK2 LRRC18 SULF1 UBE2E2 SLC39A10 DTD2 SNORA76 KCTD8 SDIMI CHCHD6 UNC5D HS3ST2 CD84 EVA1A MAGEA11 SH3BP1 ISLR2 NREP GPC3 DMD NANOGP4 C22orf39 ADCY2 ZRANB2-AS2 STAG3L2 TCF20 OTC MRPS6 KCNC2 CFDP1 DLG5 PGM5 RNU6ATAC31P FNDC3B ADAMTS9-AS2 ASTN1 SH3BGR GNG12-AS1 ATRNL1 KIR3DL3 DTX2P1 CHRM3 PREX1 CPE LINC00587 UBE2V1 RFFL CALD1 EIF3E MIR4681 SH3GL2 COL24A1 ANO3 PSPC1 ARHGAP24 TMEM132D COL11A1 EFCAB8 SLC13A3 SPRED2 SLIT2 PITPNC1 TPTE2P6 ITGAE C2orf88 CEP128 FAR1-IT1 TTC4 XKR4 KCNJ16 GPC5-IT1 C9orf3 ROR1 SYNM MAPK4 GLP2R CCDC178 SLC4A4 KAZN ADAMTSL1 ZNF675 EZH2P1 OR4F16 AOX1 DTNA SERPINA5 PHKB KMT2C TRIM5 TMEM110 KCNS3 RPL23AP82 THEMIS SLC5A8 FLVCR2 COL12A1 DRG2 ABCA13 AFF3 EFTUD1P1 PTGER3 IGKJ5 ERBB4 KANK1 KIF26B LPP ATRX TVP23C BID MACF1 SNORD115-48 TRAF3IP2 MEF2C-AS1 CHRDL1 LAMA2 MNAT1 TRIO CAPN3 TFDP2 CTNNBL1 CCDC12 TRMT61B RAD51B PTPRE EPDR1 MYO3B DUSP22 SLX1B FAM95B1 SH3RF3 GTF2E1 ST6GALNAC5 MYOM1 DIAPH2 CRYZL1 DIP2C MAP3K5 NOS1 CLDN11 BMPRIA ACACA MAML2 SPAG16 DSCAML1 SMAD3 CTDSPL2 HTR2C CCDC141 PRKAR2A CACNA1E MAGI2-IT1 TBCID5 CNTN4 MUC16 MRPL33 GLRA2 BORA PI4KA VWA8 ACBD5 ALDH4A1 TMC2 LINC00511 OR51B8P TNFRSF11B PIBF1 SLCO3A1 NCF2 MRPL48 GABRR2 PIK3C3 CAPN14 SLC9C1 SND1 MPPED1 SNAP25-AS1 CHD6 HMCN1 FGD4 LY86 ZNF670 NDNL2 IFFO2 POTE EPHA5 FAM24B MACROD2-IT1 TCF12 SGIP1 HIRA CEACAM18 SLC47A1 RNF144A TP73 GRIK4 RBM19 SUNX1 IL1RL1 KIR3DL2 LINC00535 CYP4F31P TSHZ2 ZNF366 ESRRG MTND4P12 PTGFR SNX31 CDR2 FAM171A1 PCNX SCUBE1 TMPO GPR112 SV2B FAM230A NOTCH2NL LINC00894 PEAK1 EYA1 PRR14L MYPN LINC00669 SATB2 ADAMTS19 KIAA1217 MORC3 ANKS1B P2RX6 HSF2BP PLS1 INTS4L2 ANK2 ROCK1P1 LINC00092 ELN STXBP5-AS1 ANO2 ARHGEF3 RHBDL3 SUPT3H MAML3 SLIT3 BAGE2 GRIN2B RBM14-RBM4 PHC2 ROBO1 LRRIQ3 ANKRD30BL GPR141 TPH1 MAD1L1 GPR176 MATN3 ANKRD11 EGFLAM SHPRH FAM155A-IT1 PLD5 RABGAP1 PAK3 DGKB DPYS GARNL3 DUX4L13 UACA LRPPRC DPH6 TNKS TSNAX PRRC2C TUB KLF12 ARHGEF18 SCAMP5 LINC00473 WBSCR17 ANKRD36BP2 OVOL2 USP53 PRUNE2 DOK6 FCHSD2 SGMS1 ADCY8 LINC01122 GRAMD4 DNAJB6 ELP3 ITPR2 GABRR3 BRINP1 C8orf34 MLLT3 OMA1 BCL2L13 CCDC30 ARRDC4 DRG1 WDR7-OT1 KHDRBS2 CPQ TM4SF2 DARC CRISP3 NEB HNRNPA1P7 FGF14 PRICKLE2 CCL15-CCL14 CEP164P1 BCL7C ITGB3BP CACNA2D3 DRD5P1 RNF213 DGKK OR51I1 WDR47 SPESP1 MIR4695 RNU6-1061P SH3RF2 CNTN3 MGAM GLIS1 CACNA1D PRKAA2 ASGR2 ABCG2 PACRG IL1RAPL2 TBL1X LANCL3 SPAG17 ZDHHC11 CHCHD3 SEMA5B ZNF337-AS1 RPS6KA2-IT1 SKAP1 TPRG1 KLHL33 SNX29P2 CDYL2 ST13P15 LRRTM4 PTPRN2 MYO3A AKR1B1P1 LARGE-IT1 UBE2R2 HIVEP2 FAM65B GRIK1 NOL12 LINC00446 SOX5 KIF6 ADH5P3 DSCAM DGKI NLN TBCID30 ANKFN1 NME7 DNMBP TAF1 SPNS2 NBPFI0 TRAPPC8 FGF14-IT1 SDK1 C5orf66 SLC1A1 RNF144B GRM5 ATG4C CCDC33 NTN1 FEMIAP2 C15orf57 ARAP2 SIL1 LINC00937 LDB2 IGF1R FAR1 PKD1L1 NLGN1 TSNARE1 DNAH9 FAM69A SHISA9 SHROOM3 SNRPN MSI2 LRRC7 TEX41 EPM2A MXD3 MON2 CNTNAP2 TNFRSF10B SPECC1L-ADORA2A SHFM1 MAP2 LARP1B LIPE-AS1 AQP4-AS1 CDC73 KCNIP4 SOX2-OT CAMK1D FLRT2 NALCN-AS1 CCDC144NL RAD51L3-RFFL EFCAB6 FBXW11 NOS1AP EFTUD1 PTPRO ZDHHC14 MSRA SYNPR PCDH9 MKRN3 C22orf34 SUFU ARHGEF33 SNORD114-20 DSCR4 NKAIN2 RANBP10 CD96 RBMS3 FAR2P4 OFCC1 RNF219 SMG6 ARHGEF6 INSR CIZ1 ITGA11 WWTR1 GAS7 SNORD17 MDN1 CIT AMOTL1 CLEC16A PEMT ARHGAP6 PHF20L1 KCTD7 ST3GAL3 TTC6 TCF7L2 JAK1 </i> </p>
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CHAF1B KIAA1328 Y_RNA LINC00298 MTRF1 RPGR CATSPER2 STARD9 CRTAC1 PCSK5
 LINC00537 HS6ST3 EGLN3 CUX1 GRM4 PRR12 MAP2K1 ANK3 TIMP2 CDH12 ZMAT4 UBR2
 CCL15 MORC2 ZNF19 TMEM132B CPSF1P1 ANKRD44-IT1 FLG-AS1 ZNF490 ARID4B GMD5
 LHFPL3 FBXL18 CNIH3 DOCK3 THSD4 SLC9B1 TBCD KPNB1 FOXO3 TRIM59 TTLL8 GPC6
 RELN LINC00284 RASGRF2 TRPS1 STK38 ADAMTSL3 EVA1C SNHG14 LINC00871 MYO18B
 CDH4 GABRA3 KLHL3 TNF ADCY9 DPP10 OCA2 CELF4 CDKAL1 VAV3 INPP5A C1orf51
 CNTN6 CDKL1 SCN9A TTC7B APP ATF7IP2 CENPF KCTD9P2 MDM4 PUM1 C10orf11
 ARNT2 KCTD1 RNLS SPOCK1 RAB2A ACTN4 HPSE2 PLCE1 TACC2 ADAM12 CYP39A1 PAK1
 AMZ2 PPP1R14A ATP9B MITF ASNSP1 IGF2BP3 DEC1 SP140L SPECC1L TMEM110-
 MUSTN1 LINC00693 LRRN2 ZNF346-IT1 FRY EPS8 LRFN5 CTBP2P8 UTRN CDC14A GPC5
 ENOX2 TENM4 AGLB4 MACROD1 CECR2 KPNA3 CASC16 PPP3CA PRR16 GHR SPTSSA
 GOLGA3 ARHGAP39 WDR59 LRRC8D CEP170 PRDM16 FRMD5 ULK4 RBFOX1 KIR2DL4
 TMEM120B PCDH7 CDH10 LRRC4C ZNF605 PPP1R9A PDZRN3 C1orf168 ZNF41 TMEM117
 TPTE2P2 DNMT3B ADAMTS16 TASP1 POTE1 LINC01090 ZZEF1 DEPDC5 RYR1 LTBP1
 RGL1 LRRK2 NKAIN3 SLC25A21 PALM2 CLSTN2 CD300A PKHD1 KIF2A TTLL11 NEBL
 RARB CBAF2T2 ITPRIPL2 TCF4 ABCC11 NAALADL2 SRD5A2 SPG11 FUBP1 FOCAD PBX1
 DPH6-AS1 PRG3 GANC PHACTR1 MLIP SERTAD2 OR5H8P SORCS2 PRIM2 SCN1A STRC
 DISC1 BMP6 OSBPL10 RALGPS1 ARHGAP42 PMS2P11 PHF21B GUSBP1 MRPS28 SLC35F1
 VSTM4 POC1A TMEM170A C21orf49 NTM VTI1A ASAP1 PCBP3 LINC00971 FRMPD4
 ATP8B4 COL23A1 LINC00639 DSCR10 FYN KCND3 CCL14 KIR3DP1 ABCC2 IFT43 CSPP1
 XRCC4 RABGEF1 LRBA EPHA7 FHIT MARVELD3 NSG2 LINC00842 FAM19A1 RNU2-42P
 TRABD2B LRP5 NAV2 EFCAB5 CHN2 GAS8 MARCH3 COL19A1 MSRI AP2B1 SLC30A7
 NRG1-IT1 TOX PCDH15 ESR1 ARHGAP12 GABRG3 KCNN3 SGCZ CCDC176 SELIL2
 TNFRSF19 PLCXD3 DENND2A LUZP2 CLN6 PTPN14 GRM1 SCFD1 PDE4D CNTN5 ERC2
 THEM4 GNG2 PCDH11X DMGDH PCBD2 RIMS1 ENPP2 PIK3CD L3MBTL4 DOCK4 FHAD1
 VPS53 SLC5A3 BLOC1S5 FRMD4A MCTP2 CERS3 EGFEM1P WWOX PTPN9 ABCA12 PCSK2
 HUNK RNU6-78P DNM3-IT1 FUT8 SNX29 SNURF SAMD5 BEND5 EPHB1 LPHN3 LINC00478
 LSAMP CREM KCNQ1 FHOD3 GREB1L TEAD4 PDE7B ARMC2 TNRC6B SRRM1 SLC38A6
 IPO8P1 RAB24 DOCK1 SNORD115-47 MTUS2 CRADD VASH2 ZNF664 TMEM178B BPGM
 FAM126A EXT1 LINC00276 EFNA5 TMEM68 ENPP7P5 CACNA1C-IT3 TLN2 BPESC1 HDAC4
 RNASE13 KLHL1 TRPC5 KIAA1644 AMFR PLCB4 MRM1 ATP9A FTO ADORA2A-AS1 EIF3A
 ENOX1 B4GALNT3 UNC5C CHI3L2 AKAP6 ACSBG1 POLR2F CSGALNACT1 CSMD2 SORCS3
 LINC00189 LINC00299 EML6 POU6F2 TENM3 OPCML LINGO2 WDR7 SNORD114-16
 DIAPH2-AS1 DUX4L19 SF11 MGAT4C RBMX2P1 CEP85L ATF2 PHACTR2 NOX5 RBBP8
 KCNJ12 OSBPL1A PIK3R2 ANKRD44 CYP3A43 CCDC91 KAL1 GRID2 CALN1 ZNF423 LRP2
 CYBB SEMA6D ZCCHC17 KCNJ3 C2 RALGPS2 FER GLDC MIR548AS SUSD4 CAMK4
 GALNT14 TMEM189-UBE2V1 LINC00466 VWC2 GUCY2F ERLIN1 CELF2 SMIM2-AS1
 PDXDC1 NTNG1 ADTRP CRMP1 PDE4B DDX10 ZNF804B FBXL7 ARFGAP3 MAPRE2
 PCDH17 SGCD TMEM108 DDX59 RIC8B GABRB3 TPTE LRRC20 GRM7 SHROOM4
 RAPGEF2 NAV3 SMG7 PRPSAP2 ANKRD13A ZCCHC11 PPA2 MAP3K7 IMMP2L MIPOL1
 CENPP DNAH3 PTPRM ATXN1 PRKCQ SSPN KIRREL3 AK5 NCOA2 N4BP1 GALNT8 NRXN3
 RASSF8 USP12 RHPN2 RABGAP1L DLC1 IMPDH1 KCNH7 CLDN1 TSNAX-DISC1 ABCC1
 WDR83OS KCND2 CDKL5 INPP4A LY86-AS1 PTPRU ATP8A2 AFTPH NHSL2 ADPGK SBF2-
 AS1 SNTB1 SLC24A3 SOBP ORC4 ZNF252P ZNF207 MPRIP GRIA4 IDE ANKRD32 CERS6
 SCMHI USP32P1 TPH2 BAALC KIAA1598 JDP2 INADL PLEKHA5 MACROD2 TTLL5 IL18R1
 SPTBN4 TMTC1 ARMCX4 RGS7BP AUTS2 LPHN2 EPHB2 MTND6P4 PLEKHA6 TMEM56
 ESR2 KAT7 MYBPC2 ERC1 SATB1 VPS45 COX10-AS1 EFCAB11 SLC5A4 NRG1-IT2 AGO3 C9
 SIPR3 TMTC2 MCTP1 MOB3B WLS ANKS1A RYR3 PRCP RN7SKP86 ZPLD1 PRTG C12orf42
 DCHS2 RGM2 SOS1 MIR767 CTNND2 EEFT1E1-BLOC1S5 COL22A1 TC2N SETD2 KCNQ5-IT1
 PACSIN2 SQRDL BAI3 DOCK2 NUP214 DPYSL2 DSCR8 PTPDC1 TRIM22 CDH13 MDGA2
 SAMD3 RFC3 VEPHI FAM129A BASP1 BDNF-AS LRRC8C DACH1 TRDN CALML4 MIR5704
 DAB1 RFTN1 GUSBP3 ZNF148 MYH16 SNTG1 SULT1A4 SEC16B SLC16A12 ALK CACHD1
 EXOC6B HDAC5 MARK1 BDNF LDLRAD4 SEMA3A BTRC IQCH ACBD6 RBM4 CCDC26
 FNIP1 MGAT5 TSPAN8 ATP13A3 STOML1 CADM2 MALRD1 MRPS17 MYH9 LINC01057
 SNORD109B BDKRB2 MYEF2 DCLK1 MEF2A ADORA2A MAGI3 STIM1 COL21A1 FAM135B
 MORN1 GPATCH2L BACH1-IT3 TSC22D3 NRIP1 EEFS2 MROH7 ARID5B SIPA1L2 CCNG2
 RCAN2 TENM2 TANC1 MIR105-2 AKNAD1 VPS41 IFT80 C1orf21 LITAF DYM CUZD1
 RNF219-AS1 LINC00351 PIK3R3 BRF1 FSTL4 FAM222B KCNB2 MCM3 TENM1 CCDC170

		<p> <i>STK38L LARGE VPS39 GABRB1 ANO1 SGSM1 ST8SIA1 BLM SH3KBP1 FHL2 PSMB2 CADPS PRKAR1A ZRANB1 RGS7 HS6ST2 TFAP2D TTC39C DIO2-AS1 STXBP5 SLC44A1 FCRL2 FAM196B SIPA1L3 RNU6-1269P TTL11-IT1 GNG4 MRPS22 DRAM1 TSPAN33 LINC00393 KANSL1 NOX4 VWF CES1P2 WDFY4 LINC01154 MEGF9 SNUPN FAM155A DPY19L2 KIR3DL1 TXNDC5 PTPRT SETD5-AS1 CSMD1 ERI2 LINC01076 MANEAL SLC24A2 COL25A1 MTND5P11 SCEL BCOR GRIA3 NTRK3 RXFP1 LINC00457 FBN1 SLC35F3 ANKRD20A12P HYDIN CHKA CTNNA3 TXNDC16 CEP89 DIS3L2 TBX15 BMPER hsa-mir-6723 NOS2P3 LINC00922 MOGAT2 CLASP2 ZNF521 PDE1A TMEM194B LINC01036 CMAHP ATF7IP DUXAP10 OR4H12P MTATP6P1 TMPRSS15 ICK CREB5 THSD7B EFCAB4B HLCS-IT1 C1orf95 RBKS DNAJC6 CPA6 NSUN2 TPD52 U3 DACH2 DEFA3 PTPRK AGBL4-IT1 WBP1L KIR2DS4 DNAH10OS BRD9 SORCS1 DNMT3 SYT1 SYNDIG1 FAM13C ASXL3 DHX32 SCAPER CRYBB2P1 DENND5A PNPT1P1 LINC00856 DOCK9 DLG2 EBAG9 PPP1R12B DAB2 FAM101A AFF2 PPARA NCKAP5 PLXNA2 MGLL THAP7-AS1 SCFD2 RNA5-8SP5 RORA PTPRD MYH15 SHISA6 NSF EBF4 ANKRD20A2 NFASC TPT1P5 ATP50 METTL9 LINC00923 MAP2K5 ZNF663P PLCB1 TMEM56-RWDD3 LRRK1 GRIK1-AS2 DNMT1 PRKG1 BRIP1 UBFD1P1 PLXDC2 ELAVL4 CADM3 SBF2 CDH9 KIR2DL3 STXBP6 SNAP23 ANXA8L1 CHST9 WDR25 MXII TTC28 MAGI2 NELL1 GALK2 FLT3 ANKRD30B SNX18P15 SRPK2 ABI1 CACNA1A HPCAL1 GALNTL6 KIAA1671 PXDNL EDA DOCK10 LINC00491 CACNG3 TRPM1 TTC34 EPG5 PTH2R CNTNAP3 EEF1E1 FNDC3A ZNF346 TPK1 PRKD1 ATP8A1 CALCRL ATXN8OS POT1-AS1 MICAL3 ADK CELSR1 TNNI3K HDAC2 RANBP17 LINC00271 GBAS ETS1 TVP23C-CDRT4 RPS2P44 TMEM131 BICC1 RYR2 DISC1-IT1 NBPFI1 POLN SEMA3D SLX4IP BANP PRLR PTPRA FAT3 SERTM1 SNORA70 FAM189A2 PDE11A TSPAN9 ARID4A KCNC4 TSPAN1 USP32P3 RAB30 TMEM163 CEP41 ATF6 PRKAR1B EYS IPO11 FAM189A1 VCL IQCJ ZSWIM7 DEPTOR SPATA5 NVL BACH1 PPFIBP2 POTEH ROBO2 SMIM20 IFT81 DTX2P1-UPK3BP1-PMS2P11 ZMYND11 CDH23 TTN RGS6 SRGAP3 RNF144A-AS1 EFCAB2 AKAP13 ZNF93 RAD51D EMR4P PDS5A CUL2 RNASET2 NEDD9 CCDC146 CLRN1-AS1 MYRIP SLC39A11 CDK19 ENPPI PPP2R3C CFB ZNF443 DUX4L14 RIMS2 SYT17 FOXP1 C16orf95 STAC OR4M1 SCN8A FRG1B ADCK3 FDXR RAB27A PNLIPRP1 RALGAP1 KSR2 DLGAP2 MROH7-TTC4 ARL15 HIVEP3 SPATA13 SEMA5A TUBGCP6 CABLES1 MORN2 GAREM CST2 PRDM15 HEPACAM2 OR4N2 BLOC1S6 LRRC16A LARP4P AGAP1 MKL1 SNORD115-19 DCC PMPA1 C1orf94 ZZZ3 UBE3C CTNNA2 CCDC92 PEX5L CYB561A3 PARD3B ETV6 LARP4B HGSNAT KIAA0754 LRCH3 FMNL2 KCNJ15 CEP112 PARD3 snoU13 MYOM3 CCDC73 FAM110B SYNPR-AS1 NRG1 CAST TBC1D9 SYT9 FANK1 DHRS4-AS1 LINC00534 VSIG10 RPS20P1 DLEU1 SPINT2 SLC22A10 CASK DENND2A ATP10B NPAS3 SLC35F4 PRKCA MARCH1 FMN2 SEMA3C GRAMD3 DPY19L1 GRIA2 KIAA0825 BCKDHB PAH TP53TG3B ST18 FRMD4B C3orf67 VSTM1 SELO RXFP2 TOP1</i> </p>
DSBs	3148	<p> <i>KRTCAP2 MMP2 FAM153A C15orf27 ATF6B XDH ABCB7 VPS4A PFKP DECR1 MTHFD2L IFT122 NTRK1 LINC00864 SMIM17 OR51A8P C2orf49 COL4A5 CDK14 SOD2 TMX4 PNPT1 MIER1 CCDC97 XK MET TOB2 RPL4P6 MAX OSBPL8 PROSC KND1 RNU1-124P IPO9 PPCS MRPL1 DUS2 TMEM254-AS1 SNX33 PTCD3 CTAGE5 DMC1 WDR34 LHFPL2 CCL22 TMEM180 LUZP1 SLK EIF3LP1 MIR218-1 TRIQK BAZ1B SNX16 BBS12 LRGUK CRHR1-IT1 CD160 TERF2IP FOXK2 ATL2 FGGY CLDN16 Metazoa SRP LINC01138 MTCYBP3 ALDOC PRDM2 RNF103-CHMP3 C1orf61 SCGB1C1 SUPT4H1 CEP350 SMYD3 ARL14EPL WHSC1 LGI2 SHROOM1 MIR3121 C19orf10 ABR NCOR2 MIR4310 CNGA3 ZDHHC6 MFSD8 PGBD5 CCNY NT5C1B-RDH14 ROR2 RN7SKP57 MAOA ANGPT4 CCDC41 FRS2 ALG2 SYT13 HSPD1 F2RL1 UGT1A12P LCOR RASA4B GPN2 DES1 RARRES3 C8orf44-SGK3 HS2ST1 SYT12 CSNK1A1P1 SERPINE3 VAX2 ARL13B SPANXA2 MYO15B FAM198A MLF1 C12orf75 TNXB STPG1 COX8A CDCA4 GAPDHP54 RACIP5 CD6 ACAP2-IT1 POLR2J4 PSMD11 CELA1 USP42 IPP TMEM59 CNOT1 SNX6 ADAM23 SPTBN1 SRP72 UPK3BL IDO2 NUCB1 ARSH ADAM20P1 TTL4 METTL21A USP32 KDM6A PI4KAP1 PDP1 DAPP1 ATF7 LRRC10 KNOP1P4 UFL1 CD53 RNU6-816P DNAJA3 GLG1 MIR153-2 EPHA4 L2HGDH PLCXD2 AGPS PIN1P1 LZTFL1 KLHL7 SUV420H1 DCUN1D5 IGDCC3 NBPFF3 DOCK11 PCSK6 RPRD1B DNHD1 PTPN2 RNU6-999P PBLD NRG4 AHNAC RGS14 RTN4RL1 PPP1R37 ACTG1P1 ZFH4-AS1 RBPMS DLEC1 ACO2 XCR1 RBM6 PSMF1 C7orf60 SH3PXD2A NRF1 LINC00475 MIR5010 MRPS24 RBBP6 PRDM12 JADE1 SCHIP1 HP BTK FXDY2 UIMC1 PTGES3L-AARSD1 ABCC6P1 KIN CCND2P1 OTOA FSTL5 ZNF146 VMP1 MIA2 ZAN KLHL6 UGT1A13P MLIP-AS1 HOXB5 CASC4 CUL4B TNRC18 RDX DNAJC9 SLC4A5 FBXO46 SVIL CELF5 CAMK2B DCTN1 LIN28B NDUFB8 CADPS2 TMEM248 JPH2 PAQR3 NECAB2 ANKRD26</i> </p>

	<p> ATP2B2 NBPFI16 TRAM2 NIFKP7 PAWR TEX33 MTMR12 NBPFI13P ESPNL URGCP-MRPS24 KLHL21 SCRN1 LINC00577 NUGGC TAB2 GPATCH8 HPS1 UCN2 TFE3 ZNF511 POLR3G SNORD116-7 KCTD13 TMEM256-PLSCR3 DCT TANK OVCH2 FBXL20 UGT1A8 FAM120A CNTNAP3B GLDCP1 LAMTOR3 TARSL2 TERF2 CASP1 LBX1-AS1 GTF2H5 PLEKHM3 QRSLIP2 RAB15 PLA2G4C ANKDD1A XPO4 HAUS4 HCAR2 SPAG6 ATP6V0A2 IFNARI MKLN1 KIAA0319L SDHD SQLE OPN3 ARL5B-AS1 TAOX2 EHD2 YTHDC2 TBC1D3P1 NCF1 PARD6G PSMD5-AS1 ACTBP7 GRPEL2 TCFL5 FAM157A H2BFWT PPCDC ERMARD NT5E HNRNPA1P5 IL18 SLC16A2 HHIPL1 GK5 OR51N1P OR51B3P GEMIN8P3 ANP32A CLDN10 DNAJC1 FKBP5 KIAA0232 CHCHD5 ERCC8 KIAA0368 SCNN1B ALG9 RNU6-1056P BTBD10 CUL3 RPL5P15 MUC20 SNCA CLIC5 ESRRB MSTO2P SLC48A1 FAM153C GEMIN6 LINC- PINT METTL16 CPNE9 MEF2B CYCTP HS3ST5 RPL17P42 MORC1 CSRNPI C17orf105 LINC00622 AIF1L SHANK3 CCDC14 EEF2K KANK4 COG8 TRMT2B NR4A3 SPDYA SPTLC3 UNKL OIP5 GPR124 DACT3-AS1 RPS12P10 RUVBL2 OR52N1 ISCA1 NXPE2 COCH SP4 RNU7-87P EIF3H GNGT1 ATG3 KIF5C NDUFV2 GPM6A RN7SL751P CDH20 CA12 MROH5 DDX50 HNRNPA1P49 SATB2-AS1 SLIT1 TNR-IT1 BLVRB PIFO GTPBP2 GALNT10 MORC2- AS1 STK39 ADCY1 OR9A1P UBE2QL1 SMURF2 FAM13A C20orf112 CCDC129 TRPV1 ADAMTS12 C2orf48 AVL9 IL9RP3 ZFYVE9 LINC01140 TCTN3 TBC1D16 TRIM24 CC2D1B FMNL1 SYN2 SEPT7 ASPN MTX1P1 SERPINB11 QSOX2 HFM1 YBX1 ANXA2 HORMAD2 CLNK LGALS2 ABCD3 MTF2 FIG4 SP7 MTND5P18 ADRBK1 FCGR2A C12orf49 FOXD2 NKAIN1 NEIL2 CHCHD3P2 ZNF114 ATP5J2 KMT2D ZNF385C IMPG2 GUSBP5 CRHR1 URGCP ZFAND1 CBWD1 TRAF6 AXL LMNB1 RRN3P3 SPAG5 SLC10A1 CSNK1E BRCA2 PPP5D1 XPO6 C6orf89 C7orf50 CRIL SLC44A3 PTGER2 FAM153B HAEL1 LINC00948 EXD1 ADAM29 C15orf26 PKN3 RN7SL180P SCAMP4 TMEM182 UQCR10 APBB3 CLIC4 WDR92 MIR3692 ALOX5AP THUMPD3 RFT1 SLC8A2 TACC1 RAD9B ADHFE1 SLC6A1 RFPL1S SH3PXD2B SAMHD1 ARL17B PAX6 RPSAP52 MYSM1 SIK3-IT1 CDON PKDIP1 PCAT2 FASTKD5 NETO1 GCNT6 ST13P4 ZDHHC3 SESN1 FBXO9 PTPRQ TNPO1 MAPKAPK3 RAB6A C12orf5 CDK13 CHML OC90 BCR CAPN2 DZIP1 SEC22C GPR161 RPL29P2 LRFN1 ACTGIP3 HOXB-AS1 TAS2R62P TRAPPC11 TMEM196 CREB1 FHPI FRMPD3-AS1 SPATA3 NEO1 MTND6P5 UGT1A7 RASA2 STAG1 ZHX2 MIR4794 KIR2DP1 LINC01102 SOHLH2 KIAA1377 TTLL9 AKR1D1 ITPKB EML4 OBFC1 STAT5B OR52B1P FKBP3 MIR3605 IPCEF1 RN7SKP245 RN7SKP240 BIN2 PRKRIRP8 UBOX5 SNORD115-16 MPP6 KLF17 APOLD1 ARHGAP29 TMEM251 DDX11L9 SCARA3 TOM1L1 CPEB4 C11orf80 FAM206A MOCOS UBE2H BRDT SPATA18 MKL2 CDC45 MBTD1 USP33 PPP1CB RPL13AP2 CCDC136 PAAF1 CCT3 MTHFD1L RBM5 RGS22 CFL1P1 PTCHD3P2 SSR2 CRELD1 AMDHD1 WDR27 CD247 LINC00865 KIAA1239 CDAN1 PKHD1L1 MCC SLC26A2 ATP2B4 RPL7AP60 GUSBP11 P2RY10 STAU1 ADAR HADHB ADIRF STPG2 MAG11-AS1 KTI12 MAP3K4 MTA1 XRNI C1orf105 GNG7 RUNX2 SPATA6L PPP2CA FGF10 MBNL3 CROCCP2 CIRH1A KRBOX1 MIR1226 POLH PLEKHA2 LRRC1 ESRP1 PEG3 NADK GALT PAICSP6 CBWD2 CAPSL TYR TPT1-AS1 NPIP4 CKAP2L POLR2J3 HERC5 MED12L BRMS1L LEKR1 SGK494 C19orf68 TAF8 ADAM8 SLC9C2 CASP1P2 EIF4BP6 MAN2B2 HSPA7 SHPK HAO2 C10orf131 TOMM5 MIR670HG EMR3 OSBP2 ACOXL MIR202HG DAK ZCCHC2 ACAP2 PGPEP1L PPP4R2 KIF3A ACP1 RPS3AP15 HNRNPA1P6 ILDR2 RTBDN NMUR2 DAGLA RAB11FIP5 C20orf166 MPHOSPH9 LINC00607 SH2D4B FAM157B RASA1 RNF10 FAM168A RPL3P3 PCDH9-AS1 ZNF660 ITCH ITCH-IT1 GTF2H2C TANGO6 SBSPON AJUBA GSG1 PDGFRA PTPRJ FRMPD1 TET1 FAM205A GTF2E2 ZNF737 FAM178B MIR555 KCNQ3 NFYB KCND3-IT1 SNX8 HADHA CHURC1 CCBE1 PLA2G16 MUSTN1 TFEB RN7SL75P HDAC1 RN7SL127P MTCP1 MASP1 BLZF1 CENPK CAV2 ASB5 AREL1 SOD2P1 MED26 KDM2B USP50 RIMKLA TRIM46 C17orf78 C14orf142 ADNP UST GSTM5 PDCD1LG2 VPS26BP1 POM121C PMS1 TMED6 RAB28 SLC25A51 ATP2B3 PIGU ALAS2 SFMBT1 TYW1 HIBADH PHBP15 C10orf113 UPF2 CPT1A ZNF823 KIF22 VIPRI-AS1 DCN GSE1 SUCLG2 PRNCRI S100A12 UBAP2 RN7SL717P RNU6-229P OR52E6 VAMP7 GBP5 HAUS3 POU3F3 IFRD2 COMMD6 TBC1D3P1-DHX40P1 STX6 FAM20C DNAJB14 RNU6-302P ABCC8 LSM3P5 BPI FOXP1-IT1 BNC2 SERPINA3 FBXO39 RN7SKP202 ASS1P1 FBXL4 KIAA1432 MYO1D OR52VIP CAP2P1 BMP2K TBC1D23 POMGNT2 FAM13B WNT7B HEXA SFXN5 NRD1 SETD4 FLT4 MORF4L2P1 SESTD1 RHOTB1 PRCC SMAP2 RFC5 BRAF AAK1 GMEB1 PMS2P9 EEA1 RN7SL254P ARL5A C22orf43 SNX18P16 ITGAL SLC38A11 MLYCD VWA3B ALPL SMAD6 TMEM206 VRTN ABLIM1 ADAMTS7 LINC00854 RBMS1 UQCRC2 RYBP ATP1B1P1 TPRX2P RFX2 DPY19L1P2 GNB3 ACTR2 SENP5 SNORD114-13 FAM174B KLF17P1 MYB NBPFI24 CASS4 TBC1D19 </p>
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	<p> <i>ERGIC1 RPTOR MAP4 OR52P1P EIF5AP3 SYNJ2-IT1 ZNF554 TNIK HSPA8P14 FAM65A IRS4 KATNBL1P2 COX5A MPPED2 NCF1B SSXP3 SH2D6 PCMTD2 ADD3 KIAA1279 MALTI AXIN1 ARVCF STARD4-AS1 KANSL2 RENBP NID1 FBXO16 DEPDC1B FCRL6 IQCK NBEAL1 GPR107 HOXC13 FAM115C SNORD116-25 PADI3 SMARCC1 C20orf24 PSMC1P13 CD4 C14orf23 RNA5SP387 STX18-AS1 DGCR9 AGAP5 OR6C70 CLRN1 NUDT10 SH2D1A ACTG1P12 ZNF347 PHBP4 RPS23P7 SUGTIP KIAA2022 AGAP11 PHKG2 SLC39A14 NGRN IL21-AS1 MIR5002 SERBP1P3 FCGR2B BCO2 RPS14P4 CA14 SNIP1 CIB2 STAG2 HRK NFATC1 SCOC RALY LDHAL6DP NUP93 APCDD1L TTLL13 DGKH ZBTB22 CDK12 ELOVL3 ASB8 CHMP5 GALNT13 NEDD4 PPP3R2 ATP6V0B SKP1 PEX14 ZBTB38 PAFAH1B1 CAMSAP3 FBLIM1 ANKRD35 RAPH1 MUC3A HRH4 RAP1GAP2 DOCK8 ARMC1 GOLGA2P5 LINC00969 BTN3A2 PRKCI GAMTP2 DRAXIN RASAL1 RN7SL390P DDAH1 MIER3 EXD2 MIR4293 RPL17P43 PART1 PARVA CYP4F10P JAKMIP2 CERS6-AS1 RNF34 DDX1 IL10 A3GALT2 FAM102B COA6 CCNI2 PDE6D CCT2 DCAF12 ITPKB-IT1 MIR10A CCSER1 ZNF692 SPRTN HMG3 KIF18B C12orf76 PAG1 DHDDS APOL4 UBE2CP2 SYN1 EEF1A1P30 RPL7AP66 ZIM2 ALG14 RNF145 FAT2 EFCAB7 ZMYND8 GATAD2A GPRASP2 FANCD2OS N4BP2 PRMT2 ZNF609 SCN4A FAM135A NACC2 OR10J9P ECE2 CCDC102A NMNAT1P1 FAM194B PACS2 MYOT GAPDHP59 SCD5 UBQLNL RHOF2B LSG1 EMG1 WDR5B ARMC8 RN7SKP253 DCUN1D3 EMC3 SLC7A14 PRKCD DSC2 C7orf76 NPIPA7 IDNK MEF2BNB-MEF2B TRIM65 NPSR1-AS1 ANTXR2 COL4A3 MYO10 CCDC155 OLFM1 MTND5P10 ENAH MID1 PITRM1-AS1 RCC2 RNF103 THSD1 STON2 TRIM37 LRRC25 STOX2 NLGN2 ZNF566 ABCB1 CNR1 DLG3 PLAGL1 RNF2 USP54 MTF1 DNAJC7 RN7SL867P NOL3 ARNTL2 GRM7-AS3 POLA1 ASPH AQPEP HDGFRP3 RRAS2 LEPR SH3BGR1 ERN2 NDUFS2 UBR5 GP6 HSD3BP2 SLC22A8 RASA4 GTF2F2 PPP1R42 HPR BLID SOX30 VBP1 CXorf66 SLC25A13 TMEM132C GATSL3 GATS TTLL7 RPAP3 STOM AIM1 GSN EGR2 WWC1 ANP32AP1 TMEM14A GLB1L2 OR11N1P FAM21B SH3GL3 SPEF1 GGPS1 CERKL DBT ITGB6 SRBD1 INVS PDGFB RNF19B KLK2 hsa-mir-6080 SMIM7 TMEM209 KIF21A CLUL1 LZTS1 ADAMTS4 KIAA1244 CD27 HOXB-AS2 RWDD3 CMC1 ADAMTS14 CACUL1 HSPA6 NTSDC4 SHANK1 LIN7A PPP2R5C ANXA2R SYNJ2 SNORD114-21 MLIP-IT1 AMPD1 DENND4A EBF3 ITPR1 NFKBID EMX2OS RPL12P2 SMYD3-IT1 CNN2P1 OXR1 MRC2 SFMBT2 SETD5 PPP1R16A TMEM169 SNX2 TICRR RBX1 ANKRD54 MADD LINC00667 COX7BP1 KCNK1 BLOC1S3 DAPK2 EREG NEUROD1 IL17RB LNX1-AS2 RNFT2 WDR60 THEGL DCAF8L2 TBC1D26 ZSWIM6 SMEK1 CLMN UGT1A4 AACSP1 TMEM183A PYGO2 PPP1R10 OR51T1 CCNJL CAMK1G LACE1 C2orf76 UGT1A6 LHFPL4 NMT2 CASC2 DFNB31 MARCH7 AFM CENPC STAT6 WDR64 C1orf110 SCARB1 ZNF787 ABHD17AP3 RPS20P20 PRKAG2 PELI1 NPIP3 MST1 ABLIM2 JAZF1 IGFL2 RQCD1 GABRA6 RN7SL832P PLEKHF2 MGMT FAM157C RPL7P31 MYLPF TRBC2 HNRNPA3P12 F8 ARHGAP23 ALG9-IT1 ADAM21 PRR14 MSANTD3-TMEFF1 SIGMAR1 TSPAN5 MIR3151 AMIGO1 SLC9B2 LINC00266-1 RAB4B-EGLN2 ADCY10 FBXL2 CSRN3P RNU6-202P MVP MTX3 KLHL32 ZMYM1 HNRNPC DNAH2 ZP3 BCAS4 ASB15 NNT-AS1 ENTPD5 ZNF461 ADAM3B NCKAP1 PKN2 XPR1 PSMA2 CLDN12 ITGAM KCNQ1-AS1 C11orf82 OR5P3 TVP23CP1 RTN4 MOB3A PRICKLE2-AS1 PHRF1 GOLGA8M GNL3L EEF1A1P31 GIMAP2 BTBD3 ACTL8 PRKAR2B FBXO21 SLC8A1-AS1 GAPDHP69 P4HA2 DFFA SERGEF SMC2 LATS2 POLR3DP1 PTPN1 LRRC52 PAPD5 EZH1 SAPI30 VWDE OR4N1P LSP1 CD59 PLCG2 KIAA0247 LY75-CD302 HTR2B UVRA9 PSAP ATP5L SERINC5 INPP4B BMPR2 B3GALNT1 AARSD1 LINC00358 C3orf84 FAM198B NTMT1 SLC5A6 RNFT1 BMS1P4 CNH2 MTA3 OR9A4 ORC2 MCOLN1 NFIX SLC16A6 OR52H2P AIFM2 PALB2 DIP2B HMGB1P24 BCORL1 MTND1P11 LPA LY75 OR5BH1P COL28A1 LPHN1 SP1 LINC00383 AXIN2 SLC35E4 SRRM3 LRRC72 NCAPD2P1 SYT3 PPME1 FLJ20373 RBM42 RPL23AP6 TNPO3 HTT GRIK5 TPGS2 BRI3 DAZL CYP2C18 SYK IFI44L FREM3 GGT7 ZNF766 TBR1 IQGAP1 MYCBP2 RPSAP6 WIP1 GTF2IRD2 TMCO4 FDXACB1 ZNF777 KCNQ2 LRRC37A14P LEMD1 SECISBP2L FGF2 PABPC4 FCGR2C DIAPH1 ZNF71 OPRD1 RABGAP1L-IT1 COMMD10 HNRNPA1P26 KLHL12 GPSM3 CAPRN2 TSG101 STRBP TNS4 FANCI NAV1 PAQR5 EIF2B5-IT1 CBWD3 TMCC1 ACAA1 SMG5 PCDHB16 ANK1 SRD5A3-AS1 PPMIL CASZ1 TEC C1D LDHC C6orf10 USB1 SETDB2 SPNS3 RPEP1 HNF4A PAPL RABEP1 OPN1LW MIR600HG IL21R-AS1 RN7SL620P SLC41A2 IBTK RPL7P42 GSTM3 FCRL4 LOXL3 EIF3L DYNCH1 NFATC2 ANAPC5 NOMO2 SPON2 ARHGAP44 AKR7A2P1 ARL3 MIR4654 COX5B COPS8P2 MTND2P16 PRDX2 PRMT3 OTOGL GPRASP1 MRS2 ZFAND3 PIN4P1 OTUD7B KIF24 ZSWIM5 UBA2 SUGP2 C1orf226 ANKRD12 ZNF626 ITFG1 C11orf91 LINC00501 C18orf25 USF1P1 ATP13A5 MYO7A TUBBP6 CCDC15 TIMM44 PSMD1 WASH4P </i> </p>
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	<p> C2orf70 CSNK2A3 NOX1 C9orf170 TMEM242 TSPAN6 REXOILIP ZBTB20-AS2 FUCA1P1 SRGNP1 DTHD1 DDX60L MARK4 SNORD116 RNF212 TSSK1B NFX1 TLE6 HERC4 MIR383 OR2T3 MYO1F POLR2J2 RAB11A KLF15 PPP2R2B SNX1 ARHGEF17 WSB2 GBAP1 HNRNPDL P3 TYW1B IL12A-AS1 RBM8A LINGO4 SCUBE2 VANG1 QSER1 HNRNPDL RADIL SLC35E3 LYRM4 ADIPOR2 DDX58 PGK1P2 NUTM2A-AS1 CES5A TMEFF1 NDUFA6-AS1 USP22 VPS52 GPRIN3 PPM1F PTC1 ME2F2BNB WDR18 RAP2C-AS1 HSD17B12 CCDC85A DPY19L4 NDUFA9 OR5H2 FBXO45 OR52E8 UNC119 TBCK GPM6B LINC01010 CPSF4 MLXIPL UCHL5 PIP5KL1 DYX1C1 PGAM1P10 ARSE SHC4 SREK1 VOPPI SCARNA24 CCDC22 TCP11X3P RARS LINC00578 OR5P1P STC2 OPCML-IT1 IFIT1P1 STMN4 TCF7 KITLG HDGF KRT6B WWP2 CBX5 SFT2D1 TTC9C ZNF662 TMEM2 TNFSF9 PPF1A4 MAP4K4 GTF3C1 RNU105B LMNA RNU7-52P CPEB2-AS1 NPM1P37 PRICKLE1 INHBA-AS1 LARS2 ZBTB5 SRSF5 RBMS2P1 HIP1 RPA2P3 MCF2L2 WNK1 DLX1 KPNA6 ACOX2 CYP4F11 PCNXL2 B3GALT1 NF2 AK3P3 ZKSCAN7 VTA1 KALP CRISPLD2 MTMR3 PLXDC1 KIF3C CASPI2 OR51A7 BMS1P3 NDC1 GOLGA4 IWS1 PTPN13 SFRP1 IDH3B RPS26P11 RPS6KC1 SCML4 ARHGAP22 FXYD6-FXYD2 MIB1 UGT1A3 ATG14 SLC18B1 UGT1A5 PITPNB ADD2 PAPOLB SKA2 TRAP1 HCARI DPYSL3 OR3D1P TEN1-CDK3 PRKAG1 ASLP1 SLC16A10 RNY3P2 ELAVL3 HLX PTGIS ZNRF1 PPIL6 NBP15 LINC00310 ATRN SNCB NADK2 HELQ PSMA2P3 MIR663B HOXB-AS3 HNRNP2P2 RNU6ATAC27P RNGTT WDSUB1 CIPC EIF2B5 PYROXD2 TRMT2B-AS1 UTP20 PDF RPL18P10 CASC14 RNF38 KLHL2 GLTP CSPG4 IGF1 NCF1C POLK ADCY7 DCAF5 RN7SL20P HMGCS2 LPO PEBP4 SH3BP4 TCF25 TNRC18P1 FBXO42 SLC4A8 KRT8P9 FXYD6 ANKS4B GOT1 UGT1A1 YEATS4 SYNGAP1 OAZ2 BETIL RN7SKP92 CSF3R DKK2 HMGB1P3 RHO1 ELOVL5 SHC1 ARHGAP21 SAAL1 BRD7P6 BACH1-IT1 HOOK3 S1PR2 CLCC1 CYP2C19 SMO CDK11A IQCF2 SIGLEC9 SMC3 GSS NT5M TEK1 C10orf67 C1orf132 SPDYE7P TRA2B WASIR2 CDKL3 TMEM63C LAIR1 RPS17P2 YTHDF1 ZNF484 SRSF6 MAG11-IT1 INSRR PTK2 DLEU2L ATAD1 UGT1A10 GLTSCR2 PLIN2 ASCC1 OTUD3 ORI4K1 YME1L1 FAM163A TPCN1 MCU FAM115D LAMTOR5P1 ENO1P4 GPR114 DENND1A SBNO2 TRIM29 CDS1 SNORD66 TMEM151B ADAM19 PRPS2 SDHAP2 CELF1 DNAH12 EDNRA EDRF1 PDCL2 NIPBL TUBBP5 RNA5SP393 PKDIP5 LDHB PHF7 RAB5B NBP18 HNRNPA3P14 BDH2 TRIP12 UQCC1 ATG10 ANKRD18CP CPEB1 VN2R1P ZNF395 CNTFR ABI2 EIF4A1P9 EZR WNT3 ARIH1 LGI4 EPAH1-AS1 POLDIP3 RPL7P18 SNORD116-2 MFAP5 GPR171 C3orf83 WDR20 CDC6 C12orf4 PLD1 CHI3L1 NUP88 TEN1 NOMO1 CD99 RHEBP2 GJA6P DIRC1 MARK3 PRRG1 RPL5P9 ADAMTS2 BRD8 PKIB SPANXA2-OT1 GALNT18 FXN PNPLA6 NOC3L VWA1 AP3B1 IL5RA ZNF425 DHFR PLEKHM1P ASH1L NANOGP7 RSP2 TPMT SLC35E2 FRMPD3 EML5 FAIM3 TAB1 MEGF10 ACVR2A ECE1 HCK SH3D19 RC3H1-IT1 CAPN6 MRPS35P3 PPL ZFP41 RPS17L CCDC6 NCOA3 SLC25A18 KCTD10 SYTL4 RNU2-47P OR6N2 ALDH6A1 SNTG2 MUC5B CSRP1 OR5H7P RILPL1 NAV2-IT1 COG4 C12orf65 NFRKB FANCA DNAJC11 ZNF354C EEPD1 MEIS1 FAM114A2 CCDC132 AMMECR1 NSD1 LRRC2 NEDD4L TMEM179 CACNA1H ERCC1 CREBBP ITGB1 RBM26 KCNG4 BRINP3 SGK1 DNAJC16 LEF1-AS1 CCDC169-SOHLH2 NAIP SPATA12 BAI1 P2RY8 FNTB KRT8 TMIGD2 DISC1P1 HNRNPA1P22 MST1P2 SPAG9 SLC39A9 RHCE TAC3 CORO1C TCEANC PLIN3 OR5D17P MSANTD3 FBN3 DGCR5 EPS15 C19orf47 OSTCP5 RGS8 TRPA1 GNS WIPI2 PHOSPHO2 RANBP1 MYL10 BMP7 RNU6-923P MAP1A CTNNB1 ATP6V1A ANKRD17 ZNF362 REPS2 H2AFY2 TGIF2 FCGR3A RNF150 VEZT EPHX4 SLC7A5P2 IMPACT CA15P1 RNF7P1 HNF4G EXOSC3 PSMD2 FCF1P4 ATXN2 IPO5 C19orf81 GCNT2 PGGT1B SYT7 PLEKHO2 ZNF565 NKAPP1 FMO11P CHMP3 TEX10 DPY19L1P1 IGHEP2 FMO2 SH2D3C PP13439 BMS1 FAM53A NFATC3 BPIFB6 EPHB3 GRTP1 ZKSCAN1 RPS3AP22 EPSTI1 GAP43 PAPD4 ZNF354A CAND2 TRANK1 DDX10P2 UBE2K RCN1 SF3B2 GXYLT2 CPB1 HIPK3 BCAR3 MIR4435-1HG SREBF2 MFAP3L PITPNM2 ACAN KRT18P33 PPM1E TGFB1 SLC6A16 PGAM1P7 ZNF780B ACKR2 PAX2 LPAL2 PSEN2 SPERT C1orf131 ZBED6 ADRA1D TXNDC12 ASB1 BCL11B TNFRSF8 TMEFF2 RN7SL582P NLGN3 GLCE PLS3 DPRX TPST2 OR4F29 MIA KCNI1 ZFAND6 SMG1 ZNRF3-AS1 MDF1 FAM91A1 CKMT2-AS1 ZDBF2 RAB4B POU2F2 CHD1L MSTO1 TPM3P9 GFRA2 NEK10 STAT1 TBC1D10A KIAA0556 GAPDHP66 LIX1L CARD16 MEGF6 MYOCD TPM3P6 RPH3A C9orf156 RECQL5 EPCAM CXCL17 FAM188B2 SLC26A6 RERE BNC1 P2RY14 PPP1CA ECT2 SLC25A42 GLCC1 PTPRC COX6A1 MYO1E LNK1-AS1 BEST3 UCHL3 CCDC167 WDR45B C4orf45 KLHDC8A FAM21A CCDC102B INSL6 INPP5F PDZK1P1 IRAK1BP1 WWTR1-IT1 GNL3LP1 IFFO1 CDC27 UBR1 COL9A1 WDT1 ZC4H2 SRCAP LUM RNA5SP139 C1S MIR548T ARHGAP32 KPNA4 CD302 PRR13 CGNL1 </p>
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	<p> CECR1 PFAS RBM34 ADGB SNORD115-5 ZNF44 MTFR2 FTH1P26 ZNF555 PRKCZ FOXJ3 TSPAN12 PLD2 SLC2A14 SASH1 IL17RD PARP12 SYNE3 RNU6-979P ANGPTL4 BTF3L4P2 SSBP3 WBP2NL TBCEL SPPL2A OR51B4 OR51K1P BRPF1 MAPK1 RNF216 TSKS NHLRC2 TNRC6A PPP3R1 RBM45 USP46 PDCL DNAJC5G DCAF6 SPI1 RBM14 NUPL2 C8orf46 SF3A1 TNFSF11 HOXB4 RPGRIP1L OSGIN1 BLVRA CASC15 IKBKB FAM25A BOK TYK2 ENTPD1- AS1 PIP4K2A FCHO1 RPS23P6 OR5AW1P LBX2 SNX9 SLC25A17 RNU1-2 ARHGEF28 UBQLN3 CLCN1 RAB3GAP2 FUNDC2P3 ZNRF3-IT1 R1OK2 PDLIM4 EEF1DP3 STX18 CCPG1 TRDMT1 TMIGD1 BAZ2B EYA3 NSRP1P1 LRRC37B RHOF2 SLC35A2 NPIP48 COPG2 AP1B1 LINC00877 SLC35E1 APOD PLEKHG4B VNIR105P FAM154A SYNCRIP WNT11 ELOVL2 RN7SL623P MED13 GPR35 SNORD116-5 ESCO1 PHF2 TAS1R2 TUBA1C COL6A5 ZFYVE28 NSUN6 SNORD116-3 RAI2 TMBIM6 FCGR3B BMP1 CPNE6 EBF2 MRPS33P4 NFE2L1 STIP1 MMP26 XPNPEP3 MTDH ARSG SHB IKZF4 SLC7A11-AS1 RSBNI GCKR TRPC6 SLC43A2 OR56B1 LIG1 OR2AT1P EHMT1 ZNF616 MRPS16 MACC1 OR51F2 SRCRB4D ZNF415 ZDHHC13 WWC3 ST5 STRA6 EGLN2 NPLOC4 HDGFRP2 CPLX2 DEFB118 CNIH4 RNF133 SLC35D1 COL16A1 POP1 SLC29A1 SHOC2 FBXW7 HHLA1 TFAP2A TIMELESS ARL5AP2 RDH14 PTPLB DNAJB2 CDK11B SH3GL1P1 DPEP1 HTR1D CCDC180 ZNF143 COL6A4P2 HOXD3 TAF3 MAN1B1 SP3 BFSP1 MIR3182 DHRS4 NR2C1 ADAMTS3 OSBPL2 LHFPL5 DCAF10 GLI2 ICA1 MIR1912 ENTPD1 OTUB1 ZNF564 MIR1203 C7orf73 SETD1A HNRNPCP6 NLRP1 FNTA SUCO OR5P2 ATP6V0A1 SRA1 RIPPY1 SPSB4 PPIP5K2 CHURC1-FNTB LAMC2 CPOX SPSB1 F5 LINC00467 CPNE1 NDRG4 ATP10D LZIC PITRM1 C12orf56 TRAK1 METTL13 FGD3 CARD17 ASPHD2 HMGN2P40 RORC WDR37 BOC NUAK2 RBM39 LINC00944 ANO8 WDR90 PMS2P3 NFXL1 EIF4HP2 RUFY3 VRK3 PCBP2 RMST NHLH1 RPSAP57 DYX1C1-CCPG1 COLGALT1 ZNF418 LARP4 ZMPSTE24 ZNF503-AS2 APEX2 TXNL4B C1orf228 GFRAL CYP51A1P3 TSGA13 RIMS4 RAD54L2 CPT1C MTIF2 U1 THRB-IT1 ZFAND2A TAF15 TPST1 RPS4XP17 PFKFB4 PLVAP PAGR1 KRT8P42 MTND6P11 TXLNB TMPRSS12 PHB R3HDM1 HSDL2 CLTB NXT2 CNM2 MTND4P16 SEC61B SBN01 SNAPC3 GNA12 LIMK1 MECR UBE2FP1 HIGD2A CIB4 SGK3 FBXO28 MCMBP AIMP1P1 TSHR EPHA10 SULT2B1 SEPT6 MIR4295 ME1 ALDH7A1P1 CALM1 C9orf147 B4GALNT2 MCM8 PHLDB2 CYFIP2 TEX11 ZUFSP ACOT8 DNAI2 KRT18P26 CCDC148 HEATR2 MRPS36P4 C2orf40 SRRM2 BCAS3 POLA2 FBXL13 NOL10 ERCC6L2 ITIH4 EDEM3 GATC SLC16A1 RANBP9 PIPOX HIF1A-AS1 TMEM256 LINC00526 CDK3 ENPP3 PDE4A SOX2 AOC2 VGLL4 C1QTNF1 SLC6A3 PPIP5K1 GOLPH3L STT3B UBOX5-AS1 ZNF322P1 FNBP1 RN7SL164P ZNF780A EYA2 OR1X5P BCL2L14 ZNF471 MAGEA4 CERS4 ZNF652 UCK2 SCN3B DRD1 IQGAP2 MLXIP HYAL3 CLPB TEX264 DONSON LTV1 SLC30A9 XPNPEP2 PDE6A PVRL1 FAM178A CEP70 MICU3 RNU6-179P ARHGAP11A DNAH14 PTEN MAST2 AFF1 RNU7-123P TBC1D14 ATP1A3 RNF216-IT1 RBFOX3 TICAM1 CA13 UGGT1 SEC23B RDH13 CALR3 SYNE2 C9orf85 NETO2 ODF3 NOSIP SOX13 KEL SSH2 NUP210L CHID1 ALPK3 RAB3C ALOX5 CEP135 LYRM2 HNRNPH1P1 RC3H1 GPR116 DDX11L1 ILF2 SLC25A26 CROCC FARSB CLDN4 GRM8 UGT1A2P CRYM PKD2 ZNF704 SAMD12 ZNF197 TRIM60 PTPN11 ATF3 FBN2 DAP3 KIAA1958 RTN4R LINC00499 ANXA13 DDX47 DVL2 TAPBPL MIR346 KLHL23 ARMCX5 IKZF1 HIF3A SNORD114-15 LPGAT1 FOLH1 BRMS1 SPRR2D UBQLN4 GPR173 MFAP3 PCMT1 VAMP1 RAB37 RBBP4P1 SNORD114-25 LILRB4 ARNT LMBRD1 USP49 SLC25A16 STEAP3 GTF2F2P1 MBOAT1 PLA2G4E MUC1 IGSF1 C2orf27A ARID3A FAM26D WDR43 ACOX1 MTHFSD RPS26P15 MUC7 CLPTM1 SDHCP4 SEC31B IDH2 TAS2R41 H3F3AP4 GPI ASF1B ZNF836 TAF2 ADAMTS9 AGPAT3 TMEM237 CAMK2D MARCH8 TMEM161B CELF6 UFL1-AS1 ADCY5 DHX40P1 FKBP14 HOXB3 NPAT RN7SL719P CSTL1 PRKD3 CMC4 LINC01155 RCOR3 NRP2 DHX30 PTPRB GPR52 RPL7AP33 SPTAN1 ITSN2 PPARG PNMAL2 CACNA1B SUDS3P1 RHOA GET4 IL31RA GF11B HCAR3 PPIG TTC18 SUN1 MRE11A HOXD4 TTBK2 STX18-IT1 SSX9 CHRN4 DUSP26 WIPF3 EPB41L1 DNAJC3 MIA-RAB4B SIMC1 C10orf76 KIAA1549L MYT1 FAM133CP VILL HECTD4 GRK5-IT1 C4orf36 ATP5J2-PTCD1 PARP11 PPP1CC PAXIP1 ZC3HAV1 KRT18P61 CCDC138 PDXDC2P CKS1B USP13 FBXW4 NBPFI LEPROT STEAP4 RN7SKP197 CUEDC2 DNAJC9- AS1 OR6C74 AP2M1 SNAPC4 SLC9A7 CDK6 NPRL3 LRIG3 POC1B-GALNT4 LIMA1 RAB27B CTAGE6 MUC12 MYOF TLL2 LCK AFF4 ZNF76 RAF1 QPCTL AKTIP ARL10 MAPT-AS1 RPL5P13 DLGAP1-AS5 CNRIP1 NAT6 PDE8A NALCN TIMM10B TCEA1P2 RNU2-72P RPEP4 RPS15P5 NUDT6 IQCH-AS1 CLDND1 REV3L PPP2CB PTK7 PHKA1 SEPHSIP4 RBM20 OR51H2P B4GALT6 SARMI CA15P2 EPRS SGTB PTGES3L CHUK DENND4B SRGAP2 TNPO1P2 SOS1-IT1 ZCCHC7 PEX7 TGIF2-C20orf24 C14orf159 ZC2HC1C ARMC4 NUDT14 </p>
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		<p> <i>ASCC2 ZNF90P2 RAB11FIP3 PLEKHA7 RAD51C PARP6 C1orf159 SPEN SULT2A1 TMC1 PNPLA1 AK4P1 CDH26 AGPAT4 LINGO1 IQCG TECPR2 SPTBN5 PLEKHA1 LAT2 NR6A1 SLC01A2 WDR78 PKNOX1 BMP4 ECSIT SIN3A KRT18P31 CCDC147 MC1R AGFG2 RNF168 TRIM69 PDCD2L GALNT7 CCNYL1 SLC5A9 OBSCN KIAA2026 CLCA2 TNFAIP8L1 RPS23P9 RND3 KLC3 CYP2G1P VDAC1 TJPI NT5C1B KRT18P11 PER2 MIR1305 ASPHD1 RBM12B DSG1 CIR1 OR5H6 PRAP1 TBP KRT16P4 TUBB3 MTBP RBM43P1 ZNF653 ARHGAP19 VAV2 ERCC3 SLC17A7 CDKL2 NRG1-IT3 TADA2A TFRC AK2 PRPF38B KAT6A CYCSP24 C1QTNF9 GRB14 JOSD1 TYRO3 NIPAL2 CSNK1A1 SNX14 CUX2 PHBP13 SLC6A14 ALDOA MST1L MIR3609 DIS3 AP3B2 THAP3 SPATS2 NOMO3 CCDC62 ARNTL EFCAB3 DROSHA ZNF813 CTCF HEG1 SNTB2 INO80C C4orf40 ALDH3B2 FAM149B1 LAMC1 CCND3 ZBTB8A COL13A1 RPRD2 PBX3 MKRN2 ZNF761 GALNT4 C18orf56 CCDC93 TLDC1 ANGPT1 CCDC114 LMTK2 CASKIN1 FAM35DP HSD11B1L FAM131A VIPR2 EPHA1 ETF1 EIF4G1 HHAT HSP90AA1 RPA3-AS1 LRRC47 RANBP3 GYG1P3 TRAPPC13 PHLPP1 SLC4A10 SIAH1 BAG6 PHLDB1 CLOCK SLC35A4 JAG2 KIFC3 ROCK1 RN7SL741P PHF5A SLC04A1 THOC3 ACYP1 PHACTR4 GAPVD1 RPL21P123 ARHGAP31 MRPL35P3 TMBIM4 ST13P20 CAMKMT MMP28 MOXD1 PHIP RPIA PPP2R2B-IT1 AARS2 FAM103A1 EPB41 CNM1 TCP11 RNF220 CARM1 MTRNR2L2 ECM2 PTPRS IKZF2 CBF3 PDE2A MIR3194 RPL36 AGBL3 SH2D3A STARD6 ZYG11B DVL3 ZDHHC15 ABHD17A6 ACTL6B DENND2C CRX STXBP5L RPL18P11 ITPKB-AS1 LONRF3 MLLT1 UGT1A9 COPS5 TG ACADSB PRSS12 DGKG CAMTA1-IT1 CDCA3 snoMe28S-Am2634 SP100 MYO1A LAMB1 ANKRD19P SLC2A12 OR51F5P GSX2 HOMER2 KLF8 EPB41L2 CDK5RAP1 DCAF13P2 CFI CYP20A1 GLTSCR1 NFIB SORBS1 ZNF23 GUCY1A2 TBCA PACSIN1 KREMEN1 LRCH2 PDCL3P6 TRIM13 MB RFPL4B CBL RNU6-167P RNU6-640P SHANK2-AS2 CACNG8 KCNAB2 SBK3 MAG ANKRD13C ADORA1 STRCP1 ARHGAP19-SLIT1 NOTO NIN FOSL1P1 ZNF322 TEX22 SLC1A4 FAM46A ZNF286A GRIN1 ANKFY1 C9orf84 SAP18 CMPK1 ALDH8A1 ZKSCAN5 WNT7A FIP1L1 SSH1 C4orf21 RNF148 RIBC2 GNAQ TUBA8P2 TBC1D10C MMAA HOOK2 SUB1P2 LINC00461 PPP4R1L IFI30 TROVE2 PLEKHM1 AUNIP ESF1 EPHX1 EEF1GPI MBD3L1 GEMIN7 COL14A1 PARP10 GNB2L1 CASC17 RAPGEF3 SLC20A2 JARID2 USP34 ZDHHC23 ZNF584 POU5F1P5 STK4 ABCF3 CHIC2 ITIH2 PCDH10 NCKAP5-IT1 SLC9A1 RNU1-4 KIAA1467 GTPBP10 PAFAH1B2 FGD1 MARC2 PIGS TACC1P1 UBAP2L SMOC1 ADAT3 HOXB6 RPL23AP32 SLC25A33 TMEM234 RCE1 TCIRG1 MRPL37P1 TRIM44 TMC01 TRRAP ELF2 PTCHD4 AP3D1 CCDC169 KRT18P67 ZNF569 AP3S1 SNX3 CATSPER3 CEACAM7 HYKK BOK-AS1 GOLIM4 HSF1 DST NPSR1 CAB39 LNX2 TMEM144 ZEB2 POLR2H WSCD2 UBE3D MGAT4A JMJ1C EIF4E3 RNU6-928P CADM1 NOTCH4 ZNF708 KLHL29 INPP5D TEX12 KCNRG XAGE3 C6orf136 RGS9 SPATS1 RAB6C RPL23 PCCA CLVS1 YLPM1 GBF1 ZC3H11A TCF3 MAP1B BRWD3 CUL9 STAT2 C6orf201 EDARADD SEPT8 PTAFR ACTG2 CR2 GNA14 MIR4440 CREBRF PDCD11 CRT3 LLPH LRRFIP2 CYTH3 CHRDL1 LMTK3 RNF121 MIR1302-10 RPL26P3 PADI6 PROX1-AS1 TMEM30A DENND4C CD46P1 HEY2 MORC4 ETV5 PITPNM3 IARS2 CCDC150 RGS10 CHERP VWA5B2 CDC42BPB CYB561D1 RNMTL1 CFL1P7 CAPN10 CROCCP4 KCTD16 YAP1 PSMD7 CACNA1G-AS1 SIK3 FAM106CP BCL3 TCEA3 SEP15 IPO9-AS1 C3orf35 CFHR3 BMPR1B PDE8B ABLIM3 KRT8P50 NUDT5 SMARCA2 SNORA35 UBPI XYLB P4HB TLL1 ZNF282 NAA25 RSBN1L-AS1 VIPR1 ADAM20 GPR89A EIF4A2P2 TMEM199 ZNF30 ACTA2 TRPC4AP FKBP9 C17orf61-PLSCR3 FBXO18 C1orf186 SNRNP40 SNORD116-29 CEPT1 GPA33 UBR7 EBLN2 KBTBD12 RNA5SP424 GATAD2B ZNF398 MED28P1 XIRP2 ANXA4 ALKBH3 SEC14L1P1 RPL21P122 DCP1B TTC9 MLPH APBB1IP ONECUT2 CKS1BP7 HAO2-IT1 MYH7B LINC01104 GLI4 JPH3 OGDHL GPR39 CLDN18 APOL3 FAM180A GALNT16 POC1B SMARCA1 ANO6 KRT8P13 PRMT7 PHKA1-AS1 MAD2L2 ATP8B1 HIPK1 KRT18P46 MAL2 SIN3B TPPP2 MLTK C9orf47 TRIM8 KAT6B SMYD1 FBXO10 ZNF383 PDGFC PEPD LMBR1 C8orf44 DGKZP1 FAM49B ZNF197-AS1 RPL5P14 GALNTL5 NPHP3-AS1 VPS13B FLRT1 HDAC6 FAM106B SLC2A11 LINC01004 IL11RA RPS6KB1 CDHR2</i> </p>
4C	3148	<p> <i>USP17L28 CASC20 DPY30 MIR4677 CMTR2 ZHX3 GNL3 APBB2 IFNA20P GLT1D1 FRG2 LCORL MIR4461 ALDOAP2 BSN-AS2 FGFR1OP2P1 DLEU7 HS3ST3A1 RDH10 CPXM2 RTN1 KLHL14 DTNBP1 RGN MIR3156-3 C4orf22 BCRP6 ERG GDA PDE1C MREG AK7 INIP MAP3K3 NINL MIR489 RNF185 NR4A2 PIR IGSF3 RRP7A KIAA1199 FIBCD1 SORL1 SNORA46 SLC22A2 LINC00698 ACTG1P4 CNTN4-AS2 ATXN10 POTES DHRS11 ACTR8 CCDC34 TAOK3 KIAA1210 ITGA3 ZNF510 GADL1 EFN1 PRKCB ACSM3 C5AR1 ZNF623</i> </p>

A2M HIGD1B TRPM6 RN7SL872P GTPBP1 DGUOK C1QTNF3 MANEA RNU6-749P
 ARHGEF26-AS1 OR8J3 PYY KCNC1 STARD5 GPR55 GBP7 DNAJC15 TLK1P1 SLAH3
 LINC01121 C2CD3 CD38 ZNF257 LINC00159 RPL26P9 GPR78 GSTA2 GRAMD2 ANKRD20A3
 CORO2A ARHGAP42P4 MIR4499 C12orf40 AP4B1-AS1 CDK8 HDAC7 ABCD1P3 PIWIL3
 CHST15 CDK1 NLGN1-AS1 N4BP2L2 ZNF232 OPHN1 RPS15AP6 BANF2 FAM90A6P
 FAM182B KIAA0100 FNDCC1 MYH6 CLUHP4 LCMT1 LINC00924 SSXP1 SAA2-SAA4 SLC24A5
 BCL2 MIR654 SAMSNI LINC01047 OR7E25P KIAA1324 OR4M2 C4orf29 WDFY2 THADA
 COL18A1 PXDN GXYLTIP1 PRAMEF7 FAXC TOMM34 COG1 PWP2 FGF7P2 DNAL4 GSTM4
 ANHX ZSCAN5C RCSD1 SLC13A4 EXOC2 RAG1 OR10J6P HPRT4P HERC2P8 PAQR8
 MIR4768 RNU6-966P SNX25 IGSF11 CDK17 GNRHR UNC13B SUZ12P DPYD SARS GAGE2B
 LAMB4 RN7SL318P PRDX4 LRRTM3 IL6R FUT4 OR4A42P DBH RPLP0P7 OR5G1P TMEM11
 RPL7P55 KRT222 UBE2L6 PCCB IPO13 LTBR TDRKH GNB4 AGTPBP1 PRR5 SPRR2B
 SMTNL2 HNRNPA1P74 SALL4P7 AH11 IGHV11-82 BDH2P1 ACTR5 SCN11A HEATR5B FHL1
 ATP10A FAM225B NMNAT2 UBE2N SORBS2 IL23R SKAP2 PIGL GDI2P2 HS1BP3 C1orf112
 GOT2 GRIK1-AS1 PLSCR4 PPARGC1A MSNP1 GGN KCNK10 PCAT1 CASP5 ETFA RNF182
 AHRR BRD4 CYP3A5 PCDHGB4 GTSF1 LINC00313 GPX1P2 GPR158 VRK2 ZNF568
 TMEM241 APBA2 TTC3 DUX4L3 EP400NL ELMO1-AS1 STOML3 PLK1S1 C3orf22 ZNF962P
 CMA1 MIR3118-2 TBC1D3B PREX2 PI15 SNORD11 ELAVL2 RPS20P22 FAM9B TNFAIP8L3
 KIF4A WDR16 SNCAIP CSMD3 KLHL28 DLGAP1-AS4 DUX4L15 OR11L1 DNAJB4 NTN4
 PECR PCDHGA10 GTF2IP1 EIF2S1 EDDM3B POLR1A LGR5 TMRSS4 LINC00348 TSHZ1
 TM9SF4 BICD1 LRRC16B RAB5A MIR17HG SMC02 JRK H2AFZP1 FAM131C SNX18P9
 RNA5SP470 KRTAP26-1 OTUD7A TPTE2 EMCN-IT2 MIR491 OR8K3 SMAD1-AS2 LPPR4
 RPL39P36 PPFIBP1 USP24P1 FAM49A BCL7A FGF12 PCDHGA5 IL20RA ELFI MIR4439
 IGLL5 OR9I3P CASC9 SAFB2 SLC9A2 SULF2 SOST OR52T1P NFAT5 RRAGC TAF1D
 RN7SL345P IGHV11-47-1 STRN3 FLI1 PGBD4P7 PLCB1-IT1 GPRIN2 ANKRD40 CCT6B
 KRT74 FAM90A19P ZFH2 FBXL5 RNU6-1241P NR2F2-AS1 SNX18P25 ZNF677 MAP2K4
 CSRP2BP EPB41L3 CD72 KAT5 MIR361 SRRD MASI OR2L13 LAMA1 CDH11 GIMAP6
 RPS7P5 ZBTB41 CDK2AP2P1 CDS2 ITGA2 SHANK2-AS1 MME FAM213A GRIN2A RNU1-
 142P SNORD116-27 MBL1P DTWD2 MALL IL10RB NELL2 MAPK8IP2 VWA3A ALPK1
 ARID1B DEFT1P2 FLJ00273 IGHV11-2-1 C21orf2 WDPCP NIP2 RNU6-554P KLK9
 RN7SKP80 RN7SKP16 KIF9-AS1 VPS37B PCDHGA4 FOXO1 PCDH9-AS2 IGLV5-37 PANK3
 GBP4 FAM211A WDR82 AMPD3 PTCSC3 SFXN3 SNORA71 CHDC2 GCLC TUBAP SNORD113
 MTCO3P2 RERGL IL18RAP TBPL2 RNU6-164P TRIM16 CDC40 MIR539 PQLC3 ACOX3
 GOLGA8J XKR3 CRI LINC00161 NUP210P1 SNORD116-17 DAAM2 ARHGAP8 ZNF571-AS1
 PLXNA4 PTGER4P2 SLC22A5 OR2T4 RN7SL678P KIF23 GRAMD1C ANAPC1P1 ZDHHC17
 IGHV11-26-1 STK24 CNBD1 VPS26B PARVG RNU1-106P SEPT7P4 FEMIAP4 RNU6-438P
 PDCD6 AMPH CCSER2 BRI3BP BACH1-AS1 NUTF2 COX16 KRTAP10-5 BMF CD177P1
 RNU6-1021P KLF3P1 IGHV4-28 EIF4E LINC01162 ATP5A1 SPRR2C BPIFB1 HTR4
 PPP1R26P3 RNU6-890P C14orf183 LINC00320 C12orf55 RNU6-1003P KRT72 OGN GIPC2
 FMRI PA2G4P3 C5orf64 RN7SL542P FAM184B ERCC4 FAM83B OR4K15 RNASEH2C
 NCOR1P1 C9orf153 IRAK2 COMMD1 RNU6-258P ANXA10 MIR765 WDR33 RN7SKP233
 PCMTD1P2 RN7SL92P MTCO1P3 SLC30A8 RNF126 DPM1 RXFP4 C5orf51 C19orf18 OCLN
 RN7SL179P KRT4 MEPIAP1 IGKC AK8 NLK MDM2 LINC00630 BCRP7 TDRD3 MIR544A
 OVCH1-AS1 NDST3 ABCA6 RN7SL686P POTECDHR4 OR5L2 ANKRD30BP2 ZNF285
 FARP2 NCAM2 DPY19L2P1 CYSLTR1 PAPD7 MIR154 NR4A1 TMEM175 TIGD4 C14orf37
 GLT8D1 CLDN14 RGS17P1 SKIV2L2 SCARNA15 CARM1P1 LINC00273 SERBP1P6 SMARCA4
 ARMC9 HERC2P3 MCOLN3 LRP8 RNF152 IGHV1-69 NFE2L3 MINPP1 MEOX2 TTC39B
 KCNG3 ENPEP PSMD6 TMC5 DUX4L12 KIAA1257 LINC00365 SKI HIGD1AP13 ZNF544
 LRRC70 TMEM50B KRTAP13-5P SNORA1 TNFSF8 PDE5A FBLN2 TEK4 OR5G5P BCKDHA
 RPS2P48 RNA5SP265 SCLT1 TMEM52B RNU6-141P EIF4ENIF1 UBE2Q2P10 ZNF433
 RPL7L1P12 SRGAP1 ABCA11P SLC16A4 PWAR6 CALCR DUSP27 MC2R TBX3 OR8K4P
 NANOGNBP2 MIR620 ELMO1 MIR4753 RNU6-837P SLC24A4 ABCD1P4 DOCK9-AS2
 FBXO47 OIT3 ZBBX SLC9B1P4 LRMP HTRA1 RAD1P2 ZNF585A IFT88 SIGLEC30P CHST12
 ARHGAP5 DDX21 ANKRD20A9P KIAA1731 P2RX1 ILDR1 GAS2 DGCR14 TNIP1 PAN3 FSIP2
 TOX2 ZBED4 ZNF720 MTIHL1 MTPN ZER1 CLUHP5 FCRL5 MRPS31P4 RNU1-60P FAM9A
 ZNF474 OGFOD1 OR52X1P QRSL1P3 FAM182A TSPEAR TBC1D22A FILIPIL ZNF559-
 ZNF177 DET1 FECH SLC7A7 TACR3 LINC01020 VCAN MPTX1 ACTBP8 POTE2 DNAH8
 IGLC2 SLC1A3 MIR3173 RGS12 PCDHGA11 C14orf119 DNAJA1P1 MTIF FGF12-AS1

RNA5SP438 ASNSP5 LRCH1 RAPGEF5 FAM124A TCL1B FGF13 CDCA2 IGHVIV-44-1 PDIA6
 PTGFRN RNU7-119P PRKG1-AS1 NBEAP1 FTCDNL1 RNU6-631P SPIN3 HCN4 OR111IP
 CD8B MRPS21 ZNF830 ZNF567 B3GNTL1 ERMN MIR605 IGKV1D-12 SIM2 C12orf36
 GABRA5 TRIM48 KIRREL RNA5-8SP3 DOK5 TLK2P1 RNU4-56P TMEM50A STAMBPL1
 SH3BP5-AS1 CRYL1 AGMO NOVA1 IGHV3-64 PER1 ANKRD20A4 SMARCA1 MIR3118-3
 RN7SL736P RNMT ZIM3 MYH4 MIR1324 AIFM3 RNU6-449P PCDHGB3 NF1P8 RN7SL714P
 SLC25A1P5 TMEM135 ARHGAP35 DUX4L2 PRDX2P3 WARS2 TBX22 C16orf3 RNA5SP385
 POLD1 MBOAT7 AIG1 ERICH1 IGLJ2 POMC TRDV1 RPL21P41 NLRP12 TLE4 CNM3 TLK2
 ABCC13 SNX18P8 MIR759 GAK TREM1 N4BP2L1 LINC00907 IGHV1OR15-9 MYLK3 CCP110
 LRRC37A17P ODF3B CACNG6 RNU2-33P MCM3AP-AS1 ZNF804A WDR83 MIR1254-2
 DOCK7 N6AMT2 ABCA5 WRB OR4N3P ZNF734P C15orf54 OR10AK1P PTGER4P3 PCOLCE2
 POTEBC CDC20B IGLVI-68 LINC01143 LINC00347 SLC26A7 ZNF57 RAPGEF4-AS1
 RNA5EH2B-AS1 FAM3D OMG ZNF486 RN7SL83P CSNK2A1 BRAFP1 CWF19L2 NRG3-AS1
 VN2R17P EXOSC3P1 MRPS18B IGKV1-5 USP17L27 JRKL AKT3 CRB1 ANKRD34C ZNF697
 PRED60 RBAK LINC00472 TYMP DIO3OS GULP1 IFNWP4 GPR75 KCNE4 PRAMEF8
 ARHGAP11B PCDHGA3 CYP4B1 MIR4529 MTND2P25 ZNF280D GAGE2C FAM230B
 RHBDD1 OR8K2P IGHV3-76 ALPK2 PSD3 HDLBP MLLT4 HECW1 RNF6P1 MAST4-AS1
 CBFA2T3 RAP1GDS1 COG7 IGHVII-31-1 KLF3 DPH1 LCE1F BAIAP2L1 SLC6A6P1 USP29
 LINC01013 UGCG MIR3936 STT3A GPHN SLC6A2 SNORA56 ORC3 VWFP1 DMRT1 CHST8
 SLC9B1P3 ELP4 RYK IER2 LINC00839 TGFB2 HSPB8 PXT1 TAF4B ATP6V0D1 RLBP1 LZTRI
 RAP1A ZNF385D ZNF85 C8A TEX36 SLC15A5 IGHV3-72 IGLVIV-64 REXO1L10P KCNE1
 ITLN1 KLF8P1 FAM20A ZSCAN5A LINC00645 SOX4 UGT3A1 IFI27L1 TSPAN3 KRT223P
 C18orf8 TPP2 NPM1P25 CHSY1 PSG8 RGS16 EXT2 URB1 C2orf91 TCEB3CL ZSCAN30
 OR4C46 RTL1 ABL2 TUBAL3 RNU6-58P MECP2 PSMA1 CSN3 TIMP3 ARPP21 MIR4742
 RPL23AP12 ABCG1 RGS3 SLC39A12-AS1 ZNF299P RARRES2P6 FAM207CP DUXAP8 PLN
 DUX4L8 PRDM9 FBXO27 EML1 C14orf182 NAPG MRV11 PABPC1P12 CCDC39 C1orf101
 USP17L6P RERG SLC16A7 FAM192A RNU6-196P MDH1 ZRANB3 MRPL19 NEK4 DCBLD2
 TMEM185AP1 SPATA17 THYN1 KATNAL1 CTIF MYO6 OR9G2P AKIRIN2 VCAN-AS1 KIFAP3
 MIR127 C1orf63 BTBD17 CSTF3 SPRN POU2AF1 CEACAM22P FAM105B SAMD13 RNF17
 DHRS7C PCDHGA7 TRIM72 INSC PRAMEF26 SLC40A1 SYNJ2BP-COX16 ARF4 SNORD115-
 20 MIR3667 LMF1 TMPRSS11E RNA5SP453 USP16 SNORA40 IGHV4OR15-8 TRAF3 GALNT5
 RIPPLY3 COMMD7 PLXNB1 C9orf171 CNGB3 SLC25A15P2 MIRLET7C STAT4 DPYD-AS1
 ZFAND4 CYCSP51 OR4C16 PDXK MTND1P12 CDC27P1 LRRC4 ETS2 IGFBP7 GOLGA6D
 UFD1L CTBP2P4 ITGA1 OVGP1 LINC01136 FAM27B ZNF721 VNIR7P KTN1-AS1 MERTK
 RN7SL801P SNORD115-36 CORO2B CST1 USP17L30 POC5 RN7SL864P RPL37P4 CCL7
 ITGA8 IGKV1-12 RBMS2 TMPRSS6 SERPINA1 LINC00376 TAPBP RN7SL77P ZNF765 IGHV1-
 14 GPR64 FEMIAP1 ALDH1A2 TAC4 GABRG1 MYO16 MAPK9 ALG12 RPL30P13 CHIAP3
 MIR548U ZNF540 LOH12CR1 ISPD CD58 GRHL2 RNU6-1178P IGHVII-30-1 SELE
 IGHV1OR21-1 BPIFC PSMC6 FAR2 MAGT1 KLF6 ITGB7 CHKB ARHGAP42P5 RNU6-1171P
 CNN2P12 ZNF595 CDH17 NLRP13 SNORD69 MIR663A ABCA8 PDE9A SLC01B7 KCNQ1OT1
 MAPK14 DYNLL2 RNU2-53P FBXW12 RPL29P30 RNF216P1 ABTB2 MOCS3 MIR4477A
 GPR126 PPHLN1 CDH18 RNU6-185P SNORD115-21 CHL1 RAPGEF1 VANGL2 AKAP10
 SPOCK3 FRMD6 DGKZ UNC79 SPON1 REXO1L8P PLA2G4A RAB23 FAM8A2P ZNF516
 VLDLR HSPD1P7 SLC1A2 KRTAP12-2 ZBTB16 SAMD8 REG1B CST9L HPS3 KCNK17
 SNORD115 GABRB2 EDNRB MANIC1 CFTRP1 ATP5S RCVRN ZNF518A NLRP7 CD226
 IGLV3-31 STAT3 RNU6-513P CYCSP17 TPCN2 CNN2P4 DMBT1P1 ZNF578 PRR5-ARHGAP8
 SNORA51 MARK2P5 RNU6-1266P MYH11 IFNGR2 PKP4 RNASE9 UOX SIPA1L1 RNU6-538P
 TGFBRI GBP2 PWRN1 WDR4 TTLL2 RN7SL607P HEXB RPL34P3 EBF1 ZNF209P RPS4XP22
 ABI3BP LAMTOR5-AS1 C12orf60 TAS2R1 C5orf34 IGHV1OR15-6 RUNDC3B TRIM51FP
 ADAMTS20 GNAS-AS1 CDH6 RNA5SP35 PCDHGB2 NDFIP2 AQR IPMK CAMP GABRA2
 KRT126P TRAV8-5 DENND5B TNS1 MDM1 SMPX SSUH2 RBL2 MS4A15 CASP7 CSEIL
 LENG8 DUX4L9 IGHV3-30-2 AATF OR10K2 MRPL50 CHEK2P4 ACSL5 RNU6-352P C1orf87
 RN7SL449P DKC1 hsa-mir-4528 HERC2P4 PCDHGA12 PSG1 RNU6-978P TPST2P1 NFIC
 PPIAP1 SUN2 SNRPGP9 HIAT1 SEPT7P9 LINC00158 FRMPD2 KEAP1 NPM1P31 RPL30
 IGSF5 SULT4A1 SHC3 DYNC2H1 MIR1299 SRP19 SOX9-AS1 UROS TRAPPC10 KLHL25
 LEMD3 RNF138 IGLVIVOR22-1 DYNLRB2 SLITRK6 STX16-NPEPL1 ABHD17A5 CHODL
 TCAIM FOXD4L4 MYO7B OASL KCTD9 EHBPI OSGIN2 ACTN2 PET112 SRSF4 GABPA
 POU5F1P3 CAMK2G STAG3L5P TPTE2P4 C6orf3 BRD1 KIF3B SNX7 MIR1290 GLRA3

SPRED3 VPS8 TMEM100 PSTPIP2 LINC00861 SNORD115-12 NPM1P48 RNF165 ANP32C
 CASC4P1 FRG2C ZNF831 ZNF429 CUBNP1 HDHD1 CTBP2P5 LYPD6 DHX9 PDIA5 SUCLG1
 TMEM67 KCTD20 VDR MIR4452 SLC25A1P2 KRTAP13-6P PRKCE snR65 DTD1 DUSP11
 DUX4L7 OR51L1 RPS3AP46 OR4A5 FOXP4 DUX4L10 RN7SKP168 PSG9 ARHGEF11
 ELOVL2-AS1 CD163 DPT RGS5 ACSS1 BBS2 LINC00111 CLSTN1 EPHA3 MUC19 MOV10
 EDIL3 RPL39P40 TMEM150C TMBIM7P MIR1280 SELK MS4A1 MYH14 IGHV3-16 PILRB
 CC2D2A DSC3 WDR11 MIR487B RNA5SP269 SNORA22 CCR1 CACNB4 LINC00710 MYOM2
 CHM MTND1P2 SDAD1P1 LINC00395 USP6 ZNF732 MIR655 KLF7 AHS1 MGAT2 USP31
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 ZNF354B IL12RB2 RIN3 REG4 USP17L29 IQCA1 UBL3 C8B OR4A12P TCEB3C RNU6-49P
 RREB1 PABPC1L MTND1P23 MND1 GTF2A1L PABPC1P5 MIR4519 ANKRD30BP3 HERC2P5
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 SLC9B1P2 CYCSP4I ATP6V1H DHX57 ACSM1 PTPN21 PLAG1 MIR1267 RNA5SP366 SNORA8
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 SNORD112 PGAP3 EFN2 C21orf62 ALDH1A1 HELLS TMEM260 OR11H1 BTF3P14
 ARHGAP42P3 OR9Q1 JAM2 ZNF355P CNGA4 CYCSP32 ALX4 GCFC2 CORIN ABCD1
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 COL18A1-AS1 DEFB127 PDZRN4 SGMS2 PPAP2B HIGD1AP8 S100A7L2 SNORD45
 LINC00930 QTRTD1 LCE6A KIF18A CIDP1 RN7SL743P CBLN4 ADH1A CFTR OR4C15
 MIR96 RNU2-27P SDF2 KMT2A RN7SL435P XBP1P1 FAM210A TCEB1P32 ZNF402P MLLT10
 C2CD2 TDGF1 ERCC6 LINC00840 IGKV2OR2-2 HSPE1P25 USP17L5 RPS20P5 DPP8 CDC16
 ZFP64 EMCN-IT3 DDX51 LINC00349 SLC30A5 LINC01029 IMPG1 RN7SKP99 GLB1L3 WDR5
 LINC01053 CST13P FAM90A17P CSNK1G3 MATN2 TMOD1 NHSL1 SNORD115-41 IGHV8-
 13-1 COBL CTNNAL1 ZNF607 HTR4-IT1 MCM3AP RNVU1-18 ZNF98 SLC2A3P1 PLCD3
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 PARP4P2 RNU6-286P ZMIZ1 DAP RNU6ATAC5P GBA3 RN7SKP238 IGKV2D-10 COL6A3
 OVCH1 GPR125 DNMBP-AS1 LYSMD1 RN7SL766P FKSG68 WBP1LP1 MUC5AC PLB1
 CLEC4A CKAP5 AIM2 RNU6-724P LINC00911 CARF GTF3C6 GP5 SNX24 OR11A1 SAE1
 FRMD6-AS2 SLC25A15P5 ENPP7P10 PTPLAD2 SAMD9 SV2C HNRNPKP3 CACNA2D4 CTSH
 RGPDI C14orf144 RCC2P8 MFNG PLEKHM2 ANKRD62P1-PARP4P3 STX16 RNU1-33P
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 ACTR3BP3 MRPS31P2 ST7 HS3ST4 TM4SF19 MFSD9 RNU6-1193P ADAMTS5 MTUS2-AS2
 KRBOX4 AOAH FBXO32 PCDHGA6 NXPH1 AR DDX3X PHF2P2 RASA3 IGLV4-69 CDKN3
 ARHGEF10 RNU6-410P SERPINB12 E2F3 FRG2B TNFAIP8L2 NUDCD1 FGD6 MIR603
 LINC00687 SSX5 PPP4R4 DAPK1 DAPL1 RMI2 DAAMI MROH1 NPC1 PCDHGB1 ZNF600
 RPL12L3 SMARCE1 STK17B SUSD1 VRK1 ZNF678 MLLT10P1 CXorf30 MBOAT2 CLIC6
 ACSM2B SMEK2 ATMIN CENPM ZNF420 CDK2AP2P2 RBL1 BNIP3P2 C6 GTF2IP2
 MTND2P2 KRT23 SERHL FAM21C MAMLD1 SLC25A53 FBLN5 RNU7-174P HAPLN1
 MIR3152 CCDC88A RAB7A MIR551B CHKB-CPT1B C5orf17 WDR63 SPEF2 NF1P6 MIR3118-
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 GSKIP KRTAP4-12 GRAP2 WASF1 HNRNPA1P71 ANKRD36B U2SURP RNU6-1280P ITPK1
 G3BP1 NUP155 FAM214A NT5DC1 DNAJA1P5 RPL7L1P1 CUBNP3 FRAS1 SNORD103B
 SIDT1 TECTA SNORD19B GNAL ARL2BPP8 TPRGIL BTN2A1 STK32C CACNA2D1 DHX35
 LINC00520 ADCK1 G2E3 RPS15AP34 CCDC88B TMCC3 RN7SL143P NFUIP1 PPP1R13B
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 CASP6 MAGEB3 NOC4L MSANTD2P1 LINC00670 CXADR PTPN20B ATG2B FAM209A DAD1
 GGT2 ENTPD3 NASP PIK3R5 PALLD TRAV24 PARP16 DUX4L18 A1CF ASB13 USP32P2 hsa-
 mir-490 TMCO3 IPO7P2 RHOC CHRNA5 RNU6-1291P FAM63B TSPAN13 SPIRE2 DUX4
 FTH1P27 MIR3118-6 BCLAF1 NKD1 SCUBE3 AKR1CL1 C1orf174 MTRR ZNF345 RIPK4
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 LINC00323 DLX6-AS1 SORT1 LLGL2 USP7 MEIS2 SERPING1 STARD13 KL SCP2 USP17L25
 ASUN FAM211A-AS1 ALCAM MZT1 INTS4L1 OBP2A TBC1D3P5 AVEN HLA-DRA GUCY2C
 ORIOT1P ZNF331 SLC17A3 MICU1 RAD18 EBPL CNN2P7 ZNF114P1 SLAMF1 VNIR33P
 DUX4L6 MIR3198-1 UBTF18 CCDC181 BACE2 MIR548AX KIAA0355 INO80D PCDHGA1
 ZNF728 SLC38A4 DYNCH1H1 LSM12 PTGES RNU6-316P SLC35A5 MTND2P28 MEG8 MIR1281

DIDO1 SNORD114-17 CCDC18 FGF14-AS1 KRTAP29-1 AGGF1 DUX4L1 MYH13 WDR12 C1orf141 NR2C2 MYH1 MGST1 FRYL ZNF432 SLC16A14P1 RARRES2P4 STON1 TIAM1 AGGF1P3 PCA3 MMP20 FAM126B KRT43P MIR4533 DDX24 FAM90A10P ATP1A1 LINC01058 MIR487A PGM2L1 OR4C9P LILRP2 SLC39A12 GNAO1 RNU4-59P RPS6KA6 IL1RL2 SNN BCL2L15 LIPI OR4H6P ASAP2 PSMD6-AS2 MAP3K7CL FMN1 ANKRD20A1 DNM1P51 SLC16A1-AS1 MIR485 TMEM212 CHAF1A ANKRD62P1 TRAV6 ZFPM2 RRP7B SEC63 TDRD10 GC PIEZO2 TOR1AIP1 FAM66A ADC SVEP1 TNF LINC00113 USP17L24 PHYKPL PDSS1 LMCD1-AS1 GLDN EDAR EGF NHLH2 LINC00960 CYP1D1P OR7E89P HIATL2 PDGFD OR10V3P FAM3B LRRC42 RIMBP2 TTC12 PRMT8 SELP RNF185-AS1 KIT MEMO1 GAB4 RNU6-617P OR4A9P MAP7 OSBPL3 PPOX ZNF439 SENP8 MIR1911 MIR3687 OR8A2P ZNF177 AGGF1P2 MIP IGV2-36 GRIA1 POM121L9P ZNF627 MTUS2-AS1 FAM81B LINC00229 SPIDR ARR3 RNU6-55P UBA6-AS1 ANKHD1-EIF4EBP3 SNORD115-23 MIR183 TERF1P5 STK3 ZNF781 ANO10 CNOT7 ESRP2 FSHR POTEKP NBEAP3 LCE2B GAD2 BMP15 C1GALT1 RUNX1T1 SGK2 PIK3C2G SNORD115-40 PSIP1 NOL11 TRPM2 SPRR4 USP18 SMCHD1 LINC00507 MED15P7 S100B NET1 SLC01B1 DPY19L3 CILP2 ICT1 EDA2R NAP1L6 MIR889 DMXL1 SIK2 KCNAB1 MXRA5 TRPC4 MTND1P31 LRIG1 PRKACB ZNF705A PDE3A TEX14 RRH TSPY26P DRP2 LINC00387 RNU7-176P PDZD7 POR FHL5 KCNMB3P1 GLULP5 DHRS7B TRIM51 RUFY1 LINC00382 TMPRSS4-AS1 IGHV3-41 ATP6V1E1 RPS3AP41 ZNF965P SNORD115-38 ART4 PIGK SLC25A15P4 DCAF8L1 RNPC3 FIGN P13 OR4C14P ARID2 BROX MARK2P8 GNA13 FAM228B LINC01043 KRTAP19-10P CNKSR2 TRMT11 HMGB3P20 RPS23P5 COL8A1 ISCA1P3 ATXN3L SSBP2 BMS1P18 FAM85B GABRA1 REEP1 FAM90A22P CHMP4C MIR548F1 NR2F2 CTTNBP2 PSG7 IGHV11-67-3 BSG PARP8 RNU6-725P EFEMP1 DTX4 PIGB RN7SL321P AJAP1 IGSF21 SLC9B1P1 KIAA1109 USP40 IGLV1-38 RASSF8-AS1 MIPEP DUSP23 HRNR IGKJ4 ABCC9 SNAP29 BPIFB4 MRPL42P4 GSG1L HERC1 NR3C2 SERPINA2P MIR134 RNU6-1233P PRSS3P2 SHC2 NCOA5 EMCN RNA5SP478 BLNK DIAPH3 LINC00704 OR8U1 TPTE2P1 PTTG1P ADARB1 GGT1 VPS35 LINC01134 GPC4 HAS3 SOD1P3 LRRC63 PARP15 UBASH3B RPL18P13 TTC40 RASA3-IT1 PAGE1 TRPM7 SERPINB8 FLT1 PPP2R4 REXO1L9P CDRT1 RN7SKP6 LINC00032 VSTM2B NOL4 LINC00536 GTF2IP3 NXN SNORD103A AAR2 ACTR3B NEK5 ASL C1orf173 PM20D1 KLHDC7A CDC14B CMSS1 PHC1 SLC22A23 PLCH1 NAMPT PCNXL4 PCDHGB7 ABCA10 ZNF493 C14orf39 GLRA1 MIR376A1 STK36 RNU4-24P ZNF717 CTNNBIP1 TEPI NF1P4 YAF2 WDR95P KIDINS220 SMPD4P2 TBCE CT49 FNIP2 G3BP2 HNRNPA2B1 GADD45A MIR214 MGC4294 UGGT2 STIM2 POTEF SNORD23 RNU6-1327P NF1P1 PLAT FAM201B SNORD54 RNA5SP492 C10ORF68 HS1BP3-IT1 PTPRF SEC24B DNM3OS RNU6-618P PPFLA2 MYEOV ADAM28 IGSF11-AS1 ZNF268 MYLK RN7SKP60 PRIMA1 SH3BP5 MTMR4 MIR648 ANKRD36C NKAINIP1 TTC39A KRTAP5-8 LYVE1 RNU6-1005P PTPN20A KRTAP20-1 SMAD1 SLC22A15 LST3 LINC00523 ATP1A4 RPL21P6 ANKHD1 VPS37A C2orf43 LINC00571 TTC8 BRD7 FCF1P10 SNORD6 MARK2 OR52N5 ZNF501 TSPEAR-AS1 HMG20A ARL6IP5 TUSC3 TCEB3CL2 ARFIP1 RNU4-60P PAPP4-AS1 PLSCR1 CD163L1 RNA5SP79 ZNF72P TRPV4 ZNF880 C1orf167 EEF1A1P1 ATP5J HDAC8 OR51AB1P SRP54 STARD4 NLRP11 DNAAF2 ADORA3 LINC00563 SH2D7 HYAL4 SP2 SMPD3 PDE7A CYTIP SPTA1 ZNF483 ZNF573 TBX18 PCDHGA8 NTF3 DPP9 RGL2 SNRK NID2 DHRS4L2 TTC29 SUZ12 PDE6B SPA17 ZNF729 LHFP TSPY5P PJA1 IGLVIV-65 FAM76A RNU6-721P DKFZP761J1410 ZFP2 BZW2 ANKRD20A17P IGHVII-40-1 KRTAP6-1 TP53I11 CACNA1C-IT1 KRTAP9-2 VWA8P1 RBFOX2 ZNF507 OR4C2P SNORD116-18 ZNF26 MICU2 PHF8 TFPI USP17L9P ISX MIR323B TDRD6 RAD51AP1 CA3 PQLC1 CYB5R2 GOSR2 DSCR9 ANKRD20A11P LPPR1 LCP2 RMRPP4 ISOC1 SEZ6L RARRES2P9 SLC39A8 PET117 IL4R TMEM123 MIR653 SCO2 C13orf35 TM4SF1 IGHV3-29 CT64 MX1 PAXBP1 PLGRKT RNU6-713P KIAA1211 RPS27L TGFBR3 MCUR1 UMOD SNORA31 ZNF615 GTF2I C16orf80 SLC7A1 ACTR3BP5 ADAM17 USP36 GABRG2 CHRNA3 TMEM186 NUDCD3 CPS1 EGFLAM-AS1 SLC35F2 BNIP3L LCP1 PRKCH PCDHGB6 RFPL4AP7 OR7D1P WBP11P1 OR6N1 KRT25 KATNAL2 C9orf40 PNPLA7 ASXL1 GNG5P5 KRTAP15-1 ELTD1 LCE2C KMO RNU7-114P NUDT4 SNORA70C RNU1-104P PCTP UBE2U NXPE2P1 IGHV7-56 SPRR2G C14orf64 NSG1 RBAK-RBAKDN ANKRD20A8P GABBR2 BCRP1 NSUN7 PIP5K1B IGF2R C21orf90 SIAE RPL3P9 UBE3A TGFBI1 SNRNP200 TRBV7-5 TESK2 SHOX2 NPY4R MIR381 KLF13 RN7SKP100 NMNAT1P4 MARK2P9 KIRREL3-AS1 POLD3 RHEBP3 ZNF91 SNORD115-10 MORF4L1 POU2F1 APC PMP22 LOXHD1 FAM108A8P ELK3 OLFM3 GPR139 P2RX7 COX5BP6 ADNP2 OR5AK4P GAPDHP67 ZBTB25 INO80 FAM90A21P MARCH11 AMOT MOCS2 LINC00317 CCDC7 HGFAC SNORA57

	<p> LEPREL1 TFF1 FSD1L PPARGC1B STON1-GTF2A1L KDSR BMS1P17 SCAF4 LACTB SYT16 ENPP7P6 MTND5P14 RALBP1 IGHV3-47 RNU6-16P ZCWPW2 HNRNPA1L2 ADARB2 HGF MIR376C C8orf87 REEP2 FAM220BP ACSL4 RNA5SP303 CAPZB IGHV4-31 OR10N1P ZNF850 ST20-MTHFS COMT PDLIM5 XYLT1 ZNF440 ROS1 SNX19P1 KRT75 SLC6A17 RNU1-39P RNA5SP405 ZBED5 TMEM63A MAGEB2 DUX4L16 CKAP4 SLFN12L RNU1-51P L3MBTL1 SNORA16 PGK1 RNASEH1 ERVK3-1 RLF IGLV1-36 MIR656 RPL10P3 NBAS MTND1P17 SPIB MYO1B HPN NBN PANX1 FGL2 ADAMTS18 EHF FRMD3 ZNF189 KLRF2 SLC28A3 RPS15AP1 RNU6-1320P RASSF3 CYCSP6 KRTAP9-3 ACOT1 SNORD116-19 LGR6 PKP1 ZBTB34 RNU6-954P MIR181A1HG TRIM23 SDCCAG8 SYNPO2 EXOC5 MIR381HG NGF OR4Q1P SLC01B3 CYLC2 FLVCR1 PPM1J NRP1 UBE2E3 OOSP1P2 BCAN AKAP7 TGM2 MIR4535 RPL21P1 ZNF202 ACYP2 MARCH10 GRK6 FAM46B LINC00492 MIR382 PHACTR3 C7orf69 ZNF277 RNA5-8SP7 ADAM5 7SK ANKRD26P1 ZNF879 RPGRIP1 SNX18P4 RNU6- 1066P DEFB116 KRTAP4-3 SLC2A13 KRT39 ZNF397 MIR1276 SYT2 LINC00623 LINC00442 RSU1P1 DPP4 DICER1 TEK4P2 ZNF141 SLC26A8 RNY4P23 CHODL-AS1 AQP10 GGT8P C5orf38 THOC2 TAF1B LINC00898 COL15A1 EVC2 TAF7L GREB1 CREG2 FAM27E3 NUP62CL REEP3 TCAM1P MGST3 MIR320B2 EIF4EBP3 SEMA3E C15orf43 MIR433 DNAH6 DSCR4-IT1 IGHVII-44-2 MRPS11 MAEL NUP153 RNU6-127P RNU6-469P TMEM233 RNA5SP465 RNF180 ZNF665 DUX4L5 NDST4 MIR543 KATNA1 FAM90A23P MRV11-AS1 MIR556 IFNG-AS1 ANKRD30BP1 CCDC122 TUBA3C FAM216A KIF16B SWT1 PAXIP1-AS2 PTCD2P1 IGLJ1 CDH2 ARF1 FLNC PLCH2 LRRC69 TMEM261 PPIAP22 JAG1 CNN3 LINC01065 PAPP A SERPINB7 EVI5 FAM27A IGHVII-65-1 SYCP1 BMS1P13 RNA5SP61 LINC00879 COX6CP10 AKR1C2 ZNF407 GPALPP1 MIR3118-4 RN7SL373P ASB3 HSPA4L ZNF527 RPL21P11 NUPL1 FAM208B HDAC9 OR7A5 OR5J7P LRRC3-AS1 ELOVL7 CHST13 ANKRD20A18P GOLGA1 LINC00857 VDACC2P1 SEPT7P5 GUCY1B3 SNORD114-19 NR3C1 PPIAP6 MIR300 MAP2K6 FAM108A10P JRKL-AS1 ACTR3BP6 ARHGAP28 MTOR LINC00658 C17orf75 ZNF585B THTPA OR4C5 CYP3A54P HNRNPA1P40 KSR1 RALGAP2 CBLB RORB KIAA1407 CFLIP6 SNAP25 FBLN1 MTFMT TPTEP1 REG1P JAKMIP1 MIR5582 IGHV1-46 PCMTD1P1 RIMS3 KRT76 RTFDC1 MIR4290 MIR410 CDC42BPG IGHV1-18 ADRA1B LTB LINC01101 OR4A41P NCAPG2 PCAT6 NEU3 ZFPM1 RNU7-145P GDAP1 RPL8P2 RNA5SP222 XKR7 TPTE2P5 DISP1 PRB2 MYCT1 CPT1B KYNU MS4A5 DCST2 GPN3 STK32A CD2AP ZFP30 TNMD SPATA6 CLVS2 CYP7B1 FAM212B TBXAS1 OSBPL9P4 KXD1 USP25 PRKX RN7SL674P ARMC7 SULT1C2P1 SPRED1 H3F3C BMS1P9 PCK1 KBTBD11 NPR3 HBD AP5M1 MIR4743 ADAM10 REV1 GALT FAM220A CNTNAP4 PPP2R2C TTC32 RGCC IGKV1- 37 CYP2E1 LRFN2 RNU6-1049P FLNB UBE2Q2P11 RNU6-157P SCAI TULP4 MIR5190 PAPP A2 OR4C12 SNORA32 RNU1-11P CYB5D2 STK33 PGM5P2 NCOR1P3 QRFP TRIM51DP ABCB5 HEATR4 PCDHGA9 JPH4 NAPEPLD MIR3648 CISD2 GCNT7 HRASLS5 SPECC1 RN7SL484P snoZ6 FCF1P9 OR4Q2 GACAT1 C20orf196 NCOR1P2 CYYR1 ILIRAP MTMR10 UBXN2B LINC00559 NEK2P2 RALGDS FAM118A HNRNPA1P58 TRIM9 DEF6 MTAPP2 WRAP73 RPH3AL TRERF1 CENPBD1P1 SNORD115-24 GLI3 LRRTM1 EIF4E2P1 FAM90A7P RNA5SP488 NSUN3 BHLHB9 ILF3 GOPC OR5E1P MIAT POLR3C SGCG DCDC2 NANP DYNC1I2 RN7SKP285 RAB31 AGGF1P4 LGALS14 ZFP82 LINC00418 CPPED1 GAB2 VPS13D ABHD17C ZNF292 FREM2 PRB3 RAPGEF4 SLC7A8 ANKRD31 MYO5BP3 SI00A11 EFHC2 DOT1L LHFPL3-AS1 SNORD113-2 SMYD2 TMPRSS2 PVRL2 OR10R2 ONECUT3 ZMAT3 LIMK2 HMGA2 MIR1185-2 TRPM4 ZNF558 LINC00632 MLLT10P2 MX2 C11orf30 FAM227B LAMP5 PSPC1P2 KIAA0040 RN7SL683P KRT2 FERMT2 MIR105-1 DSG4 KATNBL1 CPNE8 PGM2 LINC00521 STX3 M1AP ZC3H13 ZNF610 TAX1BP1 H2BFM KCNK2 KDR PCDHGA2 TBC1D4 OR2M5 OGT MSL2 RNF207 APIP DPF3 HNRNPA1P68 KCNT2 CCDC36 GZMH CDK2AP2P3 OR4K13 SHCBP1 NPHP4 TNC IGHV3-32 DUX4L17 PML ADAM6 RN7SKP5 SACS TTL12 RFC3P1 DNM1P46 RN7SL552P FAM27E2 FAM83G LINC00609 TRAPPC12 FAP SCARA5 RPS4XP15 OR52UIP LINC01141 TMSB15B ERICH2 OPTN IGKV2OR22-4 RN7SKP85 RN7SL50P PCDHGB8P RAI1 RPS20 SEPP1 CPEB2 LOXL2 LINC01146 AGGF1P1 BPTF ZNF229 RPS10P7 DYNAP RPL7AP28 MTND1P32 PIWIL4 RAP1B MRGPRG ZNF571 WIPF2 RASGRP1 CTBP2P1 SNORD116-16 DIAPH3-AS2 NLRC5 PPM1B PIP5K1P2 KRTAP9-8 FOXRED2 IGHV3-65 FGF7 SLC15A1 DGUOK-AS1 SNORD116-26 FMNL3 PPAPDC1A CYP4Z1 DMBT1 ZDHHC9 USP17L26 NLRP2 CEP97 PCDH19 JMY ZNF451 SRIP1 ARL2BPP5 MIR514A1 STX12 MRPL39 OR11H13P PLCL1 MEG9 RNU6-368P MCM9 RNU6-405P ST7-OT4 CCDC144CP UPK3A TSHZ3 ASIC2 RALA SPCS2P4 IGDCC4 RN7SKP126 PRB1 MGME1 CCDC144B EDDM3A CTXN2 GNPTAB RN7SL327P RPS26P30 OR11K2P ABCC10 RARRES2P1 </p>
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	<p>COL2A1 RPA1 PPIAP14 MIR4760 NAPIL4P1 AKR1B10P1 KHDRBS3 NECAB1 MYO5BP1 SOX8 TNFAIP8 KIAA0195 MTHFS ABAT SLC22A25 EGFL6 ZNF674 BCL2L1 LGALS9 MIR136 MIR495 CYP1B1-AS1 THBS2 TPO TASIR1 MRPS27 TNN RNU6-466P TMEM138 TRBV6-8 C9orf131 GTDC1 RNU6-230P TRIM51CP MIR155HG MYH7 ST6GAL2 OR8K5 RNASE11 RNA5SP497 MIR4480 PAPSS1 CRNN LDLRAD3 KCNK13 MTND2P4 SERHL2 DUX4L4 TGFA DDC YME1L1P1 MIR548AL RNU6-614P MS4A4E SNORD114-18 TBX20 HNRNPAP1P53 FLNB-AS1 ENPP7P1 SNORA25 POTEH-AS1 OR11G2 MTMR2 STK35 LINC00707 KCNH5 YWHAQP9 RRM1 MFSD12 SYCP2 CLYBL ACIN1 LECT2 OR4C6 MPDZ GNB5 IL16 LINC00972 UBTD2 CCDC88C B4GALT3 POU2F3 IGHV3-60 RNA5SP490 ATAT1 LINC01030 CENPV EWSR1 CTBP2 OSCP1 MYH8 SNORD113-1 ZNF525 NCALD PGM5P1 ZFYVE21 WDR41 CACNA1C-IT2 ZNF337 ADH1B MIR369 SARDH CPA5 AMY2B NCAPH2 KIAA0319 C6orf106 MIR4273 FAM227A FAM221A NCMAP SCNN1A KCNE2 UNC13C CAB39L LINC00378 QSOX1 PCP4 OR5V1 TMEM55A IGHV7-28-1 CCDC171 ACTA2-AS1 MASILP1 SLC5A1 SNORA80 SNRPD3 RBMX2P3 FAM114A1 SNORD19 PAX3 EYA4 DEFB122 PARP4P3 LRP4 TMTC4 L3MBTL3 NOVA1-AS1 IGKV2OR22-3 POMT2 IGHV3OR16-12 ZNF736 CLIP1 RNA5SP518 RARRES2P2 GUSBP6 PLAC4 MTND4P14 BCL11A F11R MIR432 RFX4 RPL18AP14 CEACAMP10 CACNA1C-AS2 EIF3FP1 RNU1-117P OR5B19P SNORD115-45 FREM1 SAA2 ATP6V1D ADPGK-AS1 LAMA4 RN7SL659P IGHV4-55 TMEM185A ZNF112 ATE1 RPSAP55 CEP44 MYO5BP2 PVT1 OR8L1P TERF1P1 RNU6-602P SLC2A9 CHN1 UCHL1-AS1 PRAMEF12 RNU6-249P RAG2 LCE2A VPS13C CAPN7 CCL3 RNU6-540P RNU6-458P KDM3A NPL CESIP1 SNORD115-34 LGR4 SULT1B1 ZNF845 RFPL4AP5 TRDC SLC38A7 CYP4F29P RNF128 PXX SLCO4C1 SLC25A48 CP LINC00973 FAM160A1 OLFML1 STAG3L5P-PVRIG2P-PILRB SCNM1 AMD1 LCE4A ZNF562 SPRR2E LRRC3B DNAJA1P4 KRTAP19-3 PGPEP1 CCNYL2 TUBB1 FANCB TP63 ARMCX2 ANXA11 CSF2RB NUSAP1 ANKRD23 CCDC11P1 PCNT MIR3713 IFNA8 TRMU OR4K11P USP3 LINC00940 HBG1 ADRBK2 LINC00353 ZNF622 OSBPL5 DHRS2 SNORD115-39 TRDV3 EXOC6 SNORD115-25</p>
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Table S4. GO associations with Biological Processes of 1772 rDNA-contacting genes possessing frequent DSDs. Related to Figure 1.

GO.ID	Description	padj	Genes
GO:0048856	anatomical structure development	2.8104473171044047e-29	PTPRR,RCAN1,KALRN,MEGF11,RPS6KA2,NDE1,CTNNA1,FOXN3,NTRK2,CLASPI,ZNRF3,PTPRG,SYNE1,FBXL17,DMD,KCN C2,CHRM3,SPRED2,KAZN,ERBB4,LAMA2,TFDP2,NOS1,CNTN 4,ROBO1,PRICKLE2,MYO3A,DSCAM,SHROOM3,CIT,TBCD,FR Y,NEBL,WWOX,HUNK,FUT8,HDAC4,OPCML,LINGO2,IMMP2 L,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,PSM B2,RXFP1,ASXL3,NFASC,PLCB1,FLT3,SRPK2,PRKD1,RYR2,V CL,NEDD9,PPP2R3C,SEMA5A,ETV6,PRKCA,IL1RAPL1,ADAM TS6,MYO9A,PLAC1,NHS,CALD1,KANK1,KIF26B,DIAPH2,TCF 12,RUNX1,PLS1,NLGN1,CAMK1D,AMOTL1,TCF7L2,RELN,AP P,ADAM12,PAK1,UTRN,PPP3CA,RYR1,NTM,TOX,PCDH15,PT PN9,GREB1L,AKAP6,GRM7,DLC1,IDE,SCMH1,SOS1,CTNND2, ALK,BTRC,DCLK1,MEF2A,TFAP2D,DENND5A,MAP2K5,DNM T1,MAGI2,EDA,CELSR1,EYS,ROBO2,AKAP13,HIVEP3,DCC,EP 300,SEMA4D,EVC,RPS6KA5,ANKRD6,TRAPPC9,MMP16,TF,D NAH11,QKI,CHRM1,CDH8,ARHGAP15,HUS1,ASTN2,TANC2,J AK2,NEGR1,CMKLR1,SDK2,PARK2,NPHP3,ADCYAP1R1,GRIN 3A,SMOC2,CACNA1C,NLGN4X,EXOC4,EMB,ANKH,UPB1,TAG LN3,PALMD,NRG3,NUMB,SOX6,POLE,SULF1,SH3BP1,OTC,A TRNL1,SH3GL2,ARHGAP24,COL11A1,SLIT2,THEMIS,AFF3,AT RX,CHRDLI,TRAF3IP2,RAD51B,BMPRI4,DSCAML1,SMAD3,T NFRSF11B,POTEE,SCUBE1,PEAK1,EYA1,SATB2,ELN,TPH1,M AD1L1,ANKRD11,EGFLAM,TUB,ARHGEF18,OVOL2,DNAJB6, ELP3,BRINP1,OMA1,CPO,FGF14,ASGR2,IL1RAPL2,SOX5,DN MBP,TAF1,SPNS2,SLC1A1,NTN1,LDB2,EPM2A,MAP2,CDC73, FLRT2,FBXW11,WWTR1,GAS7,PEMT,CATSPER2,PCSK5,CUX1 ,ANK3,CDH12,ARID4B,TRPS1,MYO18B,CDH4,TNR,ADCY9,CE LF4,VAV3,SCN9A,MDM4,ARNT2,SPOCK1,ACTN4,PLCE1,TAC C2,EPS8,TENM4,CECR2,GHR,CDH10,LRRC4C,PPP1R9A,PAL M2,CLSTN2,CBFA2T2,SRD5A2,STRC,DISC1,LRP5,NAV2,AP2B 1,ESR1,ARHGAP12,TNFRSF19,SCFD1,PDE4D,CNTN5,PIK3CD

			<p>,SLC5A3,BLOC1S5,CERS3,PCSK2,TEAD4,ARMC2,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,RBBP8,GRID2,ZNF423,CYBB,SEMA6D,NTNG1,ADTRP,CRMP1,GABRB3,PRKCQ,ATXN1,CLDN1,SLC24A3,PLEKHA5,TLL5,SPTBN4,EPHB2,SIPR3,PRCP,PRTG,COL22A1,DOCK2,DYSL2,DACH1,MARK1,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,IFT80,DYM,FSTL4,FHL2,TTC39C,NOX4,MEGF9,CSMD1,BCOR,BMPER,SYT1,DAB2,AFF2,PLXNA2,LRRK1,PRKG1,ABI1,CALCRL,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN,ENPP1,RIMS2,SCN8A,CTNNA2,FMNL2,PARD3,NRG1,SPINT2,FMN2,TOPI,RIT2,CD44,PAX7,CNGB1,PRKCG,TEAD1,NFIA,MAPKAPK2,SLC8A1,SRRM4,ISM1,FBXO31,MAP3K13,PLCL2,CHST11,THRB,CDC42EP3,NCAM1,AGT,FGF1,CCR3,STRIP1,NDRG2,GRIP1,USH2A,NF1,WIF1,ZNF536,PARVB,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,SETD3,CD109,KCNH1,CHD7,PSMB7,MOV10L1,THSD7A,TIAM2,MYT1L,SRGAP2B,CNTN1,UNC13A,TRIOBP,NCOA1,RHOJ,PHEX,MECOM,SYBU,SHANK2,UNC5D,ISLR2,NREP,GPC3,DLG5,CFDPI,PGM5,ASTN1,PREX1,CPE,XKR4,ROR1,ADAMTSL1,ZNF675,COL12A1,MACF1,MNAT1,TRIO,CAPN3,CTNBNL1,MYO3B,MAP3K5,CLDN11,SPAG16,CCDC141,FGD4,EPHA5,HIRA,TP73,RBM19,FAM171A1,MYPN,KIAA1217,MORC3,ANK2,SLIT3,GRIN2B,MATN3,PAK3,PRRC2C,MLLT3,NEB,RNF213,PACRG,SEMA5B,GRIK1,NLN,SDK1,GRM5,IGF1R,PKD1L1,MSI2,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1,CRTAC1,MAP2K1,FOXO3,GPC6,KLHL3,OCA2,CNTN6,CENPF,MITF,IGF2BP3,LRFN5,AGBL4,ULK4,RBFOX1,ADAMTS16,LRRK2,PKHD1,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,XRCC4,EPHA7,GAS8,COL19A1,SGC2,PTPN14,RIMS1,ENPP2,ABCA12,EPHB1,LSAMP,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,FAM126A,EXT1,TRPC5,UNC5C,ACSBG1,CSGALNACT1,TENM3,WDR7,NOX5,LRP2,FER,CAMK4,VWC2,DX10,PCDH17,SGCD,TMEM108,SHROOM4,RAPGEF2,NAV3,PRPSAP2,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SOBP,MACROD2,IL18R1,KAT7,DCHS2,SETD2,PACSIN2,CDH13,MDGA2,BASP1,DAB1,ZNF148,HDAC5,SEMA3A,MYH9,STIM1,NRIP1,TANC1,PIK3R3,TENM1,LARGE,GABRB1,SH3KBP1,PRKAR1A,ZRANB1,RGS7,SIPA1L3,DYPY19L2,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,ZNF521,NSUN2,TPD52,DACH2,DNM3,SYNDIG1,PPARA,PTPRD,RORA,MYH15,BRIP1,ELAVL4,SBF2,CDH9,NELL1,DOCK10,FNDC3A,BICC1,SEMA3D,PRLR,ATF6,SPATA5,SYT17,BLOC1S6,SEMA3C,RXFP2</p>
GO:0009653	anatomical structure morphogenesis	8.274717567097055e-29	<p>KALRN,MEGF11,CTNNA1,FOXN3,NTRK2,CLASP1,ZNRF3,DMERBB4,LAMA2,NOS1,CNTN4,ROBO1,PRICKLE2,MYO3A,DS-CAM,SHROOM3,TBCD,FRY,NEBL,WWOX,ATP8A2,AUTS2,WLS,PSMB2,RXFP1,ASXL3,NFASC,SRPK2,PRKD1,RYR2,VCLN,NEDD9,SEMA5A,PRKCA,IL1RAPL1,MYO9A,CALD1,KANK1,KIF26B,RUNX1,PLS1,NLGN1,AMOTL1,RELN,APP,ADAM12,PAK1,PPP3CA,RYR1,PCDH15,GREB1L,DLC1,SOS1,CTNND2,BTRC,DCLK1,MEF2A,MAP2K5,MAGI2,EDA,CELSR1,ROBO2,AKAP13,DC-C,EP300,SEMA4D,RPS6KA5,ANKRD6,MMP16,DNAH11,QKI,CDH8,ARHGAP15,ASTN2,TANC2,SDK2,PARK2,NPHP3,SMOC2,CACNA1C,EXOC4,EMB,PALMD,NRG3,NUMB,SOX6,SULF1,SH3BP1,ATRNLI,SH3GL2,ARHGAP24,COL11A1,SLIT2,AFF3,ATRX,BMPRIA,DSCAML1,SMAD3,TNFRSF11B,PEAK1,EYA1,SATB2,ELN,ANKRD11,EGFLAM,ARHGEF18,OVOL2,DNAJB6,OMA1,SOX5,DNMBP,SLC1A1,NTN1,MAP2,CDC73,FLRT2,FBXW11,WTR1,GAS7,PCSK5,CUX1,ANK3,CDH12,MYO18B,CDH4,TNR,VAV3,MDM4,ACTN4,EPS8,TENM4,CECR2,GHR,CDH10,LRRC4C,PALM2,STRC,DISC1,LRP5,ESR1,ARHGAP12,SCFD1,PIK3CD,TEAD4,EFNA5,ATF2,GRID2,CYBB,SEMA6D,NTNG1,ADTRP,CRMP1,PRKCQ,SPTBN4,EPHB2,SIPR3,PRCP,PRTG,COL22A1,DYSL2,BDNF,ADORA2A,ARID5B,IFT80,FSTL4,FHL2,TTC39C,NOX4,MEGF9,CSMD1,BCOR,BMPER,SYT1,DAB2,PLXNA2,ABI1,CALCRL,HDAC2,ETS1,FAT3,CDH23,TTN,RIMS2,CTNNA2,FMNL2,PARD3,NRG1,SPINT2,CD44,PAX7,ISM1,FBXO31,MAP3K13,CHST11,THRB,CDC42EP3,NCAM1,AGT,FGF1,CCR3,STRIP1,GRIP1,USH2A,NF1,PARVB,NRXN1,LAMA3,GSK3B,PKP2,CD109,KCNH1,CHD7,PSMB7,THSD7A,TIAM2,UNC13A,TRIOBP,NCOA1,RHOJ,PHEX,UNC5D,ISLR2,GPC3,DLG5,CFDPI,PGM5,PREX1,CPE,ROR1,ADAMTSL1,COL12A1,MACF1,TRIO,CAPN3,MYO3B,CCDC141,FGD4,EPHA5,HIRA,FAM171A1,MYPN,ANK2,SLIT3,PAK3,MLLT3,NEB,RNF213,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,SUFU,INSR,JAK1,MAP2K1,FOXO3,GPC6,KLHL3,CNTN6,IGF2BP3,ADAMTS16,LRRK2,PKHD1,RARB,SPG11,PB</p>

			<p><i>XI, PHACTR1, BMP6, FYN, EPHA7, PTPN14, RIMS1, ENPP2, EPHB1, KCNQ1, FHOD3, DOCK1, VASH2, EXT1, TRPC5, UNC5C, CSGALNACT1, TENM3, NOX5, LRP2, FER, SGCD, TMEM108, RAPGEF2, PTPRM, KIRREL3, NRXN3, CDKL5, SOBP, SETD2, PACSIN2, CDH13, BASP1, DAB1, HDAC5, SEMA3A, MYH9, STIM1, TANC1, PIK3R3, SH3KBP1, PRKAR1A, ZRANB1, SIPA1L3, FBN1, TBX15, CLASP2, TPDS2, DNM3, PPARA, PTPRD, RORA, ELAVL4, CDH9, DOCK10, SEMA3D, SYT17, SEMA3C</i></p>
GO:0032502	developmental process	1.6601799212830661e-28	<p><i>PTPRR, RCAN1, KALRN, MEGF11, RPS6KA2, NDE1, CTNNA1, FOXN3, NTRK2, CLASP1, ZNRF3, PTPRG, SYNE1, FBXL17, DMD, KCNC2, CHRM3, SPRED2, KAZN, ERBB4, LAMA2, TFDP2, NOS1, CNTN4, SND1, ROBO1, PRICKLE2, MYO3A, DSCAM, SHROOM3, CIT, TBDCD, PUM1, FRY, GOLGA3, NEBL, WWOX, HUNK, FUT8, HDAC4, OPCML, LINGO2, IMMP2L, ATP8A2, AUTS2, WLS, ANKS1A, LDLRAD4, MYEF2, TENM2, PSMB2, RXFP1, ASXL3, NFASC, PLCB1, FLT3, SRPK2, PRKD1, RYR2, VCL, NEDD9, PPP2R3C, SEMA5A, ETV6, PRKCA, IL1RAPL1, ADAMTS6, MYO9A, CCDC3, PLAC1, DIO2, NHS, CALD1, KANK1, KIF26B, DIAPH2, TCF12, RUNX1, PLS1, NLGN1, CAMK1D, AMOTL1, TCF7L2, RELN, APP, ADAM12, PAK1, UTRN, PPP3CA, RYR1, NTM, TOX, PCDH15, PTPN9, CREM, GREB1L, AKAP6, GRM7, DLC1, IDE, SCMH1, SOS1, CTNND2, LRRC8C, ALK, BTRC, DCLK1, MEF2A, TFAP2D, DENND5A, MAP2K5, DNMT1, MAGI2, EDA, CELSR1, EYS, ROBO2, IFT81, AKAP13, HIVEP3, DCC, EP300, SEMA4D, EVC, RPS6KA5, GRK5, ANKRD6, TRAPPC9, MMP16, NME8, TF, DNAH11, QKI, CHRM1, CDH8, ARHGAP15, HUS1, ASTN2, TANC2, JAK2, NEGR1, CMKLR1, SDK2, ZBTB7C, PARK2, NPHP3, ADCYAP1R1, GRIN3A, SMOC2, CACNA1C, NLGN4X, EXOC4, EMB, PNPLA3, ANKH, UPB1, TAGLN3, PALMD, NRG3, NUMB, MED15, SOX6, POLE, SULF1, SH3BP1, OTC, ATRNL1, SH3GL2, ARHGAP24, COL11A1, SLIT2, THEMIS, AFF3, ATRX, CHRDL1, TRAF3IP2, RAD51B, BMPR1A, DSCAML1, SMAD3, TNFRSF11B, SLC9C1, POTE, SCUBE1, PEAK1, EYA1, SATB2, HSF2BP, ELN, TPH1, MAD1L1, ANKRD11, EGFLAM, TUB, ARHGEF18, OVOL2, DNAJB6, ELP3, BRINP1, OMA1, CPQ, FGF14, GLIS1, ASGR2, IL1RAPL2, SOX5, DNMBP, TAFI1, SPNS2, SLC1A1, NTN1, LDB2, EPM2A, MAP2, CDC73, FLRT2, FBXW11, WWTR1, GAS7, PEMT, CATSPER2, PCSK5, CUX1, ANK3, CDH12, ARID4B, TRPS1, MYO18B, CDH4, TNR, ADCY9, CELF4, VAV3, SCN9A, MDM4, ARNT2, SPOCK1, ACTN4, PLCE1, TACC2, EPS8, TENM4, CECR2, GHR, CDH10, LRRC4C, PPP1R9A, PALM2, CLSTN2, CBF42T2, SRD5A2, STRC, DISC1, LRP5, NAV2, AP2B1, ESRI, ARHGAP12, TNFRSF19, SCFD1, PDE4D, CNTN5, PIK3CD, SLC5A3, BLOC1S5, CERS3, PCSK2, TEAD4, ARMC2, EFNA5, KLHL1, FTO, POU6F2, CEP85L, ATF2, RBBP8, GRID2, ZNF423, CYBB, SEMA6D, NTNG1, ADTRP, CRMP1, GABRB3, PRKCQ, ATXN1, CLDN1, NLSL2, SLC24A3, JDP2, PLEKHA5, TTLL5, SPTBN4, EPHB2, SIPR3, PRCIP, PRTG, COL22A1, DOCK2, DPYSL2, DACH1, MARK1, BDNF, RBM4, FNIP1, ADORA2A, ARID5B, IFT80, DYM, FSTL4, FHL2, TTC39, CNOX4, MEGF9, CSMD1, BCOR, BMPER, SYT1, DAB2, AFF2, PLXNA2, LRRK1, PRKG1, ABI1, CALCRL, HDAC2, ETS1, FAT3, ARID4A, CDH23, TTN, ENPP1, RIMS2, SCN8A, MORN2, CTNNA2, FMNL2, PARD3, NRG1, SPINT2, FMN2, TOP1, RIT2, CD44, PAX7, CNGB1, PRKCG, TEAD1, NFIA, MAPKAPK2, SLC8A1, SRRM4, ISM1, FBXO31, MAP3K13, PLCL2, CHST11, THRB, CDC42EP3, MAPK10, NCAM1, AGT, FGF1, CCR3, STRIP1, NDRG2, GRIP1, USH2A, NF1, WIF1, ZNF536, PARVB, NRXN1, LAMA3, GSK3B, PKP2, CTDP1, SETD3, CD109, KCNH1, BBS9, GPR21, CHD7, PSMB7, MOV10L1, THSD7A, TIA M2, MYT1L, SRGAP2B, CNTN1, PLEKHB2, UNC13A, TRIOBP, NCOA1, CHEK2, RHOJ, PHEX, MECOM, SYBU, CATSPERB, SHANK2, UNC5D, ISLR2, NREP, GPC3, DLG5, CFDP1, PGM5, ASTN1, PREX1, CPE, UBE2V1, XKR4, ROR1, ADAMTSL1, ZNF675, SERPINA5, COL12A1, MACF1, MNAT1, TRIO, CAPN3, CTNBNL1, MYO3B, MAP3K5, CLDN11, SPAG16, HTR2C, CCDC141, FGD4, EPHA5, HIRA, TP73, RBM19, FAM171A1, MYPN, KIAA1217, MORC3, ANK2, SLIT3, GRI N2B, PHC2, MATN3, PAK3, TSNAX, PRRC2C, MLLT3, NEB, RNF213, PACRG, SEMA5B, GRIK1, NLN, SDK1, GRM5, IGF1R, PKD1L1, MS12, CNTNAP2, PTPRO, SUFU, INSR, ITGA11, JAK1, CRTAC1, MAP2K1, UBR2, FOXO3, GPC6, KLHL3, OCA2, CNTN6, CENPF, MITF, IGF2BP3, LRFN5, AGBL4, PRDM16, ULK4, RBFOX1, KIR2DL4, TME M120B, ADAMTS16, LRRK2, PKHD1, KIF2A, RARB, TCF4, SPG11, PBX1, PHACTR1, BMP6, ASAP1, FYN, XRCC4, EPHA7, GAS8, COL19A1, MSR1, SGCZ, PTPN14, RIMS1, ENPP2, ABCA12, EPHB1, LAMP1, KCNQ1, FHOD3, DOCK1, VASH2, BPGM, FAM126A, EXT1, TRPC5, AMFR, UNC5C, ACSBG1, CSGALNACT1, TENM3, WDR7, NOX</i></p>

			<p>5,LRP2,FER,CAMK4,VWC2,DDX10,PCDH17,SGCD,TMEM108,SHROOM4,RAPGEF2,NAV3,PRPSAP2,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SOBP,MACROD2,IL18R1,KAT7,DCHS2,SETD2,PACSIN2,CDH13,MDGA2,BASPI,DAB1,ZNF148,HDAC5,SEMA3A,TSPAN8,MYH9,STIM1,NRIP1,TANC1,PIK3R3,TENM1,LARGE,GABRB1,SH3KBP1,PRKAR1A,ZRANB1,RGS7,SIPA1L3,DPY19L2,SCEL,NTRK3,FBN1,HYDIN,DIS3L2,TBX15,CLASP2,ZNF521,NSUN2,TPD52,DACH2,DNM3,SYNDIG1,PPARA,PTPRD,RORA,MYH15,SHISA6,BRIP1,ELAVL4,SBF2,CDH9,NELL1,DOCK10,EEF1E1,FNDC3A,BICC1,SEMA3D,PRLR,ATF6,SPATA5,SYT17,RAB27A,BLOC1S6,SEMA3C,RXFP2</p>
GO:0032501	multicellular organismal process	5.453193060397004e-28	<p>PTPRR,CAMTA1,RCAN1,KALRN,CACNG2,MEGF11,PROS1,RP S6KA2,NDE1,CTNNA1,FOXN3,NTRK2,CLASP1,ZNRF3,PTPRG,SYNE1,FBXL17,DMD,KCNC2,CHRM3,SPRED2,KAZN,ERBB4,LAMA2,TFDP2,NOS1,CNTN4,TMC2,SND1,ESRRG,ROBO1,PRICKLE2,MYO3A,DSCAM,SHROOM3,CIT,TBCD,PUM1,FRY,GOLGA3,NEBL,WWOX,HUNK,FUT8,HDAC4,OPCML,LINGO2,IMMP2L,ABCC1,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TE NM2,PSMB2,SLC44A1,RXFP1,ASXL3,MGLL,NFASC,PLCB1,FLT3,SRPK2,TRPM1,PRKD1,RYR2,VCL,PPP2R3C,SEMA5A,ETV6,PRKCA,EPB41L4B,ZBTB20,DLGAP1,BTBD9,TRHDE,ILIRAP1,ADAMTS6,MYO9A,PLAC1,DIO2,NHS,CALD1,KANK1,KIF26B,DIAPH2,SLCO3A1,TCF12,RUNX1,PLS1,USP53,NLGN1,DNAH9,CAMK1D,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,RYR1,NTM,TOX,PCDH15,GABRG3,PTPN9,CREM,GRB1L,AKAP6,SORCS3,GRM7,SSPN,DLC1,IDE,SCMH1,RYR3,SOXI,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,KCNB2,TFAP2D,CTNNA3,DENND5A,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,EYS,ROBO2,IFT81,AKAP13,HIVEP3,DCC,EP300,PARN,SEMA4D,EVC,RPS6KA5,SLCO2B1,ANKRD6,TRAPPC9,MMPI6,BDKRB1,NME8,TF,DNAH11,GRIK2,QLI,CHRM1,HUS1,ASTN2,TANC2,JAK2,ABCG8,NEGR1,CMKLR1,SDK2,PARK2,NHP3,ADCYAP1R1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,EMB,OR5K4,ANKH,TMPRSS3,UPB1,TAGLN3,NRG3,NUMB,MED15,SOX6,POLE,TRPM3,SULF1,CD84,SH3BP1,OTC,ATRNL1,SH3GL2,ARHGAP24,COL11A1,SLC13A3,SLIT2,SYNM,SLC4A4,DTNA,THEMIS,AFF3,ATRX,CHRD1,TRAF3IP2,RAD51B,BMPRIA,ACACA,DSCAML1,SMAD3,TNFRSF11B,PIBF1,GABRR2,SLC9C1,HMCN1,POTEE,PTGFR,SCUBE1,EYA1,SATB2,HSF2BP,ELN,TPH1,MAD1L1,ANKRD11,EGFLAM,DGKB,TUB,SCAMP5,OVOL2,DNAJB6,ELP3,BRINP1,OMA1,FGF14,DGKK,OR51I1,SPESP1,GLIS1,ASGR2,ILIRAPL2,SOX5,DGKI,TAF1,SPNS2,SLC1A1,NTN1,LDB2,SHISA9,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,CD96,WWTR1,GAS7,PENT,CATSPER2,PCSK5,CUX1,ANK3,ARID4B,LHFPL3,TRPS1,MYO18B,CDH4,TNR,ADCY9,CELF4,VAV3,SCN9A,MDM4,ARNT2,SPOCK1,PLCE1,TACC2,CYP39A1,EPS8,TENM4,CECR2,GHR,LRRK4C,PPP1R9A,CLSTN2,CBF A2T2,SRD5A2,PRG3,MLIP,STRC,DISC1,ARHGAP42,RABGEF1,LRP5,NAV2,AP2B1,ESR1,TNFRSF19,GRM1,PDE4D,CNTN5,PIK3CD,DOCK4,SLC5A3,BLOC1S5,CERS3,PCSK2,TEAD4,ARMC2,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,RBBP8,KCNJ12,GRIID2,ZNF423,CYBB,SEMA6D,KCNJ3,CELF2,NTNG1,ADTRP,CRMP1,PDE4B,MAPRE2,GABRB3,MAP3K7,PRKCQ,ATXN1,N4BP1,RHPN2,CLDN1,KCND2,SNTB1,SLC24A3,PLEKHA5,TLL5,PTBN4,EPHB2,MYBPC2,SIPR3,PRCP,PRTG,COL22A1,DOCK2,DPYSL2,DACH1,MARK1,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,IFT80,DYM,FSTL4,ANO1,FHL2,TTC39C,NOX4,MEGF9,CSMD1,BCOR,BMPEP,SYT1,DAB2,AFF2,PLXNA2,LRRK1,PRKG1,SNAP23,AB11,CACNG3,PTH2R,CALCRL,TNNI3K,HDAC2,ETS1,FAT3,ARID4A,PRKAR1B,CDH23,TTN,ENPP1,RIMS2,SCN8A,KS R2,DLGAP2,MORN2,OR4N2,CTNNA2,PARD3,MYOM3,NRG1,S PINT2,FMN2,TOPI,RIT2,CD44,PAX7,KCNMA1,CNGB1,PRKCG,TEAD1,NFIA,MAPKAPK2,SLC8A1,SRRM4,ISM1,FBXO31,FAM19A4,MAP3K13,PLCL2,CHST11,THRB,NCAM1,AGT,FGF1,CCR3,NDRG2,GRIPI,USH2A,NF1,ZNF536,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,SETD3,CD109,SLC22A3,BBS9,GPR21,CHD7,PSMB7,MOV10L1,THSD7A,SNX5,TIAM2,OR51B2,MYT1L,SRGAP2B,CNTN1,UNC13A,TRIOBP,NCOA1,CACNB2,RHOJ,PHEX,MECOM,SYBU,CATSPERB,SHANK2,UNC5D,ISLR2,NREP,GPC3,DLG5,ASTN1,PREX1,CPE,RORI,ADAMTSL1,ZNF675,SERPINA5,COL12A1,PTGER3,MACF1,MNAT1,TRIO,CAPN3,CTNBNB1,MYO3B,MYOM1,CLDN11,SPAG16,HTR2C,CCDC141,GLRA2,EPHA5,SGIP1,HIRA,TP73,RBM19,IL1RL1,MYPN,KIAA1217,MORC3,P2</p>

			<p>RX6,ANK2,SLIT3,GRIN2B,PHC2,MATN3,PAK3,TSNAX,PRRC2C,ADCY8,GABRR3,MLLT3,NEB,RNF213,CACNA1D,PRKAA2,PA CRG,ABCG2,TBL1X,SEMA5B,GRIK1,NLN,ANKFN1,SDK1,GRM 5,IGF1R,PKD1L1,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1, RPGR,CRTAC1,MAP2K1,UBR2,FOXO3,GPC6,GABRA3,KLHL3, OCA2,CNTN6,CENPF,RNLS,MITF,IGF2BP3,LRFN5,CDC14A,A GBL4,PRDM16,ULK4,RBFOX1,KIR2DL4,ADAMTS16,LTBP1,LR RK2,PKHD1,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,SCN1 A,BMP6,VTI1A,ASAP1,FYN,KCND3,ABCC2,XRCC4,EPHA7,MA RVELD3,GAS8,COL19A1,MSR1,SGCZ,CLN6,PTPN14,RIMS1,EN PP2,ABCA12,EPHB1,LSAMP,KCNQ1,FHOD3,DOCK1,VASH2,B PGM,FAM126A,EXT1,TRPC5,AMFR,UNC5C,ACSBG1,CSGALN ACT1,TENM3,WDR7,NOX5,LRP2,CAMK4,VWC2,GUCY2F,PCD H17,SGCD,TMEM108,SHROOM4,RAPGEF2,NAV3,PRPSAP2,P TPRM,KIRREL3,NCOA2,NRXN3,CDKL5,PTPRU,SOBP,MACRO D2,IL18R1,KAT7,DCHS2,SETD2,CDH13,MDGA2,BASPI,TRDN, DAB1,ZNF148,SLC16A12,HDAC5,SEMA3A,TSPAN8,MYH9,BD KRB2,STIM1,NRIP1,TANC1,LITAF,PIK3R3,TENM1,LARGE,GA BRB1,PRKAR1A,RGS7,SIPA1L3,VWF,DPY19L2,SLC24A2,SCEL, NTRK3,FBN1,HYDIN,DIS3L2,TBX15,MOGAT2,CLASP2,ZNF521 ,NSUN2,TPD52,DACH2,DNM3,SYNDIG1,PPARA,PTPRD,RORA ,MYH15,SHISA6,BRIP1,ELAVL4,SBF2,NELL1,DOCK10,FNDC3 A,ATP8A1,BICC1,SEMA3D,PRLR,ATF6,SPATA5,SYT17,STAC, O R4M1,RAB27A,CST2,BLOC1S6,SEMA3C,RXFP2</p>
GO:004873 1	system development	1.0667112641450368e- 27	<p>RCAN1,KALRN,MEGF11,RPS6KA2,NDE1,CTNNA1,FOXN3,NT RK2,CLASP1,ZNRF3,PTPRG,FBXL17,DMD,KCNC2,CHRM3,SP RED2,KAZN,ERBB4,LAMA2,TFDP2,CNTN4,ROBO1,PRICKLE2, MYO3A,DSCAM,SHROOM3,CIT,TBCD,FRY,NEBL,WWOX,HDA C4,OPCML,LINGO2,IMMP2L,ATP8A2,AUTS2,WLS,ANKS1A,LD LRAD4,MYEF2,TENM2,PSMB2,RXFP1,ASXL3,NFASC,PLCB1,F LT3,SRPK2,PRKD1,RYR2,VCL,PPP2R3C,SEMA5A,ETV6,PRKC A,IL1RAPL1,ADAMTS6,MYO9A,PLAC1,NHS,CALD1,KANK1,KI F26B,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,AMOTL1,TCF7L2, RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,RYR1,NTM,TOX,PC DH15,PTPN9,GREB1L,AKAP6,GRM7,DLC1,SOS1,CTNND2,AL K,BTRC,DCLK1,MEF2A,TFAP2D,DENND5A,MAP2K5,DNMT1, MAGI2,EDA,CELSR1,ROBO2,AKAP13,HIVEP3,DCC,EP300,SE MA4D,EVC,RPS6KA5,ANKRD6,TRAPPC9,MMP16,TF,DNAH11, QKI,CHRM1,ASTN2,TANC2,JAK2,NEGR1,CMKLR1,SDK2,PAR K2,NPHP3,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,EMB, ANKH,UPB1,TAGLN3,NRG3,NUMB,SOX6,POLE,SULF1,OTC,A TRNL1,SH3GL2,ARHGAP24,COL11A1,SLIT2,THEMIS,ATRX,C HRDL1,TRAF3IP2,BMPRI4,DSCAML1,SMAD3,TNFRSF11B,PO TEE,SCUBE1,EYA1,SATB2,ELN,TPH1,MAD1L1,ANKRD11,EGF LAM,TUB,OVOL2,DNAJB6,ELP3,BRINP1,FGF14,ASGR2,IL1RA PL2,SOX5,TAF1,SPNS2,SLC1A1,NTN1,LDB2,EPM2A,MAP2,CD C73,FLRT2,FBXW11,WWTR1,GAS7,PCSK5,CUX1,ANK3,ARID4 B,TRPS1,MYO18B,CDH4,TNR,CELF4,VAV3,MDM4,ARNT2,SPO CK1,PLCE1,TACC2,TENM4,CECR2,GHR,LRR4C,PPP1R9A,C LSTN2,CBFA2T2,SRD5A2,STRC,DISC1,LRP5,NAV2,AP2B1,ESR 1,TNFRSF19,CNTN5,PIK3CD,SLC5A3,BLOC1S5,CERS3,PCSK2 ,TEAD4,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,GRID2,ZN F423,CYBB,SEMA6D,NTNG1,ADTRP,CRMP1,GABRB3,PRKCQ, ATXN1,CLDN1,SLC24A3,PLEKHA5,TTL5,SPTBN4,EPHB2,PR CP,PTRG,COL22A1,DOCK2,DPYSL2,MARK1,BDNF,FNIP1,AD ORA2A,ARID5B,IFT80,DYM,FSTL4,FHL2,TTC39C,NOX4,MEG F9,CSMD1,BCOR,BMPER,SYT1,DAB2,AFF2,PLXNA2,LRRK1,P RKG1,ABI1,CALCRL,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN, ENPP1,RIMS2,SCN8A,CTNNA2,PARD3,NRG1,SPINT2,RIT2,CD 44,PAX7,CNGB1,PRKCG,TEAD1,NFIA,MAPKAPK2,SLC8A1,SR RM4,ISM1,FBXO31,MAP3K13,PLCL2,CHST11,THRB,NCAM1,A GT,FGF1,CCR3,NDRG2,GRIPI,USH2A,NF1,ZNF536,NRXN1,L AMA3,GSK3B,PKP2,CTDP1,CD109,CHD7,PSMB7,THSD7A,TIA M2,MYT1L,SRGAP2B,CNTN1,UNC13A,TRIOBP,NCOA1,RHOJ, PHEX,MECOM,SYBU,SHANK2,UNC5D,ISLR2,NREP,GPC3,DL G5,ASTN1,PREX1,CPE,ROR1,ADAMTSL1,ZNF675,MACF1,MN AT1,TRIO,CAPN3,CTNBNB1,MYO3B,CLDN11,CCDC141,EPHA 5,TP73,MYPN,KIAA1217,ANK2,SLIT3,GRIN2B,MATN3,PAK3,P RRC2C,MLLT3,NEB,RNF213,SEMA5B,GRIK1,NLN,SDK1,GRM5 ,IGF1R,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1,CRTAC1, MAP2K1,FOXO3,GPC6,KLHL3,CNTN6,CENPF,MITF,IGF2BP3 ,LRFN5,AGBL4,ULK4,RBFOX1,ADAMTS16,LRRK2,PKHD1,KIF 2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,XRC</p>

			C4,EPHA7,GAS8,COL19A1,SGCZ,PTPN14,RIMS1,ENPP2,ABCA12,EPHB1,LSAMP,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,FAM126A,EXT1,TRPC5,UNC5C,ACSBG1,CSGALNACT1,TENM3,WD R7,NOX5,LRP2,CAMK4,VWC2,PCDH17,SGCD,TMEM108,SHR OOM4,RAPGEF2,NAV3,PRPSAP2,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SOBP,MACROD2,IL18R1,KAT7,DCHS2,SETD2,CDH13,MDGA2,BASP1,DAB1,ZNF148,HDAC5,SEMA3A,MYH9,S TIM1,NRIP1,PIK3R3,TENM1,LARGE,GABRB1,PRKAR1A,RGS7,SIPAIL3,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,ZNF521,N SUN2,TPD52,DNM3,SYNDIG1,PPARA,PTPRD,RORA,MYH15,B RIP1,ELAVL4,SBF2,NELL1,DOCK10,FNDC3A,BICC1,SEMA3D, PRLR,ATF6,SPATA5,SYT17,BLOC1S6,SEMA3C,RXFP2
GO:004866 6	neuron development	1.8246044514290075e- 27	KALRN,CTNNA1,NTRK2,PTPRG,DMD,LAMA2,CNTN4,ROBO1,DSCAM,TBCD,FRY,OPCML,ATP8A2,AUTS2,ANKS1A,TENM2,NFASC,PRKD1,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,NTM,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DE NND5A,MAGI2,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TANC2,JAK2,NEGR1,PARK2,GRIN3A,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,SPOCK1,TENM4,CECR2,LRRC4C,PPP1R9A,CBFA2T2,STRC,DISC1,BLOC1S5,EFNA5,KLHL1,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,RIT2,CNGB1,SRRM4,FBXO31,MAP3K13,THRB,NCAM1,AGT,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,MYT1L,CNTN1,UNC13A,TRIOBP,UNC5D,ISLR2,NREP,DLG5,ROR1,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,CRTAC1,MAP2K1,CNTN6,AGBL4,ULK4,LRRK2,SPG11,PBX1,PHACTR1,ASAP1,FYN,EPHA7,RIMS1,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,DAB1,SEMA3A,TENM1,GABRB1,NTRK3,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,BLOC1S6,SEMA3C
GO:000090 2	cell morphogenesis	2.6015624808949217e- 27	KALRN,NTRK2,DMD,LAMA2,CNTN4,ROBO1,DSCAM,SHROO M3,TBCD,FRY,ATP8A2,AUTS2,NFASC,VCL,NEDD9,SEMA5A,IL1RAPL1,MYO9A,KANK1,PLS1,NLGN1,RELN,APP,PAK1,PPP3CA,PCDH15,DLC1,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,DC C,EP300,SEMA4D,RPS6KA5,CDH8,ARHGAP15,TANC2,PARK2,EMB,PALMD,NUMB,ATRNL1,SH3GL2,SLIT2,DSCAML1,PEAK1,ARHGEF18,DNMBP,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH12,CDH4,TNR,ACTN4,EPH8,CDH10,LRRC4C,PALM2,STR C,DISC1,SCFD1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,COL22A1,DPYSL2,BDNF,ADORA2A,FSTL4,NOX4,MEGF9,SYT1,DAB2,PLXNA2,ABII,FAT3,CDH23,RIMS2,CTNNA2,FMNL2,PARD3,NRG1,SPINT2,CD44,FBXO31,MAP3K13,CDC42EP3,NCAM1,STRIP1,GRIP1,USH2A,PARVB,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,TRIOBP,RHOJ,UNC5D,ISLR2,CFDPI,PREX1,ADAMTSL1,MACF1,TRIO,CCDC141,FGD4,EPH A5,FAM171A1,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,PKHD1,SPG11,PHACTR1,FYN,EPHA7,RIMS1,ENPP2,EPHB1,DOCK1,EXT1,TRPC5,UNC5C,LRP2,FER,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,PACSIN2,DAB1,SEMA3A,MYH9,SH3KBP1,ZRANB1,SIPAIL3,CLASP2,DNM3,PTPRD,ELAVL4,CDH9,DOCK10,SEMA3D,SYT17,SEMA3C
GO:003117 5	neuron projection development	2.672659779950151e- 27	KALRN,CTNNA1,NTRK2,PTPRG,DMD,LAMA2,CNTN4,ROBO1,DSCAM,FRY,ATP8A2,AUTS2,NFASC,PRKD1,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,PLS1,NLGN1,RELN,APP,PAK1,PPP3CA,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TANC2,JAK2,NEGR1,PARK2,GRIN3A,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,SPOCK1,CECR2,LRRC4C,PPP1R9A,CBFA2T2,STRC,DISC1,BLOC1S5,EFNA5,KLHL1,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,RIT2,FBXO31,MAP3K13,NCAM1,AGT,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,CNTN1,UNC13A,TRIOBP,UNC5D,ISLR2,NREP,DLG5,ROR1,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,CRTAC1,MAP2K1,CNTN6,ULK4,LRRK2,SPG11,PHACTR1,ASAP1,FYN,EPHA7,RIMS1,EPHB1,VASH2

			.EXT1,TRPC5,UNC5C,TENM3,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,DAB1,SEMA3A,NTRK3,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,BLOC1S6,SEMA3C
GO:0007275	multicellular organism development	6.489879431906145e-27	PTPRR,RCANI,KALRN,MEGF11,RPS6KA2,NDE1,CTNNA1,FOXN3,NTRK2,CLASP1,ZNRF3,PTPRG,FBXL17,DMD,KCNC2,CHRM3,SPRED2,KAZN,ERBB4,LAMA2,TFDP2,CNTN4,ROBO1,PRICKLE2,MYO3A,DSCAM,SHROOM3,CIT,TBCD,FRY,NEBL,WWOX,HUNK,FUT8,HDAC4,OPCML,LINGO2,IMMP2L,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,PSMB2,RXFP1,ASXL3,NFASC,PLCB1,FLT3,SRPK2,PRKD1,RYR2,VCL,PPP2R3C,SEMA5A,ETV6,PRKCA,IL1RAPL1,ADAMTS6,MYO9A,PLAC1,NHS,CALD1,KANK1,KIF26B,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,RYR1,NTM,TOX,PCDH15,PTPN9,GREB1L,AKAP6,GRM7,DLC1,IDE,SCMH1,SOS1,CTNND2,ALK,BTRC,DCLK1,MEF2A,TFAP2D,DENND5A,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,AKAP13,HIVEP3,DCC,EP300,SEMA4D,EVC,RPS6KA5,ANKRD6,TRAPPC9,MMP16,TF,DNAH11,OKI,CHRM1,HUS1,ASTN2,TANC2,JAK2,NEGR1,CMKLR1,SDK2,PARK2,NPHP3,ADCYAP1R1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,EMB,ANKH,UPB1,TAGLN3,NRG3,NUMB,SOX6,POLE,SULF1,OTC,ATRN1,SH3GL2,ARHGAP24,COL11A1,SLIT2,THEMIS,AFF3,ATRX,CHRD11,TRAF3IP2,RAD51B,BMPRIA,DSCAML1,SMAD3,TNFRSF11B,POTEE,SCUBE1,EYA1,SATB2,ELN,TPH1,MAD1L1,ANKRD11,EGFLAM,TUB,OVOL2,DNAJB6,ELP3,BRINP1,FGF14,ASGR2,IL1RAPL2,SOX5,TAF1,SPNS2,SLC1A1,NTN1,LDB2,EPM2A,MAP2,CDC73,FLRT2,FBXW11,WWTR1,GAS7,PEMT,PCSK5,CUX1,ANK3,ARID4B,TRPS1,MYO18B,CDH4,TNR,ADCY9,CELF4,VAV3,SCN9A,MDM4,ARNT2,SPOCK1,PLCE1,TACC2,TENM4,CECR2,GHR,LRRK4C,PPP1R9A,CLSTN2,CBFA2T2,SRD5A2,STRC,DISC1,LRP5,NAV2,AP2B1,ESR1,TNFRSF19,CNTN5,PIK3CD,SLC5A3,BLOC1S5,CERS3,PCSK2,TEAD4,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,RBBP8,GRID2,ZNF423,CYBB,SEMA6D,NTNG1,ADTRP,CRMP1,GABRB3,PRKCQ,ATXN1,CLDN1,SLC24A3,PLEKHA5,TLL5,SPTBN4,EPHB2,SIPR3,PRCP,PRTG,COL22A1,DOCK2,DPYSL2,DACH1,MARK1,BDNF,FNIP1,ADORA2A,ARID5B,IFT80,DYM,FSTL4,FHL2,TTC39C,NOX4,MEGF9,CSMD1,BCOR,BMPER,SYT1,DAB2,AFF2,PLXNA2,LRRK1,PRKG1,ABI1,CALCRL,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN,ENPP1,RIMS2,SCN8A,CTNNA2,PARD3,NRG1,SPINT2,TOP1,RIT2,CD44,PAX7,CNGB1,PRKCG,TEAD1,NFIA,MAPKAPK2,SLC8A1,SRRM4,ISM1,FBXO31,MAP3K13,PLCL2,CHST11,THRB,NCAM1,AGT,FGF1,CCR3,NDRG2,GRIP1,USH2A,NF1,ZNF536,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,CD109,CHD7,PSMB7,THSD7A,TIAM2,MYT1L,SRGAP2B,CNTN1,UNC13A,TRIOBP,NCOA1,RHOJ,PHEX,MECOM,SYBU,SHANK2,UNC5D,ISLR2,NREP,GPC3,DLG5,ASTN1,PREX1,CPE,ROR1,ADAMTSL1,ZNF675,COL12A1,MACF1,MNAT1,TRIO,CAPN3,CTNBNB1,MYO3B,CLDN11,CCDC141,EPHA5,HIRA,TP73,RBM19,MYPN,KIAA1217,MORC3,ANK2,SLIT3,GRIN2B,MATN3,PAK3,PRRC2C,MLLT3,NEB,RNF213,SEMA5B,GRK1,NLN,SDK1,GRM5,IGF1R,PKD1L1,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1,CRTAC1,MAP2K1,FOXO3,GPC6,KLHL3,CNTN6,CENPF,MITF,IGF2BP3,LRFN5,AGBL4,ULK4,RBFOX1,ADAMTS16,LRRK2,PKHD1,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,XRCC4,EPHA7,GAS8,COL19A1,SGCZ,PTPN14,RIMS1,ENPP2,ABCA12,EPHB1,LSAMP,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,FAM126A,EXT1,TRPC5,UNC5C,ACSBG1,CSGALNACT1,TENM3,WDR7,NOX5,LRP2,CAMK4,VWC2,PCDH17,SGCD,TMEM108,SHROOM4,RAPGEF2,NAV3,PRPSAP2,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SOBP,MACROD2,IL18R1,KAT7,DCHS2,SETD2,CDH13,MDGA2,BASPI,DAB1,ZNF148,HDAC5,SEMA3A,MYH9,STIM1,NRIP1,PIK3R3,TENM1,LARGE,GABRB1,PRKARIA,RGS7,SIPAIL3,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,ZNF521,NSUN2,TPD52,DACH2,DNM3,SYNDIG1,PPARA,PTPRD,RORA,MYH15,BRIP1,ELAVL4,SBF2,NELL1,DOCK10,FNDC3A,BICC1,SEMA3D,PRLR,ATF6,SPATA5,SYT17,BLOC1S6,SEMA3C,RXFP2
GO:0051179	localization	6.748874921249505e-26	PTPRR,SYN3,SVOPL,LRP1B,KALRN,CACNG2,PROS1,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,SYNE1,SLC39A10,DMD,KCNC2,CHRM3,ERBB4,LAMA2,NOS1,TMC2,ROBO1,SIL1,SHROOM3,DPPI0,GPC5,SORCS2,LRBA,FUT8,HDAC4,ATP9A,ARFGAP3,IMMP2L,ABCC1,ATP8A2,AFTPH,AUTS2,WLS,ANKS1A,LDLRAD4,

		<p>SGSM1,PSMB2,SLC44A1,SNUPN,PTPRT,NFASC,PLCB1,CACNA1A,TRPM1,PRKD1,RYR2,VCL,NEDD9,SEMA5A,CASK,PRKCA,EPB41L4B,STX8,BTBD9,IL1RAPL1,HBE1,ABCA13,KANK1,TBC1D5,SLCO3A1,GRIK4,PLS1,FCHSD2,NLGN1,DNAH9,KCNIP4,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,RELN,APP,PAK1,UTRN,PPP3CA,RYR1,GABRG3,ERC2,PTPN9,AKAP6,OSBPL1A,GRM7,RABGAP1L,DLC1,RYR3,SOS1,LRRC8C,RFTN1,DCCLK1,MEF2A,KCNB2,FAM155A,CTNNA3,DENND5A,DLG2,MAP2K5,MAGI2,CELSR1,IFT81,AKAP13,DCC,ELMO2,KCNA6,PARN,SEMA4D,SLCO2B1,BDKRB1,NME8,TF,DNAH11,GRIK2,OKI,CHRM1,SYTL5,ZDHHC11B,ITSN1,ASTN2,TANC2,DEFA1B,JAK2,ABCG8,RAB11FIP4,CMKLR1,PARK2,SLC14A2,NPHP3,ADCYAP1R1,DPP6,PRELID2,GRID1,GRIN3A,SMOC2,CACNA1C,MAN1A1,NLGN4X,EXOC4,HEATR5A,EMB,ANO4,PIK3C2B,ENTHD1,ANKH,ITGBL1,NBEA,TMPRSS3,NRG3,SLC5A10,NUMB,TRPM3,SULF1,CD84,SH3BP1,ATRNL1,RFFL,SH3GL2,ARHGAP24,SLC13A3,PITPNC1,SLIT2,CEP128,KCNJ16,SLC4A4,TRIM5,FLVCR2,ATRX,TRAF3IP2,BMPRI1A,SMAD3,CACNA1E,BORA,PIBF1,GABRR2,PIK3C3,SLC9C1,SLC47A1,SV2B,PEAK1,SATB2,ANKS1B,ANO2,TPH1,MAD1L1,TNKS,TUB,ARHGEF18,SCAMP5,OVOL2,DNAJB6,ELP3,ARRDC4,FGF14,CACNA2D3,ASGR2,SPAG17,ZDHHC11,SKAP1,PTPRN2,DGKI,SPNS2,SLC1A1,NTN1,LDB2,SHISA9,EPM2A,SHFM1,MAP2,FLRT2,FBXW11,NOS1AP,WWTR1,KCTD7,CATSPER2,PCSK5,CUX1,GRM4,ANK3,CCL15,CNIH3,TTLH8,TNR,VA3,SCN9A,SPOCK1,ACTN4,RAB2A,EPS8,CECR2,GHR,LRRC8D,SLC25A21,CD300A,ABCC11,DISC1,OSBPL10,ATP8B4,CCL14,IFT43,RABGEF1,NSG2,LRP5,AP2B1,SLC30A7,ESR1,ARHGAP12,KCNN3,DENND2A,GRM1,SCFD1,PDE4D,THEM4,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,ARMC2,RAB24,EFNA5,FTO,CEP85L,ATF2,KCNJ12,PIK3R2,CCDC91,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,NTNG1,ADTRP,PDE4B,MAPR2,GABRB3,SMG7,ANKRD13A,PRKCQ,ATXN1,CLDN1,WDNR3,OS,KCND2,SLC24A3,SPTBN4,EPHB2,ERC1,MCTP1,PRCP,DOCK2,NUP214,DPYSL2,DACH1,MARK1,BDNF,RBM4,ADORA2A,ARID5B,IFT80,ANO1,CADPS,TSPAN33,MEGF9,CHKA,BMPER,ICK,SYT1,DAB2,PLXNA2,NSF,PRKG1,STXBP6,SNAP23,CACNG3,EPG5,CALCRL,MICAL3,RANBP17,ETS1,BANP,FAT3,TMEM163,PRKAR1B,CDH23,TTN,SRGAP3,MYRIP,SLC39A11,ENPP1,RIMS2,SCN8A,AGAP1,CTNNA2,PEX5L,CYB561A3,FMNL2,PARD3,NGR1,TBC1D9,SPINT2,ATP10B,SLC35F4,FMN2,GRIA2,RIT2,CD44,KCNMA1,NCF4,CNGB1,GPSM2,PRKCG,SLC12A8,ZFYVE1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM19A4,RSRC1,CHST11,SLC9A9,CDC42BPA,SAMM50,AGT,FGF1,KCNQ5,HEPHL1,CCR3,KCNJ6,GRIPI,TLK1,ARHGAP25,USH2A,NF1,VPS16,SLC44A5,NRXN1,LAMA3,GSK3B,PKP2,SLC22A3,KCNH1,BBS9,CHD7,PSMB7,SNX5,SRGAP2B,CNTN1,UNC13A,GRIK3,CACNB2,STXBP4,RHOJ,ESYT2,SYBU,UNC5D,GPC3,DLG5,ASTN1,PRXI,CPE,ANO3,XKR4,SERPINA5,KCNS3,SLC5A8,PTGER3,BID,MACF1,CAPN3,DUSP22,MYO1,SPAG16,CTDSPL2,HTR2C,CDC141,GLRA2,NCF2,SNAP25-AS1,EPHA5,SGIP1,SNX31,MORC3,P2RX6,ANK2,GRIN2B,PAK3,LRPPRC,ADCY8,ITPR2,GABRR3,CCL15-CCL14,RNF213,SH3RF2,CACNA1D,PRKAA2,PACRG,ABCG2,SEMA5B,GRIK1,ANKFN1,TRAPPC8,GRM5,ATG4C,IGF1R,PKD1L1,TSNARE1,MON2,CNTNAP2,PTPRO,ZDHHC14,SUFU,NKAIN2,INSR,CIZ1,ITGA11,JAK1,RPGR,MAP2K1,SLC9B1,KPNB1,FOXO3,GPC6,RASGRF2,GABRA3,KLHL3,OCA2,TTC7B,CENPF,ATP9B,MITF,IGF2BP3,AGBL4,KPNA3,SPTSSA,FRMD5,ULK4,RBFOX1,LTBP1,LRRK2,NKAIN3,PKHD1,KIF2A,SPG11,PHACTR1,SCN1A,BMP6,SLC35F1,VTI1A,FYN,KCND3,ABCC2,XRCC4,MARVELD3,GAS8,MSR1,PTPN14,RIMS1,ENPP2,VPS53,MCTP2,ABCA12,EPHB1,KCNQ1,SLC38A6,DOCK1,FAM126A,EXT1,TRPC5,UNC5C,NOX5,LRP2,C2,FER,PCDH17,TMEM108,TPTE,RAPGEF2,NAV3,DNAH3,PTPRM,KIRREL3,NRXN3,KCNH7,CDKL5,PTPRU,GRIA4,KAT7,VPS45,SLC5A4,SETD2,PACSIN2,TRIM22,CDH13,TRDN,DAB1,SEC16B,SLC16A12,CACHD1,EXOC6B,HDAC5,SEMA3A,MGAT5,ATP13A3,STOML1,MYH9,BDKRB2,STIM1,NRIP1,VPS41,PIK3R3,TENM1,VPS39,GABRB1,SH3KBP1,ZRANB1,RGS7,STXBP5,TXNDC5,SLC24A2,GRIA3,NTRK3,SLC35F3,FBN1,MOGAT2,CLASP2,TMPRSS15,DNAJC6,NSUN2,TPD52,PTPRK,SORCS1,DNM3,SYNDIG1,PPARA,SCFD2,SHISA6,ANXA8L1,DOCK10,ATP8A1,SEMA3D,PRLR,KCNC4,CEP41,IPO11,NVLA,SYT17,STAC,RAB27A,BLOC1S6,PARD3B,HGSNAT,CEP112,K</p>
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			CNJ15,SYT9,SLC22A10,SEMA3C
GO:0007399	nervous system development	8.235007583494911e-26	KALRN,NDE1,CTNNA1,NTRK2,PTPRG,FBXL17,DMD,KCNC2,CHRM3,ERBB4,LAMA2,CNTN4,ROBO1,DSCAM,SHROOM3,CIT,TBCD,FRY,HDAC4,OPCML,LINGO2,IMMP2L,ATP8A2,AUTS2,WLS,ANKS1A,MYEF2,TENM2,NFASC,PLCB1,PRKDI,VCL,SEMA5A,ETV6,IL1RAPL1,MYO9A,KANK1,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,NTM,TOX,PCDH15,PTPN9,GRM7,DLC1,SOS1,CTNND2,ALK,DCLK1,MEF2A,TFAP2D,DENND5A,MAGI2,CELSR1,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TRAPPC9,DNAH11,QKI,CHRM1,ASTN2,TANC2,JAK2,NEGR1,SDK2,PARK2,NPHP3,GRIN3A,NLGN4X,EMB,TAGLN3,NRG3,NUMB,SOX6,SULF1,SH3GL2,SLIT2,ATRX,CHRD1,BMPR1A,DSCAML1,POTEE,EYA1,SATB2,OVOL2,ELP3,BRINP1,FGF14,IL1RAPL2,SOX5,TAF1,SLC1A1,NTN1,LDB2,EPM2A,MAP2,FRT2,FBXW11,GAS7,CUX1,ANK3,CDH4,TNR,ARNT2,SPOCK1,TACC2,TENM4,CECR2,LRRC4C,PPP1R9A,CLSTN2,CBFA2T2,SRD5A2,STRC,DISC1,NAV2,CNTN5,SLC5A3,BLOC1S5,PCSK2,EFNA5,KLHL1,POU6F2,CEP85L,ATF2,GRID2,ZNF423,SEMA6D,NTNG1,CRMP1,GABRB3,PRKCQ,ATXN1,CLDN1,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,AFF2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,SCN8A,CTNNA2,PAR3,NRG1,SPINT2,RIT2,CNGB1,PRKCG,NFIA,SLC8A1,SRRM4,FBXO31,MAP3K13,THRB,NCAM1,AGT,NDRG2,GRIP1,USH2A,NF1,ZNF536,NRXN1,LAMA3,GSK3B,CHD7,TIAM2,MYT1L,SRGAP2B,CNTN1,UNC13A,TRIOBP,NCOA1,SYBU,SHANK2,UNC5D,ISLR2,NREP,DLG5,ASTN1,ROR1,ADAMTSL1,MACF1,MNAT1,TRIO,CLDN11,CCDC141,EPHA5,TP73,MYPN,ANK2,SLIT3,GRIN2B,PAK3,SEMA5B,GRIK1,SDK1,GRM5,IGF1R,CNTNAP2,PTPRO,SUFU,CRTAC1,MAP2K1,FOXO3,GPC6,CNTN6,CENPF,IGF2BP3,LRFN5,AGBL4,ULK4,RBFOX1,LRRK2,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPHA7,GAS8,RIMS1,EPHB1,LSAMP,KCNQ1,VASH2,FAM126A,EXT1,TRPC5,UNC5C,ACSBG1,TENM3,LRP2,VWC2,PCDH17,TMEM108,SHROOM4,RAPGEF2,NAV3,PTPRM,KIRREL3,NRXN3,CDKL5,MACROD2,SETD2,MDGA2,BASP1,DAB1,ZNF148,SEMA3A,TENM1,GABRB1,RGS7,NTRK3,HYDIN,CLASP2,ZNF521,DNM3,SYNDIG1,PTPRD,RORA,ELAVL4,SBF2,NELL1,DOCK10,SEMA3D,SPATA5,SYT17,BLOC1S6,SEMA3C
GO:0030182	neuron differentiation	9.85348178745227e-26	KALRN,CTNNA1,NTRK2,PTPRG,DMD,ERBB4,LAMA2,CNTN4,ROBO1,DSCAM,TBCD,FRY,OPCML,ATP8A2,AUTS2,ANKS1A,MYEF2,TENM2,NFASC,PRKDI,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,NTM,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TRAPPC9,TANC2,JAK2,NEGR1,SDK2,PARK2,GRIN3A,NLGN4X,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,EYA1,SATB2,BRINP1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,SPOCK1,TENM4,CECR2,LRRC4C,PPP1R9A,CBFA2T2,STRC,DISC1,BLOC1S5,EFNA5,KLHL1,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PAR3,NRG1,RIT2,CNGB1,SRRM4,FBXO31,MAP3K13,THRB,NCAM1,AGT,GRIP1,USH2A,ZNF536,NRXN1,LAMA3,GSK3B,TIAM2,MYT1L,CNTN1,UNC13A,TRIOBP,NCOA1,UNC5D,ISLR2,NREP,DLG5,ROR1,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,TP73,MYPN,SLIT3,PAK3,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,SUFU,CRTAC1,MAP2K1,FOXO3,CNTN6,AGBL4,ULK4,LRRK2,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPHA7,RIMS1,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,VWC2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,MDGA2,DAB1,SEMA3A,TENM1,GABRB1,NTRK3,CLASP2,ZNF521,DNM3,PTPRD,RORA,ELAVL4,DOCK10,SEMA3D,SYT17,BLOC1S6,SEMA3C
GO:0030030	cell projection organization	2.429162218137122e-25	KALRN,CTNNA1,NTRK2,PTPRG,DMD,LAMA2,CNTN4,ROBO1,DSCAM,FRY,HDAC4,ATP8A2,AUTS2,TENM2,NFASC,PRKDI,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,PLS1,NLGN1,DNAH9,CAMK1D,RELN,APP,PAK1,PPP3CA,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,ROBO2,IFT81,DCC,EP300,SEMA4D,RPS6KA5,NME8,TANC2,JAK2,NEGR1,PARK2,NPHP3,GRIN3A,EMB,LRRC49,NUMB,SH3GL2,ARHGAP24,SLIT2,DSCAML1,PIBF1,TUB,SPAG17,NTN1,MAP2,FLRT2,ARHGEF6,WWTR1,GAS7,CUX1,ANK3,TLL8,CDH4,TNR,VAV3,CDKL1,SPOCK1,PLCE1,EPS8,CECR2,LRRC4C,PPP1R9A

			,CBFA2T2,STRC,DISC1,POC1A,IFT43,BLOC1S5,ARMC2,EFNA5,KLHL1,GRID2,ZNF423,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,PTPDC1,MARK1,BDNF,ADORA2A,IFT80,FSTL4,TTC39C,ICK,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,RIT2,CD44,RAPGEF6,FBXO31,MAP3K13,CDC42EP3,NCAM1,AGT,GRIP1,PARVB,NRXN1,LAMA3,GSK3B,BBS9,TIAM2,CNTN1,UNC13A,TRIOBP,RHOJ,UNC5D,ISLR2,NREP,DLG5,ROR1,ADAMTSL1,MACF1,TRIO,SPAG16,CCDC141,FGD4,EPAH5,MYPN,SLIT3,GRIN2B,PAK3,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,INSR,RPGR,CRTAC1,MAP2K1,CNTN6,CDC14A,ULK4,ADAMTS16,LRRK2,PKHD1,SPG11,PHACTR1,ASAP1,FYN,EPAH7,GAS8,RIMS1,ENPP2,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,FER,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,PACSLN2,CDH13,DAB1,SEMA3A,MYH9,TANC1,TENM1,NTRK3,HYDIN,CEP89,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,CEP41,SYT17,BLOC1S6,SEMA3C
GO:0120036	plasma membrane bounded cell projection organization	2.5542332396493547e-25	KALRN,CTNNA1,NTRK2,PTPRG,DMD,LAMA2,CNTN4,ROBO1,DSCAM,FRY,HDAC4,ATP8A2,AUTS2,TENM2,NFASC,PRKD1,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,ROBO2,IFT81,DCC,EP300,SEMA4D,RPS6KA5,NME8,TANC2,JAK2,NEGR1,PARK2,NPHP3,GRIN3A,EMB,LRRK4,NUMB,SH3GL2,ARHGAP24,SLIT2,DSCAML1,PIBF1,TUB,SPAG17,NTN1,MAP2,FLRT2,ARHGEF6,WWTR1,GAS7,CUX1,ANK3,TLL8,CDH4,TNR,VAV3,CDKL1,SPOCK1,PLCE1,EPS8,CECR2,LRRK4C,PPP1R9A,CBFA2T2,STRC,DISC1,IFT43,BLOC1S5,ARMC2,EFNA5,KLHL1,GRID2,ZNF423,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,PTPDC1,MARK1,BDNF,ADORA2A,IFT80,FSTL4,TTC39C,ICK,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,RIT2,CD44,RAPGEF6,FBXO31,MAP3K13,CDC42EP3,NCAM1,AGT,GRIP1,PARVB,NRXN1,LAMA3,GSK3B,BBS9,TIAM2,CNTN1,UNC13A,TRIOBP,UNC5D,ISLR2,NREP,DLG5,ROR1,ADAMTSL1,MACF1,TRIO,SPAG16,CCDC141,FGD4,EPAH5,MYPN,SLIT3,GRIN2B,PAK3,SEMA5B,SDK1,IGF1R,CNTNAP2,PTPRO,INSR,RPGR,CRTAC1,MAP2K1,CNTN6,CDC14A,ULK4,ADAMTS16,LRRK2,PKHD1,SPG11,PHACTR1,ASAP1,FYN,EPAH7,GAS8,RIMS1,ENPP2,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,FER,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,CDH13,DAB1,SEMA3A,MYH9,TANC1,TENM1,NTRK3,HYDIN,CEP89,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,CEP41,SYT17,BLOC1S6,SEMA3C
GO:0048468	cell development	3.896146530192573e-25	RCAN1,KALRN,RPS6KA2,CTNNA1,NTRK2,PTPRG,DMD,ERBB4,LAMA2,CNTN4,ROBO1,DSCAM,SHROOM3,TBCD,FRY,NEBL,HDAC4,OPCML,ATP8A2,AUTS2,ANKS1A,TENM2,NFASC,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,IL1RAPL1,MYO9A,KANK1,DIAPH2,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,RYR1,NTM,TOX,PCDH15,PTPN9,AKAP6,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,ROBO2,AKAP13,DCC,EP300,SEMA4D,RPS6KA5,PKI,TANC2,JAK2,NEGR1,PARK2,GRIN3A,EMB,NUMB,SULF1,ATRNL1,SH3GL2,COL1A1,SLIT2,ATRX,BMPRI1A,DSCAML1,SMAD3,PEAK1,SATB2,OVL2,BRINP1,NTN1,MAP2,FLRT2,FBXW11,GAS7,CATSPER2,CUX1,ANK3,ARID4B,MYO18B,CDH4,TNR,CELF4,SPOCK1,ACTN4,TENM4,CECR2,LRRK4C,PPP1R9A,CBFA2T2,STRC,DISC1,LRP5,ESR1,PDE4D,BLOC1S5,ARMC2,EFNA5,KLHL1,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,CLDN1,SPTBN4,EPHB2,SIPR3,PRTG,COL22A1,DPYSL2,MARK1,BDNF,ADORA2A,ARID5B,FSTL4,FHL2,MEGF9,SYT1,DAB2,PLXNA2,LRRK1,PRKG1,ABII,HDAC2,FAT3,ARID4A,CDH23,TTN,RIMS2,CTNNA2,PARD3,NRG1,SPINT2,FMN2,RIT2,CNGB1,SLC8A1,SRRM4,FBXO31,MAP3K13,CHST11,THRB,NCAM1,AGT,GRIP1,USH2A,NF1,PARVB,NRXN1,LAMA3,GSK3B,CTDP1,CHD7,MOV10L1,TIAM2,MYT1L,CNTN1,UNC13A,TRIOBP,UNC5D,ISLR2,NREP,DLG5,PGM5,PREX1,ROR1,ADAMTSL1,MACF1,TRIO,CAPN3,SPAG16,CCDC141,EPAH5,TP73,MYPN,ANK2,SLIT3,PAK3,NEB,PACRG,SEMA5B,SDK1,GRM5,IGF1R,MSI2,CNTNAP2,PTPRO,CRTAC1,MAP2K1,FOXO3,OCA2,CNTN6,AGBL4,ULK4,LRRK2,PKHD1,RARB,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPAH7,SGCZ,RIMS1,ABCA12,EPHB1,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,EXT1,TRPC5,UNC5C,TENM3,LRP2,FER,SGCD,TMEM108,RAPGEF2,PTPRM,KIR

			REL3,NRXN3,CDKL5,SETD2,DAB1,SEMA3A,MYH9,TENM1,GABRB1,PRKAR1A,SIPA1L3,DPY19L2,NTRK3,FBN1,HYDIN,CLASP2,NSUN2,DNM3,PPARA,PTPRD,BRIP1,ELAVL4,DOCK10,FNDC3A,SEMA3D,SYT17,BLOC1S6,SEMA3C
GO:0048699	generation of neurons	5.35325186524080e-25	KALRN,NDE1,CTNNA1,NTRK2,PTPRG,DMD,ERBB4,LAMA2,CTNNA4,ROBO1,DSCAM,CIT,TBCD,FRY,OPCML,ATP8A2,AUTS2,ANKS1A,MYEF2,TENM2,NFASC,PRKD1,VCL,SEMA5A,IL1RAPL1,MYO9A,KANK1,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,NTM,TOX,PCDH15,PTPN9,GRM7,SOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,CELSR1,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TRAPPC9,ASTN2,TANC2,AK2,NEGR1,SDK2,PARK2,GRIN3A,NLGN4X,EMB,NRG3,NUMB,SH3GL2,SLIT2,BMPRI1A,DSCAML1,EYA1,SATB2,ELP3,BDNF,PI1,SOX5,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,SPOCK1,TENM4,CECR2,LRRRC4C,PPP1R9A,CBFA2T2,STRC,DISC1,BLOC1S5,EFNA5,KLHL1,CEP85L,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,PLXNA2,PRKG1,ABI1,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,NRG1,RIT2,CNGB1,SRRM4,FBXO31,MAP3K13,THRB,NCAM1,AGT,GRIPI,USH2A,NF1,ZNF536,NRXN1,LAMA3,GSK3B,CHD7,TIAM2,MYT1L,CNTN1,UNC13A,TRIOBP,NCOA1,UNC5D,ISLR2,NREP,DLG5,ASTN1,RORI,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,TP73,MYPN,SLIT3,PAK3,SEMA5B,SDK1,GRM5,IGF1R,CNTNAP2,PTPRO,SUFU,CRTAC1,MAP2K1,FOXO3,CNTN6,AGBL4,ULK4,LRRK2,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPHA7,RIMS1,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,VWC2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,MDGA2,DAB1,SEMA3A,TENM1,GABRB1,NTRK3,CLASP2,ZNF521,DNM3,PTPRD,RORA,ELAVL4,DOCK10,SEMA3D,SYT17,BLOC1S6,SEMA3C
GO:0023052	signaling	9.04992586930241e-25	PTPRR,SYN3,CAMTA1,CHFR,RCAN1,KALRN,CACNG2,RNF43,RPS6KA2,CTNNA1,FOXN3,NTRK2,RASGEF1B,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,SPRED2,ERBB4,LAMA2,NOS1,CNTN4,ESRRG,ROBO1,PRICKLE2,DSCAM,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX,HUNK,FUT8,HDAC4,AUTS2,WLS,ANKS1A,LDLRAD4,TENM2,BLM,PSMB2,PTPRT,RXFPI,MGLL,NFASC,PLCB1,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,NEDD9,SEMA5A,CASK,PRKCA,DLGAP1,BTBD9,TRHDE,IL1RAPL1,MYO9A,CCDC3,ITGAE,KANK1,GRIK4,GPR176,DOK6,FCHSD2,NLGN1,TNFRSF10B,CLEC16A,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,DEPDC5,GABRG3,ERC2,CREM,AKAP6,SORCS3,GRM7,DLCL1,IDE,RYR3,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,CTNNA3,DLG2,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,DCC,DDB1,EP300,SEMA4D,EVC,RPS6KA5,GRK5,ANKRD6,BDKRB1,TF,GRIK2,GNG12,CHRM1,CDH8,ARHGAP15,HUS1,ITSN1,DEFA1B,JAK2,ABCG8,CMKLR1,MAST4,PARK2,MAGI1,NPHP3,ADCYAP1R1,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXO4,PIK3C2B,OR5K4,ITGBL1,AFAP1,NRG3,COL4A6,SULF1,SH3BP1,ADCY2,ATRNL1,RFFL,SH3GL2,ARHGAP24,PITPNC1,SLIT2,MAPK4,GLP2R,DTNA,TRIM5,THEMIS,DRG2,ATRX,CHDL1,TRAF3IP2,SH3RF3,BMPRI1A,SMAD3,PRKAR2A,CACNA1E,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,PTGFR,SCUBE1,SV2B,EYA1,ANKS1B,MAML3,GPR141,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,FGF14,DGKK,OR511I,ASGR2,IL1RAPL2,SKAP1,PTPRN2,DGKI,DNMBP,TAFF1,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,CDC73,FLRT2,FBXW11,NOS1AP,RANBP10,RBMS3,ARHGEF6,WWTR1,ARHGAP6,PCKS5,GRM4,ANK3,CCL15,CNIH3,DOCK3,TRIM59,TNR,ADCY9,CELF4,VAV3,SCN9A,MDM4,ACTN4,PLCE1,LRRN2,EPS8,TENM4,GHR,ARHGAP39,LRRRC4C,PPP1R9A,RGL1,CLSTN2,CD300A,CBFA2T2,SRD5A2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,TEAD4,PDE7B,EFNA5,EIF3A,ATF2,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,NTNG1,ADTRP,PDE4B,MAPRE2,RIC8B,GABRB3,MAP3K7,PRKCQ,RASSF8,RHPN2,KCND2,SPTBN4,EPHB2,ERC1,AGO3,SIPR3,MCTP1,MOB3B,PRCP,RGMB,EEF1E1-BLOC1S5,DOCK2,DPYSL2,PTPDC1,MARK1,BDNF,FNIP1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,CADPS,NOX4,BMPER,PDE1A,ICK,DEFA3,SYT1,DAB2,PLXNA2,NSF,LRRK1,PRKG1,SNAP23,ABI1,CACNG3,EPG5,PTH2

			<p>R,CALCRL,TNNI3K,HDAC2,PDE11A,RAB30,PRKAR1B,ZMYND11,TTN,RGS6,SRGAP3,MYRIP,ENPP1,RIMS2,SCN8A,KSR2,DLGAP2,PRDM15,OR4N2,PEX5L,PARD3,NRG1,FMN2,GRIA2,VSTM1,RIT2,CD44,CNGB1,GPSM2,PRKCG,TNS3,TEAD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM19A4,MAP3K13,PLCL2,CHST11,THRB,CDC42BP4,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIP1,TLK1,ARHGAP25,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,LAMA3,GSK3B,KIR2DL1,PKP2,CD109,KCNH1,DCDC1,LMO7,GPR21,CHD7,PSMB7,SNX5,TIAM2,OR51B2,IQCJ-SCHIP1,CNTN1,BTBD11,UNC13A,CABIN1,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,RHOJ,PHEX,MECOM,STK32B,SHANK2,KCTD8,UNC5D,NREP,GPC3,DLG5,PREX1,CPE,UBE2V1,RORI,ZNF675,PTGER3,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MYOM1,MAP3K5,MAML2,CTDSPL2,HTR2C,GLRA2,FGD4,LY86,EPHA5,TP73,IL1RL1,ZNF366,P2RX6,ANK2,ARHGEF3,SLIT3,GIRIN2B,PAK3,GARNL3,UACA,ADCY8,ITPR2,GABRR3,MLLT3,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,TBL1X,SEMA5B,GRIK1,NLN,GRM5,ARAP2,IGF1R,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1,MAP2K1,UBR2,GMD5,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,MITF,PRDM16,ULK4,KIR2DL4,TMEM117,LTBP1,LRRK2,PKHD1,RARB,SPG11,SCN1A,BMP6,FYN,KCND3,EPHA7,MARVELD3,GAS8,NG2,RIMS1,MCTP2,ABCA12,EPHB1,KCNQ1,DOCK1,CRAVD,EXT1,AMFR,PLCB4,UNC5C,TENM3,LRP2,RALGPS2,FER,CAMK4,VWC2,GUCY2F,ERLIN1,PCDH17,SGCD,TMEM108,TPTE,RAPGEF2,PTPRM,NRXN3,INPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,PACSIN2,TRIM22,CDH13,VEPH1,TRDN,DAB1,SEMA3A,MGAT5,MYH9,BDKRB2,LITAF,PIK3R3,TENM1,STK38L,GABRB1,SH3KBP1,PRKAR1A,ZRANB1,RGS7,STXBP5,FCRL2,SIPA1L3,GNG4,VWF,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,CEP89,CLASP2,NSUN2,PTPRK,SORCS1,DOCK9,PPARA,PTPRD,RORA,SHISA6,BRIP1,ELAVL4,DOCK10,EEF1E1,BICC1,SEMA3D,PRLR,PTPRA,KCNC4,ATF6,DEPTOR,CUL2,SYT17,STAC,OR4M1,RALGAP1,BLOC1S6,PMEP1,SYT9,SEMA3C,ST18,RXFP2</p>
GO:0022008	neurogenesis	1.0084590143349665e-23	<p>KALRN,NDE1,CTNNA1,NTRK2,PTPRG,DMD,ERBB4,LAMA2,CNTN4,ROBO1,DSCAM,CIT,TBCD,FRY,OPCML,ATP8A2,AUTS2,ANKS1A,MYEF2,TENM2,NFASC,PRKD1,VCL,SEMA5A,ETV6,ILIRAPL1,MYO9A,KANK1,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3CA,NTM,TOX,PCDH15,PTPN9,GRM7,SSOS1,CTNND2,ALK,DCLK1,MEF2A,DENND5A,MAGI2,CELSR1,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TRAPPC9,CHRM1,ASTN2,TANC2,JAK2,NEGR1,SDK2,PARK2,GRIN3A,NLGN4X,EMB,NRG3,NUMB,SOX6,SH3GL2,SLIT2,BMPRI1A,DSCAML1,EYA1,STATB2,ELP3,BRINP1,SOX5,SLC1A1,NTN1,EPM2A,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,SPOCK1,TENM4,CECR2,LRRC4C,PPP1R9A,CBFA2T2,STRC,DISC1,NAV2,BLOC1S5,EFNA5,KLHL1,CEP85L,GRID2,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,MARK1,BDNF,ADORA2A,FSTL4,SYT1,DAB2,PLXNA2,PRKG1,ABII,HDAC2,FAT3,CDH23,RIMS2,CTNNA2,PARD3,NRG1,RIT2,CNGB1,SRRM4,FBXO31,MAP3K13,THRB,NCAM1,AGT,GRIP1,USH2A,NF1,ZNF536,NRXN1,LAMA3,GSK3B,CHD7,TIAM2,MYT1L,CNTN1,UNC13A,TRIOBP,NCOA1,UNC5D,ISLR2,NREP,DLG5,ASTN1,RORI,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,TP73,MYPN,SLIT3,PAK3,SEMA5B,SDK1,GRM5,IGF1R,CNTNAP2,PTPRO,SUFU,CRTAC1,MAP2K1,FOXO3,CNTN6,AGBL4,ULK4,LRRK2,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPHA7,RIMS1,EPHB1,KCNQ1,VASH2,EXT1,TRPC5,UNC5C,TENM3,LRP2,VWC2,TMEM108,RAPGEF2,NAV3,PTPRM,KIRREL3,NRXN3,CDKL5,MDGA2,DAB1,SEMA3A,TENM1,GABRB1,NTRK3,CLASP2,ZNF521,DNM3,PTPRD,RORA,ELAVL4,DOCK10,SEMA3D,SYT17,BLOC1S6,SEMA3C</p>
GO:0007154	cell communication	1.8700979244122224e-23	<p>PTPRR,SYN3,CAMTA1,CHFR,RCAN1,KALRN,CACNG2,RNF43,RPS6KA2,CTNNA1,FOXN3,NTRK2,RASGEF1B,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,SPRED2,ERBB4,LAMA2,NOS1,CNTN4,ESRRG,ROBO1,PRICKLE2,DSCAM,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX,HUNK,FUT8,HDAC4,AUTS2,WLS,ANKS1A,LDLRAD4,TENM2,BLM,PSMB2,PTPRT,RXFP1,MGLL,NFASC,PLCB1,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,NEDD9,SEMA5A,CASK,PRKCA,DLGAP1,BTBD9,TRHDE,ILIRAPL1,MYO9A,CCDC3,ITGAE,KANK1,GRIK4,GPR176,DOK6,</p>

			<p>FCHSD2,NLGNI,TNFRSF10B,CLEC16A,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,DEPDC5,GABRG3,ERC2,CREM,AKAP6,SORCS3,GRM7,DLC1,IDE,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,CTNNA3,DLG2,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,DCC,DDBI,EP300,SEMA4D,EVC,RPS6KA5,GRK5,ANKRD6,BDKRB1,TF,GRK2,GNG12,CHRM1,CDH8,ARHGAP15,HUS1,ITSN1,DEFA1B,JAK2,ABCG8,CMKLR1,MAST4,PARK2,MAGI1,NPHP3,ADCYA1P1R1,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,PIK3C2B,OR5K4,ITGBL1,AFAP1,NRG3,COL4A6,SULF1,SH3BP1,ADCY2,ATRNL1,RFFL,SH3GL2,ARHGAP24,PITPNC1,SLIT2,MAPK4,GLP2R,DTNA,TRIM5,THEMIS,DRG2,ATRX,CHRD1,TRAF3IP2,SH3RF3,BMPRI1A,SMAD3,PRKAR2A,CACNA1E,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,PTGFR,SCUBE1,SV2B,EYA1,ANKS1B,MAML3,GPR141,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,FGF14,DGKK,OR51I1,ASGR2,ILIRAPL2,SKAP1,PTPRN2,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,CDC73,FLRT2,FBXW11,NOXIAP,RANBP10,RBMS3,ARHGEF6,WWTR1,ARHGAP6,PCSK5,GRM4,ANK3,CCL15,CNIH3,DOCK3,TRIM59,TNR,ADCY9,CELF4,VAI3,SCN9A,MDM4,ACTN4,PLCE1,LRRN2,EPS8,TENM4,GHR,ARHGAP39,LRR4C,PPP1R9A,RGL1,CLSTN2,CD300A,CBFA2T2,SRD5A2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,TEAD4,PDE7B,EFNA5,EIF3A,ATF2,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,NTNG1,ADTRP,PDE4B,MAPRE2,RIC8B,GABRB3,MAP3K7,PRKCQ,RASSF8,RHPN2,KCND2,SPTBN4,EPHB2,ERC1,AGO3,SIPR3,MCTP1,MOB3B,PRCP,RGMB,EEF1E1-BLOC1S5,DOCK2,DPYSL2,PTPDC1,MARK1,BDNF,FNIP1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,CADPS,NOX4,BMPER,PDE1A,ICK,DEF43,SYTI,DAB2,PLXNA2,LRRK1,PRKG1,SNAP23,ABI1,CACNG3,EPG5,PTH2R,CALCRL,TNNI3K,HDAC2,PDE11A,RAB30,PRKAR1B,ZMYND11,TNTRGS6,SRGAP3,MYRIP,ENPP1,RIMS2,SCN8A,KSR2,DLGAP2,PRDM15,OR4N2,PEX5L,PARD3,NRG1,FMN2,GRIA2,VSTM1,RIIT2,CD44,CNGB1,GPSM2,PRKCG,TNS3,ZFYVE1,TEAD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM19A4,MAP3K13,PLCL2,CHST11,THRB,CDC42BPA,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIP1,TLK1,ARHGAP25,NF1,WIFI1,ZNF536,NRXN1,ARHGAP10,LAMA3,GSK3B,KIR2DL1,PKP2,CD109,KCNH1,DCDC1,GPR21,CHD7,PSMB7,SNX5,TIAM2,OR51B2,IQCJ-SCHIP1,CNTN1,BTBD11,UNC13A,CABIN1,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,RHOJ,PHEX,MECOM,STK32B,SHANK2,KCTD8,UNC5D,NREP,GPC3,DLG5,PREX1,CPE,UBE2V1,ROR1,ZNF675,PTGER3,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MYO1,MAP3K5,MAML2,CTDSPL2,HTR2C,GLRA2,FGD4,LY86,EPHA5,TP73,IL1RL1,ZNF366,P2RX6,ANK2,ARHGEF3,SLIT3,GRIN2B,PAK3,GARNL3,UACA,ADCY8,ITPR2,GABRR3,MLLT3,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,TBL1X,SEMA5B,GRIK1,NLN,GRM5,ARAP2,IGF1R,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,JAK1,MAP2K1,UBR2,GMDS,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,MITF,PRDM16,ULK4,KIR2DL4,TMEM117,LTBP1,LRRK2,PKHD1,RRARB,SPG11,SCN1A,BMP6,FYN,EPHA7,MARVELD3,GAS8,GNG2,RIMS1,MCTP2,ABCA12,EPHB1,KCNQ1,DOCK1,CRADD,EXT1,AMFR,PLCB4,UNC5C,TENM3,LRP2,RALGPS2,FER,CAMK4,VWC2,GUCY2F,ERLIN1,PCDH17,SGCD,TMEM108,TPTPE,RAPGEF2,PTPRM,NRXN3,INPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,PACSIN2,TRIM22,CDH13,VEPH1,TRDN,DABI,SNTG1,SEMA3A,MGAT5,MYH9,BDKRB2,VPS41,LITAF,PIK3R3,TENM1,STK38L,GABRB1,SH3KBP1,PRKAR1A,ZRANB1,RRGS7,STXBP5,FCRL2,SIPA1L3,GNG4,VWF,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,CEP89,CLASP2,NSUN2,PTPRK,SORCS1,DOCK9,PPARA,PTPRD,RORA,SHISA6,BRIP1,ELAVL4,DOCK10,EEF1E1,BICC1,SEMA3D,PRLR,PTPRA,KCNC4,ATF6,DEPTOR,CUL2,SYT17,STAC,OR4M1,RALGAP1,BLOC1S6,PMEP1,SYT9,SEMA3C,ST18,RXFP2</p> <p>KALRN,NTRK2,DMD,LAMA2,CNTN4,ROBO1,DSCAM,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,ILIRAPL1,MYO9A,KANK1,NLGN1,RELN,APP,PAK1,PPP3CA,SOS1,CTNND2,DCLK1,MEF2A,RO</p>
GO:0048858	cell projection morphogenesis	1.148856465605218e-22	

			BO2,DCC,SEMA4D,RPS6KA5,TANC2,PARK2,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,LRRC4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,ADORA2A,FSTL4,SYT1,PLXNA2,ABII,RIMS2,CTNNA2,PARD3,CD44,FBXO31,MAP3K13,NCAM1,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPHA7,RIMS1,ENPP2,EPHB1,EXT1,TRPC5,UNC5C,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,PACSIN2,DAB1,SEMA3A,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C
GO:0120039	plasma membrane bounded cell projection morphogenesis	2.308477381236667e-22	KALRN,NTRK2,DMD,LAMA2,CNTN4,ROBO1,DSCAM,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,ILIRAPL1,MYO9A,KANK1,NLGN1,RELN,APP,PAK1,PPP3CA,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,DCC,SEMA4D,RPS6KA5,TANC2,PARK2,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,LRRC4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,ADORA2A,FSTL4,SYT1,PLXNA2,ABII,RIMS2,CTNNA2,PARD3,CD44,FBXO31,MAP3K13,NCAM1,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPHA7,RIMS1,ENPP2,EPHB1,EXT1,TRPC5,UNC5C,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C
GO:0032989	cellular component morphogenesis	5.014067577104319e-22	KALRN,NTRK2,CLASP1,DMD,LAMA2,CNTN4,ROBO1,DSCAM,NEBL,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,ILIRAPL1,MYO9A,KANK1,NLGN1,RELN,APP,PAK1,PPP3CA,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,AKAP13,DCC,SEMA4D,RPS6KA5,TANC2,PARK2,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,TENM4,LRRC4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,ADORA2A,FSTL4,SYT1,PLXNA2,ABII,TTN,RIMS2,CTNNA2,PARD3,CD44,FBXO31,MAP3K13,NCAM1,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,UNC5D,ISLR2,PGM5,ADAMTSL1,MACF1,TRIO,CAPN3,CCDC141,EPHA5,MYPN,ANK2,SLIT3,PAK3,NEB,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPHA7,RIMS1,ENPP2,EPHB1,FHOD3,EXT1,TRPC5,UNC5C,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,PACSIN2,DAB1,SEMA3A,PRKARIA,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C
GO:0048812	neuron projection morphogenesis	1.2173855854391799e-21	KALRN,NTRK2,DMD,LAMA2,CNTN4,ROBO1,DSCAM,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,ILIRAPL1,MYO9A,NLGN1,RELN,APP,PAK1,PPP3CA,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,DCC,SEMA4D,RPS6KA5,TANC2,PARK2,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,LRRC4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,ADORA2A,FSTL4,SYT1,PLXNA2,ABII,RIMS2,CTNNA2,PARD3,FBXO31,MAP3K13,NCAM1,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPHA7,RIMS1,EPHB1,EXT1,TRPC5,UNC5C,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C
GO:0032990	cell part morphogenesis	1.6285813778353558e-21	KALRN,NTRK2,DMD,LAMA2,CNTN4,ROBO1,DSCAM,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,ILIRAPL1,MYO9A,KANK1,NLGN1,RELN,APP,PAK1,PPP3CA,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,DCC,SEMA4D,RPS6KA5,TANC2,PARK2,EMB,NUMB,SH3GL2,SLIT2,DSCAML1,NTN1,MAP2,FLRT2,GAS7,CUX1,ANK3,CDH4,TNR,LRRC4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,ADORA2A,FSTL4,SYT1,PLXNA2,ABII,RIMS2,CTNNA2,PARD3,CD44,FBXO31,MAP3K13,NCAM1,GRIP1,NRXN1,LAMA3,GSK3B,TIAM2,UNC13A,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,CNTNAP2,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPHA7,RIMS1,EPHB1,EXT1,TRPC5,UNC5C,LRP2,TMEM108,RAPGEF2,PTPRM,KIRREL3,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C

			3,PTPRD,ELAVL4,DOCK10,SEMA3D,SYT17,SEMA3C
GO:0006928	movement of cell or subcellular component	6.721282267175965e-21	PTPRR,KALRN,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,ERBB4,LAMA2,CNTN4,ROBO1,DSCAM,GPC5,FUT8,HDAC4,ABCC1,AUTS2,ANKS1A,LDLRAD4,PTPRT,NFASC,PLCB1,PRKD1,RYR2,VCL,NEDD9,SEMA5A,PRKCA,EPB41L4B,DNAH10,KANK1,KIF26B,DNAH9,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DL C1,SOS1,DCLK1,CTNNA3,DLG2,MAP2K5,MAGI2,CELSR1,ROBO2,IFT81,DCC,ELMO2,SEMA4D,RPS6KA5,BDKRB1,NME8,TF,DNAH11,ASTN2,DEFA1B,JAK2,CMKLR1,NPHP3,SMOC2,CACNA1C,EMB,PIK3C2B,ITGBL1,NRG3,NUMB,SULF1,SH3BP1,AT RNL1,RFFL,ARHGAP24,SLIT2,EPDR1,BMPRI1A,DSCAML1,SMAD3,SLC9C1,PEAK1,SATB2,TUB,OVOL2,ELP3,SPAG17,SPNS2,NTN1,LDB2,MAP2,FLRT2,FBXW11,NOS1AP,CATSPER2,NRARD9,CCL15,TTL8,CDH4,TNR,VAV3,SPOCK1,ACTN4,EPSS,CD300A,DISC1,CCL14,IFT43,RABGEF1,LRP5,PDE4D,PIK3CD,DOCK4,BLOC1S5,ARMC2,EFNA5,CEP85L,SEMA6D,KCNJ3,NTNG1,ADTRP,CRMP1,PDE4B,MAPRE2,PRKCQ,CLDN1,EPHB2,MCTP1,PRCP,PRTG,DPYSL2,DACH1,MARK1,BDNF,ARID5B,MEGF9,BMPER,ICK,DAB2,PLXNA2,PRKG1,ETS1,FAT3,SRGAP3,CTNNA2,FMNL2,NRG1,SPINT2,FMN2,CD44,SLC8A1,FBXO31,FAM19A4,CDC42BPA,NCAM1,AGT,FGF1,CCR3,USH2A,NF1,NRXN1,LAMA3,PKP2,SRGAP2B,CACNB2,RHOJ,SYBU,UNC5D,GPC3,DLG5,ASTN1,PREX1,ADAMTSL1,MACF1,TRIO,DUSP22,SPAG16,CCDC141,EPHA5,MYPN,ANK2,SLIT3,PAK3,LRRPRC,CCL15-CCL14,SH3RF2,CACNA1D,SEMA5B,KIF6,IGF1R,PTPRO,INSR,ITGA11,RPGR,MAP2K1,SLC9B1,KPNB1,FOXO3,GPC6,CNTN6,MITF,AGBL4,FRMD5,ULK4,LRRK2,PKHD1,KIF2A,SPG11,PHACTR1,SCN1A,FYN,KCND3,EPHA7,MARVELD3,GAS8,ENPP2,EPHB1,KCNQ1,DOCK1,EXT1,UNC5C,FER,SGCD,TMEM108,TPTE,RAPGEF2,NAV3,DNAH3,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SETD2,CDH13,DAB1,HDAC5,SEMA3A,MGAT5,MYH9,PIK3R3,SH3KBP1,ZRANB1,NTRK3,HYDIN,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,BLOC1S6,SEMA3C
GO:0035556	intracellular signal transduction	9.250881172802243e-21	PTPRR,CAMTA1,CHFR,RCAN1,KALRN,RPS6KA2,FOXN3,NTRK2,RASGEF1B,DMD,KCNC2,CHRM3,SPRED2,ERBB4,NOS1,ROBO1,CIT,PUM1,WDR59,WWOX,HUNK,HDAC4,AUTS2,WLS,BLM,PSMB2,PLCB1,FLT3,SRPK2,PRKD1,RYR2,SEMA5A,PRKCA,MYO9A,KANK1,DOK6,NLGN1,TNFRSF10B,CLEC16A,AMOTL1,TCF7L2,RELN,APP,PAK1,PPP3CA,DEPDC5,AKAP6,DLCL1,SOS1,ALK,BTRC,DCLK1,MEF2A,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,AKAP13,EP300,SEMA4D,RPS6KA5,ANKRD6,TF,GRIK2,ARHGAP15,HUS1,ITSN1,JAK2,CMKLR1,MAST4,PARK2,ADCYAP1R1,CACNA1C,PIK3C2B,NRG3,SH3BP1,ADCY2,RFFL,ARHGAP24,SLIT2,MAPK4,TRIM5,ATRX,TRAF3IP2,SH3RF3,SMAD3,PRKAR2A,PI4KA,PIK3C3,PTGFR,MAD1L1,DGKB,ARHGEF18,LINC00473,SGMS1,FGF14,DGKK,DGKI,DNMBP,TAF1,NTN1,FBXW11,NOS1AP,ARHGEF6,WWTR1,ARHGAP6,GRM4,CCL15,DOCK3,TRIM59,ADCY9,VAV3,MDM4,ACTN4,PLCE1,EPSS,GHR,ARHGAP39,PPP1R9A,RGL1,CD300A,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,ESR1,ARHGAP12,TNFRSF19,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,TEAD4,PDE7B,EIF3A,ATF2,PIK3R2,ADTRP,MAPRE2,MAP3K7,PRKCQ,EPHB2,ERC1,AGO3,MCTP1,MOB3B,EEF1E1-BLOC1S5,DOCK2,MARK1,FNIP1,MAGI3,SIPA1L2,RCAN2,FHL2,NOX4,BMPER,ICK,DAB2,LRRK1,PRKG1,PDE11A,RAB30,ZMYND11,TTN,RGS6,SRGAP3,KSR2,PRDM15,PEX5L,NRG1,FMN2,RIT2,CD44,GPSM2,PRKCG,TNS3,TEAD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,MAP3K13,PLCL2,CDC42BPA,CDC42EP3,MAPK10,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIP1,TLK1,ARHGAP25,NF1,NRXN1,ARHGAP10,GSK3B,KCNH1,DCDC1,PSMB7,TIAM2,IQCJ-SCHIP1,UNC13A,CHEK2,RHOJ,MECOM,STK32B,SHANK2,DLG5,PREX1,UBE2V1,ROR1,ZNF675,BID,TRIO,CAPN3,DUSP22,MYOM1,MAP3K5,HTR2C,FGD4,EPHA5,TP73,ANK2,ARHGEF3,GRIN2B,PAK3,GARNL3,UACA,ADCY8,ITPR2,SH3RF2,PRKAA2,GRM5,IGF1R,INSR,JAK1,MAP2K1,UBR2,KPNB1,FOXO3,RASGRF2,STK38,INPP5A,CENPF,ULK4,TMEM117,LRRK2,PKHD1,FYN,EPHA7,MARVELD3,MCTP2,EPHB1,DOCK1,CRADD,PLCB4,LRP2,RALGPS2,FER,CAMK4,GUCY2F,SGCD,TPTE,RAPGEF2,ZNF207,IL18R1,KAT7,TRIM22,CDH13,DAB1,SEMA3A,BDKRB2,LITAF,PIK3R3,TENM1,STK38L,PRKAR1A,RGS7,SIPA1L3,VWF,NTRK3,NSUN2,DOCK9,PPARA,RORA,BRIP1,DOCK10,EE

			<i>F1E1,DEPTOR,CUL2,STAC,RALGAP1</i>
GO:002305 1	regulation of signaling	1.1266157098725409e- 20	<i>PTPRR,SYN3,CAMTA1,RCAN1,KALRN,CACNG2,RNF43,CTNN A1,NTRK2,ZNRF3,FBXL17,SLC39A10,DMD,SPRED2,ERBB4,L MA2,CNTN4,ROBO1,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX ,AUTS2,WLS,ANKS1A,LDLRAD4,PSMB2,PTPRT,MGLL,PLCB1, FLT3,CACNA1A,PRKD1,RYR2,SEMA5A,CASK,PRKCA,DLGAP1 ,BTBD9,MYO9A,CCDC3,KANK1,GRIK4,DOK6,NLGN1,TNFRSF 10B,CLEC16A,TCF7L2,RELN,APP,PAK1,PPP3CA,DEPDC5,ER C2,AKAP6,SORCS3,GRM7,DLC1,RYR3,SOS1,CTNND2,ALK,BT RC,MAP2K5,MAGI2,EDA,ROBO2,IFT81,AKAP13,DCC,EP300,S EMA4D,EVC,GRK5,ANKRD6,GRIK2,ARHGAP15,ITSN1,JAK2,C MKLR1,PARK2,NPHP3,ADCYAP1R1,GRID1,GRIN3A,SMOC2,N LGN4X,AFAP1,NRG3,SULF1,SH3BP1,RFFL,ARHGAP24,SLIT2, TRIM5,CHRD1,TRAF3IP2,SH3RF3,BMPRI1,SMAD3,PIBF1,S CUBE1,EYA1,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,LINC004 73,OVOL2,SGMS1,GRAMD4,DGKI,DNMBP,TAF1,SLC1A1,SHIS A9,CDC73,FBXW11,NOS1AP,RBMS3,WWTR1,ARHGAP6,GKRM4 ,CCL15,CNIH3,DOCK3,TRIM59,TNR,CELF4,VAV3,ACTN4,PLC E1,EPS8,GHR,ARHGAP39,LRRC4C,PPP1R9A,CLSTN2,CD300A ,CBFA2T2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,TRA BD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,GRM1,PDE4D,PIK3C D,EFNA5,EIF3A,PIK3R2,GRID2,ZNF423,NTNG1,PDE4B,MAPR E2,RIC8B,MAP3K7,PRKCQ,EPHB2,ERC1,AGO3,MCTP1,MOB3 B,PRCP,EEF1E1- BLOC1S5,DOCK2,BDNF,FNIP1,MAGI3,ADORA2A,SIPA1L2,IF T80,FSTL4,ANO1,FHL2,NOX4,BMPER,SYT1,DAB2,NSF,LRRK1, CACNG3,TNNI3K,HDAC2,PDE11A,PRKAR1B,ZMYND11,RGS6, SRGAP3,MYRIP,ENPP1,RIMS2,DLGAP2,PRDM15,PEX5L,NRG 1,RIT2,CD44,PRKCG,SLC8A1,FAM19A4,MAP3K13,PLCL2,CHS T11,NCAM1,AGT,FGF1,NDRG2,ARHGAP25,NF1,WIF1,ZNF536 ,NRXN1,ARHGAP10,GSK3B,CD109,LMO7,GPR21,CHD7,PSMB 7,SNX5,TIAM2,IQCJ- SCHIP1,UNC13A,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,ME COM,SHANK2,KCTD8,NREP,GPC3,DLG5,PREX1,UBE2V1,RO R1,ZNF675,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MAP3K 5,CTDSPL2,HTR2C,FGD4,LY86,EPA5,TP73,ZNF366,ANK2,A RHGEF3,SLIT3,GRIN2B,PAK3,GARNL3,UACA,ADCY8,MLLT3, RNF213,SH3RF2,PRKAA2,TBL1X,GRIK1,GRM5,IGF1R,PTPRO, SUFU,INSR,MAP2K1,UBR2,FOXO3,GPC6,RASGRF2,STK38,CN TN6,PRDM16,ULK4,LTBP1,LRRK2,PKHD1,BMP6,FYN,EPA7, MARVELD3,GAS8,RIMS1,MCTP2,ABCA12,EPHB1,CRADD,AM FR,PLCB4,LRP2,RALGPS2,FER,VWC2,GUCY2F,PCDH17,TME M108,TPTE,RAPGEF2,NRXN3,PTPRU,IL18R1,RGS7BP,ESR2,P ACSIN2,TRIM22,CDH13,VEPH1,DAB1,SEMA3A,MGAT5,BDKR B2,LITAF,TENM1,ZRANB1,RGS7,STXBP5,SIPA1L3,GNG4,VWF, SLC24A2,SCEL,NTRK3,FBN1,PPARA,PTPRD,RORA,SHISA6,EL AVL4,EEF1E1,BICC1,PRLR,PTPRA,ATF6,DEPTOR,RALGAP1 ,PMEPA1,SYT9</i>
GO:000090 4	cell morphogenesis involved in differentiation	1.1768842970770787e- 20	<i>KALRN,NTRK2,LAMA2,CNTN4,ROBO1,DSCAM,TBCD,ATP8A2, AUTS2,NFASC,VCL,NEDD9,SEMA5A,IL1RAPL1,KANK1,PLS1, NLGN1,RELN,APP,PAK1,PPP3CA,PCDH15,SOS1,CTNND2,DC LK1,MEF2A,ROBO2,DCC,EP300,SEMA4D,RPS6KA5,TANC2,E MB,NUMB,ATRNL1,SLIT2,DSCAML1,PEAK1,NTN1,MAP2,FLR T2,CUX1,ANK3,CDH4,TNR,ACTN4,LRRC4C,STRC,DISC1,EFN A5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,C OL22A1,DPYSL2,BDNF,FSTL4,MEGF9,DAB2,PLXNA2,ABI1,FA T3,CDH23,CTNNA2,PARD3,SPINT2,FBXO31,MAP3K13,NCAM 1,USH2A,PARVB,NRXN1,LAMA3,GSK3B,TIAM2,TRIOBP,UNC5 D,ISLR2,PREX1,ADAMTSL1,MACF1,TRIO,CCDC141,EPA5,M YPN,SLIT3,PAK3,SEMA5B,IGF1R,PTPRO,MAP2K1,CNTN6,LRR K2,PKHD1,SPG11,PHACTR1,FYN,EPA7,EPHB1,DOCK1,EXT 1,TRPC5,UNC5C,FER,RAPGEF2,PTPRM,NRXN3,CDKL5,DAB1 ,SEMA3A,MYH9,SIPA1L3,CLASP2,DNM3,PTPRD,ELAVL4,DOC K10,SEMA3D,SEMA3C</i>
GO:006500 8	regulation of biological quality	1.3344727242752429e- 20	<i>SYN3,CHFR,KALRN,CACNG2,PROS1,RPS6KA2,NTRK2,SLC39 A10,DMD,KCNC2,CHRM3,ERBB4,LAMA2,NOS1,CNTN4,ESRR G,DSCAM,SHROOM3,CIT,PUM1,SORCS2,TNRC6B,ATP9A,LIN G2,ABCC1,ATP8A2,MYEF2,PSMB2,ATF7IP,FLT3,CACNA1A, TRPM1,PRKD1,RYR2,VCL,PPP2R3C,SEMA5A,CASK,PRKCA,Z BTB20,BTBD9,TRHDE,IL1RAPL1,DIO2,KANK1,GRIK4,PLS1,U SP53,FCHSD2,NLGN1,TCF7L2,RELN,APP,PPP3CA,RYR1,PCD H15,GABRG3,ERC2,AKAP6,SORCS3,DLC1,IDE,RYR3,SOS1,AL K,BTRC,FAM155A,CTNNA3,ROBO2,DCC,SAMD4A,C10ORF90,</i>

			<p> <i>DDBI,EP300,PARN,SEMA4D,BDKRBI,TF,GRIK2,CHRM1,CDH8,ARHGAP15,TANC2,JAK2,ABCG8,NEGR1,CMKLR1,PARK2,NPHP3,ADCYAP1R1,GRID1,GRIN3A,CACNA1C,NLGN4X,PNPLA3,ANO4,NBEA,TMPRSS3,PALMD,NUMB,DTD2,SH3BP1,OTC,SH3GL2,SLIT2,SLC4A4,TRAF3IP2,ACACA,SMAD3,TNFRSF11B,GABRR2,SLC9C1,POTEE,PTGFR,SCUBE1,ELN,TPH1,DGKB,TUB,ARHGEF18,OMA1,CPO,DGKK,ASGR2,IL1RAPL2,PTPRN2,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,NTN1,LDB2,SHISA9,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,WWTR1,PEMT,KCTD7,PCSK5,GRM4,ANK3,CCL15,CDH4,TNR,CELF4,VAV3,SCN9A,MDM4,PLCE1,CYP39A1,EPS8,PRR16,GHR,LRRC8D,PALM2,CLSTN2,SRD5A2,DISC1,ARHGAP42,ATP8B4,CCL14,LRP5,NAV2,AP2B1,SLC30A7,ESR1,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,PCSK2,EFNA5,FTO,ATF2,PIK3R2,GRID2,ZNF423,SEMA6D,KCNJ3,ADTRP,PDE4B,GABRB3,PPA2,PRKCQ,CLDN1,KCND2,SLC24A3,SPTBN4,EPHB2,ERC1,S1PR3,MCTP1,PRCP,DYSL2,BDNF,MALRD1,ADORA2A,FSTL4,ANO1,CADPS,NOX4,CSMD1,SYT1,DAB2,PLXNA2,LRRK1,PRKG1,SNAP23,CHST9,CACNG3,PTH2R,TNNI3K,ETS1,ARID4A,ZSWIM7,CDH23,MYRIP,ENPP1,RIMS2,SCN8A,KSR2,CTNNA2,CYB561A3,FMNL2,NRG1,ATP10B,KCNMA1,CNGB1,PRKCG,SLC12A8,MAPKAPK2,SLC8A1,FAM19A4,MAP3K13,PLCL2,THRB,SLC9A9,CDC42EP3,AGT,HEPHL1,CCR3,GRIP1,USH2A,NF1,PARVB,NRXN1,PDXP,GSK3B,PKP2,SLC22A3,KCNH1,GPR21,CHD7,PSMB7,SNX5,UNC13A,TRIOBP,CHKE2,GRIK3,CACNB2,STXBP4,RHOJ,SHANK2,ISLR2,DLG5,CFDP1,CPE,ANO3,XKR4,ZNF675,PTGER3,BID,MACF1,CAPN3,HTR2C,GLRA2,FGD4,EPHA5,SGIP1,FAM171A1,MORC3,P2RX6,ANK2,GRIN2B,PAK3,ADCY8,ITPR2,GABRR3,NEB,CACNA1D,PRKAA2,TBL1X,SEMA5B,GRIK1,GRM5,IGF1R,PTPRO,INSR,SLC9B1,FOXO3,GPC6,RASGRF2,GABRA3,KLHL3,RNLS,ATP9B,LRFN5,PRDM16,ADAMTS16,LRRK2,PKHD1,SCN1A,BMP6,FRMPD4,FYN,KCND3,EPHA7,SGCZ,CLN6,RIMS1,MCTP2,ABCA12,EPHB1,KCNQ1,FHOD3,BPGM,EXT1,TRPC5,NOX5,ZCCHC17,FER,SGCD,TMEM108,RAPGEF2,NRXN3,KCNH7,CDKL5,ZNF207,IL18R1,RGS7BP,KAT7,TMTC2,TRDN,SEMA3A,TSPAN8,ATP13A3,MYH9,BDKRB2,STIM1,TSC22D3,TENM1,LARGE,GABRB1,SH3KBP1,STXBP5,VWF,SLC24A2,NTRK3,DIS3L2,CLASP2,NSUN2,DNM3,SYNDIG1,PPARA,PTPRD,RORA,SHISA6,ELAVL4,DOCK10,ATP8A1,SEMA3D,PRLR,TSPAN1,DEPTOR,RAB27A,BLOC1S6,LARP4B,SYT9,SEMA3C,PAH</i> </p>
GO:0010646	regulation of cell communication	2.0992198400134934e-20	<p> <i>PTPRR,SYN3,CAMTA1,RCAN1,KALRN,CACNG2,RNF43,CTNNA1,NTRK2,ZNRF3,FBXL17,SLC39A10,DMD,SPRED2,ERBB4,LAMA2,CNTN4,ROBO1,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX,AUTS2,WLS,ANKS1A,LDLRAD4,PSMB2,PTPRT,MGLL,PLCBI,FLT3,CACNA1A,PRKD1,RYR2,SEMA5A,CASK,PRKCA,DLGAP1,BTBD9,MYO9A,CCDC3,KANK1,GRIK4,DOK6,NLGN1,TNFRSF10B,CLEC16A,TCF7L2,RELN,APP,PAK1,PPP3CA,DEPDC5,ERC2,AKAP6,SORCS3,GRM7,DLCL1,SOS1,CTNND2,ALK,BTRC,MAP2K5,MAGI2,EDA,ROBO2,IFT81,AKAP13,DCC,EP300,SEMA4D,EVC,GRK5,ANKRD6,GRIK2,ARHGAP15,ITSN1,JAK2,CMKLR1,PARK2,NPHP3,ADCYAP1R1,GRID1,GRIN3A,SMOC2,NLGN4X,AFAP1,NRG3,SULF1,SH3BP1,RFFL,ARHGAP24,SLIT2,TRIM5,CHRD1,TRAF3IP2,SH3RF3,BMPRIA,SMAD3,PIBF1,SCUBE1,EYA1,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,DGKI,DNMBP,TAF1,SLC1A1,SHISA9,CDC73,FBXW11,NOS1AP,RBMS3,WWTR1,ARHGAP6,GRM4,ANK3,CCL15,CNIH3,DOCK3,TRIM59,TNR,CELF4,VAV3,ACTN4,PLCE1,EPS8,GHR,ARHGAP39,LRRC4C,PPP1R9A,CLSTN2,CD300A,CBFA2T2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,TRABD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,GRM1,PDE4D,PIK3CD,EFNA5,EIF3A,PIK3R2,GRID2,ZNF423,NTNG1,PDE4B,MAPRE2,RIC8B,MAP3K7,PRKCQ,EPHB2,ERC1,AGO3,MCTP1,MOB3B,PRCP,EEF1E1-BLOC1S5,DOCK2,BDNF,FNIP1,MAGI3,ADORA2A,SIPA1L2,IFIT80,FSTL4,ANO1,FHL2,NOX4,BMPER,SYT1,DAB2,LRRK1,CACNG3,HDAC2,PDE11A,PRKAR1B,ZMYND11,RGS6,SRGAP3,MYRIP,ENPP1,RIMS2,DLGAP2,PRDM15,PEX5L,NRG1,RIT2,CD44,PRKCG,SLC8A1,FAM19A4,MAP3K13,PLCL2,CHST11,NCAM1,AGT,FGF1,NDRG2,ARHGAP25,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,GSK3B,CD109,GPR21,CHD7,PSMB7,SNX5,TIAM2,IQ-CJ-SCHIP1,UNC13A,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,MECOM,SHANK2,KCTD8,NREP,GPC3,DLG5,PREX1,UBE2V1,RO</i> </p>

			<p>R1,ZNF675,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MAP3K5,CTDSPL2,HTR2C,FGD4,LY86,EPAH5,TP73,ZNF366,ANK2,A RHGEF3,SLIT3,GRIN2B,PAK3,GARNL3,UACA,ADCY8,MLLT3,RNF213,SH3RF2,PRKAA2,TBL1X,GRIK1,GRM5,IGF1R,PTPRO,SUFU,INSR,MAP2K1,UBR2,FOXO3,GPC6,RASGRF2,STK38,CNTN6,PRDM16,ULK4,LTBP1,LRRK2,PKHD1,BMP6,FYN,EPAH7,MARVELD3,GAS8,RIMS1,MCTP2,ABCA12,EPHB1,CRADD,AMFR,PLCB4,LRP2,RALGPS2,FER,VWC2,GUCY2F,PCDH17,TME M108,TPTE,RAPGEF2,NRXN3,PTPRU,IL18R1,RGS7BP,ESR2,P ACSIN2,TRIM22,CDH13,VEPH1,TRDN,DAB1,SEMA3A,MGAT5,BDKRB2,LITAF,TENM1,ZRANB1,RGS7,STXBP5,SIPA1L3,GNG 4,VWF,SLC24A2,SCEL,NTRK3,FBN1,PPARA,PTPRD,RORA,SHI SA6,ELAVL4,EEF1E1,BICC1,PRLR,PTPRA,ATF6,DEPTOR,RAL GAPAI,PMEP1,SYT9</p>
GO:0048667	cell morphogenesis involved in neuron differentiation	7.312475759700864e-20	<p>KALRN,NTRK2,LAMA2,CNTN4,ROBO1,DSCAM,TBCD,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,IL1RAPL1,PLS1,NLGN1,RELN,APP,PAK1,PPP3CA,PCDH15,SOS1,CTNND2,DCLK1,MEF2A,ROBO2,DCC,SEMA4D,RPS6KA5,TANC2,EMB,NUMB,SLIT2,DSCAM L1,NTN1,MAP2,FLRT2,CUX1,ANK3,CDH4,TNR,LRRK4,STRC,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,FSTL4,PLXNA2,ABII,CDH23,CTNNA2,PARD3,FBXO31,MAP3K13,NCAM1,NRXN1,LAMA3,GSK3B,TIAM2,TRIOBP,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,PTPRO,MAP2K1,CNTN6,LRRK2,SPG11,PHACTR1,FYN,EPAH7,EPHB1,EXT1,TRPC5,UNC5C,RAPGEF2,PTPRM,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,DNM3,PTPRD,ELAVL4,DOCK10,SEMA3D,SEMA3C</p>
GO:0007155	cell adhesion	1.398187025991899e-19	<p>MEGF11,CTNNA1,CLASP1,DMD,LPP,LAMA2,CNTN4,ROBO1,DSCAM,PCDH9,TBCD,OPCML,TENM2,PTPRT,NFASC,VCL,NE DD9,SEMA5A,CASK,PRKCA,EPB41L4B,IL1RAPL1,PDZD2,ITGAE,KANK1,KIF26B,RUNX1,NLGN1,RELN,APP,ADAM12,UTRN,PPP3CA,NTM,PCDH15,SSPN,DLC1,CTNND2,CADM2,CTNNA3,DLG2,MAP2K5,EDA,CELSR1,ROBO2,ELMO2,SEMA4D,CDH8,ASTN2,JAK2,NEGR1,SDK2,MAGI1,NLGN4X,EMB,ITGBL1,COL4A6,CNTNAP5,CD84,ATRNL1,EPDR1,DSCAML1,SMAD3,HMCN1,PEAK1,MAD1L1,EGFLAM,DNAJB6,SKAP1,NTN1,FLRT2,CD96,ARHGAP6,ANK3,CDH12,CDH4,TNR,NAV3,SPOCK1,ACTN4,LRRN2,TENM4,CDH10,LRRK4C,CLSTN2,CD300A,STRC,DISC1,CNTN5,EFNA5,TLN2,GRID2,NTNG1,ADTRP,PRKCQ,CLDN1,EPHB2,MYBPC2,PRTG,RGMB,ADORA2A,MEGF9,DAB2,PLXNA2,PRKG1,CADM3,STXBP6,ETS1,FAT3,CDH23,CTNNA2,PARD3,NRG1,VSIG10,SPINT2,CD44,NCAM1,CCR3,USH2A,NF1,PARVB,NRXN1,LAMA3,GSK3B,PKP2,LMO7,CNTN1,TRIOBP,UNC5D,DLG5,CFDP1,PGM5,ASTN1,PREX1,ADAMTSL1,COL12A1,MACF1,DUSP22,CLDN11,CCDC141,MUC16,MYPN,ITGB3BP,CNTN3,SDK1,PKD1L1,CNTNAP2,PTPRO,ITGA11,JAK1,FOXO3,GPC6,CNTN6,SPECC1L,LRFN5,FRMD5,PCDH7,PKHD1,BMP6,FYN,EPAH7,COL19A1,PCDH11X,ABCA12,EPHB1,LSAMP,DOCK1,EXT1,TENM3,FER,VWC2,PCDH17,PTPRM,KIRREL3,NRXN3,PTPRU,DCHS2,CDH13,DAB1,MYH9,CUZZD1,TENM1,PRKARIA,VWF,FBN1,CLASP2,PTPRK,PPARA,PTPRD,CDH9,CNTNAP3,FNDC3A,PRLR,PTPRA,PARD3B</p>
GO:0022610	biological adhesion	2.458888624013524e-19	<p>MEGF11,CTNNA1,CLASP1,DMD,LPP,LAMA2,CNTN4,ROBO1,DSCAM,PCDH9,TBCD,OPCML,TENM2,PTPRT,NFASC,VCL,NE DD9,SEMA5A,CASK,PRKCA,EPB41L4B,IL1RAPL1,PDZD2,ITGAE,KANK1,KIF26B,RUNX1,NLGN1,RELN,APP,ADAM12,UTRN,PPP3CA,NTM,PCDH15,SSPN,DLC1,CTNND2,CADM2,CTNNA3,DLG2,MAP2K5,EDA,CELSR1,ROBO2,ELMO2,SEMA4D,CDH8,ASTN2,JAK2,NEGR1,SDK2,MAGI1,NLGN4X,EMB,ITGBL1,COL4A6,CNTNAP5,CD84,ATRNL1,EPDR1,DSCAML1,SMAD3,HMCN1,PEAK1,MAD1L1,EGFLAM,DNAJB6,SKAP1,NTN1,FLRT2,CD96,ARHGAP6,ANK3,CDH12,CDH4,TNR,NAV3,SPOCK1,ACTN4,LRRN2,TENM4,CDH10,LRRK4C,CLSTN2,CD300A,STRC,DISC1,CNTN5,EFNA5,TLN2,GRID2,NTNG1,ADTRP,PRKCQ,CLDN1,EPHB2,MYBPC2,PRTG,RGMB,ADORA2A,MEGF9,DAB2,PLXNA2,PRKG1,CADM3,STXBP6,ETS1,FAT3,CDH23,CTNNA2,PARD3,NRG1,VSIG10,SPINT2,CD44,NCAM1,CCR3,USH2A,NF1,PARVB,NRXN1,LAMA3,GSK3B,PKP2,LMO7,CNTN1,TRIOBP,UNC5D,DLG5,CFDP1,PGM5,ASTN1,PREX1,ADAMTSL1,COL12A1,MACF1,DUSP22,CLDN11,CCDC141,MUC16,MYPN,ITGB3BP,CNTN3,SDK1,PKD1L1,CNTNAP2,PTPRO,ITGA11,JAK1,FOXO3,GPC6,CNTN6,SPECC1L,LRFN5,FRMD5,PCDH7,PKHD1,BMP6,FYN,EPAH7,COL19A1,PCDH11X,ABCA12,EPHB1,LSAMP,D</p>

			OCK1,EXT1,TENM3,FER,VWC2,PCDH17,PTPRM,KIRREL3,NRXN3,PTPRU,DCHS2,CDH13,DAB1,MYH9,CUZD1,TENM1,PRKARIA,VWF,FBN1,CLASP2,PTPRK,PPARA,PTPRD,CDH9,CNTNAP3,FNDC3A,PRLR,PTPRA,PARD3B
GO:0048869	cellular developmental process	2.822872172343536e-19	RCANI,KALRN,RPS6KA2,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,SYNE1,FBXL17,DMD,SPRED2,KAZN,ERBB4,LAMA2,NOS1,CNTN4,SND1,ROBO1,DSCAM,SHROOM3,CIT,TBCD,PUM1,FRY,NEBL,WWOX,HDAC4,OPCML,ATP8A2,AUTS2,ANKS1A,LDLRAD4,MYEF2,TENM2,PSMB2,RXFP1,NFASC,PLCB1,FLT3,SRPK2,PRKD1,VCL,NEDD9,PPP2R3C,SEMA5A,ETV6,PRKCA,IL1RAPL1,MYO9A,CCDC3,DIO2,NHS,KANK1,DIAPH2,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,RYR1,NTM,TOX,PCDH15,PTPN9,CREM,AKAP6,GRM7,SOS1,CTNND2,LRRRC8C,ALK,DCLK1,MEF2A,DENND5A,DNMT1,MAGI2,EDA,CELSR1,ROBO2,AKAP13,HIVEP3,DCC,EP300,SEMA4D,RPS6KA5,GRK5,TRAPPC9,NME8,TF,PKI,CHRM1,ASTN2,TANC2,JAK2,NEGR1,CMKLR1,SDK2,ZBTB7C,PARK2,NPH3,ADCYAP1R1,GRIN3A,NLGN4X,EMB,PNPLA3,NRG3,NUMB,SOX6,SULF1,SH3BP1,ATRNL1,SH3GL2,ARHGAP24,COL11A1,SLIT2,THEMIS,ATRX,CHRD1,TRAF3IP2,BMPRI1,DSCAML1,SMAD3,SLC9C1,SCUBE1,PEAK1,EYA1,SATB2,TPH1,OVOL2,DNAJB6,ELP3,BRINP1,GLIS1,SOX5,SLC1A1,NTN1,EPM2A,MAP2,CDC73,FLRT2,FBXW11,WWTR1,GAS7,CATSPER2,CUX1,ANK3,ARID4B,TRPS1,MYO18B,CDH4,TNR,CELF4,SPOCK1,ACTN4,TENM4,CECR2,GHR,LRRRC4C,PPP1R9A,CBFA2T2,SRD5A2,STRC,DISC1,LRP5,NAV2,ESR1,PDE4D,PIK3CD,BLOC1S5,CERS3,TEAD4,ARMC2,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,GRID2,ZNF423,SEMA6D,NTNG1,CRMP1,PRKCQ,CLDN1,NHSL2,JDP2,SPTBN4,EPHB2,S1PR3,PRTG,COL22A1,DOCK2,DPLYL2,MARK1,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,IFT80,FSTL4,FHL2,NOX4,MEGF9,SYT1,DAB2,PLXNA2,LRRK1,PRKG1,ABI1,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN,ENPP1,RIMS2,MORF2,CTNNA2,PARD3,NRG1,SPINT2,FMN2,RIT2,CD44,CNGB1,SLC8A1,SRRM4,FBXO31,MAP3K13,PLCL2,CHST11,THRB,MAPK10,NCAM1,AGT,FGF1,NDRG2,GRIP1,USH2A,NF1,WIF1,ZNF536,PARVB,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,SETD3,CD109,KCNH1,BBS9,CHD7,PSMB7,MOV10L1,THSD7A,TIAM2,MYT1L,CNTN1,PLEKHB2,UNC13A,TRIOBP,NCOA1,CHEK2,MECOM,CATSPERB,UNC5D,ISLR2,NREP,GPC3,DLG5,PGM5,ASTN1,PREX1,UBE2V1,ROR1,ADAMTSL1,ZNF675,COL12A1,MACF1,TRIO,CAPN3,MAP3K5,SPAG16,HTR2C,CCDC141,EPHA5,HIRA,TP73,MYPN,MORC3,ANK2,SLIT3,PAK3,TSNAX,PRRC2C,MLLT3,NEB,PACRG,SEMA5B,NLN,SDK1,GRM5,IGF1R,MSI2,CNTNAP2,PTPRO,SUFU,ITGA11,CRTAC1,MAP2K1,FOXO3,OCA2,CNTN6,CENPF,MITF,AGBL4,PRDM16,ULK4,RBFOX1,KIR2DL4,TMEM120B,LRRK2,PKHD1,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPHA7,COL19A1,MSR1,SGCZ,RIMS1,ENPP2,ABCA12,EPHB1,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,EXT1,TRPC5,UNC5C,TENM3,WDR7,LRP2,FER,CAMK4,VWC2,SGCD,TMEM108,RAPGEF2,NAV3,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,IL18R1,KAT7,SETD2,PACSIN2,MDGA2,BASPI1,DAB1,HDAC5,SEMA3A,MYH9,TANC1,TENM1,GABRB1,PRKARIA,SIPA1L3,DYI19L2,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,ZNF521,NSUN2,TPD52,DNM3,PPARA,PTPRD,RORA,BRIP1,ELAVL4,NELL1,DOCK10,EEF1E1,FNDC3A,SEMA3D,PRLR,SPATA5,SYT17,RAB27A,BLOC1S6,SEMA3C
GO:0007165	signal transduction	4.971582626819945e-19	PTPRR,CAMTA1,CHFR,RCANI,KALRN,CACNG2,RNF43,RPS6KA2,CTNNA1,FOXN3,NTRK2,RASGEF1B,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,SPRED2,ERBB4,NOS1,ESRRG,ROBO1,PRICKLE2,DSCAM,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX,HUNK,FUT8,HDAC4,AUTS2,WLS,ANKS1A,LDLRAD4,TENM2,BLM,PSMB2,PTPRT,RXFP1,MGLL,PLCB1,FLT3,SRPK2,TRPM1,PRKD1,RYR2,NEDD9,SEMA5A,PRKCA,DLGAP1,TRHDE,IL1RAPL1,MYO9A,CCDC3,ITGAE,KANK1,GRIK4,GPR176,DOK6,NLGN1,TNFRSF10B,CLEC16A,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,DEPDC5,GABRG3,CREM,AKAP6,SORCS3,GRM7,DLC1,IDE,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,DCC,DDDB1,EP300,SEMA4D,EVC,RPS6KA5,GRK5,ANKRD6,BDKRB1,TF,GRIK2,GNNG12,CHRM1,ARHGAP15,HUS1,ITSN1,DEFA1B,JAK2,ABCG8,CMKLR1,MAST4,PARK2,MAGI1,NPH3,ADCYAP1R1,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,PIK3C2B,OR5K4,ITGBL1,AFAP1,NRG3,COL4

			<p>A6,SULF1,SH3BP1,ADCY2,ATRNL1,RFFL,SH3GL2,ARHGAP24,PITPNC1,SLIT2,MAPK4,GLP2R,DTNA,TRIM5,THEMIS,DRG2,ATRX,CHRD1,TRAF3IP2,SH3RF3,BMPRI1,SMAD3,PRKAR2A,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,PTGFR,SCUBE1,EYA1,ANKS1B,MAML3,GPR141,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,FGF14,DGKK,OR5111,ASGR2,IL1RAPL2,SKAP1,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,CDC73,FLRT2,FBXW11,NOS1AP,RANBP10,RBMS3,ARHGEF6,WWTR1,ARHGAP6,GRM4,ANK3,CCL15,CNIH3,DOCK3,TRIM59,ADCY9,CELF4,NAV3,MDM4,ACTN4,PLCE1,LRRN2,EPSS8,TENM4,GHR,ARHGAP39,PPP1R9A,RGL1,CD300A,CBFA2T2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,TEAD4,PDZ7B,EFNA5,EIF3A,ATF2,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,ADTRP,PDE4B,MAPRE2,RIC8B,GABRB3,MAP3K7,PRKCQ,RASSF8,RHPN2,EPHB2,ERC1,AGO3,SIPR3,MCTP1,MOB3B,PRCP,RGMB,EEF1E1-BLOC1S5,DOCK2,DYSL2,PTPDC1,MARK1,BDNF,FNIP1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,NOX4,BMPER,PDE1A,ICK,DEFA3,DAB2,PLXNA2,LRRK1,PRKG1,ABI1,CACNG3,EPG5,PTH2R,CALCRL,HDAC2,PDE11A,RAB30,ZMYND11,TTN,RGS6,SRGAP3,ENPP1,RIMS2,KSR2,DLGAP2,PRDM15,OR4N2,PEX5L,PARD3,NRG1,FMN2,GRIA2,VSTM1,RIT2,CD44,CNGB1,GPSM2,PRKCG,TNS3,TEAD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM19A4,MAP3K13,PLCL2,CHST11,THRB,CDC42BP,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIP1,TLK1,ARHGAP25,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,LAMA3,GSK3B,KIR2DL1,CD109,KCNH1,DCDC1,GPR21,PSMB7,SNX5,SIAM2,OR51B2,IQCF-SCHIP1,CNTN1,BTBD11,UNC13A,CABIN1,NCOA1,CHEK2,GRIK3,STXB4,RHOJ,MECOM,STK32B,SHANK2,KCTD8,UNC5D,NREP,GPC3,DLG5,PREX1,CPE,UBE2V1,ROR1,ZNF675,PTGER3,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MYO1,MAP3K5,MAML2,CTDSPL2,HTR2C,GLRA2,FGD4,LY86,EPHA5,TP73,IL1RL1,ZNF366,P2RX6,ANK2,ARHGEF3,SLIT3,GRIN2B,PAK3,GARNL3,UACA,ADCY8,ITPR2,GABRR3,MLLT3,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKA2,TBL1X,SEMA5B,GRIK1,NLN,GRM5,ARAP2,IGF1R,PTPRO,SUFU,INSR,ITGA11,JAK1,MAP2K1,UBR2,GMD5,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,MITF,PRDM16,ULK4,KIR2DL4,TMEM117,LTBP1,LRRK2,PKHD1,RARB,BMP6,FYN,EPHA7,MARVELD3,GAS8,NG2,RIMS1,MCTP2,EPHB1,KCNQ1,DOCK1,CRADD,EXT1,AMFR,PLCB4,UNC5C,TENM3,LRP2,RALGPS2,FER,CAMK4,VWC2,GUCY2F,ERLIN1,SGCD,TMEM108,TPTE,RAPGEF2,PTPRM,NRXN3,INPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,TRIM22,CDH13,VEPH1,DAB1,SEMA3A,MGAT5,MYH9,BDKRB2,LITAF,PIK3R3,TENM1,STK38L,GABRB1,PRKAR1A,ZRANB1,RGS7,FCRL2,SIPA1L3,GNB4,VWF,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,CLASP2,NSUN2,PTPRK,SORCS1,DOCK9,PPARA,PTPRD,RORA,SHISA6,BRIP1,DOCK10,EEF1E1,BICC1,SEMA3D,PRLR,PTPRA,ATF6,DEPTOR,CUL2,STAC,OR4M1,RALGAP1,PMEP1,SEMA3C,ST18,RXF2</p>
GO:0030154	cell differentiation	8.910466573934e-19	<p>RCAN1,KALRN,RPS6KA2,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,SYNE1,FBXL17,DMD,SPRED2,KAZN,ERBB4,LAMA2,NOS1,CNTN4,SND1,ROBO1,DSCAM,SHROOM3,CIT,TBCD,PUM1,FRY,NEBL,WWOX,HDAC4,OPCML,ATP8A2,AUTS2,ANKS1A,LDLRAD4,MYEF2,TENM2,PSMB2,RXFP1,NFASC,PLCB1,FLT3,SRPK2,PRKD1,VCL,NEDD9,PPP2R3C,SEMA5A,ETV6,PRKCA,IL1RAPL1,MYO9A,CCDC3,DIO2,NHS,KANK1,DIAPH2,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,RYR1,NTM,TOX,PCDH15,PTPN9,CREM,AKAP6,GRM7,SOS1,CTNND2,LRRRC8C,ALK,DCLK1,MEF2A,DENND5A,DNMT1,MAGI2,EDA,CELSR1,ROBO2,AKAP13,HIVEP3,DCC,EP300,SEMA4D,RPS6KA5,GRK5,TRAPP9,NME8,TF,PKI,CHRM1,ASTN2,TANC2,JAK2,NEGR1,CMKLR1,SDK2,ZBTB7C,PARK2,NHP3,ADCYAP1R1,GRIN3A,NLGN4X,EMB,PNPLA3,NRG3,NUMB,SOX6,SULF1,SH3BP1,ATRNL1,SH3GL2,ARHGAP24,COL11A1,SLIT2,THEMIS,ATRX,CHRD1,TRAF3IP2,BMPRI1,DSCAML1,SMAD3,SLC9C1,SCUBE1,PEAK1,EYA1,SATB2,TPH1,OVOL2,DNAJB6,ELP3,BRINP1,GLIS1,SOX5,SLC1A1,NTN1,EPM2A,MAP2,CDC73,FLRT2,FBXW11,WWTR1,GAS7,CATSPER2,CUX1,AN</p>

			<p>K3,ARID4B,TRPS1,MYO18B,CDH4,TNR,CELF4,SPOCK1,ACTN4,TENM4,CECR2,GHR,LRRC4C,PPP1R9A,CBFA2T2,SRD5A2,STRC,DISC1,LRP5,NAV2,ESR1,PDE4D,PIK3CD,BLOC1S5,CERS3,TEAD4,ARMC2,EFNA5,KLHL1,FTO,POU6F2,CEP85L,ATF2,GRID2,ZNF423,SEMA6D,NTNG1,CRMP1,PRKCQ,CLDN1,NHSL2,JDP2,SPTBN4,EPHB2,SIPR3,PRTG,COL22A1,DOCK2,DPYSL2,MARK1,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,IFT80,FSTL4,FHL2,NOX4,MEGF9,SYT1,DAB2,PLXNA2,LRRK1,PRKG1,ABI1,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN,ENPP1,RIMS2,MORN2,CTNNA2,PARD3,NRG1,SPINT2,FMN2,RIT2,CNGB1,SLC8A1,SRRM4,FBXO31,MAP3K13,PLCL2,CHST11,THRB,NCAM1,AGT,FGF1,NDRG2,GRIP1,USH2A,NF1,WIF1,ZNF536,PARVB,NRXN1,LAMA3,GSK3B,PKP2,CTDPI,SETD3,CD109,KCNH1,BBS9,CHD7,PSMB7,MOV10L1,THSD7A,TIAM2,MYT1L,CNTN1,PLEKHB2,UNC13A,TRIOBP,NCOA1,MECOM,CATSPERB,UNC5D,ISLR2,NREP,GPC3,DLG5,PGM5,ASTN1,PREX1,UBE2V1,ROR1,ADAMTSL1,ZNF675,COL12A1,MACF1,TRIO,CAPN3,MAP3K5,SPAG16,HTR2C,CCDC141,EPAH5,HIRA,TP73,MYPN,ANK2,SLIT3,PAK3,TSNAX,PRRC2C,MLLT3,NEB,PACRG,SEMA5B,NLN,SDKI,GRM5,IGF1R,MSI2,CNTNAP2,PTPRO,SUFU,ITGA11,CRTAC1,MAP2K1,FOXO3,OCA2,CNTN6,CENPF,MITF,AGBL4,PRDM16,ULK4,RBFOX1,TMEM120B,LRRK2,PKHD1,KIF2A,RARB,TCF4,SPG11,PBX1,PHACTR1,BMP6,ASAP1,FYN,EPAH7,COL19A1,MSR1,SGCZ,RIMS1,ABCA12,EPHB1,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,EXT1,TRPC5,UNC5C,TENM3,WDR7,LRP2,FER,CAMK4,VWC2,SGCD,TMEM108,RAPGEF2,NAV3,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,IL18R1,KAT7,SETD2,MDGA2,BASP1,DAB1,HDAC5,SEMA3A,MYH9,TANC1,TENM1,GABRB1,PRKAR1A,SIPA1L3,DYPY19L2,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,ZNF521,NSUN2,TPD52,DNM3,PPARA,PTPRD,RORA,BRIP1,ELAVL4,NELL1,DOCK10,FNDC34,SEMA3D,PRLR,SPATA5,SYT17,RAB27A,BLOC1S6,SEMA3C</p>
GO:0050794	regulation of cellular process	1.569699862793328e-18	<p>PKNOX2,PTPRR,SYN3,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,CACNG2,RNF43,PROS1,RPS6KA2,CTNNA1,FOXN3,NTRK2,CLASPI1,RASGEF1B,ZNRF3,GLIS3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,EIF3E,SPRED2,ERBB4,LAMA2,TFP2,NOS1,CNTN4,TMC2,SND1,ESRRG,ROBO1,PRICKLE2,DSCAM,CIT,TBCD,DPP10,PUM1,FRY,GPC5,WDR59,SORCS2,PRIM2,WWOX,HUNK,FUT8,TNRC6B,HDAC4,ATP9A,LINGO2,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,BLM,PSMB2,PTPRT,RXFP1,ATF7IP,ASXL3,MGLL,PLCB1,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,VCL,PDS5A,NEDD9,PPP2R3C,SEMA5A,ETV6,CASK,PRKCA,EPB41L4B,STX8,ZBTB20,DLGAP1,BTBD9,TRHDE,ZNF713,IL1RAPL1,MYO9A,CCDC3,DIO2,PDE4DIP,ITGA5,ABCA13,KANK1,KIF26B,TBC1D5,SLCO3A1,TCF12,GRIK4,RUNX1,PLS1,GPR176,DOK6,FCHSD2,NLGN1,TNFRSF10B,KCNIP4,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,MTRF1,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,DEPDC5,RYR1,TOX,GABRG3,ERC2,PTPN9,CREM,AKAP6,SORCS3,GRM7,DLC1,IDE,SCMH1,RYR3,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,EEFSEC,KCNB2,TFAP2D,CTNNA3,DENND5A,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,HIVEP3,DCC,SAMD4A,C10ORF90,ZNF799,DDBI,EP300,KCNA6,PARN,SEMA4D,EVC,RPS6KA5,PHF20,GRK5,ANKRD6,TRAPPC9,BDKRB1,TF,DNAH11,GRIK2,QKI,GNG12,CHRM1,CDH8,ARHGAP15,HUS1,ZNF667,TFEC,ITSN1,ASTN2,TANC2,DEFA1B,JAK2,ABCG8,RAB11FIP4,NEGR1,CMKLR1,PPP6R2,ZBTB7C,MAST4,PARK2,MAGI1,NPHP3,ADCYAP1R1,SERPINA4,DPP6,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,PIK3C2B,OR5K4,ITGBL1,GBE1,AFAP1,TAGLN3,SP140,NRG3,NUMB,MED15,SOX6,COL4A6,SULF1,CD84,MAGEA11,SH3BP1,ADCY2,TCF20,ATRNL1,RFFL,SH3GL2,PSPC1,ARHGAP24,PITPNC1,SLIT2,KCNJ16,MAPK4,GLP2R,SLC4A4,DTNA,KMT2C,TRIM5,HEMIS,DRG2,AFF3,ATRX,CHRD1,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPRI1A,SMAD3,PRKAR2A,CACNA1E,BORA,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,CHD6,KIR3DL2,PTGFR,SCUBE1,PEAK1,EYA1,SATB2,ANKS1B,ELN,MAML3,GPR141,TPH1,MAD1L1,EGFLAM,DGKB,TNKS,TUB,KLF12,ARHGEF18,SCAMP5,LINC00473,OVOL2,SGMS1,GRAMD4,DNAJB6,ELP3,BRINP1,OMA1,BCL2L13,ARRDC4,KHDRBS2,FGF14,CACNA2D3,DGKK,OR5111,GLIS1,ASGR2,IL1RAPL2,SKAP1,CDYL2,SOX5,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,RNF144B,NTN1,LDB2,SHIS49,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,RANBP10,RB</p>

			<p>MS3,ARHGEF6,WWTR1,ARHGAP6,PHF20L1,CATSPER2,EGLN3,CUX1,GRM4,ANK3,TIMP2,CCL15,MORC2,ZNF19,ARID4B,CNIH3,DOCK3,TRIM59,TRPS1,CDH4,TNR,ADCY9,CELF4,VAV3,CDKL1,SCN9A,MDM4,ARNT2,SPOCK1,ACTN4,HPSE2,PLCE1,LRRN2,EPSS,TENM4,PRR16,GHR,ARHGAP39,LRR4C,PPP1R9A,RGL1,CLSTN2,CD300A,CBFA2T2,FUBP1,PRG3,MLIP,SERTAD2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,AP2B1,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,SCFD1,PDE4D,THEM4,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,TEAD4,PDE7B,EFNA5,FTO,EIF3A,POU6F2,ATF2,RBBP8,KCNJ12,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,CELF2,NTNG1,ADTRP,CRMP1,PDE4B,MAPRE2,RIC8B,GABRB3,SMG7,ANKRD13A,MAP3K7,PRKCQ,ATXN1,N4BP1,RASF8,RHPN2,CLDN1,KCND2,JDP2,SPTBN4,EPHB2,ERC1,AGO3,S1PR3,MCTP1,MOB3B,PRCP,PRTG,RGMB,EEF1E1-BLOC1S5,DOCK2,NUP214,DPYSL2,PTPDC1,RFC3,DACH1,MA RK1,BDNF,RBM4,FNIP1,MALRD1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,CADPS,DRAM1,NOX4,BCOR,BMPER,PDE1A,ICK,DEFA3,BRD9,SYT1,EBAG9,DAB2,AFF2,PLXNA2,NSF,EBF4,LRRK1,PRKG1,STXBP6,ABII,CACNG3,EPG5,PTH2R,CALCRL,HDAC2,ETS1,BANP,FAT3,PDE1A,ARID4A,RAB30,PRKAR1B,BACH1,ZMYND11,TTN,RGS6,SRGAP3,ZNF93,MYRIP,CDK19,ENPP1,ZNF443,RIMS2,SCN8A,KSR2,DLGAP2,PRDM15,OR4N2,CTNNA2,PEX5L,PARD3,NRG1,CAST,FANK1,SPINT2,NPAS3,FMN2,GRIA2,VSTM1,RIT2,CD44,PAX7,KCNMA1,SCAF8,CNGB1,GPSM2,PRKCG,TNS3,MED13L,TEAD1,NFIA,MAPKAPK2,EIF4G3,SLC8A1,SRRM4,RAPGEF6,FBXO31,FAM19A4,MAP3K13,PLCL2,TOX3,CHST11,THRB,CDC42BP4,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,KCNQ5,QRICH1,CCR3,KCNJ6,ZNF709,NDRG2,GRIP1,TLK1,ARHGAP25,USH2A,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,KIR2DL1,PKP2,CTDP1,SETD3,CD109,KCNH1,ZNF695,DCDC1,LMO7,WDR70,GPR21,CHD7,PSMB7,SNX5,TIAM2,OR51B2,MYT1L,SRGAP2B,IQCJ-SCHIP1,CNTN1,PLEKHB2,BTBD11,UNC13A,TRIOBP,CABIN1,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,RHOJ,ZBTB88,ZNF730,MECOM,STK32B,SHANK2,UBE2E2,KCTD8,UNC5D,ISLR2,NREP,GPC3,DLG5,CFDP1,PREX1,CPE,UBE2V1,ROR1,ZNF675,SERPINA5,KCNS3,PTGER3,BID,MACF1,MNAT1,TRIO,CAPN3,CTNBNL1,PTPRE,DUSP22,MYO1,MAP3K5,MAML2,CTDSPL2,HTR2C,GLRA2,FGD4,LY86,ZNF670,EPHA5,SGIP1,HIRA,RNF144A,TP73,IL1RL1,TSHZ2,ZNF366,MORC3,P2RX6,ANK2,ARHGEF3,SUPT3H,SLIT3,GRIN2B,PHC2,PAK3,GARNL3,UACA,LRPPRC,DPH6,ADCY8,ITPR2,GABRR3,MLLT3,NEB,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,PACRG,TBL1X,SEMA5B,HIVEP2,GRIK1,NLN,ANKFN1,GRM5,ARAP2,IGF1R,MXD3,CNTNAP2,PTPRO,SUFU,INSR,CIZ1,ITGA11,JAK1,MAP2K1,UBR2,ZNF490,GMD5,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,KCTD1,PPP1R14A,MITF,IGF2BP3,SP140L,LRFN5,CDCL4A,AGBL4,PRDM16,FRMD5,ULK4,RBFOX1,KIR2DL4,ZNF605,ZNF41,TMEM117,DNMT3B,ADAMTS16,TASPI,LTBP1,LRRK2,PKHD1,KIF2A,RARB,TCF4,PBX1,PHACTR1,SCN1A,BMP6,PCBP3,ASAP1,FRMPD4,FYN,KCND3,CSPP1,EPHA7,MARVELD3,GAS8,MSR1,CLN6,PTPN14,GNG2,PCBD2,RIMS1,ENPP2,L3MBTL4,MCTP2,ABCA12,BEND5,EPHB1,KCNQ1,FHOD3,DOCK1,CRADD,VASH2,ZNF664,EXT1,TRPC5,AMFR,PLCB4,UNC5C,TENM3,NOX5,LRP2,ZCCHC17,C2,RALGPS2,FER,CAMK4,VWC2,GUCY2F,ERLIN1,PCDH17,SGCD,TMEM108,TPTE,RAPGEF2,NAV3,PTPRM,NCOA2,NRXN3,KCNH7,CDKL5,INPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,SATB1,SETD2,PACSIN2,TRIM22,CDH13,VEPH1,BASP1,TRDN,DAB1,ZNF148,SEC16B,HDAC5,SEMA3A,MGAT5,MYH9,BDKRB2,STIM1,TSC22D3,NRIP1,CCNG2,LITAF,PIK3R3,BRF1,TENM1,STK38L,GABRB1,ST8SLA1,SH3KBP1,PRKAR1A,ZRANB1,RGS7,STXBP5,FCRL2,SIPA1L3,GNG4,VWF,TXNDC5,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,DIS3L2,TBX15,CLASP2,ZNF521,CREB5,DNAJC6,NSUN2,DACH2,PTPRK,SORCS1,DNM3,SYNDIG1,DOCK9,PPARA,PTPRD,RORA,SHISA6,BRIP1,ELAVL4,ANXA8L1,MXI1,TTC28,NELL1,DOCK10,EEF1E1,ATP8A1,BICC1,SEMA3D,PRLR,PTPRA,KCNC4,ATF6,DEPTOR,NVL,RAD51D,CUL2,SYT17,STAC,OR4M1,RAB27A,RALGAP1,CABLES1,CST2,BLOC1S6,PMEP1,LARP4B,KCNJ15,SYT9,SEMA3C,ST18,RXFP2</p>
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GO:009953 7	trans-synaptic signaling	1.8197692279892247e- 18	SYN3,CACNG2,RPS6KA2,NTRK2,CHRM3,LAMA2,NOS1,CNTN4, SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,ILIRAPL1, GRIK4,GPR176,FCHSD2,NLGN1,RELN,APP,PPP3CA,GABRG3, ERC2,SORCS3,GRM7,DLG2,DCC,GRIK2,CHRM1,CDH8,JAK2, PARK2,GRID1,GRIN3A,NLGN4X,EXOC4,NRG3,DTNA,CACNA1 E,GABRR2,SV2B,DGKB,PTPRN2,DGKI,SLC1A1,SHISA9,GRM4, TNR,CELF4,LRRC4C,PPP1R9A,CLSTN2,DISC1,GRM1,PDE7B, GRID2,NTNG1,GABRB3,KCND2,EPHB2,ERC1,MCTP1,BDNF,A DORA2A,CADPS,SYT1,SNAP23,CACNG3,PRKAR1B,RIMS2,DL GAP2,GRIA2,RIT2,PRKCG,PLCL2,AGT,NF1,NRXN1,GSK3B,UN C13A,GRIK3,CACNB2,SHANK2,HTR2C,GLRA2,P2RX6,GRIN2B ,ADCY8,GABRR3,GRIK1,GRM5,RASGRF2,GABRA3,LRRK2,SP G11,FYN,RIMS1,MCTP2,EPHB1,EXT1,PLCB4,PCDH17,TMEM 108,RAPGEF2,NRXN3,PACSIN2,GABRB1,STXBP5,SLC24A2,CE P89,PTPRD,SHISA6,ELAVL4,PTPRA,KCNC4,BLOC1S6,SYT9
GO:005089 6	response to stimulus	6.003120354955477e- 18	PTPRR,RNF4,CAMTA1,CHFR,RCAN1,KALRN,CACNG2,RNF43, PROS1,RPS6KA2,CTNNA1,FOXN3,NTRK2,CLASP1,RASGEF1B, ZNRK3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,SPRE D2,ERBB4,LAMA2,NOS1,CNTN4,TMC2,ESRRG,ROBO1,PRICK LE2,MYO3A,DSCAM,SHROOM3,CIT,PUM1,GPC5,WDR59,SOR CS2,WWOX,HUNK,FUT8,HDAC4,IMMP2L,ABCC1,ATP8A2,AU TS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,BLM,PSMB2,PTP RT,RXFP1,MGLL,NFASC,PLCB1,FLT3,SRPK2,CACNA1A,TRP M1,PRKD1,RYR2,VCL,PDS5A,NEDD9,PPP2R3C,SEMA5A,CAS K,PRKCA,EPB41L4B,STX8,ZBTB20,DLGAP1,TRHDE,ILIRAPL 1,MYO9A,CCDC3,HBE1,DIO2,ITGAE,KANK1,TBC1D5,TCF12, GRIK4,GPR176,USP53,DOK6,NLGN1,TNFRSF10B,CAMK1D,C LEC16A,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA, DEPDC5,RYR1,NAALADL2,PCDH15,GABRG3,CREM,AKAP6,S ORCS3,GRM7,DLC1,IDE,RYR3,ZPLD1,SOS1,CTNND2,LRRK8C ,RFTN1,ALK,BTRC,DCLK1,MEF2A,DLG2,PPP1R12B,MAP2K5, DNMT1,MAGI2,EDA,CELSR1,EYS,ROBO2,IFT81,AKAP13,DCC ,ELMO2,DDDB1,EP300,SEMA4D,EVC,RPS6KA5,CPNE4,GRK5,A NKRD6,BDKRB1,NME8,TF,GRIK2,GNG12,CHRM1,CDH8,ARH GAP15,HUS1,TFEC,ITSN1,DEFA1B,JAK2,ABCG8,CMKLR1,MA ST4,PARK2,MAGI1,NPHP3,ADCYAP1R1,GRID1,TDPI,GRIN3A, SMOC2,HLCS,CACNA1C,MAN1A1,NLGN4X,EMB,PNPLA3,PIK 3C2B,OR5K4,ITGBL1,AFAP1,SP140,NRG3,SOX6,POLE,COL4A 6,TRPM3,SULF1,CHCHD6,CD84,SH3BP1,ADCY2,OTC,ATRNL 1,RFFL,SH3GL2,PSPC1,ARHGAP24,COL11A1,PITPNC1,SLIT2, MAPK4,GLP2R,AOX1,DTNA,TRIM5,THEMIS,DRG2,AFF3,ATR X,CHRD1,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPRI1A,ACAC A,DSCAML1,SMAD3,PRKAR2A,PI4KA,TNFRSF11B,PIBF1,GAB RR2,PIK3C3,CHD6,HMCN1,SLC47A1,KIR3DL2,PTGFR,SCUBE 1,EYA1,SATB2,ANKS1B,HSF2BP,MAML3,GPR141,TPH1,MAD1 L1,DGKB,TNKS,TUB,ARHGEF18,SCAMP5,LINC00473,OVOL2, SGMS1,GRAMD4,DNAJB6,BRINP1,OMA1,FGF14,DGKK,OR511 1,ASGR2,ILIRAPL2,ZDHC11,SKAP1,PTPRN2,SOX5,DGKI,DN MBP,TAF1,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,SHFM1,CDC 73,FLRT2,FBXW11,NOS1AP,RANBP10,CD96,RBMS3,ARHGEF 6,WWTR1,ARHGAP6,CHAF1B,EGLN3,GRM4,ANK3,TIMP2,CC L15,MORC2,CNIH3,DOCK3,TRIM59,CDH4,TNR,ADCY9,CELF 4,VAV3,SCN9A,MDM4,ARNT2,ACTN4,PLCE1,LRRN2,EPS8,TE NM4,MACROD1,GHR,ARHGAP39,LRRK8D,PPP1R9A,RGL1,C D300A,CBFA2T2,SRD5A2,PRG3,MLIP,STRC,DISC1,RALGPS1, ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,ESR 1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,SCFD1,PDE4D,THE M4,PIK3CD,DOCK4,BLOC1S5,TEAD4,PDE7B,EFNA5,FTO,EIF 3A,ATF2,RBBP8,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ 3,SUSD4,ADTRP,CRMP1,PDE4B,MAPRE2,RIC8B,GABRB3,MA P3K7,PRKCQ,N4BP1,RASSF8,RHPN2,CLDN1,KCND2,TPH2,E PHB2,ERC1,AGO3,S1PR3,MCTP1,MOB3B,PRCP,PRTG,RGMB, EEF1E1- BLOC1S5,DOCK2,DPYSL2,PTPDC1,RFC3,DACH1,MARK1,BD NF,RBM4,FNIP1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,I FT80,FSTL4,MCM3,ANO1,FHL2,NOX4,WDFY4,KIR3DL1,CSM D1,BMPER,PDE1A,ICK,DEFA3,SYT1,DAB2,PLXNA2,LRRK1,P RKG1,KIR2DL3,SNAP23,ABI1,PXDNL,CACNG3,EPG5,PTH2R, CALCRL,HDAC2,ETS1,PDE11A,RAB30,ZSWIM7,BACH1,ZMYN D11,CDH23,TTN,RGS6,SRGAP3,RNASET2,CDK19,ENPP1,CFB, RIMS2,KSR2,DLGAP2,PRDM15,OR4N2,CTNNA2,PEX5L,PARD 3,NRG1,SPINT2,FMN2,GRIA2,BCKDHB,VSTM1,TOP1,RIT2,CD 44,KCNMA1,CNGB1,GPSM2,PRKCG,MSRB3,TNS3,ZFYVE1,TE

			<p>AD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM194A,MAP3K13,PLCL2,RSRC1,CHST11,THRB,CDC42BPA,B3GALT5,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIPI1,TLK1,ARHGAP25,USH2A,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,KIR2DL1,CTDPI,CD109,SLC22A3,KCNH1,DCDC1,WDR70,BBS9,GPR21,CHD7,PSMB7,SNX5,TIAM2,OR51B2,IQCJ-SCHIP1,CNTN1,BTBD11,UNC13A,CABIN1,NCOA1,CHEK2,GRIK3,STXBP4,RHOJ,PHEX,MECOM,STK32B,SHANK2,UBE2E2,KCTD8,UNC5D,NREP,GPC3,DLG5,PREX1,CPE,UBE2V1,ANO3,TTC4,ROR1,ADAMTSL1,ZNF675,PTGER3,BID,MACF1,MNAT1,TRIO,CAPN3,PTPRE,MYO3B,DUSP22,MYOM1,MAP3K5,MAML2,CTDSP2,HTTR2C,CCDC141,GLRA2,NCF2,FGD4,LY86,EPHA5,SGIP1,TP73,IL1RL1,ZNF366,MYPN,P2RX6,ANK2,ARHGEF3,SLIT3,GRIN2B,SHPRH,PAK3,GARNL3,UACA,ADCY8,ITPR2,ABRR3,MLLT3,CRISP3,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,PACRG,ABCG2,TBL1X,SEMA5B,GRIK1,NLN,ANKFN1,SDK1,GRM5,ARAP2,IGF1R,PKD1L1,CNTNAP2,PTPRO,MSRA,SUFU,INSR,ITGA11,JAK1,RPGR,MAP2K1,UBR2,GMDS,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,RNLS,MITF,LRFN5,AGBL4,PRDM16,ULK4,KIR2DL4,TMEM117,LTBP1,LRRK2,PKHD1,RARB,SCN1A,BMP6,FYN,XRCC4,EPHA7,MARVELD3,GAS8,MSR1,SEL1L2,GNG2,RIMS1,ENPP2,MCTP2,ABCA12,EPHB1,KCNQ1,DOCK1,CRADD,EXT1,AMFR,PLCB4,UNC5C,ACSBG1,TENM3,LRP2,C2,RALGPS2,FER,GLDC,CAMK4,VWC2,GUCY2F,ERLIN1,SGCD,TMEM108,TPTE,RAPGEF2,PTPRM,NCOA2,NRXN3,INPP4A,PTPRU,ZNF207,GRIA4,CERS6,MACROD2,IL18R1,RGS7BP,ESR2,KAT7,C9,SETD2,TRIM22,CDH13,VEPH1,TRDN,DAB1,ZNF148,HDAC5,SEMA3A,MGAT5,TSPAN8,MYH9,BDKRB2,STIM1,TSC22D3,NRIP1,TANC1,VPS41,LITAF,PIK3R3,TENM1,STK38L,GABRB1,ST8SLA1,PRKARIA,ZRANB1,RGS7,FCRL2,SIPAIL3,GNG4,VWF,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,CLASP2,NSUN2,PTPRK,SORCS1,DOCK9,PPARA,PTPRD,RORA,SHISA6,BRIP1,ELAVL4,DOCK10,EEF1E1,BICCI1,POLN,SEMA3D,PRLR,PTPRA,ATF6,DEPTOR,RAD51D,CUL2,SYT17,STAC,OR4M1,RAB27A,RALGAP1,CST2,BLOC1S6,PMEPA1,SYT9,SEMA3C,ST18,RXFP2</p>
GO:0007268	chemical synaptic transmission	6.739297165854053e-18	<p>SYN3,CACNG2,RPS6KA2,NTRK2,CHRM3,LAMA2,CNTN4,SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,GRIK4,GPR176,FCHSD2,NLGN1,RELN,APP,PPP3CA,GABRG3,ERC2,SORCS3,GRM7,DLG2,DCC,GRIK2,CHRM1,CDH8,JAK2,PARK2,GRID1,GRIN3A,NLGN4X,EXOC4,NRG3,DTNA,CACNA1E,GABRR2,SV2B,DGKB,PTPRN2,DGKI,SLC1A1,SHISA9,GRM4,TNR,CELF4,LRR4C,PPP1R9A,CLSTN2,DISC1,GRM1,PDE7B,GRID2,NTNG1,GABRB3,KCND2,EPHB2,ERC1,MCTP1,BDNF,ADORA2A,CADPS,SYT1,SNAP23,CACNG3,PRKAR1B,RIMS2,DLGAP2,GRIA2,RLIT2,PRKCG,PLCL2,AGT,NF1,NRXN1,GSK3B,UNC13A,GRIK3,ACNB2,SHANK2,HTR2C,GLRA2,P2RX6,GRIN2B,ADCY8,GABRR3,GRIK1,GRM5,RASGRF2,GABRA3,LRRK2,SPG11,FYN,RIMS1,MCTP2,EPHB1,EXT1,PLCB4,PCDH17,TMEM108,RAPGEF2,NRXN3,PACSIN2,GABRB1,STXBP5,SLC24A2,CEP89,PTPRD,SHISA6,ELAVL4,PTPRA,KCNC4,BLOC1S6,SYT9</p>
GO:0098916	anterograde trans-synaptic signaling	6.739297165854053e-18	<p>SYN3,CACNG2,RPS6KA2,NTRK2,CHRM3,LAMA2,CNTN4,SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,GRIK4,GPR176,FCHSD2,NLGN1,RELN,APP,PPP3CA,GABRG3,ERC2,SORCS3,GRM7,DLG2,DCC,GRIK2,CHRM1,CDH8,JAK2,PARK2,GRID1,GRIN3A,NLGN4X,EXOC4,NRG3,DTNA,CACNA1E,GABRR2,SV2B,DGKB,PTPRN2,DGKI,SLC1A1,SHISA9,GRM4,TNR,CELF4,LRR4C,PPP1R9A,CLSTN2,DISC1,GRM1,PDE7B,GRID2,NTNG1,GABRB3,KCND2,EPHB2,ERC1,MCTP1,BDNF,ADORA2A,CADPS,SYT1,SNAP23,CACNG3,PRKAR1B,RIMS2,DLGAP2,GRIA2,RLIT2,PRKCG,PLCL2,AGT,NF1,NRXN1,GSK3B,UNC13A,GRIK3,ACNB2,SHANK2,HTR2C,GLRA2,P2RX6,GRIN2B,ADCY8,GABRR3,GRIK1,GRM5,RASGRF2,GABRA3,LRRK2,SPG11,FYN,RIMS1,MCTP2,EPHB1,EXT1,PLCB4,PCDH17,TMEM108,RAPGEF2,NRXN3,PACSIN2,GABRB1,STXBP5,SLC24A2,CEP89,PTPRD,SHISA6,ELAVL4,PTPRA,KCNC4,BLOC1S6,SYT9</p>
GO:0099536	synaptic signaling	9.846143664789136e-18	<p>SYN3,CACNG2,RPS6KA2,NTRK2,CHRM3,LAMA2,NOS1,CNTN4,SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,IL1RAPL1,GRIK4,GPR176,FCHSD2,NLGN1,RELN,APP,PPP3CA,GABRG3,ERC2,SORCS3,GRM7,DLG2,DCC,GRIK2,CHRM1,CDH8,JAK2,PARK2,GRID1,GRIN3A,NLGN4X,EXOC4,NRG3,DTNA,CACNA1</p>

			<i>E, GABRR2, SV2B, DGKB, PTPRN2, DGKI, SLC1A1, SHISA9, GRM4, TNR, CELF4, LRRC4C, PPP1R9A, CLSTN2, DISC1, GRM1, PDE7B, GRID2, NTNG1, GABRR3, KCND2, EPHB2, ERC1, MCTP1, BDNF, A DORA2A, CADPS, SYT1, SNAP23, CACNG3, PRKAR1B, RIMS2, DL GAP2, NRG1, GRIA2, RIT2, PRKCG, PLCL2, AGT, NF1, NRXN1, GSK 3B, UNC13A, GRIK3, CACNB2, SHANK2, HTR2C, GLRA2, P2RX6, G RIN2B, ADCY8, GABRR3, GRIK1, GRM5, RASGRF2, GABRA3, LRR K2, SPG11, FYN, RIMS1, MCTP2, EPHB1, EXT1, PLCB4, PCDH17, T MEM108, RAPGEF2, NRXN3, PACSIN2, GABRB1, STXBP5, SLC24 A2, CEP89, PTPRD, SHISA6, ELAVL4, PTPRA, KCNC4, BLOC1S6, S YT9</i>
GO:0032879	regulation of localization	5.162764988302088e-17	<i>PTPRR, KALRN, CACNG2, CTNNA1, CLASP1, PTPRG, DMD, KCN C2, CHRM3, ERBB4, LAMA2, NOS1, TMC2, ROBO1, DPP10, GPC5, HDAC4, ATP9A, ATP8A2, WLS, LDLRAD4, PTPRT, PLCB1, CACNA 1A, PRKD1, RYR2, VCL, NEDD9, SEMA5A, CASK, PRKCA, EPB41L4 B, STX8, BTBD9, IL1RAPL1, ABCA13, KANK1, TBC1D5, PLS1, NLG N1, KCNIP4, CAMK1D, AMOTL1, TCF7L2, RELN, APP, PAK1, UTR N, PPP3CA, RYR1, PTPN9, AKAP6, GRM7, RABGAP1L, DLC1, RYR3 ,DCLK1, MEF2A, KCNB2, CTNNA3, MAP2K5, MAGI2, KCNA6, PAR N, SEMA4D, BDKRB1, TF, DNAH11, CHRM1, ASTN2, JAK2, ABCG8 ,CMKLR1, PARK2, ADCYAP1R1, DPP6, GRIN3A, SMOC2, CACNA 1C, NRG3, NUMB, SULF1, CD84, SH3BP1, RFFL, SLIT2, KCNJ16, T RIM5, BMPR1A, SMAD3, CACNA1E, BORA, PIK3C3, MAD1L1, TUB ,SCAMP5, DNAJB6, ELP3, FGF14, CACNA2D3, DGKI, SLC1A1, NT N1, LDB2, SHISA9, EPM2A, MAP2, FLRT2, NOS1AP, WWTR1, KCT D7, CATSPER2, ANK3, CNIH3, SCN9A, ACTN4, CD300A, RABGEF1 ,LRP5, AP2B1, SCFD1, PDE4D, PIK3CD, DOCK4, SLC5A3, FRMD4 A, EFNA5, FTO, KCNJ12, PIK3R2, CYBB, SEMA6D, KCNJ3, NTNG1, ADTRP, PDE4B, MAPRE2, ANKRD13A, CLDN1, KCND2, SPTBN4, EPHB2, MCTP1, PRCP, DOCK2, NUP214, DACH1, BDNF, RBM4, A DORA2A, ANO1, CADPS, BMPER, SYT1, DAB2, PLXNA2, NSF, PRK G1, STXBP6, CACNG3, ETS1, PRKAR1B, TTN, SRGAP3, MYRIP, EN PP1, RIMS2, SCN8A, CTNNA2, NRG1, SPINT2, RIT2, KCNMA1, GPS M2, PRKCG, SLC8A1, FBXO31, AGT, FGF1, KCNQ5, KCNJ6, NF1, N RXN1, LAMA3, GSK3B, PKP2, KCNH1, CHD7, SNX5, SRGAP2B, CN TN1, CACNB2, STXBP4, RHOJ, UNC5D, GPC3, DLG5, KCNS3, PTG ER3, MACF1, CAPN3, DUSP22, MYOM1, CTDSPL2, HTR2C, EPHA 5, SGIP1, ANK2, PAK3, ADCY8, ITPR2, SH3RF2, CACNA1D, PRKAA 2, SEMA5B, GRM5, IGF1R, PTPRO, SUFU, NKAIN2, INSR, MAP2K1 ,FOXO3, GPC6, RASGRF2, MITF, FRMD5, ULK4, LRRK2, NKAIN3, PKHD1, KIF2A, PHACTR1, SCN1A, BMP6, FYN, KCND3, MARVEL D3, GAS8, MSR1, PTPN14, RIMS1, ENPP2, MCTP2, ABCA12, KCNQ 1, DOCK1, UNC5C, C2, FER, PCDH17, RAPGEF2, NAV3, PTPRM, N RXN3, KCNH7, PTPRU, KAT7, SETD2, PACSIN2, TRIM22, CDH13, TRDN, SEC16B, HDAC5, SEMA3A, MGAT5, STIM1, PIK3R3, TENM 1, RGS7, STXBP5, NTRK3, CLASP2, DNAJC6, NSUN2, PTPRK, DNM 3, PPARA, SHISA6, DOCK10, ATP8A1, SEMA3D, KCNC4, NVL, SYT1 7, STAC, RAB27A, KCNJ15, SYT9, SEMA3C</i>
GO:0040011	locomotion	5.363109697749856e-17	<i>PTPRR, RCAN1, KALRN, NDE1, CTNNA1, NTRK2, CLASP1, PTPRG ,ERBB4, LAMA2, CNTN4, ROBO1, DSCAM, GPC5, FUT8, HDAC4, A BCC1, AUTS2, ANKS1A, LDLRAD4, PTPRT, NFASC, PLCB1, PRKD 1, VCL, NEDD9, SEMA5A, PRKCA, EPB41L4B, KANK1, CAMK1D, A MOTL1, RELN, APP, PAK1, PPP3CA, DLC1, SOS1, DCLK1, CTNNA 3, MAP2K5, MAGI2, CELSR1, ROBO2, DCC, ELMO2, EP300, SEMA 4D, RPS6KA5, BDKRB1, NME8, TF, DNAH11, CHRM1, ASTN2, DEF A1B, JAK2, CMKLR1, SMOC2, EMB, PIK3C2B, ITGBL1, NRG3, NU MB, SULF1, SH3BP1, ATRNL1, RFFL, ARHGAP24, SLIT2, BMPR1A, DSCAML1, SMAD3, SLC9C1, PEAK1, SATB2, OVOL2, ELP3, SPNS2 ,NTN1, LDB2, FLRT2, CATSPER2, CCL15, TTLL8, CDH4, TNR, VAV 3, SPOCK1, ACTN4, EPS8, CD300A, DISC1, CCL14, RABGEF1, LRP 5, PIK3CD, DOCK4, ARMC2, EFNA5, CEP85L, SEMA6D, NTNG1, A DTRP, CRMP1, PDE4B, MAPRE2, PRKCQ, CLDN1, EPHB2, MCTP 1, PRCP, PRTG, DOCK2, DPYSL2, DACH1, MARK1, BDNF, ADORA 2A, ARID5B, MEGF9, BMPER, DAB2, PLXNA2, PRKG1, ETS1, FAT3 ,SRGAP3, CTNNA2, FMNL2, NRG1, SPINT2, CD44, SLC8A1, FBXO 31, FAM19A4, CDC42BPA, NCAM1, AGT, FGF1, CCR3, USH2A, NF 1, NRXN1, LAMA3, SRGAP2B, RHOJ, UNC5D, GPC3, DLG5, ASTN1, PREX1, ADAMTSL1, MACF1, TRIO, DUSP22, SPAG16, CCDC141, EPHA5, MYPN, SLIT3, PAK3, CCL15- CCL14, SH3RF2, SEMA5B, GRM5, IGF1R, PTPRO, INSR, ITGA11, M AP2K1, SLC9B1, FOXO3, GPC6, CNTN6, MITF, FRMD5, ULK4, LRR K2, KIF2A, PHACTR1, FYN, EPHA7, MARVELD3, GAS8, CLN6, ENP P2, EPHB1, DOCK1, EXT1, UNC5C, FER, TPTE, RAPGEF2, NAV3, D</i>

			NAH3,PTPRM,KIRREL3,NRXN3,CDKL5,PTPRU,SETD2,CDH13,DAB1,HDAC5,SEMA3A,MGAT5,MYH9,PIK3R3,SH3KBP1,ZRANB1,NTRK3,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,SEMA3C
GO:0034330	cell junction organization	8.071047581535597e-17	KALRN,CACNG2,CTNNA1,NTRK2,CLASP1,ERBB4,DSCAM,TBCLD,LINGO2,NFASC,VCL,PRKCA,IL1RAPL1,MYO9A,NLGN1,RELN,APP,ERC2,DLC1,CTNND2,ROBO2,SEMA4D,CDH8,TANC2,NEGR1,SDK2,NLGN4X,NUMB,SH3BP1,SMAD3,PEAK1,DGKB,IL1RAPL2,SLC1A1,NTN1,FLRT2,NOS1AP,ARHGAP6,ANK3,CDH12,TNR,ARHGAP39,CDH10,LRRC4C,PDZRN3,CLSTN2,DISC1,CNTN5,EFNA5,TLN2,GRID2,NTNG1,MAPRE2,GABRB3,CLDN1,EPHB2,ERC1,BDNF,CTNNA2,PARD3,NRG1,CAST,NFIA,AGT,NRXN1,PKP2,UNC13A,CACNB2,SYBU,SHANK2,DLG5,MACF1,DUSP22,CLDN11,ANK2,GRIN2B,PAK3,SDK1,GRM5,IGF1R,CNTNAP2,PTPRO,INSR,GPC6,LRFN5,LRRK2,PKHD1,BMP6,FRMPD4,FYN,EPHA7,MARVELD3,EPHB1,EXT1,PCDH17,TMEM108,RAPGEF2,KIRREL3,NRXN3,CDKL5,TANC1,NTRK3,CLASP2,PTPRK,DNM3,SYNDIG1,PTPRD,SHISA6,CDH9,DOCK10,PTPRA,PPFIBP2
GO:0051716	cellular response to stimulus	8.911180223073403e-17	PTPRR,CAMTA1,CHFR,RCAN1,KALRN,CACNG2,RNF43,RPS6KA2,CTNNA1,FOXN3,NTRK2,RASGEF1B,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,SPRED2,ERBB4,NOS1,ESRRG,ROBO1,PRICKLE2,DSCAM,SHROOM3,CIT,PUM1,GPC5,WDR59,SORCS2,WWOX,HUNK,FUT8,HDAC4,IMMP2L,ABCC1,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,BLM,PSMB2,PTPRT,RXFP1,MGLL,PLCB1,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,PDS5A,NEDD9,SEMA5A,CASK,PRKCA,STX8,ZBTB20,DLGAP1,TRHDE,IL1RAPL1,MYO9A,CCDC3,HBE1,ITGAE,KANK1,GRIK4,GPR176,DOK6,NLGN1,TNFRSF10B,CAMK1D,CLEC16A,AMOTL1,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,DEPDC5,RYR1,GABRG3,CREM,AKAP6,SORCS3,GRM7,DLC1,IDE,RYR3,SOS1,CTNND2,LRRC8C,RFTN1,ALK,BTRC,DCLK1,MEF2A,DLG2,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,DCC,ELMO2,DDI1,EP300,SEMA4D,EVC,RPS6KA5,CPNE4,GRK5,ANKRD6,BDKRB1,NME8,TF,GRIK2,GNG12,CHRM1,ARHGAP15,HUS1,TFEC,ITSN1,DEFA1B,JAK2,ABCG8,CMKLR1,MAST4,PARK2,MAGI1,NPHP3,ADCYAP1R1,GRID1,TDP1,GRIN3A,SMOC2,CACNA1C,MAN1A1,NLGN4X,PNPLA3,PIK3C2B,OR5K4,ITGBL1,AFAP1,NRG3,SOX6,POLE,COL4A6,SULF1,CHCHD6,SH3BP1,ADCY2,ATRNL1,RFFL,SH3GL2,ARHGAP24,PITPNC1,SLIT2,MAPK4,GLP2R,AOX1,DTNA,TRIM5,THEMIS,DRG2,ATRX,CHRD1,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPR1A,ACACA,SMAD3,PRKAR2A,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,CHD6,PTGFR,SCUBE1,EYA1,SATB2,ANKS1B,HSF2BP,MAML3,GPR141,MAD1L1,DGKB,TNKS,TUB,ARHGEF18,SCAMP5,LINC00473,OVOL2,SGMS1,GRAMD4,DNAJB6,BRINP1,OMA1,FGF14,DGKK,OR511I,ASGR2,IL1RAPL2,SKAP1,PTPRN2,SOX5,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,SHFM1,CDC73,FLRT2,FBXW11,NOS1AP,RANBP10,RBMS3,ARHGEF6,WWTR1,ARHGAP6,CHAF1B,EGLN3,GRM4,ANK3,CCL15,MORC2,CNIH3,DOCK3,TRIM59,TNR,ADCY9,CELF4,VAV3,MDM4,ACTN4,PLCE1,LRRN2,EPH8,TENM4,MACROD1,GHR,ARHGAP39,LRRC8D,PPP1R9A,RGLI,CD300A,CBFA2T2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,PDE4D,THEM4,PIK3CD,DOCK4,BLOC1S5,TEAD4,PDE7B,EFNA5,FTO,EIF3A,ATF2,RBBP8,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,ADTRP,PDE4B,MAPRE2,RIC8B,GABRB3,MAP3K7,PRKCQ,N4BP1,RASSF8,RHPN2,CLDN1,KCND2,TPH2,EPHB2,ERC1,AGO3,SIPR3,MCTP1,MOB3B,PRCP,RGMB,EEF1E1-BLOC1S5,DOCK2,DPYSL2,PTPDC1,RFC3,MARK1,BDNF,RBM4,FNIP1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSYL4,MCM3,ANO1,FHL2,NOX4,BMPER,PDE1A,ICK,DEFA3,SYT1,DAB2,PLXNA2,LRRK1,PRKG1,ABII,PXDNL,CACNG3,EPG5,PTH2R,CALCRL,HDAC2,PDE11A,RAB30,ZSWIM7,BACH1,ZMYND11,TTN,RGS6,SRGAP3,CDK19,ENPP1,RIMS2,KSR2,DLGAP2,PRDM15,OR4N2,PEX5L,PARD3,NRG1,SPINT2,FMN2,GRIA2,VSTM1,RIT2,CD44,CNGB1,GPSM2,PRKCG,TNS3,ZFYVE1,TEAD1,MAPKAPK2,SLC8A1,RAPGEF6,FBXO31,FAM19A4,MAP3K13,PLCL2,CHST11,THRB,CDC42BP4,CDC42EP3,MAPK10,NCAM1,AGT,FGF1,QRICH1,CCR3,NDRG2,GRIP1,TLK1,ARHGAP25,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,KIR2DL1,CD109,KCNH1,DCDC1,WDR70,GPR21,PSMB7,SN

			<p><i>X5, TIAM2, OR51B2, IQCJ-SCHIP1, CNTN1, BTBD11, UNC13A, CABIN1, NCOA1, CHEK2, GRIK3, STXBP4, RHOJ, PHEX, MECOM, STK32B, SHANK2, UBE2E2, KCTD8, UNC5D, NREP, GPC3, DLG5, PREX1, CPE, UBE2V1, ROR1, ZNF675, PTGER3, BID, MACF1, MNAT1, TRIO, CAPN3, PTPRE, DUSP22, MYOM1, MAP3K5, MAML2, CTDSPL2, HTR2C, GLRA2, FGD4, LY86, EPHA5, TP73, IL1RL1, ZNF366, P2RX6, ANK2, ARHGEF3, SLIT3, GRIN2B, SHPRH, PAK3, GARNL3, UACA, ADCY8, ITPR2, GABRR3, MLLT3, CCL15-CCL14, ITGB3BP, RNF213, SH3RF2, CACNA1D, PRKAA2, PACRG, ABCG2, TBL1X, SEMA5B, GRIK1, NLN, GRM5, ARAP2, IGF1R, PTPRO, MSRA, SUFU, INSR, ITGA11, JAK1, MAP2K1, UBR2, GMD5, KPNB1, FOXO3, GPC6, RASGRF2, STK38, GABRA3, INPP5A, CNTN6, CENPF, MITF, PRDM16, ULK4, KIR2DL4, TMEM117, LTBP1, LRRK2, PKHD1, RARB, BMP6, FYN, XRCC4, EPHA7, MARVELD3, GAS8, MSR1, SEL1L2, GNG2, RIMS1, MCTP2, ABCA12, EPHB1, KCNQ1, DOCK1, CRADD, EXT1, AMFR, PLCB4, UNC5C, TENM3, LRP2, RALGPS2, FER, GLDC, CAMK4, VWC2, GUCY2F, ERLIN1, SGCD, TMEM108, TPTE, RAPGEF2, PTPRM, NCOA2, NRXN3, INPP4A, PTPRU, ZNF207, GRIA4, MACROD2, IL18R1, RGS7BP, ESR2, KAT7, SETD2, TRIM22, CDH13, VEPH1, DAB1, HDAC5, SEMA3A, MGAT5, MYH9, BDKRB2, NRIP1, VPS41, LITAF, PIK3R3, TENM1, STK38L, GABRB1, ST8SIA1, PRKARIA, ZRANB1, RGS7, FCRL2, SIPA1L3, GNG4, VWF, SLC24A2, SCEL, GRIA3, NTRK3, FBN1, CLASP2, NSUN2, PTPRK, SORCS1, DOCK9, PPARA, PTPRD, RORA, SHISA6, BRIP1, ELAVL4, DOCK10, EEF1E1, BICC1, POLN, SEMA3D, PRLR, PTPRA, ATF6, DEPTOR, RAD51D, CUL2, SYT17, STAC, OR4M1, RALGAP1, BLOCIS6, PMPA1, SYT9, SEMA3C, ST18, RXFP2</i></p>
GO:0007267	cell-cell signaling	2.323880651253876e-16	<p><i>SYN3, KALRN, CACNG2, RNF43, RPS6KA2, NTRK2, ZNRF3, CHRM3, LAMA2, NOS1, CNTN4, PRICKLE2, GPC5, SORCS2, WWOX, WLS, PSMB2, PLCB1, CACNA1A, RYR2, SEMA5A, CASK, DLGAP1, BTBD9, TRHDE, IL1RAPL1, KANK1, GRIK4, GPR176, FCHSD2, NLGN1, AMOTL1, TCF7L2, RELN, APP, PPP3CA, GABRG3, ERC2, SORCS3, GRM7, CTNND2, BTRC, DLG2, MAGI2, EDA, CELSR1, DCC, DDB1, GRK5, ANKRD6, GRIK2, CHRM1, CDH8, JAK2, PARK2, NPH3, GRID1, GRIN3A, CACNA1C, NLGN4X, EXOC4, NRG3, SULF1, DTNA, SMAD3, CACNA1E, GABRR2, SV2B, DGKB, TNKS, FGF14, PTPRN2, DGKI, SLC1A1, SHISA9, EPM2A, CDC73, FBXW11, RBMS3, WWTR1, PCSK5, GRM4, CCL15, TNR, CELF4, LRRC4C, PPP1R9A, CLSTN2, SRD5A2, DISC1, TRABD2B, LRP5, GRM1, PDE7B, EFNA5, GRID2, ZNF423, KCNJ3, NTNG1, GABRB3, KCND2, EPHB2, ERC1, MCTP1, MARK1, BDNF, ADORA2A, IFT80, ANO1, CADPS, SYT1, DAB2, LRRK1, SNAP23, CACNG3, PRKAR1B, MYRIP, RIMS2, DLGAP2, PRDM15, NRG1, GRIA2, RIT2, PRKCG, PLCL2, AGT, NDRG2, NF1, WIF1, NRXN1, GSK3B, PKP2, CHD7, PSMB7, UNC13A, GRIK3, CACNB2, STXBP4, PHEX, SHANK2, GPC3, CPE, ROR1, MACF1, HTR2C, GLRA2, EPHA5, P2RX6, ANK2, GRIN2B, ADCY8, GABRR3, MLLT3, RNF213, CACNA1D, PRKAA2, TBL1X, GRIK1, GRM5, PTPRO, FOXO3, GPC6, RASGRF2, GABRA3, MITF, LRRK2, SPG11, BMP6, FYN, RIMS1, MCTP2, ABCA12, EPHB1, KCNQ1, EXT1, AMFR, PLCB4, PCDH17, TMEM108, RAPGEF2, NRXN3, PTPRU, ESR2, PACSIN2, GABRB1, SH3BP1, ZRANB1, STXBP5, FCRL2, SLC24A2, SCEL, CEP89, PTPRD, SHISA6, ELAVL4, BICC1, PTPRA, KCNC4, SYT17, BLOCIS6, SYT9</i></p>
GO:0010975	regulation of neuron projection development	2.915990585030331e-16	<p><i>KALRN, NTRK2, PTPRG, DMD, ROBO1, DSCAM, ATP8A2, PRKD1, SEMA5A, IL1RAPL1, KANK1, NLGN1, CAMK1D, RELN, PAK1, PPP3CA, TOX, PTPN9, ALK, DENND5A, MAGI2, ROBO2, DCC, EP300, SEMA4D, TANC2, NEGR1, SLIT2, NTN1, MAP2, CUX1, CDH4, TNR, SPOCK1, LRRC4C, CBFA2T2, DISC1, EFNA5, GRID2, SEMA6D, NTNG1, CRMP1, EPHB2, DPYSL2, MARK1, BDNF, FSTL4, DAB2, PLXNA2, HDAC2, FAT3, CTNNA2, RIT2, FBXO31, MAP3K13, AGT, GSK3B, TIAM2, CNTN1, ISLR2, ROR1, MACF1, PAK3, SEMA5B, IGF1R, PTPRO, MAP2K1, ULK4, LRRK2, FYN, EPHA7, TRPC5, TENM3, RAPGEF2, CDKL5, DAB1, SEMA3A, NTRK3, DNMT3, PTPRD, ELAVL4, SEMA3D, SEMA3C</i></p>
GO:0061564	axon development	3.5271248657959014e-16	<p><i>KALRN, CTNNA1, NTRK2, LAMA2, CNTN4, ROBO1, DSCAM, ATP8A2, AUTS2, NFASC, VCL, SEMA5A, RELN, APP, PAK1, GRM7, SOS1, DCLK1, ROBO2, DCC, SEMA4D, RPS6KA5, JAK2, EMB, NUMB, SLIT2, DSCAML1, NTN1, MAP2, FLRT2, ANK3, CDH4, TNR, LRRC4C, DISC1, EFNA5, SEMA6D, NTNG1, CRMP1, PRKCQ, SPTBN4, EPHB2, PRTG, DPYSL2, BDNF, FSTL4, PLXNA2, CTNNA2, PARD3, MAP3K13, NCAM1, NRXN1, LAMA3, GSK3B, TIAM2, UNC5D, ISLR2, NREP, ADAMTSL1, MACF1, TRIO, CCDC141, EPHA5, MYPN, SLIT3, PAK</i></p>

			3,SEMA5B,IGF1R,PTPRO,CRTAC1,MAP2K1,CNTN6,SPG11,FYN,EPHA7,EPHB1,VASH2,EXT1,TRPC5,UNC5C,PTPRM,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,SEMA3D,SEMA3C
GO:0050804	modulation of chemical synaptic transmission	5.306390590029785e-16	SYN3,CACNG2,NTRK2,LAMA2,CNTN4,SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,GRIK4,NLGN1,RELN,APP,PPP3CA,ERC2,SORCS3,GRM7,DCC,GRIK2,JAK2,PARK2,GRID1,GRIN3A,NLGN4X,NRG3,DGKB,DGKI,SLC1A1,SHISA9,GRM4,TNR,CELF4,LRRK4C,PPP1R9A,CLSTN2,DISC1,GRM1,GRID2,NTNG1,EPHB2,ERC1,MCTP1,BDNF,ADORA2A,SYT1,CACNG3,PRKAR1B,RIMS2,DLGAP2,PRKCG,PLCL2,AGT,NF1,NRXN1,GSK3B,UNC13A,GRIK3,CACNB2,SHANK2,GRIN2B,ADCY8,GRIK1,GRM5,RASGRF2,LRRK2,FYN,RIMS1,MCTP2,EPHB1,PLCB4,PCDH17,TMEM108,RAPGEF2,NRXN3,PACSIN2,STXBP5,SLC24A2,PTPRD,SHISA6,ELAVL4,PTPRA
GO:0099177	regulation of trans-synaptic signaling	6.154791180796712e-16	SYN3,CACNG2,NTRK2,LAMA2,CNTN4,SORCS2,PLCB1,CACNA1A,CASK,DLGAP1,BTBD9,GRIK4,NLGN1,RELN,APP,PPP3CA,ERC2,SORCS3,GRM7,DCC,GRIK2,JAK2,PARK2,GRID1,GRIN3A,NLGN4X,NRG3,DGKB,DGKI,SLC1A1,SHISA9,GRM4,TNR,CELF4,LRRK4C,PPP1R9A,CLSTN2,DISC1,GRM1,GRID2,NTNG1,EPHB2,ERC1,MCTP1,BDNF,ADORA2A,SYT1,CACNG3,PRKAR1B,RIMS2,DLGAP2,PRKCG,PLCL2,AGT,NF1,NRXN1,GSK3B,UNC13A,GRIK3,CACNB2,SHANK2,GRIN2B,ADCY8,GRIK1,GRM5,RASGRF2,LRRK2,FYN,RIMS1,MCTP2,EPHB1,PLCB4,PCDH17,TMEM108,RAPGEF2,NRXN3,PACSIN2,STXBP5,SLC24A2,PTPRD,SHISA6,ELAVL4,PTPRA
GO:0007409	axonogenesis	9.15840257195621e-16	KALRN,NTRK2,LAMA2,CNTN4,ROBO1,DSCAM,ATP8A2,AUTS2,NFASC,VCL,SEMA5A,RELN,APP,PAK1,SOS1,DCLK1,ROBO2,DCC,SEMA4D,RPS6KA5,EMB,NUMB,SLIT2,DSCAM1,NTN1,MAP2,FLRT2,ANK3,CDH4,TNR,LRRK4C,DISC1,EFNA5,SEMA6D,NTNG1,CRMP1,PRKCQ,SPTBN4,EPHB2,PRTG,DPYSL2,BDNF,FSTL4,PLXNA2,CTNNA2,PARD3,MAP3K13,NCAM1,NRXN1,LAMA3,GSK3B,TIAM2,UNC5D,ISLR2,ADAMTSL1,MACF1,TRIO,CDC141,EPHA5,MYPN,SLIT3,PAK3,SEMA5B,IGF1R,PTPRO,MAP2K1,CNTN6,SPG11,FYN,EPHA7,EPHB1,EXT1,TRPC5,UNC5C,PTPRM,NRXN3,CDKL5,DAB1,SEMA3A,CLASP2,SEMA3D,SEMA3C
GO:0065007	biological regulation	1.872007699333789e-15	PKNOX2,PTPRR,SYN3,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,CACNG2,RNF43,PROS1,RPS6KA2,CTNNA1,FOXN3,NTRK2,CLASP1,RASGEF1B,ZNRF3,GLIS3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,EIF3E,SPRED2,ERBB4,LAMA2,TFDP2,NOS1,CNTN4,TMC2,SND1,ESRRG,ROBO1,PRICKLE2,DSCAM,SHROOM3,CIT,TBCD,DPP10,PUM1,FRY,GPC5,WDR59,SORCS2,PRIM2,WWOX,HUNK,FUT8,TNRC6B,HDAC4,ATP9A,LINGO2,ARFGAP3,ABCC1,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TENM2,SGSM1,BLM,PSMB2,PTPRT,RXFPI,ATF7IP,ASXL3,MGLL,PLCB1,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,VCL,PDS5A,NEDD9,PPP2R3C,SEMA5A,ETV6,CASK,PRKCA,EPB41L4B,STX8,ZBTB20,DLGAP1,BTBD9,TRHDE,ZNF713,IL1RAPL1,MYO9A,CCDC3,DIO2,PDE4DIP,ITGAE,ABCA13,KANK1,KIF26B,TBC1D5,SLCO3A1,TCF12,GRIK4,RUNX1,PLS1,GPR176,USP53,DOK6,FCHSD2,NLGN1,TNFRSF10B,KCNIP4,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,MTRF1,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,DEPDC5,RYR1,TOX,PCDH15,GABRG3,ERC2,PTPN9,CREM,AKAP6,SORCS3,GRM7,RABGAP1L,DLA1,IDE,SCMH1,RYR3,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,EEFSEC,KCNB2,TFAP2D,FAM155A,CTNNA3,DENN5A,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,HIVEP3,DCC,SAMD4A,C10ORF90,ZNF799,DDA1,EP300,KCNA6,PARN,SEMA4D,EVC,RPS6KA5,PHF20,GRK5,ANKRD6,TRAPPC9,MMP16,BDKRBI,TF,DNAH11,GRIK2,QKI,GNG12,CHRM1,CDH8,ARHGAP15,HUS1,ZNF667,TFEC,ITSN1,ASTN2,TANC2,DEFA1B,JAK2,ABCG8,RAB11FIP4,NEGR1,CMKLRI,PPP6R2,ZBTB7C,MAST4,PARK2,MAGI1,NPHP3,ADCYAP1R1,SERPINA4,DPP6,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,PNPLA3,ANO4,PIK3C2B,OR5K4,ANKH,ITGBL1,NBEA,GBE1,AFAP1,TMPRSS3,TAGLN3,PALMD,SP140,NRG3,NUMB,MED15,SOX6,COL4A6,SULF1,DTD2,CD84,MAGEA11,SH3BP1,ADCY2,TCF20,OTC,ATRNL1,RFFL,SH3GL2,PSPCI,ARHGAP24,PITPNC1,SLIT2,KCNJ16,MAPK4,GLP2R,SLC4A4,DTNA,KMT2C,TRIM5,THEMIS,DRG2,AFF3,ATRX,CHRD1,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPRI1,ACACA,SMAD3,PRKAR2A,CACNA1E,BORA,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,SLC9C1,CHD6,POTEE,KIR3DL2,PTGFR,SCUBE1,PEAK1,EYA1,S

			<p> ATB2,ANKS1B,ELN,MAML3,GPR141,TPH1,MAD1L1,EGFLAM,DGKB,TNKS,TUB,KLF12,ARHGEF18,SCAMP5,LINC00473,OVOL2,SGMS1,GRAMD4,DNAJB6,ELP3,BRINP1,OMA1,BCL2L13,ARRDC4,KHDRBS2,CPO,FGF14,CACNA2D3,DGKK,OR51I1,G LIS1,ASGR2,IL1RAPL2,ZDHHC11,SKAP1,CDYL2,PTPRN2,SOX5,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,RNF144B,NTN1,LDB2,S HISA9,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,ARHGEF33,RANBP10,CD96,RBMS3,ARHGEF6,WWTR1,PEMT,ARHGA P6,PHF20L1,KCTD7,CATSPER2,PCSK5,EGLN3,CUX1,GRM4,ANK3,TIMP2,CCL15,MORC2,ZNF19,ARID4B,CNIH3,DOCK3,TRIM59,TRPS1,CDH4,TNR,ADCY9,CELF4,VAV3,CDKL1,SCN9A,MDM4,ARNT2,SPOCK1,ACTN4,HPSE2,PLCE1,CYP39A1,LRRN2,EPS8,TENM4,PRR16,GHR,ARHGAP39,LRRRC8D,LRRRC4C,PPP1R9A,RGL1,PALM2,CLSTN2,CD300A,CBFA2T2,SRD5A2,FUBP1,PRG3,MLIP,SERTAD2,DISC1,RALGPS1,ARHGAP42,ATP8B4,CCL14,RABGEF1,FHIT,NSG2,TRABD2B,LRP5,NAV2,AP2B1,SLC30A7,ESR1,ARHGAP12,TNFRSF19,PLCXD3,DENND2A,GRM1,SCFD1,PDE4D,THEM4,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,PCSK2,TEAD4,PDE7B,EFNA5,FTO,EIF3A,POU6F2,ATF2,PHACTR2,RBBP8,KCNJ12,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,SUSD4,CELF2,NTNG1,ADTRP,CRMP1,PDE4B,MAPRE2,RIC8B,GABRB3,SMG7,ANKRD13A,PPA2,MAP3K7,PRKCQ,ATXN1,N4BP1,RASSF8,RHPN2,CLDN1,KCND2,SLC24A3,JD2,SPTBN4,EPHB2,ERC1,AGO3,SIPR3,MCTP1,MOB3B,PRCP,PRTG,RGMB,EEF1E1-BLOC1S5,DOCK2,NUP214,DPYSL2,PTPDC1,RFC3,DACH1,CALLML4,MARK1,BDNF,RBM4,FNIP1,MALRD1,MAGI3,ADORA2A,ARID5B,SIPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,CADPS,DRAM1,NOX4,CSMD1,BCOR,BMPER,PDE1A,ICK,DEFA3,BRD9,SYT1,EBAG9,DAB2,AFF2,PLXNA2,NSF,EBF4,LRRK1,PRKG1,STXBP6,SNAP23,CHST9,AB11,CACNG3,EPG5,PTH2R,CALCRL,TNNI3K,HDAC2,ETS1,BANP,FAT3,PDE11A,ARID4A,RAB30,PRKAR1B,ZSWIM7,BACH1,ZMYND11,CDH23,TTN,RGS6,SRGAP3,ZNF93,MYRIP,CDK19,ENPP1,CFB,ZNF443,RIMS2,SCN8A,KSR2,DLGAP2,PRDM15,OR4N2,AGAP1,CTNNA2,PEX5L,CYB561A3,FMNL2,PARD3,NRG1,CAST,TBC1D9,FANK1,SPINT2,ATP10B,NPAS3,FMN2,GRIA2,VSTM1,TOP1,RIT2,CD44,PAX7,KCNMA1,NCF4,SCAF8,CNGB1,GPSM2,PRKCG,SLC12A8,TNS3,MED13L,TEAD1,NFIA,MAPKAPK2,EIF4G3,SLC8A1,SRRM4,RAPGEF6,ISM1,FBXO31,FAM19A4,MAP3K13,PLCL2,TOX3,CHST11,THRB,SLC9A9,CDC42BP4,CDC42EP3,MIR1185-1,MAPK10,NCAM1,AGT,FGF1,KCNQ5,QRICHI,HEPHL1,CCR3,KCNJ6,STRIP1,ZNF709,NDRG2,GRIP1,TLK1,UPK3B,ARHGAP25,USH2A,NF1,WIF1,ZNF536,PARVB,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,KIR2DL1,PKP2,CTDP1,SETD3,CD109,SLC22A3,KCNH1,ZNF695,DCDC1,LMO7,WDR70,GPR21,CHD7,PSMB7,MOV10L1,SNX5,TIAM2,OR51B2,MYT1L,SRGAP2B,IQCF-SCHIP1,CNTN1,PLEKHB2,BTBD11,UNC13A,TRIOBP,CABIN1,NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,RHOJ,ZBTB8B,ZNF730,MECOM,STK32B,SHANK2,UBE2E2,KCTD8,UNC5D,ISLR2,NREP,GPC3,DLG5,CFDP1,PREX1,CPE,UBE2V1,ANO3,XKR4,RO1,ZNF675,SERPINA5,KCNS3,PTGER3,BID,MACF1,MNAT1,TRIO,CAPN3,CTNBNB1,PTPRE,DUSP22,MYOM1,MAP3K5,MAML2,CTDSPL2,HTR2C,GLRA2,NCF2,FGD4,LY86,ZNF670,EPHA5,SGIP1,HIRA,RNF144A,TP73,RBM19,IL1RL1,TSHZ2,ZNF366,FAM171A1,MORC3,P2RX6,ANK2,ARHGEF3,SUPT3H,SLIT3,GRIIN2B,PHC2,PAK3,GARNL3,UACA,LRPPRC,DPH6,ADCY8,ITPR2,GABRR3,MLLT3,NEB,CCL15-CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,PACRG,TBL1X,SEMA5B,HIVEP2,GRIK1,NLN,ANKFN1,SDK1,GRM5,ARAP2,IGF1R,MXD3,CNTNAP2,PTPRO,SUFU,NKAIN2,INSR,CIZ1,ITGA11,JAK1,RPGR,MAP2K1,UBR2,ZNF490,GMDS,SLC9B1,KPNB1,FOXO3,GPC6,RASGRF2,STK38,GABRA3,KLHL3,INPP5A,CNTN6,CENPF,KCTD1,RNLS,PPP1R14A,ATP9B,MITF,IGF2BP3,SP140L,LRFN5,CDC14A,ENOX2,AGBL4,PRDM16,FRMD5,ULK4,RBFOX1,KIR2DL4,ZNF605,ZNF41,TMEM117,DNMT3B,ADAMTS16,TASP1,LTBP1,LRRK2,NKAIN3,PKHD1,KIF2A,RARB,TCF4,PBX1,PHACTR1,SCN1A,BMP6,PCBP3,ASAP1,FRMPD4,FYN,KCND3,ABCC2,CSPP1,XRCC4,EPHA7,MARVELD3,GAS8,MSR1,SGCZ,CLN6,PTPN14,NGG2,PCBD2,RIMS1,ENPP2,L3MBTL4,MCTP2,ABCA12,BEND5,EPHB1,KCNQ1,FHOD3,DOCK1,CRADD,VASH2,ZNF664,BPGM,EXT1,TRPC5,AMFR,PLCB4,UNC5C,TENM3,NOX5,LRP2,ZCCHC17,C2,RALGPS2,FER,CAMK4,V </p>
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			<p>WC2,GUCY2F,ERLIN1,PCDH17,SGCD,TMEM108,TPTE,RAPG EF2,NAV3,PRPSAP2,PTPRM,NCOA2,NRXN3,KCNH7,CDKL5,I NPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,SA TB1,C9,TMTC2,MIR767,SETD2,PACIN2,TRIM22,CDH13,VEP H1,BASPI,TRDN,DAB1,ZNF148,SEC16B,HDAC5,SEMA3A,MG AT5,TSPAN8,ATP13A3,MYH9,BDKRB2,STIM1,TSC22D3,NRIP1, CCNG2,MIR105- 2,LITAF,PIK3R3,BRF1,TENM1,STK38L,LARGE,GABRB1,ST8SI A1,SH3KBP1,PRKARIA,ZRANB1,RGS7,STXBP5,FCRL2,SIPA1L 3,GNG4,VWF,TXNDC5,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,DI S3L2,TBX15,CLASP2,ZNF521,CREB5,DNAJC6,NSUN2,DACH2, PTPRK,SORCSI,DNM3,SYNDIG1,DOCK9,PPARA,PTPRD,ROR A,SHISA6,BRIP1,ELAVL4,SBF2,ANXA8L1,MXI1,TTC28,NELLI1, DOCK10,EEF1E1,ATP8A1,BICC1,SEMA3D,PRLR,PTPRA,KCN C4,TSPAN1,ATF6,DEPTOR,NVL,RAD51D,CUL2,SYT17,STAC,O R4M1,RAB27A,RALGAP1,CABLES1,CST2,BLOC1S6,PMEPA1, LARP4B,KCNJ15,SYT9,DENND2D,SEMA3C,PAH,ST18,RXFP2</p>
GO:0031344	regulation of cell projection organization	3.315190672019998e-14	<p>KALRN,NTRK2,PTPRG,DMD,ROBO1,DSCAM,HDAC4,ATP8A2,AUTS2,TENM2,PRKD1,SEMA5A,IL1RAPL1,MYO9A,KANK1,PLS1,NLGN1,CAMK1D,RELN,PAK1,PPP3CA,TOX,PTPN9,ALK,DENND5A,MAGI2,ROBO2,DCC,EP300,SEMA4D,TANC2,NEGR1,ARHGAP24,SLIT2,NTN1,MAP2,CUX1,CDH4,TNR,CDKL1,SPOCK1,PLCE1,EP8S,LRRC4C,CBFA2T2,DISC1,EFNA5,GRID2,SEMA6D,NTNG1,CRMP1,EPHB2,DPYSL2,MARK1,BDNF,FSTL4,DAB2,PLXNA2,HDAC2,FAT3,CTNNA2,RIT2,CD44,FBXO31,MAP3K13,CDC42EP3,AGT,GRIP1,NRXN1,GSK3B,TIAM2,CNTN1,ISLR2,ROR1,MACF1,GRIN2B,PAK3,SEMA5B,IGF1R,PTPRO,MAP2K1,ULK4,ADAMTS16,LRRK2,FYN,EPHA7,ENPP2,TRPC5,TENM3,FER,RAPGEF2,CDKL5,DAB1,SEMA3A,TENM1,NTRK3,DNM3,PTPRD,ELAVL4,SEMA3D,SEMA3C</p>
GO:0050808	synapse organization	3.97600095224306e-14	<p>KALRN,CACNG2,NTRK2,ERBB4,DSCAM,LINGO2,NFASC,IL1RAPL1,NLGN1,RELN,APP,ERC2,CTNND2,ROBO2,SEMA4D,CDH8,TANC2,NEGR1,SDK2,NLGN4X,DGKB,IL1RAPL2,SLC1A1,NTN1,FLRT2,NOS1AP,ANK3,TNR,ARHGAP39,LRRC4C,PDZRN3,CLSTN2,DISC1,CNTN5,EFNA5,GRID2,NTNG1,GABRB3,EPHB2,ERC1,BDNF,CTNNA2,NRG1,CAST,NFIA,NRXN1,UNC13A,CACNB2,SYBU,SHANK2,DLG5,GRIN2B,PAK3,SDK1,GRM5,IGF1R,PTPRO,INSR,GPC6,LRFN5,LRRK2,FRMPD4,FYN,EPHA7,EPHB1,PCDH17,TMEM108,KIRREL3,NRXN3,CDKL5,TANC1,NTRK3,DNM3,SYNDIG1,PTPRD,SHISA6,DOCK10,PPFIBP2</p>
GO:0120035	regulation of plasma membrane bounded cell projection organization	4.8166142453068413e-14	<p>KALRN,NTRK2,PTPRG,DMD,ROBO1,DSCAM,HDAC4,ATP8A2,AUTS2,TENM2,PRKD1,SEMA5A,IL1RAPL1,KANK1,PLS1,NLGN1,CAMK1D,RELN,PAK1,PPP3CA,TOX,PTPN9,ALK,DENND5A,MAGI2,ROBO2,DCC,EP300,SEMA4D,TANC2,NEGR1,ARHGAP24,SLIT2,NTN1,MAP2,CUX1,CDH4,TNR,CDKL1,SPOCK1,PLCE1,EP8S,LRRC4C,CBFA2T2,DISC1,EFNA5,GRID2,SEMA6D,NTNG1,CRMP1,EPHB2,DPYSL2,MARK1,BDNF,FSTL4,DAB2,PLXNA2,HDAC2,FAT3,CTNNA2,RIT2,CD44,FBXO31,MAP3K13,CDC42EP3,AGT,NRXN1,GSK3B,TIAM2,CNTN1,ISLR2,ROR1,MACF1,GRIN2B,PAK3,SEMA5B,IGF1R,PTPRO,MAP2K1,ULK4,ADAMTS16,LRRK2,FYN,EPHA7,ENPP2,TRPC5,TENM3,FER,RAPGEF2,CDKL5,DAB1,SEMA3A,TENM1,NTRK3,DNM3,PTPRD,ELAVL4,SEMA3D,SEMA3C</p>
GO:0048513	animal organ development	2.7866236288945747e-13	<p>RCAN1,KALRN,MEGF11,RPS6KA2,NDE1,CTNNA1,FOXN3,NTRK2,CLASP1,ZNRF3,PTPRG,FBXL17,DMD,KCNC2,SPRED2,KAZN,ERBB4,LAMA2,TDFP2,CNTN4,ROBO1,PRICKLE2,MYO3A,DSCAM,CIT,NEBL,WWOX,HDAC4,IMMP2L,ATP8A2,WLS,LDLRAD4,PSMB2,RXFP1,ASXL3,PLCB1,FLT3,RYR2,PPP2R3C,SEMA5A,ETV6,PRKCA,ADAMTS6,PLAC1,NHS,KIF26B,TCF12,RUNX1,PLS1,TCF7L2,RELN,APP,UTRN,PPP3CA,RYR1,TOX,PCDH15,GREB1L,AKAP6,DLC1,SOS1,ALK,BTRC,DCLK1,MEF2A,TFA P2D,MAP2K5,MAGI2,EDA,CELSR1,ROBO2,AKAP13,HIVEP3,DCC,EP300,SEMA4D,EVC,ANKRD6,TRAPPC9,MMP16,TF,DNAH11,JAK2,NEGR1,SDK2,NPHP3,CACNA1C,NLGN4X,EXOC4,ANKH,UPB1,NRG3,NUMB,SOX6,POLE,SULF1,OTC,ATRNLI,COIL1A1,SLIT2,THEMIS,ATRX,CHRD1,TRAF3IP2,BMPRI1,DSCAM1,SMAD3,TNFRSF11B,POTEE,SCUBE1,EYA1,SATB2,ELN,TPH1,MAD1L1,ANKRD11,EGFLAM,TUB,OVOL2,DNAJB6,ASGR2,SOX5,TAF1,SPNS2,SLC1A1,NTN1,LDB2,CDC73,FLRT2,FBXW11,WWTR1,PCSK5,ARID4B,TRPS1,MYO18B,TNR,CELF4,MDM4,ARNT2,PLCE1,TACC2,TENM4,CECR2,GHR,SRD5A2,STRC,DISC1,LRP5,AP2B1,ESR1,TNFRSF19,PIK3CD,CERS3,TEAD4,KLHL1,FTO,ATF2,GRID2,ZNF423,SEMA6D,NTNG1,ATXN1,CLD</p>

			<p><i>N1,SLC24A3,TTL5,EPHB2,DOCK2,DPYSL2,MARK1,FNIP1,ARID5B,IFT80,DYM,FHL2,TTC39C,NOX4,MEGF9,CSMD1,BCOR,BMPER,SYT1,DAB2,AFF2,PLXNA2,LRRK1,PRKG1,ABI1,CALCRL,HDAC2,ETS1,FAT3,ARID4A,CDH23,TTN,ENPP1,CTNNA2,NRG1,SPINT2,CD44,PAX7,TEAD1,NF1A,MAPKAPK2,SLC8A1,PLCL2,CHST11,THRB,AGT,FGF1,NDRG2,USH2A,NF1,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,CD109,CHD7,PSMB7,CNTN1,TRIOBP,NCOA1,RHOJ,PHOX,MECOM,SHANK2,GPC3,DLG5,PREX1,CPE,ROR1,ZNF675,MNAT1,CAPN3,MYO3B,CCDC141,EPHA5,TP73,ANK2,SLIT3,GRIN2B,MATN3,PRRC2C,MLLT3,NEB,SEMA5B,NLN,SDK1,IGF1R,CNTNAP2,PTPRO,SUFU,INSR,ITGA11,MAP2K1,FOXO3,GPC6,KLHL3,CENPF,MITF,RBFOX1,ADAMTS16,LRRK2,PKHD1,RARB,PBX1,PHACTR1,BMP6,FYN,EPHA7,GAS8,COL19A1,SGCZ,ABCA12,EPHB1,KCNQ1,FHOD3,DOCK1,VASH2,BPGM,EXT1,UNC5C,ACSBG1,CSGALNACT1,TENM3,WDR7,LRP2,CAMK4,SGCD,TMEM108,SHROOM4,RAPGEF2,PTPRM,PTPRM,KIRREL3,PTPRU,SOBP,MACROD2,IL18R1,KAT7,DCHS2,SETD2,MDGA2,BASP1,DAB1,ZNF148,HDAC5,SEMA3A,MYH9,STIM1,NRIP1,LARGE,PRKAR1A,RGS7,SIPA1L3,SCEL,NTRK3,FBN1,HYDIN,TBX15,CLASP2,NSUN2,TPD52,PPARA,RORA,MYH15,BRIP1,ELAVL4,NELL1,DOCK10,FNDC3A,BICC1,SEMA3D,PRLR,ATF6,SPATA5,SEMA3C,RXFP2</i></p>
GO:0007411	axon guidance	8.770264966094059e-13	<p><i>KALRN,LAMA2,CNTN4,ROBO1,DSCAM,NFASC,SEMA5A,RELN,APP,SOS1,ROBO2,DCC,SEMA4D,RPS6KA5,EMB,SLIT2,DSCAM1,NTN1,FLRT2,CDH4,TNR,EFNA5,SEMA6D,CRMP1,PRKCQ,EPHB2,PRTG,DPYSL2,BDNF,PLXNA2,NCAM1,NRXN1,LAMA3,UNC5D,ADAMTSL1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,SEMA5B,PTPRO,CNTN6,FYN,EPHA7,EPHB1,EXT1,UNC5C,PTPRM,NRXN3,SEMA3A,SEMA3D,SEMA3C</i></p>
GO:0097485	neuron projection guidance	1.0649003960512674e-12	<p><i>KALRN,LAMA2,CNTN4,ROBO1,DSCAM,NFASC,SEMA5A,RELN,APP,SOS1,ROBO2,DCC,SEMA4D,RPS6KA5,EMB,SLIT2,DSCAM1,NTN1,FLRT2,CDH4,TNR,EFNA5,SEMA6D,CRMP1,PRKCQ,EPHB2,PRTG,DPYSL2,BDNF,PLXNA2,NCAM1,NRXN1,LAMA3,UNC5D,ADAMTSL1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,SEMA5B,PTPRO,CNTN6,FYN,EPHA7,EPHB1,EXT1,UNC5C,PTPRM,NRXN3,SEMA3A,SEMA3D,SEMA3C</i></p>
GO:0022603	regulation of anatomical structure morphogenesis	1.1770541418892323e-12	<p><i>KALRN,NTRK2,CLASP1,ZNRF3,ROBO1,PRICKLE2,DSCAM,SHROOM3,PSMB2,PRKD1,NEDD9,SEMA5A,PRKCA,IL1RAPL1,MYO9A,KANK1,RUNX1,NLGN1,RELN,ADAM12,PAK1,PPP3CA,DLC1,MAGI2,CELSR1,ROBO2,DCC,SEMA4D,ANKRD6,ARHGAP15,TANC2,PARK2,NPHP3,SMOC2,PALMD,SULF1,SLIT2,BMPRI1A,TNFRSF11B,ARHGEF18,OMA1,DNMBP,NTN1,MAP2,CUX1,CDH4,TNR,ACTN4,EPH8,TENM4,LRRK4C,PALM2,DISC1,ESR1,PIK3CD,EFNA5,ATF2,CYBB,SEMA6D,NTNG1,EPHB2,BDNF,FSTL4,BMPER,SYT1,DAB2,PLXNA2,ETS1,RIMS2,FMN12,CD44,ISMT1,FBXO31,MAP3K13,CDC42EP3,AGT,FGF1,CCR3,STRIP1,GRIP1,NF1,PARVB,GSK3B,PSMB7,TLAM2,UNC13A,TRIOBP,RHOJ,ISLR2,GPC3,CFDP1,PREX1,ROR1,MACF1,FGD4,FAM171A1,PAK3,MLLT3,SEMA5B,JAK1,MAP2K1,GPC6,LRRK2,PKHD1,FYN,EPHA7,RIMS1,ENPP2,DOCK1,VASH2,TRPC5,RAPGEF2,PTPRM,CDKL5,DAB1,SEMA3A,MYH9,STIM1,SH3KBP1,ZRANB1,CLASP2,DNM3,PTPRD,SEMA3D,SYT17,SEMA3C</i></p>
GO:0009966	regulation of signal transduction	1.3876223354480998e-12	<p><i>PTPRR,CAMTA1,RCAN1,KALRN,CACNG2,RNF43,CTNNA1,NTRK2,ZNRF3,FBXL17,SLC39A10,DMD,SPRED2,ERBB4,ROBO1,CIT,PUM1,GPC5,WDR59,WWOX,AUTS2,WLS,ANKS1A,LDLRAD4,PSMB2,PTPRT,MGLL,PLCB1,FLT3,PRKD1,SEMA5A,PRKCA,DLGAP1,MYO9A,CCDC3,KANK1,DOK6,NLGN1,TNFRSF10B,CLEC16A,TCF7L2,RELN,APP,PAK1,DEPDC5,AKAP6,DLC1,SOS1,CTNND2,ALK,BTRC,MAP2K5,MAGI2,EDA,ROBO2,IFT81A,KAP13,EP300,SEMA4D,EVC,GRK5,ANKRD6,GRIK2,ARHGAP15,ITSN1,JAK2,CMKLR1,PARK2,NPHP3,ADCYAP1R1,SMOC2,NLGN4X,AFAP1,SULF1,SH3BP1,RFFL,ARHGAP24,SLIT2,TRIM5,CHRD1,TRAF3IP2,SH3RF3,BMPRI1A,SMAD3,PIBF1,SCUBE1,EYA1,MAD1L1,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,DGKI,DNMBP,TAF1,SHISA9,CDC73,FBXW11,NOS1AP,RBMS3,WWTR1,ARHGAP6,GRM4,CCL15,CNIH3,DOCK3,TRIM59,CELF4,AV3,ACTN4,PLCE1,EPH8,GHR,ARHGAP39,CD300A,CBF42T2,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,TRABD2B,ESR1,ARHGAP12,TNFRSF19,GRM1,PDE4D,PIK3CD,EIF3A,PIK3R2,ZNF423,PDE4B,MAPRE2,RIC8B,MAP3K7,PRKCQ,EPHB2,AGO3,MOB3B,PRCP,EEF1E1-BLOC1S5,DOCK2,BDNF,FNIP1,MAGI3,ADORA2A,SIPA1L2,IFT80,FSTL4,FHL2,NOX4,BMPER,DAB2,LRRK1,CACNG3,HDAC</i></p>

			<p>2,PDE11A,ZMYND11,RGS6,SRGAP3,ENPP1,RIMS2,DLGAP2,P RDM15,PEX5L,NRG1,RIT2,CD44,FAM19A4,MAP3K13,PLCL2, CHST11,NCAM1,AGT,FGF1,NDRG2,ARHGAP25,NF1,WIF1,ZN F536,NRXN1,ARHGAP10,GSK3B,CD109,GPR21,PSMB7,SNX5,T IAM2,IQCJ- SCHIP1,NCOA1,CHEK2,MECOM,SHANK2,KCTD8,NREP,GPC 3,DLG5,PREX1,UBE2V1,ROR1,ZNF675,BID,MACF1,TRIO,CAP N3,PTPRE,DUSP22,MAP3K5,CTDSPL2,HTR2C,FGD4,LY86,TP 73,ZNF366,ARHGFEF3,SLIT3,PAK3,GARNL3,UACA,MLLT3,RNF 213,SH3RF2,PRKAA2,TBL1X,GRM5,IGF1R,PTPRO,SUFU,INSR ,MAP2K1,UBR2,FOXO3,GPC6,RASGRF2,STK38,CNTN6,PRDM 16,ULK4,LTBP1,LRRK2,PKHD1,BMP6,FYN,EPA7,MARVELD 3,GAS8,RIMS1,EPHB1,CRADD,AMFR,LRP2,RALGPS2,FER,VW C2,GUCY2F,TMEM108,TPTE,RAPGEF2,PTPRU,IL18R1,RGS7B P,ESR2,TRIM22,CDH13,VEPH1,DAB1,SEMA3A,MGAT5,BDKR B2,LITAF,TENM1,ZRANB1,RGS7,SIPA1L3,GNG4,VWF,SCEL,N TRK3,FBN1,PPARA,PTPRD,RORA,SHISA6,EEF1E1,BICC1,PRL R,ATF6,DEPTOR,RALGAP1,PMEPA1</p>
GO:001647 7	cell migration	1.5939334474642237e- 12	<p>PTPRR,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,ERBB4,LAMA2, ROBO1,GPC5,FUT8,HDAC4,ABCC1,AUTS2,ANKS1A,LDLRAD 4,PTPRT,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,PRKCA,EPB41L 4B,KANK1,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DLC1 ,SOS1,DCLK1,CTNNA3,MAP2K5,MAGI2,CELSR1,DCC,ELMO2, SEMA4D,BDKRB1,ASTN2,DEFA1B,JAK2,CMKLR1,SMOC2,PIK 3C2B,ITGBL1,NRG3,NUMB,SULF1,SH3BP1,ATRNLI,RFFL,AR HGAP24,SLIT2,BMPRIA,SMAD3,PEAK1,SATB2,OVOL2,ELP3,S PNS2,NTN1,LDB2,FLRT2,CCL15,TNR,VAV3,SPOCK1,ACTN4,E PS8,CD300A,DISC1,CCL14,RABGEF1,LRP5,PIK3CD,DOCK4,C EP85L,SEMA6D,NTNG1,ADTRP,PDE4B,MAPRE2,PRKCQ,CLD N1,EPHB2,MCTP1,PRCP,DACH1,MARK1,ARID5B,MEGF9,BM PER,DAB2,PLXNA2,PRKG1,ETS1,FAT3,SRGAP3,CTNNA2,FMN L2,NRG1,CD44,SLC8A1,FBXO31,FAM19A4,CDC42BPA,AGT,F GF1,CCR3,USH2A,NF1,LAMA3,SRGAP2B,RHOJ,UNC5D,GPC3 ,DLG5,ASTN1,PREX1,MACF1,DUSP22,CCDC141,PAK3,CCL15 - CCL14,SH3RF2,SEMA5B,IGF1R,PTPRO,INSR,ITGA11,FOXO3, GPC6,MITF,FRMD5,ULK4,LRRK2,KIF2A,PHACTR1,FYN,MAR VELD3,ENPP2,EPHB1,DOCK1,EXT1,UNC5C,FER,RAPGEF2,N AV3,PTPRM,KIRREL3,CDKL5,PTPRU,SETD2,CDH13,DAB1,H DAC5,SEMA3A,MGAT5,MYH9,PIK3R3,SH3KBP1,ZRANB1,NTR K3,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,SEMA3C</p>
GO:000681 0	transport	4.778602412249502e- 12	<p>SYN3,SVOPL,LRP1B,KALRN,CACNG2,PROS1,NDE1,NTRK2,CL ASP1,SLC39A10,DMD,KCNC2,CHRM3,ERBB4,NOS1,TMC2,SIL 1,DPP10,SORCS2,ATP9A,ARFGAP3,IMMP2L,ABCC1,ATP8A2, AFTPH,WLS,SGSM1,PSMB2,SLC44A1,SNUPN,CACNA1A,TRP M1,PRKD1,RYR2,CASK,STX8,BTBD9,IL1RAPL1,HBE1,ABCA13 ,TBC1D5,SLCO3A1,GRIK4,PLS1,FCHSD2,NLGN1,DNAH9,KCN IP4,CAMK1D,SMG6,CLEC16A,TCF7L2,RELN,APP,PAK1,UTRN ,PPP3CA,RYR1,GABRG3,ERC2,AKAP6,OSBPL1A,GRM7,RABG AP1L,RYR3,LRR8C,RFTN1,DCLK1,MEF2A,KCNB2,FAM155A, DENND5A,DLG2,MAGI2,IFT81,AKAP13,ELMO2,KCNA6,SLCO 2B1,BDKRB1,TF,DNAH11,GRIK2,QK1,CHRM1,SYTL5,ZDHHC1 1B,ITSN1,ASTN2,TANC2,JAK2,ABCG8,RAB11FIP4,PARK2,SLC 14A2,NPHP3,ADCYAP1R1,DPP6,PRELID2,GRID1,GRIN3A,CA CNA1C,MAN1A1,NLGN4X,EXOC4,HEATR5A,EMB,ANO4,ENTH D1,ANKH,TMPRSS3,SLC5A10,NUMB,TRPM3,CD84,SH3BP1,S H3GL2,SLC13A3,PITPNC1,KCNJ16,SLC4A4,FLVCR2,TRAF3IP 2,SMAD3,CACNA1E,GABRR2,PIK3C3,SLC9C1,SLC47A1,SV2B, ANO2,TPH1,TNKS,TUB,SCAMP5,ARRDC4,FGF14,CACNA2D3, ASGR2,SPAG17,ZDHHC11,PTPRN2,DGKI,SPNS2,SLC1A1,NTN 1,SHISA9,EPM2A,SHFM1,MAP2,FBXW11,NOS1AP,KCTD7,CAT SPER2,PCSK5,CUX1,GRM4,ANK3,CNIH3,VAV3,SCN9A,ACTN4 ,RAB2A,CECR2,GHR,LRR8D,SLC25A21,CD300A,ABCC11,OS BPL10,ATP8B4,IFT43,RABGEF1,NSG2,LRP5,AP2B1,SLC30A7, ARHGAP12,KCNN3,DENND2A,GRM1,SCFD1,PDE4D,THEM4, PIK3CD,SLC5A3,BLOC1S5,FRMD4A,RAB24,EFNA5,ATF2,KCN J12,PIK3R2,CCDC91,GRID2,CYBB,KCNJ3,ADTRP,PDE4B,GAB RB3,SMG7,ANKRD13A,ATXN1,CLDN1,KCND2,SLC24A3,SPTB N4,EPHB2,ERC1,MCTP1,DOCK2,NUP214,DPYSL2,RBM4,ADO RA2A,ANO1,CADPS,CHKA,ICK,SYT1,DAB2,NSF,STXBP6,SNAP 23,CACNG3,EPG5,CALCRL,MICAL3,RANBP17,TMEM163,PRK AR1B,CDH23,TTN,MYRIP,SLC39A11,ENPP1,RIMS2,SCN8A,AG AP1,PEX5L,CYB561A3,PARD3,NRG1,TBC1D9,ATP10B,SLC35F</p>

			<p>4,FMN2,GRIA2,RIT2,KCNMA1,NCF4,CNGB1,PRKCG,SLC12A8,MAPKAPK2,SLC8A1,FAM19A4,RSRC1,SLC9A9,SAMM50,AGT,KCNQ5,HEPHL1,KCNJ6,GRIP1,TLK1,ARHGAP25,NF1,VPS16,SLC44A5,NRXN1,GSK3B,PKP2,SLC22A3,KCNH1,BBS9,CHD7,PMSB7,SNX5,CNTN1,UNC13A,GRIK3,CACNB2,STXBP4,RHOJ,ESYT2,SYBU,GPC3,CPE,ANO3,XKR4,SERPINA5,KCNS3,SLC5A8,PTGER3,BID,MACF1,CAPN3,MYOM1,SPAG16,CTDSPL2,HTR2C,GLRA2,NCF2,SNAP25-AS1,EPHA5,SGIP1,SNX31,P2RX6,ANK2,GRIN2B,LRPPRC,ADCY8,ITPR2,GABRR3,CACNA1D,ABCG2,GRIK1,TRAPPC8,GRM5,ATG4C,IGF1R,PKD1L1,TSNARE1,MON2,ZDHHC14,SUFU,NKAIN2,INSR,RPGR,MAP2K1,SLC9B1,KPNB1,RASGRF2,GABRA3,KLHL3,OCA2,CENPF,ATP9B,IGF2BP3,AGBL4,KPNA3,RBFOX1,LRRK2,NKAIN3,SPG11,SCN1A,BMP6,SLC35F1,VTI1A,FYN,KCND3,ABCC2,GAS8,MSR1,PTPN14,RIMS1,ENPP2,VPS53,MCTP2,ABCA12,KCNQ1,SLC38A6,DOCK1,EXT1,TRPC5,NOX5,LRP2,C2,FER,PCDH17,TMEM108,NRXN3,KCNH7,GRIA4,VPS45,SLC5A4,SETD2,PACSIN2,CDH13,TRDN,SEC16B,SLC16A12,CACHD1,EXOC6B,ATP13A3,STOML1,MYH9,BDKRB2,STIM1,VPS41,TENM1,VPS39,GABRB1,SH3KBP1,RGS7,STXBP5,TXNDC5,SLC24A2,GRIA3,SLC35F3,MOGAT2,CLASP2,TMPRSS15,DNAJC6,NSUN2,TPD52,SORCS1,DNM3,SYNDIG1,PPARA,SCFD2,SHISA6,ANXA8L1,ATP8A1,PRLR,KCNC4,CEP41,IPO11,SYT17,STAC,RAB27A,BLOC1S6,HGSNAT,KCNJ15,SYT9,SLC22A10</p>
GO:0051674	localization of cell	8.461361433069228e-12	<p>PTPRR,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,ERBB4,LAMA2,ROBO1,GPC5,FUT8,HDAC4,ABCC1,AUTS2,ANKS1A,LDLRAD4,PTPRT,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,PRKCA,EPB41L4B,KANK1,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DLC1,SOS1,DCLK1,CTNNA3,MAP2K5,MAGI2,CELSR1,DCC,ELMO2,SEMA4D,BDKRB1,NME8,TF,DNAH11,ASTN2,DEFA1B,JAK2,CMKLR1,SMOC2,PIK3C2B,ITGBL1,NRG3,NUMB,SULF1,SH3BP1,ATRNL1,RFFL,ARHGAP24,SLIT2,BMPRIA,SMAD3,SLC9C1,PEAK1,SATB2,OVOL2,ELP3,SPNS2,NTN1,LDB2,FLRT2,CATSPER2,CCL15,TLL8,TNR,VAV3,SPOCK1,ACTN4,EPH8,CD300A,DI SC1,CCL14,RABGEF1,LRP5,PIK3CD,DOCK4,ARMC2,CEP85L,SEMA6D,NTNG1,ADTRP,PDE4B,MAPRE2,PRKCQ,CLDN1,EPHB2,MCTP1,PRCP,DACH1,MARK1,ARID5B,MEGF9,BMPER,DAB2,PLXNA2,PRKG1,ETS1,FAT3,SRGAP3,CTNNA2,FMN2,NR G1,SPINT2,CD44,SLC8A1,FBXO31,FAM19A4,CDC42BPA,AGT,FGF1,CCR3,USH2A,NF1,LAMA3,SRGAP2B,RHOJ,UNC5D,GPC3,DLG5,ASTN1,PREX1,MACF1,DUSP22,SPAG16,CCDC141,PAK3,CCL15-CCL14,SH3RF2,SEMA5B,IGF1R,PTPRO,INSR,ITGA11,MAP2K1,SLC9B1,FOXO3,GPC6,MITF,FRMD5,ULK4,LRRK2,KIF2A,PHACTR1,FYN,MARVELD3,GAS8,ENPP2,EPHB1,DOCK1,EXT1,UNC5C,FER,TPTE,RAPGEF2,NAV3,DNAH3,PTPRM,KIRREL3,CDKL5,PTPRU,SETD2,CDH13,DAB1,HDAC5,SEMA3A,MGAT5,MYH9,PIK3R3,SH3KBP1,ZRANB1,NTRK3,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,SEMA3C</p>
GO:0048870	cell motility	8.461361433069228e-12	<p>PTPRR,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,ERBB4,LAMA2,ROBO1,GPC5,FUT8,HDAC4,ABCC1,AUTS2,ANKS1A,LDLRAD4,PTPRT,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,PRKCA,EPB41L4B,KANK1,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DLC1,SOS1,DCLK1,CTNNA3,MAP2K5,MAGI2,CELSR1,DCC,ELMO2,SEMA4D,BDKRB1,NME8,TF,DNAH11,ASTN2,DEFA1B,JAK2,CMKLR1,SMOC2,PIK3C2B,ITGBL1,NRG3,NUMB,SULF1,SH3BP1,ATRNL1,RFFL,ARHGAP24,SLIT2,BMPRIA,SMAD3,SLC9C1,PEAK1,SATB2,OVOL2,ELP3,SPNS2,NTN1,LDB2,FLRT2,CATSPER2,CCL15,TLL8,TNR,VAV3,SPOCK1,ACTN4,EPH8,CD300A,DI SC1,CCL14,RABGEF1,LRP5,PIK3CD,DOCK4,ARMC2,CEP85L,SEMA6D,NTNG1,ADTRP,PDE4B,MAPRE2,PRKCQ,CLDN1,EPHB2,MCTP1,PRCP,DACH1,MARK1,ARID5B,MEGF9,BMPER,DAB2,PLXNA2,PRKG1,ETS1,FAT3,SRGAP3,CTNNA2,FMN2,NR G1,SPINT2,CD44,SLC8A1,FBXO31,FAM19A4,CDC42BPA,AGT,FGF1,CCR3,USH2A,NF1,LAMA3,SRGAP2B,RHOJ,UNC5D,GPC3,DLG5,ASTN1,PREX1,MACF1,DUSP22,SPAG16,CCDC141,PAK3,CCL15-CCL14,SH3RF2,SEMA5B,IGF1R,PTPRO,INSR,ITGA11,MAP2K1,SLC9B1,FOXO3,GPC6,MITF,FRMD5,ULK4,LRRK2,KIF2A,PHACTR1,FYN,MARVELD3,GAS8,ENPP2,EPHB1,DOCK1,EXT1,UNC5C,FER,TPTE,RAPGEF2,NAV3,DNAH3,PTPRM,KIRREL3,CDKL5,PTPRU,SETD2,CDH13,DAB1,HDAC5,SEMA3A,MGAT5,MYH9,PIK3R3,SH3KBP1,ZRANB1,NTRK3,CLASP2,PTPRK,DO</p>

			<i>CK10,ATP8A1,SEMA3D,SEMA3C</i>
GO:005079 3	regulation of developmental process	9.733825197335442e-12	<i>KALRN,CTNNA1,NTRK2,CLASP1,ZNRF3,DMD,SPRED2,ERBB4,LAMA2,CNTN4,ROBO1,PRICKLE2,DSCAM,SHROOM3,HDAC4,LINGO2,ATP8A2,LDLRAD4,PSMB2,PLCB1,PRKD1,VCL,NEDD9,PPP2R3C,SEMA5A,PRKCA,IL1RAPL1,MYO9A,CCDC3,KANK1,TCF12,RUNX1,PLS1,NLGN1,CAMK1D,TCF7L2,RELN,APP,ADAM12,PAK1,PPP3CA,TOX,AKAP6,DLC1,SOS1,ALK,DNMT1,MAGI2,CELSR1,ROBO2,DCC,SEMA4D,ANKRD6,ARHGAP15,TANC2,JAK2,CMKLR1,ZBTB7C,PARK2,NPHP3,GRIN3A,SMOC2,ANKH,PALMD,NUMB,SOX6,SULF1,SLIT2,BMPRI1A,SMAD3,TNFRSF11B,EYA1,TPH1,ARHGEF18,OVOL2,BRINP1,OMA1,GLIS1,SOX5,DNMBP,NTN1,MAP2,CDC73,FLRT2,WWTR1,CUX1,TRPS1,CDH4,TNR,CELF4,ACTN4,EPSS8,TENM4,GHR,LRRRC4C,PALM2,CLSTN2,DISC1,LRP5,ESR1,PIK3CD,BLOC1S5,TEAD4,EFNA5,FTO,ATF2,GRID2,CYBB,SEMA6D,NTNG1,JDP2,SPTBN4,EPHB2,SIPR3,PRTG,DPYSL2,MARK1,BDNF,RBM4,FNIP1,FSTL4,BCOR,BMPER,SYT1,DAB2,PLXNA2,HDAC2,ETS1,FAT3,ENPP1,RIMS2,FMNL2,PARD3,NRG1,CD44,SLC8A1,ISM1,FBXO31,MAP3K13,CDC42EP3,AGT,FGF1,CCR3,STRIP1,GRIP1,USH2A,NF1,WIF1,ZNF536,PARVB,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,SETD3,CD109,GPR21,CHD7,PSMB7,TLAM2,PLEKHB2,UNC13A,TRIOBP,NCOA1,RHOJ,ISLR2,NREP,GPC3,DLG5,CFDPI,P,REX1,ROR1,ZNF675,MACF1,TRIO,CAPN3,MAP3K5,HTR2C,FGD4,TP73,RBM19,FAM171A1,PAK3,MLLT3,SEMA5B,NLN,SDK1,GRM5,IGF1R,SUFU,INSR,JAK1,MAP2K1,FOXO3,GPC6,CENPF,MITF,AGBL4,RBFOX1,KIR2DL4,LRRK2,PKHD1,RARB,TCF4,PBX1,BMP6,ASAP1,FYN,EPHA7,MSR1,RIMS1,ENPP2,ABCA12,EPHB1,DOCK1,VASH2,TRPC5,LRP2,CAMK4,VWC2,RAPGEF2,PTPRM,CDKL5,KAT7,BASP1,DAB1,HDAC5,SEMA3A,MYH9,STIM1,SH3KBP1,ZRANB1,NTRK3,FBN1,CLASP2,NSUN2,DNM3,SYNDIG1,PPARA,PTPRD,RORA,ELAVL4,NELL1,EEF1E1,SEMA3D,PRLR,SYT17,BLOCIS6,SEMA3C</i>
GO:005123 4	establishment of localization	1.631991051290535e-11	<i>SYN3,SVOP,LRP1B,KALRN,CACNG2,PROS1,NDE1,NTRK2,CLASP1,SLC39A10,DMD,KCNC2,CHRM3,ERBB4,NOS1,TMC2,SIL1,DPP10,SORCS2,ATP9A,ARFGAP3,IMMP2L,ABCC1,ATP8A2,AFTPH,WLS,SGSM1,PSMB2,SLC44A1,SNUPN,CACNA1A,TRPM1,PRKD1,RYR2,CASK,STX8,BTBD9,IL1RAPL1,HBE1,ABCA13,TBC1D5,SLCO3A1,GRIK4,PLS1,FCHSD2,NLGN1,DNAH9,KCNIP4,CAMK1D,SMG6,CLEC16A,TCF7L2,RELN,APP,PAK1,UTRN,PPP3CA,RYR1,GABRG3,ERC2,AKAP6,OSBPL1A,GRM7,RABGAP1L,RYR3,LRRRC8C,RFTN1,DCLK1,MEF2A,KCNB2,FAM155A,DENND5A,DLG2,MAGI2,IFT81,AKAP13,ELMO2,KCNA6,SLCO2B1,BDKRB1,TF,DNAH11,GRIK2,QKI,CHRM1,SYTL5,ZDHHC11B,ITSN1,ASTN2,TANC2,JAK2,ABCG8,RAB11FIP4,PARK2,SLC14A2,NPHP3,ADCYAP1R1,DPP6,PRELID2,GRID1,GRIN3A,CACNA1C,MAN1A1,NLGN4X,EXOC4,HEATR5A,EMB,ANO4,ENTHD1,ANKH,TMPRSS3,SLC5A10,NUMB,TRPM3,CD84,SH3BP1,S,H3GL2,SLC13A3,PITPNCL,KCNJ16,SLC4A4,FLVCR2,TRAF3IP2,SMAD3,CACNA1E,PIBF1,GABRR2,PIK3C3,SLC9C1,SLC47A1,SV2B,ANO2,TPH1,MAD1L1,TNKS,TUB,SCAMP5,ARRDC4,FGF14,CACNA2D3,ASGR2,SPAG17,ZDHHC11,PTPRN2,DGKI,SPNS2,SLC1A1,NTN1,SHISA9,EPM2A,SBFM1,MAP2,FBXW11,NOS1AP,KCTD7,CATSPER2,PCSK5,CUX1,GRM4,ANK3,CNIH3,VAV3,SCN9A,ACTN4,RAB2A,CECR2,GHR,LRRRC8D,SLC25A21,CD300A,ABCC11,OSBPL10,ATP8B4,IFT43,RABGEF1,NSG2,LRP5,AP2B1,SLC30A7,ARHGAP12,KCNN3,DENND2A,GRM1,SCFD1,PD E4D,THEM4,PIK3CD,SLC5A3,BLOC1S5,FRMD4A,RAB24,EFNA5,ATF2,KCNJ12,PIK3R2,CCDC91,GRID2,CYBB,KCNJ3,ADTRP,PDE4B,GABRB3,SMG7,ANKRD13A,ATXN1,CLDN1,WDR830S,KCND2,SLC24A3,SPTBN4,EPHB2,ERC1,MCTP1,DOCK2,NUP214,DPYSL2,MARK1,RBM4,ADORA2A,ANO1,CADPS,CHKA,ICK,SYT1,DAB2,NSF,STXBP6,SNAP23,CACNG3,EPG5,CALCRL,MICAL3,RANBP17,TMEM163,PRKAR1B,CDH23,TTN,MYRIP,SLC39A11,ENPP1,RIMS2,SCN8A,AGAPI,PEXSL,CYB561A3,PARD3,NRG1,TBC1D9,ATP10B,SLC35F4,FMN2,GRIA2,RIT2,KCNMA1,NCF4,CNGB1,GPSM2,PRKCG,SLC12A8,MAPKAPK2,SLC8A1,FAM19A4,RSRC1,SLC9A9,SAMM50,AGT,KCNQ5,HEPHL1,KCNJ6,GRIP1,TLK1,ARHGAP25,USH2A,NF1,VPS16,SLC44A5,NRXN1,GSK3B,PKP2,SLC22A3,KCNH1,BBS9,CHD7,PSMB7,SNX5,CNTN1,UNC13A,GRIK3,CACNB2,STXBP4,RHOJ,ESYT2,SYBU,GPC3,CPE,ANO3,XKR4,SERPINA5,KCNS3,SLC5A8,PTGER3,BID,MACF1,CAPN3,MYOM1,SPAG16,CTDSPL2,HTR2C,GLRA2,NCF2,SNAP25-</i>

			<p> <i>ASI,EPHA5,SGIP1,SNX31,P2RX6,ANK2,GRIN2B,LRP4,ADCY8,ITPR2,GABRR3,CACNA1D,ABCG2,GRIK1,ANKFN1,TRAPP C8,GRM5,ATG4C,IGF1R,PKD1L1,TSNARE1,MON2,ZDHHC14,SUFU,NKAIN2,INSR,RPGR,MAP2K1,SLC9B1,KPNB1,RASGRF2,GABRA3,KLHL3,OCA2,CENPF,ATP9B,IGF2BP3,AGBL4,KPNA3,RBFOX1,LRRK2,NKAIN3,PKHD1,SPG11,SCN1A,BMP6,SLC35F1,VTI1A,FYN,KCND3,ABCC2,GAS8,MSR1,PTPN14,RIMS1,E NPP2,VPS53,MCTP2,ABCA12,KCNQ1,SLC38A6,DOCK1,EXT1,TRPC5,NOX5,LRP2,C2,FER,PCDH17,TMEM108,NRXN3,KCNH7,GRIA4,VPS45,SLC5A4,SETD2,PACSIN2,CDH13,TRDN,SEC16B,SLC16A12,CACHD1,EXOC6B,ATP13A3,STOML1,MYH9,BDKRB2,STIM1,VPS41,TENM1,VPS39,GABRB1,SH3KBP1,RGS7,STXBP5,TXNDC5,SLC24A2,GRIA3,SLC35F3,MOGAT2,CLASP2,TMPRSS15,DNAJC6,NSUN2,TPD52,SORCS1,DNM3,SYNDIG1,PPARA,SCFD2,SHISA6,ANXA8L1,ATP8A1,PRLR,KCNC4,CEP41,IPO11,SYT17,STAC,RAB27A,BLOC1S6,PARD3B,HGSNAT,KCNJ15,SYT9,SLC22A10</i> </p>
GO:0050789	regulation of biological process	2.041283298452881e-11	<p> <i>PKNOX2,PTPRR,SYN3,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,CACNG2,RNF43,PROS1,RPS6KA2,CTNNA1,FOXN3,NTRK2,CLASP1,RASGEF1B,ZNRF3,GLIS3,PTPRG,FBXL17,SLC39A10,DMD,KCNC2,CHRM3,EIF3E,SPRED2,ERBB4,LAMA2,TDFP2,NOS1,CNTN4,TMC2,SND1,ESRRG,ROBO1,PRICKLE2,DSCAM,SHROOM3,CIT,TBCD,DPP10,PUM1,FRY,GPC5,WDR59,SORCS2,PRIM2,WWOX,HUNK,FUT8,TNRC6B,HDAC4,ATP9A,LINGO2,ABCC1,ATP8A2,AUTS2,WLS,ANKS1A,LDLRAD4,MYEF2,TE NM2,BLM,PSMB2,PTPRT,RXFPI,ATF7IP,ASXL3,MGLL,PLCBI,FLT3,SRPK2,CACNA1A,TRPM1,PRKD1,RYR2,VCL,PDS5A,NE DD9,PPP2R3C,SEMA5A,ETV6,CASK,PRKCA,EPB41L4B,STX8,ZBTB20,DLGAP1,BTBD9,TRHDE,ZNF713,IL1RAPL1,MYO9A,C CDC3,DIO2,PDE4DIP,ITGAE,ABCA13,KANK1,KIF26B,TBC1D5,SLCO3A1,TCF12,GRIK4,RUNX1,PLS1,GPR176,DOK6,FCHSD2,NLGN1,TNFRSF10B,KCNIP4,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,MTRF1,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,DEPDC5,RYR1,TOX,GABRG3,ERC2,PTPN9,CREM,AKAP6,SORCS3,GRM7,RABGAP1L,DLC1,IDE,SCMH1,RYR3,SOS1,CTNND2,RFTN1,ALK,BTRC,DCLK1,MEF2A,EEFSEC,KCNB2,TFAP2D,CTNNA3,DENND5A,PPP1R12B,MAP2K5,DNMT1,MAGI2,EDA,CELSR1,ROBO2,IFT81,AKAP13,HIVEP3,DCC,SAMD4A,C10ORF90,ZNF799,DDBI,EP300,KCNA6,PARN,SEMA4D,EVC,RP S6KA5,PHF20,GRK5,ANKRD6,TRAPPC9,BDKRB1,TF,DNAH11,GRIK2,QKI,GNGL2,CHRM1,CDH8,ARHGAP15,HUS1,ZNF667,TFEC,ITSN1,ASTN2,TANC2,DEFA1B,JAK2,ABCG8,RAB11FIP4,NEGR1,CMKLR1,PPP6R2,ZBTB7C,MAST4,PARK2,MAGI1,NPH P3,ADCYAP1R1,SERPINA4,DPP6,GRID1,GRIN3A,SMOC2,CACNA1C,NLGN4X,EXOC4,PIK3C2B,OR5K4,ANKH,ITGBL1,GBE1,AFAP1,TAGLN3,PALMD,SP140,NRG3,NUMB,MED15,SOX6,COLA46,SULF1,CD84,MAGEA11,SH3BP1,ADCY2,TCF20,ATRNLI,RFFL,SH3GL2,PSPC1,ARHGAP24,PITPNC1,SLIT2,KCNJ16,MA PK4,GLP2R,SLC4A4,DTNA,KMT2C,TRIM5,THEMIS,DRG2,AFF3,ATRX,CHRD1,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPRI1,SMAD3,PRKAR2A,CACNA1E,BORA,PI4KA,TNFRSF11B,PIBF1,GABRR2,PIK3C3,CHD6,KIR3DL2,PTGFR,SCUBE1,PEAK1,EYA1,SATB2,ANKS1B,ELN,MAML3,GPR141,TPH1,MAD1L1,EGFLAM,DGKB,TNKS,TUB,KLF12,ARHGEF18,SCAMP5,LINC00473,O VOL2,SGMS1,GRAMD4,DNAJB6,ELP3,BRINP1,OMA1,BCL2L13,ARRDC4,KHDRBS2,FGF14,CACNA2D3,DGKK,OR51U1,GLIS1,ASGR2,IL1RAPL2,ZDHHC11,SKAP1,CDYL2,SOX5,DGKI,DNMBP,TAF1,SPNS2,SLC1A1,RNF144B,NTN1,LDB2,SHISA9,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,RANBP10,CD96,RBMS3,ARHGEF6,WWTR1,PENT,ARHGAP6,PHF20L1,KCTD7,CATSPER2,EGLN3,CUX1,GRM4,ANK3,TIMP2,CCL15,MORC2,ZNF19,ARID4B,CNIH3,DOCK3,TRIM59,TRPS1,CDH4,TNR,ADCY9,C ELF4,VAV3,CDKL1,SCN9A,MDM4,ARNT2,SPOCK1,ACTN4,HPSE2,PLCE1,LRRN2,EPS8,TENM4,PRR16,GHR,ARHGAP39,LRR C4C,PPP1R9A,RGL1,PALM2,CLSTN2,CD300A,CBFA2T2,FUBP1,PRG3,MLIP,SERTAD2,DISC1,RALGPS1,ARHGAP42,CCL14,R ABGEF1,FHIT,NSG2,TRABD2B,LRP5,AP2B1,ESR1,ARHGAP12,TNFRSF19,PLCXD3,GRM1,SCFD1,PDE4D,THEM4,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,TEAD4,PDE7B,EFNA5,FTO,EIF3A,POU6F2,ATF2,RBBP8,KCNJ12,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,SUSD4,CELF2,NTNG1,ADTRP,CRMP1,PDE4B,MAPRE2,RIC8B,GABRB3,SMG7,ANKRD13A,MAP3K7,PRKCQ,ATXN1,N4BP1,RASSF8,RHPN2,CLDN1,KCND2,SLC24A</i> </p>

			<p>3,JDP2,SPTBN4,EPHB2,ERC1,AGO3,S1PR3,MCTP1,MOB3B,P RCP,PRTG,RGMB,EEF1E1- BLOC1S5,DOCK2,NUP214,DPYSL2,PTPDC1,RFC3,DACH1,MA RK1,BDNF,RBM4,FNIP1,MALRD1,MAGI3,ADORA2A,ARID5B,S IPA1L2,RCAN2,IFT80,FSTL4,ANO1,FHL2,CADPS,DRAM1,NOX 4,BCOR,BMPER,PDE1A,ICK,DEFA3,BRD9,SYT1,EBAG9,DAB2, AFF2,PLXNA2,NSF,EBF4,LRRK1,PRKG1,STXBP6,ABI1,CACN G3,EPG5,PTH2R,CALCRL,TNNI3K,HDAC2,ETS1,BANP,FAT3,P DE11A,ARID4A,RAB30,PRKAR1B,BACH1,ZMYND11,TTN,RGS6 ,SRGAP3,ZNF93,MYRIP,CDK19,ENPP1,CFB,ZNF443,RIMS2,S CN84,KSR2,DLGAP2,PRDM15,OR4N2,CTNNA2,PEX5L,FMNL2 ,PARD3,NRG1,CAST,FANK1,SPINT2,NPAS3,FMN2,GRIA2,VST M1,TOPI,RIT2,CD44,PAX7,KCNMA1,SCAF8,CNGB1,GPSM2,P RKCG,TNS3,MED13L,TEAD1,NFIA,MAPKAPK2,EIF4G3,SLC8 A1,SRRM4,RAPGEF6,ISM1,FBXO31,FAM19A4,MAP3K13,PLCL 2,TOX3,CHST11,THRB,CDC42BPA,CDC42EP3,MIR1185- 1,MAPK10,NCAM1,AGT,FGF1,KCNQ5,QRICH1,CCR3,KCNJ6,S TRIP1,ZNF709,NDRG2,GRIP1,TLK1,UPK3B,ARHGAP25,USH2 A,NF1,WIF1,ZNF536,PARVB,NRXN1,ARHGAP10,LAMA3,PDXP ,GSK3B,KIR2DL1,PKP2,CTDP1,SETD3,CD109,KCNH1,ZNF695 ,DCDC1,LMO7,WDR70,GPR21,CHD7,PSMB7,MOV10L1,SNX5, TIAM2,OR51B2,MYT1L,SRGAP2B,IQCJ- SCHIP1,CNTN1,PLEKHB2,BTBD11,UNC13A,TRIOBP,CABIN1, NCOA1,CHEK2,GRIK3,CACNB2,STXBP4,RHOJ,ZBTB8B,ZNF7 30,MECOM,STK32B,SHANK2,UBE2E2,KCTD8,UNC5D,ISLR2,N REP,GPC3,DLG5,CFDP1,PREX1,CPE,UBE2V1,ROR1,ZNF675, SERPIN A5,KCNS3,PTGER3,BID,MACF1,MNAT1,TRIO,CAPN3, CTNNB1,PTPRE,DUSP22,MYOM1,MAP3K5,MAML2,CTDSPL 2,HTR2C,GLRA2,FGD4,LY86,ZNF670,EPHA5,SGIP1,HIRA,RNF 144A,TP73,RBM19,IL1RL1,TSHZ2,ZNF366,FAM171A1,MORC3, P2RX6,ANK2,ARHGEF3,SUPT3H,SLIT3,GRIN2B,PHC2,PAK3,G ARNL3,UACA,LRPPRC,DPH6,ADCY8,ITPR2,GABRR3,MLLT3,N EB,CCL15- CCL14,ITGB3BP,RNF213,SH3RF2,CACNA1D,PRKAA2,PACRG, TBL1X,SEMA5B,HIVEP2,GRIK1,NLN,ANKFN1,SDK1,GRM5,AR AP2,IGF1R,MXD3,CNTNAP2,PTPRO,SUFU,NKAIN2,INSR,CIZ1 ,ITGA11,JAK1,MAP2K1,UBR2,ZNF490,GMD5,KPNB1,FOXO3, GPC6,RASGRF2,STK38,GABRA3,INPP5A,CNTN6,CENPF,KCT D1,RNLS,PPP1R14A,MITF,IGF2BP3,SP140L,LRFN5,CDC14A,E NOX2,AGBL4,PRDM16,FRMD5,ULK4,RBFOX1,KIR2DL4,ZNF6 05,ZNF41,TMEM117,DNMT3B,ADAMTS16,TASPI,LTBP1,LRRK 2,NKAIN3,PKHD1,KIF2A,RARB,TCF4,PBX1,PHACTRI,SCN1A, BMP6,PCBP3,ASAP1,FRMPD4,FYN,KCND3,ABCC2,CSPP1,EP HA7,MARVELD3,GAS8,MSR1,CLN6,PTPN14,GNG2,PCBD2,RI MS1,ENPP2,L3MBTL4,MCTP2,ABCA12,BEND5,EPHB1,KCNQ1 ,FHOD3,DOCK1,CRAADD,VASH2,ZNF664,EXT1,TRPC5,AMFR, PLCB4,UNC5C,TENM3,NOX5,LRP2,ZCCHC17,C2,RALGPS2,F ER,CAMK4,VWC2,GUCY2F,ERLIN1,PCDH17,SGCD,TMEM108 ,TPTE,RAPGEF2,NAV3,PTPRM,NCOA2,NRXN3,KCNH7,CDKL5 ,INPP4A,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,S ATB1,C9,MIR767,SETD2,PACSN2,TRIM22,CDH13,VEPH1,BAS P1,TRDN,DAB1,ZNF148,SEC16B,HDAC5,SEMA3A,MGAT5,TSP AN8,MYH9,BDKRB2,STIM1,TSC22D3,NRIP1,CCNG2,MIR105- 2,LITAF,PIK3R3,BRF1,TENM1,STK38L,GABRB1,ST8SLA1,SH3K BP1,PRKAR1A,ZRANB1,RGS7,STXBP5,FCRL2,SIPA1L3,GNG4, VWF,TXNDC5,SLC24A2,SCEL,GRIA3,NTRK3,FBN1,DIS3L2,TB X15,CLASP2,ZNF521,CREB5,DNAJC6,NSUN2,DACH2,PTPRK, SORCS1,DNM3,SYNDIG1,DOCK9,PPARA,PTPRD,RORA,SHISA 6,BRIP1,ELAVL4,ANXA8L1,MXI1,TTC28,NELL1,DOCK10,EEF1 E1,ATP8A1,BICC1,SEMA3D,PRLR,PTPRA,KCNC4,ATF6,DEPT OR,NVL,RAD51D,CUL2,SYT17,STAC,OR4M1,RAB27A,RALGAP A1,CABLES1,CST2,BLOC1S6,PMEP A1,LARP4B,KCNJ15,SYT9,S EMA3C,ST18,RXFP2</p>
GO:0003008	system process	3.045677491154454e-11	<p>CAMTA1,RCAN1,KALRN,CACNG2,RPS6KA2,NTRK2,DMD,CH RM3,NOS1,TMC2,MYO3A,HDAC4,IMMP2L,ABCC1,ATP8A2,SL C44A1,MGLL,NFASC,PLCB1,TRPM1,RYR2,PRKCA,DLGAP1,B TBD9,TRHDE,MYO9A,CALD1,SLCO3A1,PLS1,USP53,NLGN1,D NAH9,RELN,APP,UTRN,PPP3CA,RYR1,PCDH15,GABRG3,AKA P6,SORCS3,GRM7,SSPN,RYR3,MEF2A,KCNB2,CTNNA3,PPP1R 12B,EYS,AKAP13,EP300,SLCO2B1,BDKRB1,DNAH11,GRIK2,C HRM1,JAK2,ABCG8,PARK2,GRIN3A,CACNA1C,NLGN4X,OR5 K4,TMPRSS3,TRPM3,SULF1,SH3GL2,COL11A1,SLC13A3,SLIT 2,SYNM,SLC4A4,DTNA,SMAD3,GABRR2,HMCN1,EYA1,ELN,T</p>

			<p>UB, BRINP1, OR51I1, DGKI, SLC1A1, SHISA9, EPM2A, NOS1AP, WTR1, PCSK5, ANK3, LHFPL3, TNFR, CELF4, SCN9A, PLCE1, TENM4, MLIP, STRC, ARHGAP42, LRP5, NAV2, GRM1, PDE4D, CNTN5, DOCK4, SLC5A3, FTO, POU6F2, KCNJ12, GRID2, KCNJ3, CELF2, PDE4B, GABRB3, ATXN1, RHPN2, KCND2, SNTB1, SLC24A3, SPTBN4, EPHB2, MYBPC2, PRCP, BDNF, ADORA2A, ANO1, NOX4, CSMD1, DAB2, AFF2, PRKG1, CACNG3, CALCRL, TNNI3K, HDAC2, PRKAR1B, CDH23, TTN, RIMS2, SCN8A, DLGAP2, OR4N2, CTNNA2, PAR3, MYOM3, KCNMA1, CNGB1, PRKCG, SLC8A1, SRRM4, FAM19A4, THRB, AGT, USH2A, NF1, NRXN1, GSK3B, PKP2, CTDP1, SETD3, SLC22A3, BBS9, CHD7, SNX5, OR51B2, TRIOBP, CACNB2, SHANK2, ROR1, PTGER3, MYO3B, MYOM1, SPAG16, HTR2C, GLRA2, P2RX6, ANK2, GRIN2B, ADCY8, GABRR3, CACNA1D, ABCG2, TBL1X, SEMA5B, ANKFN1, GRM5, CNTNAP2, PTPRO, INSR, RPGR, FOXO3, GABRA3, KLHL3, RNLS, CDC14A, RBFOX1, ADAMTS16, LRRK2, SCN1A, BMP6, VTG1A, FYN, KCND3, ABCC2, SG CZ, CLN6, RIMS1, EPHB1, KCNQ1, EXT1, AMFR, LRP2, CAMK4, GUCY2F, SGCD, TMMEM108, SHROOM4, NRXN3, SOBP, TRDN, SLC16A12, SEMA3A, BDKRB2, TANC1, GABRB1, SLC24A2, MOGAT2, PPARA, SHISA6, ELAVL4, ATP8A1, ATF6, STAC, OR4M1, CST2</p>
GO:0051128	regulation of cellular component organization	3.5340212021058717e-11	<p>RNF4, CHFR, KALRN, RPS6KA2, NTRK2, CLASP1, PTPRG, DMD, ROBO1, DSCAM, CIT, TBCD, HDAC4, LINGO2, ATP8A2, AUTS2, LDLRAD4, TENM2, ATF7IP, PLCB1, PRKD1, VCL, SEMA5A, BTBD9, IL1RAPL1, MYO9A, PDE4DIP, ABCA13, KANK1, TBC1D5, RUNX1, PLS1, FCHSD2, NLGN1, CAMK1D, SMG6, CLEC16A, MTRF1, RELN, APP, PAK1, PPP3CA, TOX, PTPN9, AKAP6, DLC1, ALK, DENND5A, MAP2K5, DNMT1, MAGI2, CELSR1, ROBO2, AKAP13, DCC, C10ORF90, EP300, PARN, SEMA4D, BDKRB1, TF, CDH8, TANC2, NEG R1, PARK2, AFAP1, NRG3, NUMB, SH3BP1, ARHGAP24, SLIT2, ATRX, SLX1B, SMAD3, BORA, PEAK1, ELN, MAD1L1, DGKB, TNKS, ARHGAP18, SCAMP5, DNAJB6, OMA1, IL1RAPL2, SKAP1, NTN1, EP M2A, MAP2, CDC73, FLRT2, ARHGAP6, CUX1, MORC2, CDH4, TN R, CDKL1, SPOCK1, PLCE1, EPS8, LRRK4C, CLSTN2, CD300A, CBF A2T2, SERTAD2, DISC1, RABGEF1, TRABD2B, LRP5, AP2B1, ESR1, SCFD1, EFNA5, GRID2, SEMA6D, NTNG1, ADTRP, CRMP1, MAP RE2, ANKRD13A, PRKCQ, RASSF8, RHPN2, CLDN1, SPTBN4, EPH B2, MCTP1, DPYSL2, MARK1, BDNF, FNIP1, FSTL4, SYT1, EBAG9, DAB2, PLXNA2, STXBP6, HDAC2, FAT3, ENPP1, RIMS2, CTNNA2, NRG1, RIT2, CD44, SCAF8, GPSM2, FBXO31, MAP3K13, CDC42EP 3, AGT, GRIP1, TLK1, NRXN1, PDXP, GSK3B, CTDP1, TIAM2, IQCJ SCHIP1, CNTN1, UNC13A, TRIOBP, SHANK2, ISLR2, GPC3, DLG5, ROR1, BID, MACF1, MNAT1, DUSP22, EPHA5, SIGIP1, SLIT3, GRIN 2B, PAK3, MLLT3, NEB, PRKAA2, SEMA5B, IGF1R, CNTNAP2, PTP RO, INSR, MAP2K1, GPC6, CENPF, LRFN5, ULK4, ADAMTS16, LR RK2, PKHD1, BMP6, ASAP1, FRMPD4, FYN, EPHA7, RIMS1, ENPP 2, EPHB1, FHOD3, TRPC5, TENM3, NOX5, FER, RAPGEF2, NAV3, CDKL5, ZNF207, ESR2, PACSIN2, CDH13, DAB1, SEMA3A, MYH9, TENM1, STK38L, STXBP5, GNG4, NTRK3, CLASP2, DNAJC6, DN M3, SYNDIG1, PPARA, PTPRD, ELAVL4, ATP8A1, SEMA3D, PTPRA, S YTI7, PMEP1, SYT9, SEMA3C</p>
GO:0007166	cell surface receptor signaling pathway	3.872573074122261e-11	<p>PTPRR, KALRN, RNF43, CTNNA1, NTRK2, ZNRF3, PTPRG, FBXL1 7, SLC39A10, SPRED2, ERBB4, ROBO1, PRICKLE2, DSCAM, GPC5 , WWOX, FUT8, WLS, ANKS1A, LDLRAD4, PSMB2, PTPRT, PLCB1, FLT3, TRPM1, PRKD1, NEDD9, SEMA5A, PRKCA, CCDC3, ITGAE, KANK1, GRIK4, DOK6, NLGN1, TNFRSF10B, AMOTL1, TCF7L2, R ELN, APP, ADAM12, PAK1, PPP3CA, GRM7, IDE, SOS1, CTNND2, R FTTN1, ALK, BTRC, MAP2K5, MAGI2, EDA, CELSR1, ROBO2, IFT81, DCC, DDB1, EP300, SEMA4D, EVC, RPS6KA5, GRK5, ANKRD6, TF, GRIK2, JAK2, CMKLR1, PARK2, MAGI1, NPHP3, ADCYAP1R1, GR ID1, GRIN3A, SMOC2, NLGN4X, ITGBL1, NRG3, COL4A6, SULF1, S H3BP1, RFFL, SLIT2, GLP2R, TRIM5, THEMIS, CHRDL1, TRAF3IP 2, BMPRI1, SMAD3, PIBF1, SCUBE1, EYA1, ANKS1B, MAML3, TNK S, OVOL2, ASGR2, IL1RAPL2, SKAP1, DGKI, SLC1A1, EPM2A, CDC 73, FLRT2, FBXW11, RANBP10, RBMS3, WWTR1, GRM4, CCL15, C ELF4, VAV3, ACTN4, PLCE1, GHR, CD300A, CBF A2T2, DISC1, CCL 14, RABGEF1, TRABD2B, LRP5, TNFRSF19, GRM1, PDE4D, PIK3C D, EFNA5, ATF2, PIK3R2, GRID2, ZNF423, SEMA6D, PDE4B, MAP 3K7, PRKCQ, EPHB2, SIPR3, RGM, PTPDC1, MARK1, BDNF, AD ORA2A, ARID5B, IFT80, FSTL4, BMPER, DAB2, PLXNA2, LRRK1, A BII, PTH2R, CALCRL, HDAC2, ZMYND11, ENPP1, RIMS2, PRDM1 5, NRG1, GRIA2, CD44, MAPKAPK2, PLCL2, CHST11, MAPK10, NC AMI, AGT, FGF1, CCR3, NDRG2, NF1, WIF1, NRXN1, LAMA3, GSK 3B, KIR2DL1, CD109, GPR21, PSMB7, SNX5, CNTN1, BTBD11, CAB</p>

			<p> <i>IN1, GRIK3, STXBP4, UNC5D, NREP, GPC3, DLG5, CPE, ROR1, ZNF675, BID, MACF1, TRIO, PTPRE, DUSP22, MAML2, CTDSPL2, GLRA2, LY86, EPHA5, IL1RL1, P2RX6, SLIT3, GRIN2B, PAK3, MLLT3, RNF213, PRKAA2, TBL1X, SEMA5B, GRIK1, GRM5, IGF1R, PTPRO, SUFU, INSR, ITGA11, JAK1, GMDS, FOXO3, GPC6, CNTN6, MITF, PRDM16, LTBP1, LRRK2, BMP6, FYN, EPHA7, GAS8, RIMS1, EPHB1, DOCK1, CRADD, EXT1, AMFR, UNC5C, LRP2, FER, VWC2, GUCY2F, TMEM108, RAPGEF2, PTPRU, GRIA4, IL18R1, CDH13, VEPH1, DAB1, SEMA3A, MGAT5, MYH9, BDKRB2, PIK3R3, ZRANB1, FCRL2, SCEL, GRIA3, NTRK3, FBN1, CLASP2, PTPRK, PPARA, PTPRD, RORA, SHISA6, BICC1, SEMA3D, PRLR, PTPRA, DEPTOR, PMEPA1, SEMA3C, ST18</i> </p>
GO:0048523	negative regulation of cellular process	6.057869325301883e-11	<p> <i>PTPRR, CHFR, KDM4B, RCAN1, KALRN, RNF43, PROS1, RPS6KA2, CTNNA1, FOXN3, NTRK2, CLASP1, ZNRF3, GLIS3, PTPRG, SLC39A10, DMD, EIF3E, SPRED2, ERBB4, TFDP2, NOS1, CNTN4, ROBO1, DSCAM, CIT, TBCD, PUM1, FRY, SORCS2, WWOX, TNRC6B, HDAC4, ATP9A, ATP8A2, LDLRAD4, TENM2, BLM, PSMB2, PTPRT, ATF7IP, PLCB1, PRKD1, RYR2, VCL, PDS5A, SEMA5A, ETV6, CASK, PRKCA, ZBTB20, IL1RAPL1, CCDC3, KANK1, RUNX1, NLGN1, CAMK1D, SMG6, CLEC16A, TCF7L2, APP, PAK1, PPP3CA, DEPDC5, RYR1, PTPN9, CREM, AKAP6, SORCS3, GRM7, DLC1, SCMH1, RYR3, BTBR, DCLK1, MEK2A, TFAP2D, DENND5A, MAP2K5, DNMT1, MAGI2, ROBO2, DCC, SAMD4A, DDB1, EP300, PARN, SEMA4D, RPS6KA5, GRK5, ANKRD6, BDKRB1, GRIK2, HUS1, TFEC, ASTN2, JAK2, ZBTB7C, PARK2, NPHP3, ADCYAP1R1, SERPINA4, CACNA1C, NLGN4X, GBE1, TAGLN3, NRG3, NUMB, SOX6, SULF1, CD84, MAGEA11, SH3BP1, RFFL, SH3GL2, PSPC1, ARHGAP24, SLIT2, ATRX, CHRD1, TRAF3IP2, SLX1B, BMP1A, SMAD3, PRKAR2A, PIBF1, KIR3DL2, PTGFR, EYA1, SATB2, MAD1L1, TNKS, KLF12, ARHGEF18, SCAMP5, LINC00473, OVOL2, GRAMD4, DNAJB6, BRINP1, OMA1, GLIS1, CDYL2, DGKI, TAF1, SLC1A1, RNF144B, NTN1, LDB2, EPM2A, MAP2, CDC73, FBXW11, RBMS3, WWTR1, ARHGAP6, CUX1, ANK3, TIMP2, ZNF19, TRIM59, TRPS1, TNFR, CELF4, MDM4, SPOCK1, ACTN4, EPS8, GHR, CD300A, CBA2T2, PRG3, MLIP, SERTAD2, ARHGAP42, RABGEF1, FHIT, TRABD2B, LRP5, AP2B1, ESR1, ARHGAP12, SCFD1, PDE4D, FRMD4A, EFNA5, FTO, EIF3A, ATF2, RBBP8, PIK3R2, GRID2, ZNF423, SEMA6D, ADTRP, CRMP1, PDE4B, ANKRD13A, PRKCQ, ATXN1, N4BP1, RHPN2, JDP2, SPTBN4, EPHB2, AGO3, SIPR3, MCTP1, PRTG, DACH1, MARK1, BDNF, RBM4, FNIP1, MALRD1, ADORA2A, ARID5B, IFT80, FSTL4, FHL2, NOX4, BCOR, BMPER, DAB2, PLXNA2, LRRK1, PRKG1, STXBP6, ABI1, HDAC2, ETS1, FAT3, PDE11A, ARID4A, PRKAR1B, BACH1, ZMYND11, RGS6, SRGAP3, ZNF93, ENPP1, PRDM15, CTNNA2, PARD3, NRG1, CAST, FANK1, SPINT2, FMN2, RIT2, CD44, PAX7, SCAF8, PRKCG, MAPKAPK2, SLC8A1, FBXO31, PLCL2, TOX3, CHST11, THRB, AGT, NDRG2, ARHGAP25, USH2A, NF1, WIF1, ZNF536, NRXN1, ARHGAP10, GSK3B, PKP2, CTDP1, CD109, GPR21, CHD7, PSMB7, SNX5, MYT1L, SRGAP2B, IQCJ-SCHIP1, TRIOBP, CHEK2, GRIK3, MECOM, SHANK2, GPC3, DLG5, CFDP1, ZNF675, SERPINA5, BID, MNAT1, TRIO, CAPN3, PTPRE, DUSP22, CTDSPL2, HTR2C, HIRA, TP73, ZNF366, MORC3, ANK2, SLIT3, GRIN2B, PHC2, UACA, LRPPRC, ADCY8, ITPR2, MLLT3, RNF213, SH3RF2, PRKAA2, PACRG, TBL1X, SEMA5B, GRM5, IGF1R, MXD3, PTPRO, SUFU, MAP2K1, UBR2, FOXO3, STK38, INPP5A, CEPNPF, KCTD1, MITF, IGF2BP3, LRFN5, AGBL4, PRDM16, FRMD5, KIR2DL4, DNMT3B, LTBP1, LRRK2, PKHD1, RARB, PBX1, BMP6, PCBP3, FYN, EPHA7, MARVELD3, GAS8, PTPN14, L3MBTL4, ABCA12, BEND5, EPHB1, KCNQ1, FHOD3, CRADD, TRPC5, AMFR, LRP2, ZCCHC17, FER, VWC2, ERLIN1, PCDH17, TPTE, RAPGEF2, NAV3, PTPRM, NCOA2, PTPRU, ZNF207, GRIA4, RGS7BP, ESR2, KAT7, SATB1, PACSIN2, TRIM22, CDH13, VEPH1, BASP1, TRDN, DAB1, ZNF148, HDAC5, SEMA3A, MGAT5, MYH9, BDKRB2, TSC22D3, NRP1, LITAF, TENM1, PRKAR1A, RGS7, GNG4, TXNDC5, SLC24A2, NTRK3, FBN1, DIS3L2, TBX15, CLASP2, NSUN2, PTPRK, DNMT3, PPARA, PTPRD, RORA, SHISA6, BRIP1, ELAVL4, ANXA8L1, MXI1, NELF1, EEFF1E1, BICC1, SEMA3D, PRLR, DEPTOR, CST2, PMEPA1, LARP4B, SEMA3C, ST18</i> </p>
GO:0006811	ion transport	1.9971670822590222e-10	<p> <i>CACNG2, NTRK2, SLC39A10, DMD, KCNC2, CHRM3, NOS1, TMC2, DPP10, ABCC1, SLC44A1, CACNA1A, TRPM1, PRKD1, RYR2, CASK, SLC03A1, GRIK4, NLGN1, KCNIP4, RELN, APP, UTRN, PPP3CA, RYR1, GABRG3, AKAP6, GRM7, RYR3, LRRC8C, KCNB2, FAM155A, KCNA6, SLC02B1, BDKRB1, TF, GRIK2, CHRM1, PARK2, ADCYAP1R1, DPP6, GRID1, GRIN3A, CACNA1C, EMB, ANO4, ANKH, SL</i> </p>

			C5A10,TRPM3,CD84,SLC13A3,KCNJ16,SLC4A4,FLVCR2,CACNA1E,GABRR2,SLC9C1,SLC47A1,ANO2,FGF14,CACNA2D3,SLC1A1,SHISA9,EPMA2,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,LRRRC8D,SLC25A21,ABCC11,SLC30A7,KCNN3,GRM1,PDE4D,SLC5A3,KCNJ12,GRID2,CYBB,KCNJ3,PDE4B,GABRB3,KCND2,SLC24A3,SPTBN4,EPHB2,ADORA2A,ANO1,SYT1,NSF,SNAP23,CACNG3,CALCRL,TMEM163,CDH23,SLC39A11,ENPP1,SCN8A,PEX5L,GRIA2,KCNMA1,CNGB1,SLC12A8,SLC8A1,SLC9A9,AGT,KCNQ5,HEPHE1,KCNJ6,NF1,SLC44A5,NRXN1,PKP2,SLC22A3,KCNH1,CHD7,CNTN1,GRIK3,CACNB2,ANO3,KCNS3,SLC5A8,CAPN3,HTR2C,GLRA2,P2RX6,ANK2,GRIN2B,ITPR2,GABRR3,CACNA1D,ABCG2,GRIK1,GRM5,PKD1L1,NKAIN2,SLC9B1,RASGRF2,GABRA3,KLHL3,NKAIN3,SCN1A,FYN,KCND3,ABCC2,KCNQ1,SLC38A6,TRPC5,NOX5,LRP2,KCNH7,GRI4A4,SLC5A4,TRDN,SLC16A12,CACHD1,ATP13A3,BDKRB2,STIM1,GABRB1,RGS7,SLC24A2,GRIA3,SLC35F3,SHISA6,ATP8A1,KCNC4,SYT17,STAC,KCNJ15,SYT9,SLC22A10
GO:0042391	regulation of membrane potential	3.5935751236556554e-10	CACNG2,NTRK2,DMD,KCNC2,RYR2,PPP2R3C,GRIK4,USP53,NLGNI,RELN,APP,PPP3CA,GABRG3,AKAP6,CTNNA3,GRIK2,CHRM1,PARK2,GRID1,GRIN3A,CACNA1C,NLGN4X,SLC4A4,GABRR2,DGKI,NOS1AP,KCTD7,ANK3,CELF4,SCN9A,GRM1,GRIK2,KCNJ3,GABRB3,PPA2,KCND2,ADORA2A,RIMS2,SCN8A,KCNMA1,CNGB1,SLC8A1,FAM19A4,NRXN1,GSK3B,PKP2,KCNH1,GRIK3,CACNB2,BID,GLRA2,P2RX6,ANK2,GRIN2B,GABRR3,CACNA1D,GRIK1,GRM5,GABRA3,LRRK2,SCN1A,KCND3,RIMS1,KCNQ1,TRPC5,TMEM108,KCNH7,RGS7BP,TRDN,GABRB1
GO:0034329	cell junction assembly	4.050451144742697e-10	CTNNA1,NTRK2,CLASP1,ERBB4,DSCAM,TBCD,LINGO2,VCL,PRKCA,ILIRAPL1,MYO9A,NLGN1,APP,DLC1,CTNND2,ROBO2,SEMA4D,CDH8,NEGR1,SDK2,NLGN4X,SH3BP1,SMAD3,PEAK1,ILIRAPL2,NTN1,FLRT2,ARHGAP6,CDH12,CDH10,CLSTN2,CNTN5,EFNA5,TLN2,GRID2,GABRB3,CLDN1,EPHB2,BDNF,PAARD3,NRG1,AGT,NRXN1,PKP2,SHANK2,DLG5,MACF1,DUSP22,CLDN11,ANK2,SDK1,CNTNAP2,PTPRO,GPC6,LRFN5,EPHA7,MARVELD3,EPHB1,PCDH17,RAPGEF2,KIRREL3,NRXN3,NTRK3,CLASP2,PTPRK,DNM3,SYNDIG1,PTPRD,CDH9,PTPRA
GO:0016358	dendrite development	4.118725889941315e-10	KALRN,DSCAM,ILIRAPL1,NLGN1,CAMK1D,RELN,APP,PPP3CA,CTNND2,ALK,DCLK1,MEF2A,DCC,SEMA4D,TANC2,GRIN3A,NTN1,MAP2,CUX1,DISC1,KLHL1,EPHB2,MARK1,FSTL4,PRKG1,ABII,HDAC2,FAT3,CTNNA2,FBXO31,GRIPI,GSK3B,DLG5,PAK3,SDK1,LRRK2,PHACTR1,ASAP1,FYN,EPHB1,TRPC5,RAPGEF2,CDKL5,DAB1,SEMA3A,DNM3,PTPRD,ELAVL4,DOCK10
GO:0048588	developmental cell growth	6.029965092138808e-10	DSCAM,AUTS2,VCL,SEMA5A,APP,AKAP6,DCLK1,AKAP13,DC3,SEMA4D,PARK2,SH3GL2,SLIT2,NTN1,MAP2,CDH4,TNR,DISC1,EFNA5,SEMA6D,DYSL2,BDNF,FSTL4,SYT1,RIMS2,MAP3K13,AGT,GSK3B,CTDP1,UNC13A,ISLR2,MACF1,SLIT3,SEMA5B,SPG11,EPHA7,RIMS1,EXT1,TRPC5,TMEM108,CDKL5,SEMA3A,CLASP2,PPARA,SEMA3D,SYT17,SEMA3C
GO:0048583	regulation of response to stimulus	7.581794750919801e-10	PTPRR,CAMTA1,RCAN1,KALRN,CACNG2,RNF43,PROS1,CTNNA1,NTRK2,CLASP1,ZNRF3,FBXL17,SLC39A10,DMD,SPRED2,ERBB4,ROBO1,DSCAM,CIT,PUM1,GPC5,WDR59,WWOX,FUT8,HDAC4,ABCC1,AUTS2,WLS,ANKS1A,LDLRAD4,PSMB2,PTPR,T,MGLL,PLCB1,FLT3,PRKD1,PPP2R3C,SEMA5A,CASK,PRKCA,DLGAP1,MYO9A,CCDC3,KANK1,DOK6,NLGN1,TNFRSF10B,CAMK1D,CLEC16A,TCF7L2,RELN,APP,PAK1,PPP3CA,DEPDC5,AKAP6,DLC1,SOS1,CTNND2,RFTN1,ALK,BTRC,MEF2A,MAP2K5,MAGI2,EDA,ROBO2,IFT81,AKAP13,EP300,SEMA4D,EVC,GRK5,ANKRD6,GRIK2,ARHGAP15,ITSN1,JAK2,CMKLR1,PARK2,NPHP3,ADCYAP1R1,GRIN3A,SMOC2,NLGN4X,AFAP1,SULF1,CD84,SH3BP1,RFFL,PSPC1,ARHGAP24,SLIT2,TRIM5,THEMIS,CHRD1,TRAF3IP2,SH3RF3,BMPRIA,SMAD3,PIBF1,SCUBE1,EYA1,MAD1L1,TNKS,TUB,ARHGEF18,LINC00473,OVOL2,SGMS1,GRAMD4,DNAJB6,ZDHHC11,SKAPI,DGKI,DNMBP,TAFF1,SPNS2,SHISA9,CDC73,FBXW11,NOS1AP,CD96,RBMS3,WWTR1,ARHGAP6,GRM4,CCL15,CNIH3,DOCK3,TRIM59,TNR,CELF4,VA3,ACTN4,PLCE1,EP8,GHR,ARHGAP39,CD300A,CBFA2T2,MLIP,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,TRABD2B,ESR1,ARHGAP12,TNFRSF19,GRM1,PDE4D,PIK3CD,EIF3A,PIK3R2,GRID2,ZNF423,SEMA6D,SUSD4,ADTRP,PDE4B,MAPRE2,RIC8B,MAP3K7,PRKCQ,N4BP1,CLDN1,EPHB2,AGO3,MCTP1,MOB3B,PRCP,EEF1E1-BLOC1S5,DOCK2,BDNF,FNIP1,MAGI3,ADORA2A,SIPA1L2,IF

			<p>T80,FSTL4,FHL2,NOX4,BMPER,DAB2,LRRK1,PRKG1,CACNG3,EPG5,CALCRL,HDAC2,ETS1,PDE11A,ZMYND11,RGS6,SRGAP3,CDK19,ENPP1,CFB,RIMS2,DLGAP2,PRDM15,CTNNA2,PEX5L,NRG1,FMN2,RIT2,CD44,PRKCG,MAPKAPK2,FAM19A4,MAP3K13,PLCL2,CHST11,MAPK10,NCAM1,AGT,FGF1,NDRG2,ARHGAP25,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,GSK3B,KIR2DL1,CTDP1,CD109,GPR21,PSMB7,SNX5,TLAM2,IQCJ-SCHIP1,NCOA1,CHEK2,MECOM,SHANK2,KCTD8,NREP,GPC3,DLG5,PREX1,UBE2V1,ROR1,ZNF675,PTGER3,BID,MACF1,TRIO,CAPN3,PTPRE,DUSP22,MAP3K5,CTDSPL2,HTR2C,FGD4,LY86,TP73,IL1RL1,ZNF366,ARHGEF3,SLIT3,PAK3,GARNL3,UACA,ADCY8,MLLT3,RNF213,SH3RF2,PRKAA2,TBL1X,SEMA5B,GRM5,IGF1R,PTPRO,SUFU,INSR,MAP2K1,UBR2,FOXO3,GPC6,RASGRF2,STK38,CNTN6,LRFN5,PRDM16,ULK4,KIR2DL4,LTBP1,LRRK2,PKHD1,BMP6,FYN,EPHA7,MARVELD3,GAS8,RIMS1,EPHB1,CRADD,AMFR,LRP2,C2,RALGPS2,FER,VWC2,GUCY2F,TMEM108,TPTE,RAPGEF2,PTPRU,IL18R1,RGS7BP,ESR2,KAT7,C9,SETD2,TRIM22,CDH13,VEPH1,DAB1,SEMA3A,MGAT5,TSPAN8,BDKRB2,LITAF,TENM1,ZRANB1,RGS7,SIPA1L3,GNNG4,VWF,SCEL,NTRK3,FBN1,CLASP2,PPARA,PTPRD,RORAS,SHISA6,EEF1E1,BICC1,SEMA3D,PRLR,ATF6,DEPTOR,RALGAP1,PMEPA1,SEMA3C</p>
GO:0048589	developmental growth	1.6478305122533505e-9	<p>DMD,ERBB4,DSCAM,ATP8A2,AUTS2,PLCB1,VCL,SEMA5A,KIF26B,RUNX1,PLS1,APP,PPP3CA,PCDH15,AKAP6,SOS1,DCLK1,MAGI2,EYS,AKAP13,DCC,EP300,SEMA4D,EVC,PARK2,NLGN4X,SH3GL2,SLIT2,ATRX,RAD51B,BMPRI1A,SMAD3,CPQ,NTN1,MAP2,WWTR1,CDH4,TNR,TENM4,GHR,DISC1,ESR1,EFNA5,FTO,ATF2,SEMA6D,SPTBN4,DPYSL2,BDNF,ARID5B,IFT80,FSYL4,SYT1,RIMS2,NRG1,MAP3K13,CHST11,AGT,FGF1,GSK3B,CTDP1,GPR21,CHD7,UNC13A,ISLR2,MACF1,CAPN3,TP73,SLIT3,SEMA5B,INSR,FOXO3,RARB,SPG11,EPHA7,RIMS1,EXT1,TRPC5,TMEM108,CDKL5,BASP1,SEMA3A,LARGE,PRKARIA,CLASP2,PPARA,SEMA3D,PRLR,SYT17,SEMA3C</p>
GO:0007417	central nervous system development	2.926695146612616e-9	<p>KALRN,NDE1,CTNNA1,NTRK2,PTPRG,DMD,KCNC2,ERBB4,CNTN4,ROBO1,IMMP2L,WLS,PLCB1,SEMA5A,RELN,APP,PPP3CA,TOX,DLC1,SOS1,ALK,DCLK1,TFAP2D,CELSR1,ROBO2,DCCTRAPPC9,NEGR1,PARK2,NLGN4X,TAGLN3,NRG3,NUMB,SOX6,SH3GL2,SLIT2,ATRX,BMPRI1A,DSCAML1,POTEE,SATB2,ELP3,IL1RAPL2,TAF1,SLC1A1,MAP2,FBXW11,TNR,ARNT2,SPOCK1,TACC2,TENM4,SRD5A2,DISC1,NAV2,KLHL1,POU6F2,ATF2,GRID2,ZNF423,SEMA6D,ATXN1,SPTBN4,EPHB2,DPYSL2,ADORA2A,SYT1,AFF2,PLXNA2,PRKG1,HDAC2,CTNNA2,NRG1,SLC8A1,NDRG2,NF1,NRXN1,GSK3B,CHD7,CNTN1,SHANK2,DLG5,ROR1,MNAT1,TRIO,CCDC141,EPHA5,TP73,GRIN2B,GRIK1,IGF1R,CNTNAP2,SUFU,MAP2K1,FOXO3,CNTN6,CENPF,AGBL4,LRRK2,RARB,PBX1,PHACTR1,FYN,EPHA7,GAS8,EPHB1,EXT1,UNC5C,LRP2,TMEM108,SHROOM4,RAPGEF2,KIRREL3,MACROD2,SETD2,MDGA2,BASP1,DAB1,ZNF148,SEMA3A,GABRB1,RGS7,NTRK3,HYDIN,RORA,ELAVL4,SPATA5</p>
GO:0034220	ion transmembrane transport	4.842278782010806e-9	<p>CACNG2,SLC39A10,DMD,KCNC2,CHRM3,NOS1,TMC2,DPP10,ABCC1,CACNA1A,TRPM1,PRKD1,RYR2,GRIK4,NLGN1,KCNIP4,RELN,APP,UTRN,RYR1,GABRG3,AKAP6,RYR3,LRRK2,CACNB2,FAM155A,KCNA6,BDKRB1,GRIK2,DPP6,GRID1,GRIN3A,CACNA1C,EMB,ANO4,ANKH,SLC5A10,TRPM3,SLC13A3,KCNJ16,SLC4A4,CACNA1E,GABRR2,SLC9C1,SLC47A1,ANO2,FGF14,CACNA2D3,SLC1A1,SHISA9,EPM2A,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,LRRK8D,SLC25A21,SLC30A7,KCNH3,GRM1,PDE4D,KCNJ12,GRID2,CYBB,KCNJ3,PDE4B,GABRB3,KCND2,SLC24A3,EPHB2,ANO1,CACNG3,TMEM163,SLC39A11,SCN8A,PEX5L,GRIA2,KCNMA1,CNGB1,SLC12A8,SLC8A1,SLC9A9,AGT,KCNQ5,KCNJ6,NRXN1,KCNH1,CHD7,GRIK3,CACNB2,ANO3,KCNS3,SLC5A8,CAPN3,HTR2C,GLRA2,P2RX6,ANK2,GRIN2B,ITPR2,GABRR3,CACNA1D,GRIK1,GRM5,PKD1L1,SLC9B1,RASGRF2,GABRA3,SCN1A,FYN,KCND3,KCNQ1,TRPC5,NOX5,LRP2,KCNH7,GRIA4,TRDN,SLC16A12,CACHD1,ATP13A3,STIM1,GABRB1,RGS7,SLC24A2,GRIA3,SHISA6,ATP8A1,KCNC4,STAC,KCNJ15</p>
GO:0098742	cell-cell adhesion via plasma-membrane adhesion molecules	5.6648719098345475e-9	<p>CNTN4,ROBO1,DSCAM,PCDH9,TENM2,PTPRT,IL1RAPL1,NLGN1,PCDH15,MAP2K5,CELSR1,ROBO2,CDH8,SDK2,EMB,CD84,DSCAML1,HMCN1,CDH12,CDH4,TENM4,CDH10,LRRK4C,CLSTN2,EFNA5,GRID2,NTNG1,CLDN1,CADM3,FAT3,CDH23,NRG1,NRXN1,UNC5D,CLDN11,MYPN,SDK1,GPC6,CNTN6,LRFN5,PCDH7,PCDH11X,TENM3,PCDH17,PTPRM,KIRREL3,DC</p>

			<i>HS2,CDH13,DABI,TENM1,PTPRD,CDH9</i>
GO:0007420	brain development	7.488381674353073e-9	<i>NDE1,CTNNA1,NTRK2,PTPRG,DMD,KCNC2,ERBB4,CNTN4,ROBO1,IMMP2L,WLS,PLCB1,SEMA5A,RELN,APP,PPP3CA,TOX,DLCL1,SOS1,ALK,DCLK1,TFAP2D,ROBO2,TRAPPC9,NEGR1,NLGN4X,NRG3,NUMB,SOX6,SLIT2,ATRX,BMPR1A,DSCAML1,POTEE,SATB2,TAF1,SLC1A1,FBXW11,TNR,ARNT2,TACC2,SRD5A2,DISC1,KLHL1,ATF2,GRID2,ZNF423,SEMA6D,ATXN1,EPHB2,DPYSL2,SYT1,AFF2,PLXNA2,PRKG1,CTNNA2,NRG1,SLC8A1,NDRG2,NF1,NRXN1,GSK3B,CHD7,CNTN1,SHANK2,DLG5,MNAT1,CCDC141,EPHA5,GRIN2B,IGF1R,CNTNAP2,MAP2K1,FOXO3,CENPF,LRRK2,RARB,PBX1,PHACTR1,FYN,EPHA7,GAS8,EPHB1,EXT1,UNC5C,LRP2,TMEM108,SHROOM4,RAPGEF2,KIRREL3,MACROD2,SETD2,BASP1,DABI,ZNF148,SEMA3A,RGS7,HYDIN,RORA,ELAVL4,SPATA5</i>
GO:0030029	actin filament-based process	9.074992674171492e-9	<i>CTNNA1,CLASP1,DMD,SHROOM3,CIT,NEBL,AUTS2,RYR2,NEBD9,SEMA5A,EPB41L4B,CALD1,KANK1,DIAPH2,PLS1,FCHSD2,AMOTL1,PAK1,UTRN,PCDH15,DLCL1,MEF2A,CTNNA3,CELSR1,AKAP13,ELMO2,TF,JAK2,PARK2,CACNA1C,SH3BP1,SLIT2,EPDR1,SMAD3,ELN,ARHGGEF18,DNAJB6,NOS1AP,GAS7,ARHGAP6,ACTN4,EPSS,PPP1R9A,ARHGAP12,PDE4D,EFNA5,KLHL1,PHACTR2,KCNJ3,PDE4B,RHPN2,SPTBN4,DOCK2,THSD7B,PRKG1,ABI1,MICAL3,TTN,CTNNA2,FMNL2,FMN2,CDC42BP1,CDC42EP3,STRIP1,ARHGAP25,NF1,PARVB,PDXP,PKP2,SETD3,THSD7A,TRIOBP,CACNB2,RHOJ,PGM5,PREX1,CAPN3,FGD4,EPHA5,FAM171A1,MYPN,ANK2,PAK3,NEB,CACNAID,SPGCC1L,FRMD5,PHACTR1,SCN1A,FRMPD4,KCND3,KCNQ1,FOH3D,FER,SGCD,SHROOM4,MPRIP,PACSIN2,MYH9,TENM1,SH3BP1,PRKAR1A,NTRK3,CLASP2</i>
GO:0060322	head development	9.86223318935456e-9	<i>NDE1,CTNNA1,NTRK2,PTPRG,DMD,KCNC2,ERBB4,CNTN4,ROBO1,IMMP2L,WLS,PLCB1,SEMA5A,RELN,APP,PPP3CA,TOX,DLCL1,SOS1,ALK,DCLK1,TFAP2D,ROBO2,EP300,TRAPPC9,NEGR1,NLGN4X,NRG3,NUMB,SOX6,SLIT2,ATRX,BMPR1A,DSCAML1,POTEE,SATB2,ANKRD11,TAF1,SLC1A1,FBXW11,TNR,ARNT2,TACC2,SRD5A2,DISC1,KLHL1,ATF2,GRID2,ZNF423,SEMA6D,ATXN1,EPHB2,DPYSL2,ARID5B,SYT1,AFF2,PLXNA2,PRKG1,CTNNA2,NRG1,SLC8A1,NDRG2,NF1,NRXN1,GSK3B,CHD7,CNTN1,SHANK2,DLG5,MNAT1,CCDC141,EPHA5,GRIN2B,IGF1R,CNTNAP2,MAP2K1,FOXO3,CENPF,LRRK2,RARB,PBX1,PHACTR1,FYN,EPHA7,GAS8,EPHB1,EXT1,UNC5C,LRP2,DDX10,TMEM108,SHROOM4,RAPGEF2,KIRREL3,MACROD2,SETD2,BASP1,DABI,ZNF148,SEMA3A,RGS7,HYDIN,RORA,ELAVL4,SPATA5</i>
GO:0031346	positive regulation of cell projection organization	1.1645214773932055e-8	<i>KALRN,NTRK2,DMD,ROBO1,DSCAM,HDAC4,ATP8A2,AUTS2,TENM2,PRKD1,SEMA5A,IL1RAPL1,NLGN1,CAMK1D,RELN,TOX,ALK,MAGI2,ROBO2,EP300,SEMA4D,NEGR1,SLIT2,NTN1,CUX1,CDH4,PLCE1,EPSS,CBFA2T2,DISC1,EFNA5,BDNF,PLXNA2,RIT2,FBXO31,MAP3K13,CDC42EP3,AGT,GRIP1,TIAM2,CNTN1,ISLR2,ROR1,MACF1,PAK3,IGF1R,MAP2K1,FYN,ENPP2,TRPC5,TENM3,RAPGEF2,CDKL5,TENM1,NTRK3,DNM3,PTPRD,ELAVL4</i>
GO:0007610	behavior	1.2817825913589694e-8	<i>RCAN1,KALRN,NTRK2,DSCAM,PUM1,HDAC4,ATP8A2,PLCB1,BTBD9,GPR176,NLGN1,RELN,APP,PCDH15,SORCS3,ALK,CELSR1,EP300,DNAH11,GRIK2,NEGR1,PARK2,GRID1,NLGN4X,ANKH,BRINP1,DGKI,SLC1A1,EPM2A,TNR,SCN9A,EPSS,NAV2,GRM1,KLHL1,ATXN1,KCND2,SPTBN4,EPHB2,DACH1,BDNF,ADORA2A,CSMD1,AFF2,HDAC2,PRKAR1B,CDH23,NRG1,PRKCG,THRB,AGT,NF1,NRXN1,CHD7,SHANK2,ASTN1,HTR2C,SGIP1,GRIN2B,ADCY8,ANKFN1,SDK1,GRM5,CNTNAP2,INSR,LRRK2,SPG11,SCN1A,FYN,CLN6,KCNQ1,EXT1,AMFR,CAMK4,PCDH17,KIRREL3,NCOA2,NRXN3,SOBP,DABI,TANC1,SLC24A2,PPARA,ELAVL4,ATP8A1</i>
GO:0051239	regulation of multicellular organismal process	1.438145891981453e-8	<i>PTPRR,KALRN,PROS1,CTNNA1,NTRK2,CLASP1,PTPRG,DMD,CHRM3,SPRED2,ERBB4,LAMA2,NOS1,ESRRG,ROBO1,DSCAM,HDAC4,LINGO2,ATP8A2,LDLRAD4,MGLL,PLCB1,PRKD1,RYR2,VCL,PPP2R3C,SEMA5A,PRKCA,EPB41L4B,ZBTB20,DLGAP1,IL1RAPL1,DIO2,RUNX1,PLS1,NLGN1,TCF7L2,RELN,APP,ADAM12,PPP3CA,TOX,AKAP6,RYR3,SOS1,RFTN1,MEF2A,KCNB2,CTNNA3,PPP1R12B,MAP2K5,ROBO2,DCC,SEMA4D,RPS6KA5,TF,JAK2,ABCG8,CMKLR1,NPHP3,SMOC2,CACNA1C,NLGN4X,ANKH,NUMB,SOX6,SULF1,CD84,SH3BP1,SLIT2,BMPR1A,SMAD3,TNFRSF11B,PIBF1,TPH1,SCAMP5,OVOL2,BRINP1,OMA1,SOX5,SLC1A1,NTN1,SHISA9,MAP2,CDC73,FLRT2,NOS1AP,CD96,WWTR1,PEMT,CUX1,TRPS1,CDH4,TNR,CELF4,PLCE1,TE</i>

			<p>NM4,GHR,CLSTN2,PRG3,MLIP,DISC1,ARHGAP42,RABGEF1,ESR1,GRM1,PDE4D,PIK3CD,DOCK4,SLC5A3,TEAD4,EFNA5,FTO,ATF2,KCNJ12,GRID2,ZNF423,CYBB,SEMA6D,KCNJ3,CELF2,ADTRP,PDE4B,MAPRE2,MAP3K7,PRKCQ,N4BP1,SPTBN4,EPHB2,SIPR3,PRCP,PRTG,MARK1,BDNF,ADORA2A,FSTL4,BCOR,BMPER,DAB2,PLXNA2,PRKG1,PTH2R,CALCRL,TNNI3K,HDAC2,ETS1,ENPP1,RIMS2,KSR2,DLGAP2,PARD3,NRG1,KCNMA1,MAPKAPK2,SLC8A1,ISM1,FBXO31,FAM19A4,MAP3K13,PLCL2,THRB,AGT,FGF1,CCR3,NDRG2,NF1,NRXN1,LAMA3,GSK3B,PKP2,CTDP1,SETD3,CD109,GPR21,CHD7,SNX5,TIAM2,CACNB2,RHOJ,ISLR2,DLG5,ZNF675,PTGER3,MACF1,CAPN3,HTR2C,TP73,RBM19,IL1RL1,ANK2,PAK3,CACNA1D,SEMA5B,GRM5,IGF1R,PTPRO,INSR,JAK1,MAP2K1,FOXO3,RNLS,MITF,IGF2BP3,PRDM16,KIR2DL4,LTBP1,LRRK2,RARB,PBX1,BMP6,KCND3,EPHA7,MARVELD3,RIMS1,ENPP2,ABCA12,EPHB1,KCNQ1,DOCK1,VASH2,TRPC5,NOX5,LRP2,CAMK4,TMEM108,RAPGEF2,NAV3,PTPRM,CDKL5,IL18R1,KAT7,SETD2,BASP1,TRDN,DAB1,HDAC5,SEMA3A,TSPAN8,BDKRB2,STIM1,LITAF,NTRK3,FBN1,CLASP2,SYNDIG1,PPARA,PTPRD,RORA,SHISA6,NELL1,SEMA3D,PRLR,SEMA3C</p>
GO:0009887	animal organ morphogenesis	1.643903232450228e-8	<p>MEGF11,CTNNA1,FOXN3,NTRK2,ZNRF3,ERBB4,LAMA2,ROBO1,PRICKLE2,MYO3A,DSCAM,WWOX,ATP8A2,PSMB2,ASXL3,RYR2,KIF26B,PLS1,RYR1,PCDH15,GREB1L,DLC1,SOS1,BTRC,MAGI2,EDA,CELSR1,ROBO2,EP300,ANKRD6,MMP16,DNAH11,SDK2,NPHP3,EXOC4,NRG3,SOX6,SULF1,ATRNLI,COL11A1,SLIT2,BMPRI4,DSCAML1,SMAD3,TNFRSF11B,EYA1,SATB2,ELN,ANKRD11,EGFLAM,OVOL2,SOX5,SLC1A1,NTN1,FLRT2,FBXW11,WWTR1,MDM4,GHR,STRC,LRP5,ESR1,ATF2,NTNG1,EPHB2,ARID5B,IFT80,FHL2,TTC39C,MEGF9,CSMD1,BCOR,DAB2,HDAC2,FAT3,CDH23,TTN,CTNNA2,NRG1,CHST11,THRB,AGT,FGF1,USH2A,NF1,LAMA3,PKP2,CHD7,PSMB7,TRIOBP,PHEX,GPC3,DLG5,CPE,ROR1,MYO3B,SLIT3,MLLT3,SDK1,SUFU,INSR,MAP2K1,FOXO3,GPC6,KLHL3,ADAMTS16,LRRK2,PKHD1,RARB,PBX1,BMP6,EPHB1,KCNQ1,EXT1,CSGALNACT1,TENM3,LRP2,PTPRM,SOBP,SETD2,BASP1,SEMA3A,STIM1,FBN1,TBX15,PPARA,SEMA3C</p>
GO:0065009	regulation of molecular function	2.2565265927508617e-8	<p>RCAN1,KALRN,CACNG2,PROS1,NTRK2,RASGEF1B,SLC39A10,DMD,KCNC2,CHRM3,EIF3E,SPRED2,ERBB4,NOS1,ROBO1,CIT,TBCD,FRY,PRIM2,HDAC4,ARFGAP3,SGSM1,BLM,PTPRT,RXFP1,PLCB1,FLT3,PRKD1,RYR2,NEDD9,PPP2R3C,DLGAP1,MYO9A,TBC1D5,SLCO3A1,NLGN1,TNFRSF10B,CAMK1D,SMG6,TCF7L2,RELN,APP,PAK1,UTRN,PPP3CA,DEPDC5,AKAP6,GRM7,RABGAP1L,DLC1,IDE,SOS1,ALK,BTRC,DENND5A,PPP1R12B,MAP2K5,MAGI2,EDA,AKAP13,EP300,PARN,SEMA4D,PP6K A5,TRAPPC9,MMP16,ARHGAP15,ITSN1,JAK2,CMKLR1,RPS6R2,ZBTB7C,PARK2,ADCYAP1R1,SERPINA4,CACNA1C,NRG3,SH3BP1,RFFL,ARHGAP24,SLIT2,TRIM5,BMPRI4,SMAD3,PRKAR2A,BORA,PIBF1,TNKS,ARHGEF18,GRAMD4,DNAJB6,ELP3,BCL2L13,ARRDC4,FGF14,DGKI,DNMBP,TAF1,SLC1A1,LDB2,SHISA9,EPM2A,MAP2,NOS1AP,ARHGEF33,ARHGEF6,WWTR1,ARHGAP6,KCTD7,PCSK5,EGLN3,ANK3,TIMP2,CCL15,CNIH3,DOCK3,VAI3,SPOCK1,ACTN4,PLCE1,GHR,ARHGAP39,RGL1,CD300A,DISC1,RALGPS1,ARHGAP42,CCL14,RABGEF1,LRP5,ESR1,ARHGAP12,DENND2A,PDE4D,DOCK4,SLC5A3,EFNA5,ATF2,PHACTR2,PIK3R2,CRMP1,PDE4B,MAPRE2,RIC8B,MAP3K7,PRKCQ,EPHB2,ERC1,MOB3B,DOCK2,RFC3,CALML4,BDNF,FNIP1,ADORA2A,ARID5B,SIPA1L2,RCAN2,NOX4,DAB2,PLXNA2,PRKG1,ABII,CACNG3,HDAC2,PRKAR1B,TTN,RGS6,SRGAP3,ENPP1,DLGAP2,AGAP1,NRG1,CAST,TBC1D9,FANK1,SPINT2,CD44,NCF4,GPSM2,SLC8A1,RAPGEF6,FAM19A4,MAP3K13,PLCL2,MAPK10,AGT,FGF1,ARHGAP25,NF1,NRXN1,ARHGAP10,GSK3B,CD109,TIAM2,CABIN1,CACNB2,GPC3,PREX1,UBE2V1,ROR1,ZNF675,SERPINA5,BID,MNAT1,TRIO,CAPN3,DUSP22,MAP3K5,NCF2,FGD4,EPHA5,ANK2,ARHGEF3,GRIN2B,GARNL3,UACA,ADCY8,SH3RF2,CACNA1D,GRM5,ARAP2,IGF1R,PTPRO,SUFU,INSR,RPGR,MAP2K1,RASGRF2,STK38,PPP1R14A,LRRK2,PKHD1,PBX1,PHACTR1,ASAP1,FYN,XRCC4,EPHA7,GAS8,RIMS1,EPHB1,KCNQ1,DOCK1,CRADD,AMFR,RALGPS2,FEER,RAPGEF2,PRPSAP2,CDKL5,IL18R1,ESR2,TRIM22,TRDN,DAB1,HDAC5,MGAT5,STIM1,CCNG2,PIK3R3,TENM1,PRKAR1A,RGS7,STXBP5,SIPA1L3,NTRK3,DOCK9,PPARA,SHISA6,SBF2,ANXA8L1,DOCK10,PRLR,DEPTOR,NVL,STAC,RALGAP1,CST2,DENND2D,ST18,RXFP2</p>

			SPAG16,FGD4,EPHA5,FAM171A1,MYPN,ANK2,PAK3,NEB,PRKAA2,ANKFN1,KPNB1,SPECC1L,CDC14A,FRMD5,ULK4,PKHD1,KIF2A,PHACTR1,FRMPD4,GAS8,FHOD3,FER,SHROOM4,NAV3,ZNF207,MPRIIP,SETD2,PACSIN2,TRDN,MYH9,TENM1,SH3KBP1,PRKAR1A,ZRANB1,SIPA1L3,NTRK3,HYDIN,CLASP2,NCKAP5,TUBGCP6,PARD3B
GO:0035249	synaptic transmission, glutamatergic	4.1906435641287666e-8	CACNG2,GRIK4,NLGN1,RELN,GRM7,GRIK2,CDH8,PARK2,GRID1,DGKI,GRM4,TNR,DISC1,GRM1,GRID2,ADORA2A,SYT1,CACNG3,GRIA2,NF1,NRXN1,UNC13A,GRIK3,GRIK1,GRM5,LRRK2,EXT1
GO:0040012	regulation of locomotion	7.141623348828757e-8	PTPRR,CTNNA1,CLASP1,PTPRG,ERBB4,LAMA2,ROBO1,DSCAM,HDAC4,LDLRAD4,PTPRT,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,PRKCA,EPB41L4B,KANK1,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DLC1,MAP2K5,MAGI2,ROBO2,SEMA4D,BDKRB1,TF,CHRM1,JAK2,CMKLR1,SMOC2,NRG3,NUMB,SULF1,SH3BP1,RFFL,SLIT2,BMPRI1,SMAD3,ELP3,NTN1,LDB2,FLRT2,ACTN4,CD300A,RABGEF1,PIK3CD,DOCK4,SEMA6D,NTNG1,ADTRP,MAPRE2,CLDN1,EPHB2,MCTP1,PRCP,DACH1,ADORA2A,BMPER,DAB2,PLXNA2,PRKG1,ETS1,SRGAP3,CTNNA2,NRG1,SPINT2,SLC8A1,FBXO31,AGT,FGF1,NF1,LAMA3,SRGAP2B,RHOJ,UNC5D,DLG5,MACF1,DUSP22,PAK3,SH3RF2,SEMA5B,GRM5,IGF1R,PTPRO,INSR,FOXO3,MITF,FRMD5,ULK4,LRRK2,KIF2A,PHACTR1,MARVELD3,ENPP2,DOCK1,UNC5C,FER,RAPGEF2,NAV3,PTPRM,PTPRU,CDH13,HDAC5,SEMA3A,MGAT5,PIK3R3,NTRK3,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,SEMA3C
GO:0055085	transmembrane transport	7.285944385429484e-8	SVOP, CACNG2, SLC39A10, DMD, KCNC2, CHRM3, NOS1, TMC2, DPP10, ABCC1, PSMB2, SLC44A1, CACNA1A, TRPM1, PRKD1, RYR2, ABCA13, SLC03A1, GRIK4, NLGN1, KCNIP4, RELN, APP, UTRN, RYR1, GABRG3, AKAP6, RYR3, LRRK8C, MEF2A, KCNB2, FAM155A, KCNA6, SLC02B1, BDKRB1, GRIK2, ABCG8, SLC14A2, DPP6, GRID1, GRIN3A, CACNA1C, EMB, ANO4, ANKH, SLC5A10, TRPM3, SLC13A3, KCNJ16, SLC4A4, FLVCR2, CACNA1E, GABRR2, SLC9C1, SLC47A1, SV2B, ANO2, FGF14, CACNA2D3, SPNS2, SLC1A1, SHISA9, EPM2A, NOS1AP, CATSPER2, ANK3, CNIH3, SCN9A, ACTN4, LRRK8D, SLC25A21, ABCC11, SLC30A7, KCNN3, GRM1, PDE4D, SLC5A3, KCNJ12, GRID2, CYBB, KCNJ3, PDE4B, GABRB3, KCND2, SLC24A3, EPHB2, ANO1, CACNG3, TMEM163, SLC39A11, ENPP1, SCN8A, PEX5L, CYB561A3, SLC35F4, GRIA2, KCNMA1, CNGB1, SLC12A8, SLC8A1, SLC9A9, AGT, KCNQ5, KCNJ6, SLC44A5, NRXN1, SLC22A3, KCNH1, CHD7, PSMB7, GRIK3, CACNB2, STXBPA, GPC3, ANO3, KCNS3, SLC5A8, CAPN3, HTR2C, GLRA2, P2RX6, ANK2, GRIN2B, ITPR2, GABRR3, CACNA1D, ABCG2, GRIK1, GRM5, PKD1L1, INSR, SLC9B1, RASGRF2, GABRA3, OCA2, SCN1A, SLC35F1, FYN, KCND3, ABCC2, ABCA12, KCNQ1, SLC38A6, TRPC5, NOX5, LR P2, KCNH7, GRIA4, SLC5A4, TRDN, SLC16A12, CACHD1, ATP13A3, STIM1, GABRB1, RGS7, SLC24A2, GRIA3, SHISA6, ATP8A1, KCNC4, STAC, KCNJ15, SLC22A10
GO:0016310	phosphorylation	7.46249768796078e-8	KALRN, RPS6KA2, NTRK2, DMD, SPRED2, PHKB, ERBB4, NOS1, ROBO1, MYO3A, DSCAM, CIT, HUNK, HDAC4, LDLRAD4, BLM, PTPRT, FLT3, SRPK2, PRKD1, ADK, NEDD9, PPP2R3C, CASK, PRKCA, ZBTB20, SLC03A1, TNFRSF10B, CAMK1D, RELN, APP, PAK1, ALK, DCLK1, MAP2K5, MAGI2, AKAP13, EP300, SEMA4D, RPS6KA5, GRK5, BDKRB1, TF, HUS1, JAK2, FPGT-TNNI3K, MAST4, PARK2, CKMT1B, PIK3C2B, NRG3, SH3GL2, SLIT2, MAPK4, SLC4A4, BMPRI1, PRKAR2A, BORA, PI4KA, PIBF1, PIK3C3, PEAK1, DGKB, TNKS, SGMS1, DGKK, DGKI, TAF1, SLC1A1, LDB2, EPM2A, WWTR1, DOCK3, VAV3, CDKL1, PLCE1, GHR, CD300A, RABGEF1, LRP5, PDE4D, PIK3CD, EFNA5, ATF2, PIK3R2, ADTRP, MAP3K7, PRKCQ, SPTBN4, EPHB2, ERC1, MOB3B, MARK1, BDNF, FNIP1, ADORA2A, NOX4, CHKA, BMPER, ICK, DAB2, LRRK1, PRKG1, GALK2, ABI1, TNNI3K, HDAC2, PRKAR1B, TTN, CDK19, ENPP1, KSR2, PARD3, NRG1, TOP1, RIT2, CD44, PRKCG, MAPKAPK2, SLC8A1, MAP3K13, PLCL2, RSRC1, CDC42BPA, MAPK10, AGT, FGF1, DYRK4, TLK1, NF1, NRXN1, GSK3B, CD109, CNTN1, CHEK2, STK32B, ROR1, ZNF675, MNAT1, TRIO, MYO3B, DUSP22, MAP3K5, EPHA5, MORC3, PAK3, ADCY8, PRKAA2, NME7, GRM5, IGF1R, PTPRO, INSR, JAK1, MAP2K1, STK38, PPP1R14A, ULK4, LRRK2, BMP6, FYN, EPHA7, ENPP2, EPHB1, BPGM, TRPC5, FER, CAMK4, GUCY2F, RAPGEF2, AK5, CDKL5, ADPGK, DAB1, BDKRB2, CCNG2, PIK3R3, TENM1, STK38L, SH3KBP1, PRKAR1A, NTRK3, RBKS, PPARA, TPKL, PRLR, PTPRA, DEPTOR, PMEPA1
GO:000721	glutamate	8.737918782854802e-8	PLCB1, TRPM1, GRIK4, APP, GRM7, GRIK2, GRID1, GRIN3A, SLC1

5	receptor signaling pathway		<i>A1, GRM4, GRM1, GRID2, GRIA2, GRIK3, GRIN2B, GRIK1, GRM5, FYN, GRIA4, GRIA3</i>
GO:0098609	cell-cell adhesion	9.664244271603916e-8	<i>MEGF11, CTNNA1, LPP, CNTN4, ROBO1, DSCAM, PCDH9, TENM2, PTPRT, VCL, PRKCA, IL1RAPL1, KIF26B, RUNX1, NLGN1, PCDH15, CTNND2, CTNNA3, DLG2, MAP2K5, CELSR1, ROBO2, ELMO2, SEMA4D, CDH8, ASTN2, JAK2, NEGR1, SDK2, MAG1, NLGN4X, EMB, CD84, DSCAML1, HMCN1, MAD1L1, DNAJB6, SKAP1, NTN1, ANK3, CDH12, CDH4, TNFR, TENM4, CDH10, LRRC4C, CLSTN2, CD300A, EFNA5, TLN2, GRID2, NTNG1, ADTRP, PRKCQ, CLDN1, ADORA2A, PRKG1, CADM3, STXBP6, ETS1, FAT3, CDH23, CTNNA2, NRG1, VSIG10, SPINT2, CD44, NRXN1, LAMA3, PKP2, UNC5D, DLG5, ASTN1, DUSP22, CLDN11, MYPN, SDK1, PKD1L1, JAK1, FOXO3, GPC6, CNTN6, LRFN5, PCDH7, PKHD1, BMP6, FYN, EPHA7, COL19A1, PCDH11X, ABCA12, EXT1, TENM3, FER, PCDH17, PTPRM, KIRREL3, NRXN3, PTPRU, DCHS2, CDH13, DAB1, MYH9, TENM1, PRKARIA, PPARA, PTPRD, CDH9, FNDC3A</i>
GO:0044057	regulation of system process	1.1478955513807303e-7	<i>DMD, CHRM3, NOS1, HDAC4, MGLL, RYR2, PRKCA, DLGAP1, NLGN1, RELN, APP, PPP3CA, AKAP6, RYR3, MEK2, KCNB2, CTNNA3, PPP1R12B, JAK2, ABCG8, CACNA1C, NLGN4X, SMAD3, SLC1A1, SHISA9, NOS1AP, TNFR, CELF4, PLCE1, TENM4, MLIP, ARHGAP42, GRM1, PDE4D, DOCK4, FTO, KCNJ12, KCNJ3, CELF2, PDE4B, SPTBN4, ADORA2A, DAB2, PRKG1, CALCRL, TNNI3K, RIMS2, DLGAP2, PARD3, KCNMA1, SLC8A1, FAM19A4, THRB, AGT, NRXN1, PKP2, CTDP1, SETD3, SNX5, CACNB2, PTGER3, HTR2C, ANK2, CACNA1D, PTPRO, FOXO3, RNL5, LRRK2, BMP6, KCND3, RIMS1, KCNQ1, TMEM108, TRDN, SEMA3A, BDKRB2, PPARA, SHISA6</i>
GO:0030334	regulation of cell migration	1.4536541896750415e-7	<i>PTPRR, CLASP1, PTPRG, ERBB4, LAMA2, ROBO1, HDAC4, LDLRAD4, PTPRT, PLCB1, PRKD1, VCL, NEDD9, SEMA5A, PRKCA, EPB41L4B, KANK1, CAMK1D, AMOTL1, RELN, APP, PAK1, PPP3CA, DLG1, MAP2K5, MAGI2, SEMA4D, BDKRB1, JAK2, CMKLR1, SMOC2, NRG3, NUMB, SULF1, SH3BP1, RFFL, SLIT2, BMPRI1A, SMAD3, ELFP3, NTN1, LDB2, FLRT2, ACTN4, CD300A, RABGEF1, PIK3CD, DOCK4, SEMA6D, NTNG1, ADTRP, MAPRE2, CLDN1, EPHB2, MCPTP1, PRCP, DACH1, BMPER, DAB2, PLXNA2, PRKG1, ETS1, SRGAP3, CTNNA2, NRG1, SLC8A1, FBXO31, AGT, FGF1, NF1, LAMA3, SRGAP2B, RHOJ, UNC5D, DLG5, MACF1, DUSP22, PAK3, SH3RF2, SEMA5B, IGF1R, INSR, FOXO3, MITF, FRMD5, ULK4, KIF2A, PHACTR1, MARVELD3, ENPP2, DOCK1, UNC5C, FER, RAPGEF2, NAV3, PTPRM, PTPRU, CDH13, HDAC5, SEMA3A, MGAT5, PIK3R3, NTRK3, CLASP2, PTPRK, DOCK10, ATP8A1, SEMA3D, SEMA3C</i>
GO:1905114	cell surface receptor signaling pathway involved in cell-cell signaling	1.7173450780089923e-7	<i>RNF43, ZNF3, PRICKLE2, GPC5, WWOX, WLS, PSMB2, SEMA5A, KANK1, NLGN1, AMOTL1, TCF7L2, RELN, APP, PPP3CA, CTNND2, BTRC, MAGI2, EDA, CELSR1, DDB1, GRK5, ANKRD6, GRIK2, PARK2, NPH3, NLGN4X, SULF1, SMAD3, TNKS, DGKI, EPM2A, CDC73, FBXW11, RBMS3, WWTR1, CELF4, DISC1, TRABD2B, LRP5, GRID2, ZNF423, MARK1, ADORA2A, IFT80, DAB2, LRRK1, RIMS2, PRDM15, NDRG2, WIF1, NRXN1, GSK3B, PSMB7, GPC3, CPE, ROR1, MACF1, GLRA2, P2RX6, GRIN2B, MLLT3, RNF213, PRKAA2, TBL1X, PTPRO, FOXO3, GPC6, MITF, LRRK2, RIMS1, EXT1, AMFR, TME108, PTPRU, ZRANB1, SCEL, SHISA6, BICC1</i>
GO:0007416	synapse assembly	2.1204954553807277e-7	<i>NTRK2, ERBB4, DSCAM, LINGO2, IL1RAPL1, NLGN1, APP, ROBO2, SEMA4D, NEGR1, SDK2, NLGN4X, IL1RAPL2, NTN1, FLRT2, CLSTN2, CNTN5, EFNA5, GRID2, GABRB3, EPHB2, BDNF, NRG1, NRXN1, SHANK2, DLG5, SDK1, GPC6, LRFN5, EPHA7, EPHB1, PCDH17, KIRREL3, NRXN3, NTRK3, DNMT3, SYNDIG1, PTPRD</i>
GO:0030001	metal ion transport	2.5960834383853885e-7	<i>CACNG2, SLC39A10, DMD, KCNC2, NOS1, TMC2, DPP10, CACNA1A, TRPM1, PRKD1, RYR2, CASK, KCNIP4, UTRN, PPP3CA, RYR1, AKAP6, RYR3, KCNB2, FAM155A, KCNA6, BDKRB1, TF, ADCYAP1R1, DPP6, GRIN3A, CACNA1C, SLC5A10, TRPM3, CD84, SLC13A3, KCNJ16, SLC4A4, FLVCR2, CACNA1E, SLC9C1, FGF14, CACNA2D3, SLC1A1, EPM2A, NOS1AP, CATSPER2, ANK3, SCN9A, ACTN4, SLC30A7, KCNN3, PDE4D, SLC5A3, KCNJ12, KCNJ3, PDE4B, KCND2, SLC24A3, SPTBN4, ADORA2A, NSF, CACNG3, CALCRL, TMEM163, CDH23, SLC39A11, SCN8A, KCNMA1, SLC12A8, SLC8A1, SLC9A9, AGT, KCNQ5, HEPHL1, KCNJ6, PKP2, KCNH1, CHD7, CNTN1, CACNB2, KCNS3, SLC5A8, CAPN3, HTR2C, ANK2, GRIN2B, ITPR2, CACNA1D, PKD1L1, NKAIN2, SLC9B1, KLHL3, NKAIN3, SCN1A, FYN, KCND3, KCNQ1, SLC38A6, TRPC5, NOX5, LRP2, KCNH7, SLC5A4, TRDN, CACHD1, STIM1, RGS7, SLC24A2, KCNC4, STAC, KCNJ15</i>
GO:0072359	circulatory system development	2.8958316246836534e-7	<i>RPS6KA2, NTRK2, ERBB4, TFDP2, ROBO1, NEBL, IMP2L, SRPK2, PRKD1, RYR2, SEMA5A, PRKCA, ADAMTS6, CALD1, RUNX1, AM</i>

			OTLI,TCF7L2,ADAMI2,RYR1,GREB1L,AKAP6,DLC1,SOS1,MEF2A,MAP2K5,DNMT1,ROBO2,AKAP13,EP300,DNAH11,QKI,NPHP3,SMOC2,CACNA1C,SOX6,SULF1,ARHGAP24,COL11A1,SLIT2,TRAF3IP2,BMPRIA,SMAD3,SCUBE1,EYA1,ELN,OVOL2,SLC1A1,FLRT2,PCSK5,MYO18B,VAV3,MDM4,PLCE1,TENM4,LRP5,AP2B1,PIK3CD,ATF2,CYBB,ADTRP,EPHB2,PRCP,COL22A1,FHL2,NOX4,BCOR,BMPER,CALCRL,ETS1,TTN,NRG1,SLC8A1,ISMI,AGT,FGF1,CCR3,NF1,NRXN1,PKP2,CTDP1,CHD7,THSD7A,RHOJ,GPC3,CPE,MNAT1,TP73,ANK2,SLIT3,NEB,RNF213,IGF1R,SUFU,INSR,JAK1,MAP2K1,RARB,SGCZ,PTPN14,ENPP2,EPHB1,KCNQ1,FHOD3,VASH2,EXT1,NOX5,LRP2,SGCD,RAPGEF2,PTPRM,NRXN3,SETD2,CDH13,BASP1,HDAC5,MYH9,STIM1,PIK3R3,PRKAR1A,NTRK3,FBN1,PPARA,RORA,BICC1,SEMA3C
GO:0031345	negative regulation of cell projection organization	2.975548175120156e-7	PTPRG,SEMA5A,KANK1,NLGN1,PPP3CA,PTPN9,DENND5A,DCC,SEMA4D,ARHGAP24,SLIT2,NTN1,MAP2,TNR,SPOCK1,CBF A2T2,SEMA6D,CRMP1,EPHB2,FSTL4,DAB2,HDAC2,FAT3,RIT2,NRXN1,GRIN2B,SEMA5B,PTPRO,LRRK2,FYN,EPHA7,TRPC5,RAPGEF2,DAB1,SEMA3A,DNM3,SEMA3D,SEMA3C
GO:0050807	regulation of synapse organization	2.9796143599124435e-7	KALRN,NTRK2,LINGO2,IL1RAPL1,NLGN1,RELN,APP,ROBO2,SEMA4D,CDH8,TANC2,NEGR1,DGKB,IL1RAPL2,NTN1,FLRT2,CLSTN2,DISC1,EFNA5,GRID2,EPHB2,BDNF,CTNNA2,NRXN1,SHANK2,DLG5,GRIN2B,PAK3,PTPRO,GPC6,LRFN5,LRRK2,FRMPD4,FYN,EPHA7,EPHB1,CDKL5,NTRK3,DNM3,SYNDIG1,PTPRD
GO:0006812	cation transport	3.3615294166086747e-7	CACNG2,SLC39A10,DMD,KCNC2,NOS1,TMC2,DPP10,SLC44A1,CACNA1A,TRPM1,PRKD1,RYR2,CASK,NLGN1,KCNIP4,RELN,APP,UTRN,PPP3CA,RYR1,AKAP6,RYR3,KCNB2,FAM155A,KCNA6,BDKRB1,TF,PARK2,ADCYAP1R1,DPP6,GRIN3A,CACNA1C,SLC5A10,TRPM3,CD84,SLC13A3,KCNJ16,SLC4A4,FLVCR2,CACNA1E,SLC9C1,SLC47A1,FGF14,CACNA2D3,SLC1A1,SHISA9,EPM2A,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,SLC30A7,KCNN3,PDE4D,SLC5A3,KCNJ12,KCNJ3,PDE4B,KCN D2,SLC24A3,SPTBN4,EPHB2,ADORA2A,ANO1,SYT1,NSF,SNAP23,CACNG3,CALCRL,TMEM163,CDH23,SLC39A11,SCN8A,PEX5L,KCNMA1,CNGB1,SLC12A8,SLC8A1,SLC9A9,AGT,KCNQ5,HEPHL1,KCNJ6,SLC44A5,NRXN1,PKP2,SLC22A3,KCNH1,CHD7,CNTN1,CACNB2,KCNS3,SLC5A8,CAPN3,HTR2C,P2RX6,ANK2,GRIN2B,ITPR2,CACNA1D,PKD1L1,NKAIN2,SLC9B1,RASGRF2,KLHL3,NKAIN3,SCN1A,FYN,KCND3,KCNQ1,SLC38A6,TRPC5,NOX5,LRP2,KCNH7,SLC5A4,TRDN,CACHD1,ATP13A3,STIM1,RGS7,SLC24A2,SLC35F3,SHISA6,ATP8A1,KCNC4,SYT17,STAC,KCNJ15,SYT9
GO:0051960	regulation of nervous system development	5.45170422278097e-7	KALRN,CTNNA1,NTRK2,ROBO1,DSCAM,LINGO2,SEMA5A,IL1RAPL1,NLGN1,RELN,PPP3CA,ROBO2,DCC,SEMA4D,NPHP3,NUMB,SLIT2,BMPRIA,BRINP1,NTN1,MAP2,FLRT2,CUX1,CDH4,TNR,TENM4,CLSTN2,DISC1,EFNA5,GRID2,SEMA6D,EPHB2,PRTG,BDNF,FSTL4,PLXNA2,HDAC2,PARD3,FBXO31,MAP3K13,NF1,NRXN1,CHD7,TIAM2,ISLR2,DLG5,MACF1,TP73,PAK3,SEMA5B,GRM5,MAP2K1,EPHA7,EPHB1,TRPC5,LRP2,RAPGEF2,CDKL5,DAB1,SEMA3A,NTRK3,SYNDIG1,PTPRD,SEMA3D,SEMA3C
GO:0003013	circulatory system process	6.108562396535734e-7	RPS6KA2,DMD,CHRM3,NOS1,HDAC4,IMMP2L,ABCC1,SLC44A1,RYR2,TRHDE,SLC03A1,RYR3,MEF2A,CTNNA3,AKAP13,SLC02B1,BDKRB1,JAK2,CACNA1C,SH3GL2,SLC13A3,SLIT2,SLC4A4,SMAD3,ELN,SLC1A1,NOS1AP,WWTR1,PCSK5,ARHGAP42,LRP5,NAV2,PDE4D,DOCK4,SLC5A3,KCNJ12,KCNJ3,CELF2,PDE4B,SLC24A3,SPTBN4,PRCP,ADORA2A,NOX4,PRKG1,TNNI3K,TTN,KCNMA1,SLC8A1,THRB,AGT,PKP2,SLC22A3,CHD7,SNX5,CACNB2,ANK2,CACNA1D,ABCG2,PTPRO,INSR,RNLS,ADAMTS16,SCN1A,BMP6,FYN,KCND3,ABCC2,SGCZ,KCNQ1,EXT1,LRP2,SGCD,TRDN,SLC16A12,SEMA3A,BDKRB2,PPARA,ATP8A1
GO:2000145	regulation of cell motility	7.265625282608431e-7	PTPRR,CTNNA1,CLASP1,PTPRG,ERBB4,LAMA2,ROBO1,HDAC4,LDLRAD4,PTPR,PLCB1,PRKD1,VCL,NEDD9,SEMA5A,PRKCA,EPB41L4B,KANK1,CAMK1D,AMOTL1,RELN,APP,PAK1,PPP3CA,DLC1,MAP2K5,MAGI2,SEMA4D,BDKRB1,TF,JAK2,CMKLR1,SMOC2,NRG3,NUMB,SULF1,SH3BP1,RFFL,SLIT2,BMPRIA,SMAD3,ELP3,NTN1,LDB2,FLRT2,ACTN4,CD300A,RABGEF1,PIK3CD,DOCK4,SEMA6D,NTNG1,ADTRP,MAPRE2,CLDN1,EPHB2,MCTP1,PRCP,DACH1,BMPER,DAB2,PLXNA2,PRKG1,ETS1,SRGAP3,CTNNA2,NRG1,SPINT2,SLC8A1,FBXO31,AGT,FGF1,NF1,LAMA3,SRGAP2B,RHOJ,UNC5D,DLG5,MACF1,DUSP2

			2,PAK3,SH3RF2,SEMA5B,IGF1R,INSR,FOXO3,MITF,FRMD5,ULK4,KIF2A,PHACTR1,MARVELD3,ENPP2,DOCK1,UNC5C,FER, RAPGEF2,NAV3,PTPRM,PTPRU,CDH13,HDAC5,SEMA3A,MGAT5,PIK3R3,NTRK3,CLASP2,PTPRK,DOCK10,ATP8A1,SEMA3D,SEMA3C
GO:0044093	positive regulation of molecular function	7.340397221177449e-7	KALRN,CACNG2,NTRK2,SLC39A10,DMD,KCNC2,EIF3E,ERBB4,NOS1,ROBO1,PRIM2,HDAC4,SGSM1,FLT3,PRKD1,RYR2,NEDD9,PPP2R3C,MYO9A,TBC1D5,SLCO3A1,TNFRSF10B,CAMK1D,TCF7L2,RELN,APP,PAK1,PPP3CA,AKAP6,RABGAP1L,DLC1,IDE,ALK,BTRC,MAP2K5,MAGI2,EDA,AKAP13,EP300,PARN,SEMA4D,RPS6KA5,TRAPPC9,JAK2,PARK2,ADCYAP1R1,CACNA1C,NRG3,SH3BP1,ARHGAP24,TRIM5,BMPR1A,SMAD3,BORAP,PIBF1,TNKS,GRAMD4,BCL2L13,ARRDC4,TAF1,SLC1A1,NOS1AP,ARHGAP6,KCTD7,EGLN3,ANK3,CCL15,DOCK3,VAV3,ACTN4,GHR,CD300A,ARHGAP42,CCL14,LRP5,ESR1,SLC5A3,EFNA5,ATF2,MAPRE2,MAP3K7,PRKCQ,EPHB2,ERC1,MOB3B,RFC3,BDNF,ARID5B,SIPA1L2,NOX4,ABII,CACNG3,HDAC2,RGSG6,NRG1,TBC1D9,FANK1,CD44,RAPGEF6,MAP3K13,PLCL2,AGT,FGF1,ARHGAP25,NF1,NRXN1,GSK3B,TLAM2,CACNB2,PREX1,UBE2V1,ROR1,BID,MNAT1,CAPN3,MAP3K5,EPHA5,ANK2,GRI N2B,GARNL3,UACA,ADCY8,CACNA1D,GRM5,ARAP2,IGF1R,INSR,MAP2K1,LRRK2,ASAP1,FYN,XRCC4,EPHA7,EPHB1,CRA DD,AMFR,FER,RAPGEF2,CDKL5,IL18R1,ESR2,TRIM22,TRDN,DAB1,HDAC5,STIM1,TENM1,SGS7,SIPA1L3,NTRK3,DOCK9,DOCK10,PRLR,NVL,STAC,RALGAP1,ST18
GO:0050803	regulation of synapse structure or activity	7.403288536401147e-7	KALRN,NTRK2,LINGO2,IL1RAPL1,NLGN1,RELN,APP,ROBO2,SEMA4D,CDH8,TANC2,NEGR1,DGKB,IL1RAPL2,NTN1,FLRT2,CLSTN2,DISC1,EFNA5,GRID2,EPHB2,BDNF,CTNNA2,NRXN1,SHANK2,DLG5,GRIN2B,PAK3,PTPRO,GPC6,LRFN5,LRRK2,FRMPD4,FYN,EPHA7,EPHB1,CDKL5,NTRK3,DNM3,SYNDIG1,PTPRD
GO:0022604	regulation of cell morphogenesis	7.465126352460029e-7	KALRN,SHROOM3,NEDD9,IL1RAPL1,MYO9A,KANK1,RELN,DLC1,SEMA4D,ARHGAP15,PARK2,PALMD,ARHGEF18,DNMBP,CUX1,ACTN4,EPH8,PALM2,EFNA5,NTNG1,SYT1,DAB2,PLXNA2,RIMS2,FMNL2,CD44,FBXO31,MAP3K13,CDC42EP3,STRIP1,GRIP1,PARVB,UNC13A,TRIOBP,RHOJ,CFDP1,PREX1,MACF1,FGD4,FAM171A1,PAK3,FYN,RIMS1,ENPP2,DOCK1,CDKL5,MYH9,SH3KBP1,ZRANB1,PTPRD,SYT17
GO:0051049	regulation of transport	8.901054324934562e-7	KALRN,CACNG2,CLASP1,DMD,KCNC2,CHRM3,NOS1,TMC2,DPP10,ATP9A,ATP8A2,WLS,CACNA1A,PRKD1,RYR2,CASK,BTBD9,IL1RAPL1,ABCA13,TBC1D5,NLGN1,KCNIP4,CAMK1D,TCF7L2,RELN,APP,UTRN,PPP3CA,AKAP6,GRM7,MEF2A,KCNB2,MAGI2,KCNA6,BDKRB1,TF,CHRM1,JAK2,ABCG8,PARK2,ADCYAP1R1,DPP6,GRIN3A,CACNA1C,NUMB,CD84,KCNJ16,SMA D3,CACNA1E,PIK3C3,TUB,SCAMP5,FGF14,CACNA2D3,DGKI,SLC1A1,SHISA9,EPM2A,MAP2,NOS1AP,KCTD7,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,CD300A,RABGEF1,LRP5,AP2B1,SCFD1,PDE4D,FRMD4A,EFNA5,KCNJ12,PIK3R2,CYBB,KCNJ3,ADTRP,PDE4B,ANKRD13A,KCND2,SPTBN4,EPHB2,MCTP1,DOCK2,NUP214,RBM4,ADORA2A,ANO1,CADPS,SYT1,DAB2,NSF,STXBP6,CACNG3,PRKAR1B,TTN,MYRIP,ENPP1,RIMS2,SCN8A,NRG1,RIT2,KCNMA1,PRKCG,SLC8A1,AGT,KCNQ5,KCNJ6,NF1,NRXN1,GSK3B,PKP2,KCNH1,CHD7,SNX5,CNTN1,CACNB2,STXBP4,GPC3,KCNS3,PTGER3,CAPN3,MYO1,CTDSPL2,HTR2C,EPHA5,SGIP1,ANK2,ADCY8,CACNA1D,GRM5,SUFU,NKAIN2,INSR,MAP2K1,RASGRF2,LRRK2,NKAIN3,SCN1A,BMP6,FYN,KCND3,PTPN14,RIMS1,MCTP2,ABCA12,KCNQ1,C2,FER,NRXN3,KCNH7,SETD2,PACSIN2,CDH13,TRDN,SEC16B,STIM1,TENM1,SGS7,STXBP5,CLASP2,DNAJC6,NSUN2,DNM3,PPARA,SHISA6,ATP8A1,KCNC4,SYT17,STAC,RAB27A,KCNJ15,SYT9
GO:0007626	locomotory behavior	0.000001017640304598238	RCAN1,KALRN,DSCAM,PUM1,BTBD9,RELN,APP,PCDH15,ALK,CELSR1,NEGR1,PARK2,ANKH,SLC1A1,TNR,EPH8,NAV2,GRM1,KLHL1,KCND2,SPTBN4,ADORA2A,CDH23,NRG1,CHD7,SHANK2,ASTN1,HTR2C,ADCY8,ANKFN1,GRM5,LRRK2,SPG11,SCN1A,CLN6,NCOA2,SOBP,DAB1,ELAVL4
GO:1901888	regulation of cell junction assembly	0.000001017640304598238	NTRK2,CLASP1,LINGO2,VCL,IL1RAPL1,NLGN1,APP,DLC1,ROBO2,SEMA4D,NEGR1,SMAD3,PEAK1,IL1RAPL2,NTN1,FLRT2,ARHGAP6,CLSTN2,EFNA5,GRID2,CLDN1,EPHB2,BDNF,AGT,NRXN1,DLG5,MACF1,DUSP22,CNTNAP2,GPC6,LRFN5,EPHA7,EPHB1,RAPGEF2,NTRK3,CLASP2,SYNDIG1,PTPRD,PTPRA
GO:0009888	tissue development	0.0000010238335558079029	RCAN1,CLASP1,ZNRF3,FBXL17,DMD,SPRED2,KAZN,ERBB4,LAMA2,ROBO1,PRICKLE2,SHROOM3,NEBL,HDAC4,WLS,LDLRAD4,PSMB2,RXFP1,PLCB1,RYR2,VCL,SEMA5A,MYO9A,KIF26

			<p>B,RUNX1,PLS1,TCF7L2,PAK1,PPP3CA,RYR1,TOX,PCDH15,GR EBIL,AKAP6,DLC1,SOS1,BTRC,MEF2A,MAGI2,EDA,CELSR1, ROBO2,AKAP13,HIVEP3,EP300,SEMA4D,EVC,ANKRD6,ASTN 2,JAK2,NPHP3,EXOC4,ANKH,SOX6,SULF1,SH3BP1,ATRNL1,A RHGAP24,COL11A1,SLIT2,ATRX,RAD51B,BMPR1A,SMAD3,SC UBE1,EYA1,SATB2,ELN,EGFLAM,OVOL2,ASGR2,SOX5,NTN1, LDB2,CDC73,WWTR1,ARID4B,TRPS1,MYO18B,MDM4,TENM4, CECR2,GHR,CBFA2T2,STRC,LRP5,ESR1,ARHGAP12,TNFRSF1 9,PDE4D,PIK3CD,CERS3,FTO,ATF2,SEMA6D,NTNG1,CLDN1, SLC24A3,SIPR3,COL22A1,MARK1,ARID5B,IFT80,FHL2,NOX4, MEGF9,CSMD1,BCOR,BMPER,DAB2,PLXNA2,ABU1,HDAC2,A RID4A,CDH23,TTN,ENPP1,NRG1,SPINT2,CD44,SLC8A1,CHST 11,THRB,AGT,FGF1,USH2A,NF1,LAMA3,GSK3B,PKP2,CTDP1, CD109,CHD7,PSMB7,TRIOBP,PHOX,GPC3,DLG5,PGM5,ROR1 ,COL12A1,TP73,MATN3,MLLT3,NEB,SEMA5B,NLN,PTPRO,SU FU,INSR,MAP2K1,GPC6,KLHL3,CENPF,RBFOX1,ADAMTS16, PKHD1,RARB,PBX1,BMP6,EPHA7,COL19A1,SGCZ,ABCA12,E PHB1,KCNQ1,FHOD3,EXT1,UNC5C,CSGALNACT1,LRP2,SGC D,RAPGEF2,SETD2,BASP1,SEMA3A,STIM1,PRKAR1A,SIPA1L3 ,SCEL,HYDIN,CLASP2,NSUN2,PPARA,MYH15,NELL1,FND3A ,SEMA3D,PRLR,SEMA3C</p>
GO:000679 3	phosphorus metabolic process	0.00000110886180495 9673	<p>PTPRR,CAMTA1,RCAN1,KALRN,RPS6KA2,NTRK2,PTPRG,SLC 39A10,DMD,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,DSC AM,CIT,HUNK,FUT8,HDAC4,LDLRAD4,BLM,SLC44A1,PTPR, PLCB1,FLT3,SRPK2,PRKD1,ADK,NEDD9,PPP2R3C,CASK,PR KCA,ZBTB20,SLC3A1,TNFRSF10B,CAMK1D,SMG6,RELN,AP P,PAK1,PPP3CA,PTPN9,DLC1,ALK,BTRC,DCLK1,DLG2,MAP2 K5,MAGI2,AKAP13,EP300,SEMA4D,RPS6KA5,GRK5,BDKRB1, TF,HUS1,JAK2,FPGT- TNNT3K,PPP6R2,MAST4,PARK2,ADCYAP1R1,CKMT1B,PNPLA 3,PIK3C2B,UPB1,NRG3,ADCY2,SH3GL2,SLIT2,MAPK4,SLC4A 4,BMPR1A,ACACA,SMAD3,PRKAR2A,BORA,PI4KA,PIBF1,PIK 3C3,PEAK1,EYA1,DGKB,DYYS,TNKS,LINC00473,SGMS1,DGK K,PTPRN2,DGKI,TAF1,SLC1A1,LDB2,EPM2A,FBXW11,WWTR 1,PEMT,DOCK3,ADCY9,VAV3,CDKL1,PLCE1,GHR,CD300A,O SBPL10,RABGEF1,FHIT,LRP5,PDE4D,PIK3CD,PDE7B,EFNA5, ATF2,PIK3R2,ADTRP,PDE4B,SMG7,PPA2,MAP3K7,PRKCQ,IM PDH1,SPTBN4,EPHB2,ERC1,MOB3B,PTPDC1,MARK1,BDNF, FNIP1,MAGI3,ADORA2A,NOX4,CHKA,BMPER,ICK,DAB2,LRR K1,PRKG1,GALK2,ABU1,TNNT3K,HDAC2,PRKAR1B,TTN,CDK1 9,ENPP1,KSR2,PARD3,NRG1,TOPI,RIT2,CD44,PRKCG,TNS3, MAPKAPK2,SLC8A1,MAP3K13,PLCL2,RSRC1,CDC42BP4,MA PK10,AGT,FGF1,DYRK4,TLK1,NF1,SLC44A5,NRXN1,PDXP,GS K3B,CTDP1,CD109,CNTN1,CHEK2,PHOX,STK32B,ROR1,ZNF6 75,SLC5A8,MNAT1,TRIO,PTPRE,MYO3B,DUSP22,MAP3K5,CT DSPL2,HTR2C,EPHA5,MORC3,PAK3,ADCY8,PRKAA2,NME7,G RM5,IGF1R,FAR1,PTPRO,INSR,JAK1,MAP2K1,GMD5,STK38,I NPP5A,TTC7B,PPP1R14A,CDC14A,ULK4,LRRK2,BMP6,FYN,E PHA7,PTPN14,ENPP2,EPHB1,BPGM,FAM126A,TMEM68,TRP C5,ACSBG1,CSGALNACT1,FER,CAMK4,GUCY2F,TPTE,RAPG EF2,PRPSAP2,PTPRM,AK5,CDKL5,INPP4A,PTPRU,ADPGK,D AB1,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,STK38L,SH3KB P1,PRKAR1A,NTRK3,RBKS,DNAJC6,PTPRK,PPARA,PTPRD,R ORA,TPK1,PRLR,PTPRA,DEPTOR,PMEPA1</p>
GO:003476 5	regulation of ion transmembrane transport	0.00000111024314388 5119	<p>CACNG2,DMD,KCNC2,CHRM3,NOS1,TMC2,DPP10,CACNA1A ,PRKD1,RYR2,NLGN1,KCNIP4,RELN,APP,UTRN,AKAP6,KCNB 2,KCNA6,BDKRB1,DPP6,CACNA1C,KCNJ16,CACNA1E,FGF14 ,CACNA2D3,SHISA9,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A, ACTN4,PDE4D,KCNJ12,CYBB,KCNJ3,PDE4B,KCND2,EPHB2, CACNG3,SCN8A,KCNMA1,SLC8A1,AGT,KCNQ5,KCNJ6,NRXN 1,KCNH1,CHD7,CACNB2,KCNS3,CAPN3,ANK2,CACNA1D,GR M5,RASGRF2,SCN1A,FYN,KCND3,KCNQ1,KCNH7,TRDN,STIM 1,RGS7,SHISA6,KCNC4,STAC,KCNJ15</p>
GO:003003 6	actin cytoskeleton organization	0.00000112410714957 72008	<p>CTNNA1,CLASP1,DMD,SHROOM3,CIT,NEBL,AUTS2,NEDD9,S EMA5A,EPB41L4B,CALD1,KANK1,DIAPH2,PLS1,FCHSD2,AM OTL1,PAK1,UTRN,PCDH15,DLC1,MEF2A,CTNNA3,CELSR1,A KAP13,ELMO2,TF,JAK2,PARK2,SH3BP1,SLIT2,SMAD3,ELN,A RHGEF18,DNAJB6,NOS1AP,GAS7,ARHGAP6,ACTN4,EPS8,PP PIR9A,ARHGAP12,EFNA5,KLHL1,PHACTR2,RHPN2,SPTBN4, DOCK2,THSD7B,PRKG1,ABU1,MICAL3,TTN,CTNNA2,FMNL2,F MN2,CDC42BP4,CDC42EP3,STRIP1,ARHGAP25,NF1,PARVB, PDXP,SETD3,THSD7A,TRIOBP,RHOJ,PGM5,PREX1,CAPN3,F GD4,EPHA5,FAM171A1,MYPN,PAK3,NEB,SPECCIL,FRMD5,P</p>

			<i>HACTR1,FRMPD4,FHOD3,FER,SHROOM4,MPRI1,PACSIN2,MYH9,TENM1,SH3KBP1,PRKAR1A,NTRK3,CLASP2</i>
GO:0042330	taxis	0.000001131038380730454	<i>KALRN,LAMA2,CNTN4,ROBO1,DSCAM,ABCC1,NFASC,PRKD1,SEMA5A,CAMK1D,RELN,APP,SOS1,ROBO2,DCC,ELMO2,EP300,SEMA4D,RPS6KA5,DEFA1B,CMKLR1,SMOC2,EMB,NRG3,SLIT2,DSCAML1,SMAD3,NTN1,FLRT2,CCL15,CDH4,TNR,VAV3,CCL14,PIK3CD,DOCK4,EFNA5,SEMA6D,CRMP1,PDE4B,PRKCQ,EPHB2,PRTG,DOCK2,DPYSL2,BDNF,PLXNA2,NRG1,FAM19A4,NCAM1,FGF1,CCR3,NRXN1,LAMA3,UNC5D,PREX1,ADAMTSL1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,CCL15-CCL14,SEMA5B,PTPRO,MAP2K1,CNTN6,FYN,EPHA7,ENPP2,EPHB1,EXT1,UNC5C,FER,PTPRM,NRXN3,CDH13,SEMA3A,NTRK3,SEMA3D,SEMA3C</i>
GO:0007507	heart development	0.000001203095883187068	<i>RPS6KA2,ERBB4,TDFP2,ROBO1,NEBL,RYR2,ADAMTS6,RUNX1,RYR1,GREB1L,AKAP6,DLC1,SOS1,MEF2A,MAP2K5,ROBO2,AKAP13,EP300,DNAH11,NPHP3,CACNA1C,SOX6,COL11A1,SLIT2,TRAF3IP2,BMPRI1,SMAD3,SCUBE1,EYA1,ELN,OVOL2,FLRT2,PCSK5,MYO18B,MDM4,PLCE1,TENM4,AP2B1,ATF2,FHL2,NOX4,BCOR,CALCRL,TTN,NRG1,SLC8A1,AGT,NF1,PKP2,CTDP1,CHD7,GPC3,CPE,MNAT1,TP73,ANK2,SLIT3,NEB,IGF1R,SUFU,INSR,MAP2K1,RARB,SGCZ,KCNQ1,FHOD3,EXT1,LRP2,SGCD,SETD2,BASP1,PRKAR1A,NTRK3,FBN1,PPARA,BICC1,SEMA3C</i>
GO:0048638	regulation of developmental growth	0.0000012790487865798075	<i>ERBB4,DSCAM,ATP8A2,PLCB1,SEMA5A,RUNX1,PLS1,APP,AKAP6,DCC,SEMA4D,PARK2,BMPRI1,NTN1,MAP2,CDH4,TNR,GHR,DISC1,EFNA5,FTO,SEMA6D,SPTBN4,DPYSL2,BDNF,FSTL4,SYT1,RIMS2,NRG1,MAP3K13,GSK3B,CTDP1,GPR21,CHD7,UNC13A,ISLR2,MACF1,CAPN3,TP73,SEMA5B,INSR,EPHA7,RIMS1,TRPC5,CDKL5,BASP1,SEMA3A,CLASP2,PPARA,SEMA3D,SYT17,SEMA3C</i>
GO:0006468	protein phosphorylation	0.000001582718041142778	<i>KALRN,RPS6KA2,NTRK2,DMD,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,CIT,HUNK,LDLRAD4,BLM,PTPRT,FLT3,SRPK2,PRKD1,NEDD9,PPP2R3C,CASK,PRKCA,SLC3A1,TNFRSF10B,CAMK1D,RELN,APP,PAK1,ALK,DCLK1,MAP2K5,AKAP13,SEMA4D,RPS6KA5,GRK5,BDKRB1,HUS1,JAK2,FPGT-TNNI3K,MAST4,PARK2,NRG3,SH3GL2,SLIT2,MAPK4,BMPRI1,PRKAR2A,BORA,PIBF1,PIK3C3,PEAK1,TNKS,TAI1,SLC1A1,EPH2A,WWTR1,DOCK3,CDKL1,PLCE1,GHR,CD300A,RABGEF1,LRP5,PDE4D,PIK3CD,EFNA5,ATF2,ADTRP,MAP3K7,PRKCQ,SPTBN4,EPHB2,ERC1,MOB3B,MARK1,BDNF,FNIP1,ADORA2A,NOX4,BMPER,ICK,DAB2,LRRK1,PRKG1,ABI1,TNNI3K,HDAC2,PRKAR1B,TTN,CDK19,ENPP1,KSR2,PARD3,NRG1,TOPI,RIT2,CD44,PRKCG,MAPKAPK2,SLC8A1,MAP3K13,PLCL2,RSRC1,CDC42BP4,MAPK10,AGT,FGF1,DYRK4,TLK1,NF1,NRXN1,GSK3B,CD109,CNTN1,CHEK2,STK32B,ROR1,ZNF675,MNAT1,TRIO,MYO3B,DUSP22,MAP3K5,EPHA5,MORC3,PAK3,ADCY8,PRKAA2,GRM5,IGF1R,PTPRO,INSR,JAK1,MAP2K1,STK38,ULK4,LRRK2,BMP6,FYN,EPHA7,ENPP2,EPHB1,TRPC5,FER,CAMK4,GUCY2F,RAPGEF2,CDKL5,DAB1,BDKRB2,CCNG2,PIK3R3,TENM1,STK38L,PRKAR1A,NTRK3,PRLR,PTPRA,DEPTOR,PMEP1</i>
GO:0006935	chemotaxis	0.0000019245322768304965	<i>KALRN,LAMA2,CNTN4,ROBO1,DSCAM,ABCC1,NFASC,PRKD1,SEMA5A,CAMK1D,RELN,APP,SOS1,ROBO2,DCC,ELMO2,SEMA4D,RPS6KA5,DEFA1B,CMKLR1,SMOC2,EMB,NRG3,SLIT2,DSCAML1,SMAD3,NTN1,FLRT2,CCL15,CDH4,TNR,VAV3,CCL14,PIK3CD,DOCK4,EFNA5,SEMA6D,CRMP1,PDE4B,PRKCQ,EPHB2,PRTG,DOCK2,DPYSL2,BDNF,PLXNA2,NRG1,FAM19A4,NCAM1,FGF1,CCR3,NRXN1,LAMA3,UNC5D,PREX1,ADAMTSL1,TRIO,CCDC141,EPHA5,MYPN,SLIT3,CCL15-CCL14,SEMA5B,PTPRO,MAP2K1,CNTN6,FYN,EPHA7,ENPP2,EPHB1,EXT1,UNC5C,FER,PTPRM,NRXN3,CDH13,SEMA3A,NTRK3,SEMA3D,SEMA3C</i>
GO:0001764	neuron migration	0.0000025417422665418685	<i>NDE1,NTRK2,AUTS2,RELN,DCLK1,CELSR1,DCC,ASTN2,NRG3,SATB2,ELP3,NTN1,FLRT2,SPOCK1,DISC1,CEP85L,NTNG1,MARK1,PRKG1,FAT3,CTNNA2,NRG1,FBXO31,UNC5D,ASTN1,ULK4,PHACTR1,FYN,RAPGEF2,KIRREL3,CDKL5,DAB1,SEMA3A,NTRK3</i>
GO:0051130	positive regulation of cellular component	0.0000026442244864512887	<i>KALRN,NTRK2,CLASP1,DMD,ROBO1,DSCAM,HDAC4,LINGO2,ATP8A2,AUTS2,TENM2,ATF7IP,PLCB1,PRKD1,SEMA5A,IL1RAPL1,PDE4DIP,ABCA13,TBC1D5,RUNX1,FCHSD2,NLGN1,CAMK1D,RELN,APP,PAK1,PPP3C4,TOX,ALK,DNMT1,MAGI2,ROBO2,EP300,PARN,SEMA4D,TF,NEGR1,PARK2,SLIT2,ATRX,SLX1B,SMAD3,MAD1L1,TNKS,SKAP1,NTN1,FLRT2,CUX1,MOR</i>

	organization		C2,CDH4,PLCE1,EP58,CLSTN2,CBF42T2,DISC1,TRABD2B,LRP5,AP2B1,ESR1,EFNA5,GRID2,MAPRE2,PRKCQ,CLDN1,EPHB2,BDNF,FNIP1,SYT1,DAB2,PLXNA2,NRG1,RIT2,GPSM2,FBXO31,MAP3K13,CDC42EP3,AGT,GRIP1,NRXN1,PDXP,GSK3B,TIAM2,CNTN1,ISLR2,GPC3,DLG5,ROR1,BID,MACF1,SGIP1,PAK3,IGF1R,CNTNAP2,INSR,MAP2K1,LRRK2,ASAP1,FRMPD4,FYN,ENPP2,EPHB1,TRPC5,TENM3,FER,RAPGEF2,NAV3,CDKL5,TENM1,NTRK3,CLASP2,DNM3,SYNDIG1,PTPRD,ELAVL4,ATP8A1,SYT9
GO:1990138	neuron projection extension	0.0000028849691265730546	DSCAM,AUTS2,VCL,SEMA5A,DCLK1,SEMA4D,PARK2,SH3GL2,SLIT2,NTN1,MAP2,CDH4,TNR,DISC1,SEMA6D,DPYSL2,SYT1,RIMS2,MAP3K13,GSK3B,UNC13A,ISLR2,MACF1,SLIT3,SEMA5B,SPG11,RIMS1,TRPC5,TMEM108,CDKL5,SEMA3A,CLASP2,SEMA3D,SYT17,SEMA3C
GO:0051641	cellular localization	0.000003203357655289889	SYN3,CACNG2,PROS1,NDE1,CTNNA1,CLASP1,SYNE1,DMD,ERBB4,NOS1,SIL1,DPP10,GPC5,SORCS2,ATP9A,ARFGAP3,IMMP2L,AFTPH,WLS,SGSM1,SNUPN,NFASC,TRPM1,PRKD1,PRK2,VCL,CASK,STX8,BTBD9,ABCA13,TBC1D5,PLS1,NLGN1,KCNIP4,SMG6,CLEC16A,TCF7L2,RELN,APP,PPP3CA,RYR1,ERC2,PTPN9,AKAP6,RABGAP1L,RYR3,RFTN1,DCLK1,MEF2A,KCNB2,FAM155A,DENND5A,DLG2,MAGI2,CELSR1,IFT81,AKAP13,BDKR1,DNAH11,GRIK2,CHRM1,SYTL5,ZDHHC11B,ITSN1,ASTN2,TANC2,JAK2,RAB11FIP4,PARK2,ADCYAP1R1,DPP6,GRIN3A,CACNA1C,MAN1A1,NLGN4X,EXOC4,HEATR5A,NUMB,CD84,ATRX,TRAF3IP2,SMAD3,PIBF1,PIK3C3,TPH1,MAD1L1,TNKS,TUB,DNAJB6,ZDHHC11,SKAP1,PTPRN2,DGKI,SLC1A1,NTN1,EPM2A,SHFM1,MAP2,FBXW11,NOS1AP,WWTR1,GRM4,ANK3,ACTN4,RAB2A,CD300A,DISC1,IFT43,RABGEF1,NSG2,LRP5,A2B1,SLC30A7,ESR1,DENND2A,SCFD1,PDE4D,THEM4,PIK3CD,SLC5A3,BLOC1S5,RAB24,EFNA5,ATF2,PIK3R2,CCDC91,GRID2,ZNF423,KCNJ3,MAPRE2,SMG7,ANKRD13A,ATXN1,WDR83OS,SPTBN4,EPHB2,ERC1,MCTP1,DOCK2,NUP214,MARK1,BDNF,RBM4,ADORA2A,IFT80,ANO1,CADPS,TSPAN33,ICK,SYT1,DAB2,NSF,STXBP6,SNAP23,CACNG3,EPG5,RANBP17,BANP,PRKAR1B,MYRIP,RIMS2,PEX5L,PARD3,NRG1,TBC1D9,FMN2,RIT2,CNGB1,GPSM2,PRKCG,SLC8A1,RAPGEF6,RSRC1,SAMM50,AGT,GRIP1,TLK1,NF1,VPS16,NRXN1,GSK3B,PKP2,SLC22A3,BBS9,CHD7,SNX5,UNC13A,CACNB2,STXBP4,ESYT2,SYBU,GP3,CPE,BID,MACF1,CAPN3,CTDSPL2,HTR2C,SNAP25-AS1,EPHA5,SNX31,MORC3,ANK2,GRIN2B,LRPPRC,ADCY8,ITPR2,CACNA1D,PACRG,ANKFN1,TRAPPC8,TSNARE1,MON2,CNTNAP2,ZDHHC14,SUFU,CIZ1,RPGR,MAP2K1,KPNB1,GPC6,TTC7B,CENPF,AGBL4,KPNA3,LRRK2,PKHD1,SPG11,VTI1A,FYN,KCND3,XRCC4,GAS8,PTPN14,RIMS1,VPS53,MCTP2,ABCA12,KCNQ1,FAM126A,NOX5,FER,PCDH17,TMEM108,RAPGEF2,NRXN3,PTPRU,KAT7,VPS45,SETD2,PACSIN2,CDH13,TRDN,DAB1,SEC16B,EXOC6B,MYH9,VPS41,TENM1,VPS39,STXBP5,SLC24A2,CLASP2,DNAJC6,NSUN2,PTPRK,DNM3,SYNDIG1,SCFD2,SHISA6,ANXA8L1,IPO11,NVL,STAC,RAB27A,BLOC1S6,PAR3B,HGSNAT,SYT9
GO:0040013	negative regulation of locomotion	0.000003362060621929895	PTPRR,CTNNA1,CLASP1,PTPRG,ROBO1,LDLRAD4,PTPRT,PLCB1,VCL,SEMA5A,KANK1,DLCL1,MAP2K5,MAGI2,ROBO2,SEMA4D,NRG3,SULF1,SLIT2,BMPRI1,CD300A,RABGEF1,SEMA6D,ADTRP,MCTP1,DACH1,ADORA2A,PRKG1,SRGAP3,NRG1,SPIRNT2,NF1,SRGAP2B,DLG5,DUSP22,SEMA5B,GRM5,PTPRO,FOXO3,MITF,FRMD5,MARVELD3,NAV3,PTPRM,PTPRU,HDAC5,SEMA3A,CLASP2,PTPRK,SEMA3D,SEMA3C
GO:0006796	phosphate-containing compound metabolic process	0.000003492881738654847	PTPRR,CAMTA1,RCAN1,KALRN,RPS6KA2,NTRK2,PTPRG,SLC39A10,DMD,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,DSCAM,CIT,HUNK,HDAC4,LDLRAD4,BLM,SLC44A1,PTPRT,PLCB1,FLT3,SRPK2,PRKD1,ADK,NEDD9,PPP2R3C,CASK,PRKCA,ZBTB20,SLC3A1,TNFRSF10B,CAMK1D,SMG6,RELN,APP,PAK1,PPP3CA,PTPN9,DLCL1,ALK,BTRC,DCLK1,DLG2,MAP2K5,MAGI2,AKAP13,EP300,SEMA4D,RPS6KA5,GRK5,BDKR1,TF,HUS1,JAK2,FPGT-TNNI3K,PPP6R2,MAST4,PARK2,ADCYAP1R1,CKMT1B,PNPLA3,PIK3C2B,UPB1,NRG3,ADCY2,SH3GL2,SLIT2,MAPK4,SLC4A4,BMPRI1,ACACA,SMAD3,PRKAR2A,BORA,PI4KA,PIBF1,PIK3C3,PEAK1,EYA1,DGKB,DPYS,TNKS,LINC00473,SGMS1,DGKK,PTPRN2,DGKI,TAF1,SLC1A1,LDB2,EPM2A,FBXW11,WWTR1,PEMT,DOCK3,ADCY9,VAV3,CDKL1,PLCE1,GHR,CD300A,OSPL10,RABGEF1,FHIT,LRP5,PDE4D,PIK3CD,PDE7B,EFNA5,ATF2,PIK3R2,ADTRP,PDE4B,SMG7,PPA2,MAP3K7,PRKCQ,IM

			<i>PDH1, SPTBN4, EPHB2, ERC1, MOB3B, PTPDC1, MARK1, BDNF, FNIP1, MAGI3, ADORA2A, NOX4, CHKA, BMPER, ICK, DAB2, LRRK1, PRKG1, GALK2, ABI1, TNNI3K, HDAC2, PRKAR1B, TTN, CDK19, ENPP1, KSR2, PARD3, NRG1, TOP1, RIT2, CD44, PRKCG, TNS3, MAPKAPK2, SLC8A1, MAP3K13, PLCL2, RSR1, CDC42BP4, MAPK10, AGT, FGF1, DYRK4, TLK1, NF1, SLC44A5, NRXN1, PDXP, GSK3B, CTDP1, CD109, CNTN1, CHEK2, STK32B, ROR1, ZNF675, SLC5A8, MNAT1, TRIO, PTPRE, MYO3B, DUSP22, MAP3K5, CTDSP2, HTR2C, EPHA5, MORC3, PAK3, ADCY8, PRKAA2, NME7, GRM5, IGF1R, FARI, PTPRO, INSR, JAK1, MAP2K1, STK38, INPP5A, TTC7B, PPP1R14A, CDC14A, ULK4, LRRK2, BMP6, FYN, EPHA7, PTPN14, ENPP2, EPHB1, BPGM, FAM126A, TMEM68, TRPC5, ACSBG1, FER, CAMK4, GUCY2F, TPTE, RAPGEF2, PRPSAP2, PTPRM, AK5, CDKL5, INPP4A, PTPRU, ADPGK, DAB1, MGAT5, BDKRB2, CCNG2, PIK3R3, TENM1, STK38L, SH3BP1, PRKAR1A, NTRK3, RBKS, DNJC6, PTPRK, PPARA, PTPRD, RORA, TPK1, PRLR, PTPRA, DEPTOR, PMPA1</i>
GO:0048813	dendrite morphogenesis	0.00000369517689007222	<i>KALRN, DSCAM, IL1RAPL1, NLGN1, RELN, PPP3CA, CTNND2, DCLK1, MEK2, SEMA4D, TANC2, MAP2, CUX1, EPHB2, ABI1, CTNNA2, FBXO31, GSK3B, PAK3, LRRK2, PACTR1, FYN, EPHB1, TRPC5, RAPGEF2, CDKL5, SEMA3A, DNM3, PTPRD, ELAVL4, DOCK10</i>
GO:0050919	negative chemotaxis	0.000003865144005096112	<i>ROBO1, SEMA5A, ROBO2, SEMA4D, NRG3, SLIT2, NTN1, FLRT2, SEMA6D, NRG1, SLIT3, SEMA5B, EPHA7, UNC5C, SEMA3A, SEMA3D, SEMA3C</i>
GO:0048585	negative regulation of response to stimulus	0.000004489614104293961	<i>PTPRR, RCAN1, RNF43, PROS1, CTNNA1, CLASP1, ZNRF3, DMD, SPRED2, ROBO1, CIT, WWOX, LDLRAD4, PSMB2, PTPRT, SEMA5A, CASK, CCDC3, KANK1, TCF7L2, DEPDC5, DLC1, BTRC, MAP2K5, MAGI2, ROBO2, SEMA4D, ANKRD6, PARK2, NPHP3, GRIN3A, NLGN4X, SULF1, CD84, SH3BP1, RFFL, ARHGAP24, SLIT2, CHRDL1, SMAD3, PIBF1, EYA1, MAD1L1, LINC00473, OVOL2, GRAMD4, FBXW11, CD96, RBMS3, WWTR1, TRIM59, TNF, CELF4, CD300A, CBF A2T2, MLIP, ARHGAP42, RABGEF1, TRABD2B, ESR1, ARHGAP12, PDE4D, EIF3A, PIK3R2, GRID2, SEMA6D, SUSP4, ADTRP, PDE4B, PRKCQ, EPHB2, MCTP1, BDNF, FNIP1, ADORA2A, IFT80, FSTL4, FHL2, BMPER, DAB2, PRKG1, CALCRL, PDE11A, ZMYND11, RGS6, ENPP1, PRDM15, CTNNA2, NRG1, CD44, PLCL2, CHST11, AGT, NDRG2, ARHGAP25, NF1, WIF1, ZNF536, NRXN1, GSK3B, CD109, GPR21, PSMB7, SNX5, CHEK2, MECOM, SHANK2, GPC3, DLG5, ZNF675, BID, PTPRE, DUSP22, CTDSP2, IL1RL1, ZNF366, SLIT3, UACA, ADCY8, MLLT3, RNF213, SH3RF2, PRKAA2, SEMA5B, GRM5, IGF1R, PTPRO, SUFU, UBR2, FOXO3, STK38, LRFN5, PRDM16, KI R2DL4, LTBP1, LRRK2, PKHD1, FYN, MARVELD3, AMFR, LRP2, FER, VWC2, PTPRU, RGS7BP, VEPH1, DAB1, SEMA3A, TSPAN8, BDKRB2, LITAF, RGS7, FBNI, CLASP2, PPARA, PTPRD, RORA, SHISA6, BICC1, SEMA3D, DEPTOR, PMPA1, SEMA3C</i>
GO:0010977	negative regulation of neuron projection development	0.000005228516271026542	<i>PTPRG, SEMA5A, KANK1, NLGN1, PTPN9, DENND5A, DCC, SEMA4D, NTN1, MAP2, TNF, SPOCK1, CBFA2T2, SEMA6D, CRMP1, EPHB2, FSTL4, DAB2, HDAC2, FAT3, RIT2, SEMA5B, PTPRO, LRRK2, EPHA7, DAB1, SEMA3A, DNM3, SEMA3D, SEMA3C</i>
GO:0071495	cellular response to endogenous stimulus	0.000005304772065810202	<i>CTNNA1, NTRK2, CHRM3, SPRED2, ERBB4, ESRG, WWOX, FUT8, HDAC4, ABCC1, LDLRAD4, BLM, RXFP1, PLCB1, FLT3, CACNA1A, RYR2, KANK1, APP, PAK1, RYR1, AKAP6, IDE, RYR3, ALK, DNMT1, MAGI2, ROBO2, EP300, CHRM1, DEFA1B, JAK2, PARK2, SMOC2, PNPLA3, SOX6, COL4A6, SULF1, SH3GL2, SLIT2, GLP2R, CHRDL1, BMPR1A, ACACA, SMAD3, PTGFR, OVOL2, SOX5, TAF1, SLC1A1, FLRT2, GHR, NSG2, ESR1, PDE4D, EFNA5, ATF2, PIK3R2, ZNF423, CYBB, ADTRP, PDE4B, GABRB3, MAP3K7, PRKCQ, CLDN1, EPHB2, PRCP, RGM5, BDNF, ANO1, BMPER, DEFA3, DAB2, HDAC2, ENPP1, SPINT2, CD44, SLC8A1, CHST11, THRB, AGT, FGF1, NRXN1, PDXP, GSK3B, CD109, GPR21, SNX5, NCOA1, STXBP4, PHEX, NREP, GPC3, PTPRE, DUSP22, CTDSP2, HTR2C, GLRA2, ZNF366, SLIT3, ADCY8, ITPR2, PRKAA2, GRM5, IGF1R, INSR, UBR2, FOXO3, PRDM16, LTBP1, LRRK2, RARB, BMP6, FYN, GNG2, KCNQ1, EMT1, LRP2, FER, VWC2, TMEM108, RAPGEF2, NCOA2, ESR2, VEPH1, HDAC5, PIK3R3, GABRB1, NTRK3, FBNI, PTPRK, PPARA, BRIPI, ELAVL4, PRLR, PTPRA, PMPA1, RXFP2</i>
GO:0010648	negative regulation of cell communication	0.000005367425653729619	<i>PTPRR, RCAN1, KALRN, RNF43, CTNNA1, ZNRF3, DMD, SPRED2, ROBO1, CIT, SORCS2, WWOX, LDLRAD4, PSMB2, PTPRT, CCDC3, KANK1, TCF7L2, PPP3CA, DEPDC5, SORCS3, DLC1, BTRC, MAP2K5, MAGI2, ANKRD6, GRIK2, PARK2, NPHP3, NLGN4X, SULF1, SH3BP1, RFFL, ARHGAP24, SLIT2, CHRDL1, SMAD3, PIBF1, EYA1, M</i>

			ADIL1,LINC00473,OVOL2,GRAMD4,DGKI,FBXW11,RBMS3,WTR1,TRIM59,TNR,CELF4,CD300A,CBFA2T2,ARHGAP42,RABGEF1,TRABD2B,ESR1,ARHGAP12,PDE4D,EIF3A,PIK3R2,GRI D2,PDE4B,PRKCQ,EPHB2,BDNF,FNIP1,IFT80,FSTL4,FHL2,BMPER,DAB2,PDE11A,ZMYND11,RGS6,ENPP1,PRDM15,NRG1,CD44,PLCL2,CHST11,AGT,NDRG2,ARHGAP25,NF1,WIF1,ZNF536,GSK3B,CD109,GPR21,PSMB7,SNX5,CHEK2,GRIK3,MECOM,SHANK2,GPC3,DLG5,ZNF675,BID,PTPRE,DUSP22,CTDSPL2,ZNF366,SLIT3,UACA,ADCY8,MLLT3,RNF213,SH3RF2,PRKA A2,GRM5,IGF1R,PTPRO,SUFU,UBR2,FOXO3,STK38,PRDM16,LTBP1,LRRK2,PKHD1,MARVELD3,AMFR,LRP2,VWC2,PCDH17,PTPRU,RGS7BP,VEPH1,DAB1,BDKRB2,LITAF,RGS7,SLC24A2,FBN1,PPARA,PTPRD,RORA,SHISA6,BICC1,DEPTOR,PMEPA1
GO:0003012	muscle system process	0.000005624343376078194	DMD,CHRM3,NOS1,HDAC4,ATP8A2,RYR2,PRKCA,CALD1,UTRN,PPP3CA,RYR1,AKAP6,SSPN,MEF2A,KCNB2,CTNNA3,PPP1R12B,AKAP13,CACNA1C,SULF1,SYNM,DTNA,SMAD3,NOS1AP,PLCE1,MLIP,ARHGAP42,PDE4D,DOCK4,KCNJ12,KCNJ3,PDE4B,SNTB1,MYBPC2,PRKG1,CALCRL,TNNI3K,HDAC2,TTN,MYOM3,KCNMA1,SLC8A1,AGT,PKP2,CTDP1,SETD3,CACNB2,PTGER3,MYOM1,P2RX6,ANK2,CACNA1D,FOXO3,SCN1A,KCND3,KCNQ1,SGCD,TRDN,BDKRB2,PPARA,STAC
GO:0023057	negative regulation of signaling	0.000006217900831890311	PTPRR,RCANI,KALRN,RNF43,CTNNA1,ZNRF3,DMD,SPRED2,ROBO1,CIT,SORCS2,WWOX,LDLRAD4,PSMB2,PTPRT,CCDC3,KANK1,TCF7L2,PPP3CA,DEPDC5,SORCS3,DLC1,BTRC,MAP2K5,MAGI2,ANKRD6,GRIK2,PARK2,NPHP3,NLGN4X,SULF1,SH3BP1,RFFL,ARHGAP24,SLIT2,CHRD1,SMAD3,PIBF1,EYA1,MADIL1,LINC00473,OVOL2,GRAMD4,DGKI,FBXW11,RBMS3,WTR1,TRIM59,TNR,CELF4,CD300A,CBFA2T2,ARHGAP42,RABGEF1,TRABD2B,ESR1,ARHGAP12,PDE4D,EIF3A,PIK3R2,GRI D2,PDE4B,PRKCQ,EPHB2,BDNF,FNIP1,IFT80,FSTL4,FHL2,BMPER,DAB2,PDE11A,ZMYND11,RGS6,ENPP1,PRDM15,NRG1,CD44,PLCL2,CHST11,AGT,NDRG2,ARHGAP25,NF1,WIF1,ZNF536,GSK3B,CD109,GPR21,PSMB7,SNX5,CHEK2,GRIK3,MECOM,SHANK2,GPC3,DLG5,ZNF675,BID,PTPRE,DUSP22,CTDSPL2,ZNF366,SLIT3,UACA,ADCY8,MLLT3,RNF213,SH3RF2,PRKA A2,GRM5,IGF1R,PTPRO,SUFU,UBR2,FOXO3,STK38,PRDM16,LTBP1,LRRK2,PKHD1,MARVELD3,AMFR,LRP2,VWC2,PCDH17,PTPRU,RGS7BP,VEPH1,DAB1,BDKRB2,LITAF,RGS7,SLC24A2,FBN1,PPARA,PTPRD,RORA,SHISA6,BICC1,DEPTOR,PMEPA1
GO:0050790	regulation of catalytic activity	0.000008108963368195502	RCANI,KALRN,PROS1,NTRK2,RASGEF1B,SLC39A10,SPRED2,ERBB4,NOS1,ROBO1,CIT,TBCD,FRY,PRIM2,ARFGAP3,SGSM1,BLM,PTPRT,RXFP1,PLCB1,FLT3,PRKD1,NEDD9,PPP2R3C,MYO9A,TBC1D5,TNFRSF10B,SMG6,RELN,APP,PAK1,DEPDC5,GRM7,RABGAP1L,DLC1,SOS1,ALK,BTRC,DENND5A,PPP1R12B,MAP2K5,MAGI2,AKAP13,PARN,SEMA4D,MMP16,ARHGAP15,ITSN1,JAK2,PPP6R2,PARK2,ADCYAP1R1,SERPINA4,CACNA1C,NRG3,SH3BP1,RFFL,ARHGAP24,SLIT2,BMP1A,SMAD3,PRKAR2A,BORA,PIBF1,TNKS,ARHGEF18,GRAMD4,DNAJB6,ELP3,BCL2L13,ARRDC4,DGKI,DNMBP,SLC1A1,LDB2,EPM2A,NOS1AP,ARHGEF33,ARHGEF6,WTR1,ARHGAP6,PCSK5,EGLN3,TIMP2,CCL15,DOCK3,NAV3,SPOCK1,PLCE1,GHR,ARHGA P39,RGL1,CD300A,RALGPS1,ARHGAP42,CCL14,RABGEF1,LRP5,ESR1,ARHGAP12,DENND2A,DOCK4,SLC5A3,EFNA5,PHACTR2,PIK3R2,MAPRE2,RIC8B,MAP3K7,PRKCQ,EPHB2,MOB3B,DOCK2,RFC3,CALML4,FNIP1,ADORA2A,SIPA1L2,RCAN2,NOX4,DAB2,PLXNA2,PRKG1,ABII,PRKAR1B,TTN,RGS6,SRGAP3,AGAP1,NRG1,CAST,TBC1D9,SPINT2,CD44,NCF4,GPSM2,SLC8A1,RAPGEF6,MAP3K13,AGT,FGF1,ARHGAP25,NF1,NRXN1,ARHGAP10,GSK3B,CD109,TIAM2,CABIN1,GPC3,PREX1,ROR1,ZNF675,SERPINA5,BID,MNAT1,TRIO,CAPN3,DUSP22,MAP3K5,NCF2,FGD4,EPHA5,ARHGEF3,GRIN2B,GARNL3,UACA,ADCY8,SH3RF2,CACNA1D,GRM5,ARAP2,IGF1R,PTPRO,INSR,RPG R,MAP2K1,RASGRF2,STK38,PPP1R14A,LRRK2,PHACTR1,ASAP1,FYN,XRCC4,EPHA7,RIMS1,EPHB1,DOCK1,CRADD,RALGPS2,RAPGEF2,PRPSAP2,CDKL5,DAB1,MGAT5,STIM1,CCNG2,PIK3R3,TENM1,PRKAR1A,RGS7,STXBP5,SIPA1L3,NTRK3,DOCK9,SBF2,ANXA8L1,DOCK10,PRLR,DEPTOR,NVL,RALGAP1,CST2,DENND2D,ST18,RXFP2
GO:0060284	regulation of cell development	0.000008278150569994721	KALRN,CTNNA1,NTRK2,ROBO1,DSCAM,HDAC4,PLCB1,VCL,NEDD9,SEMA5A,IL1RAPL1,KANK1,RELN,PPP3CA,ROBO2,DC C,SEMA4D,NUMB,SLIT2,BMP1A,BRINP1,NTN1,MAP2,CUX1,

			CDH4,TNR,ACTN4,TENM4,DISC1,EFNA5,SEMA6D,EPHB2,SIPR3,PTG,BDNF,FSTL4,DAB2,PLXNA2,HDAC2,FBXO31,MAP3K13,NF1,GSK3B,CHD7,TIAM2,TRIOBP,ISLR2,PREX1,MACF1,TP73,PAK3,SEMA5B,GRM5,MAP2K1,LRRK2,EPHA7,DOCK1,TRPC5,LRP2,RAPGEF2,CDKL5,DAB1,SEMA3A,NTRK3,FBN1,PTPRD,SEMA3D,SEMA3C
GO:0048639	positive regulation of developmental growth	0.00000844295750432991	ERBB4,DSCAM,ATP8A2,PLCB1,SEMA5A,PLS1,AKAP6,SEMA4D,PARK2,BMPRI1,NTN1,CDH4,GHR,DISC1,EFNA5,SPTBN4,BDNF,SYT1,RIMS2,NRG1,MAP3K13,GPR21,CHD7,UNC13A,ISLR2,MACF1,CAPN3,INSR,RIMS1,TRPC5,CDKL5,BASP1,SYT17
GO:0050767	regulation of neurogenesis	0.000010482489227170831	KALRN,CTNNA1,NTRK2,ROBO1,DSCAM,SEMA5A,IL1RAPL1,RELN,PPP3CA,ROBO2,DCC,SEMA4D,NUMB,SLIT2,BMPRI1,BRINP1,NTN1,MAP2,CUX1,CDH4,TNR,TENM4,DISC1,EFNA5,SEMA6D,EPHB2,PTG,BDNF,FSTL4,PLXNA2,HDAC2,FBXO31,MAP3K13,NF1,CHD7,TIAM2,ISLR2,MACF1,TP73,PAK3,SEMA5B,GRM5,MAP2K1,EPHA7,TRPC5,LRP2,RAPGEF2,CDKL5,DAB1,SEMA3A,NTRK3,PTPRD,SEMA3D,SEMA3C
GO:0040007	growth	0.000010640090728419498	DMD,ERBB4,DSCAM,ATP8A2,AUTS2,PLCB1,VCL,NEDD9,SEMA5A,KIF26B,RUNX1,PLS1,APP,PPP3CA,PCDH15,AKAP6,SOS1,RFTN1,DCLK1,MAP2K5,MAGI2,EYS,AKAP13,DCC,EP300,SEMA4D,EVC,BDKRB1,PARK2,NLGN4X,NRG3,SH3GL2,SLIT2,ATRX,RAD51B,BMPRI1,SMAD3,CPO,NTN1,EPM2A,MAP2,CDC73,WWTR1,CDH4,TNR,SPOCK1,PLCE1,TENM4,GHR,SERTAD2,DISC1,ESR1,EFNA5,FTO,ATF2,SEMA6D,PRKCQ,SPTBN4,DPSL2,BDNF,ARID5B,IFT80,FSTL4,SYT1,EBAG9,DAB2,ENPP1,RIMS2,NRG1,MAP3K13,CHST11,AGT,FGF1,GSK3B,CTDP1,GPR21,CHD7,UNC13A,ISLR2,GPC3,MACF1,CAPN3,TP73,SLIT3,SEMA5B,INSR,FOXO3,ENOX2,RARB,SPG11,EPHA7,RIMS1,EXT1,TRPC5,TMEM108,CDKL5,ESR2,BASP1,SEMA3A,LARGE,PRKAR1A,GNG4,CLASP2,PPAR4,SEMA3D,PRLR,SYT17,SEMA3C
GO:0008038	neuron recognition	0.000011943155465748177	CNTN4,ROBO1,DSCAM,OPCML,SEMA5A,APP,NTM,ROBO2,EMB,DSCAML1,EPHB2,MYPN,CNTNAP2,CRTAC1,CNTN6,EXT1,SEMA3A
GO:0051963	regulation of synapse assembly	0.00001460109651889783	NTRK2,LINGO2,IL1RAPL1,NLGN1,APP,ROBO2,SEMA4D,NEGR1,IL1RAPL2,NTN1,FLRT2,CLSTN2,EFNA5,GRID2,EPHB2,BDNF,NRXN1,DLG5,GPC6,LRFN5,EPHA7,EPHB1,NTRK3,SYNDIG1,PTPRD
GO:0048518	positive regulation of biological process	0.000015112775988301053	RNF4,CAMTA1,CHFR,KALRN,CACNG2,RPS6KA2,CTNNA1,NTRK2,CLASP1,GLIS3,SLC39A10,DMD,KCNC2,CHRM3,EIF3E,SPRED2,ERBB4,LAMA2,TFDP2,NOS1,ESRRG,ROBO1,DSCAM,CIT,DPP10,PUM1,GPC5,WDR59,PRIM2,WWOX,TNRC6B,HDAC4,LINGO2,ABCC1,ATP8A2,AUTS2,WLS,TENM2,BLM,PSMB2,ATF7IP,ASXL3,PLCB1,FLT3,SRPK2,PRKD1,RYR2,NEDD9,PPP2R3C,SEMA5A,ETV6,CASK,PRKCA,EPB41L4B,ZBTB20,IL1RAPL1,CCDC3,DIO2,PDE4DIP,ABCA13,KANK1,KIF26B,TBC1D5,SLC03A1,TCF12,RUNX1,PLS1,DOK6,FCHSD2,NLGN1,TNFRSF10B,CAMK1D,CLEC16A,TCF7L2,RELN,APP,ADAM12,PAK1,UTRN,PPP3CA,TOX,PTPN9,CREM,AKAP6,DLC1,IDE,SOS1,RFTN1,ALK,BTRC,MEF2A,TFAP2D,MAP2K5,DNMT1,MAGI2,EDA,ROBO2,AKAP13,HIVEP3,SAMD4A,DDDB1,EP300,PARN,SEMA4D,EVC,RPS6KA5,GRK5,ANKRD6,BDKRB1,TF,GRIK2,QKI,CHRM1,TFEC,JAK2,NEGR1,CMKLR1,ZBTB7C,PARK2,MAGI1,ADCYAP1R1,SMOC2,NRG3,NUMB,SOX6,SULF1,CD84,TCF20,PSPC1,SLIT2,GLP2R,SLC4A4,KMT2C,TRIM5,THEMIS,ATRX,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPRI1,SMAD3,BORA,PIBF1,CHD6,PTGFR,SCUBE1,EYA1,SATB2,MAML3,TPH1,MAD1L1,EGFLAM,TNKS,TUB,KLF12,SCAMP5,OVOL2,GRAMD4,ELP3,BRINP1,OMA1,BCL2L13,ARRDC4,GLIS1,SKAP1,SOX5,DGKI,TAFA1,SLC1A1,RNF144B,NTN1,LDB2,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,RBMS3,WWTR1,PEMT,KCTD7,EGLN3,CUX1,GRM4,ANK3,CCL15,MORC2,ARID4B,DOCK3,CDH4,TNR,CELF4,VAV3,ARNT2,ACTN4,HPSE2,PLCE1,EPS8,TENM4,PRR16,GHR,CLSTN2,CD300A,CBFA2T2,FUBP1,PRG3,MLIP,SERTAD2,DISC1,CCL14,RABGEF1,TRABD2B,LRP5,AP2B1,ESR1,TNFRSF19,GRM1,PDE4D,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,TEAD4,EFNA5,FTO,ATF2,PIK3R2,GRID2,ZNF423,CYBB,SEMA6D,SUSD4,ADTRP,PDE4B,MAPRE2,MAP3K7,PRKCQ,CLDN1,SLC24A3,JDP2,SPTBN4,EPHB2,AGO3,S1PR3,MOB3B,RGMB,EEF1E1-BLOC1S5,DOCK2,RFC3,MARK1,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,ANO1,CADPS,NOX4,BMPER,SYT1,DAB2,PLXNA2,NF,LRRK1,ABII,CACNG3,PTH2R,CALCRL,HDAC2,ETS1,BANP,

			<p>ARID4A,BACH1,TTN,MYRIP,CDK19,CFB,RIMS2,KSR2,PRDM15,PARD3,NRG1,FANK1,NPAS3,FMN2,RIT2,CD44,KCNMA1,SCAF8,CNGB1,GPSM2,PRKCG,TEAD1,NF1A,MAPKAPK2,SLC8A1,FBXO31,MAP3K13,PLCL2,TOX3,THRB,CDC42EP3,AGT,FGF1,QRICH1,CCR3,GRIP1,NF1,WIF1,NRXN1,PDXP,GSK3B,PKP2,SETD3,LMO7,GPR21,CHD7,PSMB7,SNX5,TIAM2,IQCJ-SCHIP1,CNTN1,UNC13A,TRIOBP,NCOA1,CHEK2,CACNB2,STXBP4,RHOJ,MECOM,SHANK2,UBE2E2,ISLR2,GPC3,DLG5,PRX1,UBE2V1,ROR1,PTGER3,BID,MACF1,MNAT1,CAPN3,CTNBL1,DUSP22,MYOM1,MAP3K5,MAML2,CTDSPL2,HTR2C,LY86,EPHA5,SGIP1,RNF144A,TP73,RBM19,IL1RL1,ANK2,ARHGEF3,SUPT3H,GRIN2B,PAK3,UACA,ADCY8,MLLT3,SH3RF2,CACNA1D,PRKAA2,TBL1X,SEMA5B,GRM5,IGF1R,CNTNAP2,INSR,CIZ1,JAK1,MAP2K1,FOXO3,RASGRF2,CNTN6,MITF,CDC14A,AGBL4,PRDM16,FRMD5,KIR2DL4,DNMT3B,TASP1,LRRK2,PKHD1,RARB,TCF4,PBX1,BMP6,ASAP1,FRMPD4,FYN,CSPP1,EPHA7,GAS8,MSR1,CLN6,PCBD2,RIMS1,ENPP2,ABCA12,EPHB1,KCNQ1,DOCK1,CRADD,VASH2,TRPC5,UNC5C,TENM3,NOX5,LRP2,C2,FER,CAMK4,VWC2,TMEM108,RAPGEF2,NAV3,NCOA2,CDKL5,PTPRU,IL18R1,ESR2,KAT7,C9,SETD2,TRIM22,CDH13,ASPI1,TRDN,DAB1,ZNF148,SEC16B,HDAC5,SEMA3A,MGA T5,MYH9,STIM1,NRIP1,LITAF,PIK3R3,BRF1,TENM1,ST8SIA1,S H3KBP1,ZRANB1,RGS7,STXBP5,VWF,SLC24A2,SCEL,NTRK3,DIS3L2,CLASP2,ZNF521,CREB5,DNM3,SYNDIG1,PPARA,PTP RD,RORA,ELAVL4,NELL1,EEF1E1,ATP8A1,SEMA3D,PRLR,AT F6,NVL,SYT17,STAC,RAB27A,BLOC1S6,LARP4B,SYT9,SEMA3C ,ST18</p>
GO:0043269	regulation of ion transport	0.00001609553253336263	<p>CACNG2,DMD,KCNC2,CHRM3,NOS1,TMC2,DPP10,CACNA1A ,PRKD1,RYR2,CASK,NLGN1,KCNIP4,RELN,APP,UTRN,AKAP6,GRM7,KCNB2,KCNA6,BDKRB1,TF,CHRM1,PARK2,ADCYAP1R1,DPP6,CACNA1C,CD84,KCNJ16,CACNA1E,FGF14,CACNA2D3,SHISA9,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,PD E4D,KCNJ12,CYBB,KCNJ3,PDE4B,KCND2,SPTBN4,EPHB2,AD ORA2A,SYT1,CACNG3,SCN8A,KCNMA1,SLC8A1,AGT,KCNQ5, KCNJ6,NRXN1,PKP2,KCNH1,CHD7,CNTN1,CACNB2,KCNS3,C APN3,ANK2,CACNA1D,GRM5,NKAIN2,RASGRF2,NKAIN3,SCN 1A,FYN,KCND3,KCNQ1,KCNH7,TRDN,STIM1,RGS7,SHISA6,K CNC4,SYT17,STAC,KCNJ15,SYT9</p>
GO:0061387	regulation of extent of cell growth	0.000016288232300552435	<p>DSCAM,SEMA5A,DCC,SEMA4D,NTN1,MAP2,CDH4,TNR,DISC 1,EFNA5,SEMA6D,DPYSL2,BDNF,FSTL4,MAP3K13,GSK3B,ISL R2,MACF1,SEMA5B,EPHA7,TRPC5,CDKL5,SEMA3A,CLASP2,S EMA3D,SEMA3C</p>
GO:0034762	regulation of transmembrane transport	0.000016359975314171887	<p>CACNG2,DMD,KCNC2,CHRM3,NOS1,TMC2,DPP10,CACNA1A ,PRKD1,RYR2,NLGN1,KCNIP4,RELN,APP,UTRN,AKAP6,MEF2 A,KCNB2,KCNA6,BDKRB1,DPP6,CACNA1C,KCNJ16,CACNA1 E,FGF14,CACNA2D3,SHISA9,NOS1AP,CATSPER2,ANK3,CNIH 3,SCN9A,ACTN4,PDE4D,KCNJ12,CYBB,KCNJ3,PDE4B,KCND2 ,EPHB2,CACNG3,ENPP1,SCN8A,KCNMA1,SLC8A1,AGT,KCNQ 5,KCNJ6,NRXN1,KCNH1,CHD7,CACNB2,STXBP4,GPC3,KCNS 3,CAPN3,ANK2,CACNA1D,GRM5,INSR,RASGRF2,SCN1A,FYN, KCND3,KCNQ1,KCNH7,TRDN,STIM1,RGS7,SHISA6,KCNC4,ST AC,KCNJ15</p>
GO:0007156	homophilic cell adhesion via plasma membrane adhesion molecules	0.000018712887497688143	<p>CNTN4,ROBO1,DSCAM,PCDH9,PTPRT,PCDH15,CELSR1,ROB O2,CDH8,SDK2,EMB,CD84,DSCAML1,HMCN1,CDH12,CDH4, CDH10,CLSTN2,CADM3,FAT3,CDH23,MYPN,SDK1,CNTN6,PC DH7,PCDH11X,TENM3,PCDH17,PTPRM,KIRREL3,DCHS2,CD H13,CDH9</p>
GO:0007167	enzyme linked receptor protein signaling pathway	0.000020900933600968875	<p>PTPRR,KALRN,NTRK2,PTPRG,SPRED2,ERBB4,ROBO1,FUT8, ANKS1A,LDLRAD4,PTPRT,PLCB1,FLT3,PRKD1,NEDD9,KANK 1,DOK6,PAK1,IDE,SOS1,ALK,MAGI2,EP300,RPS6KA5,TF,JAK 2,SMOC2,NRG3,COL4A6,SULF1,CHRD1,BMPRIA,SMAD3,AN KS1B,OVOL2,FLRT2,WWTR1,PLCE1,GHR,RABGEF1,PIK3CD, EFNA5,ATF2,PIK3R2,ZNF423,MAP3K7,PRKCQ,EPHB2,RGMB, BDNF,ARID5B,FSTL4,BMPER,DAB2,ABII,ENPP1,NRG1,MAPK APK2,CHST11,AGT,FGF1,NF1,NRXN1,GSK3B,CD109,GPR21,S NX5,BTBD11,STXBP4,NREP,GPC3,ROR1,TRIO,PTPRE,DUSP2 2,CTDSPL2,EPHA5,PAK3,IGF1R,INSR,PRDM16,LTBP1,BMP6, FYN,EPHA7,EPHB1,EXT1,LRP2,FER,VWC2,GUCY2F,TMEM10 8,RAPGEF2,PTPRU,CDH13,VEPH1,BDKRB2,PIK3R3,NTRK3,F BNI,CLASP2,PTPRK,PPARA,PTPRD,PRLR,PTPRA,PMPEA1</p>
GO:000726	small GTPase	0.00002390402545423	<p>KALRN,RASGEF1B,ROBO1,AUTS2,PRKD1,MYO9A,KANK1,RE</p>

4	mediated signal transduction	209	<i>LN,DLCL1,SOS1,DNMT1,CELSR1,AKAP13,ARHGAP15,ITSN1,ADCYAP1R1,SH3BP1,ARHGAP24,SLIT2,ARHGEF18,DGKI,DNMBP,NTN1,ARHGAP6,DOCK3,VAV3,PLCE1,EPS8,ARHGAP39,RGL1,RALGPS1,ARHGAP42,RABGEF1,ARHGAP12,DOCK4,MAPRE2,EPHB2,DOCK2,SIPA1L2,RAB30,SRGAP3,KSR2,NRG1,RIT2,GPSM2,RAPGEF6,CDC42EP3,ARHGAP25,NF1,ARHGAP10,TIAM2,RHOJ,PREX1,TRIO,FGD4,ARHGEF3,GARNL3,KPNB1,RASGRF2,DOCK1,RALGPS2,RAPGEF2,CDH13,DAB1,SIPA1L3,DOCK9,DOCK10,RALGAP1</i>
GO:0051056	regulation of small GTPase mediated signal transduction	0.000029576779762262236	<i>KALRN,ROBO1,AUTS2,MYO9A,KANK1,RELN,DLCL1,SOS1,AKAP13,ARHGAP15,ITSN1,ADCYAP1R1,SH3BP1,ARHGAP24,SLIT2,ARHGEF18,DGKI,DNMBP,ARHGAP6,DOCK3,VAV3,PLCE1,EPS8,ARHGAP39,RALGPS1,ARHGAP42,RABGEF1,ARHGAP12,MAPRE2,EPHB2,DOCK2,SIPA1L2,SRGAP3,NRG1,RIT2,ARHGAP25,NF1,ARHGAP10,TIAM2,PREX1,TRIO,FGD4,ARHGEF3,GARNL3,RASGRF2,RALGPS2,SIPA1L3,RALGAP1</i>
GO:0035235	ionotropic glutamate receptor signaling pathway	0.000030306218439870617	<i>GRIK4,APP,GRIK2,GRID1,GRIN3A,GRID2,GRIA2,GRIK3,GRIN2B,GRIK1,GRIA4,GRIA3</i>
GO:1990806	ligand-gated ion channel signaling pathway	0.000030306218439870617	<i>GRIK4,APP,GRIK2,GRID1,GRIN3A,GRID2,GRIA2,GRIK3,GRIN2B,GRIK1,GRIA4,GRIA3</i>
GO:0045595	regulation of cell differentiation	0.000041419434568640226	<i>KALRN,CTNNA1,NTRK2,CLASP1,DMD,SPRED2,CNTN4,ROBO1,DSCAM,HDAC4,LDLRAD4,PSMB2,PLCB1,PRKD1,VCL,NEDD9,PPP2R3C,SEMA5A,PRKCA,ILIRAPL1,CCDC3,KANK1,TCF12,RUNX1,NLGN1,TCF7L2,RELN,APP,PPP3CA,TOX,AKAP6,SOS1,ALK,DNMT1,ROBO2,DCC,SEMA4D,JAK2,CMKLR1,ZBTB7C,NPHP3,NUMB,SOX6,SLIT2,BMPR1A,SMAD3,EYA1,TPH1,OVOL2,BRINP1,GLIS1,SOX5,NTN1,MAP2,CDC73,WWTR1,CUX1,TRPS1,CDH4,TNR,ACTN4,TENM4,GHR,DISC1,LRP5,BLOC1S5,EFNA5,FTO,SEMA6D,JDP2,EPHB2,SIPR3,PRTG,DPSL2,MARK1,BDNF,RBM4,FNIP1,FSTL4,DAB2,PLXNA2,HDAC2,ETS1,ENPPI,NRG1,FBXO31,MAP3K13,AGT,USH2A,NF1,WIF1,ZNF536,GSK3B,PKP2,CTDP1,SETD3,CD109,CHD7,PSMB7,TIAM2,PLEKHB2,TRIOBP,NCOA1,ISLR2,NREP,PREX1,ZNF675,MACF1,TRIO,CAPN3,MAP3K5,HTR2C,TP73,PAK3,SEMA5B,NLN,GRM5,SUFU,MAP2K1,FOXO3,MITF,RBFOX1,LRRK2,RARB,TCF4,PBX1,BMP6,EPHA7,MSR1,ABCA12,EPHB1,DOCK1,TRPC5,LRP2,CAMK4,VWC2,RAPGEF2,CDKL5,KAT7,DAB1,HDAC5,SEMA3A,NTRK3,FBN1,CLASP2,NSUN2,PPARA,PTPRD,RORA,NELL1,SEMA3D,PRLR,BLOC1S6,SEMA3C</i>
GO:0009968	negative regulation of signal transduction	0.00004238671534933587	<i>PTPRR,RCAN1,RNF43,CTNNA1,ZNRF3,DMD,SPRED2,ROBO1,CIT,WWOX,LDLRAD4,PSMB2,PTPRT,CCDC3,KANK1,TCF7L2,DEPDC5,DLCL1,BTRC,MAP2K5,MAGI2,ANKRD6,PARK2,NPHP3,NLGN4X,SULF1,SH3BP1,RFFL,ARHGAP24,SLIT2,CHRD1,SMA3,PIBF1,EYA1,MAD1L1,LINC00473,OVOL2,GRAMD4,FBXW11,RBMS3,WWTR1,TRIM59,CELF4,CD300A,CBFA2T2,ARHGAP42,RABGEF1,TRABD2B,ESR1,ARHGAP12,PDE4D,EIF3A,PIK3R2,PDE4B,PRKCQ,EPHB2,BDNF,FNIP1,IFT80,FSTL4,FHL2,BMPER,DAB2,PDE11A,ZMYND11,RGS6,ENPPI,PRDM15,NRG1,CD44,PLCL2,CHST11,AGT,NDRG2,ARHGAP25,NF1,WIF1,ZNF536,GSK3B,CD109,GPR21,PSMB7,SNX5,CHEK2,MECOM,SHANK2,GPC3,DLG5,ZNF675,BID,PTPRE,DUSP22,CTDSPL2,ZNF366,SLIT3,UACA,MLLT3,RNF213,SH3RF2,PRKAA2,GRM5,IGF1R,PTPRO,SUFU,UBR2,FOXO3,STK38,PRDM16,LTBP1,LRRK2,PKHD1,MARVELD3,AMFR,LRP2,VWC2,PTPRU,RGS7BP,VEPH1,DAB1,BDKRB2,LITAF,RGS7,FBN1,PPARA,PTPRD,RORA,SHISA6,BICC1,DEPTOR,PMEPA1</i>
GO:0016043	cellular component organization	0.00004252387777744616	<i>RNF4,CHFR,KDM4B,KALRN,CACNG2,RPS6KA2,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,SYNE1,DMD,KCNC2,EIF3E,ERBB4,LAMA2,CNTN4,ROBO1,ANKRD30BL,DSCAM,SHROOM3,MDN1,CIT,TBCD,FRY,NEBL,HDAC4,ATP9A,LINGO2,ARFGAP3,IMMP2L,ABCC1,ATP8A2,AUTS2,LDLRAD4,TENM2,BLM,PSMB2,RXFP1,ATF7IP,NFASC,PLCB1,SRPK2,TRPM1,PRKD1,VCL,PDS5A,NEDD9,PPP2R3C,SEMA5A,ETV6,PRKCA,EPB41L4B,STX8,BTBD9,ILIRAPL1,ADAMTS6,MYO9A,PDE4DIP,CALD1,ITGAE,ABCA13,KANK1,DIAPH2,TBC1D5,RUNX1,PLS1,FCHSD2,NLGN1,DNAH9,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,MTRF1,RELN,APP,PAK1,UTRN,PPP3CA,RYR1,TOX,PCDH15,ERC2,PTPN9,AKAP6,GRM7,DLCL1,SCMH1,RYR3,SOS1,CTNND2,LRRK8</i>

			<p>C,RFTN1,ALK,DCLK1,MEF2A,KCNB2,CTNNA3,DENND5A,MA P2K5,DNMT1,MAGI2,CELSR1,ROBO2,IFT81,AKAP13,DCC,EL MO2,C10ORF90,EP300,KCNA6,PARN,SEMA4D,RPS6KA5,PHF 20,MMP16,BDKRB1,NME8,TF,CDH8,HUS1,TANC2,JAK2,ABC G8,NEGR1,SDK2,MAST4,PARK2,MAGI1,NPHP3,PRELID2,GRI N3A,SMOC2,NLGN4X,EXOC4,EMB,PNPLA3,ANO4,PIK3C2B,A FAP1,UPB1,LRRRC49,NRG3,NUMB,COL4A6,TRPM3,SULF1,CH CHD6,SH3BP1,RNU6ATAC31P,SH3GL2,COL24A1,ARHGAP24, COL11A1,PITPNC1,SLIT2,SYNM,KMT2C,ATRX,RAD51B,SLX1B ,GTF2E1,ACACA,DSCAML1,SMAD3,BORA,PI4KA,TNFRSF11B, PIBF1,PIK3C3,CHD6,PEAK1,EYA1,SATB2,HSF2BP,ELN,MAD1 L1,EGFLAM,DGKB,TNKS,TUB,ARHGEF18,SCAMP5,DNAJB6, OMA1,SPESP1,ILIRAPL2,SPAG17,SKAP1,TAF1,SLC1A1,NTN1, EPM2A,SHFM1,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,RANB P10,ARHGEF6,WWTR1,GAS7,ARHGAP6,KCTD7,CHAF1B,STA RD9,CUX1,ANK3,CDH12,MORC2,ARID4B,THSD4,TTL8,CDH 4,TNR,CELF4,VAV3,CDKL1,MDM4,SPOCK1,ACTN4,RAB2A,H PSE2,PLCE1,TACC2,EPSS8,TENM4,CECR2,PRR16,ARHGAP39, LRRRC8D,CDH10,LRRRC4C,PPP1R9A,PDZRN3,CLSTN2,CD300A ,TTL11,CBFA2T2,SERTAD2,STRC,DISC1,POC1A,ATP8B4,IFT 43,RABGEF1,NSG2,TRABD2B,LRP5,NAV2,AP2B1,ESR1,ARHG AP12,SCFD1,CNTN5,THEM4,BLOC1S5,RNU6- 78P,ARMC2,EFNA5,TLN2,KLHL1,EIF3A,ATF2,PHACTR2,KCNJ 12,GRID2,ZNF423,SEMA6D,CELF2,NTNG1,ADTRP,CRMP1,M APRE2,GABRB3,ANKRD13A,PRKCQ,RASSF8,RHPN2,CLDN1, WDR83OS,KCND2,TTL5,SPTBN4,EPHB2,ERC1,AGO3,MCTP1 ,PRTG,COL22A1,DOCK2,DYSL2,PTPDC1,RFC3,MARK1,BDN F,FNIP1,ADORA2A,IFT80,DYM,FSTL4,MCM3,CCDC170,TTC3 9C,RNU6- 1269P,TSPAN33,BCOR,ICK,THSD7B,BRD9,SYT1,EBAG9,DAB2, AFF2,PLXNA2,NSF,PRKG1,STXBP6,SNAP23,ABII,EPG5,MICA L3,HDAC2,ETS1,BANP,FAT3,ARID4A,RAB30,ZMYND11,CDH2 3,TTN,ENPP1,RIMS2,HEPACAM2,CTNNA2,PEX5L,LRCH3,FM NL2,PARD3,NRG1,CAST,SPINT2,ATP10B,FMN2,TOPI,RIT2,C D44,KCNMA1,SCAF8,CNGB1,GPSM2,SLC12A8,ZFYVE1,TEAD 1,NFIA,RAPGEF6,FBXO31,MAP3K13,CDC42BPA,CDC42EP3,S AMM50,NCAM1,AGT,STRIP1,GRIP1,TLK1,ARHGAP25,NF1,VP S16,PARVB,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,ADAMTS 17,PKP2,CTDP1,SETD3,BBS9,CHD7,PSMB7,MOV10L1,THSD7 A,TIAM2,IQCJ- SCHIP1,CNTN1,UNC13A,TRIOBP,CABIN1,CHEK2,CACNB2,R HOJ,ESYT2,MECOM,SYBU,SHANK2,KCTD8,UNC5D,ISLR2,NR EP,GPC3,DLG5,PGM5,SH3BGR,PREX1,ANO3,XKR4,ROR1,AD AMTSL1,SERPINA5,KCNS3,COL12A1,BID,MACF1,MNAT1,TRI O,CAPN3,TRMT61B,DUSP22,CLDN11,SPAG16,CCDC141,SNA P25- ASI,FGD4,EPAH5,SGIP1,HIRA,TP73,FAM171A1,MYPN,ANK2, SLIT3,GRIN2B,SHPRH,PAK3,PRRC2C,ADCY8,MLLT3,NEB,ITG B3BP,RNF213,RNU6- 1061P,PRKAA2,CHCHD3,SEMA5B,ANKFN1,TRAPPC8,SDK1,G RM5,IGF1R,TSNARE1,CNTNAP2,PTPRO,INSR,RPGR,CRTAC1, MAP2K1,UBR2,KPNB1,GPC6,ADAMTSL3,CNTN6,CENPF,KCT D1,ATP9B,MITF,SPECC1L,LRFN5,CDC14A,KPNA3,PRDM16,F RMD5,ULK4,TMEM120B,ADAMTS16,LRRK2,PKHD1,KIF2A,TC F4,SPG11,PHACTR1,BMP6,TMEM170A,VTI1A,ASAP1,FRMPD 4,COL23A1,FYN,KCND3,EPAH7,MARVELD3,GAS8,COL19A1, MSR1,SGCZ,CLN6,RIMS1,ENPP2,L3MBTL4,ABCA12,EPHB1,K CNQ1,FHOD3,DOCK1,VASH2,EXT1,TRPC5,UNC5C,CSGALNA CT1,TENM3,NOX5,LRP2,FER,PCDH17,TMEM108,SHROOM4,R APGEF2,NAV3,CENPP,PTPRM,KIRREL3,NRXN3,CDKL5,ZNF2 07,MPRIIP,ESR2,KAT7,SATB1,C9,SETD2,PACSIN2,CDH13,TRD N,DAB1,ZNF148,SEC16B,EXOC6B,HDAC5,SEMA3A,MYH9,CO L21A1,TANC1,VPS41,BRF1,TENM1,STK38L,VPS39,SH3KBP1,P RKAR1A,ZRANB1,STXBP5,SIPA1L3,GNG4,KANSL1,NTRK3,HY DIN,CEP89,DIS3L2,CLASP2,DNAJC6,PTPRK,DNM3,SYNDIG1, PPARA,NCKAP5,PTPRD,SHISA6,BRIP1,ELAVL4,CDH9,ANXA8 L1,DOCK10,ATP8A1,SEMA3D,PRLR,PTPRA,KCNC4,CEP41,DE PTOR,PPFIBP2,SMIM20,RAD51D,SYT17,RAB27A,TUBGCP6,B LOCIS6,PMEP1,PARD3B,HGSNAT,SYT9,SEMA3C</p>
GO:001619 2	vesicle-mediated transport	0.00005184243417283 613	<p>SYN3,LRP1B,KALRN,CACNG2,PROS1,CLASPI,ATP9A,ARFGA P3,PRKD1,CASK,STX8,BTBD9,ILIRAPL1,ABCA13,TBC1D5,FC HSD2,NLGN1,CAMK1D,CLEC16A,APP,PAK1,PPP3CA,ERC2,O SBPL1A,RABGAP1L,DCLK1,DENND5A,MAGI2,ELMO2,TF,SYT</p>

			<p>L5,ITSN1,RAB11FIP4,PARK2,GRIN3A,NLGN4X,EXOC4,HEATR5A,ENTHD1,TMPRSS3,NUMB,CD84,SH3BP1,SH3GL2,PIK3C3,TPH1,TUB,SCAMP5,ASGR2,DGKI,SLC1A1,CUX1,ANK3,CNIH3,VAV3,RAB2A,CECR2,GHR,CD300A,RABGEF1,NSG2,LRP5,AP2B1,ARHGAP12,DENND2A,SCFD1,PIK3CD,CCDC91,ANKRD13A,SPTBN4,EPHB2,ERC1,MCTP1,DOCK2,DPYSL2,ADORA2A,CADPS,SYT1,DAB2,NSF,STXBP6,SNAP23,CACNG3,EPG5,CALCRL,MICAL3,PRKAR1B,ENPP1,RIMS2,NRG1,FMN2,RIT2,NCF4,PRKCG,MAPKAPK2,FAM19A4,GRIPI,ARHGAP25,VPS16,NRXN1,GSK3B,SNX5,UNC13A,CACNB2,RHOJ,ESYT2,GPC3,XKR4,MACF1,NCF2,SGIP1,ANK2,TRAPPC8,IGF1R,TSNARE1,MON2,INSR,MAP2K1,ATP9B,LRRK2,SPG11,VTI1A,FYN,MSR1,RIMS1,ENPP2,VPS53,ABCA12,DOCK1,LRP2,C2,FER,PCDH17,TMEM108,NRXN3,VPS45,PACSIN2,CDH13,SEC16B,EXOC6B,MYH9,VPS41,VPS39,SH3KBP1,STXBP5,TXNDC5,CLASP2,TMPRSS15,DNAJC6,SORCS1,DNM3,SYNDIG1,SCFD2,ANXA8L1,SYT17,RAB27A,BLOC1S6,SYT9</p>
GO:004852 2	positive regulation of cellular process	0.00005208780123793 3156	<p>RNF4,CAMTA1,CHFR,KALRN,CACNG2,RPS6KA2,CTNNA1,NTRK2,CLASPI,GLIS3,SLC39A10,DMD,KCNC2,EIF3E,SPRED2,ERBB4,LAMA2,TFDP2,NOS1,ESRRG,ROBO1,DSCAM,CIT,DPP10,PUM1,GPC5,WDR59,PRIM2,WWOX,TNRC6B,HDAC4,LINGO2,ATP8A2,AUTS2,WLS,TENM2,BLM,PSMB2,ATF7IP,ASXL3,PLCB1,FLT3,SRPK2,PRKD1,RYR2,NEDD9,PPP2R3C,SEMA5A,ETV6,CASK,PRKCA,EPB41L4B,ZBTB20,IL1RAPL1,CCDC3,PDE4DIP,ABCA13,KANK1,KIF26B,TBC1D5,SLCO3A1,TCF12,RUNX1,PLS1,DOK6,FCHSD2,NLGN1,TNFRSF10B,CAMK1D,CLEC16A,TCF7L2,RELN,APP,PAK1,UTRN,PPP3CA,TOX,PTPN9,CREM,AKAP6,DLC1,SOS1,ALK,BTRC,MEF2A,TFAP2D,MAP2K5,DNMT1,MAGI2,EDA,ROBO2,AKAP13,HIVEP3,SAMD4A,DDDB1,EP300,PARN,SEMA4D,EVC,RPS6KA5,GRK5,ANKRD6,BDKRB1,TF,GRK2,CHRM1,TFEC,JAK2,NEGR1,CMKLR1,ZBTB7C,PARK2,MAGI1,ADCYAP1R1,SMOC2,NRG3,NUMB,SOX6,SULF1,TCF20,SLIT2,GLP2R,SLC4A4,KMT2C,TRIM5,ATRX,TRAF3IP2,RAD51B,SLX1B,SH3RF3,BMPR1A,SMAD3,BORA,PIBF1,CHD6,PTGFR,SCUBE1,EYA1,SATB2,MAML3,TPH1,MAD1L1,EGFLAM,TNKS,KLF12,SCAMP5,OVOL2,GRAMD4,ELP3,BRINP1,OMA1,BCL2L13,ARRDC4,GLIS1,SKAP1,SOX5,DGKI,TAI1,SLC1A1,RNF144B,NTN1,LDB2,EPM2A,MAP2,CDC73,FLRT2,FBXW11,NOS1AP,WWTR1,EGLN3,CUX1,GRM4,ANK3,CCL15,MORC2,ARID4B,DOCK3,CDH4,TNR,CELF4,VAV3,ARNT2,ACTN4,HPSE2,PLCE1,EPS8,TENM4,PRR16,GHR,CLSTN2,CD300A,CBFA2T2,MLIP,SERTAD2,DISC1,CCL14,TRABD2B,LRP5,AP2B1,ESR1,TNFRSF19,GRM1,PIK3CD,DOCK4,SLC5A3,BLOC1S5,FRMD4A,TEAD4,EFNA5,FTO,ATF2,PIK3R2,GRID2,ZNF423,SEMA6D,ADTRP,MAPRE2,MAP3K7,PRKCG,CLDN1,JDP2,EPHB2,AGO3,SIPR3,MOB3B,RGMB,EEF1E1-BLOC1S5,RFC3,BDNF,RBM4,FNIP1,ADORA2A,ARID5B,ANO1,CADPS,NOX4,BMPER,SYT1,DAB2,PLXNA2,NSF,LRRK1,ABII,CACNG3,CALCRL,HDAC2,ETS1,BANP,ARID4A,BACH1,TTN,MYRIP,CDK19,RIMS2,PRDM15,PARD3,NRG1,FANK1,NPAS3,FMN2,RIT2,CD44,KCNMA1,SCAF8,GPSM2,PRKCG,TEAD1,NFIA,SLC8A1,FBXO31,MAP3K13,TOX3,THRB,CDC42EP3,AGT,FGF1,QRICH1,CCR3,GRIPI,NF1,WIF1,NRXN1,PDXP,GSK3B,SETD3,LMO7,CHD7,PSMB7,SNX5,TIAM2,IQCJ-SCHIP1,CNTN1,UNC13A,TRIOBP,NCOA1,CHEK2,CACNB2,STXBP4,RHOJ,MECOM,SHANK2,UBE2E2,ISLR2,GPC3,DLG5,PREX1,UBE2V1,ROR1,BID,MACF1,MNAT1,CAPN3,CTNBNB1,DUSP22,MYOM1,MAP3K5,MAML2,CTDSPL2,HTR2C,LY86,EPHA5,SGIP1,RNF144A,TP73,IL1RL1,ANK2,ARHGEF3,SUPT3H,GRIN2B,PAK3,UACA,ADCY8,MLLT3,SH3RF2,PRKAA2,TBL1X,SEMA5B,GRM5,IGF1R,CNTNAP2,INSR,CIZ1,JAK1,MAP2K1,FOXO3,RASGRF2,CNTN6,MITF,CDC14A,AGBL4,PRDM16,FRMD5,KIR2DL4,DNMT3B,TASP1,LRRK2,PKHD1,RARB,TCF4,PBX1,BMP6,ASAP1,FRMPD4,FYN,CSPP1,EPHA7,GAS8,MSR1,CLN6,PCBD2,RIMS1,ENPP2,ABCA12,EPHB1,KCNQ1,DOCK1,CRADD,VASH2,TRPC5,UNC5C,TENM3,NOX5,LRP2,FER,CAMK4,VWC2,TMEM108,RAPGEF2,NAV3,NCOA2,CDKL5,PTPRU,IL18R1,ESR2,KAT7,TRIM22,CDH13,TRDN,DAB1,ZNF148,SEC16B,HDAC5,SEMA3A,MGAT5,MYH9,STIM1,NRIP1,LITAF,PIK3R3,BRF1,TENM1,ST8SLA1,SH3KBP1,ZRANB1,RGS7,STXBP5,VWF,SLC24A2,SCCL,NTRK3,DIS3L2,CLASP2,ZNF521,CREB5,DNM3,SYNDIG1,PPARA,PTPRD,RORA,ELAVL4,NELLI,EEF1E1,ATP8A1,SEMA3D,PRLR,ATF6,NVL,SYT17,STAC,RAB27A,BLOC1S6,LARP4B,SY</p>

			<i>T9,SEMA3C,ST18</i>
GO:0048675	axon extension	0.00005366719202137563	<i>DSCAM,AUTS2,VCL,SEMA5A,DCLK1,SEMA4D,SLIT2,NTN1,MAP2,CDH4,TNR,DISC1,SEMA6D,DPYSL2,MAP3K13,GSK3B,ISLR2,MACF1,SLIT3,SEMA5B,SPG11,TRPC5,CDKL5,SEMA3A,CLASP2,SEMA3D,SEMA3C</i>
GO:0019932	second-messenger-mediated signaling	0.000054268338886679884	<i>CAMTA1,RCAN1,DMD,KCNC2,CHRM3,NOS1,HDAC4,RYR2,PPP3CA,AKAP6,CMKLR1,ADCYAP1R1,CACNA1C,ADCY2,PTGFR,LINC00473,NOS1AP,PLCE1,PPP1R9A,PDE4D,PDE7B,MCTP1,RCAN2,FHL2,PRKG1,PDE11A,KSR2,PEX5L,NRG1,RET,SLC8A1,AGT,CCR3,GSK3B,HTR2C,EPHA5,ANK2,GRIN2B,ITPR2,GRM5,INPP5A,LRRK2,MCTP2,GUCY2F,SGCD,RAPGEF2,CDH13</i>
GO:0051129	negative regulation of cellular component organization	0.00006382926630697231	<i>RPS6KA2,CLASP1,PTPRG,TBCD,LDLRAD4,PRKD1,SEMA5A,KANK1,NLGN1,SMG6,CLEC16A,PPP3CA,PTPN9,DLC1,DENND5A,ROBO2,DCC,EP300,SEMA4D,PARK2,ARHGAP24,SLIT2,ATRX,SLX1B,MAD1L1,TNKS,ARHGEF18,SCAMP5,DNAJB6,OMA1,NTN1,MAP2,ARHGAP6,TNR,SPOCK1,EPS8,CD300A,CBFA2T2,RABGEF1,SCFD1,SEMA6D,ADTRP,CRMP1,ANKRD13A,RHPN2,SPTBN4,EPHB2,MCTP1,FSTL4,DAB2,HDAC2,FAT3,CTNNA2,RET2,SCAF8,NRXN1,GSK3B,IQCJ-SCHIP1,TRIOBP,MNAT1,DUSP22,GRIN2B,SEMA5B,PTPRO,CEPNF,LRRK2,BMP6,FYN,EPHA7,FHOD3,TRPC5,RAPGEF2,NAV3,ZNF207,PACSIN2,DAB1,SEMA3A,CLASP2,DNM3,SEMA3D,MEPA1,SEMA3C</i>
GO:0018193	peptidyl-amino acid modification	0.00007723226533102889	<i>KDM4B,RPS6KA2,NTRK2,DMD,SPRED2,ERBB4,NOS1,CIT,FUT8,HDAC4,AUTS2,FLT3,SRPK2,PRKD1,NEDD9,PRKCA,CAMK1D,RELN,APP,PAK1,ALK,DCLK1,MAP2K5,DNMT1,EP300,SEMA4D,RPS6KA5,PHF20,ZDHHC11B,JAK2,MAST4,KMT2C,ATRX,PIBF1,PEAK1,EYA1,EGFLAM,TNKS,ZDHHC11,TAF1,SLC1A1,EPM2A,NOS1AP,PHF20L1,EGLN3,ARID4B,DOCK3,TTL8,GHR,CD300A,TTL11,PDE4D,EFNA5,ATF2,MAP3K7,PRKCQ,TTL5,SPTBN4,EPHB2,MARK1,BDNF,FNIP1,NOX4,BCOR,LRRK1,ABII,HDAC2,ARID4A,TTN,ZZZ3,PARD3,NRG1,DPY19L1,TOPI,CD44,PRKCG,MAPKAPK2,MAP3K13,PLCL2,CDC42BP4,AGT,DYRK4,TLK1,NRXN1,AGBL1,GSK3B,SETD3,CNTN1,NCOA1,CEHK2,MECOM,STK32B,ROR1,CAPN3,DUSP22,EPHA5,MORC3,SUPT3H,DPH6,PRKAA2,GRM5,IGF1R,ZDHHC14,INSR,JAK1,MAP2K1,STK38,AGBL4,PRDM16,DNMT3B,LRRK2,BMP6,FYN,EPHA7,ENPP2,EPHB1,TRPC5,FER,CAMK4,KAT7,SETD2,MGA5,BDKRB2,TENM1,STK38L,KANSL1,DPY19L2,NTRK3,GALNTL6,PRLR,CEP41</i>
GO:0006936	muscle contraction	0.00009118025472704744	<i>DMD,CHRM3,NOS1,HDAC4,ATP8A2,RYR2,CALD1,UTRN,RYR1,SSPN,KCNB2,CTNNA3,PPP1R12B,CACNA1C,SULF1,SYNM,DINA,NOS1AP,PLCE1,ARHGAP42,PDE4D,DOCK4,KCNJ12,KCNJ3,PDE4B,SNB1,MYBPC2,PRKG1,CALCRL,TNNI3K,TTN,MYO3,KCNMA1,SLC8A1,AGT,PKP2,SETD3,CACNB2,PTGER3,MYO1,P2RX6,ANK2,CACNA1D,SCN1A,KCND3,KCNQ1,SGCD,TARDN,BDKRB2,STAC</i>
GO:0051094	positive regulation of developmental process	0.00009302133120573333	<i>KALRN,NTRK2,CLASP1,DMD,ERBB4,ROBO1,DSCAM,LINGO2,ATP8A2,PLCB1,PRKD1,NEDD9,PPP2R3C,SEMA5A,PRKCA,ILIRAPL1,CCDC3,TCF12,RUNX1,PLS1,NLGN1,TCF7L2,RELN,ADAM12,TOX,AKAP6,ALK,ROBO2,SEMA4D,JAK2,CMKLR1,ZBTB7C,PARK2,SMOC2,NUMB,SOX6,SLIT2,BMPRIA,SMAD3,TPH1,OVL2,BRINP1,SOX5,NTN1,FLRT2,WWTR1,CUX1,CDH4,TENM4,GHR,CLSTN2,DISC1,LRP5,PIK3CD,BLOC1S5,TEAD4,EFNA5,GRID2,CYBB,SPTBN4,EPHB2,BDNF,RBM4,BMPER,SYT1,DAB2,PLXNA2,HDAC2,ETS1,RIMS2,NRG1,SLC8A1,FBXO31,MAP3K13,AGT,FGF1,CCR3,GRIPI,WIF1,NRXN1,GSK3B,SETD3,GPR21,CHD7,TIAM2,UNC13A,TRIOBP,NCOA1,ISLR2,DLG5,PREX1,MACF1,CAPN3,MAP3K5,HTR2C,TP73,RBM19,PAK3,GRM5,IGF1R,INSR,JAK1,MAP2K1,FOXO3,KIR2DL4,TCF4,BMP6,MSR1,RIMS1,ENPP2,EPHB1,DOCK1,VASH2,TRPC5,LRP2,VWC2,RAPGEF2,CDKL5,KAT7,BASP1,DAB1,SEMA3A,STIM1,CLASP2,SYNDIG1,PTPRD,ELAVL4,NELL1,EEF1E1,SYT17,BLOC1S6</i>
GO:0051962	positive regulation of nervous system development	0.00010182996120075196	<i>KALRN,NTRK2,ROBO1,DSCAM,LINGO2,SEMA5A,ILIRAPL1,NLGN1,RELN,ROBO2,SEMA4D,NUMB,SLIT2,NTN1,FLRT2,CUX1,CDH4,TENM4,CLSTN2,DISC1,EFNA5,GRID2,EPHB2,BDNF,PLXNA2,HDAC2,FBXO31,MAP3K13,NRXN1,TIAM2,ISLR2,DLG5,MACF1,TP73,PAK3,GRM5,MAP2K1,EPHB1,TRPC5,LRP2,CDKL5,SYNDIG1,PTPRD</i>
GO:0009719	response to endogenous stimulus	0.0001081769703948843	<i>CTNNA1,NTRK2,KCNC2,CHRM3,SPRED2,ERBB4,NOS1,ESRRG,WWOX,FUT8,HDAC4,ABCC1,LDLRAD4,BLM,RFXP1,PLCB1,FLT3,CACNA1A,RYR2,KANK1,APP,PAK1,RYR1,AKAP6,IDE,RYR3,ALK,DNMT1,MAGI2,ROBO2,EP300,CHRM1,DEFA1B,JAK2,</i>

			<i>PARK2,SMOC2,PNPLA3,SOX6,COL4A6,SULF1,OTC,SH3GL2,S LIT2,GLP2R,CHRD1,BMPR1A,ACACA,SMAD3,TNFRSF11B,P TGFR,OVOL2,SOX5,TAF1,SLC1A1,FLRT2,TIMP2,GHR,SRD5A2 NSG2,ESR1,PDE4D,EFNA5,ATF2,PIK3R2,ZNF423,CYBB,ADT RP,PDE4B,GABRB3,MAP3K7,PRKCQ,CLDN1,TPH2,EPHB2,PR CP,RGMB,BDNF,ANO1,FHL2,BMPER,DEFA3,DAB2,HDAC2,E NPPI,SPINT2,BCKDHB,CD44,SLC8A1,CHST11,THRB,AGT,FG F1,NRXN1,PDXP,GSK3B,CD109,GPR21,SNX5,NCOA1,STXB4, PHEX,NREP,GPC3,PTPRE,DUSP22,CTDSPL2,HTR2C,GLRA2, ZNF366,SLIT3,ADCY8,ITPR2,PRKAA2,GRM5,IGF1R,PKD1L1,I NSR,UBR2,FOXO3,PRDM16,LTBP1,LRRK2,RARB,BMP6,FYN,G NG2,KCNQ1,EXT1,ACSBG1,LRP2,C2,FER,VWC2,TMEM108,RA PGEF2,NCOA2,PTPRU,ESR2,CDH13,VEPH1,HDAC5,PIK3R3, GABRB1,NTRK3,FBN1,PTPRK,PPARA,BRIP1,ELAVL4,PRLR,P TPR4,PMEPA1,RFXP2</i>
GO:0051966	regulation of synaptic transmission, glutamatergic	0.00011124616256071918	<i>CACNG2,NLGN1,RELN,GRM7,GRIK2,DGKI,GRM4,TNR,DISC1 ,GRM1,ADORA2A,SYT1,CACNG3,NRXN1,UNC13A,GRIK3,GRI K1,GRM5,LRRK2</i>
GO:0016055	Wnt signaling pathway	0.00011930185028276244	<i>RNF43,ZNRF3,PRICKLE2,GPC5,WWOX,WLS,PSMB2,SEMA5A, KANK1,AMOTL1,TCF7L2,APP,CTNND2,BTRC,MAGI2,EDA,CE LSR1,DDDB1,GRK5,ANKRD6,PARK2,NPHP3,SULF1,SMAD3,TN KS,EPM2A,CDC73,FBXW11,RBMS3,WWTR1,DISC1,TRABD2B, LRP5,MARK1,IFT80,DAB2,LRRK1,PRDM15,NDRG2,WIF1,GSK 3B,PSMB7,GPC3,CPE,ROR1,MACF1,MLLT3,RNF213,PRKAA2, TBLIX,PTPRO,FOXO3,GPC6,MITF,LRRK2,EXT1,AMFR,PTPR U,ZRANB1,SCEL,SHISA6,BICC1</i>
GO:0198738	cell-cell signaling by wnt	0.00013968246661504277	<i>RNF43,ZNRF3,PRICKLE2,GPC5,WWOX,WLS,PSMB2,SEMA5A, KANK1,AMOTL1,TCF7L2,APP,CTNND2,BTRC,MAGI2,EDA,CE LSR1,DDDB1,GRK5,ANKRD6,PARK2,NPHP3,SULF1,SMAD3,TN KS,EPM2A,CDC73,FBXW11,RBMS3,WWTR1,DISC1,TRABD2B, LRP5,MARK1,IFT80,DAB2,LRRK1,PRDM15,NDRG2,WIF1,GSK 3B,PSMB7,GPC3,CPE,ROR1,MACF1,MLLT3,RNF213,PRKAA2, TBLIX,PTPRO,FOXO3,GPC6,MITF,LRRK2,EXT1,AMFR,PTPR U,ZRANB1,SCEL,SHISA6,BICC1</i>
GO:0003015	heart process	0.00015443590130572083	<i>RPS6KA2,DMD,NOS1,HDAC4,RYR2,RYR3,MEF2A,CTNNA3,AK AP13,JAK2,CACNA1C,SLC1A1,NOS1AP,WWTR1,PDE4D,KCNJ 12,KCNJ3,CELF2,PDE4B,SPTBN4,NOX4,TNNI3K,TTN,SLC8A1, THRB,AGT,PKP2,CACNB2,ANK2,CACNA1D,RNLS,SCN1A,FYN, KCND3,SGCZ,KCNQ1,EXT1,SGCD,TRDN,SEMA3A</i>
GO:0048519	negative regulation of biological process	0.00016306385082705713	<i>PTPRR,CHFR,KDM4B,RCAN1,KALRN,RNF43,PROS1,RPS6KA2 ,CTNNA1,FOXN3,NTRK2,CLASP1,ZNRF3,GLIS3,PTPRG,SLC39 A10,DMD,EIF3E,SPRED2,ERBB4,TFDP2,NOS1,CNTN4,SND1,R OBO1,DSCAM,CIT,TBCD,PUM1,FRY,SORCS2,WWOX,TNRC6B ,HDAC4,ATP9A,ATP8A2,LDLRAD4,MYEF2,TENM2,BLM,PSMB 2,PTPRT,ATF7IP,ASXL3,PLCB1,SRPK2,PRKD1,RYR2,VCL,PDS 5A,SEMA5A,ETV6,CASK,PRKCA,ZBTB20,IL1RAPL1,CCDC3,KA NK1,RUNX1,NLGN1,CAMK1D,SMG6,CLEC16A,TCF7L2,APP,P AK1,PPP3CA,DEPDC5,RYR1,PTPN9,CREM,AKAP6,SORCS3,G RM7,DLC1,SCMH1,RYR3,ALK,BTRC,DCLK1,MEF2A,TFAP2D, DENND5A,MAP2K5,DNMT1,MAGI2,ROBO2,DCC,SAMD4A,DD B1,EP300,PARN,SEMA4D,RPS6KA5,GRK5,ANKRD6,BDKRB1, GRIK2,HUS1,TFEC,ASTN2,JAK2,ABCG8,CMKLR1,ZBTB7C,PA RK2,NPHP3,ADCYAP1R1,SERPINA4,GRIN3A,CACNA1C,NLGN 4X,GBE1,TAGLN3,NRG3,NUMB,SOX6,SULF1,CD84,MAGEA11, SH3BP1,RFFL,SH3GL2,PSPC1,ARHGAP24,SLIT2,TRIM5,ATRX, CHRD1,TRAF3IP2,SLX1B,BMPR1A,SMAD3,PRKAR2A,TNFRS F11B,PIBF1,KIR3DL2,PTGFR,EYA1,SATB2,TPH1,MAD1L1,TN KS,KLF12,ARHGEF18,SCAMP5,LINC00473,OVOL2,GRAMD4, DNAJB6,BRINP1,OMA1,GLIS1,CDYL2,DGKI,TAF1,SLC1A1,RN F144B,NTN1,LDB2,EPM2A,MAP2,CDC73,FBXW11,CD96,RBM S3,WWTR1,ARHGAP6,CUX1,ANK3,TIMP2,MORC2,ZNF19,TRI M59,TRPS1,TNR,CELF4,MDM4,SPOCK1,ACTN4,EP88,GHR,C D300A,CBFA2T2,PRG3,MLIP,SERTAD2,ARHGAP42,RABGEF1, FHIT,TRABD2B,LRP5,AP2B1,ESR1,ARHGAP12,SCFD1,PDE4D ,DOCK4,FRMD4A,EFNA5,FTO,EIF3A,ATF2,RBBP8,PIK3R2,GR ID2,ZNF423,SEMA6D,SUSD4,ADTRP,CRMP1,PDE4B,SMG7,A NKRD13A,PRKCQ,ATXN1,N4BP1,RHPN2,SLC24A3,JDP2,SPTB N4,EPHB2,AGO3,S1PR3,MCTP1,PRTG,DACH1,MARK1,BDNF, RBM4,FNIP1,MALRD1,ADORA2A,ARID5B,IFT80,FSTL4,FHL2, NOX4,BCOR,BMPER,DAB2,AFF2,PLXNA2,LRRK1,PRKG1,STX BP6,ABII,CALCRL,HDAC2,ETSI,BANP,FAT3,PDE11A,ARID4A</i>

			<p>,PRKAR1B,BACH1,ZMYND11,RGS6,SRGAP3,ZNF93,ENPP1,PRDM15,CTNNA2,PARD3,NRG1,CAST,FANK1,SPINT2,FMN2,RIT2,CD44,PAX7,KCNMA1,SCAF8,PRKCG,MAPKAPK2,SLC8A1,ISM1,FBXO31,PLCL2,TOX3,CHST11,THRB,MIR1185-1,AGT,NDRG2,UPK3B,ARHGAP25,USH2A,NF1,WIF1,ZNF536,NRXN1,ARHGAP10,GSK3B,PKP2,CTDP1,CD109,GPR21,CHD7,PSMB7,MOV10L1,SNX5,MYT1L,SRGAP2B,IQCJ-SCHIP1,TRIOBP,CHEK2,GRIK3,MECOM,SHANK2,GPC3,DLG5,CFDPI,ZNF675,SERPINA5,PTGER3,BID,MNAT1,TRIO,CAPN3,PTPRE,DUSP22,CTDSPL2,HTR2C,HIRA,TP73,IL1RL1,ZNF366,MORC3,ANK2,SLIT3,GRIN2B,PHC2,UACA,LRPPRC,ADCY8,ITPR2,MLLT3,RNF213,SH3RF2,PRKAA2,PACRG,TBL1X,SEMA5B,GRM5,IGF1R,MXD3,PTPRO,SUFU,MAP2K1,UBR2,FOXO3,STK38,INPP5A,CENPF,KCTD1,RNLS,MITF,IGF2BP3,LRFN5,AGBL4,PRDM16,FRMD5,KIR2DL4,DNMT3B,LTBP1,LRRK2,PKHD1,RARB,PBX1,BMP6,PCBP3,ASAP1,FYN,ABCC2,EPHA7,MARVELD3,GAS8,MSR1,PTPN14,L3MBTL4,ABCA12,BEND5,EPHB1,KCNQ1,FHOD3,CRADD,TRPC5,AMFR,LRP2,ZCCHC17,FER,VWC2,ERLIN1,PCDH17,TPTE,RAPGEF2,NAV3,PTPRM,NCOA2,PTPRU,ZNF207,GRIA4,IL18R1,RGS7BP,ESR2,KAT7,SATB1,MIR767,PACSIN2,TRIM22,CDH13,VEPH1,BASP1,TRDN,DAB1,ZNF148,HDAC5,SEMA3A,MGAT5,TSPAN8,MYH9,BDKRB2,TSC22D3,NRIP1,MIR105-2,LITAF,TENM1,PRKARIA,RGS7,GNG4,TXNDC5,SLC24A2,NTKR3,FBN1,DIS3L2,TBX15,CLASP2,NSUN2,PTPRK,DNM3,PPARA,PTPRD,RORA,SHISA6,BRIP1,ELAVL4,ANXA8L1,MXI1,NELL1,EEF1E1,BICC1,SEMA3D,PRLR,DEPTOR,CST2,PMPEA1,LARP4B,SEMA3C,ST18</p>
GO:0061061	muscle structure development	0.00017262248641926526	<p>RCAN1,SYNE1,DMD,LAMA2,NOS1,NEBL,HDAC4,MYEF2,PLCB1,RYR2,TCF12,TCF7L2,ADAM12,UTRN,PPP3CA,RYR1,AKAP6,MEF2A,DNMT1,AKAP13,HIVEP3,EP300,EVC,QKI,SOX6,COL11A1,BMPRI1,SMAD3,ELN,MYO18B,ACTN4,TEAD4,BDNF,RBM4,ARID5B,FHL2,NOX4,TTN,NRG1,PAX7,SLC8A1,AGT,NF1,PKP2,CTDP1,SETD3,KCNH1,CHD7,PGM5,CAPN3,MAP3K5,HIRAM,MYPN,ANK2,NEB,NLN,ITGA11,CENPF,RBFOX1,RARB,COL19A1,SGCZ,EPHB1,FHOD3,LRP2,SGCD,BASP1,HDAC5,MYH9,TANC1,LARGE,PRKARIA,PPARA,RORA,MYH15</p>
GO:0016049	cell growth	0.0001792946717193678	<p>DSCAM,AUTS2,VCL,SEMA5A,APP,AKAP6,DCLK1,MAP2K5,AKAP13,DCC,SEMA4D,BDKRB1,PARK2,NRG3,SH3GL2,SLIT2,SMAD3,NTN1,EPM2A,MAP2,CDC73,CDH4,TNR,SPOCK1,PLCE1,SERTAD2,DISC1,EFNA5,SEMA6D,PRKCQ,DPSYL2,BDNF,ESTL4,SYT1,EBAG9,DAB2,ENPP1,RIMS2,NRG1,MAP3K13,AGT,GSK3B,CTDP1,UNC13A,ISLR2,MACF1,SLIT3,SEMA5B,SPG11,EPHA7,RIMS1,EXT1,TRPC5,TMEM108,CDKL5,ESR2,SEMA3A,GNG4,CLASP2,PPARA,SEMA3D,SYT17,SEMA3C</p>
GO:0098655	cation transmembrane transport	0.00020147557776425954	<p>CACNG2,SLC39A10,DMD,KCNC2,NOS1,TMC2,DPP10,CACNA1A,TRPM1,PRKD1,RYR2,NLGN1,KCNIP4,RELN,APP,UTRN,RYR1,AKAP6,RYR3,KCNB2,FAM155A,KCNA6,BDKRB1,DPP6,GRI N3A,CACNA1C,SLC5A10,TRPM3,KCNJ16,SLC4A4,CACNA1E,SLC9C1,SLC47A1,FGF14,CACNA2D3,SLC1A1,SHISA9,NOS1AP,CATSPER2,ANK3,CNIH3,SCN9A,ACTN4,SLC30A7,KCNN3,PDE4D,KCNJ12,KCNJ3,PDE4B,KCND2,SLC24A3,EPHB2,ANO1,CACNG3,TMEM163,SLC39A11,SCN8A,PEX5L,KCNMA1,CNGB1,SLC12A8,SLC8A1,SLC9A9,AGT,KCNQ5,KCNJ6,NRXN1,KCNH1,CHD7,CACNB2,KCNS3,CAPN3,HTR2C,P2RX6,ANK2,GRIN2B,ITPR2,CACNA1D,PKD1L1,SLC9B1,RASGRF2,SCN1A,FYN,KCND3,KCNQ1,TRPC5,NOX5,KCNH7,TRDN,CACHD1,ATP13A3,STIM1,RGS7,SLC24A2,SHISA6,ATP8A1,KCNC4,STAC,KCNJ15</p>
GO:0098660	inorganic ion transmembrane transport	0.00020669639127415994	<p>CACNG2,SLC39A10,DMD,KCNC2,NOS1,TMC2,DPP10,CACNA1A,TRPM1,PRKD1,RYR2,KCNIP4,UTRN,RYR1,GABRG3,AKAP6,RYR3,KCNB2,FAM155A,KCNA6,BDKRB1,DPP6,GRIN3A,CACNA1C,ANO4,ANKH,SLC5A10,TRPM3,KCNJ16,SLC4A4,CACNA1E,GABRR2,SLC9C1,SLC47A1,ANO2,FGF14,CACNA2D3,SLC1A1,NOS1AP,CATSPER2,ANK3,SCN9A,ACTN4,KCNN3,PDE4D,KCNJ12,KCNJ3,PDE4B,GABRB3,KCND2,SLC24A3,ANO1,CACNG3,TMEM163,SLC39A11,SCN8A,KCNMA1,SLC12A8,SLC8A1,SLC9A9,KCNQ5,KCNJ6,KCNH1,CHD7,CACNB2,ANO3,KCNS3,CAPN3,HTR2C,GLRA2,ANK2,GRIN2B,ITPR2,GABRR3,CACNA1D,GRM5,PKD1L1,SLC9B1,GABRA3,SCN1A,FYN,KCND3,KCNQ1,TRPC5,NOX5,KCNH7,TRDN,CACHD1,STIM1,GABRB1,RGS7,SLC24A2,KCNC4,STAC,KCNJ15</p>
GO:005077	positive	0.00022997084938020	<p>NTRK2,ROBO1,DSCAM,SEMA5A,ROBO2,SEMA4D,SLIT2,NTN1,CDH4,DISC1,EFNA5,BDNF,PLXNA2,MAP3K13,TIAM2,ISLR2,</p>

2	regulation of axonogenesis	083	<i>MACF1,MAP2K1,TRPC5,CDKL5</i>
GO:0051271	negative regulation of cellular component movement	0.0002680210136547245	<i>PTPRR,CTNNA1,CLASP1,PTPRG,ROBO1,LDLRAD4,PTPRT,PLCB1,VCL,KANK1,DLC1,MAP2K5,MAGI2,NRG3,SULF1,SLIT2,BMPRI4,CD300A,RABGEF1,SEMA6D,ADTRP,MCTP1,DACH1,PRKG1,SRGAP3,NRG1,SPINT2,NF1,SRGAP2B,DLG5,DUSP22,PTPRO,FOXO3,MITF,FRMD5,PKHD1,MARVELD3,NAV3,PTPRM,PTPRU,HDAC5,SEMA3A,CLASP2,PTPRK</i>
GO:0035637	multicellular organismal signaling	0.00030880773024659873	<i>CACNG2,NTRK2,NFASC,RYR2,RYR3,MEF2A,CTNNA3,GRIK2,CACNA1C,ANK3,TNR,SCN9A,PDE4D,KCNJ3,KCND2,SPTBN4,CACNG3,TNNI3K,SCN8A,SLC8A1,AGT,PKP2,CACNB2,ANK2,CACNA1D,CNTNAP2,SCN1A,KCND3,KCNQ1,TRDN</i>
GO:0007611	learning or memory	0.00031164784454738056	<i>RCAN1,KALRN,NTRK2,PLCB1,BTBD9,RELN,APP,SORCS3,EP300,DNAH11,PARK2,NLGN4X,BRINP1,DGKI,SLC1A1,EPM2A,TNR,ATXN1,EPHB2,BDNF,CSMD1,AFF2,PRKAR1B,PRKCG,AGT,NF1,NRXN1,SHANK2,GRIN2B,ADCY8,GRM5,CNTNAP2,INSR,FYN,AMFR,CAMK4,NRXN3,TANC1,SLC24A2,ELAVL4,ATP8A1</i>
GO:0050890	cognition	0.00039878042841103804	<i>RCAN1,KALRN,NTRK2,PLCB1,BTBD9,RELN,APP,SORCS3,EP300,DNAH11,CHRM1,PARK2,NLGN4X,BRINP1,DGKI,SLC1A1,EPM2A,TNR,ATXN1,EPHB2,BDNF,CSMD1,AFF2,PRKAR1B,PRKCG,AGT,NF1,NRXN1,CHD7,SHANK2,GRIN2B,ADCY8,GRM5,CNTNAP2,INSR,FYN,AMFR,CAMK4,SHROOM4,NRXN3,SOBP,TANC1,SLC24A2,ELAVL4,ATP8A1</i>
GO:0099173	postsynapse organization	0.00041007487651736587	<i>KALRN,ILIRAPL1,NLGN1,RELN,CTNND2,TANC2,NLGN4X,DGKB,NOSIAP,ARHGAP39,GRID2,EPHB2,NRXN1,GRIN2B,PAK3,IGF1R,INSR,LRRK2,FRMPD4,FYN,EPHA7,EPHB1,TMEM108,CDKL5,TANC1,NTRK3,DNM3,PTPRD,SHISA6,DOCK10</i>
GO:0071840	cellular component organization or biogenesis	0.0004193357220421231	<i>RNF4,CHFR,KDM4B,KALRN,CACNG2,RPS6KA2,NDE1,CTNNA1,NTRK2,CLASP1,PTPRG,SYNE1,DMD,KCNC2,EIF3E,ERBB4,LAMA2,CNTN4,ROBO1,ANKRD30BL,DSCAM,SHROOM3,MDN1,CIT,TBCD,FRY,NEBL,HDAC4,ATP9A,LINGO2,ARFGAP3,IMM2L,ABCC1,ATP8A2,AUTS2,LDLRAD4,TENM2,BLM,PSMB2,RXFP1,ATF7IP,NFASC,PLCB1,SRPK2,TRPM1,PRKD1,VCL,PDS5A,NEDD9,PPP2R3C,SEMA5A,ETV6,PRKCA,EPB41L4B,STX8,BTBD9,ILIRAPL1,ADAMTS6,MYO9A,PDE4DIP,CALD1,ITGAE,ABCA13,KANK1,DIAPH2,TBC1D5,RUNX1,PLS1,FCHSD2,NLGN1,DNAH9,CAMK1D,SMG6,CLEC16A,AMOTL1,TCF7L2,MTRF1,RELN,APP,PAK1,UTRN,PPP3CA,RYR1,TOX,PCDH15,ERC2,PTPN9,AKAP6,GRM7,DLC1,SCMH1,RYR3,SOS1,CTNND2,LRRK8,CN,RTN1,ALK,DCLK1,MEF2A,KCNB2,CTNNA3,DENND5A,MAP2K5,DNMT1,MAGI2,CELSR1,ROBO2,IFT81,AKAP13,DCC,ELMO2,C10ORF90,EP300,KCNA6,PARN,SEMA4D,RPS6KA5,PHF20,MMP16,BDKRB1,NME8,TF,CDH8,HUS1,TANC2,JAK2,ABCG8,NEGRI,SDK2,MAST4,PARK2,MAGI1,NPHP3,PRELID2,GRI3A,SMOC2,NLGN4X,EXOC4,EMB,PNPLA3,ANO4,PIK3C2B,AFAP1,UPB1,LRRK49,NRG3,NUMB,COL4A6,TRPM3,SULF1,CHCHD6,SH3BP1,RNU6ATAC31P,SH3GL2,COL24A1,ARHGAP24,COL11A1,PITPNC1,SLIT2,SYNM,KMT2C,ATRX,RAD51B,SLX1B,GTTF21,ACACA,DSCAML1,SMAD3,BORA,PI4KA,TNFRSF11B,PIBF1,PIK3C3,CHD6,PEAK1,EYA1,SATB2,HSF2BP,ELN,MAD1L1,EGFLAM,DGKB,TNKS,TUB,ARHGEF18,SCAMP5,DNAJB6,OMA1,ARRDC4,SPESP1,ILIRAPL2,SPAG17,SKAP1,TAF1,SLC1A1,NTN1,LDB2,EPM2A,SHFM1,MAP2,CDC73,FLRT2,FBXW11,NOSIAP,RANBP10,ARHGEF6,WWTR1,GAS7,ARHGAP6,KCTD7,CHAF1B,STARD9,CUX1,ANK3,CDH12,MORC2,ARID4B,THSD4,TTL8,CDH4,TNR,CELF4,VAV3,CDKL1,MDM4,SPOCK1,ACTN4,RAB2A,HPSE2,PLCE1,TACC2,EPS8,TENM4,CECR2,PRR16,ARHGAP39,LRRK8D,CDH10,LRRK4C,PPP1R9A,PDZRN3,CLSTN2,CD300A,TTL11,CBFA2T2,SERTAD2,STRC,DISC1,POCIA,ATP8B4,IFT43,RABGEF1,NSG2,TRABD2B,LRP5,NAV2,AP2B1,ESR1,ARHGAP12,SCFD1,CNTN5,THEM4,BLOC1S5,RNU6-78P,ARMC2,EFNA5,TLN2,KLHL1,MRM1,EIF3A,ATF2,PHACTR2,KCNJ12,GRID2,ZNF423,SEMA6D,CELF2,NTNG1,ADTRP,CRMP1,MAPRE2,GABRB3,ANKRD13A,PRKCQ,RASSF8,RHPN2,CALDN1,WDR83OS,KCND2,TTL5,SPTBN4,EPHB2,ERC1,AGO3,MCTP1,PRTG,COL22A1,DOCK2,DYSL2,PTPDC1,RFC3,MARCK1,BDNF,FNIP1,ADORA2A,IFT80,DYM,FSTL4,MCM3,CCDC170,TTC39C,RNU6-1269P,TSPAN33,ERI2,BCOR,ICK,THSD7B,BRD9,SYT1,EBAG9,DAB2,AFF2,PLXNA2,NSF,PRKG1,STXBP6,SNAP23,ABI1,EPG5,MICAL3,HDAC2,ETS1,BANP,FAT3,ARID4A,RAB30,ZMYND11,CDH23,TTN,ENPP1,RIMS2,HEPACAM2,CTNNA2,PEX5L,LRCH</i>

			<p>3,FMNL2,PARD3,NRG1,CAST,SPINT2,ATP10B,FMN2,TOPI1,T2,CD44,KCNMA1,SCAF8,CNGB1,GPSM2,SLC12A8,ZFYVE1,T EAD1,NF1A,RAPGEF6,FBXO31,MAP3K13,CDC42BPA,CDC42E P3,SAMM50,NCAM1,AGT,STRIP1,GRIP1,TLK1,ARHGAP25,NF 1,VPS16,PARVB,NRXN1,ARHGAP10,LAMA3,PDXP,GSK3B,AD AMTS17,PKP2,CTDP1,SETD3,BBS9,CHD7,PSMB7,MOV10L1,T HSD7A,TIAM2,IQCJ- SCHIP1,CNTN1,UNC13A,TRIOBP,CABIN1,CHEK2,CACNB2,R HOJ,ESYT2,MECOM,SYBU,SHANK2,KCTD8,UNC5D,ISLR2,NR EP,GPC3,DLG5,PGM5,SH3BGR,PREX1,ANO3,XKR4,ROR1,AD AMTSL1,SERPINA5,KCNS3,COL12A1,BID,MACF1,MNAT1,TRI O,CAPN3,TRMT61B,DUSP22,CLDN11,SPAG16,CCDC141,SNA P25- AS1,FGD4,EPHA5,SGIP1,HIRA,TP73,FAM171A1,MYPN,ANK2, SLIT3,GRIN2B,SHPRH,PAK3,PRRC2C,ADCY8,MLLT3,NEB,ITG B3BP,RNF213,RNU6- 1061P,PRKAA2,CHCHD3,SEMA5B,ANKFN1,TRAPPC8,SDK1,G RM5,IGF1R,TSNARE1,CNTNAP2,PTPRO,INSR,RPGR,CRTAC1, MAP2K1,UBR2,KPNB1,GPC6,ADAMTSL3,CNTN6,CENPF,KCT D1,ATP9B,MITF,SPECC1L,LRFN5,CDC14A,KPNA3,PRDM16,F RMD5,ULK4,TMEM120B,ADAMTSL6,LRRK2,PKHD1,KIF2A,TC F4,SPG11,PHACTR1,BMP6,TMEM170A,VTI1A,ASAP1,FRMPD 4,COL23A1,FYN,KCND3,EPHA7,MARVELD3,GAS8,COL19A1, MSRI,SGCZ,CLN6,RIMS1,ENPP2,L3MBTL4,ABCA12,EPHB1,K CNQ1,FHOD3,DOCK1,VASH2,EXT1,TRPC5,UNC5C,CSGALNA CT1,TENM3,NOX5,LRP2,FER,DDX10,PCDH17,TMEM108,SHR OOM4,RAPGEF2,NAV3,CENPP,PTPRM,KIRREL3,NRXN3,CDK L5,ZNF207,MPRIP,ESR2,KAT7,SATB1,C9,SETD2,PACSIN2,CD H13,TRDN,DAB1,ZNF148,SEC16B,EXOC6B,HDAC5,SEMA3A, MYH9,COL21A1,TANC1,VPS41,BRF1,TENM1,STK38L,VPS39,S H3KBP1,PRKAR1A,ZRANB1,STXBP5,SIPA1L3,GNNG4,KANSL1, NTRK3,HYDIN,CEP89,DIS3L2,CLASP2,DNAJC6,PTPRK,DNM3 ,SYNDIG1,PPARA,NCKAP5,PTPRD,SHISA6,BRIP1,ELAVL4,CD H9,ANXA8L1,DOCK10,ATP8A1,SEMA3D,PRLR,PTPRA,KCNC4, CEP41,DEPTOR,NVL,PPFIBP2,SMIM20,RAD51D,SYT17,RAB2 7A,TUBGCP6,BLOC1S6,PMEPA1,PARD3B,HGSNAT,SYT9,SEM A3C</p>
GO:0007612	learning	0.0005033078560886979	KALRN,NTRK2,PLCB1,RELN,APP,SORCS3,PARK2,NLGN4X,D GK1,SLC1A1,EPM2A,TNR,ATXN1,EPHB2,CSMD1,AGT,NF1,NR XN1,SHANK2,GRM5,CNTNAP2,INSR,FYN,NRXN3,TANC1,SLC2 4A2,ELAVL4,ATP8A1
GO:0043085	positive regulation of catalytic activity	0.0006983658973497254	KALRN,NTRK2,SLC39A10,ERBB4,NOS1,ROBO1,PRIM2,SGSM1 ,FLT3,PRKD1,NEDD9,PPP2R3C,MYO9A,TBC1D5,TNFRSF10B, RELN,APP,PAK1,RABGAP1L,DLC1,ALK,BTRC,MAP2K5,MAGI 2,AKAP13,PARN,SEMA4D,JAK2,ADCYAP1R1,CACNA1C,NRG3, SH3BP1,ARHGAP24,BMPRI1A,SMAD3,BORA,PIBF1,TNKS,GRA MD4,BCL2L13,ARRDC4,SLC1A1,NOS1AP,ARHGAP6,EGLN3,C CL15,DOCK3,VAV3,GHR,CD300A,ARHGAP42,CCL14,ESR1,SL C5A3,EFNA5,MAPRE2,MAP3K7,PRKCQ,EPHB2,MOB3B,RFC3, SIPA1L2,NOX4,ABI1,RGS6,NRG1,TBC1D9,CD44,RAPGEF6,MA P3K13,AGT,FGF1,ARHGAP25,NF1,NRXN1,GSK3B,TIAM2,PRE X1,ROR1,BID,MNAT1,MAP3K5,EPHA5,GRIN2B,GARNL3,UAC A,ADCY8,CACNA1D,GRM5,ARAP2,IGF1R,INSR,MAP2K1,LRRK 2,ASAP1,FYN,XRCC4,EPHA7,EPHB1,CRADD,RAPGEF2,CDKL 5,DAB1,STIM1,TENM1,RGS7,SIPA1L3,NTRK3,DOCK9,DOCK1 0,PRLR,NVL,RALGAP1,ST18
GO:0099003	vesicle-mediated transport in synapse	0.0007506061414041525	SYN3,CASK,BTBD9,ABCA13,NLGN1,ERC2,ITSN1,GRIN3A,NLG N4X,NUMB,DGKI,AP2B1,ADORA2A,CADPS,SYT1,SNAP23,PRK AR1B,RIMS2,NRG1,PRKCG,NRXN1,GSK3B,UNC13A,CACNB2, LRRK2,RIMS1,PCDH17,NRXN3,STXBP5,DNAJC6,DNM3,SYNDI G1,BLOC1S6,SYT9
GO:0099643	signal release from synapse	0.000779906275079349	SYN3,CASK,NLGN1,ERC2,PARK2,GRIN3A,PTPRN2,DGKI,GRM 4,MCTP1,ADORA2A,CADPS,SYT1,SNAP23,RIMS2,PRKCG,NF1, NRXN1,GSK3B,UNC13A,CACNB2,LRRK2,RIMS1,MCTP2,NRXN 3,STXBP5,BLOC1S6,SYT9
GO:0007269	neurotransmitter secretion	0.000779906275079349	SYN3,CASK,NLGN1,ERC2,PARK2,GRIN3A,PTPRN2,DGKI,GRM 4,MCTP1,ADORA2A,CADPS,SYT1,SNAP23,RIMS2,PRKCG,NF1, NRXN1,GSK3B,UNC13A,CACNB2,LRRK2,RIMS1,MCTP2,NRXN 3,STXBP5,BLOC1S6,SYT9
GO:0050877	nervous system process	0.0008203400021974756	CAMTA1,RCAN1,KALRN,CACNG2,RPS6KA2,NTRK2,DMD,TM C2,MYO3A,ATP8A2,MGLL,NFASC,PLCB1,TRPM1,DLGAP1,BT BD9,MYO9A,USP53,NLGN1,DNAH9,RELN,APP,PPP3CA,PCD H15,GABRG3,SORCS3,GRM7,EYS,EP300,BDKRB1,DNAH11,G

			<p>RIK2,CHRM1,PARK2,GRIN3A,NLGN4X,OR5K4,TMPRSS3,TRPM3,COL11A1,SYNM,GABRR2,HMCN1,EYA1,TUB,BRINP1,OR51I1,DGKI,SLC1A1,SHISA9,EPM2A,ANK3,LHFPL3,TNR,CELFG,SCN9A,TENM4,STRC,NAV2,GRM1,CNTN5,POU6F2,GRID2,GABRB3,ATXN1,KCND2,SPTBN4,EPHB2,BDNF,ADORA2A,ANO1,CSMD1,AFF2,CACNG3,PRKAR1B,CDH23,RIMS2,SCN8A,DLGAP2,OR4N2,CTNNA2,PARD3,CNGB1,PRKCG,SRRM4,FAM19A4,THRB,AGT,USH2A,NF1,NRXN1,GSK3B,BBS9,CHD7,OR51B2,TRIOBP,CACNB2,SHANK2,ROR1,MYO3B,SPAG16,HTR2C,GLRA2,P2RX6,GRIN2B,ADCY8,GABRR3,CACNA1D,TBL1X,SEMA5B,ANKFN1,GRM5,CNTNAP2,INSR,RPGR,GABRA3,CDC14A,RBFOX1,LRRK2,SCN1A,VTI1A,FYN,CLN6,RIMS1,EPHB1,KCNQ1,AMFR,LRP2,CAMK4,GUCY2F,TMEM108,SHROOM4,NRXN3,SOBP,TANC1,GABRB1,SLC24A2,SHISA6,ELAVL4,ATP8A1,ATF6,STAC,OR4M1,CST2</p>
GO:0009605	response to external stimulus	0.0008691037581459868	<p>KALRN,CACNG2,PROS1,CLASP1,FBXL17,DMD,LAMA2,NOS1,CNTN4,TMC2,ROBO1,DSCAM,SHROOM3,PUM1,WDR59,HDAC4,ABCC1,ATP8A2,PSMB2,MGLL,NFASC,SRPK2,TRPM1,PRKD1,RYR2,PPP2R3C,SEMA5A,CASK,PRKCA,STX8,DIO2,TBC1D5,USP53,TNFRSF10B,CAMK1D,CLEC16A,RELN,APP,PAK1,DEPDC5,NAALADL2,PCDH15,ZPLD1,SOS1,ALK,DCLK1,EYS,ROBO2,DCC,ELMO2,EP300,SEMA4D,RPS6KA5,BDKRB1,TF,GRIK2,DEFA1B,JAK2,ABCG8,CMKLR1,PARK2,GRIN3A,SMOC2,HLCSEMB,PIK3C2B,NRG3,TRPM3,CD84,OTC,PSPC1,COL11A1,SLIT2,TRIM5,TRAF3IP2,DSCAM1,SMAD3,TNFRSF11B,PIK3C3,HMCN1,PTGFR,DGKB,OMA1,ZDHHC11,SLC1A1,NTN1,CDC73,FLRT2,CD96,CCL15,TRIM59,CDH4,TNR,VAV3,GHR,SRD5A2,STRC,CCL14,RABGEF1,ESR1,PIK3CD,DOCK4,BLOC1S5,EFNA5,ATF2,GRID2,CYBB,SEMA6D,SUSD4,ADTRP,CRMP1,PDE4B,MAP3K7,PRKCQ,N4BP1,CLDN1,TPH2,EPHB2,PRTG,DOCK2,DYSL2,BDNF,RBM4,FNIP1,ADORA2A,ANO1,WDFY4,KIR3DL1,CSMD1,DEFA3,PLXNA2,PRKG1,CALCRL,HDAC2,ETS1,ZMYND11,TTN,RNASET2,CDK19,CFB,CTNNA2,NRG1,BCKDHB,CNGB1,PRKCG,ZFYVE1,MAPKAPK2,SLC8A1,FAM19A4,B3GALT5,NCAM1,AGT,FGF1,CCR3,NRXN1,LAMA3,CD109,SLC22A3,CHD7,PSMB7,NCOA1,STXBP4,PHEX,SHANK2,UNC5D,GPC3,PREX1,ANO3,ITC4,ADAMTSL1,PTGER3,TRIO,CAPN3,MAP3K5,HTR2C,CCDC141,NCF2,LY86,EPHA5,SGIP1,IL1RL1,MYPN,SIT3,PAK3,ADCY8,CRISP3,CCL15-CCL14,RNF213,PRKAA2,SEMA5B,IGF1R,PKD1L1,CNTNAP2,PTPRO,JAK1,MAP2K1,FOXO3,CNTN6,LRFN5,AGBL4,KIR2DL4,LRRK2,SCN1A,BMP6,FYN,EPHA7,ENPP2,EPHB1,KCNQ1,CRA DD,EXT1,UNC5C,C2,FER,GUCY2F,PTPRM,NRXN3,MACROD2,C9,SETD2,TRIM22,CDH13,TRDN,SEMA3A,TSPAN8,VPS41,LITAF,SLC24A2,SCEL,NTRK3,CLASP2,PPARA,RORA,BRIP1,SEMA3D,PRLR,RAB27A,BLOC1S6,SEMA3C</p>
GO:2000146	negative regulation of cell motility	0.0008759749586632649	<p>PTPRR,CTNNA1,CLASP1,PTPRG,ROBO1,LDLRAD4,PTPRT,PLCB1,VCL,KANK1,DLC1,MAP2K5,MAGI2,NRG3,SULF1,SLIT2,BMPRIA,CD300A,RABGEF1,SEMA6D,ADTRP,MCTP1,DACH1,PRKG1,SRGAP3,NRG1,SPINT2,NF1,SRGAP2B,DLG5,DUSP22,FOXO3,MITF,FRMD5,MARVELD3,NAV3,PTPRM,PTPRU,HDAC5,SEMA3A,CLASP2,PTPRK</p>
GO:0031589	cell-substrate adhesion	0.0009831341474848504	<p>CLASP1,DMD,TBCD,VCL,NEDD9,CASK,KANK1,UTRN,DLC1,EDA,JAK2,ITGBL1,ATRNL1,EPDR1,SMAD3,PEAK1,EGFLAM,SKAP1,CD96,ARHGAP6,SPOCK1,ACTN4,STRC,DISC1,EFNA5,NTNG1,MEGF9,DAB2,CD44,USH2A,NF1,PARVB,GSK3B,TRIOBP,PREX1,MACF1,DUSP22,PTPRO,ITGA11,PKHD1,EPHB1,DOCK1,FER,VWC2,CDH13,VWF,CLASP2,PTPRK,PTPRA</p>
GO:0019220	regulation of phosphate metabolic process	0.0011678068257716006	<p>CAMTA1,RCAN1,NTRK2,SLC39A10,DMD,SPRED2,ERBB4,NOS1,ROBO1,DSCAM,HDAC4,LDLRAD4,BLM,PTPRT,FLT3,PRKD1,NEDD9,PPP2R3C,ZBTB20,SLCO3A1,TNFRSF10B,SMG6,RELN,APP,PAK1,DLC1,ALK,MAP2K5,MAGI2,AKAP13,EP300,SEMA4D,RPS6KA5,BDKRB1,TF,HUS1,JAK2,PPP6R2,PARK2,ADCYAP1R1,NRG3,SH3GL2,SLIT2,SLC4A4,BMPRIA,SMAD3,PRKAR2A,BORA,PIBF1,SLC1A1,LDB2,EPM2A,WWTR1,DOCK3,VAV3,PLCE1,GHR,CD300A,RABGEF1,LRP5,PDE4D,EFNA5,ATF2,PIK3R2,ADTRP,SMG7,MAP3K7,SPTBN4,EPHB2,MOB3B,BDNF,FNIP1,ADORA2A,NOX4,BMPER,DAB2,LRRK1,ABI1,HDAC2,PRKAR1B,TTN,ENPP1,PARD3,NRG1,RIT2,CD44,SLC8A1,MAP3K13,PLCL2,AGT,FGF1,NF1,NRXN1,GSK3B,CD109,CNTN1,CHEK2,ROR1,ZNF675,MNAT1,DUSP22,MAP3K5,HTR2C,EPHA5,ADCY8,PRKAA2,GRM5,IGF1R,PTPRO,INSR,MAP2K1,STK38,PPP1R14A,LRRK2,BMP6,FYN,EPHA7,ENPP2,EPHB1,TRPC5,FER,RAP</p>

			<i>GEF2,DAB1,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,PRKAR1A,NTRK3,PPARA,PRLR,DEPTOR,PMEPA1</i>
GO:0051174	regulation of phosphorus metabolic process	0.001266450731600063	<i>CAMTA1,RCAN1,NTRK2,SLC39A10,DMD,SPRED2,ERBB4,NOS1,ROBO1,DSCAM,HDAC4,LDLRAD4,BLM,PTPRT,FLT3,PRKD1,NEDD9,PPP2R3C,ZBTB20,SLCO3A1,TNFRSF10B,SMG6,RELN,APP,PAK1,DLC1,ALK,MAP2K5,MAGI2,AKAP13,EP300,SEMA4D,RPS6KA5,BDKRB1,TF,HUS1,JAK2,PPP6R2,PARK2,ADCYAP1R1,NRG3,SH3GL2,SLIT2,SLC4A4,BMPRI1,SMAD3,PRKAR2A,BORA,PIBF1,SLC1A1,LDB2,EPM2A,WWTR1,DOCK3,VAV3,PLCE1,GHR,CD300A,RABGEF1,LRP5,PDE4D,EFNA5,ATF2,PIK3R2,ADTRP,SMG7,MAP3K7,SPTBN4,EPHB2,MOB3B,BDNF,FNIP1,ADORA2A,NOX4,BMPER,DAB2,LRRK1,ABI1,HDAC2,PRKAR1B,TTN,ENPP1,PARD3,NRG1,RII2,CD44,SLC8A1,MAP3K13,PLCL2,AGT,FGF1,NF1,NRXN1,GSK3B,CD109,CNTN1,CHEK2,ROR1,ZNF675,MNAT1,DUSP22,MAP3K5,HTR2C,EPHA5,ADCY8,PRKAA2,GRM5,IGF1R,PTPRO,INSR,MAP2K1,STK38,PPP1R14A,LRRK2,BMP6,FYN,EPHA7,ENPP2,EPHB1,TRPC5,FER,RAPGEF2,DAB1,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,PRKAR1A,NTRK3,PPARA,PRLR,DEPTOR,PMEPA1</i>
GO:0030516	regulation of axon extension	0.0015862969529097657	<i>DSCAM,SEMA5A,SEMA4D,NTN1,MAP2,CDH4,TNR,DISC1,SEMA6D,DYSL2,MAP3K13,GSK3B,ISLR2,MACF1,SEMA5B,TRPC5,CDKL5,SEMA3A,CLASP2,SEMA3D,SEMA3C</i>
GO:0008361	regulation of cell size	0.0017310025697472098	<i>DSCAM,SEMA5A,DCC,SEMA4D,NTN1,MAP2,CDH4,TNR,VAV3,PRR16,DISC1,EFNA5,SEMA6D,DYSL2,BDNF,FSTL4,KCNMA1,SLC12A8,MAP3K13,GSK3B,ISLR2,MACF1,SEMA5B,EPHA7,TRPC5,CDKL5,SEMA3A,CLASP2,SEMA3D,DEPTOR,SEMA3C</i>
GO:2000026	regulation of multicellular organismal development	0.0018746118142414666	<i>KALRN,CTNNA1,NTRK2,CLASP1,SPRED2,ERBB4,LAMA2,ROBO1,DSCAM,LINGO2,PLCB1,PRKD1,VCL,PPP2R3C,SEMA5A,PRKCA,IL1RAPL1,RUNX1,NLGN1,RELN,ADAM12,PPP3CA,TOX,AKAP6,SOS1,ROBO2,DCC,SEMA4D,NPHP3,SMOC2,ANKH,NUMB,SOX6,SULF1,SLIT2,BMPRI1,SMAD3,OVOL2,BRINP1,SOX5,NTN1,MAP2,CDC73,FLRT2,WWTR1,CUX1,TRPS1,CDH4,TNR,TENM4,CLSTN2,DISC1,PIK3CD,EFNA5,ATF2,GRID2,CYBB,SEMA6D,EPHB2,S1PR3,PRTG,BDNF,FSTL4,BCOR,BMPER,PLXNA2,HDAC2,ETS1,ENPP1,PARD3,NRG1,SLC8A1,ISM1,FBXO31,MAP3K13,AGT,FGF1,CCR3,NF1,NRXN1,LAMA3,CTDP1,CD109,CHD7,TIAM2,RHOJ,ISLR2,DLG5,ZNF675,MACF1,CAPN3,TP73,RBM19,PAK3,SEMA5B,GRM5,INSR,JAK1,MAP2K1,FOXO3,MITF,RARB,BMP6,EPHA7,ENPP2,ABCA12,EPHB1,VASH2,TRPC5,LRP2,CAMK4,RAPGEF2,PTPRM,CDKL5,KAT7,BASP1,DAB1,SEMA3A,STIM1,NTRK3,FBN1,CLASP2,SYNDIG1,PPARA,PTPRD,NELL1,SEMA3D,PRLR,SEMA3C</i>
GO:0001558	regulation of cell growth	0.0019690793746625283	<i>DSCAM,SEMA5A,AKAP6,MAP2K5,DCC,SEMA4D,BDKRB1,PAK2,NRG3,SLIT2,SMAD3,NTN1,EPM2A,MAP2,CDC73,CDH4,TNR,SPOCK1,PLCE1,SERTAD2,DISC1,EFNA5,SEMA6D,PRKCQ,DYSL2,BDNF,FSTL4,SYT1,EBAG9,DAB2,ENPP1,RIMS2,NRG1,MAP3K13,AGT,GSK3B,CTDP1,UNC13A,ISLR2,MACF1,SLIT3,SEMA5B,EPHA7,RIMS1,TRPC5,CDKL5,ESR2,SEMA3A,GNG4,CLASP2,PPARA,SEMA3D,SYT17,SEMA3C</i>
GO:0010721	negative regulation of cell development	0.0020141552723614868	<i>CTNNA1,SEMA5A,KANK1,PPP3CA,DCC,SEMA4D,BMPRI1,BRINP1,NTN1,MAP2,TNR,ACTN4,EFNA5,SEMA6D,EPHB2,S1PR3,PRTG,FSTL4,NF1,GSK3B,SEMA5B,EPHA7,TRPC5,RAPGEF2,DAB1,SEMA3A,NTRK3,FBN1,SEMA3D,SEMA3C</i>
GO:0018105	peptidyl-serine phosphorylation	0.002149641726870372	<i>RPS6KA2,NTRK2,DMD,NOS1,SRPK2,PRKD1,PRKCA,CAMK1D,APP,PAK1,DCLK1,RPS6KA5,MAST4,TNKS,TAF1,SLC1A1,EPM2A,PDE4D,PRKCQ,SPTBN4,MARK1,BDNF,FNIP1,TOPI,CD44,PRKCG,MAPKAPK2,MAP3K13,PLCL2,DYRK4,TLK1,NRXN1,GSK3B,CHEK2,STK32B,MORC3,PRKAA2,STK38,LRRK2,CAMK4,BDKRB2,TENM1,STK38L,NTRK3</i>
GO:0032535	regulation of cellular component size	0.0021823552466816625	<i>DSCAM,CIT,SEMA5A,KANK1,PLS1,FCHSD2,DCC,SEMA4D,SH3BP1,SLIT2,ELN,NTN1,MAP2,CDH4,TNR,VAV3,EPH8,PRR16,DISC1,EFNA5,SEMA6D,SPTBN4,DYSL2,BDNF,FSTL4,KCNMA1,SLC12A8,MAP3K13,CDC42EP3,PDXP,GSK3B,TRIOBP,ISLR2,MACF1,PAK3,NEB,SEMA5B,EPHA7,FHOD3,TRPC5,FER,CDKL5,SEMA3A,TENM1,CLASP2,SEMA3D,DEPTOR,SEMA3C</i>
GO:0036211	protein modification process	0.0025701495463070433	<i>PTPRR,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,RNF43,RPS6KA2,NTRK2,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,CHRM3,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,CIT,FRY,HUNK,FUT8,HDAC4,AUTS2,LDLRAD4,BLM,PSMB2,PTPRT,FLT3,SRPK2,PRKD1,NEDD9,PPP2R3C,CASK,PRKCA,SLCO3A1,USP53,TNFRSF10B,CAMK1D,RELN,APP,PAK1,PPP3CA,PTPN9,MGAT4C,GALNT14,DLC1,ALK,BTRC,DCLK1,MAP2K5,DNMT1,MAGI2,AKAP13,C10ORF90,DDDB1,EP300,SEMA4D,RPS6KA5,P</i>

			<p>HF20,GRK5,BDKRB1,MAN2B1,HUS1,ZDHHC11B,JAK2,FPGT-TNNI3K,PPP6R2,MAST4,PARK2,HLCS,MAN1A1,NRG3,RFFL,S H3GL2,SLIT2,MAPK4,KMT2C,TRIM5,ATR,TRAF3IP2,SH3RF3 ,BMPR1A,PRKAR2A,BORA,PIBF1,PIK3C3,PEAK1,EYA1,EGFL AM,TNKS,ARRDC4,ZDHHC11,PTPRN2,UBE2R2,TAF1,SLC1A1, RNF144B,EPM2A,CDC73,FBXW11,NOS1AP,MKRN3,WWTR1,P HF20L1,ST3GAL3,EGLN3,ARID4B,DOCK3,TRIM59,TLL8,CD KL1,PLCE1,MACROD1,GHR,PDZRN3,CD300A,TLL11,RABGE F1,TRABD2B,LRP5,PDE4D,PIK3CD,EFNA5,ATF2,ADTRP,FBX L7,PPA2,MAP3K7,PRKCQ,N4BP1,GALNT8,USP12,JDP2,TLL5 ,SPTBN4,TMTC1,EPHB2,ERC1,MOB3B,PTPDC1,MARK1,BDNF ,FNIP1,ADORA2A,NOX4,BCOR,BMPER,ICK,DAB2,LRRK1,PRK G1,ABI1,TNNI3K,HDAC2,ARID4A,PRKAR1B,TTN,CDK19,ENP P1,KSR2,ZZZ3,PARD3,NRG1,DPY19L1,TOPI,RIT2,CD44,PRKC G,MAPKAPK2,SLC8A1,FBXO31,MAP3K13,PLCL2,RSRC1,CDC 42BP4,B3GALT5,MAPK10,AGT,FGF1,DYRK4,TLK1,SUMF1,NF 1,NRXN1,AGBL1,PDXP,GSK3B,ST6GALNAC3,CTDP1,SETD3,C D109,LMO7,WDR70,PSMB7,CNTN1,TRIOBP,NCOA1,CHEK2,P HEX,MECOM,STK32B,RSPRY1,UBE2E2,CPE,UBE2V1,ROR1,Z NF675,MNAT1,TRIO,CAPN3,PTPRE,MYO3B,DUSP22,ST6GAL NAC5,MAP3K5,CTDSP2,EPHA5,RNF144A,MORC3,SUPT3H,S HPRH,PAK3,DPH6,ADCY8,RNF213,SH3RF2,PRKAA2,TBL1X,G RM5,IGF1R,PTPRO,ZDHHC14,MSRA,INSR,JAK1,MAP2K1,UBR 2,FBXL18,STK38,KLHL3,CDC14A,AGBL4,PRDM16,ULK4,DNM T3B,LRRK2,BMP6,FYN,EPHA7,SEL1L2,PTPN14,ENPP2,EPHB1 ,EXT1,TRPC5,AMFR,FER,CAMK4,GUCY2F,TPTE,RAPGEF2,P TPRM,CDKL5,PTPRU,MACROD2,KAT7,TMTC2,SETD2,TRIM2 2,DAB1,HDAC5,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,STK 38L,LARGE,ST8SIA1,PRKAR1A,ZRANB1,KANSL1,DPY19L2,NT RK3,DNAJC6,PTPRK,PTPRD,GALNTL6,PRLR,PTPRA,CEP41,D EPTOR,CUL2,PMEPA1,UBE3C</p>
GO:0006464	cellular protein modification process	0.0025701495463070433	<p>PTPRR,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,RNF43,R PS6KA2,NTRK2,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,CHR M3,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,CIT,FRY,HU NK,FUT8,HDAC4,AUTS2,LDLRAD4,BLM,PSMB2,PTPRT,FLT3, SRPK2,PRKD1,NEDD9,PPP2R3C,CASK,PRKCA,SLCO3A1,USP 53,TNFRSF10B,CAMK1D,RELN,APP,PAK1,PPP3CA,PTPN9,M GAT4C,GALNT14,DLC1,ALK,BTRC,DCLK1,MAP2K5,DNMT1, MAGI2,AKAP13,C10ORF90,DDDB1,EP300,SEMA4D,RPS6KA5,P HF20,GRK5,BDKRB1,MAN2B1,HUS1,ZDHHC11B,JAK2,FPGT-TNNI3K,PPP6R2,MAST4,PARK2,HLCS,MAN1A1,NRG3,RFFL,S H3GL2,SLIT2,MAPK4,KMT2C,TRIM5,ATR,TRAF3IP2,SH3RF3 ,BMPR1A,PRKAR2A,BORA,PIBF1,PIK3C3,PEAK1,EYA1,EGFL AM,TNKS,ARRDC4,ZDHHC11,PTPRN2,UBE2R2,TAF1,SLC1A1, RNF144B,EPM2A,CDC73,FBXW11,NOS1AP,MKRN3,WWTR1,P HF20L1,ST3GAL3,EGLN3,ARID4B,DOCK3,TRIM59,TLL8,CD KL1,PLCE1,MACROD1,GHR,PDZRN3,CD300A,TLL11,RABGE F1,TRABD2B,LRP5,PDE4D,PIK3CD,EFNA5,ATF2,ADTRP,FBX L7,PPA2,MAP3K7,PRKCQ,N4BP1,GALNT8,USP12,JDP2,TLL5 ,SPTBN4,TMTC1,EPHB2,ERC1,MOB3B,PTPDC1,MARK1,BDNF ,FNIP1,ADORA2A,NOX4,BCOR,BMPER,ICK,DAB2,LRRK1,PRK G1,ABI1,TNNI3K,HDAC2,ARID4A,PRKAR1B,TTN,CDK19,ENP P1,KSR2,ZZZ3,PARD3,NRG1,DPY19L1,TOPI,RIT2,CD44,PRKC G,MAPKAPK2,SLC8A1,FBXO31,MAP3K13,PLCL2,RSRC1,CDC 42BP4,B3GALT5,MAPK10,AGT,FGF1,DYRK4,TLK1,SUMF1,NF 1,NRXN1,AGBL1,PDXP,GSK3B,ST6GALNAC3,CTDP1,SETD3,C D109,LMO7,WDR70,PSMB7,CNTN1,TRIOBP,NCOA1,CHEK2,P HEX,MECOM,STK32B,RSPRY1,UBE2E2,CPE,UBE2V1,ROR1,Z NF675,MNAT1,TRIO,CAPN3,PTPRE,MYO3B,DUSP22,ST6GAL NAC5,MAP3K5,CTDSP2,EPHA5,RNF144A,MORC3,SUPT3H,S HPRH,PAK3,DPH6,ADCY8,RNF213,SH3RF2,PRKAA2,TBL1X,G RM5,IGF1R,PTPRO,ZDHHC14,MSRA,INSR,JAK1,MAP2K1,UBR 2,FBXL18,STK38,KLHL3,CDC14A,AGBL4,PRDM16,ULK4,DNM T3B,LRRK2,BMP6,FYN,EPHA7,SEL1L2,PTPN14,ENPP2,EPHB1 ,EXT1,TRPC5,AMFR,FER,CAMK4,GUCY2F,TPTE,RAPGEF2,P TPRM,CDKL5,PTPRU,MACROD2,KAT7,TMTC2,SETD2,TRIM2 2,DAB1,HDAC5,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,STK 38L,LARGE,ST8SIA1,PRKAR1A,ZRANB1,KANSL1,DPY19L2,NT RK3,DNAJC6,PTPRK,PTPRD,GALNTL6,PRLR,PTPRA,CEP41,D EPTOR,CUL2,PMEPA1,UBE3C</p>
GO:0014706	striated muscle tissue	0.0026477294894996484	<p>RCAN1,DMD,ERBB4,NEBL,HDAC4,RYR2,RUNX1,PPP3CA,RYR 1,AKAP6,MEF2A,AKAP13,HIVEP3,EP300,SOX6,COL11A1,BMP R1A,SMAD3,EYA1,ELN,MYO18B,TENM4,FHL2,NOX4,TTN,NR</p>

	development		<i>G1,SLC8A1,AGT,NF1,PKP2,CTDP1,CHD7,PGM5,TP73,NEB,NL N,CENPF,RBFOX1,RARB,COL19A1,SGCZ,EPHB1,FHOD3,LRP 2,SGCD,PRKARIA,PPARA,MYH15,SEMA3C</i>
GO:009743 5	supramolecular fiber organization	0.00275948986752837 1	<i>NDE1,CTNNA1,CLASP1,DMD,SHROOM3,CIT,TBCD,NEBL,NE DD9,SEMA5A,PDE4DIP,CALD1,KANK1,DIAPH2,PLS1,FCHSD 2,APP,PAK1,PCDH15,DLCL1,MEF2A,CTNNA3,AKAP13,ELMO2, TF,JAK2,PARK2,COL4A6,SH3BP1,COL24A1,COL11A1,SLIT2,S MAD3,ELN,ARHGEF18,DNAJB6,MAP2,GAS7,ARHGAP6,THSD 4,EPS8,PPP1R9A,ARHGAP12,RHPN2,SPTBN4,ABII,MICAL3,T TN,CTNNA2,FMN2,CDC42EP3,ARHGAP25,NF1,PDXP,PKP2,T RIOBP,PGM5,PREX1,COL12A1,BID,CAPN3,FAM171A1,MYPN, PAK3,NEB,KPNB1,KIF2A,PHACTR1,FHOD3,EXT1,FER,SHRO OM4,NAV3,ZNF207,MPRIIP,TRDN,COL21A1,TENM1,SH3KBP1, PRKARIA,CLASP2,NCKAP5,TUBGCP6</i>
GO:004232 5	regulation of phosphorylation	0.00277049836831141 4	<i>NTRK2,DMD,SPRED2,ERBB4,NOS1,ROBO1,DSCAM,HDAC4,L DLRAD4,BLM,PTPRT,FLT3,PRKD1,NEDD9,PPP2R3C,ZBTB20, SLCO3A1,TNFRSF10B,RELN,APP,PAK1,ALK,MAP2K5,AKAP13 ,EP300,SEMA4D,RPS6KA5,BDKRB1,TF,HUS1,JAK2,PARK2,NR G3,SH3GL2,SLIT2,SLC4A4,BMPRI1,PRKAR2A,BORA,PIBF1,SL C1A1,LDB2,EPM2A,WWTR1,DOCK3,NAV3,PLCE1,GHR,CD300 A,RABGEF1,LRP5,PDE4D,EFNA5,ATF2,PIK3R2,ADTRP,MAP3 K7,SPTBN4,EPHB2,MOB3B,BDNF,FNIP1,ADORA2A,NOX4,BM PER,DAB2,LRRK1,ABII,HDAC2,PRKAR1B,TTN,ENPPI1,PARD3 ,NRG1,RIT2,CD44,SLC8A1,MAP3K13,PLCL2,AGT,FGF1,NF1,N RXN1,CD109,CNTN1,CHEK2,ROR1,ZNF675,MNAT1,DUSP22, MAP3K5,EPHA5,ADCY8,PRKAA2,GRM5,IGF1R,PTPRO,INSR, MAP2K1,STK38,PPP1R14A,LRRK2,BMP6,FYN,EPHA7,ENPP2, EPHB1,TRPC5,FER,RAPGEF2,DAB1,BDKRB2,CCNG2,PIK3R3, TENM1,PRKARIA,NTRK3,PPARA,PLR,DEPTOR,PMEPA1</i>
GO:009950 4	synaptic vesicle cycle	0.00280423567900289 03	<i>SYN3,CASK,BTBD9,ABCA13,NLGN1,ERC2,ITSN1,GRIN3A,NLG N4X,DGKI,ADORA2A,CADPS,SYT1,SNAP23,PRKAR1B,RIMS2, PRKCG,NRXN1,GSK3B,UNC13A,CACNB2,LRRK2,RIMS1,PCD H17,NRXN3,STXBP5,DNAJC6,DNM3,SYNDIG1,BLOC1S6,SYT9</i>
GO:006004 7	heart contraction	0.00342793272505754	<i>RPS6KA2,DMD,NOS1,HDAC4,RYR2,RYR3,MEF2A,CTNNA3,JA K2,CACNA1C,SLC1A1,NOS1AP,PDE4D,KCNJ12,KCNJ3,CELF2 ,PDE4B,SPTBN4,TNNI3K,TTN,SLC8A1,THRB,AGT,PKP2,CACN B2,ANK2,CACNA1D,RNLS,SCN1A,KCND3,SGCZ,KCNQ1,EXT1, SGCD,TRDN,SEMA3A</i>
GO:003033 6	negative regulation of cell migration	0.00343624854706345 03	<i>PTPRR,CLASP1,PTPRG,ROBO1,LDLRAD4,PTPRT,PLCB1,VCL, KANK1,DLCL1,MAP2K5,MAGI2,NRG3,SULF1,SLIT2,BMPRI1,C D300A,RABGEF1,SEMA6D,ADTRP,MCTP1,DACHI,PRKG1,SR GAP3,NRG1,NF1,SRGAP2B,DLG5,DUSP22,FOXO3,MITF,MAR VELD3,NAV3,PTPRM,PTPRU,HDAC5,SEMA3A,CLASP2,PTPR K</i>
GO:000760 5	sensory perception of sound	0.00347345410059439 5	<i>TMC2,MYO3A,USP53,PCDH15,GRM7,TMPRSS3,COL11A1,EYA 1,TUB,LHFPL3,STRC,NAV2,CNTN5,SPTBN4,CDH23,SRRM4,T HRB,USH2A,CHD7,TRIOBP,ROR1,MYO3B,CACNA1D,TBL1X,C DC14A,KCNQ1,LRP2,SOBP</i>
GO:005196 5	positive regulation of synapse assembly	0.00428118235515310 1	<i>NTRK2,LINGO2,ILIRAPL1,NLGN1,SEMA4D,FLRT2,CLSTN2,E FNA5,GRID2,EPHB2,BDNF,NRXN1,DLG5,EPHB1,SYNDIG1,PT PRD</i>
GO:005095 4	sensory perception of mechanical stimulus	0.00470699696325019 3	<i>TMC2,MYO3A,USP53,PCDH15,GRM7,TMPRSS3,COL11A1,EYA 1,TUB,LHFPL3,STRC,NAV2,CNTN5,SPTBN4,CDH23,SRRM4,T HRB,USH2A,CHD7,TRIOBP,ROR1,MYO3B,CACNA1D,TBL1X,C DC14A,SCN1A,FYN,KCNQ1,LRP2,SOBP</i>
GO:003303 6	macromolecule localization	0.00482092153393060 4	<i>LRP1B,CACNG2,CTNNA1,SYNE1,DMD,ERBB4,SIL1,SHROOM3 ,DPP10,GPC5,SORCS2,LRBA,ATP9A,ARFGAP3,IMMP2L,ABCC 1,ATP8A2,AFTPH,WLS,SGSM1,SNUPN,NFASC,PRKD1,RYR2,V CL,STX8,ABCA13,TBC1D5,SLCO3A1,PLS1,FCHSD2,NLGN1,K CNIP4,SMG6,TCF7L2,RELN,PPP3CA,PTPN9,AKAP6,OSBPL1A ,RABGAP1L,RFTN1,DCLK1,KCNB2,DLG2,MAGI2,CELSR1,PAR N,SLCO2B1,DNAH11,GRIK2,QKI,CHRM1,SYTL5,ZDHHC11B,I TSN1,ASTN2,JAK2,ABCG8,PARK2,DPP6,PRELID2,MAN1A1,EX OC4,HEATR5A,ANO4,NBEA,NUMB,PITPNC1,CEP128,TRIM5,A TRX,TRAF3IP2,SMAD3,BORA,PIBF1,PIK3C3,MAD1L1,TNKS,T UB,ARHGEF18,SCAMP5,DNAJB6,ARRDC4,ZDHHC11,SKAP1, PTPRN2,SPNS2,SLC1A1,EPM2A,SHFM1,WWTR1,PCSK5,ANK3, ACTN4,RAB2A,ABCC11,DISC1,OSBPL10,ATP8B4,RABGEF1,L RP5,AP2B1,ESR1,DENND2A,SCFD1,SLC5A3,FRMD4A,RAB24, EFNA5,FTO,ATF2,PIK3R2,CCDC91,GRID2,ZNF423,ADTRP,M APRE2,SMG7,ANKRD13A,WDR83OS,SPTBN4,EPHB2,ERC1,N</i>

			<p>UP214,BDNF,ADORA2A,IFT80,ANO1,CADPS,TSPAN33,CHKA,DAB2,NSF,SNAP23,CACNG3,CALCRL,RANBP17,BANP,TTN,M YRIP,ENPPI,RIMS2,AGAP1,PEX5L,PARD3,TBC1D9,ATP10B,F MN2,RIT2,CNGB1,GPSM2,ZFYVE1,RAPGEF6,CHST11,SAMM5 0,AGT,GRIP1,TLK1,USH2A,NF1,VPS16,NRXN1,GSK3B,PKP2,B BS9,SNX5,CACNB2,STXBP4,ESYT2,GPC3,DLG5,CPE,ANO3,XK R4,SERPINA5,SLC5A8,BID,MACF1,CAPN3,MYOM1,CTDSPL2, SNAP25- ASI,EPHA5,SNX31,MORC3,ANK2,LRPBRC,ADCY8,RNF213,PR KAA2,PACRG,TRAPPC8,ATG4C,TSNARE1,MON2,CNTNAP2,Z DHHC14,SUFU,CIZ1,JAK1,RPGR,KPNB1,GPC6,TTC7B,CENP F,ATP9B,IGF2BP3,KPNA3,SPTSSA,RBFOX1,LTBP1,LRRK2,BM P6,VTI1A,FYN,ABCC2,XRCC4,MARVELD3,GAS8,MSR1,PTPN1 4,RIMS1,VPS53,ABCA12,KCNQ1,FAM126A,TRPC5,LRP2,RAPG EF2,PTPRU,KAT7,VPS45,SETD2,PACSIN2,TRIM22,SEC16B,EX OC6B,STOML1,MYH9,BDKRB2,NRIP1,VPS41,TENM1,VPS39,S TXBP5,FBN1,CLASP2,NSUN2,PTPRK,SYNDIG1,PPARA,SCFD2 ,SHISA6,ATP8A1,CEP41,IPO11,NVL,STAC,RAB27A,BLOC1S6,P ARD3B,SYT9</p>
GO:0030900	forebrain development	0.005023504364134767	<p>NDE1,NTRK2,DMD,KCNC2,ERBB4,ROBO1,PLCB1,SEMA5A,R ELN,APP,TOX,DLC1,ALK,DCLK1,ROBO2,TRAPPC9,NRG3,NU MB,SLIT2,ATRX,BMPRI1A,SATB2,TNR,TACC2,SRD5A2,DISC1,E PHB2,PRKG1,NRG1,SLC8A1,NF1,GSK3B,CHD7,CCDC141,EP HA5,IGF1R,CNTNAP2,LRRK2,RARB,PHACTR1,FYN,EXT1,LRP 2,TMEM108,RAPGEF2,KIRREL3,SETD2,DAB1,SEMA3A,ELAVL 4</p>
GO:0051649	establishment of localization in cell	0.005408825567414865	<p>SYN3,CACNG2,PROS1,NDE1,CLASP1,DMD,NOS1,SIL1,SORCS 2,ATP9A,ARFGAP3,IMMP2L,AFTPH,WLS,SGSM1,SNUPN,TRP M1,PRKD1,RYR2,CASK,STX8,BTBD9,ABCA13,TBC1D5,NLGN1, SMG6,CLEC16A,TCF7L2,APP,PPP3CA,RYR1,ERC2,AKAP6,RA BGAP1L,RYR3,RFTN1,DCLK1,FAM155A,DENND5A,DLG2,IFT 81,AKAP13,BDKRB1,CHRM1,SYTL5,ZDHHC11B,ITSN1,TANC2, JAK2,RAB11FIP4,PARK2,ADCYAP1R1,GRIN3A,CACNA1C,MA N1A1,NLGN4X,EXOC4,HEATR5A,NUMB,CD84,TRAF3IP2,SMA D3,PIBF1,PIK3C3,TPH1,MAD1L1,TUB,ZDHHC11,PTPRN2,DG KI,SLC1A1,NTN1,EPM2A,SHFM1,MAP2,FBXW11,NOS1AP,GR M4,ANK3,ACTN4,RAB2A,CD300A,IFT43,RABGEF1,NSG2,LRP5 ,AP2B1,DENND2A,SCFD1,PDE4D,THEM4,PIK3CD,BLOC1S5, RAB24,EFNA5,ATF2,PIK3R2,CCDC91,KCNJ3,SMG7,ATXN1,ER C1,MCTP1,NUP214,RBM4,ADORA2A,ANO1,CADPS,ICK,SYT1, DAB2,NSF,SNAP23,CACNG3,EPG5,RANBP17,PRKAR1B,MYRI P,RIMS2,PEX5L,PARD3,NRG1,TBC1D9,FMN2,GPSM2,PRKCG, SLC8A1,RSRC1,SAMM50,AGT,GRIP1,TLK1,NF1,VPS16,NRXN1, GSK3B,SLC22A3,CHD7,SNX5,UNC13A,CACNB2,STXBP4,SYBU ,BID,CAPN3,CTDSPL2,HTR2C,SNAP25- ASI,EPHA5,SNX31,ANK2,GRIN2B,LRPBRC,ADCY8,ITPR2,CAC NA1D,ANKFN1,TRAPPC8,TSNARE1,MON2,ZDHHC14,SUFU,R PGR,MAP2K1,KPNB1,CENPF,AGBL4,KPNA3,LRRK2,PKHD1,S PG11,VTI1A,FYN,KCND3,PTPN14,RIMS1,VPS53,MCTP2,ABCA 12,KCNQ1,NOX5,FER,PCDH17,TMEM108,NRXN3,VPS45,SETD 2,TRDN,SEC16B,EXOC6B,MYH9,VPS41,TENM1,VPS39,STXBP5 ,SLC24A2,CLASP2,DNAJC6,NSUN2,DNM3,SYNDIG1,SCFD2,A NX48L1,IPO11,RAB27A,BLOC1S6,PARD3B,HGSNAT,SYT9</p>
GO:0008015	blood circulation	0.005428462822176292	<p>RPS6KA2,DMD,CHRM3,NOS1,HDAC4,IMMP2L,RYR2,TRHDE, RYR3,MEF2A,CTNNA3,BDKRB1,JAK2,CACNA1C,SH3GL2,SLIT 2,SMAD3,ELN,SLC1A1,NOS1AP,PCSK5,ARHGAP42,LRP5,NAV 2,PDE4D,DOCK4,KCNJ12,KCNJ3,CELF2,PDE4B,SPTBN4,PRC P,ADORA2A,PRKG1,TNNI3K,TTN,KCNMA1,SLC8A1,THRB,AG T,PKP2,CHD7,SNX5,CACNB2,ANK2,CACNA1D,PTPRO,RNLS,A DAMTS16,SCN1A,BMP6,KCND3,SGCZ,KCNQ1,EXT1,SGCD,TR DN,SEMA3A,BDKRB2,PPARA</p>
GO:0010810	regulation of cell-substrate adhesion	0.005429401247442195	<p>CLASP1,DMD,TBCD,VCL,NEDD9,CASK,KANK1,UTRN,DLC1,J AK2,SMAD3,PEAK1,EGFLAM,SKAP1,ARHGAP6,SPOCK1,ACT N4,DISC1,EFNA5,DAB2,NF1,GSK3B,TRIOBP,PREX1,MACF1,D USP22,PTPRO,PKHD1,DOCK1,VWC2,CDH13,CLASP2,PTPRA</p>
GO:0040008	regulation of growth	0.005501643438971647	<p>ERBB4,DSCAM,ATP8A2,PLCB1,NEDD9,SEMA5A,RUNX1,PLS1, APP,AKAP6,RFTN1,MAP2K5,DCC,SEMA4D,BDKRB1,PARK2,N RG3,SLIT2,BMPRI1A,SMAD3,NTN1,EPM2A,MAP2,CDC73,CDH 4,TNR,SPOCK1,PLCE1,GHR,SERTAD2,DISC1,EFNA5,FTO,SE MA6D,PRKCQ,SPTBN4,DYSL2,BDNF,FSTL4,SYT1,EBAG9,DA B2,ENPPI,RIMS2,NRG1,MAP3K13,AGT,GSK3B,CTDP1,GPR21, CHD7,UNC13A,ISLR2,GPC3,MACF1,CAPN3,TP73,SLIT3,SEMA 5B,INSR,ENOX2,EPHA7,RIMS1,TRPC5,CDKL5,ESR2,BASPI,SE</p>

			MA3A,GNG4,CLASP2,PPARA,SEMA3D,SYT17,SEMA3C
GO:0090066	regulation of anatomical structure size	0.005532875677244043	CHRM3,NOS1,DSCAM,CIT,SEMA5A,KANK1,PLS1,FCHSD2,DC C,SEMA4D,SH3BP1,SLIT2,ELN,NTN1,MAP2,CDH4,TNR,VAV3,EPS8,PRR16,DISC1,ARHGAP42,DOCK4,EFNA5,SEMA6D,SPTB N4,DPLYSL2,BDNF,ADORA2A,FSTL4,PRKG1,KCNMA1,SLC12A 8,SLC8A1,MAP3K13,CDC42EP3,AGT,PDXP,GSK3B,TRIOBP,IS LR2,MACF1,PAK3,NEB,SEMA5B,LRRK2,EPHA7,FHOD3,EXT1,TRPC5,FER,CDKL5,SEMA3A,BDKRB2,TENM1,CLASP2,SEMA3 D,DEPTOR,SEMA3C
GO:0010976	positive regulation of neuron projection development	0.005944461333866873	KALRN,NTRK2,DMD,ATP8A2,PRKD1,CAMK1D,RELN,TOX,AL K,MAGI2,EP300,NEGR1,CBFA2T2,DISC1,BDNF,RIT2,AGT,CN TN1,ROR1,PAK3,IGF1R,FYN,TENM3,RAPGEF2,NTRK3,ELAVL 4
GO:0042692	muscle cell differentiation	0.006031043263734672	RCAN1,SYNE1,DMD,NOS1,NEBL,HDAC4,MYEF2,ADAM12,PP P3CA,RYR1,AKAP6,MEF2A,DNMT1,AKAP13,QKI,SOX6,BMPR 1A,MYO18B,ACTN4,BDNF,RBM4,FHL2,NOX4,TTN,NRG1,SLC8 A1,AGT,CTDP1,SETD3,KCNH1,PGM5,CAPN3,HIRA,MYPN,AN K2,NEB,NLN,RARB,SGCZ,FHOD3,SGCD,HDAC5,MYH9,TANC 1,PRKARIA,PPARA,RORA
GO:0050769	positive regulation of neurogenesis	0.00615950964713794	KALRN,NTRK2,ROBO1,DSCAM,SEMA5A,IL1RAPL1,RELN,ROB O2,SEMA4D,NUMB,SLIT2,NTN1,CUX1,CDH4,TENM4,DISC1,E FNA5,EPHB2,BDNF,PLXNA2,HDAC2,FBXO31,MAP3K13,TIAM 2,ISLR2,MACF1,TP73,PAK3,GRM5,MAP2K1,TRPC5,LRP2,CDK L5,PTPRD
GO:0018209	peptidyl-serine modification	0.006206800883649313	RPS6KA2,NTRK2,DMD,NOS1,SRPK2,PRKD1,PRKCA,CAMK1D ,APP,PAK1,DCLK1,RPS6KA5,MAST4,EGFLAM,TNKS,TAI1,SL C1A1,EPM2A,PDE4D,PRKCQ,SPTBN4,MARK1,BDNF,FNIP1,T OP1,CD44,PRKCG,MAPKAPK2,MAP3K13,PLCL2,DYRK4,TLK 1,NRXN1,GSK3B,CHEK2,STK32B,MORC3,PRKAA2,STK38,LRR K2,CAMK4,BDKRB2,TENM1,STK38L,NTRK3
GO:0010647	positive regulation of cell communication	0.007281608920345459	CAMTA1,CACNG2,CTNNA1,NTRK2,SLC39A10,SPRED2,ERBB4 ,LAMA2,ROBO1,PUM1,GPC5,WDR59,WWOX,AUTS2,WLS,PSM B2,PLCB1,FLT3,PRKD1,SEMA5A,PRKCA,KANK1,DOK6,NLGN 1,TNFRSF10B,CLEC16A,TCF7L2,RELN,APP,PAK1,AKAP6,SOS 1,ALK,MAP2K5,EDA,ROBO2,AKAP13,EP300,SEMA4D,EVC,AN KRD6,GRIK2,JAK2,PARK2,ADCYAP1R1,SMOC2,SULF1,TRIM5 ,TRAF3IP2,SH3RF3,BMPR1A,SMAD3,PIBF1,SCUBE1,TNKS,D GK1,SLC1A1,CDC73,NOS1AP,GRM4,ANK3,CCL15,TNR,ACTN4 ,PLCE1,GHR,CLSTN2,CD300A,DISC1,CCL14,TNFRSF19,GRM1 ,PIK3CD,ZNF423,MAPRE2,MAP3K7,EPHB2,AGO3,EEF1E1- BLOC1S5,BDNF,FNIP1,ADORA2A,ANO1,NOX4,BMPER,SYT1, DAB2,LRRK1,CACNG3,MYRIP,RIMS2,PRDM15,NRG1,RIT2,CD 44,PRKCG,MAP3K13,AGT,FGF1,NF1,NRXN1,GSK3B,PSMB7,S NX5,IQCJ- SCHIP1,CACNB2,SHANK2,GPC3,DLG5,UBE2V1,ROR1,BID,M ACF1,DUSP22,MAP3K5,HTR2C,LY86,TP73,ARHGEF3,GRIN2B ,ADCY8,MLLT3,SH3RF2,TBL1X,GRM5,IGF1R,INSR,MAP2K1,R ASGRF2,CNTN6,LRRK2,BMP6,FYN,GAS8,RIMS1,CRADD,LRP2 ,TMEM108,RAPGEF2,IL18R1,TRIM22,CDH13,TRDN,SEMA3A, MGAT5,LITAF,TENM1,ZRANB1,VWF,SLC24A2,SCEL,NTRK3,E EF1E1,PRLR,ATF6
GO:0106027	neuron projection organization	0.00797788508466299	KALRN,PLS1,NLGN1,RELN,APP,CTNND2,TANC2,EPHB2,GSK 3B,GRIN2B,PAK3,IGF1R,INSR,LRRK2,FYN,EPHB1,TANC1,DN M3,DOCK10
GO:0043087	regulation of GTPase activity	0.008078532150326353	KALRN,NTRK2,SGSM1,NEDD9,MYO9A,TBC1D5,RABGAP1L,S EMA4D,ARHGAP15,SH3BP1,ARHGAP24,DGKI,ARHGAP6,CCL 15,VAV3,ARHGAP42,CCL14,ARHGAP12,EFNA5,MAPRE2,SIPA IL2,PLXNA2,PRKG1,RGS6,TBC1D9,RAPGEF6,ARHGAP25,NF 1,GSK3B,TIAM2,PREX1,FGD4,EPHA5,GARNL3,ARAP2,LRRK2, ASAP1,RAPGEF2,CDKL5,RGS7,SIPAIL3,NTRK3,DOCK9,SBF2, DOCK10,RALGAP1
GO:0099560	synaptic membrane adhesion	0.009696795918603751	NLGN1,LRRC4C,EFNA5,NTNG1,NRG1,NRXN1,GPC6,LRFN5,P CDH17,PTPRD
GO:0071310	cellular response to organic substance	0.009832641258657127	RPS6KA2,CTNNA1,NTRK2,DMD,CHRM3,SPRED2,ERBB4,NOS 1,ESRRG,ROBO1,WWOX,FUT8,HDAC4,ABCC1,LDLRAD4,BLM ,PSMB2,PTPRT,RXFP1,PLCB1,FLT3,CACNA1A,PRKD1,RYR2,C ASK,PRKCA,STX8,ZBTB20,IL1RAPL1,CCDC3,KANK1,APP,PAK 1,PPP3CA,RYR1,AKAP6,IDE,RYR3,SOS1,ALK,BTRC,MAP2K5,D NMT1,MAGI2,EDA,ROBO2,EP300,RPS6KA5,CHRM1,DEFA1B, JAK2,CMKLR1,PARK2,SMOC2,PNPLA3,SOX6,COL4A6,SULF1,

			<p>ADCY2,RFFL,SH3GL2,SLIT2,GLP2R,TRIM5,CHRD1,TRAF3IP2,BMPRI1,ACACA,SMAD3,PTGFR,SATB2,OVOL2,BRINP1,IL1RAPL2,PTPRN2,SOX5,TAF1,SLC1A1,CDC73,FLRT2,CCL15,AC TN4,EPS8,GHR,CCL14,RABGEF1,NSG2,LRP5,ESR1,TNFRSF19,PDE4D,PIK3CD,EFNA5,ATF2,PIK3R2,ZNF423,CYBB,ADTRP,PDE4B,GABRB3,MAP3K7,PRKCQ,CLDN1,EPHB2,PRCP,RGM B,BDNF,ARID5B,ANO1,NOX4,BMPER,DEFA3,DAB2,EPG5,CALCRL,HDAC2,CDK19,ENPP1,SPINT2,CD44,MAPKAPK2,SLC8A1,CHST11,THRB,AGT,FGF1,QRICH1,CCR3,NF1,NRXN1,PDX P, GSK3B,CD109,GPR21,PSMB7,SNX5,NCOA1,CHEK2,STXBP4, PHEX,NREP,GPC3,ZNF675,PTPRE,DUSP22,MAP3K5,CTDSPL2,HTR2C,GLRA2,LY86,EPA5,IL1RL1,ZNF366,SLIT3,PAK3,AD CY8,ITPR2,PRKAA2,PACRG,GRM5,IGF1R,INSR,JAK1,UBR2,F OXO3,PRDM16,LTBP1,LRRK2,RARB,BMP6,FYN,MSR1,GNNG2, ABCA12,KCNQ1,EXT1,AMFR,LRP2,FER,GLDC,VWC2,TMEM108,RAPGEF2,NCOA2,IL18R1,ESR2,VEPH1,HDAC5,NR1P1,LITAF,PIK3R3,GABRB1,NTRK3,FBN1,PTPRK,PPARA,RORA,BRIP1, ELAVL4,EEF1E1,PRLR,PTPRA,ATF6,PMEP1,ST18,RXFP2</p>
GO:0042221	response to chemical	0.010260328462075152	<p>RNF4,KALRN,CACNG2,RPS6KA2,CTNNA1,NTRK2,DMD,KCNC2,CHRM3,SPRED2,ERBB4,LAMA2,NOS1,CNTN4,ESRRG,ROBO1,DSCAM,WWOX,FUT8,HDAC4,ABCC1,LDLRAD4,BLM,PSMB2,PTPRT,RXFP1,NFASC,PLCB1,FLT3,CACNA1A,PRKD1,RYR2,SEMA5A,CASK,PRKCA,STX8,ZBTB20,IL1RAPL1,CCDC3,HBE1,DIO2,KANK1,NLGN1,CAMK1D,TCF7L2,RELN,APP,PAK1,PPP3CA,RYR1,AKAP6,IDE,RYR3,SOS1,LRRK2,RTTN1,ALK,BTRC,MEF2A,DLG2,MAP2K5,DNMT1,MAGI2,EDA,ROBO2,DCC,ELMO2,EP300,SEMA4D,RPS6KA5,CPNE4,BDKRB1,NME8,TF,CHRM1,DEFA1B,JAK2,ABCG8,CMKLR1,PARK2,ADCYAP1R1,GRI N3A,SMOC2,HLC5,MAN1A1,EMB,PNPLA3,OR5K4,NRG3,SOX6, COL4A6,SULF1,ADCY2,OTC,RFFL,SH3GL2,SLIT2,GLP2R,AO X1,TRIM5,AFF3,ATRX,CHRD1,TRAF3IP2,BMPRI1,ACACA,D SCAML1,SMAD3,TNFRSF11B,PIK3C3,CHD6,SLC47A1,PTGFR, SATB2,OVOL2,BRINP1,OR51I1,IL1RAPL2,PTPRN2,SOX5,TAF1, SLC1A1,NTN1,CDC73,FLRT2,CD96,EGLN3,ANK3,TIMP2,CCL15,CDH4,TNR,VAV3,SCN9A,MDM4,ACTN4,EPS8,GHR,LRRK2,SRD5A2,CCL14,RABGEF1,NSG2,LRP5,ESR1,TNFRSF19,SCF D1,PDE4D,PIK3CD,DOCK4,EFNA5,ATF2,PIK3R2,ZNF423,CY BB,SEMA6D,ADTRP,CRMP1,PDE4B,GABRB3,MAP3K7,PRKC Q,CLDN1,KCND2,TPH2,EPHB2,PRCP,PRTG,RGMB,DOCK2,D PYSL2,RFC3,BDNF,RBM4,ADORA2A,ARID5B,ANO1,FHL2,NO X4,BMPER,DEFA3,SYT1,DAB2,PLXNA2,PXDNL,EPG5,CALCR L,HDAC2,ETS1,BACH1,TTN,CDK19,ENPP1,OR4N2,NRG1,SPIN T2,FMN2,BCKDHB,TOPI,CD44,KCNMA1,CNGB1,PRKCG,MA PKAPK2,SLC8A1,FAM19A4,RSRC1,CHST11,THRB,NCAM1,AG T,FGF1,QRICH1,CCR3,NF1,NRXN1,LAMA3,PDXP,GSK3B,CD109,KCNH1,GPR21,CHD7,PSMB7,SNX5,OR51B2,NCOA1,CHEK 2,STXBP4,PHEX,SHANK2,UNC5D,NREP,GPC3,PREX1,ADAMT SL1,ZNF675,MNAT1,TRIO,CAPN3,PTPRE,DUSP22,MAP3K5,C TDSPL2,HTR2C,CCDC141,GLRA2,LY86,EPA5,TP73,IL1RL1,Z NF366,MYPN,P2RX6,ANK2,SLIT3,GRIN2B,PAK3,ADCY8,ITPR2, CCL15-CCL14,PRKAA2,PACRG,ABCG2,SEMA5B,SDK1,GRM5,IGF1R, PTPRO,MSRA,INSR,JAK1,MAP2K1,UBR2,FOXO3,CNTN6,CEN PF,RNLS,PRDM16,LTBP1,LRRK2,RARB,BMP6,FYN,EPA7,MS R1,SEL1L2,GNNG2,ENPP2,ABCA12,EPHB1,KCNQ1,EXT1,AMFR, UNC5C,ACSBG1,LRP2,C2,FER,GLDC,VWC2,ERLIN1,TMEM108,RAPGEF2,PTPRM,NCOA2,NRXN3,PTPRU,IL18R1,ESR2,KAT 7,SETD2,CDH13,VEPH1,HDAC5,SEMA3A,BDKRB2,STIM1,NR1 P1,LITAF,PIK3R3,GABRB1,RGS7,NTRK3,FBN1,PTPRK,PPARA, RORA,BRIP1,ELAVL4,EEF1E1,SEMA3D,PRLR,PTPRA,ATF6,SY T17,OR4M1,CST2,PMEP1,SYT9,SEMA3C,ST18,RXFP2</p>
GO:0048167	regulation of synaptic plasticity	0.010810155322410057	<p>NTRK2,CNTN4,SORCS2,RELN,APP,ERC2,SORCS3,GRIK2,DGK I,SLC1A1,SHISA9,TNR,GRID2,EPHB2,ERC1,MCTP1,ADORA2A, RIMS2,PRKCG,AGT,NF1,GSK3B,SHANK2,GRIN2B,ADCY8,GR M5,RASGRF2,RIMS1,RAPGEF2,SLC24A2,SHISA6</p>
GO:0002027	regulation of heart rate	0.010868876393925796	<p>DMD,RYR2,CTNNA3,CACNA1C,SLC1A1,NOS1AP,PDE4D,KCN J3,SPTBN4,TNNI3K,SLC8A1,AGT,PKP2,CACNB2,ANK2,CACNA1D,RNLS,KCND3,KCNQ1,SEMA3A</p>
GO:0048729	tissue morphogenesis	0.010939967149414292	<p>CLASPI,ZNRF3,ERBB4,ROBO1,PRICKLE2,SHROOM3,WLS,PS MB2,RYR2,VCL,MYO9A,KIF26B,PAK1,PCDH15,GREB1L,DLC1, SOS1,BTRC,MAGI2,CELSR1,ROBO2,ANKRD6,ASTN2,NPHP3, EXOC4,SULF1,SH3BP1,ARHGAP24,COL11A1,SLIT2,BMPRI1, SMAD3,EYA1,OVOL2,NTN1,MDM4,CECR2,LRP5,ESR1,ARHGA</p>

			<i>P12,PIK3CD,CSMD1,DAB2,TTN,NRG1,SPINT2,CD44,AGT,FGF1,LAMA3,PKP2,CHD7,PSMB7,GPC3,DLG5,ROR1,MLLT3,SUFU,GPC6,KLHL3,ADAMTS16,PKHD1,PBX1,EPHA7,EXT1,LRP2,SETD2,SEMA3A,PRKAR1A,CLASP2,SEMA3C</i>
GO:0007158	neuron cell-cell adhesion	0.011186049792641546	<i>CNTN4,NLGN1,ASTN2,NLGN4X,TNR,NRXN1,ASTN1,NRXN3</i>
GO:0007169	transmembrane receptor protein tyrosine kinase signaling pathway	0.011294508177385275	<i>PTPRR,KALRN,NTRK2,PTPRG,ERBB4,ROBO1,ANKS1A,PTPRT,PLCB1,FLT3,PRKD1,NEDD9,KANK1,DOK6,PAK1,IDE,SOS1,ALK,RPS6KA5,JAK2,SMOC2,NRG3,COL4A6,SULF1,ANKS1B,FLRT2,PLCE1,GHR,RABGEF1,PIK3CD,EFNA5,PIK3R2,PRKCQ,EPHB2,BDNF,ARID5B,FSTL4,ABI1,ENPP1,NRG1,MAPKAPK2,AGT,FGF1,NF1,NRXN1,GSK3B,GPR21,SNX5,STXBP4,ROR1,PTPRE,EPHA5,PAK3,IGF1R,INSR,FYN,EPHA7,EPHB1,EXT1,FER,TMEM108,RAPGEF2,CDH13,BDKRB2,PIK3R3,NTRK3,CLASP2,PRLR,PTPRA</i>
GO:0051961	negative regulation of nervous system development	0.011507547969828386	<i>CTNNA1,SEMA5A,PPP3CA,ROBO2,DCC,SEMA4D,BMPRI4,BRINP1,NTN1,MAP2,TNR,SEMA6D,EPHB2,PTRG,FSTL4,NF1,SEMA5B,EPHA7,TRPC5,RAPGEF2,DAB1,SEMA3A,NTRK3,SEMA3D,SEMA3C</i>
GO:0060537	muscle tissue development	0.012111160103670844	<i>RCAN1,DMD,ERBB4,NEBL,HDAC4,RYR2,RUNX1,PPP3CA,RYR1,AKAP6,MEF2A,AKAP13,HIVEP3,EP300,SOX6,COL11A1,BMPRI4,SMAD3,EYA1,ELN,MYO18B,TENM4,FHL2,NOX4,TTN,NRGI,SLC8A1,AGT,NF1,PKP2,CTDP1,CHD7,PGM5,TP73,NEB,NLN,CENPF,RBFOX1,RARB,COL19A1,SGCZ,EPHB1,FHOD3,LRP2,SGCD,PRKAR1A,PPARA,MYH15,SEMA3C</i>
GO:0007015	actin filament organization	0.012484133321440664	<i>CTNNA1,CLASP1,DMD,SHROOM3,CIT,NEBL,NEDD9,SEMA5A,CALD1,KANK1,DIAPH2,PLS1,FCHSD2,PAK1,PCDH15,DLC1,CTNNA3,ELMO2,TF,JAK2,PARK2,SH3BP1,SLIT2,SMAD3,ELN,ARHGEF18,GAS7,ARHGAP6,EP8,PPP1R9A,ARHGAP12,RHPN2,SPTBN4,ABI1,MICAL3,TTN,CTNNA2,FMN2,CDC42EP3,ARHGAP25,PDXP,TRIOBP,PREX1,FAM171A1,PAK3,NEB,PHACTR1,FHOD3,FER,SHROOM4,MPRI1,TENM1,SH3KBP1,CLASP2</i>
GO:0072001	renal system development	0.01273692097350113	<i>ERBB4,ADAMTS6,KIF26B,GREB1L,MAGI2,ROBO2,NPHP3,SULF1,SLIT2,TRAF3IP2,SMAD3,EYA1,WWTR1,PCSK5,PLCE1,AP2B1,ARID5B,BMPER,NFIA,AGT,FGF1,NF1,GPC3,DLG5,TP73,PTPRO,KLHL3,CENPF,ADAMTS16,LRRK2,PKHD1,RARB,PBX1,BMP6,EPHA7,EXT1,LRP2,KIRREL3,DCHS2,BASP1,FBN1,BICCI</i>
GO:0023056	positive regulation of signaling	0.01292462070753521	<i>CAMTA1,CACNG2,CTNNA1,NTRK2,SLC39A10,SPRED2,ERBB4,LAMA2,ROBO1,PUM1,GPC5,WDR59,WWOX,AUTS2,WLS,PSMB2,PLCB1,FLT3,PRKD1,SEMA5A,PRKCA,KANK1,DOK6,NLGN1,TNFRSF10B,CLEC16A,TCF7L2,RELN,APP,PAK1,AKAP6,SOS1,ALK,MAP2K5,EDA,ROBO2,AKAP13,EP300,SEMA4D,EVC,ANKRD6,GRIK2,JAK2,PARK2,ADCYAP1R1,SMOC2,SULF1,TRIM5,TRAF3IP2,SH3RF3,BMPRI4,SMAD3,PIBF1,SCUBE1,TNKS,DGKI,SLC1A1,CDC73,NOS1AP,GRM4,CCL15,TNR,ACTN4,PLCE1,GHR,CLSTN2,CD300A,DISC1,CCL14,TNFRSF19,GRM1,PIK3CD,ZNF423,MAPRE2,MAP3K7,EPHB2,AGO3,EEF1E1-BLOC1S5,BDNF,FNIP1,ADORA2A,ANO1,NOX4,BMPER,SYT1,DAB2,NSF,LRRK1,CACNG3,MYRIP,RIMS2,PRDM15,NRG1,RIT2,CD44,PRKCG,MAP3K13,AGT,FGF1,NF1,NRXN1,GSK3B,PSMB7,SNX5,IQCJ-SCHIP1,CACNB2,SHANK2,GPC3,DLG5,UBE2V1,ROR1,BID,MACF1,DUSP22,MAP3K5,HTR2C,LY86,TP73,ARHGEF3,GRIN2B,ADCY8,MLLT3,SH3RF2,TBL1X,GRM5,IGF1R,INSR,MAP2K1,RASGRF2,CNTN6,LRRK2,BMP6,FYN,GAS8,RIMS1,CRADD,LRP2,TMEM108,RAPGEF2,IL18R1,TRIM22,CDH13,SEMA3A,MGAT5,LITAF,TENM1,ZRANB1,VWF,SLC24A2,SCEL,NTRK3,EEF1E1,PRLR,ATF6</i>
GO:0030111	regulation of Wnt signaling pathway	0.013638642828641733	<i>RNF43,ZNRF3,GPC5,WWOX,WLS,PSMB2,SEMA5A,KANK1,TCF7L2,APP,CTNND2,BTRC,EDA,ANKRD6,PARK2,NPHP3,SULF1,SMAD3,TNKS,CDC73,RBMS3,WWTR1,DISC1,TRABD2B,IFT80,DAB2,LRRK1,PRDM15,WIF1,GSK3B,PSMB7,GPC3,MACF1,MLLT3,RNF213,TBL1X,PTPRO,FOXO3,LRRK2,AMFR,PTPRU,ZRANB1,SCEL,SHISA4,BICC1</i>
GO:0043412	macromolecule modification	0.013869123596702912	<i>PTPRR,RNF4,CAMTA1,CHFR,KDM4B,RCAN1,KALRN,RNF43,RPS6KA2,NTRK2,ZNRF3,PTPRG,FBXL17,SLC39A10,DMD,CHRM3,SPRED2,PHKB,ERBB4,NOS1,ROBO1,MYO3A,CIT,FRY,HUNK,FUT8,HDAC4,AUTS2,LDLRAD4,BLM,PSMB2,PTPRT,ATF7IP,FLT3,SRPK2,PRKD1,NEDD9,PPP2R3C,CASK,PRKCA,SLC03A1,USP53,TNFRSF10B,CAMK1D,RELN,APP,PAK1,PPP3CA,TO</i>

			<p>X,PTPN9,MGAT4C,GALNT14,DLC1,ALK,BTRC,DCLK1,MAP2K5,DNMT1,MAGI2,AKAP13,C10ORF90,DDDB1,EP300,PARN,SEMA4D,RPS6KA5,PHF20,GRK5,BDKRB1,MAN2B1,HUS1,ZDHHC11B,JAK2,FPGT-TNNI3K,PPP6R2,MAST4,PARK2,HLC5,MAN1A1,NRG3,RFFL,S H3GL2,SLIT2,MAPK4,KMT2C,TRIM5,ATRX,TRAF3IP2,SH3RF3,BMPRI1A,PRKAR2A,BORA,PIBF1,PIK3C3,PEAK1,EYA1,EGFLAM,TNKS,ELP3,ARRDC4,ZDHHC11,PTPRN2,UBE2R2,TAF1,SLC1A1,RNF144B,EPM2A,CDC73,FBXW11,NOS1AP,MKRN3,WWTR1,PHF20L1,ST3GAL3,EGLN3,ARID4B,DOCK3,TRIM59,TTL8,CDKAL1,CDKL1,PLCE1,MACROD1,GHR,PDZRN3,CD300A,TLL11,RABGEF1,TRABD2B,LRP5,PDE4D,PIK3CD,EFNA5,MRM1,FTO,ATF2,ADTRP,FBXL7,PPA2,MAP3K7,PRKCQ,N4BP1,GALNT8,USP12,JDP2,TLL5,SPTBN4,TMTC1,EPHB2,ERC1,MOB3B,PTPDC1,MARK1,BDNF,FNIP1,ADORA2A,NOX4,BCOR,BMPER,ICK,DAB2,LRRK1,PRKG1,ABI1,TNNI3K,HDAC2,ARID4,PRKAR1B,TTN,CDK19,ENPP1,KSR2,ZZZ3,PARD3,NRG1,DPY19L1,TOPI,RIT2,CD44,PRKCG,MAPKAPK2,SLC8A1,FBXO31,MAP3K13,PLCL2,RSRC1,CDC42BP4,B3GALT5,MAPK10,AGT,FGF1,DYRK4,TLK1,SUMF1,NF1,NRXN1,AGBL1,PDXP,GSK3B,ST6GALNAC3,CTDP1,SETD3,CD109,LMO7,WDR70,PSMB7,MOV10L1,CNTN1,TRIOBP,NCOA1,CHEK2,PHEX,MECOM,STK32B,RSPRY1,UBE2E2,CPE,UBE2V1,ROR1,ZNF675,MNAT1,TRIO,CAPN3,TRMT61B,PTPRE,MYO3B,DUSP22,ST6GALNAC5,MAP3K5,CTDSPL2,EPHA5,RNF144A,MORC3,SUPT3H,SHPRH,PAK3,DPH6,ADCY8,RNF213,SH3RF2,PRKAA2,TBL1X,GRM5,IGF1R,PTPRO,ZDHHC14,MSRA,INSR,JAK1,MAP2K1,UBR2,FBXL18,STK38,KLHL3,CDC14A,AGBL4,PRDM16,ULK4,DNMT3B,LRRK2,BMP6,FYN,EPHA7,SEL1L2,PTPN14,ENPP2,EPHB1,EXT1,TRPC5,AMFR,FER,CAMK4,GUCY2F,TPTE,RAPGEF2,PTPRM,CDKL5,PTPRU,MACROD2,KAT7,TMTC2,SETD2,TRIM22,DAB1,HDAC5,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,STK38L,LARGE,ST8SIA1,PRKAR1A,ZRANB1,KANSL1,DPY19L2,NTRK3,DNAJC6,NSUN2,PTPRK,PTPRD,GALNTL6,PRLR,PTPRA,CEP41,DEPTOR,CUL2,PMEP1,UBE3C</p>
GO:0035295	tube development	0.013876673426291787	<p>NTRK2,ROBO1,SHROOM3,RXFPI1,SRPK2,PRKD1,RYR2,SEMA5A,PRKCA,CALD1,KIF26B,RUNX1,AMOTL1,ADAM12,PAK1,GREB1L,DLC1,SOS1,BTRC,MAP2K5,EDA,CELSRI,ROBO2,EP300,QKI,NPHP3,SMOC2,SULF1,OTC,ARHGAP24,SLIT2,ATRX,BMPRI1A,SMAD3,EYA1,OVOL2,SLC1A1,NTN1,WWTR1,PCSK5,MYO18B,VAV3,CECR2,CBFA2T2,LRP5,ESR1,PIK3CD,ATF2,CYBB,ADTRP,EPHB2,PRCP,COL22A1,CSMD1,BMPER,PLXNA2,CALCRL,ETS1,SPINT2,ISM1,THRB,AGT,FGF1,CCR3,NF1,NRXN1,CHD7,THSD7A,RHOJ,PHEX,GPC3,DLG5,RNF213,SUFU,JAK1,MAP2K1,KLHL3,ADAMTS16,PKHD1,RARB,PBX1,EPHA7,ENPP2,ABCA12,EPHB1,KCNQ1,VASH2,EXT1,NOX5,LRP2,SGCD,RAPGEF2,PTPRM,NRXN3,SETD2,CDH13,BASPI,HDAC5,MYH9,STIM1,PIK3R3,RORA,BRIP1,SEMA3C</p>
GO:0001822	kidney development	0.014512964146761669	<p>ERBB4,ADAMTS6,KIF26B,GREB1L,MAGI2,ROBO2,NPHP3,SUFL1,SLIT2,TRAF3IP2,SMAD3,EYA1,WWTR1,PCSK5,PLCE1,AP2B1,ARID5B,BMPER,AGT,FGF1,NF1,GPC3,DLG5,TP73,PTPRO,KLHL3,CENPF,ADAMTS16,LRRK2,PKHD1,RARB,PBX1,BMP6,EPHA7,EXT1,LRP2,KIRREL3,DCHS2,BASPI,FBN1,BICC1</p>
GO:0006836	neurotransmitter transport	0.015036599002933741	<p>SYN3,NOS1,CASK,NLGN1,ERC2,PARK2,GRIN3A,SV2B,PTPRN2,DGKI,SLC1A1,GRM4,MCTP1,ADORA2A,CADPS,SYT1,SNAP23,RIMS2,PRKCG,NF1,NRXN1,GSK3B,SLC22A3,UNC13A,CACNB2,LRRK2,RIMS1,MCTP2,NRXN3,STXBP5,BLOC1S6,SYT9</p>
GO:0098771	inorganic ion homeostasis	0.015257977186236638	<p>SLC39A10,DMD,NOS1,CACNA1A,TRPM1,PRKD1,RYR2,BTBD9,APP,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,TF,GRIK2,JAK2,CMKLRI,PARK2,ADCYAP1R1,CACNA1C,TMPRSS3,OTC,SLC4A4,SMAD3,SLC9C1,PTGFR,SLC1A1,KCTD7,ANK3,CCL15,PLCE1,DISC1,CCL14,SLC30A7,ESR1,GRM1,PDE4D,SLC24A3,S1PR3,ADORA2A,CDH23,ENPP1,CYB561A3,KCNMA1,SLC12A8,SLC8A1,SLC9A9,AGT,HEPHL1,CCR3,CHD7,SNX5,CACNB2,PTGER3,CAPN3,HTR2C,ANK2,GRIN2B,ADCY8,ITPR2,GRM5,SLC9B1,LRRK2,PKHD1,BMP6,FYN,CLN6,KCNQ1,EXT1,TRPC5,NOX5,SGCD,TMTC2,TRDN,ATP13A3,BDKRB2,STIM1,SLC24A2</p>
GO:0055080	cation homeostasis	0.015320219021982374	<p>SLC39A10,DMD,NOS1,CACNA1A,TRPM1,PRKD1,RYR2,BTBD9,APP,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,TF,GRIK2,JAK2,CMKLRI,PARK2,ADCYAP1R1,CACNA1C,TMPRSS3,OTC,SLC4A4,SMAD3,SLC9C1,PTGFR,SLC1A1,KCTD7,ANK3,CCL15,PLCE1,DISC1,CCL14,SLC30A7,ESR1,GRM1,PDE4D,SLC24A3,S1PR3,ADORA2A,CDH23,CYB561A3,KCNMA1,SLC12A8,SLC8A1,SLC</p>

			9A9,AGT,HEPHL1,CCR3,CHD7,SNX5,CACNB2,PTGER3,CAPN3,HTR2C,ANK2,GRIN2B,ADCY8,ITPR2,GRM5,SLC9B1,LRRK2,PKHD1,BMP6,FYN,CLN6,KCNQ1,EXT1,TRPC5,NOX5,SGCD,TMTC2,TRDN,ATP13A3,BDKRB2,STIM1,SLC24A2
GO:0006996	organelle organization	0.015912756231303837	RNF4,CHFR,KDM4B,RPS6KA2,NDE1,CTNNA1,CLASP1,SYNE1,DMD,ERBB4,SHROOM3,MDN1,CIT,TBCD,NEBL,HDAC4,ARFGAP3,IMMP2L,ATP8A2,AUTS2,BLM,ATF7IP,PLCB1,SRPK2,PRKD1,PDS5A,NEDD9,PPP2R3C,SEMA5A,PRKCA,EPB41L4B,STX8,PDE4DIP,CALD1,KANK1,DIAPH2,PLS1,FCHSD2,NLGN1,SMG6,CLEC16A,AMOTL1,TCF7L2,RELN,PAK1,UTRN,TOX,PCDH15,DLC1,SCMH1,MEF2A,CTNNA3,DNMT1,CELSR1,IFT81,AKAP13,ELMO2,C10ORF90,EP300,PARN,PHF20,NME8,TF,HUS1,JAK2,MAST4,PARK2,NPHP3,PNPLA3,PIK3C2B,AFAP1,LRRCA9,CHCHD6,SH3BP1,SLIT2,SYNM,KMT2C,ATRX,RAD51B,SLX1B,SMAD3,BORA,PIBF1,PIK3C3,CHD6,EYA1,SATB2,HSF2BP,ELN,MAD1L1,TNKS,TUB,ARHGEF18,DNAJB6,OMA1,SPAG17,EPM2A,MAP2,FBXW11,NOS1AP,RANBP10,WWTR1,GAS7,ARHGAP6,CHAF1B,STARD9,ANK3,MORC2,ARID4B,TTL8,VAV3,CDKL1,ACTN4,RAB2A,PLCE1,TACC2,EPSS8,CECR2,PPP1R9A,TTL11,DISC1,ATP8B4,IFT43,LRP5,NAV2,ESR1,ARHGAP12,SCFD1,THEM4,BLOC1S5,ARMC2,EFNA5,TLN2,KLHL1,ATF2,PHACTR2,GRID2,ZNF423,CRMP1,MAPRE2,PRKCQ,RASSF8,RHPN2,WDR83OS,TTL5,SPTBN4,DOCK2,DYSL2,PTPDC1,RFC3,MARRK1,IFT80,DYM,MCM3,CCDC170,TTC39C,BCOR,ICK,THSD7B,BRD9,SYT1,AFF2,PRKG1,STXBP6,SNAP23,AB11,MICAL3,HDAC2,ETSI,BANP,ARID4A,RAB30,ZMYND11,TTN,HEPACAM2,CTNNA2,PEX5L,LRCH3,FMNL2,PARD3,ATP10B,FMN2,TOPI,GP5M2,ZFYVE1,CDC42BPA,CDC42EP3,SAMM50,STRIP1,TLK1,ARHGAP25,NF1,VPS16,PARVB,NRXN1,ARHGAP10,PDXP,GSK3B,PKP2,CTDP1,SETD3,BBS9,CHD7,MOV10L1,THSD7A,IQCF-SCHIP1,UNC13A,TRIOBP,CABIN1,CHEK2,RHOJ,ESYT2,MECOM,PGM5,PREX1,BID,MACF1,MNAT1,CAPN3,SPAG16,FGD4,EPHA5,HIRA,FAM171A1,MYPN,ANK2,SHPRH,PAK3,PRRC2C,MLLT3,NEB,ITGB3BP,RNF213,PRKAA2,CHCHD3,ANKFN1,TRAPPC8,TSNARE1,INSR,RPGR,MAP2K1,UBR2,KPNB1,CENPF,SPKCC1L,CDC14A,PRDM16,FRMD5,ULK4,ADAMTS16,LRRK2,PKHD1,KIF2A,SPG11,PHACTR1,TMEM170A,VTI1A,ASAP1,FRMPD4,GAS8,CLN6,L3MBTL4,KCNQ1,FHOD3,EXT1,FER,TMEM108,SHROOM4,NAV3,CENPP,CDKL5,ZNF207,MPRIIP,KAT7,ATB1,SETD2,PACSIN2,TRDN,SEC16B,HDAC5,MYH9,VPS41,TENMI,VPS39,SH3KBP1,PRKAR1A,ZRANB1,SIPA1L3,KANSL1,NTRK3,HYDIN,CEP89,DIS3L2,CLASP2,NCKAP5,PTPRD,BRIP1,ANXA8L1,CEP41,SMIM20,RAD51D,RAB27A,TUBGCP6,BLOC1S6,PARD3B,SYT9
GO:0071805	potassium ion transmembrane transport	0.016627733434804816	KCNK2,DPP10,KCNIP4,AKAP6,KCNB2,KCNA6,DPP6,KCNJ16,SLC9C1,NOS1AP,ANK3,KCNN3,KCNJ12,KCNJ3,KCND2,SLC24A3,KCNMA1,SLC12A8,SLC9A9,KCNQ5,KCNJ6,KCNH1,KCNS3,ANK2,CACNA1D,KCND3,KCNQ1,KCNH7,RGS7,SLC24A2,KCN C4,KCNJ15
GO:0051146	striated muscle cell differentiation	0.017018947238693013	RCAN1,DMD,NOS1,NEBL,HDAC4,MYEF2,ADAM12,PPP3CA,RYR1,AKAP6,MEF2A,AKAP13,SOX6,BMPRI1A,MYO18B,BDNF,FHL2,NOX4,TTN,NRG1,SLC8A1,AGT,CTDP1,KCNH1,PGM5,CAPN3,MYPN,NEB,NLN,RARB,FHOD3,SGCD,HDAC5,MYH9,TAN C1,PRKAR1A,PPARA
GO:0000165	MAPK cascade	0.018873532628384072	PTPRR,NTRK2,DMD,SPRED2,ERBB4,ROBO1,PSMB2,PLCB1,FLT3,PRKCA,DOK6,APP,PAK1,ALK,MEF2A,MAP2K5,AKAP13,ANKRD6,TF,GRIK2,JAK2,PARK2,MAPK4,TRIM5,SH3RF3,SMAD3,FGF14,ARHGEF6,GRM4,CCL15,PLCE1,GHR,CD300A,CCL14,TNFRSF19,GRM1,EIF3A,ATF2,PIK3R2,MAP3K7,EPHB2,MAGI3,NOX4,BMPER,DAB2,ZMYND11,PRDM15,NRG1,RIT2,CD44,MAPKAPK2,MAP3K13,MAPK10,AGT,FGF1,NDRG2,NF1,NRXN1,PSMB7,MECOM,ROR1,ZNF675,DUSP22,MAP3K5,HTR2C,TP73,PAK3,SH3RF2,GRM5,IGF1R,INSR,MAP2K1,STK38,ULK4,LRRK2,PKHD1,EPHA7,MARVELD3,EPHB1,RAPGEF2,SEMA3A,TENMI,NTRK3
GO:0050768	negative regulation of neurogenesis	0.019531699750289556	CTNNA1,SEMA5A,PPP3CA,DCC,SEMA4D,BMPRI1A,BRINP1,NTN1,MAP2,TNR,SEMA6D,EPHB2,PRTG,FSTL4,NF1,SEMA5B,EPHA7,TRPC5,RAPGEF2,DAB1,SEMA3A,NTRK3,SEMA3D,SEMA3C
GO:0055082	cellular chemical homeostasis	0.020508128214212044	SLC39A10,DMD,NOS1,CACNA1A,TRPM1,PRKD1,RYR2,ZBTB20,APP,PPP3CA,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,TF,GRIK2,JAK2,CMKLR1,ADCYAP1R1,CACNA1C,TMPRSS3,SLC4A4,SMAD3,SLC9C1,PTGFR,PTPRN2,SLC1A1,KCTD7,CCL15,PLCE1

			<i>,LRRK8D,DISC1,CCL14,LRP5,SLC30A7,ESR1,GRM1,PDE4D,EFNA5,PIK3R2,SLC24A3,SIPR3,ANO1,NOX4,CDH23,ENPP1,CYB561A3,KCNMA1,SLC8A1,SLC9A9,AGT,HEPHL1,CCR3,CHD7,CACNB2,STXBP4,PTGER3,CAPN3,HTR2C,EPHA5,ANK2,GRIN2B,ADCY8,ITPR2,PRKAA2,GRM5,IGF1R,SLC9B1,FOXO3,LRRK2,PKHD1,BMP6,FYN,CLN6,ABCA12,KCNQ1,TRPC5,NOX5,TRDN,ATP13A3,BDKRB2,STIM1,SLC24A2</i>
GO:1902532	negative regulation of intracellular signal transduction	0.020825748020834034	<i>PTPRR,RCAN1,DMD,SPRED2,CIT,KANK1,DEPDC5,DLC1,MAGI2,PARK2,SH3BP1,RFFL,ARHGAP24,SLIT2,MAD1L1,LINC00473,FBXW11,TRIM59,CD300A,ARHGAP42,RABGEF1,ESR1,ARHGAP12,PDE4D,EIF3A,PIK3R2,EPHB2,FNIP1,FHL2,DAB2,PDE11A,ZMYND11,PRDM15,CD44,AGT,NDRG2,ARHGAP25,NF1,GSK3B,CHEK2,MECOM,SHANK2,DLG5,ZNF675,BID,UACA,SH3RF2,PRKAA2,IGF1R,UBR2,STK38,LRRK2,PKHD1,MARVELD3,BDKRB2,LITAF,PPARA,RORA,DEPTOR</i>
GO:0070588	calcium ion transmembrane transport	0.02174521509349054	<i>CACNG2,DMD,NOS1,TMC2,CACNA1A,TRPM1,PRKD1,RYR2,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,GRIN3A,CACNA1C,TRPM3,CACNA1E,CACNA2D3,NOS1AP,CATSPER2,PDE4D,PDE4B,SLC24A3,CACNG3,SLC8A1,CHD7,CACNB2,CAPN3,HTR2C,ANK2,GRIN2B,ITPR2,CACNA1D,PKD1L1,FYN,TRPC5,TRDN,CACHD1,STIM1,SLC24A2,STAC</i>
GO:0060429	epithelium development	0.021935525998854323	<i>CLASPI,ZNRF3,DMD,SPRED2,KAZN,ERBB4,ROBO1,PRICKLE2,SHROOM3,PSMB2,PLCB1,RYR2,VCL,MYO9A,KIF26B,PLS1,PAK1,PCDH15,GREB1L,DLC1,SOS1,BTRC,MAGI2,EDA,CELSR1,ROBO2,EP300,ANKRD6,ASTN2,JAK2,NPHP3,SULF1,SH3BP1,ARHGAP24,SLIT2,ATRX,RAD51B,BMPR1A,SMAD3,SCUBE1,EYA1,OVOL2,NTN1,LDB2,WWTR1,ARID4B,CECR2,CBF42T2,STRC,LRP5,ESR1,ARHGAP12,TNFRSF19,PDE4D,PIK3CD,CERS3,CLDN1,SIPR3,COL22A1,CSMD1,BMPER,DAB2,PLXNA2,ABII,HDAC2,ARID4A,CDH23,NRG1,SPINT2,CD44,THRB,AGT,FGF1,USH2A,NF1,LAMA3,GSK3B,CD109,CHD7,PSMB7,TRIOBP,GP3,DLG5,ROR1,MLLT3,PTPRO,SUFU,MAP2K1,GPC6,KLHL3,ADAMTS16,PKHD1,RARB,PBX1,BMP6,EPHA7,ABCA12,KCNQ1,EXT1,LRP2,RAPGEF2,SETD2,BASP1,SEMA3A,SIPAIL3,SCEL,HYDIN,CLASP2,NSUN2,FNDCA3,PRLR,SEMA3C</i>
GO:0050805	negative regulation of synaptic transmission	0.022996489429565666	<i>SORCS2,SORCS3,GRIK2,PARK2,NLGN4X,DGKI,TNR,CELF4,GRID2,NF1,GRIK3,SHANK2,ADCY8,LRRK2,PCDH17,SLC24A2</i>
GO:0098662	inorganic cation transmembrane transport	0.023084934103325582	<i>CACNG2,SLC39A10,DMD,KCNC2,NOS1,TMC2,DPP10,CACNA1A,TRPM1,PRKD1,RYR2,KCNIP4,UTRN,RYR1,AKAP6,RYR3,KCNB2,FAM155A,KCNA6,BDKRB1,DPP6,GRIN3A,CACNA1C,SLC5A10,TRPM3,KCNJ16,SLC4A4,CACNA1E,SLC9C1,SLC47A1,FGF14,CACNA2D3,SLC1A1,NOS1AP,CATSPER2,ANK3,SCN9A,ACTN4,KCNN3,PDE4D,KCNJ12,KCNJ3,PDE4B,KCND2,SLC24A3,CACNG3,TMEM163,SLC39A11,SCN84,KCNMA1,SLC12A8,SLC8A1,SLC9A9,KCNQ5,KCNJ6,KCNH1,CHD7,CACNB2,KCNS3,CAPN3,HTR2C,ANK2,GRIN2B,ITPR2,CACNA1D,PKD1L1,SLC9B1,SCN1A,FYN,KCND3,KCNQ1,TRPC5,NOX5,KCNH7,TRDN,CACHD1,STIM1,RGS7,SLC24A2,KCNC4,STAC,KCNJ15</i>
GO:0051240	positive regulation of multicellular organismal process	0.023623625849410655	<i>KALRN,NTRK2,CHRM3,ERBB4,ESRRG,ROBO1,DSCAM,HDAC4,LINGO2,ATP8A2,PLCB1,PRKD1,RYR2,PPP2R3C,SEMA5A,PRKCA,ZBTB20,IL1RAPL1,DIO2,RUNX1,PLS1,NLGN1,TCF7L2,RELN,APP,ADAM12,PPP3CA,TOX,AKAP6,RFTN1,MEF2A,ROBO2,SEMA4D,JAK2,CMKLR1,SMOC2,NUMB,SOX6,SULF1,CD84,SLIT2,BMPR1A,SMAD3,PIBF1,SCAMP5,OVOL2,OMA1,SOX5,SLC1A1,NTN1,FLRT2,WWTR1,PEMT,CUX1,CDH4,TNR,TENM4,GHR,CLSTN2,PRG3,DISC1,PDE4D,PIK3CD,TEAD4,EFNA5,ATF2,GRID2,CYBB,PDE4B,MAP3K7,PRKCQ,SPTBN4,EPHB2,BDNF,ADORA2A,BMPER,DAB2,PLXNA2,PTH2R,HDAC2,ETSI,RIMS2,KSR2,PARD3,NRG1,MAPKAPK2,SLC8A1,FBXO31,MAP3K13,AGT,FGF1,CCR3,NRXN1,GPR21,CHD7,SNX5,TLAM2,ISLR2,DLG5,PTGER3,MACF1,TP73,RBM19,IL1RL1,PAK3,GRM5,IGF1R,JAK1,MAP2K1,FOXO3,PRDM16,KIR2DL4,LRRK2,BMP6,RIMS1,EPHB1,KCNQ1,VASH2,TRPC5,NOX5,LRP2,CDKL5,IL18R1,SETD2,BASP1,SEMA3A,STIM1,SYNDIG1,PTPRD,RORA,NELL1,PRLR</i>
GO:0001655	urogenital system development	0.02482223088309361	<i>ERBB4,ADAMTS6,KIF26B,GREB1L,MAGI2,ROBO2,NPHP3,SULF1,SLIT2,TRAF3IP2,SMAD3,EYA1,WWTR1,PCSK5,PLCE1,AP2B1,ESR1,EPHB2,ARID5B,BMPER,NF1A,AGT,FGF1,NF1,GPC3,DLG5,TP73,PTPRO,KLHL3,CENPF,ADAMTS16,LRRK2,PKHD1,RARB,PBX1,BMP6,EPHA7,EXT1,LRP2,KIRREL3,DCHS2,BAS</i>

			<i>P1,FBNI,BICCI,PRLR</i>
GO:0006813	potassium ion transport	0.02638331407655843	<i>KCNC2,NOS1,DPP10,KCNIP4,AKAP6,KCNB2,KCNA6,DPP6,KCNJ16,SLC9C1,NOS1AP,ANK3,KCNN3,KCNJ12,KCNJ3,KCND2,SLC24A3,NSF,KCNMA1,SLC12A8,SLC9A9,KCNQ5,KCNJ6,KCNH1,KCNS3,ANK2,CACNA1D,KCND3,KCNQ1,KCNH7,RGS7,SLC24A2,KCNC4,KCNJ15</i>
GO:0090257	regulation of muscle system process	0.0268662210809753	<i>DMD,CHRM3,NOS1,HDAC4,RYR2,PRKCA,PPP3CA,AKAP6,MEF2A,KCNB2,CTNNA3,PPP1R12B,CACNA1C,SMAD3,PLCE1,MLIP,ARHGAP42,PDE4D,DOCK4,PDE4B,PRKG1,CALCRL,TNNI3K,KCNMA1,SLC8A1,AGT,PKP2,CTDP1,SETD3,ANK2,FOXO3,KCNQ1,PPARA</i>
GO:0035335	peptidyl-tyrosine dephosphorylation	0.02767682826252875	<i>PTPRR,PTPRG,PTPRT,PTPN9,EYA1,PTPRN2,EPM2A,PTPDC1,PTPRE,DUSP22,PTPRO,CDC14A,PTPN14,TPTE,PTPRM,PTPRU,DNAJC6,PTPRK,PTPRD,PTPRA</i>
GO:1901890	positive regulation of cell junction assembly	0.02767682826252875	<i>NTRK2,LINGO2,ILIRAPL1,NLGN1,SEMA4D,SMAD3,FLRT2,CLSTN2,EFNA5,GRID2,CLDN1,EPHB2,BDNF,AGT,NRXN1,DLG5,CNTNAP2,EPHB1,SYNDIG1,PTPRD</i>
GO:0043408	regulation of MAPK cascade	0.02858045020226893	<i>PTPRR,NTRK2,DMD,SPRED2,ERBB4,ROBO1,PLCB1,FLT3,PRKCA,DOK6,APP,PAK1,ALK,MAP2K5,AKAP13,ANKRD6,GRIK2,JAK2,PARK2,TRIM5,SH3RF3,GRM4,CCL15,PLCE1,GHR,CD300A,CCL14,TNFRSF19,GRM1,EIF3A,PIK3R2,MAP3K7,EPHB2,MAGI3,NOX4,BMPER,DAB2,ZMYND11,PRDM15,NRG1,RET2,CD44,MAP3K13,AGT,FGF1,NDRG2,NF1,NRXN1,MECOM,ROR1,ZNF675,DUSP22,MAP3K5,HTR2C,TP73,PAK3,SH3RF2,GRM5,IGF1R,INSR,MAP2K1,STK38,ULK4,LRRK2,PKHD1,EPHA7,MARVELD3,EPHB1,RAPGEF2,SEMA3A,TENM1,NTRK3</i>
GO:0140058	neuron projection arborization	0.02892775205236707	<i>MYO9A,NLGN1,NTNG1,MAP3K13,GRIP1,MACF1,LRRK2,PHACTR1,LRP2,SEMA3A</i>
GO:0055065	metal ion homeostasis	0.03010532316894354	<i>SLC39A10,DMD,NOS1,CACNA1A,TRPM1,PRKD1,RYR2,BTBD9,APP,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,TF,GRIK2,JAK2,CKMLR1,PARK2,ADCYAP1R1,CACNA1C,TMPRSS3,SMAD3,PTGFR,SLC1A1,KCTD7,ANK3,CCL15,PLCE1,DISC1,CCL14,SLC30A7,ESR1,GRM1,PDE4D,SLC24A3,SIPR3,ADORA2A,CDH23,CYB561A3,KCNMA1,SLC12A8,SLC8A1,AGT,HEPHL1,CCR3,CHD7,SNX5,CACNB2,PTGER3,CAPN3,HTR2C,ANK2,GRIN2B,ADCY8,ITPR2,GRM5,PKHD1,BMP6,FYN,KCNQ1,EXT1,TRPC5,NOX5,SGCD,TMTC2,TRDN,ATP13A3,BDKRB2,STIM1,SLC24A2</i>
GO:0060079	excitatory postsynaptic potential	0.03012645082053460	<i>NLGN1,RELN,APP,PPP3CA,GRIK2,NLGN4X,DGKI,CELF4,GRI2,ADORA2A,RIMS2,NRXN1,GSK3B,GLRA2,P2RX6,GRIN2B,LRRK2,RIMS1,TMEM108</i>
GO:0140352	export from cell	0.03014486179677377	<i>SYN3,KALRN,NTRK2,CLASP1,ATP9A,ARFGAP3,ABCC1,WLS,CASK,ILIRAPL1,NLGN1,TCF7L2,PAK1,PPP3CA,ERC2,GRAM7,SYTL5,ITSN1,JAK2,PARK2,GRIN3A,EXOC4,CD84,SLC4A4,PIK3C3,SLC47A1,TPH1,SCAMP5,PTPRN2,DGKI,PCSK5,GRM4,CD300A,RABGEF1,LRP5,PIK3CD,FRMD4A,EFNA5,ADTRP,MCTP1,ADORA2A,ANO1,CADPS,SYT1,DAB2,NSF,STXBP6,SNAP23,MICAL3,TTN,MYRIP,RIMS2,PRKCG,SLC8A1,AGT,NF1,NRXN1,GSK3B,CHD7,UNC13A,CACNB2,STXBP4,CPE,MYOM1,HTR2C,EPHA5,ADCY8,ABCG2,LRRK2,BMP6,KCND3,RIMS1,MCTP2,ABC A12,KCNQ1,FER,NRXN3,EXOC6B,MYH9,STXBP5,CLASP2,SCFD2,SYT17,RAB27A,BLOC1S6,SYT9</i>
GO:2001222	regulation of neuron migration	0.03036420276221555	<i>RELN,NRG3,FLRT2,NTNG1,CTNNA2,NRG1,FBXO31,UNC5D,ULK4,PHACTR1,RAPGEF2,SEMA3A</i>
GO:0044087	regulation of cellular component biogenesis	0.03055739290364707	<i>RNF4,NTRK2,CLASP1,TBCD,HDAC4,LINGO2,AUTS2,LDLRAD4,TENM2,ATF7IP,VCL,PRKCA,ILIRAPL1,PDE4DIP,KANK1,FC HSD2,NLGN1,APP,PAK1,DLC1,DNMT1,ROBO2,C10ORF90,EP300,SEMA4D,NEGR1,PARK2,ARHGAP24,SLIT2,SLX1B,SMAD3,PEAK1,ELN,ARHGEF18,DNAJB6,ILIRAPL2,SKAP1,NTN1,LDB2,MAP2,FLRT2,ARHGAP6,MORC2,CDKL1,PLCE1,EPH2,CLSTN2,TRABD2B,ESR1,SCFD1,EFNA5,GRID2,RHPN2,CLDN1,SPTBN4,EPHB2,BDNF,FNIP1,STXBP6,NRG1,GPSM2,CDC42EP3,AGT,NRXN1,GSK3B,TRIOBP,DLG5,BID,MACF1,DUSP22,PAK3,PRKAA2,CNTNAP2,GPC6,LRFN5,ADAMTS16,LRRK2,ASAP1,EPHA7,EPHB1,FHOD3,FER,RAPGEF2,NAV3,CDKL5,TENM1,STXBP5,NTRK3,CLASP2,DNM3,SYNDIG1,PTPRD,PTPRA,PMEPA1</i>
GO:0050771	negative regulation of	0.03222798537989792	<i>SEMA5A,DCC,SEMA4D,NTN1,MAP2,TNR,SEMA6D,EPHB2,FSTL4,SEMA5B,EPHA7,DAB1,SEMA3A,SEMA3D,SEMA3C</i>

	axonogenesis		
GO:0050806	positive regulation of synaptic transmission	0.03699651553343805	CACNG2,NTRK2,LAMA2,NLGN1,RELN,APP,GRIK2,SLC1A1,TNRC18,CLSTN2,EPHB2,ADORA2A,SYT1,CACNG3,RIMS2,PRKCG,NF1,NRXN1,GSK3B,CACNB2,SHANK2,GRIN2B,ADCY8,RASGRF2,RIMS1,SLC24A2
GO:0050801	ion homeostasis	0.037367852260193485	SLC39A10,DMD,NOS1,CACNA1A,TRPM1,PRKD1,RYR2,PPP2R3C,BTBD9,APP,RYR1,AKAP6,RYR3,FAM155A,BDKRB1,TF,GRIK2,JAK2,CMKLR1,PARK2,ADCYAP1R1,CACNA1C,TMPRSS3,OTC,SLC4A4,SMAD3,SLC9C1,PTGFR,SLC1A1,KCTD7,ANK3,CCL15,PLCE1,DISC1,CCL14,SLC30A7,ESR1,GRM1,PDE4D,SLC24A3,SIPR3,ADORA2A,CDH23,ENPP1,CYB561A3,KCNMA1,SLC12A8,SLC8A1,SLC9A9,AGT,HEPHL1,CCR3,CHD7,SNX5,CACNB2,PTGER3,CAPN3,HTR2C,ANK2,GRIN2B,ADCY8,ITPR2,GRM5,SLC9B1,KLHL3,LRRK2,PKHD1,BMP6,FYN,CLN6,KCNQ1,EXT1,TRPC5,NOX5,SGCD,TMTC2,TRDN,ATP13A3,BDKRB2,STIM1,SLC24A2
GO:0048646	anatomical structure formation involved in morphogenesis	0.03797710482113565	MEGF11,CLASPI,NOS1,ROBO1,DSCAM,SHROOM3,NEBL,ATP8A2,WLS,SRPK2,PRKD1,SEMA5A,PRKCA,CALD1,KIF26B,RUNX1,AMOTL1,RELN,ADAM12,DLC1,MEF2A,MAP2K5,EDA,CELSR1,ROBO2,AKAP13,EP300,SDK2,NPHP3,SMOC2,EXOC4,NRG3,SULF1,ARHGAP24,COL11A1,SLIT2,BMPR1A,SMAD3,EYA1,OVOL2,SLC1A1,CDC73,VAV3,TENM4,CECR2,PIK3CD,TEAD4,ATF2,GRID2,CYBB,ADTRP,EPHB2,PRCP,COL22A1,FHL2,BMPER,PLXNA2,ABII,CALCRL,HDAC2,ETS1,FAT3,TTN,SPINT2,ISM1,AGT,FGF1,CCR3,NF1,NRXN1,LAMA3,CD109,KCNH1,THSD7A,RHOJ,PGM5,COL12A1,CAPN3,MYPN,ANK2,NEB,RNF213,SDK1,SUFU,JAK1,MAP2K1,PTPN14,ENPP2,EPHB1,FHOD3,VASH2,EXT1,NOX5,LRP2,PTPRM,NRXN3,SETD2,CDH13,HDAC5,MYH9,STIM1,TANC1,PIK3R3,PRKAR1A,CLASP2,PPARA,RORA,SEMA3C
GO:0006887	exocytosis	0.038232117778051404	CLASPI,ATP9A,CASK,IL1RAPL1,NLGN1,PAK1,ERC2,SYTL5,ITSN1,PARK2,GRIN3A,EXOC4,CD84,TPH1,SCAMP5,DGKI,CD300A,RABGEF1,PIK3CD,ADORA2A,CADPS,SYT1,NSF,STXBP6,SNAP23,MICAL3,RIMS2,PRKCG,GSK3B,UNC13A,CACNB2,LRRK2,RIMS1,ABCA12,FER,NRXN3,EXOC6B,MYH9,STXBP5,CLASP2,SCFD2,SYT17,RAB27A,BLOC1S6,SYT9
GO:0006470	protein dephosphorylation	0.039073112241394856	PTPRR,CAMTA1,RCAN1,PTPRG,SLC39A10,PTPRT,PPP3CA,PTPN9,DLC1,BTRC,MAGI2,JAK2,PPP6R2,EYA1,PTPRN2,EPM2A,FBXW11,CD300A,PPA2,PTPDC1,LRRK1,PDXP,GSK3B,CTDP1,PTPRE,DUSP22,CTDSPL2,PTPRO,CDC14A,LRRK2,PTPN14,TPTE,PTPRM,PTPRU,MGAT5,DNAJC6,PTPRK,PTPRD,PTPRA
GO:0070887	cellular response to chemical stimulus	0.03939940906013412	RPS6KA2,CTNNA1,NTRK2,DMD,KCNC2,CHRM3,SPRED2,ERBB4,NOS1,ESRRG,ROBO1,WWOX,FUT8,HDAC4,ABCC1,LDLRAD4,BLM,PSMB2,PTPRT,RXFP1,PLCB1,FLT3,CACNA1A,PRKD1,RYR2,SEMA5A,CASK,PRKCA,STX8,ZBTB20,IL1RAPL1,CCDC3,HBE1,KANK1,NLGN1,CAMK1D,APP,PAK1,PPP3CA,RYR1,AKAP6,IDE,RYR3,SOS1,LRRRC8C,ALK,BTRC,MEF2A,DLG2,MAP2K5,DNMT1,MAGI2,EDA,ROBO2,ELMO2,EP300,RPS6KA5,CPNE4,NME8,TF,CHRM1,DEFA1B,JAK2,CMKLR1,PARK2,SMOC2,PNPLA3,SOX6,COL4A6,SULF1,ADCY2,RFFL,SH3GL2,SLIT2,GPL2R,AOX1,TRIM5,ATRX,CHRD1,TRAF3IP2,BMPR1A,ACACA,SMAD3,CHD6,PTGFR,SATB2,OVOL2,BRINP1,IL1RAPL2,PTPRN2,SOX5,TAF1,SLC1A1,NTN1,CDC73,FLRT2,EGLN3,ANK3,CCL15,VAV3,MDM4,ACTN4,EPS8,GHR,LRRRC8D,CCL14,RABGEF1,NSG2,LRP5,ESR1,TNFRSF19,PDE4D,PIK3CD,DOCK4,EFNA5,ATF2,PIK3R2,ZNF423,CYBB,ADTRP,PDE4B,GABRB3,MAP3K7,PRKCQ,CLDN1,KCND2,TPH2,EPHB2,PRCP,RGMB,BDNF,ARID5B,ANO1,NOX4,BMPER,DEFA3,SYT1,DAB2,PXDNL,EPG5,CALCRL,HDAC2,BACH1,CDK19,ENPP1,SPINT2,FMN2,CD44,MAPKAPK2,SLC8A1,FAM19A4,CHST11,THRB,AGT,FGF1,QRI,CH1,CCR3,NF1,NRXN1,PDXP,GSK3B,CD109,KCNH1,GPR21,PSMB7,SNX5,NCOA1,CHEK2,STXBP4,PHEX,NREP,GPC3,PREX1,ZNF675,CAPN3,PTPRE,DUSP22,MAP3K5,CTDSPL2,HTR2C,GLRA2,LY86,EPHA5,IL1RL1,ZNF366,SLIT3,PAK3,ADCY8,ITPR2,CCL15-CCL14,PRKAA2,PACRG,ABCG2,GRM5,IGF1R,PTPRO,MSRA,INSR,JAK1,UBR2,FOXO3,PRDM16,LTBP1,LRRK2,RARB,BMP6,FYN,MSR1,GNG2,ABCA12,EPHB1,KCNQ1,EXT1,AMFR,UNC5C,LRP2,FER,GLDC,VWC2,TMEM108,RAPGEF2,NCOA2,IL18R1,ESR2,VEPH1,HDAC5,BDKRB2,NRIP1,LITAF,PIK3R3,GABRB1,NTRK3,FBN1,PTPRK,PPARA,RORA,BRIP1,ELAVL4,EEF1E1,

			<i>PRLR,PTPRA,ATF6,SYT17,PMEP1,SYT9,ST18,RXFP2</i>
GO:0008016	regulation of heart contraction	0.04038850095354236	<i>DMD,NOS1,HDAC4,RYR2,RYR3,MEF2A,CTNNA3,JAK2,CACNA1C,SLC1A1,NOS1AP,PDE4D,KCNJ12,KCNJ3,CELF2,PDE4B,SPBN4,TNNI3K,SLC8A1,THRB,AGT,PKP2,CACNB2,ANK2,CACNA1D,RNLS,KCND3,KCNQ1,TRDN,SEMA3A</i>
GO:0050773	regulation of dendrite development	0.040921736888219984	<i>KALRN,ILIRAPL1,CAMK1D,RELN,PPP3CA,ALK,DCC,SEMA4D,CUX1,MARK1,FAT3,FBXO31,GSK3B,PAK3,TRPC5,RAPGEF2,CDKL5,PTPRD,ELAVL4</i>
GO:0031399	regulation of protein modification process	0.041482139167138686	<i>CAMTA1,CHFR,KDM4B,RCAN1,NTRK2,SLC39A10,DMD,SPRED2,ERBB4,NOS1,ROBO1,FRY,HDAC4,AUTS2,LDLRAD4,BLM,PTPRT,FLT3,PRKD1,NEDD9,PPP2R3C,SLCO3A1,TNFRSF10B,RELN,APP,PAK1,DLCL1,BTRC,MAP2K5,DNMT1,MAGI2,AKAP13,EP300,SEMA4D,RPS6KA5,BDKRB1,HUS1,JAK2,PPP6R2,PARK2,NRG3,SH3GL2,SLIT2,ATRX,BMPRI1A,PRKAR2A,BORA,PIBF1,ARRDC4,TAI1,SLC1A1,EPM2A,NOS1AP,WWTR1,DOCK3,PLCE1,GHR,CD300A,RABGEF1,TRABD2B,LRP5,PDE4D,EFNA5,ATF2,ADTRP,MAP3K7,N4BP1,JDP2,SPTBN4,EPHB2,MOB3B,BDNF,FNIP1,ADORA2A,NOX4,BCOR,BMPER,DAB2,LRRK1,AB11,HDAC2,PRKAR1B,TTN,ENPP1,PARD3,NRG1,RIT2,CD44,PRKG,SLC8A1,MAP3K13,PLCL2,AGT,FGF1,NF1,NRXN1,GSK3B,CD109,WDR70,CNTN1,CHEK2,ZNF675,MNAT1,CAPN3,DUSP22,MAP3K5,ADCY8,SH3RF2,PRKAA2,GRM5,PTPRO,INSR,MAP2K1,STK38,DNMT3B,LRRK2,BMP6,FYN,EPHA7,ENPP2,TRPC5,FER,RAPGEF2,KAT7,DAB1,MGAT5,BDKRB2,CCNG2,PIK3R3,TENM1,PRKAR1A,NTRK3,PRLR,DEPTOR,PMEP1</i>
GO:0021537	telencephalon development	0.04354030470158239	<i>NDE1,NTRK2,DMD,ERBB4,ROBO1,PLCB1,RELN,ALK,ROBO2,TRAPPC9,NRG3,NUMB,SLIT2,TNR,TACC2,SRD5A2,DISC1,EPHB2,NRG1,SLC8A1,NF1,GSK3B,CHD7,CCDC141,EPHA5,IGF1R,CNTNAP2,LRRK2,RARB,PHACTR1,EXT1,TMEM108,KIRREL3,DAB1,SEMA3A</i>
GO:0045927	positive regulation of growth	0.04354030470158239	<i>ERBB4,DSCAM,ATP8A2,PLCB1,SEMA5A,PLS1,AKAP6,RFTN1,MAP2K5,SEMA4D,PARK2,BMPRI1A,NTN1,CDH4,GHR,DISC1,EFNA5,SPTBN4,BDNF,SYT1,RIMS2,NRG1,MAP3K13,GPR21,CHD7,UNC13A,ISLR2,MACF1,CAPN3,INSR,RIMS1,TRPC5,CDKL5,BASP1,SYT17</i>
GO:0001932	regulation of protein phosphorylation	0.04466562789762209	<i>NTRK2,DMD,SPRED2,ERBB4,NOS1,ROBO1,LDLRAD4,BLM,PTPRT,FLT3,PRKD1,NEDD9,PPP2R3C,SLCO3A1,TNFRSF10B,RELN,APP,PAK1,MAP2K5,AKAP13,SEMA4D,RPS6KA5,BDKRB1,HUS1,JAK2,PARK2,NRG3,SH3GL2,SLIT2,BMPRI1A,PRKAR2A,BORA,PIBF1,SLC1A1,EPM2A,WWTR1,DOCK3,PLCE1,GHR,CD300A,RABGEF1,LRP5,PDE4D,EFNA5,ATF2,ADTRP,MAP3K7,SPTBN4,EPHB2,MOB3B,BDNF,FNIP1,ADORA2A,NOX4,BMPER,DAB2,LRRK1,AB11,HDAC2,PRKAR1B,TTN,ENPP1,PARD3,NRG1,RIT2,CD44,SLC8A1,MAP3K13,PLCL2,AGT,FGF1,NF1,NRXN1,CD109,CNTN1,CHEK2,ZNF675,MNAT1,DUSP22,MAP3K5,ADCY8,GRM5,PTPRO,INSR,MAP2K1,STK38,LRRK2,BMP6,FYN,EPHA7,ENPP2,TRPC5,FER,RAPGEF2,DAB1,BDKRB2,CCNG2,PIK3R3,TENM1,PRKAR1A,NTRK3,PRLR,DEPTOR,PMEP1</i>
GO:0035239	tube morphogenesis	0.04500996984685987	<i>NTRK2,ROBO1,SHROOM3,SRPK2,PRKD1,RYR2,SEMA5A,PRKCA,CALD1,KIF26B,RUNX1,AMOTL1,ADAM12,PAK1,GREB1L,DLCL1,SOS1,BTRC,MAP2K5,EDA,CELSR1,QKI,NPHP3,SMOC2,SULF1,ARHGAP24,SLIT2,BMPRI1A,SMAD3,EYA1,OVOL2,SLC1A1,NTN1,MYO18B,VAV3,CECR2,LRP5,ESR1,PIK3CD,ATF2,CYBB,ADTRP,EPHB2,PRCP,COL22A1,CSMD1,BMPER,CALCRL,ETS1,SPINT2,ISMI,AGT,FGF1,CCR3,NF1,NRXN1,CHD7,THSD7A,RHOJ,GPC3,DLG5,RNF213,SUFU,JAK1,KLHL3,ADAMTS16,PKHD1,PBX1,EPHA7,ENPP2,EPHB1,VASH2,EXT1,NOX5,LRP2,SGCD,RAPGEF2,PTPRM,NRXN3,SETD2,CDH13,HDAC5,MYH9,STIM1,PIK3R3,RORA</i>
GO:0071363	cellular response to growth factor stimulus	0.04768870446587984	<i>NTRK2,DMD,SPRED2,ERBB4,NOS1,ROBO1,WWOX,FUT8,LDLRAD4,FLT3,PRKD1,CASK,APP,SOS1,MAP2K5,MAGI2,EP300,SMOC2,SOX6,SULF1,SH3GL2,SLIT2,CHRD1,BMPRI1A,SMAD3,OVOL2,SOX5,FLRT2,PIK3CD,ATF2,ZNF423,MAP3K7,CLDN1,RGMB,BDNF,BMPER,DAB2,HDAC2,SPINT2,CD44,MAPKAPK2,CHST11,AGT,FGF1,NF1,NRXN1,CD109,NREP,GPC3,DUSP22,CTDSP2,IGF1R,INSR,FOXO3,PRDM16,LTBP1,BMP6,FYN,EXT1,LRP2,VWC2,TMEM108,RAPGEF2,VEPH1,NTRK3,FBN1,PTPRK,PPARA,ELAVL4,PMEP1</i>
GO:0055001	muscle cell development	0.04778881826704328	<i>RCAN1,DMD,NEBL,HDAC4,PPP3CA,RYR1,AKAP6,MEF2A,AKAP13,BMPRI1A,MYO18B,ACTN4,FHL2,TTN,SLC8A1,AGT,CTDP1,PGM5,CAPN3,MYPN,ANK2,NEB,SGCZ,FHOD3,SGCD,PRKAR1A,PPARA</i>

BP			
GO:0051091	positive regulation of DNA-binding transcription factor activity	0.04938590245574651	HDAC4,PRKD1,SLCO3A1,CAMK1D,RELN,APP,PPP3CA,ALK,EDA,EP300,RPS6KA5,TRAPPC9,JAK2,TRIM5,SMAD3,TAF1,LRP5,ESR1,ATF2,MAP3K7,PRKCQ,ERC1,ARID5B,FANK1,MAP3K13,AGT,UBE2V1,ROR1,CAPN3,EPHA5,ADCY8,FER,IL18R1,ESR2,TRIM22,HDAC5
GO:0010720	positive regulation of cell development	0.04943082551202037	KALRN,NTRK2,ROBO1,DSCAM,NEDD9,SEMA5A,IL1RAPL1,RELN,ROBO2,SEMA4D,NUMB,SLIT2,NTN1,CUX1,CDH4,TENM4,DISC1,EFNA5,EPHB2,BDNF,DAB2,PLXNA2,HDAC2,FBXO31,MAP3K13,TIAM2,TRIOBP,ISLR2,PREX1,MACF1,TP73,PAK3,GRM5,MAP2K1,DOCK1,TRPC5,LRP2,CDKL5,PTPRD

Table S5. Top 4920 genes possessing the most frequent DSBs associated with Jensen Diseases. Related to Table 1.

Term	Overlap	Adjusted P-value	Genes
Kidney cancer	981/2584	3.3577737539735475E-56	<p> <i>ITSN2;ZFYYE9;ITSN1;SUV420H1;ZDBF2;PREX1;ANKFY1;ZNF19;RBFOX1;CACNA2D3;RC3H1;PHKA1;UNC5C;SND1;EML5;NUP210L;ZC3H11A;CLOCK;MTMR3;ABCB1;CEP85L;AGAP1;BAZ2B;IQGAP1;ADAMTS12;IQGAP2;ADAMTS16;RNF213;EPB41L1;EPB41L2;ADAMTS17;MOV10L1;EDEM3;CREBBP;COL24A1;CADM1;CADM2;LRBA;APCDD1L;BTBD11;GRIN2B;FAM135B;GRIN3A;FAM135A;DCHS2;FAT2;FAT3;DZIP1;MTMR12;KCNC2;EFCAB5;CTCF;TRIOBP;MYPN;NIPBL;MED13;JPH3;MECOM;JAK2;JAK1;UPF2;CHST9;KCN D2;KCND3;TEX10;NSUN2;TEX11;MYOF;PTH2R;BAZ1B;F5;PHF20L1;F8;LRRC7;KIAA1377;KCNMA1;RAPGEF2;DSCAM L1;ZNF471;STAU1;COL11A1;KIAA2022;HTT;ADAM29;FSTL 5;DMD;CSMD2;CSMD1;ATRNL1;STAT1;KCNB2;COL22A1;P2RY14;STAT2;EMR1;SAMD4A;YLPM1;NOC3L;STXBP5L;T TLL7;CENPF;FAM13A;GOLIM4;FRY;SLC9C1;SLC9C2;SLK;HEPHL1;LEPR;MAP3K7;ZNF443;MAP3K4;MAP3K5;KCNH1 ;CDKL5;FBXO18;FBXW7;KCNH7;C11ORF82;TNNI3K;MYT1 ;OLFM1;SMO;SLC9A9;PKP2;ROR1;ROR2;UTRN;GRIA2;BL M;GLIS3;FBXO42;SLC9A1;SBNO1;ATXN1;ZNF667;ZNF423; LRRC4C;GRIA3;MDN1;GRIA4;COL28A1;BRPF1;GPR98;MC C;INADL;QKI;TMPRSS15;PTPRD;IBTK;PTPRB;PTPRC;AC O2;ARHGAP11A;CNTNAP2;LRGUK;FLT3;RASGRF2;LRRK2 ;FLT4;LRRK1;PTEN;ECE2;ITGAL;CDC73;PPP6R2;BOC;ME 1;ERC2;SPG11;CTNBL1;CERS3;GRID2;PEG3;DST;GRID1; ATRX;VPS13B;NRG1;ATRN;NRG3;PCCA;IL1RAPL2;MYO3A ;IL1RAPL1;BMP2K;DSG1;PIK3C3;TOP1;ST6GALNAC3;L3M BTL4;MET;CNTNAP5;SLC25A13;GTF3C1;FOCAD;PRKAA2; ITIH2;ROCK1;LRP5;ATP10B;LRP2;CNNM1;LRRC8D;FYN;I ARS2;ATP9B;UBQLN3;ATP9A;LINGO2;CIZ1;PCDH9;MYO1 0;NTRK3;KIAA1549L;KIAA0232;USH2A;MYO1D;MYO1E;NE LL1;UBQLNL;MYO1A;ST5;ZNF616;NT5C1B;TRIM37;MDGA 2;EIF3A;MYO1F;SMARCA1;THSD7B;ULK4;DNHD1;JMJD 1C;CDC27;TRIM24;CPNE1;KIF21A;THSD7A;EPHB2;ACAD 11;CCDC93;SCAPER;EPHB1;TRIM22;EPHB3;SCN1A;EPA 5;EPHA4;SFMBT2;ANK2;ANK3;ANK1;KEL;KCNQ3;KCNQ5; EPHA1;PCDH10;MYCBP2;PCDH15;KALRN;MED12L;PCDH 17;PKHD1;DHX30;SNX2;MIER3;TSPAN5;HIVEP3;HIVEP2; NTNG1;EGR2;NBEAL1;SUCC4;SMARCA2;PTK2;DCLK1;ME D13L;EXT1;TF;TG;PTK7;WNK1;RGL1;KIAA0825;FBXL7;SU GP2;SPAG16;SPAG17;PTPRU;CSRNP3;ECM2;PTPRS;GRIK 5;GRIK3;OTUD7B;GRIK4;PTPRM;MIA2;GRIK1;CCDC129; GRIK2;IDE;PTPRK;BRCA2;PTPRG;AKAP13;CRTAC1;BBS9; EPG5;MCF2L2;SPTAN1;NCOA1;NCOA2;PABPC4;NCOA3;S </i> </p>

		<p> ORCSI;SORCS3;ANO4;ANO2;ANO3;ANKFN1;PITPNM3;DE PDC5;PDZRN3;SF11;ARHGEF6;RABGAP1;NEDD9;PRICKL E1;RELN;PLEKHG4B;PCNX;PAK7;GPC5;XDH;GPC6;DYNC III;MON2;MYO9A;SGSM1;KIF26B;NEDD4;PCDHB16;CAC HD1;ESYT2;TACC2;IL18R1;OTC;FHOD3;SCARB1;UBE3C;P CDH11X;KLHL32;PRDM2;KNDC1;OGDHL;CELSR1;IGF1R; PPIP5K2;FAM198B;SCN9A;ENPP2;CAPN2;EP300;DENND5 A;SBF2;RGS9;PDGFRA;SLC30A9;HFM1;FBXW11;LMTK2;R PGRIP1L;TANC1;ERN2;ADAM12;WDFY3;PIIG;MASP1;RAF 1;FBN2;FBN3;YTHDC2;CACNA1B;PLD5;CACNA1A;CACNA 1D;CACNA1C;PLD1;PDS5A;CACNA1E;CACNA1H;ACACA;R TN4;CALD1;CAMTA1;UTP20;RHPN2;MORC1;CCDC141;M GAM;CCDC132;TFAP2D;DENND4B;CNTN5;AUTS2;MUC16 ;CNTN6;DENND4A;DENND4C;NFXL1;KLHL23;SSH1;SDK1; CCPG1;CNTN1;CNTN3;AMOTL1;CNTN4;FBN1;GSK3B;RB M26;MAST4;MAST2;CHD7;CHD6;ADAR;LAMC2;LAMC1;AF F3;AFF4;GRM1;CABIN1;AFF2;GRM5;GRM7;GRM8;MYO18 B;LRRFIP2;WHSC1;DDX58;MMP2;PLA2G4C;RBM19;SHRO OM3;NAV1;NAV2;ETV6;LMBRD1;LPHN1;SETBP1;SCN4A;L PHN2;LPHN3;SHANK1;DNAH3;DNAH2;LAMA2;LAMA3;PK DIL1;CRMP1;ASAP1;DNAH9;CBL;CLCN1;ADD2;CAND2;B MS1;SLIT1;NAA25;DROSHA;SLIT3;TAS1R2;SLIT2;ATF7IP;C CDC178;URGCP;ZNF804B;ATP2B4;LAMB1;ATP2B2;MUC5 B;ACVR2A;CCDC170;RBM42;ASB5;TAF2;TAF1;CYFIP2;NC KAPI;TRIO;TRRAP;MYT1L;FRMPD1;COL12A1;EPRS;ABCA 12;SLC4A4;BACH1;ABCA13;GPATCH8;SLC4A5;RXFP2;DC AF6;CSPP1;PLCE1;DIP2B;DIP2C;ANKS1A;NCKAP5;ANKS1 B;NUP214;PRKCG;PRKCI;UNC13A;FNDC3B;AFAP1;ARMC 8;FNDC3A;GABRG3;DKK2;KIAA1217;ADCY9;PRKD3;PAR D3;MAP1B;ARMC4;MAP1A;KIAA0368;PRKCQ;PRKD1;AST N2;ASTN1;TPH2;SRCAP;NEDD4L;GLG1;FLRT2;CEP70;PR DM16;PLCG2;KIAA0319L;PHC2;DNAH11;DNAH10;SETD1A ;NFATC3;NFATC2;PRRC2C;NFATC1;BRAF;C9ORF84;ST18; RNF103;CDK12;GALNTL6;CDK13;GABRB3;SETD5;PHF2;M YOM1;SETD2;SETD3;DENND1A;TCF20;FMN2;SMG7;SLC6 A1;ABCC11;SMG5;PHEX;ADAMTSL1;MRC2;ADAMTSL3;RS PO2;RNF150;JARID2;GPRASP1;DENND2C;SHPRH;TCF12; TET1;ASH1L;FAM126A;CIT;ZEB2;MTF2;EXOC4;RAR;PLE KHO2;PLCB1;OCA2;AHNAK;PRUNE2;AFM;ADCY2;ADCY1 ;ADCY8;FGD1;ADCY5;SCAF8;NSD1;BRD8;GABRA6;SULF1 ;FIG4;MKLN1;RNF145;NFIA;MSRB3;BRDT;SEMA5A;SEMA 5B;PHLDB1;COL16A1;ATP8A2;ATP8A1;CLSTN2;DGKB;CT NND2;IRS4;DACH2;CDH9;SLC8A1;CDH8;RIMS2;RPH3A;RI MS1;CDH4;IPO9;TNR;ZNF569;ZNF564;MAG11;RNF43;MAP 2K1;CEP135;RALGAP1;SEMA6D;MAG12;FRMD4A;MITF;L ARP4B;CACNB2;OBSCN;KAT6B;KAT6A;MADD;PHIP;ADNP ;TNIK;TOX;ZNF555;PHLDB2;DGKI;DGKH;CUL9;ANKRD17 ;DNMT1;ANKRD11;ANKRD12;CUL2;ITPR1;ITPR2;UBR2;U BR1;GTF2E1;RHOTB1;KIAA0556;UBR5;PLXNA2;GPR112; TMEM132D;FANCI;ANKRD26;ATP8B4;ATP8B1;TMEM132B ;CEP350;FANCA;TRAPPC8;PHKB;PXDNL;ESRRG;NEB;TR APPC9;PALB2;ZZEF1;LRFN5;DAB2;AQPEP;NBEA;CNOT1; NF1;CPE;ZNF536;PCNXL2;NF2;MAP3K13;EIF4G3;C8ORF3 4;EIF4G1;DPP10;ALK;RNF10;BMPR2;BNC2;COL14A1;BNC 1;SYNE2;SYNE1;ADAMTS2;ADAMTS3;SIN3B;SIN3A;BAI3;D NMT3B;HYDIN;CEP170;WDR7;CNGA3;ADAMTS9;PRKG1;T RPC5;CR2;TRPC6;VWF;CHUK;DIS3;SECISBP2L;PAPD4;C1 ORF168;CATSPERB;EVC;PKHD1L1;SOS1;SLC24A2;NLGN1 </p>
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			;NLGN2;SLC24A3;LUZP1;SEMA3D;SEMA3A;TPTE;TTN;JAK MIP2;HECTD4;NHS;XIRP2;RBBP6;UGT1A9;CACNG3;UGG T1;SPAG9;NLGN4X;SEMA4D;MACC1;PTPN11;PTPN13;CD C42BPA;PTPN14;MGAT4C;NFASC;NIN;ASXL3;VPS41;TLL2 ;TLL1;BCOR;TNRC6A;TNRC6B;HPSE2;ZMYND8;ZNF609;G OLGA4;RPS6KA5;RPS6KA2;CHEK2;SAP130;UBAP2L;HMC N1;FAM65A;SOX6;TNS3;EYS;CDON;SOX5;SRRM2;CPT1A;E SCO1;MTUS2;EBF3;SRRM1;RUNX1;TIAM2;WBSCR17;XRN1 ;ZNF836;CD109;TLN2;MACF1;SPTBN4;PTGFR;CASZ1;IGS F1;TSHZ2;TRANK1;TMTC2;TMTC1;PPL;TRPM1;PDCD11;I NPP5F;MAP2;TNRC18;TRPM3;SPTBN1;RABGAP1L;PUM1; STAG1;STAG2;SESTD1;TECPR2;ROBO2;INVS;RYR1;TENM1 ;RYR2;TENM2;ZCCHC11;SLC44A3;TENM3;TENM4;SIPA1L2 ;SIPA1L3;RYR3;ROBO1;RPTOR;ZMYM1;SH3PXD2A;SH3PX D2B;VAV3;LRR1Q3;STRBP;TYK2;IL17RD;VWA8;NFX1;NME 8;TNXB;AKAP6;TRAK1;GUCY2F;ARNTL;C10ORF90;CUX2; MTHFD1L;CUX1;CTNNA1;CTNNA3;CTNNA2;SVIL;ARNT2; MYEF2;GBF1;SORBS1;TJP1;DLC1;RAB3GAP2;TRIP12;ZNF 354C;GALNT14;GALNT13;ARID4A;DOCK10;DOCK11;TRAP PC11;GUCY1A2;CADPS2;LIG1;KDM2B;DSCAM;MYH15;LM O7;TMEM131;KIAA2026;SPECC1L;COL4A6;COL4A5;LPA;U SP53;USP54;NTM;ARHGAP15;SEL1L2;NID1;TRHDE;NALC N;ARHGAP12;SCUBE2;ARHGAP22;PDZD2;LARGE;SOHLH 2;NLRP1;CDH26;MARK4;MARK1;PNPT1;SMAD3;WSCD2;I DH2;IFT122;ARHGAP29;ESR1;LRP1B;ARHGAP32;DIAPH2; FER;DNMBP;DLG2;DLG3;MAN2B2;DLG5;CAPRIN2;PI4KA ;NMUR2;BRWD3;DOCK4;DOCK3;MEGF10;NVL;USP32;DO CK8;USP33;USP34;PKD2;NETO1;TRPS1;AOX1;NOS1;POLE ;ABCC1;STPG2;ABCC2;DCC;ABCC8;AXIN1;ARAP2;AXIN2; DNM3;ARHGAP10;AIM1;DCT;CDH10;RASA1;CDH12;MYH9 ;COL6A5;DOCK2;NRXN1;NRXN3;MTIF2;UACA;ACAN;PDE 11A;ERBB4;LRIG3;RGS22;SASH1;OPCML;SPEN;TCF7L2;L UM;CADPS;PDE4DIP;TSHR;PDE10A;KANS1;ATP13A5
Liver cancer	271/597	1.8961259905911 517E-26	TRIO;MAML2;THSD7B;TRRAP;COL12A1;JMJD1C;PNMAL2 ;ABCA13;PREX1;PLCE1;FAM65B;HMCN1;EYS;SCN1A;ADG B;MEF2A;EPAH5;EPAH4;STARD9;CACNA2D3;UNC5C;ANK 2;ANK3;SND1;KIAA1217;XRN1;PARD3;MAP1B;ARMC4;KC NQ3;PRKD1;TLN2;PRR12;MACF1;SRCAP;PCDH10;IGSF1; MYCBP2;TRANK1;PCDH15;BAZ2B;IQGAP2;ADAMTS12;KA LRN;MED12L;C2;PKHD1;RNF213;FLRT2;MAP2;TNRC18;H IVEP3;SPTBN1;DNAH12;DNAH11;DNAH10;COL24A1;CAD M2;DNAH14;PRRC2C;BRAF;SMARCA2;MED13L;TF;TG;DC HS2;FAT2;FAT3;SLC44A5;RYR1;ROBO2;SETD5;RYR2;SETD 2;TENM2;PTPRS;TENM3;TENM4;PTPRQ;DENND1A;GRIK4 ;EFCAB5;GRIK1;FMN2;BRCA2;RYR3;ROBO1;ADAMTSL1;N IPBL;MED13;JPH3;REV3L;RIOK2;ZNF366;JAK1;VAV3;SLC 39A10;SORCS1;ASH1L;ANO4;NCOR2;ZEB2;F8;MMP16;PA CS2;FAM193A;PLCB1;DEPDC5;PDZRN3;TNXB;AHNAK;CO L11A1;PRUNE2;HTT;KIAA2022;ADCY2;ADCY8;FSTL4;FSTL 5;RELN;CUX1;PAK7;DMD;CSMD2;CSMD1;COL22A1;EMR1 ;PLEKHA5;SULF1;MYO9A;STXBP5L;AGBL1;CTNBN1;PKN2 ;TRIP12;FHOD3;CTNND2;KNDC1;FRY;CELSR1;PHRF1;SL C9C1;CDH9;CDH8;IGF1R;RIMS2;TNR;DSCAM;MAG12;LM TK3;VWDE;TANC2;OBSCN;KAT6A;SPECC1L;COL4A5;WDF Y3;UTRN;CUL9;FBN2;ITPR1;CACNA1A;UBR2;CACNA1C;N ID1;NALCN;CACNA1E;ACACA;ATXN2;SNTG2;ESPNL;PDZ D2;UBR5;CLCA2;GPR112;MDN1;GRIA4;TMEM132D;MGA M;MUC16;CNTN6;GPR98;SLC4A10;NEB;LRP1B;SDK1;LRF

			<p>N5;PTPRB;PTPRC;NBEA;CNOT1;NF1;CNTN1;ZNF536;CNTNAP2;DOCK4;MCTP1;MAST4;DOCK8;USP34;PTEN;CHD6;EFCAB11;SYNE2;SYNE1;AFF2;GRM4;GRM7;BOC;BAI3;MYO18B;GRM8;HYDIN;ERC2;ABCC1;ABCC2;PEG3;DST;GRID1;DCC;ATRX;AXIN1;VPS13B;NRG3;NAV3;PEAK1;PKHD1L1;COL6A5;DOCK2;MCTP2;MET;LPHN3;CNTNAP5;SHANK1;DNAH3;DNAH2;LAMA2;NRXN1;NRXN3;PKD1L1;TPTE;DNAH9;LRP2;TTN;PRTG;CECR2;ACAN;ERBB4;XIRP2;NCAM1;NTRK2;MYO10;MACC1;PCDH7;ZNF804B;PDE4DIP;LAMB1;RPRD2;CDC42BPA;MUC5B;C4ORF21;USH2A;OXR1;ACVR2A;FAM155A;KANS1;ASXL3;ATP13A5;MDGA2;TNRC6A;TNRC6B</p>
Skin cancer	196/454	8.423969474922799E-16	<p>TRRAP;ABCA12;HMCN1;EPHB2;TNS4;SCN1A;PHKA1;ANK2;ANK3;KIAA1217;ARMC4;KCNQ3;KCNQ5;ASTN2;SPATA18;ASTN1;KCTD16;MACF1;IGSF1;MYCBP2;PCDH15;KALRN;PKHD1;C9;MOV10L1;TRPM3;MSR1;CREBBP;CADM2;NEBL;STAC;BRAF;TYR;GRIN2B;ST18;MED13L;FAM135B;GRIN3A;TG;DCHS2;PAH;COL9A1;ITGBL1;RYR1;TENM1;SPAG17;PTPRS;PTPRO;FMN2;EFCAB6;PTPRK;GRIK2;ABCC11;TRIOBP;MECOM;ADAMTSL3;CGNL1;ASH1L;SORCS3;ANO4;LRR7;PLCB1;NPSR1;AHNAK;COL11A1;KIAA2022;AKAP6;ADCY1;ADCY8;SNX31;COL19A1;FSTL5;ADAM29;RELN;PAK7;DMD;CTNNA3;CSMD2;XDH;ATRNL1;KCNB2;COL22A1;CENPF;AXL;CTNNB1;TACC2;BRDT;CHRM3;GALNT14;ATP8A1;CLSTN2;FAM13C;CDH9;SLC9C2;CDH8;TUBB3;TNR;RGS7;MAG11;PDGFRA;MAP2K1;KCNH7;MAG12;THEMIS;SMO;COL4A6;COL4A5;PHLDB2;KANK4;DGKI;FBN2;FBN3;KHDRBS2;CACNA1D;CYP2C18;NALCN;ATXN1;SRGAP3;GPR112;LRR4C;CCDC141;MORC1;TMEM132D;ATP8B4;TMEM132B;GPR98;ARHGAP29;LRP1B;PTPRD;ADCY10;PTPRC;DNMBP;GNAQ;NF1;ZNF536;TCF4;CNTN4;ALK;CNTNAP2;COL14A1;FLT3;RASGRF2;LRRK2;PTEN;CHD6;SYNE1;NETO1;GRM7;BAI3;GRM8;HYDIN;AOX1;ADAMTSL6;ADAMTSL7;CIR2;GRID2;MYOCD;PEG3;VWF;DCC;VPS13B;NAV2;C10RF168;CATSPERB;NRG3;CDH10;DSG1;LPHN2;DOCK2;DNAH3;DNAH2;CIS;LAMA2;ATP1A3;PKD1L1;TPTE;DNAH9;LRP2;JAKMIP2;TTN;ERBB4;XIRP2;SLIT3;SLIT2;CACNG3;SPEN;ANGPT1;PLCL2;CADPS;USH2A;NELL1;SLC4A8;TBX15;NFASC;ATP13A5;CCDC60</p>
Melanoma	211/505	2.769020989745682E-15	<p>TSKS;TRRAP;ABCA12;HMCN1;EPHB2;TNS4;SCN1A;RFX1;PHKA1;ANK2;ANK3;KIAA1217;SLC5A8;WBSCR17;ARMC4;KCNQ3;ALPK3;KCNQ5;ASTN2;SPATA18;ASTN1;MACF1;SPTBN4;IGSF1;TSHZ2;PCDH15;KALRN;PKHD1;MOV10L1;TRPM3;MYH7B;MSR1;DNAH10;CADM2;NEBL;STAC;BRAF;TYR;GRIN2B;ST18;MED13L;GRIN3A;DCHS2;ITGBL1;RYR1;SPAG16;TENM1;SPAG17;PIGU;PTPRS;PTPRO;GRIK1;FMN2;EFCAB6;PTPRK;GRIK2;PCSK5;TRIOBP;OSBPL10;MECOM;ADAMTSL3;CGNL1;SYK;NBPFI10;SORCS3;ANO4;F5;PLCB1;SGK1;NPSR1;COL11A1;KIAA2022;AKAP6;ADCY1;ADCY8;SNX31;COL19A1;FSTL5;ADAM29;RELN;PAK7;DMD;CTNNA3;GPC5;CSMD2;XDH;SAMD3;KCNB2;COL22A1;EMR1;PLEKHA7;AXL;CTNNB1;TACC2;BRDT;CHRM3;GALNT14;CLSTN2;FAM13C;CTNND2;CDH9;SLC9C2;CDH8;TNR;RGS7;MAG11;GUCY1A2;MAP2K1;KCNH7;MAG12;THEMIS;LMO7;COL4A6;COL4A5;DPEP1;ROR2;PHLDB2;KANK4;DGKI;FTO;FBN2;FBN3;KHDRBS2;ANKRD11;CACNA1D;CYP2C19;CYP2C18;NALCN;ATXN1;SMYD1;SRGAP3;GPR112;LRR4C;CCDC141;MORC1;ATP8B4;TMEM132B;GPR98;FANCA;AR</p>

			<p> <i>HGAP29;LRP1B;PTPRD;SDK1;PTPRB;PTPRC;GNAQ;NF1;TCF4;ALK;CNTNAP2;COL14A1;RASGRF2;LRRK2;CRISP3;PTEN;SYNE1;GHR;NETO1;GRM7;BAI3;GRM8;HYDIN;AOX1;WDR7;ADAMTS6;ADAMTS7;CR2;GRID2;MYOCD;PEG3;VWF;DCC;VPS13B;ARNT;C1ORF168;CATSPERB;NRG3;CDH10;DSG1;LPHN2;DOCK2;MCTP2;DNAH3;DNAH2;C1S;LAMA2;NRXN3;PKD1L1;TPTE;DNAH9;LRP2;CBL;JAKMIP2;TTN;ERBB4;XIRP2;SLIT3;SLIT2;CACNG3;SPEN;ANGPT1;PLCL2;CADPS;USH2A;NELL1;SLC4A8;TBX15;NFASC;ATP13A5;TLN1;CCDC60</i> </p>
Breast cancer	179/434	3.142663653165786E-12	<p> <i>FHOD3;THSD7B;TRRAP;COL12A1;PCDH11X;CELSR1;ABCA13;CDH9;PALM2-AKAP2;ZDBF2;RIMS2;CHEK2;CDC27;SCN9A;ZNF569;EP300;HMCN1;CDON;EPHA5;PDGFRA;FBXW7;MTUS2;ANK2;ANK3;ANK1;ADCY9;OBSCN;KEL;NUP210L;KAT6B;ADAM12;WDFY3;FKBP9;UTRN;BCORL1;DGKH;FTO;FBN2;MACF1;FBN3;ABCB1;STXBP4;NOTCH4;TSHZ2;ITPR1;PCDH15;CACNA1B;CACNA1D;ADAMTS12;FHIT;NALCN;CACNA1E;GLG1;ACACA;ADAMTS16;PKHD1;PDZD2;UBR5;PLXNA2;HIVEP3;GPR112;MDN1;TMEM132D;CREBBP;DNAH11;MUC16;CNTN6;GPR98;IDH2;BRAF;NEB;ESR1;DCLK1;LRP1B;KIAA1239;PTPRD;SDK1;STAG2;TG;FUBP1;UST;NF1;FAT2;FAT3;MDM4;DPP10;RYR1;ROBO2;CNTNAP2;TENM1;SPAG17;RYR2;SETD2;DOCK4;TENM3;TENM4;MAST4;COL14A1;DOCK8;USP34;PTEN;HNF4G;CHD6;LSP1;BRCA2;SYNE2;RYR3;SYNE1;AFF2;GRM7;BAI3;MYO18B;HYDIN;EPG5;SPTAN1;CHST9;BCAS3;MYOCD;DST;VWF;PDE4D;ATRX;MKL1;NBPF10;VPS13B;C10ORF11;CDYL2;F5;RAD51B;TOX3;DNAJC1;AIM1;LRRC7;CDH10;MYO3A;PELI1;PKHD1L1;SOS1;MET;RBMS3;DNAH3;PRKAA2;TNXB;DNAH2;AHNAK;LAMA2;PKD1L1;AKAP6;DNAH9;LRP2;CLCN1;TTN;ADAM29;RELN;ERBB4;NHS;XIRP2;DMD;GPC5;RALY;CSMD1;ATF7IP;SPEN;TCF7L2;GABRA6;FAM46A;CADPS;RANBP9;PDE4DIP;PTPN11;USH2A;PEX14;STXBP5L;NEK10;CCDC170;EIF3H;CTNBN1;BCOR;TAF1</i> </p>
Pancreatic cancer	74/137	3.5946141478334235E-11	<p> <i>RYR1;RYR2;TENM2;TENM3;TFRC;THSD7B;CHD7;LDLRAD4;ABCA12;BACH1;PARK2;RYR3;AFF2;SYNE1;DOCK10;DEC1;RIMS1;TNR;HMCN1;THSD7A;SBF2;FAM19A5;NCKAP5;SOX5;RNF43;KLF12;DSCAM;PEG3;VWF;FBXW7;GRID1;ATRX;MTUS2;ANK2;FAM91A1;F8;OBSCN;COL6A5;DOCK2;DSCAML1;FBN2;MYCBP2;PCDH15;NRXN3;DNAH9;CACNA1C;ADCY8;NALCN;TTN;DPP6;PRPSAP2;HECTD4;XIRP2;DMD;SLIT2;ZNF423;CSMD2;CSMD1;MUC16;PCDH9;GPR98;NEB;BRAF;USH2A;LRP1B;PTPRD;MYO1D;DAB2;FAT2;ZNF536;CTNBN1;FAT3;MDGA2;DCP1B</i> </p>
Endometrial cancer	128/292	8.647742230979084E-11	<p> <i>TRIO;TRRAP;PCDH11X;ABCA12;RXFP1;ABCA13;CDH4;EP300;POTEE;HMCN1;EYS;SCN1A;DSCAM;FBXW7;MYH15;MTUS2;ANK2;ANK3;COL4A5;ALPK3;PHIP;UTRN;FBN2;MACF1;ABCB1;ANKRD11;TRANK1;PCDH15;ITPR1;CACNA1D;CACNA1C;KALRN;NALCN;CACNA1E;ACACA;PKHD1;BRIP1;PLXNA2;GPR112;MORC1;TRPM3;MDN1;CREBBP;DNAH10;MUC16;GPR98;PRRC2C;BRAF;NEB;DCLK1;LRP1B;PTPRD;SDK1;FAM135B;PTPRB;DLG2;NF1;FAT2;FAT3;EIF4G3;RYR1;TENM1;RYR2;MYOM1;CNTNAP2;SMG1;TENM3;DOCK3;TENM4;MEGF10;USP34;CHD7;PTEN;CTCF;FMN2;BRCA2;SIPA1L2;RYR3;SYNE1;MED13;GRM8;POLE;TRPC5;GRID2;KCND2;DCC;NBPF10;SORCS1;F5;ZEB2;LRRC7;CDH10;RASA1;PKHD1L1;CNTNAP5;ARHGEF6;DNAH3;DNAH2;A</i> </p>

			<i>HNAK;LAMA2;SEMA3D;COL11A1;NRXN1;HTT;PKD1L1;AKAP6;TPTE;DNAH9;LRP2;ADCY8;TTN;RELN;CUX1;ERBB4;NSD1;XIRP2;DMD;CSMD2;CSMD1;ATF7IP;SPEN;MYO10;GBF1;PDE4DIP;USH2A;KIF26B;CTNNB1;TAFL</i>
Acquired metabolic disease	142/338	2.1666557901537057E-10	<i>DGKG;KCNG4;THSD7B;CLSTN2;CTNND2;C2ORF88;GPATCH2;KLHL32;JMJD1C;RORA;BACH1;GALNT10;HS6ST3;CCDC91;FAM174B;PEBP4;SCMH1;DLEU1;LEPR;ANKS1A;EPHB1;ANKS1B;CAST;EPHA4;KDM2B;ZBTB38;MAGI2;FNDC3B;FRS2;CDKAL1;TNNT3K;FOXP1;ADCY9;ADAM12;MADD;SIK3;TRIM13;PRKCQ;PRKD1;TBCID23;FTO;PCDH15;GLIS3;C6ORF10;LPP;LTBP1;PCDH17;NKAIN2;ADAMTS14;EPB41L1;LARGE;PDGFC;ADAMTS17;DYM;STXBP6;ZNF664;MAP2K5;SEC16B;CEP112;GCKR;DNAH10;CADM2;CNTN6;BDNF;RANBP17;IGF1;SMAD6;ESR1;PBX1;LRP1B;BMP6;ZZZ3;CDK6;SLC22A8;TP73;CNTNAP2;DOCK4;SPEF1;KCNC2;HNF4G;PTPRJ;GRIK1;SQRL;PEPD;PCSK5;MRPL33;DEC1;RPTOR;ADAMTS2;RSRC1;ADAMTSL3;GRM8;ADAMTS9;DIS3L2;KCND3;NSUN2;BCKDHB;RBM19;SLC39A11;KSR2;SUPT3H;ETV5;ETV6;ITPKB;DNM3;MYO3B;PAX7;CDC42EP3;RFT1;PPARG;NRXN3;AKAP6;ADCY2;TRAK1;TANK;ADCY5;FSTL5;ACAN;SNX29;SERTAD2;MGAT5;IGF2BP3;GPC6;PMS1;JAZF1;OPCML;LINGO2;TCF7L2;RNGTT;NEGR1;EYA2;QPCTL;ZNF804B;CABLES1;SULF1;TSHR;MAD2L2;TBX15;RYBP;PDE10A;ABI2;CYP20A1</i>
Carcinoma	2973/11318	3.576878301124396E-8	<i>ITSN2;TSKS;ATF2;TFRC;POPI;ITSN1;PTPDC1;SYNGAP1;DPYSL2;DPYSL3;FAM110B;EPST1;FAM19A1;VSTM1;ANKFY1;MLYCD;VSTM4;PKNOX1;PKNOX2;WLS;ATG3;ZNF19;FNBP1;CACNA2D3;RC3H1;UNC5C;HDGFRP2;PHKA1;FRS2;UNC5D;BCR;LARS2;CTAGE5;ZC3H11A;FAR1;CLOCK;ATF6;SKAP1;EXD1;EXD2;COL13A1;TARSL2;NPRL3;RNF219;ZNF23;ZC3HAV1;BAZ2B;ADAMTS12;ADAMTS16;RNF212;C12ORF56;RHOT1;RNF213;RNF216;HLCS;EPB41L1;EPB41L2;ADAMTS17;PDGFC;SYNDIG1;MOV10L1;JAG2;PRPF38B;CREBBP;NEBL;TEX33;PBX3;IL31RA;BTBD11;OR4N2;LARP4;FRG1B;BTBD10;PBX1;VANGL1;PPFIBP2;KIAA1598;STRC;ZNF30;C6ORF89;C19ORF47;NMT2;FAT2;FAT3;DZIPI;SFXN5;GSTM5;RNF220;SIGLEC9;MTMR12;KCNC2;DPYS;ZNF490;KCNC4;PRKAG2;ZNF44;SHB;C12ORF42;ARHGAP6;MED15;OSBPL10;PCMTD2;NHSL2;CHAF1B;MED13;MECOM;MMP26;ZNF41;DLGAP1;JAK2;JAK1;CHST9;ZNF484;MYBPC2;KCND2;KCND3;TEX10;TEX11;SLC39A11;SLC39A10;BAZ1B;SLC39A14;DDB1;PHF20L1;TMEFF1;TMEFF2;MMP16;AGPS;RAPGEF2;ACSBG1;PPARG;L2HGDH;RAPGEF6;PAFAH1B2;PAFAH1B1;ZNF471;PKN3;SPESP1;PTAFR;ATL2;ADAM21;KIAA2022;ADAM20;KCNA6;SNX33;SNX31;ADAM29;SNX29;PRR14L;PLAGL1;ADAM23;ZSWIM6;ZSWIM5;SAMD3;ATAD1;ZNF461;EGLN2;KCNB2;WNT7B;COL22A1;BBOX1;APEX2;WNT7A;KIR3DL1;KIR3DL2;NOC3L;KIR3DL3;CENPF;SNX16;ZNF71;SLCO3A1;SNX14;TAOK2;CCDC6;PKN2;CCDC3;CENPP;KCNG4;FBXO28;LY75;GOLIM4;CASC4;MSI2;FBXO21;FRY;HHAT;SLK;FNIA;NRD1;FNTB;ADORA1;TNFRSF8;POTEE;CIR1;POTEG;MAP3K7;NUDT14;MAP3K4;ZNF443;SYBU;KCNH1;MAP3K5;CDKL2;CDKL3;CDKL5;FBXO18;FBXW7;KCNH7;STX8;TC2N;SMO;OR9A4;OR51T1;PKP2;SRSF5;SRSF6;FTO;SHC4;GRIA2;BLM;KHDRBS2;SHC1;CREM;LIN7A;FBXO46;NRF1;SPATA5;CYP2C19;CES5A;CYP2C18;CCDC144A;NPAS3;FBXO42;CORO1C;AMDHD1;SMYD1;ZKSCAN5;ZNF425;SMYD3;ZNF423;GRIA3;ZKSCAN1;NADK;GRIA</i>

		<p> 4;TXNDC5;SLC14A2;FBXO39;HPS1;TMPRSS12;INADL;FBXO31;TMPRSS15;LRCH2;IBTK;BFSP1;SP1;SP4;ZNF418;SP3;ZNF415;ACO2;SP140L;OSBPL1A;LRCH3;BCAR3;ITGB1;ALAS2;LRGUK;ITGAM;ONECUT2;HTR2B;PTEN;HTR2C;ECE1;ECE2;ITGAE;ITGAL;CDC73;PPP6R2;BOC;TRIM69;PGM5;ITGB6;NEO1;UNKL;ACP1;CERS3;TRIM60;BCAS3;ACTR2;GRID2;CERS6;GRID1;TNFRSF19;ATRX;VPS13B;NRG1;ARFGAP3;ATRN;PCCA;TMBIM4;NRG3;MYO3B;ADORA2A;MYO3A;BMP2K;LCOR;BPI;TRIM59;ETF1;TOP1;PRPS2;PRKAA2;CIS;ROCK1;SRBD1;ATP10D;GTPBP10;ATP10B;MLLT1;MLLT3;LRRC16A;TSPAN33;MALT1;CDC45;ZNRF3;ARL13B;CCDC85A;PHKG2;TRIM46;FYN;IGF2BP3;UBQLN4;UBQLN3;TRIM44;KCNJ3;NTRK1;NTRK2;KCNJ6;CIZ1;PCDH9;MYO10;NTRK3;PCDH7;KIAA1549L;CABLES1;KIAA0232;SYT13;TTC39C;BICC1;SYT17;MYO1D;MYO1E;BRE;SYT12;UBQLN1;ST5;EIF3L;MYO1A;EIF3H;TRIM37;EIF3E;MYO1F;EIF3A;LTV1;DMGDH;CPNE9;SMARCAL1;THSD7B;CPNE4;CPNE6;LDLRAD4;IKZF2;NUDT6;CCDC102A;CCDC102B;HERC4;CCDC91;TRIM29;CDC27;TRIM24;CPNE1;TNFSF11;CCDC97;THSD7A;CCDC93;SCAPER;TRIM22;FBXO9;SMARCC1;ALG2;ISLR2;MYO7A;CSNK1E;ACTN4;CYP39A1;KEL;PPA2;CRISPLD2;KCTD10;KCNQ1;KCNQ2;BTK;KCNQ3;KCNQ5;BCORL1;KCTD16;CERKL;ADCYAP1R1;AARS2;TMEM63C;EPB41;MYCBP2;OMA1;ZBTB5;KALRN;MED12L;TTBK2;PKHD1;BRIP1;NKAIN3;STK38L;APOD;KCNN3;B4GALNT3;B4GALNT2;DECR1;NTNG1;MSR1;C9ORF156;STAT5B;EGR2;RANBP17;OSGIN1;SUCCO;NBEAL1;OR51H1;SMARCA2;PTK2;MED13L;EXT1;POLA1;PEX5L;ALDH6A1;PTK7;RANBP10;ITGBL1;NOLL10;FBXL2;FBXL4;FBXL7;SUGP2;TP73;SPAG16;SPAG17;CSRNP1;NRP2;SYNM;ECM2;CSRNP3;GRIK5;GRIK3;ICAI;GRIK4;OTUD7B;GRIK1;GRIK2;PPP3CA;SYNCRIP;AKAP13;CRTAC1;SUFU;UIMC1;MUC12;BBS9;EPG5;FAM194B;DFNB31;MCF2L2;SPTAN1;ZHX2;SYK;MRPS22;PABPC4;MST1;NBPFF10;SYN3;KIF6;SREBF2;SYN1;TOX3;KIN;ANKFN1;PITPNM3;PITPNM2;DMC1;ARHGEF3;FAM193A;DEPDC5;ARHGEF6;YAP1;CAB39;PRICKLE2;PRICKLE1;ARNTL2;RELN;MGAT5;PCNX;XDH;EPS15;DYNC111;MON2;KLHL1;MRE11A;KLHL2;KLHL3;KCNRG;ACTL8;MYO9A;SRCRB4D;GRIN1;VMP1;SGSM1;SH3RF3;SH3RF2;ITCH;RIT2;KLHL6;KLHL7;KCNS3;CFHR3;PCDHB16;CACHD1;NEK10;PNPLA3;TACCI;TACC2;PNPLA6;KIAA1958;IL18R1;PNPLA1;OTC;CRTC3;UBE3C;UBE3D;ZFAND3;ZFAND6;PCDH11X;LOXL3;PRDM2;CELSR1;ETSI;ACTG2;IGF1R;GRIP1;PPIP5K1;PPIP5K2;FAM198B;TEKT1;ENPP2;ENPP1;DENND5A;ENPP3;CAST;MORC3;BORA;MORC4;FBXW11;SLX4IP;TTC7B;CASK;CDKAL1;MUC3A;DHDDS;ADAM19;GPRIN3;ZNF93;PSPC1;SHPK;SCNN1B;ADAM12;HHIPL1;WDFY3;PPIG;TSNARE1;TBC1D23;RAFI1;WDFY4;FBN2;FBN3;TBC1D19;OR51B2;SLC41A2;TCF7;PLD5;CACNA1B;CACNA1A;CACNA1D;CACNA1C;PLD1;CACNA1E;CACNA1H;PLD2;SNTG2;GRK5;TMEM248;SNTG1;TBC1D14;OR51B4;RHPN2;VILL;ECT2;MAGEA11;MORC1;PIBF1;MORC2;RAI2;QSER1;OR5H6;TBC1D16;MFAP3L;TFAP2A;EEFSEC;MGAM;SYT3;TFAP2D;OR5H2;CNTN5;AUTS2;DENND4B;MUC16;CNTN6;DENND4A;DENND4C;TIMM44;HOOK3;SYT9;SYT7;SDK1;FGF14;HOOK2;TMEM237;CCPG1;GNAQ;MKRN2;CNTN1;UBA2;MKRN3;ALPL;CNTN3;PYROXD2;TCF4;CNTN4;TCF3;AMOTL1;MUC20;GALK2;OR51A7;FBN1;RERE;ADAR;LDB2;MYSM1;GRM1;TTC28;LMNB1;CAB </p>
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		<p> <i>IN1;FAM154A;GHR;UFL1;ACOXL;GRM5;GRM4;EEF2K;GRM7;RASGEF1B;GRM8;MYO18B;FAM73A;MAN1A1;TMEM189-UBE2V1;WHSC1;MKL2;SUN1;DNAI2;MYOCD;MKL1;HUNK;SHROOM3;NAV1;SHROOM1;NAV2;ETV5;SHROOM4;ETV6;ACTA2;ACOX2;NAV3;SETBP1;CHI3L2;CHI3L1;ZMYND11;SHANK3;SHANK2;SHANK1;OR51F2;DNAH3;GALT;DNAH2;PKD1L1;DNAH9;ASAP1;CBL;ADD3;TROVE2;ASB15;AGPAT3;RNF2;ADD2;AGPAT4;CYTH3;CAND2;GK5;IL1RL1;MTA1;SV2B;CNR1;TRA2B;TMEM206;MXI1;SLIT1;DROSHA;SPOCK1;SLIT3;ZPLD1;RALY;SLIT2;TRDMT1;CLVSI;ATF7IP;URGPC;EYA1;EYA2;EYA3;ZNF804B;HS3ST5;TTC18;C4ORF21;MUC5B;CDK11B;HS3ST2;TBX15;FAM155A;C20ORF112;CD4;TEC;CD6;ERCC3;ERCC1;CARM1;ERCC8;OTUD3;NCKAP1;IPO11;FRMPD3;FRMPD4;FRMPD1;GPATCH2;MSANTD3;PNMAL2;SMC3;EPRS;SLC4A4;SLC4A5;GPATCH8;SMC2;EPS8;MTBP;EVA1A;WDR90;CSPP1;KIAA1467;CDK5RAP1;OBF1;NCKAP5;VPS39;CMKLR1;PRKCG;NUP214;ADGB;C14ORF159;PRKCI;PRKCD;COL23A1;ATG10;FNDC3B;AFAP1;HUS1;DDX10;PRKCA;ARMC8;FNDC3A;WDR78;GTPBP2;ATG14;GABRG3;NUP93;ARMC2;DEPDC1B;ADCY9;PRKD3;PARD3;MAP1B;ARMC4;MAP1A;PRKCQ;PRKD1;ASTN2;CFB;ASTN1;ZNF398;TPH2;TPH1;ZNF395;CFI;PRDM15;WDR64;PRKCZ;GNS;NUGGC;MTDH;FAM171A1;LDHB;WDR70;FLRT2;PRDM16;FLRT1;CEP70;MCMBP;NUP88;ST3GAL3;VPS16;PHC2;WDR59;ZNF383;TPRG1;GRTP1;SETD1A;POU6F2;NFATC3;NFATC2;NFATC1;SQLE;EHD2;WDR60;PAH;WDR5B;HNRNPC;XKR4;CEP89;FARSB;GABRB3;SETD5;PHF2;GPI;SMG1;SETD2;WDR47;GABRB1;SETD3;PHF20;DENND1A;STON2;SMG7;PHF7;ABCC11;SMG5;WDR43;PHEX;SMG6;ADAMTSL1;C1QTNF1;TCTN3;AIFM2;RARS;ADAMTSL2;JARID2;ZNF366;DENND2D;EDARADD;DENND2C;SHPRH;WDR37;DENND2A;ASH1L;FAM126A;CDYL2;CIT;HADHB;APBBIP;NCOR2;HADHA;ZEB2;HEATR5A;MTF1;MTF2;EXOC4;PLIN3;RARB;PLIN2;KIFC3;PLEKHO2;GAS8;GAS7;WDR27;WDR25;NFI;WDR26;CLDND1;SGMS1;PRUNE2;FAM129A;WDR20;ADCY2;ADCY1;ADCY8;METTL21A;ADCY7;FGD1;ADCY5;FGD4;SCAF8;NSD1;ADRBK1;ALOX5;SLC17A7;ZNF347;MBNL3;ZIM2;YTHDF1;GSN;GABRA6;TPK1;CSNK1A1;MOCOS;GABRA3;HIPK1;HIPK3;MKLN1;SMOC2;NFIA;NFI1B;SMOC1;CYP20A1;NUCB1;CEP41;ANKRD13C;FAM49B;RAB3C;PROS1;UBP1;IL5RA;PARK2;SLC8A1;CDC14A;IPO5;CEP128;SLC8A2;PPP1CB;RIMS2;RIMS1;RIMS4;IPO9;SLCO2B1;KAL1;PLS3;TNR;CLCC1;PAPOLB;ANKRD13A;PLS1;CSGALNACT1;MAG11;MAP2K1;CEP135;SNRPN;RALGAP1;MAGI3;MAGI2;FRMD4A;LARP4B;FAM91A1;VRK3;TLE6;OBSN;KAT6B;RAB37;KAT6A;ZNF799;PHIP;FKBP9;ADTRP;SREK1;ADNP;TOX;IFNAR1;FKBP5;SLC26A2;CBFB;UBR2;UBR1;PHB;KIAA0556;ORC4;ESPNL;FGGY;ORC2;UBR5;CLCA2;CCDC30;PLXNA2;DVL2;DVL3;DRD1;SRGAP3;CCDC33;SRGAP2;MAP2K5;FANCI;EIF2B5;TMEM132D;UVRAG;OSBP18;TMEM132C;SEC16B;CEP112;TMEM132B;CCDC14;OSBPL2;CCDC15;SLC4A10;FANCA;PXDNL;TRAPPC8;PHKB;SYNJ2;TRAPPC9;ADCY10;DAB2;UBOX5;LRFN5;IRAK1BP1;DABI;NBEA;P4HA2;LRFN1;BCL3;PLEKHM1;CPE;ZNF777;CSPG4;CCDC22;MAP3K13;PGPEP1L;CNIH3;PLEKHM3;C8ORF34;PLEKHF2;BMPR2;COL14A1;CPQ;MCM8;TCIRG1;SYNE3;SYNE2;SYNE1;PIK3C2B;ADAMTS4;KBTBD12;ADAMTS </i> </p>
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		<p> 2;ADAMTS3;SCRN1;PIP5KL1;IDH3B;PHACTR2;TLK1;PHA CTR1;ZNF766;WDR7;CEP170;HMGCS2;TNPO1;ADAMTS9; TNPO3;PRKG1;PAAF1;ADAMTS6;PHACTR4;ADAMTS7;RF C5;OR6C70;CR2;TRPC5;SLC13A3;TRPC6;GGPS1;UGT1A1; SGIP1;CKAP2L;DIS3;SECISBP2L;HAUS4;HAUS3;WIP1;DN AJC3;DNAJC1;CATSPERB;TFDP2;LCK;DNAJC6;NOS1AP; MCM3;CCDC41;HDAC4;HDAC5;HDAC2;CATSPER3;HDAC 1;CRX;TPTE;THSD1;HDAC6;COCH;THSD4;TTN;DNAJB2;F BXL20;P2RY8;STOX2;ABLIM1;ABLIM2;ABLIM3;FIP1L1;VP S53;HECTD4;VPS52;UGT1A5;XIRP2;UGT1A4;ASCC2;UGT1 A3;RFFL;UGT1A9;UGT1A8;UGT1A7;CCDC73;UGT1A6;SLC 35A2;TUB;MLXIP;ANGPT4;SLC35A4;NLGN4X;RNGTT;ANG PT1;MACC1;AMFR;FBXL18;RPRD2;FBXL13;OTOGL;KIAA1 432;DNAJA3;ASXL3;MFAP3;VPS41;TLL2;TLL1;VPS45;BCO R;CCDC60;TNRC6A;CCDC62;TNRC6B;VEZT;TRAF3IP2;ZM YND8;OR52N1;HS6ST2;HS6ST3;RPS6KA5;RPS6KA2;TBC1D 10C;KAT7;HMCN1;BTRC;SIL1;VRTN;TBC1D10A;MAGEA4; SRRM2;SRRM4;CPT1A;ESCO1;IFRD2;COG4;AP1B1;KRT8; DLEC1;CPT1C;SRRM1;TIAM2;WBSCR17;CIRH1A;ZNF836;S UCLG2;TLN2;BLZF1;SLC22A3;MACF1;SPTBN4;CASZ1;SPT BN5;STXBP4;TRANK1;PPL;RPAP3;CRHR1;TRPM1;STRIP1; SCFD1;PDCD11;SCFD2;ZNF823;ATP6V0A2;GSE1;STXBP5; TNRC18;SPTBN1;TRPM3;ATP6V0A1;ZNRANB1;XCR1;SETDB 2;PARVB;TYR;PUM1;ZZZ3;FUBP1;ZNF813;ADCK3;SLC22A 8;TECPR2;DCP1B;ROBO2;SLC44A5;TENM1;TENM2;ZCCH C11;SLC44A3;TENM3;HIP1;SLC35F3;TENM4;SLC44A1;GB E1;SLC35F4;HEPACAM2;SLC35F1;ZCCHC17;SIPA1L2;SIP A1L3;ROBO1;SH3PXD2A;XPO4;XPO6;GSG1;SH3PXD2B;RA LGPS1;SLC22A10;RALGPS2;VAV3;ZYG11B;PARP6;HEG1;T YK2;ZDHHC11;CBFA2T2;RENB;ZDHHC14;GLTSCR2;MLF 1;ITFG1;ZDHHC15;GLTSCR1;VAV2;VWA8;CLDN10;HCK;N FX1;CLDN12;GFRAL;CLDN18;C9ORF3;CLDN16;MATN3;V GLL4;MEGF6;PTGER2;PTGER3;ZDHHC23;GUCY2F;PPP2 CA;HIRA;LIMA1;NT5E;EGFLAM;MTHFD1L;WIF1;SUSD4;A PBB3;LAIR1;SVIL;MYEF2;MTX3;FAM46A;GBF1;LSAMP;FA M189A2;LHFPL5;LHFPL4;SORBS1;MPP6;PDP1;MPHOSPH 9;NR6A1;F2RL1;NUPL2;MEGF9;FAIM3;DOCK10;DOCK11; BMPE;FPGT;TRAPPC11;GUCY1A2;MLIP;CHRN4;LIG1; KDM2B;IL11RA;KAZN;VWDE;LMO7;SHISA9;TRPC4AP;RSB N1;SHISA6;SPECCIL;TIMELESS;OR52E8;OR52E6;LPA;XPR 1;DAP3;ZCCHC7;CLEC16A;LPO;LPP;CUZD1;TRHDE;SCU BE2;SCUBE1;CDH20;LARGE;ZMAT4;HRH4;CDH23;TASP1; LONRF3;CDH26;NLRP1;CPSF4;HELQ;PNPT1;IDH2;TRPV1 ;POU2F2;LRP1B;DAK;CAMSAP3;DARC;DIAPH1;DIAPH2;T SGA13;FAM163A;CAPRIN2;CASS4;PI4KA;NMUR2;BMPRI1B ;ZCCHC2;BRWD3;BMPRI1A;GPSM2;THRB;MEGF10;MEGF 11;OR4M1;YBX1;HS2ST1;MFSD8;FHAD1;SEPT8;RBM4;SPR ED2;SEPT6;LRRTM4;TRPS1;SNAPC3;SNAPC4;NOS1;RBM5; RBM6;KDM6A;STPG1;HGSNAT;STPG2;DCC;GLP2R;CYP3A 43;SPATS2;AXIN1;MYRIP;PPP2R5C;AXIN2;IQCJ;IQCG;DC N;IQCH;DNM3;AIM1;TMEM2;GAP43;IQCK;FCHSD2;RABE P1;DCT;PEAK1;CDH10;RASA1;IGDCC3;RASA2;CDH12;MY H9;AKNAD1;COL6A5;RBMS3;DTHD1;STOML1;NRXN1;NRX N3;ATP1A3;NR2C1;GNA14;PDE11A;MUC1;WNT11;RPS6KC 1;HLX;PPP2R3C;FAM120A;PCED1B;TYW1;MUC7;POC1B; MAPK1;MAPK4;VATIL;OPCML;ZNF286A;TCF7L2;KDM4B; TMEM30A;LUM;LIMK1;SLC4A8;PDE10A;MLPH;KANSL1;K ANSL2;CAPN10;PPP2R2B;ATP13A5;ATP13A3;FSIP1;ZFYVE </p>
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		<p>9;EHMT1;ZFYVE1;SUV420H1;ZFYVE28;ZDBF2;PREX1;MP RIP;PPP4R2;PSMD2;PSMD1;XYLB;MEF2A;CHID1;GBP5;C CBE1;RBFOX1;ZNF282;STARD9;RFX2;GAPVD1;UPB1;SND 1;LRRC37B;SLC5A6;EML4;EML5;EML6;SLC5A8;SLC5A9;P RKAR1B;NUP210L;PRKAR1A;RUFY3;PADI3;ENTHD1;UQC RC2;IDO2;MTMR3;ABCB1;ABCB7;CEP85L;AGAP1;HPR;IQ GAP1;IQGAP2;SLC5A3;SLC5A4;C2;PRKAR2B;C9;RHBDL3; HAO2;ZBTB7C;EDEM3;B3GALNT1;MYH7B;CADM3;COL24 A1;CADM1;CADM2;LRBA;APCDD1L;EXOC6B;NETO2;GRI N2B;SNUPN;FAM135B;GRIN3A;FAM135A;DCHS2;TDPI;N OX4;NOX5;AVL9;NOX1;EFCAB4B;EZHI;PIGS;HEXA;ATF7I P2;EFCAB3;EFCAB5;EFCAB6;CTCF;EFCAB7;TRIOBP;MYP N;LRRC1;IKBKB;EEA1;TUBA1C;NIPBL;LMBR1;JPH2;JPH3 ;HEY2;B3GALT1;FLVCR2;CGNL1;TMC1;LRRC47;UPF2;GP R39;CLUL1;GPR35;NSUN2;ELOVL2;LRRC49;MYOF;PIFO; NSUN6;PTH2R;F5;SUMF1;TMC2;FAM222B;F8;BDH2;MYO T;KIAA1377;LRRC7;CDC42EP3;KCNMA1;PELI1;SLC29A1; DSCAML1;KANK1;STAU1;LRRC18;COL11A1;HTT;LRRC10; FSTL4;FSTL5;GLRA2;GPA33;CLPTM1;DMD;STAT6;CSMD2 ;CSMD1;PMS1;P2RY10;SLC16A1;STAT1;ATRN1;P2RY14;S TAT2;EMR1;SAMD4A;YLP1;EMR3;VWA3B;PLXDC2;TMC O4;PLXDC1;GATAD2B;GATAD2A;STXBP5L;TMC01;TTLL7; TTLL5;TTLL4;UBAP2;TTLL9;ZNF695;UGT1A10;ZNF692;FA M13B;FAM13C;NCF2;FAM13A;NCF4;RORC;ZBTB20;RORA ;ZBTB22;SLC9C1;SLC9C2;MTRF1;HEPHL1;SESNI;RUVBL2 ;SCMH1;SLC16A6;KPNA6;LEPR;ZNF207;KPNA4;SLC16A2; KPNA3;NOMO1;AP2M1;TCP11;NOMO2;EPM2A;C11ORF80 ;ZBTB38;C11ORF82;PPP1R16A;UBE2E2;PIPOX;TNNI3K;TI CAM1;MYT1;FOXP2;SLC9B2;OR2T3;OLFM1;MAG;ACAP2; FRMD5;TXLNB;MAPKAPK3;SLC9A7;SLC9A9;MAPKAPK2;S LC25A51;ANAPC5;ROR1;RAD54L2;ROR2;UTRN;ZNF675;K PNB1;DSC2;KANK4;OSBP2;ZNF670;CPB1;MAX;STK39;GLI S3;TNFRSF11B;FOXO3;GLIS1;LRRC52;SLC9A1;NPAT;SBN O1;SBNO2;ATXN2;ATXN1;STK38;SLC38A6;ZNF667;LRRC4 C;CPA6;ZNF664;MDN1;ZNF662;COL28A1;BRPF1;GOT1;B DNF;GPR98;FOXN3;B3GALT5;MCC;QKI;PTPRD;PTPRE;M LXIPL;PTPRB;GNL3L;PTPRC;PTPRA;UST;SLCO1A2;AAK1; TUBGCP6;MDM4;ZNF653;MCU;ZNF652;NFE2L1;CNTNAP 3;ARHGAP11A;CNTNAP2;DRAXIN;MOXD1;CALR3;CELF1; SH2D4B;FLT3;CELF2;FLT4;RASGRF2;LRRK2;TSSK1B;LRR K1;CELF4;PIK3CD;CELF6;EFCAB11;FCGR3A;MRPL1;MEI ;PMEPA1;ERC1;ERC2;SPG11;CTNNB1;DIS3L2;HSP90AA1 ;PEG3;DST;SH2D3A;VBP1;SH2D3C;ARNT;KSR2;PAR3B;S LC25A18;IL1RAPL2;IL1RAPL1;DSG1;PIK3C3;ST6GALNAC3 ;MET;L3MBTL4;ST6GALNAC5;CNTNAP5;SLC25A13;RNFT2 ;GTF3C1;ITIH4;FOCAD;SLC47A1;ITIH2;PPM1L;PRCC;LRP 5;FOXK2;PRCP;LRP2;HSD17B12;NTN1;PPM1E;CECR1;CE CR2;CNNM1;FCHO1;LRRC8C;LRRC8D;SH3BP4;IARS2;CN NM2;SEC23B;ATP9B;ATP9A;LINGO2;NDUFA9;LINGO1;PT PN1;LINGO4;MMAA;FOXJ3;MBOAT1;DONSON;USH2A;NE LL1;FCGR2A;ZNF616;NT5C1B;PTPN9;MDGA2;SMAP2;ALD H8A1;PVRL1;PTPN2;ULK4;DNHD1;ZDHHC6;THUMP3;J MJD1C;PALM2- AKAP2;TXNDC16;KIF21A;ACAD11;EPHB2;EPHB1;SLC12A 8;EPHB3;TMPO;CALN1;SCN1A;EPA45;EPA44;PAQR5;SF MBT1;SFMBT2;ANK2;ANK3;VWA5B2;ANK1;SFRP1;SPATA1 3;ZNF713;ALPK3;EPA1;SPATA18;KIAA1211L;PAXIP1;PC DH10;PCDH15;PIK3R3;PIK3R2;MST1L;PCDH17;ZMPSTE2</p>
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		<p>4;ZNF709;DHX30;ZNF708;SNX1;SNX2;DHX32;PCBP3;ANKH;TSPAN8;PGBD5;MIER3;ERI2;MIER1;ARSH;DYM;TSPAN5;HIVEP3;ARSG;RCE1;HIVEP2;SCN3B;RAB11FIP3;N4BP2;SNX5;N4BP1;SEC31B;RAB11FIP5;WWTR1;LRRN2;ST8SIA1;RCC2;ADHFE1;MICAL3;DCLK1;ICK;TF;C7ORF60;TG;WNK1;BPIFB6;COL9A1;RCOR3;RGL1;KIAA0825;CCNJL;PCSK2;PTPRT;PTPRU;PTPRS;FKBP14;MOGAT2;PTPRQ;PPP1R10;PTPRO;SLC7A14;PTPRM;MIA2;CCDC129;PTPRJ;PTPRK;IDE;PEPD;PCSK6;BRCA2;CHRD1;PCSK5;LARP1B;PTPRG;IMMP2L;SCML4;RSRC1;SPTLC3;HNF4A;HYAL3;REV3L;QSOX2;ARIH1;CCR3;SBSPON;NCOA1;CD53;CCT3;NCOA2;CCT2;NBPF3;CCDC114;NCOA3;ANO8;KIF24;SORCS1;ANO6;ANO4;SORCS3;RGMB;ANO2;SUPT3H;ANO3;ENAH;LAT2;ANO1;KIF2A;ZNF780B;CRELD1;GLCC1;ZNF780A;SF11;PDZRN3;CD44;RABGAP1;SATB1;SATB2;AKR1D1;GREB1L;NEDD9;COL19A1;ARVCF;PAK1;SAMM50;PLEKHG4B;HSF1;HEATR2;PAK7;GPC3;GPC5;PAK3;GPC6;ERCC6L2;PLEKHA2;RFTN1;PLEKHA5;PLEKHA6;AP2B1;PLEKHA7;MIB1;ALDH4A1;PER2;GFI1B;DPY19L1;XK;DPY19L2;DPY19L4;NEDD4;KIF26B;ESYT2;FHOD3;SH3GL3;SCARB1;PLVAP;CD84;WWC1;KLHL32;GIMAP2;CPOX;OGDHL;KNDC1;GXYLT2;PHRF1;IFI44L;CCND3;CAPN6;KIF5C;PPME1;SCN9A;CAPN2;SNIP1;CAPN3;EP300;ACAA1;SBF2;RGS9;SH3GL2;RGS6;RGS7;SLC30A7;PDGFRA;CCDC155;CD96;SLC30A9;SCARA3;HFMI1;THEMIS;LMTK3;LMTK2;RPGRIP1L;PRLR;MID1;TANC2;TANC1;ERN2;TMX4;DOK6;SCN8A;DPEP1;MASP1;VCL;CCDC150;PSMD11;CCDC148;CCDC147;ARHGEF28;YTHDC2;CCDC146;SLC1A1;PSEN2;KLHL12;KIR2DL1;NDRG2;PDS5A;RTN4;ACACA;PTGES3L-AARSD1;FUT8;KIF3A;CALD1;PACSIN2;NPHP3;CAMTA1;UTP20;KIF3C;CCDC141;WNT3;ARHGEF33;KLHL29;CCDC132;GCKR;GGT7;CCDC138;CCDC136;VTAL1;NFXL1;KLHL23;SSH2;BMP7;BMP6;SSH1;BMP4;BMP1;TAB2;STT3B;PNLIPRP1;GSK3B;RBM26;EDA;MAST4;DDX47;MAST2;CHD7;CHD6;PAPL;LAMC2;LAMC1;SOBP;AFF3;PPP1R9A;AFF4;AFF1;AFF2;RPGR;FAM178A;LRRFIP2;RBM34;GALNT8;RBM14;DDX59;HSDL2;DDX58;MMP2;ARHGEF17;RBM19;BCKDHB;PLA2G4C;ARHGEF18;TBC1D9;DDX50;TRDN;C12ORF4;RCN1;LMBRD1;LPHN1;UBE2R2;TBC1D5;CDHR2;H2BFWT;ATG4C;RBM20;SCN4A;LPHN2;LPHN3;BLVRA;CREB5;LAMA2;DCTN1;MVP;LAMA3;PARN;CRMP1;SAMHD1;CLCN1;PRTG;CLMN;BMS1;MARVELD3;NAA25;TAS1R2;CCDC178;GALNT7;RBM39;CCDC176;TAF15;GALNT4;ATP2B4;ATP2B3;ATP2B2;LAMB1;CHFR;ACVR2A;MAPK10;RPIA;EEPD1;CCDC170;RBM42;QRICH1;ASB5;RBM45;CPVL;R3HDM1;TAF3;TAF2;TAF1;LNX2;CYFIP2;TRIO;MAML2;CLPB;MYTIL;GLDC;TRRAP;SERPINE3;COL12A1;RAPH1;IPP;DCAF5;ABCA12;ABCA13;RXFP1;BACH1;RXFP2;DCAF6;GPR173;GPR176;GPR171;MYB;PLCE1;PIP4K2A;DIP2B;ANKS1A;DIP2C;NFRKB;ANKS1B;SULT2A1;MECR;UNC13A;GLCE;IFT80;SYTL5;SYTL4;DKK2;KIAA1217;BIN2;IFT81;GPR161;KIAA0368;TYRO3;PRR16;YME1L1;HOXB3;MAML3;NHLRC2;PRR12;PRR14;SRCAP;NEDD4L;GLG1;ABR;RIC8B;CHST11;PLCG2;ZNF148;KIAA0319L;ZNF146;DNAH12;ZNF143;DNAH11;CDK19;DNAH10;CHKA;DNAH14;RDX;PRRC2C;RNASE13;OR5P3;KIAA1244;BRAF;OR5P2;CDC6;C9ORF84;ST18;SOX30;KIAA1239;CPEB1;RNF103;NPLOC4;TADA2A;H2AFY2;GALNTL5;HOXD4;CDK12;GALNTL6;HOXD3;CDK13;CDK14;CPEB4;M</p>
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		<p> YOM1;SERPINA3;TCF25;ELN;TMEM180;TCF20;HIF3A;FMN2;SLC6A1;PFAS;SLC6A3;SERPINA4;GLI2;SERPINA5;MYOM3;TRIM8;MRC2;TMEM189;OPN1LW;TRIM5;RSPO2;RIOK2;EMB;RNF150;GPRASP1;GPRASP2;GARNL3;SLC2A14;FCRL2;ANXA4;SLC2A12;TCF12;FCRL4;TET1;PAX6;PRSS12;PAX2;RNF168;ITPKB;AFTPH;LSG1;SLCO4A1;PAX7;COL21A1;PLCB1;ZNF114;NPSR1;OCA2;SF3B2;CTDP1;PHLPP1;AHNAK;AFM;NOTCH2NL;GRAMD4;TANK;MIPOL1;TMEM169;SRP72;CHN2;GCNT2;BRD9;CHML;BRD8;RNF133;ZNF584;WWOX;SF3A1;AOC2;BRF1;WWP2;SULF1;LRPPRC;AGT;FIG4;GPR141;RNF145;MORN1;AGBL4;RNF148;ABI2;KIAA1279;AGBL1;VEPH1;MSRB3;ANKS4B;FMOD;BRDT;SEMA5A;DGKG;CHRM3;SEMA5B;PHLDB1;COL16A1;CSF3R;ATP8A2;ANKRD35;CLSTN2;ATP8A1;ANKRD36;DGKB;CTNND2;IRS4;RNF19B;DACH2;BEST3;CDH9;CDH8;RPH3A;CDH4;DACH1;ZUFSP;GRB14;ZNF569;ANKRD32;MACROD2;ZNF566;LZTS1;STK32B;ZNF564;RNF43;ANKRD44;SEMA6D;MITF;GTF2F2;CACNB2;STIM1;C6ORF136;ARMCX5;MADD;TNIK;ZNF555;PHLDB2;ZNF554;DGKI;RHCE;DGKH;ANKRD17;CUL9;DNMT1;CALCRL;TNKS;ANKRD11;CUL3;NOTCH4;ANKRD12;CUL2;CHRD;ITPR1;C1ORF110;ILDR2;ITPR2;RASAL1;AK5;GPATCH2L;GTF2E1;GTF2E2;RHOBTB1;GLB1L2;PHF21B;NEUROD1;BAG6;STIP1;GPR110;KLC3;PITRM1;KIAA1644;BTBD3;PSAP;GPR116;GPR112;IMPG2;STRA6;WDTC1;ANKRD26;ATP8B4;ATP8B1;CEP350;ESRRB;ESRRG;MARCFH8;NEB;MARCH7;CYP4F11;BTBD9;PALB2;ZZEF1;CHERP;MARCH1;AQPEP;CNOT1;ITGA11;NF1;ZNF536;PCNXL2;NF2;EIF4G3;SPERT;EIF4G1;DPP10;ALK;RNF10;DAGLA;BNC2;BNC1;KIAA1671;ADRA1D;INSL6;METTL13;SIN3B;SIN3A;BAI3;DNMT3B;HYDIN;CNGA3;METTL16;CHUK;VWF;COL25A1;PAPD4;KCNA2;C1ORF168;ASP;DUSP22;EVC;ASPH;ESRP1;TRAF6;PAPD5;NUMB;PKHD1L1;C3ORF67;SOS1;CNGB1;NLGN3;SLC24A2;NLGN1;ACSS3;NLGN2;RNF34;SLC24A3;LUZP1;SEMA3C;SEMA3D;LUZP2;SEMA3A;RNF38;C1ORF94;JAKMIP2;ENOX2;NHS;RBBP8;RBBP6;FNIP1;CACNG2;C3ORF35;UGGT1;DCAF12;CACNG3;SPAG9;KCNIP1;ANKRD30B;SEMA4D;SPAG5;KCNJ12;SPAG6;PLCL2;KCNJ15;KCNJ16;PTPN11;CDC42BPB;PTPN13;CDC42BPA;SGCZ;OXRI;PTPN14;ENOX1;TPCNI;C15ORF26;MGAT4C;KLF8;SVOP;NIN;NFASC;IMPDH1;CROCC;ESF1;PFKP;CUL4B;APP;VIPR1;VIPR2;HPSE2;DDX60L;ANTXR2;MBD3L1;SOX2;GOLGA3;GOLGA4;ZNF609;EDNRA;ZNF605;CHEK2;SAP130;UBAP2L;FAM65B;FAM65A;SOX6;TNS4;TNS3;AGFG2;EYS;SOX5;CDON;SLC6A16;SLC6A14;MTUS2;EBF2;EBF3;EBF4;RUNX2;OVOL2;RUNX1;INPP4A;XRN1;CD109;LACE1;TTLL13;TTLL11;EZR;NECAB2;CDS1;GPM6A;PTGFR;TMEM161B;TBCEL;MAOA;PDE1A;IGSF1;SP140;TSHZ2;TMTC2;TMTC1;TRMT2B;OTOA;NUAK2;RFPL4B;INPP5A;INPP5F;MAP2;INPP5D;STC2;MAP4;CDR2;BANP;SRPK2;TRAP1;RABGAP1L;PTPRN2;DTNA;BCL11B;STAC;INSR;PDE2A;KTI12;ACADSB;PARP12;PARP10;PARP11;STAG1;STAG2;CDAN1;SESTD1;CREBRF;SPRTN;SPATS2L;TMCC1;CC2D1B;RYR1;MRS2;INVS;RYR2;SH3KBP1;RYR3;RPTOR;EPB41L4B;ZMYM1;RSPRY1;ANKRD6;PACRG;PRMT7;PRMT2;LRR1Q3;STRBP;PRMT3;INSRR;KREMEN1;TFEB;AMPD1;AP3B1;BTN3A2;IL17RD;AP3B2;NAALADL2;RHOA;UCHL5;RAD51D;RAD51C;PACS2;CEACAM7;BBS12;NME7;NME8;MPPED2;RHOJ;RBM12B;TFEC;FASTKD5;FAM20C;ALDOC;SGK1;ALDOA;OPRD1;SP10 </p>
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			<p>0;TNXB;SLC20A2;AKAP6;TRAK1;AKAP2;ARNTL;PBLD;C10ORF90;KIAA0754;SCEL;CUX2;CUX1;CTNNA1;SHOC2;CTNNA3;PTCHD4;CTNNA2;TBL1X;DISC1;CA12;ARNT2;RANBP3;SCD5;C10ORF76;AP3D1;RANBP9;LILRB4;TJPI;CRIL;AXL;DLC1;CAMK4;CTNNB1;RAB3GAP2;TRIP12;ZNF354A;ZNF354C;GALNT14;STEAP3;STEAP4;GALNT13;ARID4A;ARID4B;GALNT10;EFTUD1;ARHGAP44;PDE8B;PDE8A;KRT6B;CA14;NSF;CADPS2;ABCG8;DSCAM;SPNS3;MYH15;ARID5B;KCTD1;EPDR1;TMEM131;KCTD7;KCTD8;PHOSPHO2;FOLH1;KIAA2026;COL4A3;COL4A6;ELMO2;COL4A5;ABCG2;ATP6V1A;USP53;USP54;NTM;ARHGAP19;C6ORF10;NID1;SEL1L2;ARHGAP15;STK4;LTBP1;NALCN;ADIPOR2;PLCXD2;SEL1L3;ARHGAP12;ARHGAP22;ALDH3B2;DPP6;PDZD2;SOHLH2;CASKIN1;MARK4;MARK3;MARK1;RAP1GAP2;ACBD5;SMAD3;SMURF2;WSCD1;WSCD2;HSPA6;EPHX1;DNAJC11;TBCD;ARHGAP29;IFT122;DNAJC16;ESR1;ARHGAP25;ARHGAP24;ESR2;TBCK;ARHGAP32;FER;RALYL;PLCXD3;ARHGAP31;DLG2;KIF18B;NR4A3;DNMBP;DLG3;MAN2B2;TMEM117;DLG5;MAN2B1;RADIL;NFKBID;DOCK4;DOCK3;MCTP1;ABCD3;DOCK9;NVL;USP32;CXORF66;DOCK8;USP33;CRISP3;USP34;ELAVL4;CTDSPL2;PKD2;IQCF-SCHIP1;SENP5;NETO1;TMEM108;PDE4B;BDKRB2;PDE4A;BDKRB1;AOX1;POLK;POLE;POLH;KLF12;ABCC1;PTGIS;ABCC2;USP49;CAMK1D;USP42;ABCC8;PDE4D;ARAP2;KLF15;KLF17;ARHGAP10;LATS2;DOCK2;MCTP2;B4GALT6;CAMK1G;USP13;ZNF197;CAMK2D;RGS14;POLDIP3;PALM2;USP12;MTIF2;TOB2;UACA;IWS1;HSPD1;ACAN;PALMD;ERBB4;NRIP1;PRRG1;LRIG3;SIIPR3;NCAM1;RGS22;PDE6A;ABCF3;CLASP1;SASH1;CLASP2;TCFL5;PTCD3;SPEN;PTCD1;POLN;NEGR1;CADPS;LGI2;OR6N2;PDE4DIP;ARID3A;TSHR;TICRR;MEIS1;FMNL1;FMNL2;XPNPEP2;XPNPEP3;PDE7B</p>
Ovarian cancer	30/51	3.1964323796929604E-5	<p>RYR1;DNAH3;TENM1;RYR2;MACF1;BNC2;AHNAK;LUZP2;LRRK2;PTEN;LRP2;BRCA2;TTN;PKHD1;CHEK2;HYDIN;HMCN1;CREBBP;DST;MUC16;FBXW7;BRAF;USH2A;LRP1B;LRRK7;MYO3A;NF1;CTNNB1;HOXD3;SKAP1</p>
Attention deficit hyperactivity disorder	55/119	3.27195389828421E-5	<p>DPP10;UGT1A10;MYT1L;GRIK4;GRIK1;ITGAE;SLC6A1;IMMP2L;GRM5;ADAMTS2;NOS1;MAP3K7;NCKAP5;TRIQQ;TFEB;NAV2;KIF6;SUPT3H;EREG;FOXP1;RNF144B;LRRK7;MAP1B;SLC9A9;CDC42EP3;CDH13;ASTN2;DEPDC5;CREB5;LUZP2;SEMA3A;TSHZ2;FHIT;STIP1;PRR14L;CNR1;ZMAT4;TRA2B;ZNF423;UGT1A9;CSMD2;GPC6;MTA3;UGT1A8;UGT1A7;KCNJ3;CEP112;SHFM1;MBOAT1;FAM189A1;SLCO3A1;ITGA11;TLL2;CNTN4;BMPR1B</p>
Type 2 diabetes mellitus	103/269	5.111080707460916E-5	<p>DGKB;ZFAND3;ZFAND6;ZBTB20;ANTXR2;COX6A1;PTPDC1;RIMS2;MACROD2;CCDC92;PLS1;CCBE1;HFM1;SNRPN;CDKAL1;ANK1;GABRG3;SLC9B2;FOXP1;KCNQ1;MADD;PRKDI;CFB;FTO;NPRL3;GLIS3;C6ORF10;CACNA1D;CACNA1C;ARHGAP15;PDZD2;PCBP3;TSPAN8;GRK5;ZMAT4;TSPAN5;CAMTA1;STXBP6;CCDC33;EIF2B5;SEC16B;GCKR;SYT1;STAC;CNTN6;GPR98;IGF1;MED13L;PTPRD;MARCH1;PEXSL;PCNXL2;CCNJL;SLC44A3;PTPRR;RBM26;BNC2;KCNC2;ICA1;KIAA1671;PAPL;PTPRM;IDE;PEPD;HNF4A;PDE4B;DLGAP2;ADAMTS9;ZNF366;CR2;SYK;CHUK;HUNK;SLC39A10;AP3B1;SORCS2;VAV2;TMEFF2;SNURF;CDH13;RBMS1;PPARG;BPI;EEF1E1;PALM2;USP12;TMEM163;NTN1;THSD4;ADCY5;HECTD4;PCNX;ZPLD1;CACNG2;CACNG3;JAZF1;WVOX;TCF7L2;CADPS;KLHL1;FAM155A;SLCO3A1;CPV</p>

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Bipolar disorder	55/124	1.4257125144411737E-4	<i>DPP10;MCTP1;TENM4;ZNF490;GRIK5;PRKAG2;SYNE1;ZDBF2;DFNB31;CGNL1;CMKLR1;GARNL3;C11ORF80;COMM D10;SLC39A10;ANK3;FAM126A;SUMF1;MMP16;SKAP1;MAD1L1;DGKH;KIAA1211L;GPM6A;TMEM63C;TRANK1;AGAP1;CACNA1C;NPAS3;ADAMTS14;ABLIM1;PCBP3;LRIG3;ZSWIM6;CTNNA2;MARK1;TMEM132C;ARNT2;DNAH11;AUTS2;NEBL;WSCD2;FAM189A2;KIAA1549L;PALB2;MSRA;GFII B;PDE10A;NFIA;KCNS3;MGAT4A;DLC1;CNTN1;NMUR2;HNRNPC</i>
Schizophrenia	55/126	2.4375570567669835E-4	<i>ITSN2;ITGB1;RERE;ROBO2;DRAXIN;MAST4;GRIK3;RORA;CLDN1;PTPRG;ZFYVE28;HHAT;MYO18B;ADAMTS6;PKNOX2;ANKS1B;CALN1;GRID1;RBM19;HUNK;EBF2;SLC39A10;ANK3;SHISA9;MMP16;SETBP1;TNIK;LPHN3;MAD1L1;CNTNAP5;ITIH4;NOTCH4;TRANK1;AGAP1;TMTC1;CACNA1C;PRKCZ;NPAS3;ARNTL;ATXN1;RELN;MUSTN1;CTNNA3;CNNM2;WWOX;YLP1M1;BMP7;MSRA;ARHGAP31;AGBL1;MFAP3;KIF26B;TCF4;CCDC60;LNX2</i>
Anorexia nervosa	26/47	6.727794374227746E-4	<i>ROBO2;MTMR3;MCTP1;ATP8A2;AKAP6;LRP2;CDH9;TSPAN7;MACROD2;PDE8A;NTNG1;WWOX;CAMK1D;GRID1;MAGI3;PCDH7;SH2D3C;COL23A1;ZNF804B;C10ORF11;ALDH4A1;MSRA;FAM155A;DAB1;NT5C1B;VGLL4</i>
Retinal disease	15/21	8.183975693478142E-4	<i>RBFOX1;INSR;PLXDC2;UCHL3;MYSM1;HS6ST3;ARHGAP22;FSTL5;MPRIP;VEPH1;UST;TCF4;KCNK1;KIAA0825;CREB5</i>
Refractive error	24/43	0.001095842810655525	<i>WDR27;MAGI1;PDGFRA;PTPRR;BNC2;MAML2;LAMA2;THSD7B;USP53;SATB2;CACNA1D;LMO7;VAX2;SGCZ;BICC1;SHISA6;MYO1D;PCCA;ZMAT4;TNR;SUCLG2;KCNQ5;EYS;GRIA4</i>
Immune system cancer	56/137	0.0016846476563279714	<i>RYR1;RYR2;TRRAP;FLT3;FRMPD1;PTEN;SYNE1;CCND3;HYDIN;EP300;HMCN1;JAK2;JAK1;MAGI1;MEF2B;FBXW7;ATRAX;TET1;ANK2;UNC5D;TYK2;SORCS3;RUNX1;SETBP1;CDH10;TLN2;LPHN2;SGK1;LPHN3;PDZRN3;DSCAML1;TSHZ2;DNAH9;CBL;JAKMIP2;TTN;RELN;NSD1;XIRP2;DMD;LRIG3;SPTBN1;SPEN;CEP112;CREBBP;TMEM30A;MUC16;GPR98;IDH2;BRAF;PTPN11;USH2A;PTPN14;LRP1B;NFI;CTNNB1</i>
Cognitive disorder	27/52	0.001688901049404335	<i>CNTNAP2;KCNC2;CXORF66;NTM;PTPRO;FAM69A;TPTE;EFNA5;NKAIN2;SH3BGR1;ERC2;DISC1;NCKAP5;GPC6;VAT1L;ARRDC4;PTPRN2;LRRIQ3;PAQR5;PDE4D;RFX2;ADAM19;MMP16;RARB;BPI;MDGA2;MAD1L1</i>
Obesity	44/103	0.003255261897336874	<i>FBN2;FTO;HDAC4;EIF4E3;NRXN1;NRXN3;ITPR2;HOXC13;ARHGAP12;TTC28;PKHD1;ZNRF3;ENPP2;MACROD2;SOX6;ADAMTS9;RGS6;WWOX;PCDH9;NEGR1;MRPS22;HOXBAS3;RFTN1;THEMIS;LHFPL3;C9ORF84;NAALADL2;ANO3;KCTD8;DNM3;MSRA;TBX15;EML6;MAP1A;KCNA1;CDH12;EXOC4;HOXB3;COL21A1;RARB;CAMK1G;PFKP;HOXB5;CPEB4</i>
Alzheimer's disease	73/195	0.0032767566067869553	<i>HRK;SLC44A5;CNTNAP2;CELF2;PCDH11X;RORA;IKZF1;SHB;PALM2-AKAP2;CDH8;PITPNC1;CDH4;SPTLC3;BASP1;LRRFIP2;DI P2C;ADAMTS9;CCR3;CDON;BOK;CADPS2;SRRM4;SCARA3;RFC3;MYOF;MAGI2;VPS13B;UNC5C;FRMD4A;NAV1;GFR A2;PAX2;CDC42EP3;ROR1;EPHA1;RBMS3;PPP1R37;COL13A1;LUZP2;PRUNE2;CLEC16A;GLIS3;ADCY8;EFNA5;AKA P2;PKHD1;RELN;MTHFD1L;PCED1B;CLPTM1;PCNX;UTP 20;RBBP6;NCAM1;STXBP6;DISC1;CSMD2;SASH1;CLVSI;K LHL29;DNAH11;ATP8B4;CNTN5;POLN;KLHL23;GRIN2B;T</i>

			<i>TLL7;STAG2;DAB1;DCHS2;NFIB;BCL3;FGF10</i>
Large intestine cancer	50/122	0.0034637323328907664	<i>RYR1;SETD2;LRRK2;CHD7;PTEN;DNHD1;TCF20;SYNE2;SYNE1;AKAP13;MED13;ZNF605;PIP4K2A;EP300;HMCN1;NOS1;EYS;DST;NBPFF10;VPS13B;ANK2;KIF6;MYO3A;PKHD1L1;BCORL1;MET;FBN2;CUL9;NRXN1;PCDH15;ITPR2;KIAA2022;CACNA1C;LRP2;NALCN;CUZD1;TTN;RNF213;UBR5;XIRP2;SRGAP3;CSMD1;DNAH11;DNAH10;MUC16;BRAF;GRIN2B;USH2A;LRP1B;CTNNB1</i>
Anemia	7/7	0.0037849661550956055	<i>UGT1A10;UGT1A5;UGT1A3;UGT1A9;UGT1A8;UGT1A7;UGT1A6</i>
Osteoporosis	52/130	0.004879610512083174	<i>DGKG;CNTNAP2;KCNC2;TMEM182;FMN2;SMG6;FAM154A;RPS6KA5;MECOM;TNFSF11;PHACTR1;SOX6;ERC2;ZNF366;CTNNB1;WLS;AXIN1;NRG1;FRMD4B;SUPT3H;KIAA1217;DNM3;DOK6;NME8;KCNA1;VAMP1;FAR1;PLCB1;RBM3;HDAC5;PDXDC1;PLD5;LRP5;C6ORF10;TNFRSF11B;CRRH1;BMS1;CTNNA2;MARK3;SPTBN1;LEKR1;CADM1;SHFM1;GPR98;ESR1;GPR141;DLG2;FGF14;CCDC170;CTNNB1;SP7;OSBPL1A</i>
Globe disease	31/68	0.008163466399888254	<i>SAMD5;ZNF692;CLSTN2;DENND1A;CTNND2;WIPF3;DNAH9;ADCY2;FHIT;LPP;CDH8;RPTOR;CHAF1B;SCML4;SPTBN1;MFAP3L;SRPK2;PDGFRA;PTPRN2;CNTN5;BCL11B;CADM2;AP1B1;GABRG3;BMP6;RUNX1;PTPRD;MSRA;DAB2;EIF3H;TACC2</i>
DOID:2627	39/92	0.008163466399888254	<i>DNAH3;CNTNAP2;SPAG17;RYR2;FBN3;MACF1;ABCB1;DNAH2;AHNAK;PCDH11X;PTEN;LRP2;BRCA2;RYR3;SYNE1;RIMS2;PKHD1;ADAM29;RELN;CHEK2;SCN9A;HMCN1;PDGFRA;DNAH11;GABRA6;MUC16;GPR98;ATRX;IDH2;ANK2;BRAF;USH2A;SDK1;OBSCN;KEL;NUP210L;NF1;FAT2;FKBP9</i>
Pericholangitis	6/6	0.013118854273829389	<i>UGT1A10;UGT1A5;UGT1A4;UGT1A9;UGT1A8;UGT1A7</i>
Lymphoid leukemia	56/152	0.02867702892817767	<i>RYR1;RYR2;FLT3;FRMPD1;PTEN;PTPRJ;IKZF1;SYNE1;CCND3;ACOXL;PDE4B;EP300;HMCN1;JAK2;JAK1;MEF2B;FBXW7;MAG12;ARID5B;UNC5D;MYRIP;TYK2;C12ORF5;PARD3;CDH10;TLN2;LPHN2;SGK1;ST6GALNAC3;LPHN3;PDZRN3;DSCAML1;SP140;TSHZ2;TTN;RELN;DMD;DISC1;SPTBN1;CEP112;CREBBP;TMEM30A;MUC16;IDH2;BRAF;PTPN11;USH2A;PTPN14;LRP1B;CPEB1;CENPF;RIT2;SLCO3A1;BRMS1L;NF1;CTNNB1</i>
Parkinson's disease	39/99	0.04333579805532507	<i>SEMA5A;OCA2;COL13A1;LRRK2;WIPF3;PRDM15;STK39;ITGAL;LMNB1;ADAMTSL1;PAK1;SH3BGR1;C9;TASIP1;TASIR2;CTNNA3;HIVEP2;CSMD1;SH3GL2;GPM6B;QSER1;WNT3;SNCA;NSF;ARL15;TCF12;AXIN1;DDK2;ETV6;DNAJC1;DLG2;RIT2;KANS1L;PARD3;AAK1;PLEKHM1;ATF6;RBMS3;CCDC62</i>
Chronic obstructive pulmonary disease	50/135	0.04527839013591505	<i>APP;DENND1A;FAM13A;LDB2;CCDC91;PLCE1;FAM65B;CALN1;CD96;SNRPN;TRPC6;ANXA2;RBM19;C10ORF11;DDK2;ADAM19;ARMC2;CFDP1;SPATA13;KCNA1;RARB;PDZRN3;FTO;RAB5B;SEMA3D;NOTCH4;ITPR1;ADCY2;FHIT;TMEM163;THSD4;SRP72;SNTG1;VPS53;WNT3;VAT1L;CDRT4;WWOX;RAB4B;SLC16A10;SOX30;KIAA1239;PTPRD;TBCK;DLG2;KANS1L;KCNS3;MAP3K13;CNIH3;ASB1</i>
Restless legs syndrome	5/5	0.04648366347359345	<i>PTPRD;TOX3;RBFOX1;MEIS1;MAP2K5</i>
Lung cancer	126/400	0.047993209332096026	<i>IPO11;ATP8A2;ATP8A1;THSD7B;CDH9;CDH8;MYB;LEPR;EP300;KIF21A;ANKS1A;CMKLR1;KCNH1;EPHA5;PDGFRA;MAP2K1;DSCAM;FBXW7;THEMIS;LMTK2;TNNI3K;GABRG</i>

			3;PRLR;KCTD8;FOLH1;KAT6B;KAT6A;PRKD1;ROR2;DGKI ;MTMR3;PCDH15;ITPR2;IQGAP1;NALCN;PCDH17;PKHD1 ;RNF213;PRDM16;UBR5;VTI1A;PLCG2;UTP20;LRRC4C;CC DC141;GRIA4;MARK1;ATP8B4;TFAP2D;MUC16;CCDC15;N FATC3;BRAF;ESRRG;PXDNL;FRG1B;LRP1B;PTPRD;FAM1 35B;SP4;NF1;DCP1B;ITGAM;DOCK3;KCNC2;FLT3;PTEN; CCDC129;SIPA1L2;TRIOBP;SYNE1;FAM154A;SENP5;NETO 1;GRM7;BAI3;SNAPC4;GRM8;HYDIN;JAK2;NCOA2;SHPRH ;ATR;INSRR;NBPF10;TET1;PTH2R;ACTA2;NRG3;SETBP1; CDH10;PIK3C3;ZNF780A;SOS1;MET;LPHN3;RBMS3;COL1 1A1;AKAP6;ADCY1;TTN;ADAM29;ERBB4;PAK7;GPC3;DM D;GPC5;PTCHD4;PAK3;UBQLN3;NTRK1;ATF7IP;NTRK2;N LGN4X;ATRNL1;COL22A1;NTRK3;EMR1;KCNP4;PLEKHA 5;C4ORF21;USH2A;CCDC170;CTNNB1;ASB5;TAF2
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Table S6. Expression levels (TPM) of genes possessing the most frequent DSBs in HEK293T cells (mapped in hg19). Excel file attached separately. Related to Figure 4.

Table S7. GO associations with Biological Processes (GO Profiler) of 719 silenced genes possessing frequent DSDs. Related to Figure 4.

GO.ID	Description	padj	Genes
GO:0052696	flavonoid glucuronidation	7.502911584763635e-11	UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9
GO:0052697	xenobiotic glucuronidation	1.338108057715329e-9	UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9
GO:0050877	nervous system process	3.293251406103174e-8	COL11A1,CSMD1,SCN1A,SORCS3,PKHD1L1,ADCY8,AGT,BDKRB1,BRINP1,CACNG2,CACNG3,CHRM1,CNGA3,CNGB1,CST2,CTNNA2,DLGAP2,DRD1,GABRA6,GABRB1,GABRG3,GRIN2B,GSX2,GUCY2F,KCND2,LHFPL5,MAG,MYO3B,NETO1,NLGN4X,NMUR2,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OTOGL,RBFOX1,SHISA6,SRRM4,TAS1R2,TAS2R41,TMC1,TMPRSS3
GO:0009812	flavonoid metabolic process	9.742031892980166e-8	UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9
GO:0052695	cellular glucuronidation	9.024094952072597e-7	UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9
GO:0003008	system process	0.0000012345116742113072	COL11A1,CSMD1,SCN1A,SORCS3,PKHD1L1,ADAMTS16,ADCY8,AGT,BDKRB1,BRINP1,CACNG2,CACNG3,CHRM1,CNGA3,CNGB1,CST2,CTNNA2,DLGAP2,DRD1,FGF10,GABRA6,GABRB1,GABRG3,GRIN2B,GSX2,GUCY2F,KCND2,LHFPL5,LPA,MAG,MOGAT2,MYO3B,MYOCD,NETO1,NLGN4X,NMUR2,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OTOGL,PDGFB,RBFOX1,SERPINA3,SGCD,SGCZ,SHISA6,SLC16A12,SLC22A3,SLC24A3,SRRM4,TAS1R2,TAS2R41,TMC1,TMPRSS3,TNNI3K,UGT1A7
GO:0006063	uronic acid metabolic	0.000002228496232860897	UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9

GO:0019585	process glucuronate metabolic process	0.000002228496232860897	<i>UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9</i>
GO:0050906	detection of stimulus involved in sensory perception	0.00003300457057061153	<i>COL11A1,SCN1A,CNGB1,CST2,GUCY2F,LHFPL5,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,TAS1R2,TMC1</i>
GO:0007600	sensory perception	0.00018327581003608982	<i>COL11A1,SCN1A,PKHD1L1,BDKRB1,CNGA3,CNGB1,CST2,GUCY2F,KCND2,LHFPL5,MYO3B,NMUR2,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OTOG,SRM4,TAS1R2,TAS2R41,TMC1,TMPRSS3</i>
GO:0006805	xenobiotic metabolic process	0.0003034832897021519	<i>CYP2C18,HNF4A,RORC,S100A12,UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9</i>
GO:0051606	detection of stimulus	0.0003570872529254608	<i>ANO3,COL11A1,SCN1A,CNGB1,CST2,GUCY2F,LHFPL5,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,TAS1R2,TMC1</i>
GO:0007186	G protein-coupled receptor signaling pathway	0.0004308827716833372	<i>SORCS3,ADCY8,AGT,BDKRB1,CCL14,CCL15,CCR3,CHRM1,CMKLR1,CNGB1,DRD1,GLP2R,GPR141,GPR173,GUCY2F,NMUR2,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,P2RY10,P2RY8,RGS8,RIT2,RXFP1,RXFP2,TAS1R2,TAS2R41</i>
GO:0051552	flavone metabolic process	0.0007174502608379595	<i>UGT1A1,UGT1A7,UGT1A8,UGT1A9</i>
GO:0050907	detection of chemical stimulus involved in sensory perception	0.0018166015904187828	<i>CNGB1,CST2,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,TAS1R2</i>
GO:0050896	response to stimulus	0.002970559746808135	<i>ANO3,COL11A1,CSMD1,DOCK2,DSCAM1,FLRT2,SCN1A,SORCS3,TFEC,VWC2,WWC3,B3GALT5,MACC1,PKHD1L1,VWF,ADCY8,AGT,ALOX5AP,ANGPT4,APBB1IP,APOL3,ARHGAP15,BDKRB1,BPI,BRINP1,C9,CACNA1A,CACNG2,CACNG3,CARD16,CASP1,CCL14,CCL15,CCL15-CCL14,CCR3,CD300A,CD6,CD96,CDH13,CELA1,CHI3L1,CHRM1,CLNK,CMKLR1,CNGA3,CNGB1,CNTN4,CNTN6,CRISP3,CST2,CTNNA2,CYP2C18,DCC,DEFA1B,DEFA3,DEFB118,DLGAP2,DRD1,DSCAM,DSG1,DTHD1,FCGR3A,FCGR3B,FCRL4,FCRL6,FGF1,FGF10,FGF14,GABRA6,GABRB1,GABRG3,GLP2R,GPR141,GPR173,GRIA3,GRIK1-AS2,GRIN2B,GSX2,GUCY2F,HCK,HNF4A,IL1RAPL1,IL1RAPL2,IL1RL1,IL5RA,INPP5D,ITGAM,ITGB6,ITGBL1,KCND2,KIR2DL1,KIR2DL3,KIR2DL4,KIR3DL1,KIR3DL2,LHFPL5,LY86,MAG,MCTP2,MDF1,MGMT,MMP26,MMP28,MORC1,MYO3B,MYOCD,NCF1,NETO1,NLGN4X,NME8,NMUR2,NRG3,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OVOL2,P2RY10,P2RY8,PDGFB,PKHD1,PLCXD3,PRG3,PTPRT,RAB4B-EGLN2,RGS22,RGS8,RIT2,RORC,RXFP1,RXFP2,S100A12,SCEL,SEL1L2,SEMA5A,SERPINA3,SGCD,SHISA6,SIGLEC9,SLC22A3,SLC6A14,SRD5A2,STK32B,TAS1R2,TAS2R41,THEMIS,TMC1,TNFRSF11B,TPTE,TRIM29,TRIM60,UBQLN3,UGT1A1,UGT1A3,UGT1A4,UGT1A5,UGT1A6,UGT1A7,UGT1A8,UGT1A9,UNC5D,VSTM1,WDFY4,XDH,ZNF366</i>
GO:0007600	sensory	0.0036987340833	<i>CNGB1,CST2,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR5</i>

6	perception of chemical stimulus	191285	<i>III, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4, TAS1R2, TAS2R41</i>
GO:0050911	detection of chemical stimulus involved in sensory perception of smell	0.004179605505934809	<i>CNGB1, OR14K1, OR2T3, OR4M1, OR51B2, OR51B4, OR51F2, OR51I1, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4</i>
GO:0042221	response to chemical	0.00480219342854188	<i>DOCK2, DSCAML1, FLRT2, VWC2, ADCY8, AGT, ALOX5AP, ANGPT4, BDKR1, BPI, BRINP1, CACNA1A, CACNG2, CARD16, CASP1, CCL14, CCL15, CCL15-CCL14, CCR3, CD6, CD96, CDH13, CHI3L1, CHRM1, CMKLRL1, CNGA3, CNGB1, CNTN4, CNTN6, CST2, CYP2C18, DCC, DEFA1B, DEFA3, DRD1, DSCAM, DSG1, FGF1, FGF10, GABRB1, GLP2R, GPR173, GRIK1-AS2, GRIN2B, HCK, HNF4A, IL1RAPL1, IL1RAPL2, IL1RL1, IL5RA, ITGB6, KCND2, LY86, MGMT, MMP28, MYOCD, NCF1, NME8, NRG3, OR14K1, OR2T3, OR4M1, OR51B2, OR51B4, OR51F2, OR51I1, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4, OVOL2, PDGFB, PTPRT, RGS8, RORC, RXFP1, RXFP2, S100A12, SEL1L2, SEMA5A, SLC6A14, SRD5A2, TAS1R2, TNFRSF11B, UGT1A1, UGT1A3, UGT1A4, UGT1A5, UGT1A6, UGT1A7, UGT1A8, UGT1A9, UNC5D, XDH, ZNF366</i>
GO:0009593	detection of chemical stimulus	0.007251030546536166	<i>CNGB1, CST2, OR14K1, OR2T3, OR4M1, OR51B2, OR51B4, OR51F2, OR51I1, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4, TAS1R2</i>
GO:0007608	sensory perception of smell	0.011600567303706196	<i>CNGB1, OR14K1, OR2T3, OR4M1, OR51B2, OR51B4, OR51F2, OR51I1, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4</i>
GO:0071466	cellular response to xenobiotic stimulus	0.012348199289055407	<i>CYP2C18, HNF4A, RORC, S100A12, UGT1A1, UGT1A3, UGT1A4, UGT1A5, UGT1A6, UGT1A7, UGT1A8, UGT1A9</i>
GO:0023052	signaling	0.01513361928404642	<i>DOCK2, FLRT2, SCN1A, SORCS3, VWC2, WWC3, KCNQ3, MACC1, VWF, ADCY8, AGT, ANGPT4, APBB1IP, APOL3, ARHGAP15, BDKR1, BPI, CACNA1A, CACNG2, CACNG3, CARD16, CASP1, CCL14, CCL15, CCL15-CCL14, CCR3, CD300A, CD6, CDH13, CELA1, CHI3L1, CHRM1, CLNK, CMKLRL1, CNGA3, CNGB1, CNTN4, CNTN6, DCC, DEFA1B, DEFA3, DLGAP2, DRD1, DSCAM, DTHD1, FCGR3A, FCGR3B, FCRL4, FCRL6, FGF1, FGF10, FGF14, GABRA6, GABRB1, GABRG3, GLP2R, GPR141, GPR173, GRIA3, GRIN2B, GSX2, GUCY2F, HCK, HNF4A, IL1RAPL1, IL1RAPL2, IL1RL1, IL5RA, INPP5D, ITGAM, ITGB6, ITGBL1, KCND2, KIR2DL1, KIR2DL4, LY86, MAG, MCTP2, MDF1, MYOCD, NCF1, NETO1, NLGN4X, NMUR2, NRG3, OPN1LW, OR14K1, OR2T3, OR4M1, OR51B2, OR51B4, OR51F2, OR51I1, OR51T1, OR52E6, OR52E8, OR52N1, OR56B1, OR5H2, OR5H6, OR5K4, OR5P2, OR5P3, OR6C74, OR6N2, OR9A4, OVOL2, P2RY10, P2RY8, PDGFB, PKHD1, PLCXD3, PTPRT, RAB4B, EGLN2, RGS22, RGS8, RIT2, RORC, RPH3A, RXFP1, RXFP2, S100A12, SEL, SEMA5A, SGCD, SHISA6, SIGLEC9, SRD5A2, STK32B, TAS1R2, TAS2R41, THEMIS, TNFRSF11B, TNNT3K, TPTE, UNC5D, VSTM1, XDH, ZNF366</i>
GO:0007165	signal transduction	0.02110959057507229	<i>DOCK2, FLRT2, SORCS3, VWC2, WWC3, MACC1, VWF, ADCY8, AGT, ANGPT4, APBB1IP, APOL3, ARHGAP15, BDKR1, BPI, CACNG2, CACNG3, CARD16, CASP1, CCL14, CCL15, CCL15-CCL14, CCR3, CD300A, CD6, CDH13, CELA1, CHI3L1, CHRM1, CLNK, CMKLRL1, CNGA3, CNGB1, CNTN6, DCC, DEFA1B, DEFA3, DLGAP2, DRD1, DSCAM, DTHD1, FCGR3A, FCGR3B, FCRL4, FCRL6, FGF1, FGF10, FGF14, GABRA6, GABRB1, GABRG3, GLP2R, GPR141, GPR173, GRIA3, G</i>

			<p>RIN2B,GSX2,GUCY2F,HCK,HNF4A,IL1RAPL1,IL1RAPL2,IL1RL1,IL5RA,INPP5D,ITGAM,ITGB6,ITGBL1,KIR2DL1,KIR2DL4,LY86,MCTP2,MDFI,MYOCD,NCF1,NETO1,NLGN4X,NMUR2,NRG3,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OVOL2,P2RY10,P2RY8,PDGFB,PKHD1,PLCXD3,PTPRT,RAB4B- EGLN2,RGS22,RGS8,RIT2,RORC,RXFP1,RXFP2,S100A12,SCEL,SEMA5A,SGCD,SHISA6,SIGLEC9,STK32B,TAS1R2,TAS2R41,THEMIS,TNFRSF11B,TPTE,UNC5D,VSTM1,XDH,ZNF366</p>
GO:0007154	cell communication	0.02437915125966604	<p>DOCK2,FLRT2,SCN1A,SORCS3,VWC2,WWC3,KCNQ3,MACC1,VWF,ADCY8,AGT,ANGPT4,APBB1IP,APOL3,ARHGAP15,BDKRB1,BPI,CACNA1A,CACNG2,CACNG3,CARD16,CASP1,CCL14,CCL15,CCL15-CCL14,CCR3,CD300A,CD6,CDH13,CELA1,CHI3L1,CHRM1,CLNK,CMKLR1,CNGA3,CNGB1,CNTN4,CNTN6,DCC,DEFA1B,DEFA3,DLGAP2,DRD1,DSCAM,DTHD1,FCGR3A,FCGR3B,FCRL4,FCRL6,FGF1,FGF10,FGF14,GABRA6,GABRB1,GABRG3,GLP2R,GPR141,GPR173,GRIA3,GRIN2B,GSX2,GUCY2F,HCK,HNF4A,IL1RAPL1,IL1RAPL2,IL1RL1,IL5RA,INPP5D,ITGAM,ITGB6,ITGBL1,KCND2,KIR2DL1,KIR2DL4,LY86,MAG,MCTP2,MDFI,MYOCD,NCF1,NETO1,NLGN4X,NMUR2,NRG3,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OVOL2,P2RY10,P2RY8,PDGFB,PKHD1,PLCXD3,PTPRT,RAB4B- EGLN2,RGS22,RGS8,RIT2,RORC,RPH3A,RXFP1,RXFP2,S100A12,SCEL,SEMA5A,SGCD,SHISA6,SIGLEC9,SRD5A2,STK32B,TAS1R2,TAS2R41,THEMIS,TNFRSF11B,TNNI3K,TPTE,UNC5D,VSTM1,XDH,ZNF366</p>
GO:0065007	biological regulation	0.027971577239575458	<p>ANO3,CELF6,CSMD1,DOCK2,FLRT2,HEPHL1,SCN1A,SORCS3,TFEC,VWC2,WWC3,ZNF354C,KCNJ15,KCNJ6,KCNQ3,MACC1,VWF,ACTG2,ADAMTS16,ADCY8,ADIRF,AFM,AGT,ALOX5AP,ANGPT4,ANXA13,ANXA8L1,APBB1IP,APOL3,ARHGAP15,B4GALNT2,BDKRB1,BLID,BPI,BRDT,BRINP1,C10ORF90,C9,CACNA1A,CACNG2,CACNG3,CARD16,CASP1,CCDC169-SOHLH2,CCL14,CCL15,CCL15-CCL14,CCR3,CD300A,CD6,CD96,CDH13,CELA1,CHI3L1,CHRM1,CLNK,CMKLR1,CNGA3,CNGB1,CNTN4,CNTN6,CST2,CSTL1,CTNNA2,CYP2C18,DAZL,DCC,DEFA1B,DEFA3,DLGAP2,DPP10,DPP6,DPRX,DRD1,DSCAM,DSG1,DTHD1,ELOVL3,FCGR3A,FCGR3B,FCRL4,FCRL6,FGF1,FGF10,FGF14,FXFD2,FXFD6- FXFD2,GABRA6,GABRB1,GABRG3,GLP2R,GPR141,GPR173,GRIA3,GRIK1- AS2,GRIN2B,GSX2,GUCY2F,HCK,HNF4A,HPSE2,IL1RAPL1,IL1RAPL2,IL1RL1,IL5RA,INPP5D,ITGAM,ITGB6,ITGBL1,KCND2,KCNG4,KHDBS2,KIR2DL1,KIR2DL4,KIR3DL2,KLF17,LPA,LRRC52,LY86,MAG,MAGEA4,MCTP2,MDFI,MGMT,MIA2,MIR105-2,MIR1185-1,MIR1226,MIR1302-10,MIR153-2,MIR1912,MIR218-1,MIR346,MIR383,MIR767,MMP26,MMP28,MORC1,MYOCD,NCF1,NCF4,NETO1,NLGN4X,NMUR2,NRG3,OPN1LW,OR14K1,OR2T3,OR4M1,OR51B2,OR51B4,OR51F2,OR51I1,OR51T1,OR52E6,OR52E8,OR52N1,OR56B1,OR5H2,OR5H6,OR5K4,OR5P2,OR5P3,OR6C74,OR6N2,OR9A4,OVOL2,P2RY10,P2RY8,PADI6,PDGFB,PEG3,PKHD1,PLCXD3,POTEE,PPP2R2B,PRG3,PTGES3L-AARSD1,PTPRT,RAB4B- EGLN2,RBFOX1,RGS22,RGS8,RHOXF2,RIPPLY1,RIT2,RORC,RPH3A,RXFP1,RXFP2,S100A12,SCEL,SEMA5A,SERPINA3,SERPINA4,SERPINB11,SGCD,SGCZ,SHISA6,SIGLEC9,SLC22A3,SLC24A3,SMYD1,SP7,SRD5A2,SRRM4,STK32B,STMN4,SYNDIG1,TAS1R2,TAS2R41,TFAP2D,THEMIS,TMC1,TMIGD1,TMPRSS3,TNFRSF11B,TNNI3K,TPPP2,TPT E,TRIM29,TRIM60,TSPAN1,UBQLN3,UGT1A1,UGT1A3,UGT1A4,UGT1A7,UGT1A8,UGT1A9,UNC5D,VRTN,VSTM1,XDH,ZIM2,ZNF366,ZNF415,ZNF626,ZNF667,ZNF730</p>
GO:0042573	retinoic acid metabolic process	0.03264138868771157	<p>CYP2C18,UGT1A1,UGT1A3,UGT1A7,UGT1A8,UGT1A9</p>

GO:0009605	response to external stimulus	0.039611363306331075	<i>ANO3, COL11A1, CSMD1, DOCK2, DSCAML1, FLRT2, SCN1A, B3GALT5, ADCY8, AGT, ALOX5AP, BDKRB1, BPI, C9, CACNG2, CARD16, CASP1, CCL14, CCL15, CCL15- CCL14, CCR3, CD6, CD96, CDH13, CHI3L1, CLNK, CMKLR1, CNGB1, CNTN4, CNTN6, CRISP3, CTNNA2, DCC, DEFA1B, DEFA3, DEFB118, DRD1, DSCAM, FGF1, FGF10, GUCY2F, HCK, IL1RL1, ITGAM, ITGB6, KIR2DL4, KIR3DL1, LHFPL5, LY86, MAG, MGMT, MMP26, MMP28, MYOCD, NCF1, NMUR2, NRG3, OPN1LW, PDGFB, S100A12, SCEL, SEMA5A, SLC22A3, SRD5A2, TMCI, TNFRSF11B, TRIM29, TRIM60, UGT1A1, UNC5D, WDFY</i> 4
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Table S8. Coordinate correlations between DSB subsets detected in HEK293T cells (DSB hotspots that are fitted to 100 kb domains, top quartile Q1 subset, Q1+Q2+Q3 subset) and TSS subsets (bidirectional TSSs, unidirectional TSSs, active TSSs, silent TSSs) from the EPD, GENCODE, and RefSeq databases. All correlations were assessed by GenomeTrackAnalyzer (<https://ancorr.eimb.ru>). Excel file attached separately.