

Supplementary Table S4 Genes included in significant GISTIC deletion peaks

cytoband	19p13.3	3p14.1	12q24.23	4q32.2
q value	0,00031532	0,15763	0,15898	0,18973
residual q value	0,00031532	0,15763	0,15763	0,18973
wide peak boundaries	chr19:1-2451267	chr3:52861770-70011694	chr12:100419710-133275309	chr4:149270911-190214555
genes in wide peak	AMH	ARF4	ACACB	hsa-mir-1979
	ATP5D	ERC2-IT1	ACADS	AGA
	AZU1	CACNA1D	ALDH2	SLC25A4
	HCN2	DNASE1L3	ARL1	ANXA2P1
	BSG	FHIT	ASCL1	CASP3
	CDC34	FLNB	ATP2A2	LRBA
	CIRBP	MITF	BCL7A	CLCN3
	CNN2	PDHB	SCARB1	CPE
	CSNK1G2	PRKCD	CMKLR1	CTSO
	CFD	PTPRG	COX6A1	DCTD
	ARID3A	ATXN7	CRY1	ETFDH
	EFNA2	TKT	DAO	F11
	ELANE	TMF1	DTX1	ACSL1
	GAMT	WNT5A	EIF2B1	FAT1
	MKNK2	SLMAP	STX2	FGA
	GPX4	ACOX2	GOLGA3	FGB
	GZMM	CADPS	GTF2H3	FGG
	OAZ1	SUCLG2	HPD	FRG1
	PALM	HESX1	IGF1	GK3P
	POLR2E	UBA3	MMP17	GLRB
	POLRMT	MAGI1	MSI1	GPM6A
	PRTN3	PSMD6	MVK	GRIA2
	PTBP1	ARL6IP5	MYBPC1	GUCY1A3
	RPS15	RPP14	MYL2	GUCY1B3
	STK11	FAM107A	NFYB	HMGB2
	TCF3	FRMD4B	NOS1	HPGD
	MADCAM1	FAM208A	OAS1	ING2

cytoband
genes in wide peak

19p13.3	3p14.1	12q24.23	4q32.2
SF3A2	LRIG1	OAS2	IRF2
PLPP2	ERC2	OAS3	KLKB1
AP3D1	APPL1	P2RX4	MTNR1A
MED16	ARHGEF3	P2RX7	NEK1
FSTL3	SFMBT1	PEBP1	NPY1R
APC2	IL17RD	PAH	NPY2R
ABCA7	PXK	PLA2G1B	NPY5R
UQCR11	FEZF2	PMCH	GATB
SBNO2	CHDH	POLE	PLRG1
ARHGAP45	IL17RB	PPP1CC	PPID
SHC2	CACNA2D3	PRKAB1	RPS3A
TIMM13	DCP1A	PSMD9	MSMO1
DAZAP1	LMOD3	PTPN11	SFRP2
RNU6-1	ADAMTS9	PXMP2	TDO2
FGF22	ABHD6	PXN	TLL1
THEG	LRTM1	RAN	TLR2
LSM7	C3orf14	RFC5	TLR3
MBD3	SELK	RFX4	VEGFC
MIER2	THOC7	RPL6	GLRA3
PCSK4	KBTBD8	RPLP0	SORBS2
C19orf24	RFT1	CLIP1	SAP30
PLEKHJ1	ACTR8	ATXN2	SNORD73A
BTBD2	SLC25A26	SELPLG	LRAT
RNF126	FAM3D	SFSWAP	HAND2
SPPL2B	C3orf49	TBX5	RAPGEF2
WDR18	SNTN	TBX3	MFAP3L
REXO1	SYNPR	HNF1A	MAB21L2
PLPPR3	ASB14	TDG	ADAM29
OR4F17	FAM19A4	HSP90B1	ANXA10
ABHD17A	PRICKLE2	TXNRD1	KLHL2
KLF16	C3orf67	UBC	SCRG1
DOT1L	KCTD6	UNG	PALLD

cytoband	19p13.3	3p14.1	12q24.23	4q32.2
genes in wide peak	KISS1R	DNAH12	ZNF10	KIAA0922
	MUM1	PDE12	ZNF26	TRIM2
	MIDN	DENND6A	ZNF84	ANP32C
	R3HDM4	EOGT	ZNF140	FAM149A
	TMEM259	CCDC66	CDK2AP1	FBXO8
	TPGS1	LINC00698	BRAP	ARFIP1
	REEP6	SPATA12	ULK1	PDLIM3
	IZUMO4	FAM19A1	RASAL1	SPOCK3
	SCAMP4	ESRG	MAPKAPK5	AADAT
	ADAT3	LINC00994	DENR	FAM198B
	GRIN3B	MIR3136	OASL	ASIC5
	JSRP1	MIR4272	DYNLL1	GALNT7
	MOB3A	MIR3938	SRSF9	CLDN22
	MISP	PTPRG-AS1	HRK	DKFZP434I0714
	PLK5	PSMD6-AS2	ADAM1A	DCHS2
	C2CD4C	ADAMTS9-AS2	HCAR3	HPF1
	CIRBP-AS1	PRICKLE2-AS1	HIP1R	
	C19orf25	MAGI1-AS1	PIWIL1	NEIL3
	ATP8B3	SYNPR-AS1	CABP1	FBXW7
	CBARP	THOC7-AS1	NCOR2	TMEM144
	CSNK1G2-AS1	ARHGEF3-AS1	WSCD2	TMA16
	ODF3L2	CACNA2D3-AS1	SART3	UFSP2
	ADAMTSL5	PRICKLE2-AS2	KNTC1	DDX60
	TMPRSS9	PRICKLE2-AS3	MLEC	CDKN2AIP
	NDUFS7	SUCLG2-AS1	GIT2	TENM3
	C19orf35	LOC101929159	NUAK1	LRP2BP
	WASH5P	C3orf67-AS1	RBM19	PDGFC
	ONECUT3	ADAMTS9-AS1	RNF10	FSTL5
	MEX3D	MIR548BB	NR1H4	STOX2
	LINC01002	LOC105377102	SH2B3	CFAP97
	PRSS57	LOC105377105	ARPC3	FNIP2
	LINGO3	FAM3D-AS1	MPHOSPH9	SH3RF1

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cytoband
genes in wide peak

19p13.3	3p14.1	12q24.23	4q32.2
FAM138A	LOC105377143	CAMKK2	RXFP1
FAM138C	LOC105377146	ZNF268	SPCS3
LOC100288123	ARF4-AS1	TRAFD1	TRAPPC11
MIR1909		TMED2	CENPU
MIR1302-2		ERP29	HAND2-AS1
MIR1227		CKAP4	MAP9
MIR1302-9		GCN1	WWC2
MIR1302-10		SDS	CEP44
MIR3187		RAB35	SNX25
MIR1302-11		SNRNP35	MND1
MIR4321		PRDM4	TKTL2
MIR4745		CIT	CBR4
RNU6-7		PWP1	FHDC1
MIR6789		FICD	LOC90768
MIR7108		FZD10	DDX60L
RNU6-2		MLXIP	NAF1
		RPH3A	WDR17
		P2RX2	ZFP42
		FBXO21	SPATA4
		SETD1B	ENPP6
		ANKLE2	ASB5
		CUX2	SH3D19
		KIAA1033	WWC2-AS2
		MED13L	FAM218A
		SIRT4	C4orf45
		ABCB9	DCLK2
		ISCU	TRIM60
		RIMBP2	RBM46
		ATP6V0A2	C4orf46
		CORO1C	TIGD4
		FBXW8	TMEM154
		HSPB8	TMEM192

cytoband
genes in wide peak

19p13.3	3p14.1	12q24.23	4q32.2
		RNU4-2	RWDD4
		RNU4-1	PRIMPOL
		HCAR1	TRIML2
		UTP20	CCDC110
		IFT81	CYP4V2
		FAM216A	F11-AS1
		HCFC2	LINC01098
		SYCP3	RNF175
		CHST11	LOC339975
		GALNT9	TRIML1
		CCDC53	LOC340017
		GPN3	PRSS48
		GLTP	ANKRD37
		MAPKAPK5-AS1	LOC389247
		ARL6IP4	TRIM61
		TAOK3	HELT
		POP5	LINC01060
		ANAPC5	FAM92A1P2
		ANAPC7	LOC441052
		TRIAP1	C4orf47
		NT5DC3	GALNTL6
		VPS29	FRG2
		TPCN1	SLED1
		SSH1	FLJ38576
		RHOF	MIR578
		VSIG10	LINC00290
		TESC	LOC728175
		PARPBP	FAM160A1
		RIC8B	LOC729870
		APPL2	MIR3945HG
		SBNO1	CLDN24
		DRAM1	DUX4

cytoband
genes in wide peak

19p13.3	3p14.1	12q24.23	4q32.2
		SVOP	MIR1305
		STAB2	LOC100419170
		ZCCHC8	DBET
		POLR3B	MIR548T
		CHFR	MIR3140
		WSB2	MIR4276
		DIABLO	MIR3945
		CHPT1	MIR3688-1
		PITPNM2	LINC01207
		EP400	APELA
		DHX37	LOC100506085
		FBRSL1	LOC100506107
		DDX55	LOC100506122
		TRPV4	LINC01093
		LHX5	LOC100506272
		SUDS3	MIR4455
		C12orf43	MIR4453
		VPS33A	MIR4454
		RSRC2	MIR3688-2
		AACS	LOC100996286
		NUP37	LOC101928052
		DDX54	LOC101928131
		NOC4L	LINC01179
		GNPTAB	LINC01612
		B3GNT4	LOC101928314
		TCTN1	LOC101928509
		OGFOD2	LOC101928551
		VPS37B	LOC101928590
		C12orf49	LINC01099
		TCTN2	WWC2-AS1
		NAA25	LINC01262
		SLC8B1	LOC101930370

cytoband
genes in wide peak

19p13.3

3p14.1

12q24.23

4q32.2

RNF34

DEAR

CCDC92

MIR6082

MTERF2

LOC102723766

PUS1

LOC102724776

ACAD10

LVCAT8

GLT8D2

LOC105377590

KCTD10

LINC01596

SLC41A2

TCHP

COQ5

HVCN1

SRRM4

CCDC62

KDM2B

UNC119B

USP30

ORAI1

RNFT2

FAM222A

RITA1

FAM222A-AS1

ANKRD13A

TMEM116

UBE3B

TMEM263

C12orf65

TMEM132C

BICDL1

SDSL

TMEM132B

IQCD

LINC01257

cytoband
genes in wide peak

19p13.3

3p14.1

12q24.23

4q32.2

C12orf45
TMEM132D
SLC15A4
ASCL4
BTBD11
SPIC
ANO4
ALKBH2
FOXN4
SPPL3
BRI3BP
RFLNA
ZNF664
TMEM120B
WDR66
GLT1D1
RAD9B
FAM109A
LINC00934
ALDH1L2
SLC5A8
PPTC7
CCDC63
CCDC60
PGAM5
RILPL2
DNAH10
PLBD2
TTC41P
LRRC43
TCP11L2
TBX5-AS1

cytoband
genes in wide peak

19p13.3

3p14.1

12q24.23

4q32.2

LOC283352
ADGRD1
MORN3
GAS2L3
LINC00485
MYO1H
HECTD4
KSR2
GATC
HNF1A-AS1
DDX51
MMAB
HCAR2
TMEM119
LOC338797
LINC01089
EP400NL
RILPL1
C12orf42
IL31
C12orf75
CFAP73
TMEM233
KMT5A
LINC00944
C12orf76
LINC00939
FLJ37505
LOC414300
LOC440117
FZD10-AS1
EID3

cytoband
genes in wide peak

19p13.3

3p14.1

12q24.23

4q32.2

MAP1LC3B2
ANHX
SNORA49
MIR619
MIR620
C12orf73
LOC728739
LOC100128554
LOC100130238
LINC01405
USP30-AS1
LOC100190940
LINC00173
LOC100287944
ZNF605
MIR1302-1
MIR1178
MIR4304
MIR3612
MIR3652
MIR3922
MIR3657
MIR3908
LOC100505978
LINC01234
LOC100506551
PXN-AS1
NRAV
LOC100506691
LRCOL1
CLIP1-AS1
LOC100507091

cytoband
genes in wide peak

19p13.3

3p14.1

12q24.23

4q32.2

LINC00943
ZNF664-FAM101A
MIR4498
MIR4496
MIR4419B
MIR4472-2
MIR4700
MIR4497
MIR5188
MIR548AQ
LINC00507
LOC100996671
LOC100996679
ZNF891
LOC101593348
LOC101927415
LOC101927464
LOC101927592
LOC101927616
LOC101927637
LOC101927694
LOC101927735
LINC01486
TESC-AS1
LOC101928416
LOC101928530
LOC101928597
LOC101929058
LOC101929084
CASC18
LOC101929162
MIR6760

cytoband
genes in wide peak

19p13.3	3p14.1	12q24.23	4q32.2
		MIR6761	
		MIR6762	
		MIR6861	
		MIR7107	
		MIR7641-2	
		MIR6763	
		MIR6880	
		MIR7106	
		MIR8072	
		THRIL	
		LINC01498	
		LHX5-AS1	
		LINC00508	
		LOC105369945	
		KCCAT198	
		LOC105369980	
		LOC105370014	
		LOC105370016	
		LOC105370024	
		LOC105370068	
		CRAT8	
		XLOC_009911	
		LACAT8	
		LOC107161159	

Genes included in significant GISTIC deletion peaks

cytoband	8p12	10q24.32	15q21.1	2q36.3
q value	0,18973	0,18973	0,18973	0,23137
residual q value	0,18973	0,18973	0,18973	0,23137
wide peak boundaries	chr8:25507445-37407456	chr10:80645499-13379742	chr15:1-57608540	chr2:207265195-242193529
genes in wide peak	ADRA1A BNIP3L	hsa-mir-3158-1 ACADSB	ACTC1 APBA2	hsa-mir-1244-1 AAMP

cytoband
genes in wide peak

8p12	10q24.32	15q21.1	2q36.3
CHRNA2	ACTA2	B2M	ACADL
CLU	ADAM8	NBEAP1	AGXT
DPYSL2	ADD3	BUB1B	ALPI
DUSP4	ADRA2A	CAPN3	ALPP
EPHX2	ADRB1	CHRM5	ALPPL2
EXTL3	FAS	CHRNA7	ATIC
PTK2B	ARL3	CKMT1B	KIF1A
GSR	BMPR1A	CYP19A1	BARD1
GTF2E2	BNIP3	DUT	BCS1L
NRG1	CASP7	EPB42	BOK
PNOC	ENTPD1	FBN1	CHRNA7
PPP2CB	CHUK	FGF7	CHRNA7
PPP2R2A	ABCC2	GABPB1	COL4A3
WRN	COL17A1	GABRA5	COL4A4
FZD3	COX15	GABRB3	COL6A3
UBXN8	CPN1	GABRG3	CPS1
DCTN6	CTBP2	GALK2	CREB1
PNMA2	CYP2C19	GANC	CRYBA2
RBPM5	CYP2C8	GATM	CRYGA
TRIM35	CYP2C9	GCHFR	CRYGB
KIF13B	CYP2C18	PDIA3	CRYGC
LEPROTL1	CYP2E1	HDC	CRYGD
PURG	CYP17A1	ONECUT1	CYP27A1
SCARA3	CYP26A1	IPW	DES
SARAF	DMBT1	ITPKA	DTYMK
ELP3	DNTT	IVD	EPHA4
CCDC25	DOCK1	LTK	ERBB4
INTS9	DUSP5	MAP1A	ACSL3
PBK	ECHS1	MEIS2	FN1
ZNF395	EMX2	MFAP1	GBX2
TEX15	FGF8	TRPM1	GPC1
EBF2	FGFR2	MYO5A	GPR35

cytoband	8p12	10q24.32	15q21.1	2q36.3
genes in wide peak	DUSP26	GFRA1	NDN	HDLBP
	HMBOX1	GLUD1	NEDD4	AGFG1
	RNF122	GOT1	OCA2	DNAJB2
	TTI2	PRLHR	PLCB2	HTR2B
	STMN4	GPR26	MAPK6	IDH1
	MAK16	GRK5	RAB27A	SP110
	FUT10	GRID1	RAD51	IGFBP2
	UNC5D	HABP2	RYR3	IGFBP5
	ESCO2	HELLS	SCG5	IHH
	FBXO16	HHEX	SLC12A1	CXCR1
	KCNU1	HMX2	SNRPN	CXCR2
	SCARA5	TLX1	SORD	CXCR2P1
	FAM183CP	HPS1	SPINT1	INHA
	NUGGC	HTR7	SRP14	INPP5D
	LINC00589	IDE	TCF12	IRS1
	MBOAT4	IFIT2	THBS1	KCNJ13
	SNORD13	IFIT1	TJP1	MAP2
	RBPM5-AS1	IFIT3	TP53BP1	MYL1
	MIR548H4	INPP5A	TYRO3	NCL
	MIR4287	KIF11	UBE3A	NDUFA10
	MIR3148	ABLIM1	MKRN3	
	MIR4288	LIPA	SLC30A4	NEU2
	MIR3622A	MGMT	PWAR5	NPPC
	MIR3622B	MKI67	EIF3J	PAX3
	SMIM18	MXI1	JMJD7-PLA2G4B	PDCD1
	NRG1-IT1	NDUFB8	SNAP23	PDE6D
	NRG1-IT3	NFKB2	HERC2	SERPINE2
	EXTL3-AS1	NRAP	SNURF	PPP1R7
	LOC101929450	OAT	USP8	PSMD1
	LOC101929470	PAX2	SLC28A2	PTH2R
	LOC101929550	PDE6C	CCPG1	PTMA
	MIR6842	PGAM1	COPS2	PTPRN

02-sep

cytoband
genes in wide peak

8p12	10q24.32	15q21.1	2q36.3
MIR6843	PITX3	TGM5	SNORD20
MIR7641-2	PNLIP	PIGB	RPE
LINC01288	PNLIPRP1	PPIP5K1	RPL37A
	PNLIPRP2	AQR	SAG
	PPP1R3C	SECISBP2L	CCL20
	HTRA1	ARHGAP11A	SLC4A3
	PSD	LCMT2	SLC11A1
	PTEN	SLC12A6	SP100
	PTPRE	BCL2L10	SPP2
	ALDH18A1	RASGRP1	TNP1
	RBP4	SERF2	TNS1
	RGR	GNB5	TUBA4A
	RGS10	ARPP19	VIL1
	RPL21	SLC27A2	WNT6
	SCD	GPR176	XRCC5
	SFRP5	CHP1	ZNF142
	FBXW4	OIP5	FZD5
	SLC18A2	BAHD1	SCG2
	SLIT1	FAN1	CUL3
	SNCG	CEP152	DGKD
	TAF5	MAPKBP1	STK16
	TCF7L2	GOLGA8A	PER2
	TECTB	RTF1	CDK5R2
	TIAL1	CYFIP1	CNOT9
	TLL2	MGA	LRRFIP1
	UROS	DMXL2	GPR55
	WNT8B	VPS39	TRIP12
	XPNPEP1	FAM189A1	ECEL1
	SHOC2	AP4E1	EIF4E2
	ADAM12	CCNDBP1	TTLL4
	UTF1	EID1	HDAC4
	LIPF	NPAP1	FARP2

cytoband
genes in wide peak

8p12	10q24.32	15q21.1	2q36.3
	EIF3A	HYPK	FARSB
	GBF1	TMEM87A	ABCB6
	LDB1	RPAP1	ARPC2
	BTRC	DKFZP434L187	ARL4C
	CH25H	PYGO1	RAMP1
	PKD2L1	BLOC1S6	SPEG
	BTAF1	GREM1	LANCL1
	PAPSS2	RPUSD2	NMUR1
	INA	TUBGCP4	STK25
	PDLIM1	SCG3	COPS8
	SMC3	TMOD3	CAPN10
	NEURL1	TMOD2	SP140
	BUB3	EHD4	IKZF2
	LGI1	DUOX2	PASK
	NOLC1	MYEF2	ATG4B
	GSTO1	NDUFAF1	OBSL1
	BAG3	RSL24D1	DNPEP
	MINPP1	NUSAP1	SH3BP4
	KIF20B	EMC4	KCNE4
	SH3PXD2A	SPTBN5	NGEF
	FAM53B	CTDSPL2	SNORD82
	SLK	KLF13	PNKD
	ZNF518A	DUOX1	SNED1
	DCLRE1A	MAGEL2	GIGYF2
	FRAT1	DLL4	TRAF3IP1
	ACTR1A	INO80	ABCA12
	SMNDC1	ZNF280D	CNPPD1
	NPM3	TRPM7	STK36
	GLRX3	PPP1R14D	CPS1-IT1
	RPP30	MTMR10	GMPPA
	DPYSL4	ZNF770	SMARCAL1
	TACC2	FLJ10038	ANO7

cytoband
genes in wide peak

8p12	10q24.32	15q21.1	2q36.3
	SORBS1	HAUS2	PRLH
	ERLIN1	RMDN3	THAP4
	LBX1	DNAJC17	ANKMY1
	NRG3	MNS1	SCLY
	MGEA5	NOP10	ASB1
	TUBGCP2	MYO5C	CAB39
	PRDX3	NSMCE3	PRKAG3
	ADIRF	FAM214A	UGT1A10
	VAX1	EMC7	UGT1A8
	ATE1	PAK6	UGT1A7
	LDB3	DTWD1	UGT1A6
	SEC23IP	KNL1	UGT1A5
	RAB11FIP2	AVEN	UGT1A9
	CPEB3	ATP10A	UGT1A4
	INPP5F	GJD2	UGT1A1
	NT5C2	STARD9	UGT1A3
	PDCD11	VPS18	FEV
	SORCS3	SQRDL	PID1
	WAPL	ZNF106	ATG16L1
	PPRC1	RFX7	ANKZF1
	FAM175B	SPATA5L1	USP40
	RRP12	CHAC1	HJURP
	TBC1D12	KATNBL1	HES6
	DNMBP	ATP8B4	ASIC4
	FRAT2	WDR76	DOCK10
	IFIT5	TMEM62	MREG
	DPCD	SEMA6D	PECR
	SEC31B	SPG11	C2orf83
	ATRNL1	ELL3	MFF
	EDRF1	NIPA2	ACKR3
	LRIT1	C15orf48	RNPEPL1
	TCTN3	C15orf41	

04-mar

cytoband
genes in wide peak

8p12	10q24.32	15q21.1	2q36.3
	C10orf12	SPPL2A	WDFY1
	ANKRD2	ZFYVE19	NYAP2
	CNNM1	CGNL1	USP37
	MYOF	FRMD5	CTDSP1
	ANKRD1	DISP2	GAL3ST2
	GHITM	CHRFAM7A	TMBIM1
	PDCD4	ULK4P3	RAB17
	VENTX	ULK4P1	RNF25
	R3HCC1L	ARHGAP11B	COPS7B
	POLL	DPH6	MRPL44
	BLNK	C15orf57	TRPM8
	KCNIP2	KNSTRN	ATG9A
	CUZD1	BMF	MLPH
	CALY	SHF	FAM134A
	EXOSC1	DUOXA1	GLB1L
	CALHM2	SNORD107	SPAG16
	CUTC	CHST14	CHPF
	PLCE1	CASC4	IQCA1
	CHST15	TUBGCP5	NHEJ1
	SUFU	TGM7	FAM124B
	ACSL5	CATSPER2	TM4SF20
	PANK1	LEO1	C2orf54
	CCSER2	NIPA1	TUBA4B
	EXOC6	PLA2G4E	ARMC9
	FAM35A	TRIM69	EFHD1
	CCNJ	PWAR1	SPHKAP
		05-mar TERB2	WNT10A
	ZRANB1	LOC145783	SLC19A3
	CFAP46	C15orf65	ILKAP
	NSMCE4A	LOC145845	ITM2C
	CNNM2	TMCO5A	RHBDD1
	WBP1L	ZSCAN29	ING5

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8p12	10q24.32	15q21.1	2q36.3
	CCDC186	TTBK2	PLCD4
	CRTAC1	CDAN1	MGC16025
	CEP55	STRC	TMEM169
	CWF19L1	DYX1C1	DNER
	RNLS	CSNK1A1P1	B3GNT7
	PI4K2A	OTUD7A	SP140L
	HIF1AN	SPRED1	LOC93463
	WDR11	PGBD4	STK11IP
	SLF2	ADAL	MOGAT1
	DHX32	EXD1	AGAP1
	PPP2R2D	FSIP1	TWIST2
	TDRD1	RHOV	DIS3L2
	BCCIP	FAM227B	NEU4
	C10orf2	UBR1	AP1S3
	TM9SF3	PATL2	SGPP2
	ENTPD7	LPCAT4	SPATA3
	AS3MT	PLA2G4F	TMEM198
	STAMBPL1	LRRC57	ZFAND2B
	GPAM	LYSMD2	FBXO36
	SHTN1	NUTM1	MTERF4
	FAM160B1	WDR72	UBE2F
	SEMA4G	HMGN2P46	OTOS
	PLEKHA1	SLC24A5	COPS9
	AVPI1	PRTG	OR6B3
	HPSE2	LINC00926	LOC150935
	FAM204A	LOC283683	PKI55
	LHPP	GOLGA6L2	KANSL1L
	MMS19	OR4N4	LINC01107
	NOC3L	LOC283710	LOC151174
	IKZF5	FAM98B	ERFE
	ZDHHC6	PLA2G4D	METTL21A
	CUEDC2	HERC2P3	CCNYL1

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8p12	10q24.32	15q21.1	2q36.3
	FBXL15	GOLGA6L1	CCDC140
	C10orf76	GOLGA8G	SLC23A3
	HPS6	GOLGA8IP	LINC00608
	MMRN2	SNORD108	GPBAR1
	MFSD13A	SNORD109A	SLC16A14
	MCMBP	SNORD115-1	LOC151475
	C10orf95	WHAMMP3	LINC00471
	PLEKHS1	GLDN	LOC151484
	PDZD7	FMN1	MSL3P1
	OBFC1	SNORD64	DAW1
	C10orf88	PWAR4	C2orf57
	UBTD1	PWARSN	PIKFYVE
	CFAP43	LINC01193	TIGD1
	LRRC27	MRPL42P5	LOC200772
	TNKS2	USP50	CFAP65
	TRIM8	TEX9	C2orf72
	KAZALD1	IGHV1OR15-1	RTP5
	SFXN3	C15orf52	LOC285095
	SLC25A28	TNFAIP8L3	UNC80
	ELOVL3	GOLGA8EP	RUFY4
	MARVELD1	OR4M2	DUSP28
	PCGF6	OR4N3P	MROH2A
	LOXL4	HERC2P10	ESPNL
	ZDHHC16	SHC4	ECEL1P2
	PCGF5	CTXN2	SPATA3-AS1
	ADGRA1	HERC2P2	CATIP
	LZTS2	C15orf53	RBM44
	LCOR	C15orf54	AQP12A
	NKX6-2	DUOXA2	KLHL30
	MRPL43	MIR211	PLEKHM3
	AFAP1L2	NF1P2	C2orf80
	PYROXD2	GOLGA6L22	RESP18

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8p12	10q24.32	15q21.1	2q36.3
	USMG5	HERC2P9	C2orf82
	ATAD1	WHAMMP2	OR6B2
	ARHGAP19	GOLGA8B	ASB18
	KNDC1	EIF2AK4	FLJ43879
	ITPRIP	CATSPER2P1	VWC2L
	OLMALINC	UNC13C	MIR149
	MTG1	LINC00929	MIR153-1
	CDHR1	CKMT1A	MIR26B
	BBIP1	SERINC4	DNAJB3
	FANK1	C15orf62	LOC440934
	OPALIN	GOLGA8N	MIR375
	SYCE1	C15orf56	LOC643387
	OPN4	PHGR1	LINC00607
	HOGA1	EIF3J-AS1	LOC646736
	SORCS1	CHEK2P2	PRSS56
	PRAP1	LOC646214	AQP12B
	ZNF511	CXADRP2	SNORA75
	C10orf90	PDCD6IPP2	LOC654841
	BTBD16	IGHV1OR15-3	SCARNA6
	FAM24A	REREP3	SCARNA5
	PSTK	GOLGA8S	MIR562
	PIK3AP1	GOLGA8J	D2HGDH
	MORN4	GOLGA8T	LOC728323
	ZFYVE27	GOLGA8K	DIRC3
	MMP21	GOLGA8M	LOC100129175
	FRA10AC1	MIR626	PP14571
	ANKRD22	MIR627	LOC100130451
	SFXN2	MIR628	LOC100286922
	PDZD8	ANP32AP1	MIR1471
	BORCS7	GOLGA6L6	MIR1302-4
	NUDT9P1	LOC727924	MIR1244-1
	AGAP11	GOLGA8O	MIR548F2

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8p12	10q24.32	15q21.1	2q36.3
	GSTO2	GOLGA6L7P	BOK-AS1
	SFR1	GOLGA8H	MIR1244-3
	CALHM3	PIN4P1	MIR1244-2
	CTAGE7P	OIP5-AS1	MIR3133
	CLRN3	GOLGA8CP	MIR3131
	PNLIPRP3	PWRN1	MIR4268
	SFXN4	PWRN2	MIR3132
	CPXM2	SNORD116-1	MIR4269
	ACSM6	SNORD116-2	AGAP1-IT1
	LIPJ	SNORD116-3	LOC100507443
	CFL1P1	SNORD116-4	IDH1-AS1
	TRUB1	SNORD116-5	UBE2F-SCLY
	VTI1A	SNORD116-8	MIR4439
	HECTD2	SNORD116-10	MIR4776-1
	FGFBP3	SNORD116-11	MIR4777
	C10orf82	SNORD116-12	MIR2467
	CACUL1	SNORD116-13	MIR4775
	NKX2-3	SNORD116-14	MIR4438
	SLC35G1	SNORD116-15	MIR4440
	CFAP58	SNORD116-16	MIR4786
	C10orf91	SNORD116-17	MIR4441
	PWWP2B	SNORD116-18	MIR5001
	LINC00858	SNORD116-20	MIR5702
	EMX2OS	SNORD116-21	MIR5703
	PLPP4	SNORD116-22	VWC2L-IT1
	PAOX	SNORD116-23	LOC100996693
	FAM24B	SNORD116-24	CAPN10-AS1
	EBF3	SNORD116-25	LINC01237
	CALHM1	SNORD115-2	LOC101927960
	CASC2	SNORD116-26	LOC101928020
	TCERG1L	SNORD116-27	LOC101928103
	HSPA12A	SNORD115-3	LOC101928111

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8p12	10q24.32	15q21.1	2q36.3
	PIPSL	SNORD115-4	LINC01280
	FUOM	SNORD115-5	LOC101928327
	JAKMIP3	SNORD115-6	CATIP-AS1
	STK32C	SNORD115-7	LINC01494
	BLOC1S2	SNORD115-8	LOC101928881
	RBM20	SNORD115-10	MIR6513
	PDCD4-AS1	SNORD115-11	MIR6809
	FLJ37201	SNORD115-12	MIR6811
	LOC283038	SNORD115-13	MIR6810
	WDR11-AS1	SNORD115-14	LOC102723927
	FFAR4	SNORD115-15	LOC102724714
	KCNK18	SNORD115-16	LANCL1-AS1
	LIPM	SNORD115-17	LOC102724849
	CYP26C1	SNORD115-18	LOC102725079
	VWA2	SNORD115-20	MIR9500
	NANOS1	SNORD115-21	CATIP-AS2
	LRIT2	SNORD115-22	LINC01614
	HMX3	SNORD115-23	LOC105373876
	NHLRC2	SNORD115-25	DIRC3-AS1
	CCDC172	SNORD115-26	LOC105373878
	DMBT1P1	SNORD115-29	LINC01173
	C10orf99	SNORD115-30	
	SLC16A12	SNORD115-31	
	CC2D2B	SNORD115-32	
	ENO4	SNORD115-33	
	ARMS2	SNORD115-34	
	TEX36	SNORD115-35	
	LINC00959	SNORD115-36	
	GUCY2GP	SNORD115-37	
	NKX1-2	SNORD115-38	
	LBX1-AS1	SNORD115-39	
	C10orf120	SNORD115-41	

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8p12	10q24.32	15q21.1	2q36.3
	LOC399815	SNORD115-44	
	METTL10	SNORD116-28	
	FLJ37035	SNORD116-29	
	FOXI2	SNORD115-48	
	LINC01164	SNORD115-24	
	LINC01168	SNORD115-27	
	SPRNP1	SNORD115-28	
	GOLGA7B	SNORD115-45	
	LINC01561	SNORD115-47	
	FAM45A	MIR147B	
	MIR107	LOC100128714	
	C10orf62	GABPB1-AS1	
	LINC00863	LOC100129973	
	IFIT1B	LOC100130111	
	FRG2B	SRP14-AS1	
	MIR346	ANKRD63	
	SPRN	LOC100131315	
	MIR146B	HERC2P7	
	MIR202	GOLGA8F	
	NPS	DCAF13P3	
	SCART1	GOLGA8DP	
	SNORA19	JMJD7	
	HOST2	PLA2G4B	
	FAM196A	POTEB2	
	FAM25A	WHAMMP1	
	LIPK	LOC100288637	
	LIPN	LOC100289656	
	LINC00865	MIR1233-1	
	RPL13AP6	MIR1266	
	SNORA12	MIR1268A	
	MIR607	MIR1282	
	MIR608	NDUFAF4P1	

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8p12	10q24.32	15q21.1	2q36.3
	MIR609	LOC100419583	
	NUTM2A	LOC100422556	
	NUTM2D	MIR3118-3	
	NUTM2A-AS1	MIR1233-2	
	LINC00864	MIR3118-4	
	ENTPD1-AS1	MIR3118-2	
	RPL13AP5	MIR4310	
	RPEL1	MIR3942	
	TLX1NB	INAFM2	
	MIR936	RAD51-AS1	
	C10orf131	DPH6-AS1	
	PLCE1-AS1	SERF2-C15ORF63	
	ADGRA1-AS1	DYX1C1-CCPG1	
	ATE1-AS1	MIR4509-1	
	ACTA2-AS1	MIR4509-2	
	KLLN	MIR4508	
	TEX36-AS1	MIR4510	
	HECTD2-AS1	MIR4716	
	DNMBP-AS1	MIR4713	
	DUX4	MIR4712	
	KCNIP2-AS1	MIR4715	
	MIR1287	TMCO5B	
	MIR1307	MIR5701-2	
	MIR2110	MIR5701-1	
	FAS-AS1	SNORD116-30	
	MIR548E	SNORD115-46	
	MIR378C	LOC100996255	
	MIR4297	POTEB	
	MIR3157	GOLGA8R	
	MIR3158-1	LOC101927079	
	MIR4295	LOC101928042	
	MIR3158-2	LOC101928134	

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8p12	10q24.32	15q21.1	2q36.3
	MIR4296	LOC101928174	
	MIR3941	LOC101928227	
	MIR3663	EHD4-AS1	
	MIR3944	PLA2G4E-AS1	
	SLIT1-AS1	LOC101928414	
	LINC00866	LINC01491	
	RPARP-AS1	PIGBOS1	
	SH3PXD2A-AS1	LINC01413	
	CFAP58-AS1	PWRN3	
	SORCS3-AS1	GABRG3-AS1	
	ADD3-AS1	MIR7973-2	
	LINC00867	MIR7973-1	
	GRID1-AS1	MIR8063	
	TNKS2-AS1	POTEB3	
	MARK2P9	LOC102725022	
	BORCS7-ASMT	PWRN4	
	ARHGAP19-SLIT1	LOC105370757	
	FAM24B-CUZD1	LOC105370792	
	MIR4680	LOC105370802	
	MIR4679-1	LOC105370829	
	MIR4483	LOC105370941	
	MIR4679-2	LOC105370943	
	MIR4678	BUB1B-PAK6	
	MIR4682		
	MIR4482		
	MIR4484		
	MIR4681		
	MIR4685		
	LINC00502		
	LINC00601		
	FANK1-AS1		
	SLC16A12-AS1		

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8p12

10q24.32

15q21.1

2q36.3

LINC01375
LOC101926942
PLCE1-AS2
LOC101927278
LINC01475
LINC01163
LINC01514
LOC101927419
LOC101927472
TCERG1L-AS1
LOC101927523
LOC101927549
LINC01166
MIR202HG
LOC101927692
MIR3663HG
FAM53B-AS1
EDRF1-AS1
NRG3-AS1
LINC01519
LOC101929646
LOC101929662
LINC01520
MIR6507
MIR6715B
MIR6715A
LOC102723665
NEURL1-AS1
LOC102724589
LOC103344931
LINC01435
LINC01167

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8p12

10q24.32

15q21.1

2q36.3

LOC105378397

XLOC_008559

LOC105378430

LOC105378470

AS-PTPRE

SNORA87