

Supplementary Table S1 - Component genes with annotations

Gene Symbol	Description	Scaled projection
ISM1	isthmin 1 [Source:HGNC Symbol;Acc:HGNC:16213]	10.25453533
COL11A1	collagen type XI alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2186]	9.802373369
CCN3	cellular communication network factor 3 [Source:HGNC Symbol;Acc:HGNC:7885]	9.716146941
CALN1	calneuron 1 [Source:HGNC Symbol;Acc:HGNC:13248]	9.403110747
LGR5	leucine rich repeat containing G protein-coupled receptor 5 [Source:HGNC Symbol;Acc:HGNC:4504]	9.303881267
PCP4	Purkinje cell protein 4 [Source:HGNC Symbol;Acc:HGNC:8742]	9.276320281
WNT4	Wnt family member 4 [Source:HGNC Symbol;Acc:HGNC:12783]	8.532097107
SHOC1	shortage in chiasmata 1 [Source:HGNC Symbol;Acc:HGNC:26535]	8.420806275
TAF4	TAF4 chemokine like family member 4 [Source:HGNC Symbol;Acc:HGNC:21591]	8.149245337
COL26A1	collagen type XXVI alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:18038]	8.077315887
KCNJ5	potassium inwardly rectifying channel subfamily J member 5 [Source:HGNC Symbol;Acc:HGNC:6266]	8.039007822
RELN	reelin [Source:HGNC Symbol;Acc:HGNC:9957]	7.991226893
CDH2	cadherin 2 [Source:HGNC Symbol;Acc:HGNC:1759]	7.984328405
NKD1	NKD inhibitor of WNT signaling pathway 1 [Source:HGNC Symbol;Acc:HGNC:17045]	7.895376799
NTM	neurotrophin [Source:HGNC Symbol;Acc:HGNC:17941]	7.678873775
SOWAHB	soosondowah ankyrin repeat domain family member B [Source:HGNC Symbol;Acc:HGNC:32958]	7.60993014
ASTN1	astrotactin 1 [Source:HGNC Symbol;Acc:HGNC:773]	7.45411774
RORB	RAR related orphan receptor B [Source:HGNC Symbol;Acc:HGNC:10259]	7.359353752
ATP2B3	ATPase plasma membrane Ca2+ transporting 3 [Source:HGNC Symbol;Acc:HGNC:816]	7.078249987
TNFRSF19	TNF receptor superfamily member 19 [Source:HGNC Symbol;Acc:HGNC:11915]	7.016826873
NEFM	neurofilament medium [Source:HGNC Symbol;Acc:HGNC:7734]	6.810567501
AARD	alanine and arginine rich domain containing protein [Source:HGNC Symbol;Acc:HGNC:33842]	6.698896914
TCF7	transcription factor 7 [Source:HGNC Symbol;Acc:HGNC:11639]	6.649692213
LEF1	lymphoid enhancer binding factor 1 [Source:HGNC Symbol;Acc:HGNC:6551]	6.630420206
CDO1	cysteine dioxygenase type 1 [Source:HGNC Symbol;Acc:HGNC:1795]	6.617185366
ZCCHC12	zinc finger CCHC-type containing 12 [Source:HGNC Symbol;Acc:HGNC:27273]	6.59691251
COLGALT2	collagen beta(1-O)galactosyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:16790]	6.59538864
PDE2A	phosphodiesterase 2A [Source:HGNC Symbol;Acc:HGNC:8777]	6.538300715
GABBR2	gamma-aminobutyric acid type B receptor subunit 2 [Source:HGNC Symbol;Acc:HGNC:4507]	6.506367306
SPOCK1	SPARC (osteonectin), cwcv and kazal like domains, proteoglycan 1 [Source:HGNC Symbol;Acc:HGNC:11251]	6.50347894
ABCB4	ATP binding cassette subfamily B member 4 [Source:HGNC Symbol;Acc:HGNC:45]	6.358889849
PDZRN3	PDZ domain containing ring finger 3 [Source:HGNC Symbol;Acc:HGNC:17704]	6.186865086
KCNK2	potassium two pore domain channel subfamily K member 2 [Source:HGNC Symbol;Acc:HGNC:6277]	6.05458958
NEFL	neurofilament light [Source:HGNC Symbol;Acc:HGNC:7739]	5.895359702
ZNF711	zinc finger protein 711 [Source:HGNC Symbol;Acc:HGNC:13128]	5.87694365
CGNL1	cingulin like 1 [Source:HGNC Symbol;Acc:HGNC:25931]	5.848014451
ADGRB1	adhesion G protein-coupled receptor B1 [Source:HGNC Symbol;Acc:HGNC:943]	5.844645113
FGF12	fibroblast growth factor 12 [Source:HGNC Symbol;Acc:HGNC:3668]	5.809819869
AFF3	AF4/FMR2 family member 3 [Source:HGNC Symbol;Acc:HGNC:6473]	5.768957296
APCDD1	APC down-regulated 1 [Source:HGNC Symbol;Acc:HGNC:15718]	5.689692616
GSTT2B	glutathione S-transferase theta 2B (gene/pseudogene) [Source:HGNC Symbol;Acc:HGNC:33437]	5.671025201
ASB4	ankyrin repeat and SOCS box containing 4 [Source:HGNC Symbol;Acc:HGNC:16009]	5.669144084
RNF43	ring finger protein 43 [Source:HGNC Symbol;Acc:HGNC:18505]	5.612902675
SV2A	synaptic vesicle glycoprotein 2A [Source:HGNC Symbol;Acc:HGNC:20566]	5.585744766
QPCT	glutamyl-peptide cyclotransferase [Source:HGNC Symbol;Acc:HGNC:9753]	5.548522975
CABP7	calcium binding protein 7 [Source:HGNC Symbol;Acc:HGNC:20834]	5.541183823
LPAR1	lysophosphatidic acid receptor 1 [Source:HGNC Symbol;Acc:HGNC:3166]	5.536118104
BMP4	bone morphogenetic protein 4 [Source:HGNC Symbol;Acc:HGNC:1071]	5.459519786
SLC44A5	solute carrier family 44 member 5 [Source:HGNC Symbol;Acc:HGNC:28524]	5.458577842
VPREB3	V-set pre-B cell surrogate light chain 3 [Source:HGNC Symbol;Acc:HGNC:12710]	5.424329851
LINC01537	long intergenic non-protein coding RNA 1537 [Source:HGNC Symbol;Acc:HGNC:51301]	5.414016888
FRRS1L	ferric chelate reductase 1 like [Source:HGNC Symbol;Acc:HGNC:1362]	5.381643283
FAM169A	family with sequence similarity 169 member A [Source:HGNC Symbol;Acc:HGNC:29138]	5.317024586
RHBDL3	rhomoid like 3 [Source:HGNC Symbol;Acc:HGNC:16502]	5.310985156
FAM181B	family with sequence similarity 181 member B [Source:HGNC Symbol;Acc:HGNC:28512]	5.293014763
MOXD1	monooxygenase DBH like 1 [Source:HGNC Symbol;Acc:HGNC:21063]	5.209185512
HLF	HLF transcription factor, PAR bZIP family member [Source:HGNC Symbol;Acc:HGNC:4977]	5.178293379
TMEM200A	transmembrane protein 200A [Source:HGNC Symbol;Acc:HGNC:21075]	5.101061906
NSG1	neuronal vesicle trafficking associated 1 [Source:HGNC Symbol;Acc:HGNC:18790]	5.09706116
BRINP2	BMP/retinoic acid inducible neural specific 2 [Source:HGNC Symbol;Acc:HGNC:13746]	5.072275714
SLIT2	slit guidance ligand 2 [Source:HGNC Symbol;Acc:HGNC:11086]	5.056855805
PLD5	phospholipase D family member 5 [Source:HGNC Symbol;Acc:HGNC:26879]	5.019127523
SLC30A10	solute carrier family 30 member 10 [Source:HGNC Symbol;Acc:HGNC:25355]	5.018258917
DACH1	dachshund family transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:2663]	4.959632174
PXYLP1	2-phosphoxylose phosphatase 1 [Source:HGNC Symbol;Acc:HGNC:26303]	4.929205423
CCDC170	coiled-coil domain containing 170 [Source:HGNC Symbol;Acc:HGNC:21177]	4.910118206
NRXN2	neurexin 2 [Source:HGNC Symbol;Acc:HGNC:8009]	4.896016603
MCOLN3	mucolipin 3 [Source:HGNC Symbol;Acc:HGNC:13358]	4.855148667
DCN	decorin [Source:HGNC Symbol;Acc:HGNC:2705]	4.845055415
RASL10B	RAS like family 10 member B [Source:HGNC Symbol;Acc:HGNC:30295]	4.829112611
LSAMP	limbic system associated membrane protein [Source:HGNC Symbol;Acc:HGNC:6705]	4.802146372
TMEM200C	transmembrane protein 200C [Source:HGNC Symbol;Acc:HGNC:37208]	4.79889476
TNFSF4	TNF superfamily member 4 [Source:HGNC Symbol;Acc:HGNC:1934]	4.742475031
LINC02593	long intergenic non-protein coding RNA 2593 [Source:HGNC Symbol;Acc:HGNC:53933]	4.683832798
P3H3	prolyl 3-hydroxylase 3 [Source:HGNC Symbol;Acc:HGNC:19318]	4.675995953
AXIN2	axin 2 [Source:HGNC Symbol;Acc:HGNC:904]	4.632330498
TUBBP5	tubulin beta pseudogene 5 [Source:HGNC Symbol;Acc:HGNC:23674]	4.60989891
VCAN	versican [Source:HGNC Symbol;Acc:HGNC:2464]	4.575078298
HOXB9	homeobox B9 [Source:HGNC Symbol;Acc:HGNC:5120]	4.567042128
SYTL2	synaptotagmin like 2 [Source:HGNC Symbol;Acc:HGNC:15585]	4.564036553
AF106564.1	novel transcript, antisense to NEFM	4.554082311
ETV4	ETS variant transcription factor 4 [Source:HGNC Symbol;Acc:HGNC:3493]	4.551940006
SHROOM3	shroom family member 3 [Source:HGNC Symbol;Acc:HGNC:30422]	4.550764173
UGCG	UDP-glucose ceramide glucosyltransferase [Source:HGNC Symbol;Acc:HGNC:12524]	4.542428054

ABCD2	ATP binding cassette subfamily D member 2 [Source:HGNC Symbol;Acc:HGNC:66]	4.536893537
TSPAN8	tetraspanin 8 [Source:HGNC Symbol;Acc:HGNC:11855]	4.487478615
AC010501.2	novel transcript, antisense to FAM169A	4.471136683
ESRRG	estrogen related receptor gamma [Source:HGNC Symbol;Acc:HGNC:3474]	4.469525251
IGSF5	immunoglobulin superfamily member 5 [Source:HGNC Symbol;Acc:HGNC:5952]	4.462607159
UBE2QL1	ubiquitin conjugating enzyme E2 Q family like 1 [Source:HGNC Symbol;Acc:HGNC:37269]	4.449074519
MYH7B	myosin heavy chain 7B [Source:HGNC Symbol;Acc:HGNC:15906]	4.44096187
ANO4	anoctamin 4 [Source:HGNC Symbol;Acc:HGNC:23837]	4.428175052
DPP10	dipeptidyl peptidase like 10 [Source:HGNC Symbol;Acc:HGNC:20823]	4.427363781
SLC2A4	solute carrier family 2 member 4 [Source:HGNC Symbol;Acc:HGNC:11009]	4.419777962
AGTR1	angiotensin II receptor type 1 [Source:HGNC Symbol;Acc:HGNC:336]	4.393545171
HSD3B2	hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 2 [Source:HGNC Symbol;Acc:HGNC:5218]	4.392446998
FAM135B	family with sequence similarity 135 member B [Source:HGNC Symbol;Acc:HGNC:28029]	4.383886367
CACNA2D1	calcium voltage-gated channel auxiliary subunit alpha2delta 1 [Source:HGNC Symbol;Acc:HGNC:1399]	4.334354048
ATP10A	ATPase phospholipid transporting 10A (putative) [Source:HGNC Symbol;Acc:HGNC:13542]	4.319443586
PGM5	phosphoglucomutase 5 [Source:HGNC Symbol;Acc:HGNC:8908]	4.307692919
ECEL1	endothelin converting enzyme like 1 [Source:HGNC Symbol;Acc:HGNC:3147]	4.297255605
PEG10	paternally expressed 10 [Source:HGNC Symbol;Acc:HGNC:14005]	4.296466029
PTPN7	protein tyrosine phosphatase non-receptor type 7 [Source:HGNC Symbol;Acc:HGNC:9659]	4.295422386
MERTK	MER proto-oncogene, tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:7027]	4.262026588
GOLGA7B	golgin A7 family member B [Source:HGNC Symbol;Acc:HGNC:31668]	4.252937006
MCF2	MCF.2 cell line derived transforming sequence [Source:HGNC Symbol;Acc:HGNC:6940]	4.230788237
SP5	Sp5 transcription factor [Source:HGNC Symbol;Acc:HGNC:14529]	4.221925611
CERS1	ceramide synthase 1 [Source:HGNC Symbol;Acc:HGNC:14253]	4.212903723
ASGR1	asialoglycoprotein receptor 1 [Source:HGNC Symbol;Acc:HGNC:742]	4.211422587
VGf	VGf nerve growth factor inducible [Source:HGNC Symbol;Acc:HGNC:12684]	4.1992842
LRCH2	leucine rich repeats and calponin homology domain containing 2 [Source:HGNC Symbol;Acc:HGNC:29292]	4.176965999
CADM1	cell adhesion molecule 1 [Source:HGNC Symbol;Acc:HGNC:5951]	4.156518994
ST6GALNAC5	ST6 N-acetylgalactosaminide alpha-2,6-sialyltransferase 5 [Source:HGNC Symbol;Acc:HGNC:19342]	4.151804052
RIMS2	regulating synaptic membrane exocytosis 2 [Source:HGNC Symbol;Acc:HGNC:17283]	4.116882656
DKK3	dickkopf WNT signaling pathway inhibitor 3 [Source:HGNC Symbol;Acc:HGNC:2893]	4.103093305
FGF20	fibroblast growth factor 20 [Source:HGNC Symbol;Acc:HGNC:3677]	4.101910938
FST	folistatin [Source:HGNC Symbol;Acc:HGNC:3971]	4.090806076
CHRD	chordin [Source:HGNC Symbol;Acc:HGNC:1949]	4.072099984
ABR	ABR activator of RhoGEF and GTPase [Source:HGNC Symbol;Acc:HGNC:81]	4.056074785
ACOX2	acyl-CoA oxidase 2 [Source:HGNC Symbol;Acc:HGNC:120]	4.049839956
CPB1	carboxypeptidase B1 [Source:HGNC Symbol;Acc:HGNC:2299]	4.037100922
PLXNB3	plexin B3 [Source:HGNC Symbol;Acc:HGNC:9105]	4.023695457
TGFB2	transforming growth factor beta 2 [Source:HGNC Symbol;Acc:HGNC:11768]	3.980640371
SLC35F3	solute carrier family 35 member F3 [Source:HGNC Symbol;Acc:HGNC:23616]	3.958342152
GPR162	G protein-coupled receptor 162 [Source:HGNC Symbol;Acc:HGNC:16693]	3.953060734
PLCL2	phospholipase C like 2 [Source:HGNC Symbol;Acc:HGNC:9064]	3.938734613
KIF7	kinesin family member 7 [Source:HGNC Symbol;Acc:HGNC:30497]	3.911199003
WNK2	WNK lysine deficient protein kinase 2 [Source:HGNC Symbol;Acc:HGNC:14542]	3.893686613
GFAP	glial fibrillary acidic protein [Source:HGNC Symbol;Acc:HGNC:4235]	3.87159479
SAMD11	sterile alpha motif domain containing 11 [Source:HGNC Symbol;Acc:HGNC:28706]	3.849088641
BANK1	B cell scaffold protein with ankyrin repeats 1 [Source:HGNC Symbol;Acc:HGNC:18233]	3.846041724
PNMA3	PNMA family member 3 [Source:HGNC Symbol;Acc:HGNC:18742]	3.831059626
RPRM	reprimin, TP53 dependent G2 arrest mediator homolog [Source:HGNC Symbol;Acc:HGNC:24201]	3.789072273
TPBG	trophoblast glycoprotein [Source:HGNC Symbol;Acc:HGNC:12004]	3.778716539
RAB38	RAB38, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:9776]	3.770348774
LINC01116	long intergenic non-protein coding RNA 1116 [Source:HGNC Symbol;Acc:HGNC:49259]	3.763372135
UNC5C	unc-5 netrin receptor C [Source:HGNC Symbol;Acc:HGNC:12569]	3.750190385
LG13	leucine rich repeat LG1 family member 3 [Source:HGNC Symbol;Acc:HGNC:18711]	3.74534925
ADAMTSL1	ADAMTSL like 1 [Source:HGNC Symbol;Acc:HGNC:14632]	3.740056394
AC078880.3	novel transcript	3.735796463
FUT1	fucosyltransferase 1 (H blood group) [Source:HGNC Symbol;Acc:HGNC:4012]	3.729352252
SLC12A8	solute carrier family 12 member 8 [Source:HGNC Symbol;Acc:HGNC:15595]	3.720634686
SLC22A3	solute carrier family 22 member 3 [Source:HGNC Symbol;Acc:HGNC:10967]	3.714524786
TMEM132E	transmembrane protein 132E [Source:HGNC Symbol;Acc:HGNC:26991]	3.712154848
STEAP2	STEAP2 metalloenductase [Source:HGNC Symbol;Acc:HGNC:17885]	3.65402769
CILP2	cartilage intermediate layer protein 2 [Source:HGNC Symbol;Acc:HGNC:24213]	3.630187221
KRT222	keratin 222 [Source:HGNC Symbol;Acc:HGNC:28695]	3.629239963
DAB2	DAB adaptor protein 2 [Source:HGNC Symbol;Acc:HGNC:2662]	3.594604088
ALDH1L1	aldehyde dehydrogenase 1 family member L1 [Source:HGNC Symbol;Acc:HGNC:3978]	3.592053801
MIR100HG	mir-100-let-7a-2-mir-125b-1 cluster host gene [Source:HGNC Symbol;Acc:HGNC:39522]	3.584244266
NFATC4	nuclear factor of activated T cells 4 [Source:HGNC Symbol;Acc:HGNC:7778]	3.57075142
HMGGA2	high mobility group AT-hook 2 [Source:HGNC Symbol;Acc:HGNC:5009]	3.563448456
BICC1	Bicc1 family RNA binding protein 1 [Source:HGNC Symbol;Acc:HGNC:19351]	3.548432437
LAMC3	laminin subunit gamma 3 [Source:HGNC Symbol;Acc:HGNC:6494]	3.547045299
SCARA3	scavenger receptor class A member 3 [Source:HGNC Symbol;Acc:HGNC:19000]	3.527053799
ACSL6	acyl-CoA synthetase long chain family member 6 [Source:HGNC Symbol;Acc:HGNC:16496]	3.517165875
ARHGEF4	Rho guanine nucleotide exchange factor 4 [Source:HGNC Symbol;Acc:HGNC:684]	3.515762991
KCNN2	potassium calcium-activated channel subfamily N member 2 [Source:HGNC Symbol;Acc:HGNC:6291]	3.513912991
ITGA2	integrin subunit alpha 2 [Source:HGNC Symbol;Acc:HGNC:6137]	3.505574929
UBXN10	UBX domain protein 10 [Source:HGNC Symbol;Acc:HGNC:26354]	3.494935718
AC103702.2	novel transcript	3.491879705
MDK	midkine [Source:HGNC Symbol;Acc:HGNC:6972]	3.482139837
IFITM10	interferon induced transmembrane protein 10 [Source:HGNC Symbol;Acc:HGNC:40022]	3.472838116
ADAM22	ADAM metalloproteinase domain 22 [Source:HGNC Symbol;Acc:HGNC:201]	3.470823364
MC2R	melanocortin 2 receptor [Source:HGNC Symbol;Acc:HGNC:6930]	3.447979403
FAM171B	family with sequence similarity 171 member B [Source:HGNC Symbol;Acc:HGNC:29412]	3.432070929
ALDH1A2	aldehyde dehydrogenase 1 family member A2 [Source:HGNC Symbol;Acc:HGNC:15472]	3.429471745
NAGS	N-acetylglutamate synthase [Source:HGNC Symbol;Acc:HGNC:17996]	3.407611634
RUNX1T1	RUNX1 partner transcriptional co-repressor 1 [Source:HGNC Symbol;Acc:HGNC:1535]	3.402333968
MAP7D2	MAP7 domain containing 2 [Source:HGNC Symbol;Acc:HGNC:25899]	3.398586024
CA11	carbonic anhydrase 11 [Source:HGNC Symbol;Acc:HGNC:1370]	3.396472239

AL136962.1	long intergenic non-protein coding RNA 540	3.396089218
BDNF	brain derived neurotrophic factor [Source:HGNC Symbol;Acc:HGNC:1033]	3.384810998
SLC4A8	solute carrier family 4 member 8 [Source:HGNC Symbol;Acc:HGNC:11034]	3.353501372
NR4A3	nuclear receptor subfamily 4 group A member 3 [Source:HGNC Symbol;Acc:HGNC:7982]	3.33717232
RASAL1	RAS protein activator like 1 [Source:HGNC Symbol;Acc:HGNC:9873]	3.320189605
KHDRBS3	KH RNA binding domain containing, signal transduction associated 3 [Source:HGNC Symbol;Acc:HGNC:18117]	3.317878872
SV2B	synaptic vesicle glycoprotein 2B [Source:HGNC Symbol;Acc:HGNC:16874]	3.317564987
CCDC73	coiled-coil domain containing 73 [Source:HGNC Symbol;Acc:HGNC:23261]	3.317311829
LRATD1	LRAT domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20743]	3.315679757
TMEM221	transmembrane protein 221 [Source:HGNC Symbol;Acc:HGNC:21943]	3.30986353
TMEM108	transmembrane protein 108 [Source:HGNC Symbol;Acc:HGNC:28451]	3.300685496
CIB4	calcium and integrin binding family member 4 [Source:HGNC Symbol;Acc:HGNC:33703]	3.299349753
SPON1	spondin 1 [Source:HGNC Symbol;Acc:HGNC:11252]	3.294723614
LARP6	La ribonucleoprotein 6, translational regulator [Source:HGNC Symbol;Acc:HGNC:24012]	3.288374352
GATA3	GATA binding protein 3 [Source:HGNC Symbol;Acc:HGNC:4172]	3.287684882
PRRX1	paired related homeobox 1 [Source:HGNC Symbol;Acc:HGNC:9142]	3.285112702
NPTX1	neuronal pentraxin 1 [Source:HGNC Symbol;Acc:HGNC:7952]	3.28505917
LRRN2	leucine rich repeat neuronal 2 [Source:HGNC Symbol;Acc:HGNC:16914]	3.28457696
SRPX	sushi repeat containing protein X-linked [Source:HGNC Symbol;Acc:HGNC:11309]	3.277388925
CSRP2	cysteine and glycine rich protein 2 [Source:HGNC Symbol;Acc:HGNC:2470]	3.273936181
TMEM25	transmembrane protein 25 [Source:HGNC Symbol;Acc:HGNC:25890]	3.26230189
WNT3	Wnt family member 3 [Source:HGNC Symbol;Acc:HGNC:12782]	3.246275036
SLC22A17	solute carrier family 22 member 17 [Source:HGNC Symbol;Acc:HGNC:23095]	3.238583129
INPP4B	inositol polyphosphate-4-phosphatase type II B [Source:HGNC Symbol;Acc:HGNC:6075]	3.232259969
CTHRC1	collagen triple helix repeat containing 1 [Source:HGNC Symbol;Acc:HGNC:18831]	3.22589785
PHLDA1	pleckstrin homology like domain family A member 1 [Source:HGNC Symbol;Acc:HGNC:8933]	3.221197075
CCDC184	coiled-coil domain containing 184 [Source:HGNC Symbol;Acc:HGNC:33749]	3.219094254
PRKD3	protein kinase D3 [Source:HGNC Symbol;Acc:HGNC:9408]	3.206893556
C11orf45	chromosome 11 open reading frame 45 [Source:HGNC Symbol;Acc:HGNC:28584]	3.206810226
ETV5	ETS variant transcription factor 5 [Source:HGNC Symbol;Acc:HGNC:3494]	3.195045095
RTN4R	reticulon 4 receptor [Source:HGNC Symbol;Acc:HGNC:18601]	3.192028782
AATK	apoptosis associated tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:21]	3.186210375
PITX1	paired like homeodomain 1 [Source:HGNC Symbol;Acc:HGNC:9004]	3.171611441
HYAL1	hyaluronidase 1 [Source:HGNC Symbol;Acc:HGNC:5320]	3.16421807
SLC16A2	solute carrier family 16 member 2 [Source:HGNC Symbol;Acc:HGNC:10923]	3.160515269
SLC6A9	solute carrier family 6 member 9 [Source:HGNC Symbol;Acc:HGNC:11056]	3.158840236
AMOT	angiomotin [Source:HGNC Symbol;Acc:HGNC:17810]	3.134783393
PLPP2	phospholipid phosphatase 2 [Source:HGNC Symbol;Acc:HGNC:9230]	3.133352954
CD5	CD5 molecule [Source:HGNC Symbol;Acc:HGNC:1685]	3.129506173
EML6	EMAP like 6 [Source:HGNC Symbol;Acc:HGNC:35412]	3.120340354
PRSS35	serine protease 35 [Source:HGNC Symbol;Acc:HGNC:21387]	3.119982662
JAM2	junctional adhesion molecule 2 [Source:HGNC Symbol;Acc:HGNC:14686]	3.119235943
HS3ST3B1	heparan sulfate-glucosamine 3-sulfotransferase 3B1 [Source:HGNC Symbol;Acc:HGNC:5198]	3.118166615
COL4A3	collagen type IV alpha 3 chain [Source:HGNC Symbol;Acc:HGNC:2204]	3.106153221
ATP2A3	ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 3 [Source:HGNC Symbol;Acc:HGNC:813]	3.102200845
CACNB4	calcium voltage-gated channel auxiliary subunit beta 4 [Source:HGNC Symbol;Acc:HGNC:1404]	3.10134349
TNFSF13B	TNF superfamily member 13b [Source:HGNC Symbol;Acc:HGNC:11929]	3.083959251
NANOGP1	Nanoq homeobox pseudogene 1 [Source:HGNC Symbol;Acc:HGNC:23099]	3.083422748
NFASC	neurofascin [Source:HGNC Symbol;Acc:HGNC:29866]	3.082066784
SLC47A1	solute carrier family 47 member 1 [Source:HGNC Symbol;Acc:HGNC:25588]	3.073437312
ELOVL4	ELOVL fatty acid elongase 4 [Source:HGNC Symbol;Acc:HGNC:14415]	3.07185023
VSTM4	V-set and transmembrane domain containing 4 [Source:HGNC Symbol;Acc:HGNC:26470]	3.071838635
SMO	smoothened, frizzled class receptor [Source:HGNC Symbol;Acc:HGNC:11119]	3.065417985
ALCAM	activated leukocyte cell adhesion molecule [Source:HGNC Symbol;Acc:HGNC:400]	3.058330556
SEMA3C	semaphorin 3C [Source:HGNC Symbol;Acc:HGNC:10725]	3.057838153
UNC79	unc-79 homolog, NALCN channel complex subunit [Source:HGNC Symbol;Acc:HGNC:19966]	3.054916859
CRABP2	cellular retinoic acid binding protein 2 [Source:HGNC Symbol;Acc:HGNC:2339]	3.034048234
JPH2	junctophilin 2 [Source:HGNC Symbol;Acc:HGNC:14202]	3.028099555
SERINC5	serine incorporator 5 [Source:HGNC Symbol;Acc:HGNC:18825]	3.026909224
SORBS2	sorbin and SH3 domain containing 2 [Source:HGNC Symbol;Acc:HGNC:24098]	3.022167142
RARG	retinoic acid receptor gamma [Source:HGNC Symbol;Acc:HGNC:9866]	3.021829035
PLEKHF1	pleckstrin homology and FYVE domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20764]	3.010582397
ATP1B2	ATPase Na+/K+ transporting subunit beta 2 [Source:HGNC Symbol;Acc:HGNC:805]	3.0084944
CCND1	cyclin D1 [Source:HGNC Symbol;Acc:HGNC:1582]	3.008442635
CLGN	calmegin [Source:HGNC Symbol;Acc:HGNC:2060]	3.006082526
FAM149A	family with sequence similarity 149 member A [Source:HGNC Symbol;Acc:HGNC:24527]	2.99852404
RGS14	regulator of G protein signaling 14 [Source:HGNC Symbol;Acc:HGNC:9996]	2.991397068
DAAM2	dishevelled associated activator of morphogenesis 2 [Source:HGNC Symbol;Acc:HGNC:18143]	2.971777151
GNAL	G protein subunit alpha L [Source:HGNC Symbol;Acc:HGNC:4388]	2.970271031
LINC01616	long intergenic non-protein coding RNA 1616 [Source:HGNC Symbol;Acc:HGNC:51900]	2.970084543
HEPH	hephaestin [Source:HGNC Symbol;Acc:HGNC:4866]	2.969040974
PDE5A	phosphodiesterase 5A [Source:HGNC Symbol;Acc:HGNC:8784]	2.967107414
SYTL5	synaptotagmin like 5 [Source:HGNC Symbol;Acc:HGNC:15589]	2.96007372
FAM110B	family with sequence similarity 110 member B [Source:HGNC Symbol;Acc:HGNC:28587]	2.957861462
SBSPON	somatomedin B and thrombospondin type 1 domain containing [Source:HGNC Symbol;Acc:HGNC:30362]	2.95093422
CAPN5	calpain 5 [Source:HGNC Symbol;Acc:HGNC:1482]	2.94979603
INSYN1	inhibitory synaptic factor 1 [Source:HGNC Symbol;Acc:HGNC:33753]	2.942737258
HR	HR lysine demethylase and nuclear receptor corepressor [Source:HGNC Symbol;Acc:HGNC:5172]	2.937932427
CACNB2	calcium voltage-gated channel auxiliary subunit beta 2 [Source:HGNC Symbol;Acc:HGNC:1402]	2.932973065
KREMEN2	kringle containing transmembrane protein 2 [Source:HGNC Symbol;Acc:HGNC:18797]	2.931015877
AL049838.1	novel transcript, overlapping C14orf37	2.930122604
RAET1G	retinoic acid early transcript 1G [Source:HGNC Symbol;Acc:HGNC:16795]	2.926386489
EFNA5	ephrin A5 [Source:HGNC Symbol;Acc:HGNC:3225]	2.925287463
RBPMS2	RNA binding protein, mRNA processing factor 2 [Source:HGNC Symbol;Acc:HGNC:19098]	2.922238417
PPM1E	protein phosphatase, Mg2+/Mn2+ dependent 1E [Source:HGNC Symbol;Acc:HGNC:19322]	2.916762301
PNMA6A	PNMA family member 6A [Source:HGNC Symbol;Acc:HGNC:28248]	2.912594662
RNF217	ring finger protein 217 [Source:HGNC Symbol;Acc:HGNC:21487]	2.912358413

ADGRD1	adhesion G protein-coupled receptor D1 [Source:HGNC Symbol;Acc:HGNC:19893]	2.91111432
FAM110C	family with sequence similarity 110 member C [Source:HGNC Symbol;Acc:HGNC:33340]	2.910322624
NPNT	nephronectin [Source:HGNC Symbol;Acc:HGNC:27405]	2.908321711
ERN1	endoplasmic reticulum to nucleus signaling 1 [Source:HGNC Symbol;Acc:HGNC:3449]	2.894596079
ISLR2	immunoglobulin superfamily containing leucine rich repeat 2 [Source:HGNC Symbol;Acc:HGNC:29286]	2.88638995
GPR61	G protein-coupled receptor 61 [Source:HGNC Symbol;Acc:HGNC:13300]	2.881038169
PYGO1	pygopus family PHD finger 1 [Source:HGNC Symbol;Acc:HGNC:30256]	2.861441215
MAPK8IP2	mitogen-activated protein kinase 8 interacting protein 2 [Source:HGNC Symbol;Acc:HGNC:6883]	2.855893038
CLDN1	claudin 1 [Source:HGNC Symbol;Acc:HGNC:2032]	2.850060981
DTX1	deltex E3 ubiquitin ligase 1 [Source:HGNC Symbol;Acc:HGNC:3060]	2.845273518
MINAR1	membrane integral NOTCH2 associated receptor 1 [Source:HGNC Symbol;Acc:HGNC:29172]	2.845027326
NUDT11	nudix hydrolase 11 [Source:HGNC Symbol;Acc:HGNC:18011]	2.844089949
RAB39B	RAB39B, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:16499]	2.843534296
MFAP4	microfibril associated protein 4 [Source:HGNC Symbol;Acc:HGNC:7035]	2.840046095
KIF5A	kinesin family member 5A [Source:HGNC Symbol;Acc:HGNC:6323]	2.834656663
LY75	lymphocyte antigen 75 [Source:HGNC Symbol;Acc:HGNC:6729]	2.834630388
ADH1B	alcohol dehydrogenase 1B (class I), beta polypeptide [Source:HGNC Symbol;Acc:HGNC:250]	2.834502458
GPRC5C	G protein-coupled receptor class C group 5 member C [Source:HGNC Symbol;Acc:HGNC:13309]	2.825424834
ACAN	aggrecan [Source:HGNC Symbol;Acc:HGNC:319]	2.823532019
EVC	Evc ciliary complex subunit 1 [Source:HGNC Symbol;Acc:HGNC:3497]	2.82351937
KAZN	kazrin, periplakin interacting protein [Source:HGNC Symbol;Acc:HGNC:29173]	2.815047916
FBXL7	F-box and leucine rich repeat protein 7 [Source:HGNC Symbol;Acc:HGNC:13604]	2.814332582
GRB14	growth factor receptor bound protein 14 [Source:HGNC Symbol;Acc:HGNC:4565]	2.813400405
PRR7	proline rich 7, synaptic [Source:HGNC Symbol;Acc:HGNC:28130]	2.805984642
ATL1	atlastin GTPase 1 [Source:HGNC Symbol;Acc:HGNC:11231]	2.794223373
CYP11B2	cytochrome P450 family 11 subfamily B member 2 [Source:HGNC Symbol;Acc:HGNC:2592]	2.79125585
ADAMTS9-AS2	ADAMTS9 antisense RNA 2 [Source:HGNC Symbol;Acc:HGNC:42435]	2.789765117
AC079949.2	novel transcript	2.787696091
KCNG1	potassium voltage-gated channel modifier subfamily G member 1 [Source:HGNC Symbol;Acc:HGNC:6248]	2.786856296
DNM3	dynamitin 3 [Source:HGNC Symbol;Acc:HGNC:29125]	2.785794748
SDK2	sidekick cell adhesion molecule 2 [Source:HGNC Symbol;Acc:HGNC:19308]	2.784231286
PARVB	parvin beta [Source:HGNC Symbol;Acc:HGNC:14653]	2.783173456
ARG2	arginase 2 [Source:HGNC Symbol;Acc:HGNC:664]	2.767962118
RHBG	Rh family B glycoprotein (gene/pseudogene) [Source:HGNC Symbol;Acc:HGNC:14572]	2.763854586
ATRNL1	atractin like 1 [Source:HGNC Symbol;Acc:HGNC:29063]	2.755066664
PTGIS	prostaglandin I2 synthase [Source:HGNC Symbol;Acc:HGNC:9603]	2.754263671
OPRL1	opioid related nociceptin receptor 1 [Source:HGNC Symbol;Acc:HGNC:8155]	2.747288338
LUM	lumican [Source:HGNC Symbol;Acc:HGNC:6724]	2.744567441
HOXB8	homeobox B8 [Source:HGNC Symbol;Acc:HGNC:5119]	2.741731147
SPTLC3	serine palmitoyltransferase long chain base subunit 3 [Source:HGNC Symbol;Acc:HGNC:16253]	2.740615962
LAMA2	laminin subunit alpha 2 [Source:HGNC Symbol;Acc:HGNC:6482]	2.740560949
ASIC1	acid sensing ion channel subunit 1 [Source:HGNC Symbol;Acc:HGNC:100]	2.736871448
SRCIN1	SRC kinase signaling inhibitor 1 [Source:HGNC Symbol;Acc:HGNC:29506]	2.736467056
EFNA3	ephrin A3 [Source:HGNC Symbol;Acc:HGNC:3223]	2.736027496
HSH2D	hematopoietic SH2 domain containing [Source:HGNC Symbol;Acc:HGNC:24920]	2.734715163
ID2	inhibitor of DNA binding 2 [Source:HGNC Symbol;Acc:HGNC:5361]	2.731855701
AC005052.1	TEC	2.722565114
SLC44A4	solute carrier family 44 member 4 [Source:HGNC Symbol;Acc:HGNC:13941]	2.715167874
ETV1	ETS variant transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:3490]	2.710317151
PKD4	pyruvate dehydrogenase kinase 4 [Source:HGNC Symbol;Acc:HGNC:8812]	2.708258219
TWSG1	twisted gastrulation BMP signaling modulator 1 [Source:HGNC Symbol;Acc:HGNC:12429]	2.699430046
CDHR1	cadherin related family member 1 [Source:HGNC Symbol;Acc:HGNC:14550]	2.699269044
LRRC17	leucine rich repeat containing 17 [Source:HGNC Symbol;Acc:HGNC:16895]	2.689449039
IZUMO1	izumo sperm-egg fusion 1 [Source:HGNC Symbol;Acc:HGNC:28539]	2.676580183
GPC4	glypican 4 [Source:HGNC Symbol;Acc:HGNC:4452]	2.673322808
WDFY3-AS2	WDFY3 antisense RNA 2 [Source:HGNC Symbol;Acc:HGNC:21603]	2.650891431
B3GNT9	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 [Source:HGNC Symbol;Acc:HGNC:28714]	2.642132894
LSP1	lymphocyte specific protein 1 [Source:HGNC Symbol;Acc:HGNC:6707]	2.64000361
KLHDC8A	kelch domain containing 8A [Source:HGNC Symbol;Acc:HGNC:25573]	2.634699537
IGHG1	immunoglobulin heavy constant gamma 1 (G1m marker) [Source:HGNC Symbol;Acc:HGNC:5525]	2.63395816
RNF128	ring finger protein 128 [Source:HGNC Symbol;Acc:HGNC:21153]	2.608304983
RPSAP70	ribosomal protein SA pseudogene 70 [Source:HGNC Symbol;Acc:HGNC:51923]	2.602362289
AL139220.2	novel transcript	2.596280539
SEMA4G	semaphorin 4G [Source:HGNC Symbol;Acc:HGNC:10735]	2.585604789
RASGEF1A	RasGEF domain family member 1A [Source:HGNC Symbol;Acc:HGNC:24246]	2.581225911
FLRT2	fibronectin leucine rich transmembrane protein 2 [Source:HGNC Symbol;Acc:HGNC:3761]	2.563045696
SESN3	sestrin 3 [Source:HGNC Symbol;Acc:HGNC:23060]	2.558442689
KCNMB4	potassium calcium-activated channel subfamily M regulatory beta subunit 4 [Source:HGNC Symbol;Acc:HGNC:6289]	2.539602592
ERN2	endoplasmic reticulum to nucleus signaling 2 [Source:HGNC Symbol;Acc:HGNC:16942]	2.537724229
TEC	tec protein tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:11719]	2.535657547
WDR63	WD repeat domain 63 [Source:HGNC Symbol;Acc:HGNC:30711]	2.530274604
MAP6	microtubule associated protein 6 [Source:HGNC Symbol;Acc:HGNC:6868]	2.528510817
PRICKLE1	prickle planar cell polarity protein 1 [Source:HGNC Symbol;Acc:HGNC:17019]	2.528169594
THNSL2	threonine synthase like 2 [Source:HGNC Symbol;Acc:HGNC:25602]	2.525314287
IGKC	immunoglobulin kappa constant [Source:HGNC Symbol;Acc:HGNC:5716]	2.523864896
PCDHGB4	protocadherin gamma subfamily B, 4 [Source:HGNC Symbol;Acc:HGNC:8711]	2.514632776
LIN7A	lin-7 homolog A, crumbs cell polarity complex component [Source:HGNC Symbol;Acc:HGNC:17787]	2.513009823
CDK6	cyclin dependent kinase 6 [Source:HGNC Symbol;Acc:HGNC:1777]	2.506890234
MYO5B	myosin VB [Source:HGNC Symbol;Acc:HGNC:7603]	2.50618462
HS3ST1	heparan sulfate-glucosamine 3-sulfotransferase 1 [Source:HGNC Symbol;Acc:HGNC:5194]	2.503288908
SSPO	SCO-spondin [Source:HGNC Symbol;Acc:HGNC:21998]	2.500558646