

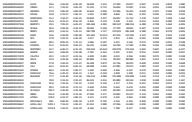
Sheet "mRNAs Hypoxia-Normoxia ": RNA sequencing data analysis of differentially expressed mRNAs in iPSC cultured in hypoxia for 24 h compared to normoxia control.

Sheet "GSEA upregulated genes ": Gene set expression analysis of significantly upregulated mRNAs in iPSCs cultured in cultured in hypoxia for 24 h compared to normoxia control.

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Overlap Results

Collection(s):	H
# overlaps shown:	10
# genesets in collections:	50
# genes in comparison (n):	1704
# genes in universe (N):	45956

Gene Set Name	# Genes in G	Description	# Genes in Overlap	k/K
HALLMARK_HYPOXIA	200	Genes up-regul	102	0.51
HALLMARK_TNFA_SIGNALING_VIA_NFKB	200	Genes regulate	81	0.405
HALLMARK_MTORC1_SIGNALING	200	Genes up-regul	64	0.32
HALLMARK_CHOLESTEROL_HOMEOSTASIS	74	Genes involved	41	0.5541
HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITIC	200	Genes defining	56	0.28
HALLMARK_GLYCOLYSIS	200	Genes encoding	54	0.27
HALLMARK_P53_PATHWAY	200	Genes involved	53	0.265
HALLMARK_MYOGENESIS	200	Genes involved	43	0.215
HALLMARK_APOPTOSIS	161	Genes mediatir	38	0.236
HALLMARK_ESTROGEN_RESPONSE_EARLY	200	Genes defining	42	0.21

Gene/Gene Set Overlap Matrix

Entrez Gene Id	Gene Symbol	Gene Description	HALLMARK_HY	HALLMARK_TN
4783	NFIL3	nuclear factor, κ B	HALLMARK_HY	HALLMARK_TN
1026	CDKN1A	cyclin-depende	HALLMARK_HY	HALLMARK_TN
23645	PPP1R15A	protein phosph	HALLMARK_HY	HALLMARK_TN
8553	BHLHE40	basic helix-loop	HALLMARK_HY	HALLMARK_TN
6515	SLC2A3	solute carrier f	HALLMARK_HY	HALLMARK_TN
467	ATF3	activating trans	HALLMARK_HY	HALLMARK_TNI
10957	PNRC1	proline-rich nuc	HALLMARK_HY	HALLMARK_TNI
7422	VEGFA	vascular endotf	HALLMARK_HY	HALLMARK_TNI
3725	JUN	jun proto-oncof	HALLMARK_HY	HALLMARK_TNI
5054	SERPINE1	serpin peptidas	HALLMARK_HY	HALLMARK_TNI
3491	CYR61	cysteine-rich, a	HALLMARK_HY	HALLMARK_TNI
7128	TNFAIP3	tumor necrosis	HALLMARK_HY	HALLMARK_TNI
8870	IER3	immediate earl	HALLMARK_HY	HALLMARK_TNI
2353	FOS	FBJ murine oste	HALLMARK_HY	HALLMARK_TNI
694	BTG1	B-cell transloca	HALLMARK_HY	HALLMARK_TNI
25976	TIPARP	TCDD-inducible	HALLMARK_HY	HALLMARK_TNI
1843	DUSP1	dual specificity	HALLMARK_HY	HALLMARK_TNI
1316	KLF6	Kruppel-like fac	HALLMARK_HY	HALLMARK_TNI
23764	MAFF	v-maf musculo	HALLMARK_HY	HALLMARK_TNI
7538	ZFP36	zinc finger prot	HALLMARK_HY	HALLMARK_TNI
5209	PFKFB3	6-phosphofruct	HALLMARK_HY	HALLMARK_TNI
1942	EFNA1	ephrin-A1	HALLMARK_HY	HALLMARK_TNI
2355	FOSL2	FOS-like antigen	HALLMARK_HY	HALLMARK_TNI
57007	CXCR7	chemokine (C-X)	HALLMARK_HY	HALLMARK_TNI
54541	DDIT4	DNA-damage-ir	HALLMARK_HYPOXIA	
7436	VLDLR	very low densit	HALLMARK_HYPOXIA	
3099	HK2	hexokinase 2	HALLMARK_HYPOXIA	
5033	P4HA1	prolyl 4-hydrox	HALLMARK_HYPOXIA	

30001	ERO1L	ERO1-like (S. ce	HALLMARK_HYPOXIA
7852	CXCR4	chemokine (C-x	HALLMARK_HYPOXIA
226	ALDOA	aldolase A, fruc	HALLMARK_HYPOXIA
3939	LDHA	lactate dehydr	HALLMARK_HYPOXIA
6781	STC1	stanniocalcin 1	HALLMARK_HYPOXIA
5230	PGK1	phosphoglycer	HALLMARK_HYPOXIA
2023	ENO1	enolase 1, (alp	HALLMARK_HYPOXIA
7167	TPI1	triosephosphat	HALLMARK_HYPOXIA
1649	DDIT3	DNA-damage-ir	HALLMARK_HYPOXIA
6513	SLC2A1	solute carrier f	HALLMARK_HYPOXIA
2632	GBE1	glucan (1,4- α	HALLMARK_HYPOXIA
5211	PFKL	phosphofructo	HALLMARK_HYPOXIA
5236	PGM1	phosphoglucon	HALLMARK_HYPOXIA
5163	PDK1	pyruvate dehyd	HALLMARK_HYPOXIA
2821	GPI	glucose-6-phos	HALLMARK_HYPOXIA
2597	GAPDH	glyceraldehyde	HALLMARK_HYPOXIA
26136	TES	testis derived t	HALLMARK_HYPOXIA
5165	PDK3	pyruvate dehyd	HALLMARK_HYPOXIA
230	ALDOC	aldolase C, fruc	HALLMARK_HYPOXIA
54206	ERRF1	ERBB receptor i	HALLMARK_HYPOXIA
2026	ENO2	enolase 2 (gam	HALLMARK_HYPOXIA
7045	TGFBI	transforming gr	HALLMARK_HYPOXIA
1490	CTGF	connective tiss	HALLMARK_HYPOXIA
4015	LOX	lysyl oxidase	HALLMARK_HYPOXIA
26355	FAM162A	family with seq	HALLMARK_HYPOXIA
8614	STC2	stanniocalcin 2	HALLMARK_HYPOXIA
8497	PPFIA4	protein tyrosin	HALLMARK_HYPOXIA
3669	ISG20	interferon stim	HALLMARK_HYPOXIA
136	ADORA2B	adenosine A2b	HALLMARK_HYPOXIA
10370	CITED2	Cbp/p300-inter	HALLMARK_HYPOXIA
51129	ANGPTL4	angiopoietin-lik	HALLMARK_HYPOXIA
4601	MXI1	MAX interactor	HALLMARK_HYPOXIA
8974	P4HA2	prolyl 4-hydrox	HALLMARK_HYPOXIA
4282	MIF	macrophage mi	HALLMARK_HYPOXIA
5214	PFKP	phosphofructo	HALLMARK_HYPOXIA
8819	SAP30	Sin3A-associate	HALLMARK_HYPOXIA
5066	PAM	peptidylglycine	HALLMARK_HYPOXIA
10570	DPYSL4	dihydropyrimid	HALLMARK_HYPOXIA
1944	EFNA3	ephrin-A3	HALLMARK_HYPOXIA
2131	EXT1	exostosin 1	HALLMARK_HYPOXIA
23036	ZNF292	zinc finger prot	HALLMARK_HYPOXIA
55139	ANKZF1	ankyrin repeat	HALLMARK_HYPOXIA
55276	PGM2	phosphoglucon	HALLMARK_HYPOXIA
10397	NDRG1	N-myc downstr	HALLMARK_HYPOXIA
2309	FOXO3	forkhead box O	HALLMARK_HYPOXIA
4627	MYH9	myosin, heavy	HALLMARK_HYPOXIA
1837	DTNA	dystrobrevin, al	HALLMARK_HYPOXIA
5507	PPP1R3C	protein phosph	HALLMARK_HYPOXIA
5837	PYGM	phosphorylase,	HALLMARK_HYPOXIA
857	CAV1	caveolin 1, cav	HALLMARK_HYPOXIA
665	BNIP3L	BCL2/adenovir	HALLMARK_HYPOXIA
6478	SIAH2	seven in absent	HALLMARK_HYPOXIA

302	ANXA2	annexin A2	HALLMARK_HYPOXIA
6095	RORA	RAR-related or	HALLMARK_HYPOXIA
133	ADM	adrenomedullin	HALLMARK_HYPOXIA
7163	TPD52	tumor protein 1	HALLMARK_HYPOXIA
4214	MAP3K1	mitogen-activa	HALLMARK_HYPOXIA
284119	PTRF	polymerase I ar	HALLMARK_HYPOXIA
6576	SLC25A1	solute carrier f	HALLMARK_HYPOXIA
901	CCNG2	cyclin G2	HALLMARK_HYPOXIA
5155	PDGFB	platelet-deriv	HALLMARK_HYPOXIA
7511	XPNPEP1	X-prolyl amino	HALLMARK_HYPOXIA
8609	KLF7	Kruppel-like fac	HALLMARK_HYPOXIA
1466	CSRP2	cysteine and gl	HALLMARK_HYPOXIA
23210	JMJD6	jumonji domai	HALLMARK_HYPOXIA
23327	NEDD4L	neural precurs	HALLMARK_HYPOXIA
25819	CCRN4L	CCR4 carbon ca	HALLMARK_HYPOXIA
26118	WSB1	WD repeat and	HALLMARK_HYPOXIA
3423	IDS	iduronate 2-sul	HALLMARK_HYPOXIA
54800	KLHL24	kelch-like 24 (D	HALLMARK_HYPOXIA
55076	TMEM45A	transmembran	HALLMARK_HYPOXIA
55818	KDM3A	lysine (K)-speci	HALLMARK_HYPOXIA
63827	BCAN	brevican	HALLMARK_HYPOXIA
8987	STBD1	starch binding	HALLMARK_HYPOXIA
3949	LDLR	low density lipoprotein receptor	HALLMARK_TN
7832	BTG2	BTG family, member 2	HALLMARK_TN
10135	NAMPT	nicotinamide phosphoribosyltr	HALLMARK_TN
182	JAG1	jagged 1	HALLMARK_TNI
960	CD44	CD44 molecule (Indian blood gr	HALLMARK_TNI
1647	GADD45A	growth arrest and DNA-damag	HALLMARK_TNI
4616	GADD45B	growth arrest and DNA-damag	HALLMARK_TNI
388	RHOB	ras homolog gene family, mem	HALLMARK_TNI
3624	INHBA	inhibin, beta A	HALLMARK_TNI
3398	ID2	inhibitor of DNA binding 2, dor	HALLMARK_TNI
2669	GEM	GTP binding protein overexpres	HALLMARK_TNI
3371	TNC	tenascin C	HALLMARK_TNI
5806	PTX3	pentraxin 3, long	HALLMARK_TNI
1839	HBEGF	heparin-binding EGF-like growt	HALLMARK_TNI
8877	SPHK1	sphingosine kinase 1	HALLMARK_TNI
650	BMP2	bone morphogenetic protein 2	HALLMARK_TNI
3552	IL1A	interleukin 1, alpha	HALLMARK_TNI
9314	KLF4	Kruppel-like factor 4 (gut)	HALLMARK_TNI
3976	LIF	leukemia inhibitory factor (chol	HALLMARK_TNI
4084	MXD1	MAX dimerization protein 1	HALLMARK_TNI
5791	PTPRE	protein tyrosine phosphatase, r	HALLMARK_TNI
10769	PLK2	polo-like kinase 2	HALLMARK_TNI
51278	IER5	immediate early response 5	HALLMARK_TNI
1960	EGR3	early growth response 3	HALLMARK_TNI
4170	MCL1	myeloid cell leukemia sequenc	HALLMARK_TNI
4609	MYC	v-myc myelocytomatosis viral o	HALLMARK_TNI
7071	KLF10	Kruppel-like factor 10	HALLMARK_TNI
3280	HES1	hairly and enhancer of split 1, (E	HALLMARK_TNI
22822	PHLDA1	pleckstrin homology-like domai	HALLMARK_TNI
23258	DENND5A	DENN/MADD domain containin	HALLMARK_TNI

3383	ICAM1	intercellular adhesion molecule	HALLMARK_TNI
1906	EDN1	endothelin 1	HALLMARK_TNI
5734	PTGER4	prostaglandin E receptor 4 (sub	HALLMARK_TNI
25816	TNFAIP8	tumor necrosis factor, alpha-in	HALLMARK_TNI
5328	PLAU	plasminogen activator, urokina	HALLMARK_TNI
604	BCL6	B-cell CLL/lymphoma 6	HALLMARK_TNI
3726	JUNB	jun B proto-oncogene	HALLMARK_TNI
2354	FOSB	FBJ murine osteosarcoma viral	HALLMARK_TNI
3164	NR4A1	nuclear receptor subfamily 4, g	HALLMARK_TNI
1847	DUSP5	dual specificity phosphatase 5	HALLMARK_TNI
7280	TUBB2A	tubulin, beta 2A class IIa	HALLMARK_TNI
602	BCL3	B-cell CLL/lymphoma 3	HALLMARK_TNI
4929	NR4A2	nuclear receptor subfamily 4, g	HALLMARK_TNI
10318	TNIP1	TNFAIP3 interacting protein 1	HALLMARK_TNI
10725	NFAT5	nuclear factor of activated T-ce	HALLMARK_TNI
11182	SLC2A6	solute carrier family 2 (facilitate	HALLMARK_TNI
1958	EGR1	early growth response 1	HALLMARK_TNI
1959	EGR2	early growth response 2	HALLMARK_TNI
23135	KDM6B	lysine (K)-specific demethylase	HALLMARK_TNI
23529	CLCF1	cardiotrophin-like cytokine fact	HALLMARK_TNI
24147	FJX1	four jointed box 1 (Drosophila)	HALLMARK_TNI
4791	NFKB2	nuclear factor of kappa light po	HALLMARK_TNI
5187	PER1	period homolog 1 (Drosophila)	HALLMARK_TNI
5271	SERPINB8	serpin peptidase inhibitor, clad	HALLMARK_TNI
687	KLF9	Kruppel-like factor 9	HALLMARK_TNI
7262	PHLDA2	pleckstrin homology-like domai	HALLMARK_TNI
8061	FOSL1	FOS-like antigen 1	HALLMARK_TNI
57761	TRIB3	tribbles homolog 3 (Drosophila)	
6319	SCD	stearoyl-CoA desaturase (delta-9-desaturase)	
10682	EBP	emopamil binding protein (sterol isomerase)	
6309	SC5DL	sterol-C5-desaturase (ERG3 delta-5-desaturase)	
1717	DHCR7	7-dehydrocholesterol reductase	
928	CD9	CD9 molecule	
3422	IDI1	isopentenyl-diphosphate delta isomerase 1	
3157	HMGCS1	3-hydroxy-3-methylglutaryl-CoA synthase 1 (sol	
3156	HMGCR	3-hydroxy-3-methylglutaryl-CoA reductase	
9415	FADS2	fatty acid desaturase 2	
27346	TMEM97	transmembrane protein 97	
6713	SQLE	squalene epoxidase	
134429	STARD4	StAR-related lipid transfer (START) domain cont	
1595	CYP51A1	cytochrome P450, family 51, subfamily A, polyp	
5352	PLOD2	procollagen-lysine, 2-oxoglutarate 5-dioxygenase	
112399	EGLN3	egl nine homolog 3 (C. elegans)	
23657	SLC7A11	solute carrier family 7 (anionic amino acid trans	
120	ADD3	adducin 3 (gamma)	
60481	ELOVL5	ELOVL fatty acid elongase 5	
3638	INSIG1	insulin induced gene 1	
3488	IGFBP5	insulin-like growth factor binding protein 5	
1718	DHCR24	24-dehydrocholesterol reductase	
2181	ACSL3	acyl-CoA synthetase long-chain family member	
440	ASNS	asparagine synthetase (glutamine-hydrolyzing)	
7037	TFRC	transferrin receptor (p90, CD71)	

51109	RDH11	retinol dehydrogenase 11 (all-trans/9-cis/11-cis
8935	SKAP2	src kinase associated phosphoprotein 2
47	ACLY	ATP citrate lyase
79071	ELOVL6	ELOVL fatty acid elongase 6
80777	CYB5B	cytochrome b5 type B (outer mitochondrial me
10797	MTHFD2	methylenetetrahydrofolate dehydrogenase (NA
9695	EDEM1	ER degradation enhancer, mannosidase alpha-li
586	BCAT1	branched chain amino-acid transaminase 1, cyt
23062	GGA2	golgi-associated, gamma adaptin ear containing
54843	SYTL2	synaptotagmin-like 2
51330	TNFRSF12A	tumor necrosis factor receptor superfamily, me
50814	NSDHL	NAD(P) dependent steroid dehydrogenase-like
2224	FDPS	farnesyl diphosphate synthase
3958	LGALS3	lectin, galactoside-binding, soluble, 3
552	AVPR1A	arginine vasopressin receptor 1A
7869	SEMA3B	sema domain, immunoglobulin domain (Ig), sho
2222	FDFT1	farnesyl-diphosphate farnesyltransferase 1
2194	FASN	fatty acid synthase
214	ALCAM	activated leukocyte cell adhesion molecule
39	ACAT2	acetyl-CoA acetyltransferase 2
51478	HSD17B7	hydroxysteroid (17-beta) dehydrogenase 7
4597	MVD	mevalonate (diphospho) decarboxylase
308	ANXA5	annexin A5
132864	CPEB2	cytoplasmic polyadenylation element binding p
4047	LSS	lanosterol synthase (2,3-oxidosqualene-lanoste
4598	MVK	mevalonate kinase
55902	ACSS2	acyl-CoA synthetase short-chain family member
5833	PCYT2	phosphate cytidyltransferase 2, ethanolamine
6721	SREBF2	sterol regulatory element binding transcription
4907	NT5E	5'-nucleotidase, ecto (CD73)
7040	TGFB1	transforming growth factor, beta 1
1292	COL6A2	collagen, type VI, alpha 2
6876	TAGLN	transgelin
8038	ADAM12	ADAM metallopeptidase domain 12
7078	TIMP3	TIMP metallopeptidase inhibitor 3
1301	COL11A1	collagen, type XI, alpha 1
5376	PMP22	peripheral myelin protein 22
627	BDNF	brain-derived neurotrophic factor
6591	SNAI2	snail homolog 2 (Drosophila)
6696	SPP1	secreted phosphoprotein 1
2014	EMP3	epithelial membrane protein 3
3678	ITGA5	integrin, alpha 5 (fibronectin receptor, alpha po
7980	TFPI2	tissue factor pathway inhibitor
3956	LGALS1	lectin, galactoside-binding, soluble, 1
1004	CDH6	cadherin 6, type 2, K-cadherin (fetal kidney)
9353	SLIT2	slit homolog 2 (Drosophila)
3485	IGFBP2	insulin-like growth factor binding protein 2, 36k
7057	THBS1	thrombospondin 1
7857	SCG2	secretogranin II
23705	CADM1	cell adhesion molecule 1
667	DST	dystonin
1000	CDH2	cadherin 2, type 1, N-cadherin (neuronal)

10272	FSTL3	follistatin-like 3 (secreted glycoprotein)
11010	GLIPR1	GLI pathogenesis-related 1
1294	COL7A1	collagen, type VII, alpha 1
1303	COL12A1	collagen, type XII, alpha 1
26585	GREM1	gremlin 1
30008	EFEMP2	EGF containing fibulin-like extracellular matrix p
4017	LOXL2	lysyl oxidase-like 2
50863	NTM	neurotrimin
5270	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasm
59	ACTA2	actin, alpha 2, smooth muscle, aorta
7431	VIM	vimentin
800	CALD1	caldesmon 1
9235	IL32	interleukin 32
1999	ELF3	E74-like factor 3 (ets domain transcription facto
283	ANG	angiogenin, ribonuclease, RNase A family, 5
3161	HMMR	hyaluronan-mediated motility receptor (RHAMF
4351	MPI	mannose phosphate isomerase
5223	PGAM1	phosphoglycerate mutase 1 (brain)
5315	PKM2	pyruvate kinase, muscle
5318	PKP2	plakophilin 2
5836	PYGL	phosphorylase, glycogen, liver
6676	SPAG4	sperm associated antigen 4
8996	NOL3	nucleolar protein 3 (apoptosis repressor with C/
90161	HS6ST2	heparan sulfate 6-O-sulfotransferase 2
9048	ARTN	artemin
9123	SLC16A3	solute carrier family 16, member 3 (monocarbo
351	APP	amyloid beta (A4) precursor protein
3691	ITGB4	integrin, beta 4
1012	CDH13	cadherin 13, H-cadherin (heart)
894	CCND2	cyclin D2
54884	RETSAT	retinol saturase (all-trans-retinol 13,14-reducta:
10628	TXNIP	thioredoxin interacting protein
2810	SFN	stratifin
6004	RGS16	regulator of G-protein signaling 16
3732	CD82	CD82 molecule
22824	HSPA4L	heat shock 70kDa protein 4-like
6281	S100A10	S100 calcium binding protein A10
1030	CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhib
7378	UPP1	uridine phosphorylase 1
1969	EPHA2	EPH receptor A2
1643	DDB2	damage-specific DNA binding protein 2, 48kDa
5429	POLH	polymerase (DNA directed), eta
1263	PLK3	polo-like kinase 3
27165	GLS2	glutaminase 2 (liver, mitochondrial)
27244	SESN1	sestrin 1
4808	NHLH2	nescient helix loop helix 2
55270	NUDT15	nudix (nucleoside diphosphate linked moiety X)
57763	ANKRA2	ankyrin repeat, family A (RFXANK-like), 2
5784	PTPN14	protein tyrosine phosphatase, non-receptor typ
5900	RALGDS	ral guanine nucleotide dissociation stimulator
64393	ZMAT3	zinc finger, matrin-type 3
64787	EPS8L2	EPS8-like 2

26353	HSPB8	heat shock 22kDa protein 8
29970	SCHIP1	schwannomin interacting protein 1
5621	PRNP	prion protein
2180	ACSL1	acyl-CoA synthetase long-chain family member
88	ACTN2	actinin, alpha 2
58	ACTA1	actin, alpha 1, skeletal muscle
89	ACTN3	actinin, alpha 3
8082	SSPN	sarcospan (Kras oncogene-associated gene)
25937	WWTR1	WW domain containing transcription regulator
43	ACHE	acetylcholinesterase
23175	LPIN1	lipin 1
11155	LDB3	LIM domain binding 3
11156	PTP4A3	protein tyrosine phosphatase type IVA, member
1266	CNN3	calponin 3, acidic
1489	CTF1	cardiotrophin 1
2049	EPHB3	EPH receptor B3
2170	FABP3	fatty acid binding protein 3, muscle and heart (r
3490	IGFBP7	insulin-like growth factor binding protein 7
4620	MYH2	myosin, heavy chain 2, skeletal muscle, adult
58498	MYL7	myosin, light chain 7, regulatory
58529	MYOZ1	myozenin 1
688	KLF5	Kruppel-like factor 5 (intestinal)
8736	MYOM1	myomesin 1, 185kDa
2012	EMP1	epithelial membrane protein 1
836	CASP3	caspase 3, apoptosis-related cysteine peptidase
8900	CCNA1	cyclin A1
3005	H1F0	H1 histone family, member 0
5526	PPP2R5B	protein phosphatase 2, regulatory subunit B', beta
301	ANXA1	annexin A1
7465	WEE1	WEE1 homolog (<i>S. pombe</i>)
4000	LMNA	lamin A/C
8682	PEA15	phosphoprotein enriched in astrocytes 15
9890	LPPR4	lipid phosphate phosphatase-related protein tyrosi
3480	IGF1R	insulin-like growth factor 1 receptor
3880	KRT19	keratin 19
27295	PDLIM3	PDZ and LIM domain 3
11098	PRSS23	protease, serine, 23
2317	FLNB	filamin B, beta
10202	DHRS2	dehydrogenase/reductase (SDR family) member
11145	PLA2G16	phospholipase A2, group XVI
26509	MYOF	myoferlin
4277	MICB	MHC class I polypeptide-related sequence B
56603	CYP26B1	cytochrome P450, family 26, subfamily B, polyp
6658	SOX3	SRY (sex determining region Y)-box 3
799	CALCR	calcitonin receptor
3856	KRT8	keratin 8
23030	KDM4B	lysine (K)-specific demethylase 4B
2674	GFRA1	GDNF family receptor alpha 1
347733	TUBB2B	tubulin, beta 2B class IIb
375449	MAST4	microtubule associated serine/threonine kinase
55191	NADSYN1	NAD synthetase 1
56944	OLFML3	olfactomedin-like 3

64284	RAB17	RAB17, member RAS oncogene family
6505	SLC1A1	solute carrier family 1 (neuronal/epithelial high
8829	NRP1	neuropilin 1
3037	HAS2	hyaluronan synthase 2
11099	PTPN21	protein tyrosine phosphatase, non-receptor typ
7035	TFPI	tissue factor pathway inhibitor (lipoprotein-assc
5002	SLC22A18	solute carrier family 22, member 18
2650	GCNT1	glucosaminyl (N-acetyl) transferase 1, core 2
5737	PTGFR	prostaglandin F receptor (FP)
11044	PAPD7	PAP associated domain containing 7
10659	CELF2	CUGBP, Elav-like family member 2
23229	ARHGEF9	Cdc42 guanine nucleotide exchange factor (GEF
23576	DDAH1	dimethylarginine dimethylaminohydrolase 1
2869	GRK5	G protein-coupled receptor kinase 5
4131	MAP1B	microtubule-associated protein 1B
5797	PTPRM	protein tyrosine phosphatase, receptor type, M
773	CACNA1A	calcium channel, voltage-dependent, P/Q type,
5732	PTGER2	prostaglandin E receptor 2 (subtype EP2), 53kDa
3662	IRF4	interferon regulatory factor 4
9446	GSTO1	glutathione S-transferase omega 1
4643	MYO1E	myosin IE
126669	SHE	Src homology 2 domain containing E
3177	SLC29A2	solute carrier family 29 (nucleoside transporter:
23208	SYT11	synaptotagmin XI
3664	IRF6	interferon regulatory factor 6
64116	SLC39A8	solute carrier family 39 (zinc transporter), mem
79026	AHNAK	AHNAK nucleoprotein
4067	LYN	v-yes-1 Yamaguchi sarcoma viral related oncoge
3249	HPN	hepsin
7855	FZD5	frizzled family receptor 5
10148	EBI3	Epstein-Barr virus induced 3
166929	SGMS2	sphingomyelin synthase 2
3656	IRAK2	interleukin-1 receptor-associated kinase 2
3696	ITGB8	integrin, beta 8
5027	P2RX7	purinergic receptor P2X, ligand-gated ion chann
558	AXL	AXL receptor tyrosine kinase
5724	PTAFR	platelet-activating factor receptor
60675	PROK2	prokineticin 2
7439	BEST1	bestrophin 1
9966	TNFSF15	tumor necrosis factor (ligand) superfamily, mem
2707	GJB3	gap junction protein, beta 3, 31kDa
4665	NAB2	NGFI-A binding protein 2 (EGR1 binding protein
56521	DNAJC12	DnaJ (Hsp40) homolog, subfamily C, member 12
57834	CYP4F11	cytochrome P450, family 4, subfamily F, polypep
9547	CXCL14	chemokine (C-X-C motif) ligand 14
22936	ELL2	elongation factor, RNA polymerase II, 2
6611	SMS	spermine synthase
84159	ARID5B	AT rich interactive domain 5B (MRF1-like)
6197	RPS6KA3	ribosomal protein S6 kinase, 90kDa, polypeptid
10627	MYL12A	myosin, light chain 12A, regulatory, non-sarcom
2005	ELK4	ELK4, ETS-domain protein (SRF accessory protei
55768	NGLY1	N-glycanase 1

8916	HERC3	hect domain and RLD 3
9510	ADAMTS1	ADAM metallopeptidase with thrombospondin
4319	MMP10	matrix metallopeptidase 10 (stromelysin 2)
11184	MAP4K1	mitogen-activated protein kinase kinase kinase
9734	HDAC9	histone deacetylase 9
9892	SNAP91	synaptosomal-associated protein, 91kDa homolog
9935	MAFB	v-maf musculoaponeurotic fibrosarcoma oncogene
28951	TRIB2	tribbles homolog 2 (Drosophila)
3800	KIF5C	kinesin family member 5C
3936	LCP1	lymphocyte cytosolic protein 1 (L-plastin)
54462	FAM190B	family with sequence similarity 190, member B
5593	PRKG2	protein kinase, cGMP-dependent, type II
5801	PTPRR	protein tyrosine phosphatase, receptor type, R
639	PRDM1	PR domain containing 1, with ZNF domain
64123	ELTD1	EGF, latrophilin and seven transmembrane domain
8780	RIOK3	RIO kinase 3 (yeast)
10133	OPTN	optineurin
54498	SMOX	spermine oxidase
81689	ISCA1	iron-sulfur cluster assembly 1 homolog (S. cerevisiae)
23002	DAAM1	dishevelled associated activator of morphogenesis
23762	OSBP2	oxysterol binding protein 2
25897	RNF19A	ring finger protein 19A
26502	NARF	nuclear prelamin A recognition factor
286	ANK1	ankyrin 1, erythrocytic
51312	SLC25A37	solute carrier family 25, member 37
55532	SLC30A10	solute carrier family 30, member 10
56180	MOSPD1	motile sperm domain containing 1
6622	SNCA	synuclein, alpha (non A4 component of amyloid)
6710	SPTB	spectrin, beta, erythrocytic
80853	JHDM1D	jumonji C domain containing histone demethylase
8301	PICALM	phosphatidylinositol binding clathrin assembly protein
831	CAST	calpastatin
9429	ABCG2	ATP-binding cassette, sub-family G (WHITE), member 2
2182	ACSL4	acyl-CoA synthetase long-chain family member 4
3155	HMGCL	3-hydroxymethyl-3-methylglutaryl-CoA lyase
387893	SETD8	SET domain containing (lysine methyltransferase)
131076	CCDC58	coiled-coil domain containing 58
2954	GSTZ1	glutathione transferase zeta 1
5793	PTPRG	protein tyrosine phosphatase, receptor type, G
58476	TP53INP2	tumor protein p53 inducible nuclear protein 2
8608	RDH16	retinol dehydrogenase 16 (all-trans)
8754	ADAM9	ADAM metallopeptidase domain 9
7414	VCL	vinculin
11096	ADAMTS5	ADAM metallopeptidase with thrombospondin
1308	COL17A1	collagen, type XVII, alpha 1
2318	FLNC	filamin C, gamma
257194	NEGR1	neuronal growth regulator 1
2886	GRB7	growth factor receptor-bound protein 7
3675	ITGA3	integrin, alpha 3 (antigen CD49C, alpha 3 subunit)
5010	CLDN11	claudin 11
51474	LIMA1	LIM domain and actin binding 1
57863	CADM3	cell adhesion molecule 3

6237	RRAS	related RAS viral (r-ras) oncogene homolog
65266	WNK4	WNK lysine deficient protein kinase 4
7087	ICAM5	intercellular adhesion molecule 5, telencephalic
7791	ZYX	zyxin
81607	PVRL4	poliovirus receptor-related 4
80273	GRPEL1	GrpE-like 1, mitochondrial (E. coli)
64859	OBFC2A	oligonucleotide/oligosaccharide-binding fold co
204	AK2	adenylate kinase 2
593	BCKDHA	branched chain keto acid dehydrogenase E1, alpha
23788	MTCH2	mitochondrial carrier 2
284	ANGPT1	angiopoietin 1
65124	ANKRD57	ankyrin repeat domain 57
7316	UBC	ubiquitin C
7423	VEGFB	vascular endothelial growth factor B
3175	ONECUT1	one cut homeobox 1
6782	HSPA13	heat shock protein 70kDa family, member 13
255738	PCSK9	proprotein convertase subtilisin/kexin type 9
54704	PDP1	pyruvate dehydrogenase phosphatase catalytic subunit
10019	SH2B3	SH2B adaptor protein 3
1368	CPM	carboxypeptidase M
23348	DOCK9	dedicator of cytokinesis 9
30819	KCNIP2	Kv channel interacting protein 2
3988	LIPA	lipase A, lysosomal acid, cholesterol esterase
4179	CD46	CD46 molecule, complement regulatory protein
51440	HPCAL4	hippocalcin like 4
9806	SPOCK2	sparc/osteonectin, cwcv and kazal-like domains
2161	F12	coagulation factor XII (Hageman factor)
5028	P2RY1	purinergic receptor P2Y, G-protein coupled, 1
9615	GDA	guanine deaminase
4864	NPC1	Niemann-Pick disease, type C1
10998	SLC27A5	solute carrier family 27 (fatty acid transporter),
1734	DIO2	deiodinase, iodothyronine, type II
23461	ABCA5	ATP-binding cassette, sub-family A (ABC1), member 5
4734	NEDD4	neural precursor cell expressed, developmental
50640	PNPLA8	patatin-like phospholipase domain containing 8
51268	PIPOX	pipecolic acid oxidase
9023	CH25H	cholesterol 25-hydroxylase
9241	NOG	noggin
2081	ERN1	endoplasmic reticulum to nucleus signaling 1
55062	WIPI1	WD repeat domain, phosphoinositide interacting
79094	CHAC1	ChaC, cation transport regulator homolog 1 (E. coli)
9451	EIF2AK3	eukaryotic translation initiation factor 2-alpha kinase 3
3135	HLA-G	major histocompatibility complex, class I, G
7903	ST8SIA4	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 4
1615	DARS	aspartyl-tRNA synthetase
3589	IL11	interleukin 11
9437	NCR1	natural cytotoxicity triggering receptor 1
51735	RAPGEF6	Rap guanine nucleotide exchange factor (GEF) 6
55024	BANK1	B-cell scaffold protein with ankyrin repeats 1
57162	PELL1	pellino homolog 1 (Drosophila)
3897	L1CAM	L1 cell adhesion molecule
1382	CRABP2	cellular retinoic acid binding protein 2

774	CACNA1B	calcium channel, voltage-dependent, N type, al
1592	CYP26A1	cytochrome P450, family 26, subfamily A, polyp
316	AOX1	aldehyde oxidase 1
3931	LCAT	lecithin-cholesterol acyltransferase
55502	HES6	hairy and enhancer of split 6 (Drosophila)
6560	SLC12A4	solute carrier family 12 (potassium/chloride tra
9361	LONP1	lon peptidase 1, mitochondrial
5071	PARK2	parkinson protein 2, E3 ubiquitin protein ligase
50832	TAS2R4	taste receptor, type 2, member 4
51168	MYO15A	myosin XVA
55220	KLHDC8A	kelch domain containing 8A
55890	GPRC5C	G protein-coupled receptor, family C, group 5, r
5625	PRODH	proline dehydrogenase (oxidase) 1
57451	ODZ2	odz, odd Oz/ten-m homolog 2 (Drosophila)
6262	RYR2	ryanodine receptor 2 (cardiac)
6620	SNCB	synuclein, beta
778	CACNA1F	calcium channel, voltage-dependent, L type, alp
1845	DUSP3	dual specificity phosphatase 3
5563	PRKAA2	protein kinase, AMP-activated, alpha 2 catalytic
84441	MAML2	mastermind-like 2 (Drosophila)
11104	KATNA1	katanin p60 (ATPase containing) subunit A 1
11133	KPTN	kaptin (actin binding protein)
11135	CDC42EP1	CDC42 effector protein (Rho GTPase binding) 1
11190	CEP250	centrosomal protein 250kDa
23022	PALLD	palladin, cytoskeletal associated protein
5829	PXN	paxillin
8470	SORBS2	sorbin and SH3 domain containing 2
8874	ARHGEF7	Rho guanine nucleotide exchange factor (GEF) 7
9411	ARHGAP29	Rho GTPase activating protein 29
1032	CDKN2D	cyclin-dependent kinase inhibitor 2D (p19, inhi
10587	TXNRD2	thioredoxin reductase 2
3087	HHEX	hematopoietically expressed homeobox
2581	GALC	galactosylceramidase
664	BNIP3	BCL2/adenovirus E1B 19kDa interacting protein
858	CAV2	caveolin 2
9805	SCRN1	secernin 1
3953	LEPR	leptin receptor
83729	INHBE	inhibin, beta E
246	ALOX15	arachidonate 15-lipoxygenase
3361	HTR5A	5-hydroxytryptamine (serotonin) receptor 5A
5443	POMC	proopiomelanocortin
54760	PCSK4	proprotein convertase subtilisin/kexin type 4
22854	NTNG1	netrin G1
3930	LBR	lamin B receptor
81624	DIAPH3	diaphanous homolog 3 (Drosophila)
9924	PAN2	PAN2 poly(A) specific ribonuclease subunit hom
5126	PCSK2	proprotein convertase subtilisin/kexin type 2
2987	GUK1	guanylate kinase 1
404672	GTF2H5	general transcription factor IIH, polypeptide 5
84265	POLR3GL	polymerase (RNA) III (DNA directed) polypeptid
8731	RNMT	RNA (guanine-7-) methyltransferase
10161	LPAR6	lysophosphatidic acid receptor

135112	NCOA7	nuclear receptor coactivator 7
100037417	DDTL	D-dopachrome tautomerase-like
100113407	TMEM170B	transmembrane protein 170B
100128071	LOC1001280	uncharacterized LOC100128071
100128264	LOC1001282	uncharacterized LOC100128264
100129550	LOC1001295	uncharacterized LOC100129550
100129654	TCF24	transcription factor 24
100129662	LOC1001296	uncharacterized LOC100129662
100129716	LOC1001297	uncharacterized LOC100129716
100129845	LOC1001298	uncharacterized LOC100129845
100129924	LOC1001299	uncharacterized LOC100129924
100129995	LOC1001299	uncharacterized LOC100129995
100130522	LOC1001305	uncharacterized LOC100130522
100130691	LOC1001306	uncharacterized LOC100130691
100130742	LRRRC69	leucine rich repeat containing 6
100130950	LOC1001309	uncharacterized LOC100130950
100131089	LOC1001310	uncharacterized LOC100131089
100131138	LOC1001311	uncharacterized LOC100131138
100131347	LOC1001313	RAD52 motif 1 pseudogene
100132594	PGAM1P5	phosphoglycerate mutase 1 pseudogene 5
100132916	FAM159B	family with sequence similarity 159, member B
100133036	FAM95B1	family with sequence similarity 95, member B1
100133091	LOC1001330	uncharacterized LOC100133091
100134229	LOC1001342	uncharacterized LOC100134229
100268168	LOC1002681	uncharacterized LOC100268168
100271846	ERVV-2	endogenous retrovirus group V, member 2
100288175	LOC1002881	uncharacterized LOC100288175
100288198	LOC1002881	uncharacterized LOC100288198
100289098	LOC1002890	uncharacterized LOC100289098
100289211	LOC1002892	uncharacterized LOC100289211
100289279	ATP5A1P9	ATP synthase, H ⁺ transporting, mitochondrial F ₁ F ₀
1003	CDH5	cadherin 5, type 2 (vascular endothelium)
100302640	LOC1003026	uncharacterized LOC100302640
100381270	ZBED6	zinc finger, BED-type containing 6
10044	SH2D3C	SH2 domain containing 3C
10045	SH2D3A	SH2 domain containing 3A
100500802	MIR3685	microRNA 3685
100505538	RBM26-AS1	RBM26 antisense RNA 1 (non-protein coding)
100505783	LOC1005057	uncharacterized LOC100505783
100505817	LOC1005058	uncharacterized LOC100505817
100505881	MAGI2-AS3	MAGI2 antisense RNA 3 (non-protein coding)
100506100	LOC1005061	uncharacterized LOC100506100
100506658	OCLN	occludin
100506696	LOC1005066	uncharacterized LOC100506696
100507062	LOC1005070	uncharacterized LOC100507062
100507103	LOC1005071	uncharacterized LOC100507103
100507250	LOC1005072	uncharacterized LOC100507250
100507291	LOC1005072	uncharacterized LOC100507291
100507347	LOC1005073	uncharacterized LOC100507347
100507401	LOC1005074	uncharacterized LOC100507401
100507428	LINC00458	long intergenic non-protein coding RNA 458
100507436	MICA	MHC class I polypeptide-related sequence A

100507475	LOC1005074	uncharacterized LOC100507475
100507487	LOC1005074	uncharacterized LOC100507487
100507495	LOC1005074	uncharacterized LOC100507495
100507501	LOC1005075	uncharacterized LOC100507501
100507582	LOC1005075	uncharacterized LOC100507582
10062	NR1H3	nuclear receptor subfamily 1, group H, member
100642175	SPRY4-IT1	SPRY4 intronic transcript 1 (non-protein coding)
10076	PTPRU	protein tyrosine phosphatase, receptor type, U
10082	GPC6	glypican 6
100862728		
100874002		
100885848		
100996419		
10144	FAM13A	family with sequence similarity 13, member A
10150	MBNL2	muscleblind-like 2 (Drosophila)
10178	ODZ1	odz, odd Oz/ten-m homolog 1 (Drosophila)
101926941		
101926975		
101926987		
101927043		
101927221		
101927288		
101927359		
101927599		
101927931		
101928000		
101928069		
101928136		
101928550		
101928674		
101928837		
101929027		
101929140		
101929147		
101929243		
101929302		
101929333		
101929563		
101929705		
10223	GPA33	glycoprotein A33 (transmembrane)
10233	LRRC23	leucine rich repeat containing 2
10234	LRRC17	leucine rich repeat containing 1
10251	SPRY3	sprouty homolog 3 (Drosophila)
10252	SPRY1	sprouty homolog 1, antagonist of FGF signaling
102723465		
102723548		
102724571		
102724788		
102724826		
10295	BCKDK	branched chain ketoacid dehydrogenase kinase
10344	CCL26	chemokine (C-C motif) ligand 26
10345	TRDN	triadin

104326191	
104355426	
10485 C1orf61	chromosome 1 open reading frame 61
10529 NEBL	nebulette
105369758	
105370526	
105372482	
105379252	
105416157	
10566 AKAP3	A kinase (PRKA) anchor protein 3
10602 CDC42EP3	CDC42 effector protein (Rho GTPase binding) 3
10637 LEFTY1	left-right determination factor 1
10650 SLMO1	slowmo homolog 1 (Drosophila)
106614088	
10669 CGREF1	cell growth regulator with EF-hand domain 1
10670 RRAGA	Ras-related GTP binding A
10675 CSPG5	chondroitin sulfate proteoglycan 5 (neuroglycar
10687 PNMA2	paraneoplastic antigen MA2
10690 FUT9	fucosyltransferase 9 (alpha (1,3) fucosyltransfer
10718 NRG3	neuregulin 3
10763 NES	nestin
10765 KDM5B	lysine (K)-specific demethylase 5B
107985075	
107986266	
10814 CPLX2	complexin 2
10826 C5orf4	chromosome 5 open reading frame 4
10842 PPP1R17	protein phosphatase 1, regulatory subunit 17
10848 PPP1R13L	protein phosphatase 1, regulatory subunit 13 lil
108570035	
10882 C1QL1	complement component 1, q subcomponent-lik
10955 SERINC3	serine incorporator 3
109616976	
109729141	
10981 RAB32	RAB32, member RAS oncogene family
11033 ADAP1	ArfGAP with dual PH domains 1
11043 MID2	midline 2
11045 UPK1A	uroplakin 1A
1106 CHD2	chromodomain helicase DNA binding protein 2
11161 C14orf1	chromosome 14 open reading frame 1
11186 RASSF1	Ras association (RalGDS/AF-6) domain family m
11211 FZD10	frizzled family receptor 10
11221 DUSP10	dual specificity phosphatase 10
11240 PADI2	peptidyl arginine deiminase, type II
11247 NXPH4	neurexophilin 4
112597 LINC00152	long intergenic non-protein coding RNA 152
112942 CCDC104	coiled-coil domain containing 104
1131 CHR3	cholinergic receptor, muscarinic 3
11314 CD300A	CD300a molecule
113230 LOC113230	uncharacterized LOC113230
113402 SFT2D1	SFT2 domain containing 1
113791 PIK3IP1	phosphoinositide-3-kinase interacting protein 1
114 ADCY8	adenylate cyclase 8 (brain)

114044	MCM3AP-AS	MCM3AP antisense RNA 1 (non-protein coding)
114088	TRIM9	tripartite motif containing 9
114134	SLC2A13	solute carrier family 2 (facilitated glucose transp
114757	CYGB	cytoglobin
114780	PKD1L2	polycystic kidney disease 1-like 2
114786	XKR4	XK, Kell blood group complex subunit-related fa
114805	GALNT13	UDP-N-acetyl-alpha-D-galactosamine:polypepti
114814	GNRHR2	gonadotropin-releasing hormone (type 2) recep
115111	SLC26A7	solute carrier family 26, member 7
115207	KCTD12	potassium channel tetramerisation domain con
115265	DDIT4L	DNA-damage-inducible transcript 4-like
115330	GPR146	G protein-coupled receptor 146
115650	TNFRSF13C	tumor necrosis factor receptor superfamily, me
115701	ALPK2	alpha-kinase 2
115727	RASGRP4	RAS guanyl releasing protein 4
115948	CCDC151	coiled-coil domain containing 151
116228	FAM36A	family with sequence similarity 36, member A
116328	C8orf34	chromosome 8 open reading frame 34
116441	TM4SF18	transmembrane 4 L six family member 18
116442	RAB39B	RAB39B, member RAS oncogene family
116828	CG030	uncharacterized CG030
116966	WDR17	WD repeat domain 17
116984	ARAP2	ArfGAP with RhoGAP domain, ankyrin repeat ar
117531	TMC1	transmembrane channel-like 1
118472	ZNF511	zinc finger protein 511
1185	CLCN6	chloride channel 6
1195	CLK1	CDC-like kinase 1
119504	ANAPC16	anaphase promoting complex subunit 16
1198	CLK3	CDC-like kinase 3
120227	CYP2R1	cytochrome P450, family 2, subfamily R, polype
120863	DEPDC4	DEP domain containing 4
121457	IKBIP	IKBKB interacting protein
121504	HIST4H4	histone cluster 4, H4
122481	AK7	adenylate kinase 7
122525	C14orf28	chromosome 14 open reading frame 28
122616	C14orf79	chromosome 14 open reading frame 79
122786	FRMD6	FERM domain containing 6
123606	NIPA1	non imprinted in Prader-Willi/Angelman syndro
124056	NOXO1	NADPH oxidase organizer 1
124637	CYB5D1	cytochrome b5 domain containing 1
124923	SGK494	uncharacterized serine/threonine-protein kinas
124944	C17orf49	chromosome 17 open reading frame 49
124976	SPNS2	spinster homolog 2 (Drosophila)
125228	C18orf19	chromosome 18 open reading frame 19
126014	OSCAR	osteoclast associated, immunoglobulin-like rece
126068	ZNF441	zinc finger protein 441
126353	C19orf21	chromosome 19 open reading frame 21
1264	CNN1	calponin 1, basic, smooth muscle
126731	C1orf96	chromosome 1 open reading frame 96
1268	CNR1	cannabinoid receptor 1 (brain)
126917	IFFO2	intermediate filament family orphan 2
127495	LRRC39	leucine rich repeat containing 3

127579	DCST2	DC-STAMP domain containing 2
127707	KLHDC7A	kelch domain containing 7A
127845	GOLT1A	golgi transport 1A
128077	LIX1L	Lix1 homolog (mouse)-like
1295	COL8A1	collagen, type VIII, alpha 1
1299	COL9A3	collagen, type IX, alpha 3
130132	RFTN2	raftlin family member 2
130162	C2orf63	chromosome 2 open reading frame 63
1305	COL13A1	collagen, type XIII, alpha 1
131034	CPNE4	copine IV
131096	KCNH8	potassium voltage-gated channel, subfamily H (
132204	SYNPR	synaptoporin
134265	AFAP1L1	actin filament associated protein 1-like 1
134492	NUDCD2	NudC domain containing 2
135293	PM20D2	peptidase M20 domain containing 2
1375	CPT1B	carnitine palmitoyltransferase 1B (muscle)
137994	LETM2	leucine zipper-EF-hand containing transmembr
138255	C9orf135	chromosome 9 open reading frame 135
138429	PIP5KL1	phosphatidylinositol-4-phosphate 5-kinase-like
139221	MUM1L1	melanoma associated antigen (mutated) 1-like
139596	UPRT	uracil phosphoribosyltransferase (FUR1) homol
140606	SELM	selenoprotein M
140612	ZFP28	zinc finger protein 28 homolog (mouse)
140679	SLC32A1	solute carrier family 32 (GABA vesicular transpo
140691	TRIM69	tripartite motif containing 69
140733	MACROD2	MACRO domain containing 2
140825	NEURL2	neuralized homolog 2 (Drosophila)
1416	CRYBB2P1	crystallin, beta B2 pseudogene
1428	CRYM	crystallin, mu
143282	FGFBP3	fibroblast growth factor binding protein 3
144132	DNHD1	dynein heavy chain domain 1
144195	SLC2A14	solute carrier family 2 (facilitated glucose transp
144406	WDR66	WD repeat domain 66
144568	A2ML1	alpha-2-macroglobulin-like 1
145482	PTGR2	prostaglandin reductase 2
146691	TOM1L2	target of myb1-like 2 (chicken)
146857	SLFN13	schlafen family member 13
146923	RUNDC1	RUN domain containing 1
147040	KCTD11	potassium channel tetramerisation domain con
147650	LINC00085	long intergenic non-protein coding RNA 85
147660	ZNF578	zinc finger protein 578
147664	ERVV-1	endogenous retrovirus group V, member 1
147700	KLC3	kinesin light chain 3
147837	ZNF563	zinc finger protein 563
147906	DACT3	dapper, antagonist of beta-catenin, homolog 3 (
147965	FAM98C	family with sequence similarity 98, member C
148229	ATP8B3	ATPase, aminophospholipid transporter, class I,
148523	C1orf51	chromosome 1 open reading frame 51
148534	TMEM56	transmembrane protein 56
1486	CTBS	chitobiase, di-N-acetyl-
148641	SLC35F3	solute carrier family 35, member F3
148808	MFSD4	major facilitator superfamily domain containing

149483	CCDC17	coiled-coil domain containing 1
150	ADRA2A	adrenergic, alpha-2A-, receptor
150082	LCA5L	Leber congenital amaurosis 5-like
150159	SLC9B1	solute carrier family 9, subfamily B (cation prot
150290	DUSP18	dual specificity phosphatase 18
150786	WTH3DI	RAB6C-like
151011	10-Sep	septin 10
151176	FAM132B	family with sequence similarity 132, member B
151354	FAM84A	family with sequence similarity 84, member A
151477	LINC00471	long intergenic non-protein coding RNA 471
151556	GPR155	G protein-coupled receptor 155
151835	CPNE9	copine family member IX
153163	MGC32805	uncharacterized protein MGC32805
153222	C5orf41	chromosome 5 open reading frame 41
153469	LOC153469	uncharacterized LOC153469
153768	PRELID2	PRELI domain containing 2
154	ADRB2	adrenergic, beta-2-, receptor, surface
154091	SLC2A12	solute carrier family 2 (facilitated glucose transp
1545	CYP1B1	cytochrome P450, family 1, subfamily B, polype
154661	RUNDC3B	RUN domain containing 3B
154860	LOC154860	uncharacterized LOC154860
157489	SDAD1P1	SDA1 domain containing 1 pseudogene 1
158035	LINC00032	long intergenic non-protein coding RNA 32
158038	LINGO2	leucine rich repeat and Ig domain containing 2
158046	NXNL2	nucleoredoxin-like 2
158056	MAMDC4	MAM domain containing 4
158158	RASEF	RAS and EF-hand domain containing
158160	HSD17B7P2	hydroxysteroid (17-beta) dehydrogenase 7 pseu
158471	PRUNE2	prune homolog 2 (Drosophila)
158747	MOSPD2	motile sperm domain containing 2
158787	RIBC1	RIB43A domain with coiled-coils 1
158880	USP51	ubiquitin specific peptidase 51
161253	REM2	RAS (RAD and GEM)-like GTP binding 2
1613	DAPK3	death-associated protein kinase 3
161357	MDGA2	MAM domain containing glycosylphosphatidylir
162387	MFSD6L	major facilitator superfamily domain containing
162417	NAGS	N-acetylglutamate synthase
162967	ZNF320	zinc finger protein 320
162979	ZNF296	zinc finger protein 296
163404	LPPR5	lipid phosphate phosphatase-related protein ty
164832	LONRF2	LON peptidase N-terminal domain and ring fing
169044	COL22A1	collagen, type XXII, alpha 1
170261	ZCCHC12	zinc finger, CCHC domain containing 12
170384	FUT11	fucosyltransferase 11 (alpha (1,3) fucosyltransfe
171546	SPTSSA	serine palmitoyltransferase, small subunit A
1767	DNAH5	dynein, axonemal, heavy chain 5
1815	DRD4	dopamine receptor D4
1850	DUSP8	dual specificity phosphatase 8
1852	DUSP9	dual specificity phosphatase 9
1910	EDNRB	endothelin receptor type B
1912	PHC2	polyhomeotic homolog 2 (Drosophila)
1948	EFNB2	ephrin-B2

1961	EGR4	early growth response 4
196394	AMN1	antagonist of mitotic exit network 1 homolog (S
196996	GRAMD2	GRAM domain containing 2
197187	MGC23284	uncharacterized LOC197187
1995	ELAVL3	ELAV (embryonic lethal, abnormal vision, Drosophila)
200162	SPAG17	sperm associated antigen 17
200205	IBA57	IBA57, iron-sulfur cluster assembly homolog (S.
200407	CREG2	cellular repressor of E1A-stimulated genes 2
201232	SLC16A13	solute carrier family 16, member 13 (monocarboxylate)
201299	RDM1	RAD52 motif 1
201799	TMEM154	transmembrane protein 154
201895	C4orf34	chromosome 4 open reading frame 34
202051	SPATA24	spermatogenesis associated 24
2021	ENDOG	endonuclease G
202134	FAM153B	family with sequence similarity 153, member B
202333	CMYA5	cardiomyopathy associated 5
203111	C8orf47	chromosome 8 open reading frame 47
203238	C9orf93	chromosome 9 open reading frame 93
203259	C9orf25	chromosome 9 open reading frame 25
2034	EPAS1	endothelial PAS domain protein 1
2042	EPHA3	EPH receptor A3
2047	EPHB1	EPH receptor B1
205428	C3orf58	chromosome 3 open reading frame 58
205860	TRIML2	tripartite motif family-like 2
2103	ESRRB	estrogen-related receptor beta
2173	FABP7	fatty acid binding protein 7, brain
219749	ZNF25	zinc finger protein 25
220004	PPP1R32	protein phosphatase 1, regulatory subunit 32
220441	RNF152	ring finger protein 152
220965	FAM13C	family with sequence similarity 13, member C
221002	RASGEF1A	RasGEF domain family, member 1A
221178	SPATA13	spermatogenesis associated 13
221416	C6orf223	chromosome 6 open reading frame 223
221421	RSPH9	radial spoke head 9 homolog (Chlamydomonas)
221491	C6orf1	chromosome 6 open reading frame 1
221662	RBM24	RNA binding motif protein 24
222171	PRR15	proline rich 15
222950	C7orf51	chromosome 7 open reading frame 51
223075	CCDC129	coiled-coil domain containing 129
2246	FGF1	fibroblast growth factor 1 (acidic)
2256	FGF11	fibroblast growth factor 11
2275	FHL3	four and a half LIM domains 3
22898	DENND3	DENN/MADD domain containing 3
22901	ARSG	arylsulfatase G
22927	HABP4	hyaluronan binding protein 4
22929	SEPHS1	selenophosphate synthetase 1
2297	FOXD1	forkhead box D1
22986	SORCS3	sortilin-related VPS10 domain containing receptor 3
22998	LIMCH1	LIM and calponin homology domains 1
22999	RIMS1	regulating synaptic membrane exocytosis 1
23015	GOLGA8A	golgin A8 family, member A
23023	TMCC1	transmembrane and coiled-coil domain family 1

23034	SAMD4A	sterile alpha motif domain containing 4A
23037	PDZD2	PDZ domain containing 2
23061	TBC1D9B	TBC1 domain family, member 9B (with GRAM d
23072	HECW1	HECT, C2 and WW domain containing E3 ubiqui
23081	KDM4C	lysine (K)-specific demethylase 4C
23089	PEG10	paternally expressed 10
23097	CDK19	cyclin-dependent kinase 19
23120	ATP10B	ATPase, class V, type 10B
23148	NACAD	NAC alpha domain containing
23237	ARC	activity-regulated cytoskeleton-associated prote
23253	ANKRD12	ankyrin repeat domain 12
23284	LPHN3	latrophilin 3
23336	SYNM	synemin, intermediate filament protein
23349	KIAA1045	KIAA1045
23353	SUN1	Sad1 and UNC84 domain containing 1
23363	OBSL1	obscurin-like 1
23376	UFL1	UFM1-specific ligase 1
23409	SIRT4	sirtuin 4
23433	RHOQ	ras homolog gene family, member Q
23480	SEC61G	Sec61 gamma subunit
23492	CBX7	chromobox homolog 7
23523	CABIN1	calcineurin binding protein 1
23671	TMEFF2	transmembrane protein with EGF-like and two f
23682	RAB38	RAB38, member RAS oncogene family
23767	FLRT3	fibronectin leucine rich transmembrane protein
24139	EML2	echinoderm microtubule associated protein like
24141	C20orf103	chromosome 20 open reading frame 103
24142	NAT6	N-acetyltransferase 6 (GCN5-related)
245973	ATP6V1C2	ATPase, H ⁺ transporting, lysosomal 42kDa, V1 s
2491	CENPI	centromere protein I
252884	ZNF396	zinc finger protein 396
252969	NEIL2	nei endonuclease VIII-like 2 (E. coli)
253018	HCG27	HLA complex group 27 (non-protein coding)
253152	EPHX4	epoxide hydrolase 4
253769	WDR27	WD repeat domain 27
254122	SNX32	sorting nexin 32
254187	TSGA10IP	testis specific, 10 interacting protein
254528	C16orf73	chromosome 16 open reading frame 73
255022	CALHM1	calcium homeostasis modulator 1
255394	TCP11L2	t-complex 11 (mouse)-like 2
2554	GABRA1	gamma-aminobutyric acid (GABA) A receptor, a
2555	GABRA2	gamma-aminobutyric acid (GABA) A receptor, a
255783	PRR24	proline rich 24
256329	C11orf35	chromosome 11 open reading frame 35
256472	TMEM151A	transmembrane protein 151A
2565	GABRG1	gamma-aminobutyric acid (GABA) A receptor, g
256710	GLIPR1L1	GLI pathogenesis-related 1 like 1
256714	MAP7D2	MAP7 domain containing 2
256987	SERINC5	serine incorporator 5
257407	C2orf72	chromosome 2 open reading frame 72
25764	C15orf63	chromosome 15 open reading frame 63
25797	QPCT	glutaminyl-peptide cyclotransferase

25805	BAMBI	BMP and activin membrane-bound inhibitor ho
25827	FBXL2	F-box and leucine-rich repeat protein 2
25833	POU2F3	POU class 2 homeobox 3
25834	MGAT4C	mannosyl (alpha-1,3-)-glycoprotein beta-1,4-N-
2587	GALR1	galanin receptor 1
25870	SUMF2	sulfatase modifying factor 2
2590	GALNT2	UDP-N-acetyl-alpha-D-galactosamine:polypepti
25911	DPCD	deleted in primary ciliary dyskinesia homolog (n
25956	SEC31B	SEC31 homolog B (<i>S. cerevisiae</i>)
25957	PNISR	PNN-interacting serine/arginine-rich protein
25961	NUDT13	nudix (nucleoside diphosphate linked moiety X)
26002	MOXD1	monooxygenase, DBH-like 1
26025	PCDHGA12	protocadherin gamma subfamily A, 12
26030	PLEKHG3	pleckstrin homology domain containing, family
26038	CHD5	chromodomain helicase DNA binding protein 5
260434	PYDC1	PYD (pyrin domain) containing :
26091	HERC4	hect domain and RLD 4
26140	TTLL3	tubulin tyrosine ligase-like family, member 3
26256	CABYR	calcium binding tyrosine-(Y)-phosphorylation re
2628	GATM	glycine amidinotransferase (L-arginine:glycine a
26297	SERGEF	secretion regulating guanine nucleotide exchan
2644	GCHFR	GTP cyclohydrolase I feedback regulator
26468	LHX6	LIM homeobox 6
26503	SLC17A5	solute carrier family 17 (anion/sugar transporte
26507	CNNM1	cyclin M1
26608	TBL2	transducin (beta)-like 2
2670	GFAP	glial fibrillary acidic protein
2686	GGT7	gamma-glutamyltransferase 7
2696	GIPR	gastric inhibitory polypeptide receptor
26996	GPR160	G protein-coupled receptor 160
2700	GJA3	gap junction protein, alpha 3, 46kDa
27063	ANKRD1	ankyrin repeat domain 1 (cardiac muscle)
27106	ARRDC2	arrestin domain containing 2
27113	BBC3	BCL2 binding component 3
27120	DKKL1	dickkopf-like 1
27145	FILIP1	filamin A interacting protein 1
27147	DENND2A	DENN/MADD domain containing 2A
27189	IL17C	interleukin 17C
27243	CHMP2A	charged multivesicular body protein 2A
27253	PCDH17	protocadherin 17
27254	CSDC2	cold shock domain containing C2, RNA binding
27314	RAB30	RAB30, member RAS oncogene family
27328	PCDH11X	protocadherin 11 X-linked
2734	GLG1	golgi glycoprotein 1
27345	KCNMB4	potassium large conductance calcium-activated
27350	APOBEC3C	apolipoprotein B mRNA editing enzyme, catalyt
27440	CECR5	cat eye syndrome chromosome region, candida
2796	GNRH1	gonadotropin-releasing hormone 1 (luteinizing-
282996	RBM20	RNA binding motif protein 20
283130	SLC25A45	solute carrier family 25, member 45
283131	NEAT1	nuclear paraspeckle assembly transcript 1 (non-
283299	LOC283299	uncharacterized LOC283299

283335 LOC283335 uncharacterized LOC283335
283417 DPY19L2 dpy-19-like 2 (C. elegans)
283870 C16orf79 chromosome 16 open reading frame 79
283927 NUDT7 nudix (nucleoside diphosphate linked moiety X)
283932 FBXL19-AS1 FBXL19 antisense RNA 1 (non-protein coding)
283985 FADS6 fatty acid desaturase domain family, member 6
284207 METRNL meteorin, glial cell differentiation regulator-like
284254 C18orf26 chromosome 18 open reading frame 26
2843 GPR20 G protein-coupled receptor 20
284339 TMEM145 transmembrane protein 145
284371 ZNF841 zinc finger protein 841
284415 VSTM1 V-set and transmembrane domain containing 1
284422 C19orf77 chromosome 19 open reading frame 77
284439 SLC25A42 solute carrier family 25, member 42
284454 LOC284454 uncharacterized LOC284454
284656 EPHA10 EPH receptor A10
284716 RIMKLA ribosomal modification protein rimK-like family
284729 ESPNP espin pseudogene
285016 FAM150B family with sequence similarity 150, member B
285141 LOC285141 uncharacterized LOC285141
285220 EPHA6 EPH receptor A6
285286 LOC285286 uncharacterized LOC285286
285512 FAM13A-AS1 FAM13A antisense RNA 1 (non-protein coding)
285550 FAM200B family with sequence similarity 200, member B
285596 FAM153A family with sequence similarity 153, member A
285600 KIAA0825 KIAA0825
285605 DTWD2 DTW domain containing 2
285613 RELL2 RELT-like 2
285761 DCBLD1 discoidin, CUB and LCCL domain containing 1
285830 HLA-F-AS1 HLA-F antisense RNA 1 (non-protein coding)
285966 FAM115C family with sequence similarity 115, member C
285973 ATG9B ATG9 autophagy related 9 homolog B (S. cerevisiae)
286006 C7orf53 chromosome 7 open reading frame 53
286042 FLJ10661 family with sequence similarity 86, member A p
286046 XKR6 XK, Kell blood group complex subunit-related fa
286059 LOC286059 tumor necrosis factor receptor superfamily, me
2861 GPR37 G protein-coupled receptor 37 (endothelin rece
286411 RP1-177G6.2 uncharacterized LOC286411
28983 TMPRSS11E transmembrane protease, serine 11E
2903 GRIN2A glutamate receptor, ionotropic, N-methyl D-asp
29085 PHPT1 phosphohistidine phosphatase
2925 GRPR gastrin-releasing peptide receptor
2978 GUCA1A guanylate cyclase activator 1A (retina)
29902 C12orf24 chromosome 12 open reading frame 24
29923 C7orf68 chromosome 7 open reading frame 68
3039 HBA1 hemoglobin, alpha 1
306 ANXA3 annexin A3
30817 EMR2 egf-like module containing, mucin-like, hormon
3084 NRG1 neuregulin 1
3097 HIVEP2 human immunodeficiency virus type I enhancer
3139 HLA-L major histocompatibility complex, class I, L, pse
317671 RFESD Rieske (Fe-S) domain containinç

3241	HPCAL1	hippocalcin-like 1
3263	HPX	hemopexin
326624	RAB37	RAB37, member RAS oncogene family
326625	MMAB	methylmalonic aciduria (cobalamin deficiency) c
3292	HSD17B1	hydroxysteroid (17-beta) dehydrogenase 1
3300	DNAJB2	DnaJ (Hsp40) homolog, subfamily B, member 2
3338	DNAJC4	DnaJ (Hsp40) homolog, subfamily C, member 4
3358	HTR2C	5-hydroxytryptamine (serotonin) receptor 2C
3373	HYAL1	hyaluronoglucosaminidase 1
338382	RAB7B	RAB7B, member RAS oncogene family
338596	ST8SIA6	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyl
338657	CCDC84	coiled-coil domain containing 8
338739	LOC338739	uncharacterized LOC338739
339105	PRSS53	protease, serine, 53
339210	C17orf67	chromosome 17 open reading frame 67
3400	ID4	inhibitor of DNA binding 4, dominant negative b
340526	RGAG4	retrotransposon gag domain containing 4
340527	NHSL2	NHS-like 2
340533	KIAA2022	KIAA2022
341405	ANKRD33	ankyrin repeat domain 33
341880	SLC35F4	solute carrier family 35, member F4
342667	STAC2	SH3 and cysteine rich domain 2
3428	IFI16	interferon, gamma-inducible protein 16
342908	ZNF404	zinc finger protein 404
343578	ARHGAP40	Rho GTPase activating protein 40
343990	C2orf55	chromosome 2 open reading frame 55
345757	FAM174A	family with sequence similarity 174, member A
346171	ZFP57	zinc finger protein 57 homolog (mouse)
346389	MACC1	metastasis associated in colon cancer 1
353149	TBC1D26	TBC1 domain family, member 26
353189	SLCO4C1	solute carrier organic anion transporter family, l
353322	ANKRD37	ankyrin repeat domain 37
353324	SPATA12	spermatogenesis associated 12
353497	POLN	polymerase (DNA directed) nu
3556	IL1RAP	interleukin 1 receptor accessory protein
3570	IL6R	interleukin 6 receptor
3579	CXCR2	chemokine (C-X-C motif) receptor 2
3621	ING1	inhibitor of growth family, member 1
3635	INPP5D	inositol polyphosphate-5-phosphatase, 145kDa
3727	JUND	jun D proto-oncogene
374378	GALNTL4	UDP-N-acetyl-alpha-D-galactosamine:polypepti
374383	B7H6	B7 homolog 6
374875	HSD11B1L	hydroxysteroid (11-beta) dehydrogenase 1-like
374879	ZNF699	zinc finger protein 699
374887	YJEFN3	YjeF N-terminal domain containing 3
375033	PEAR1	platelet endothelial aggregation receptor 1
3754	KCNF1	potassium voltage-gated channel, subfamily F, r
375607	C7orf52	chromosome 7 open reading frame 52
375791	C9orf169	chromosome 9 open reading frame 169
3763	KCNJ6	potassium inwardly-rectifying channel, subfamil
376940	ZC3H6	zinc finger CCCH-type containing 6
3775	KCNK1	potassium channel, subfamily K, member 1

377677	CA13	carbonic anhydrase XIII
3787	KCNS1	potassium voltage-gated channel, delayed-recti
378805	FLJ43663	uncharacterized LOC378805
387597	ILDR2	immunoglobulin-like domain containing receptc
387841	RPL13AP20	ribosomal protein L13a pseudogene 20
387856	C12orf68	chromosome 12 open reading frame 68
387914	SHISA2	shisa homolog 2 (<i>Xenopus laevis</i>)
388284	C16orf86	chromosome 16 open reading frame 86
388403	YPEL2	yippee-like 2 (<i>Drosophila</i>)
388555	IGFL3	IGF-like family member 3
388558	ZNF808	zinc finger protein 808
388566	ZNF470	zinc finger protein 470
388611	CD164L2	CD164 sialomucin-like 2
388650	FAM69A	family with sequence similarity 69, member A
389058	SP5	Sp5 transcription factor
389337	ARHGEF37	Rho guanine nucleotide exchange factor (GEF) 3
389524	GTF2IRD2B	GTF2I repeat domain containing 2B
389549	FEZF1	FEZ family zinc finger 1
389641	LOC389641	uncharacterized LOC389641
389792	IER5L	immediate early response 5-like
389840	MAP3K15	mitogen-activated protein kinase kinase kinase
389941	C1QL3	complement component 1, q subcomponent-lik
3965	LGALS9	lectin, galactoside-binding, soluble, 9
397	ARHGDI3	Rho GDP dissociation inhibitor (GDI) beta
399715	LOC399715	uncharacterized LOC399715
399726	C10orf114	chromosome 10 open reading frame 114
399947	C11orf87	chromosome 11 open reading frame 87
399959	MIR100HG	mir-100-let-7a-2 cluster host gene (non-protein
40	ACCN1	amiloride-sensitive cation channel 1, neuronal
400073	C12orf76	chromosome 12 open reading frame 76
400242	DICER1-AS	DICER1 antisense RNA (non-protein coding)
400464	LOC400464	uncharacterized LOC400464
400499	LOC400499	uncharacterized LOC400499
400604	LOC400604	uncharacterized LOC400604
4007	PRICKLE3	prickle homolog 3 (<i>Drosophila</i>)
400745	SH2D5	SH2 domain containing 5
400960	PCBP1-AS1	PCBP1 antisense RNA 1 (non-protein coding)
401074	LOC401074	uncharacterized LOC401074
401089	C3orf72	chromosome 3 open reading frame 72
401152	C4orf3	chromosome 4 open reading frame 3
401232	DKFZP686I15E	uncharacterized LOC401232
401237	LINC00340	long intergenic non-protein coding RNA 340
401251	C6orf26	chromosome 6 open reading frame 26
401265	KLHL31	kelch-like 31 (<i>Drosophila</i>)
401491	FLJ35024	uncharacterized LOC401491
4070	TACSTD2	tumor-associated calcium signal transducer 2
4093	SMAD9	SMAD family member 9
414241	FAM35B	family with sequence similarity 35, member A p
4162	MCAM	melanoma cell adhesion molecule
4168	MCF2	MCF.2 cell line derived transforming sequence
4293	MAP3K9	mitogen-activated protein kinase kinase kinase
4311	MME	membrane metallo-endopeptidase

432	ASGR1	asialoglycoprotein receptor 1
4327	MMP19	matrix metalloproteinase 19
439921	MXRA7	matrix-remodelling associated
439965	FAM35B2	family with sequence similarity 35, member A
439990	LOC439990	uncharacterized LOC439990
440026	TMEM41B	transmembrane protein 41B
440104	LOC440104	1110012D08Rik pseudogene
440270	GOLGA8B	golgin A8 family, member B
440584	FLJ32224	uncharacterized LOC440584
440823	MIAT	myocardial infarction associated transcript (non
440952	FLJ33065	uncharacterized LOC440952
441054	C4orf47	chromosome 4 open reading frame 47
441150	C6orf226	chromosome 6 open reading frame 226
441168	FAM26F	family with sequence similarity 26, member F
441282	AKR1B15	aldo-keto reductase family 1, member B15
441531	PGAM4	phosphoglycerate mutase family member 4
4501	MT1X	metallothionein 1X
4549	RNR1	s-rRNA
4584	MUC3A	mucin 3A, cell surface associated
4741	NEFM	neurofilament, medium polypeptide
4747	NEFL	neurofilament, light polypeptide
4758	NEU1	sialidase 1 (lysosomal sialidase)
4776	NFATC4	nuclear factor of activated T-cells, cytoplasmic,
4804	NGFR	nerve growth factor receptor
4861	NPAS1	neuronal PAS domain protein 1
4862	NPAS2	neuronal PAS domain protein 2
4879	NPPB	natriuretic peptide B
4901	NRL	neural retina leucine zipper
491	ATP2B2	ATPase, Ca ⁺⁺ transporting, plasma membrane 2
494513	DFNB59	deafness, autosomal recessive 59
49854	ZNF295	zinc finger protein 295
49855	SCAPER	S-phase cyclin A-associated protein in the ER
5016	OVGP1	oviductal glycoprotein 1, 120kDa
5017	OVOL1	ovo-like 1(Drosophila)
5032	P2RY11	purinergic receptor P2Y, G-protein coupled, 11
50487	PLA2G3	phospholipase A2, group III
50506	DUOX2	dual oxidase 2
50615	IL21R	interleukin 21 receptor
5069	PAPPA	pregnancy-associated plasma protein A, pappal
50840	TAS2R14	taste receptor, type 2, member 14
51003	MED31	mediator complex subunit 31
51008	ASCC1	activating signal cointegrator 1 complex subunit
51019	CCDC53	coiled-coil domain containing 5
51085	MLXIPL	MLX interacting protein-like
51131	PHF11	PHD finger protein 11
51141	INSIG2	insulin induced gene 2
51144	HSD17B12	hydroxysteroid (17-beta) dehydrogenase 12
51202	DDX47	DEAD (Asp-Glu-Ala-Asp) box polypeptide 47
51228	GLTP	glycolipid transfer protein
51232	CRIM1	cysteine rich transmembrane BMP regulator 1 (
51265	CDKL3	cyclin-dependent kinase-like 3
51276	ZNF571	zinc finger protein 571

51299	NRN1	neuritin 1
51301	GCNT4	glucosaminyl (N-acetyl) transferase 4, core 2
51339	DACT1	dapper, antagonist of beta-catenin, homolog 1 (
51400	PPME1	protein phosphatase methylesterase 1
51421	AMOTL2	angiomin like 2
51422	PRKAG2	protein kinase, AMP-activated, gamma 2 non-ca
51428	DDX41	DEAD (Asp-Glu-Ala-Asp) box polypeptide 41
	5143	PDE4C phosphodiesterase 4C, cAMP-specific
	5144	PDE4D phosphodiesterase 4D, cAMP-specific
51454	GULP1	GULP, engulfment adaptor PTB domain containi
51517	NCKIPSD	NCK interacting protein with SH3 domain
51537	MTFP1	mitochondrial fission process 1
51545	ZNF581	zinc finger protein 581
51560	RAB6B	RAB6B, member RAS oncogene family
51655	RASD1	RAS, dexamethasone-induced 1
51760	SYT17	synaptotagmin XVII
	5210	PFKFB4 6-phosphofructo-2-kinase/fructose-2,6-biphosp
	5277	PIGA phosphatidylinositol glycan anchor biosynthesis
	5283	PIGH phosphatidylinositol glycan anchor biosynthesis
	5333	PLCD1 phospholipase C, delta 1
53345	TM6SF2	transmembrane 6 superfamily member 2
53358	SHC3	SHC (Src homology 2 domain containing) transfr
	5336	PLCG2 phospholipase C, gamma 2 (phosphatidylinositc
	5355	PLP2 proteolipid protein 2 (colonic epithelium-enrich
53616	ADAM22	ADAM metallopeptidase domain 22
	5387	PMS2P3 postmeiotic segregation increased 2 pseudogen
53916	RAB4B	RAB4B, member RAS oncogene family
54101	RIPK4	receptor-interacting serine-threonine kinase 4
	5413	5-Sep septin 5
541565	C8orf58	chromosome 8 open reading frame 58
54187	NANS	N-acetylneuraminic acid synthase
54329	GPR85	G protein-coupled receptor 85
54361	WNT4	wingless-type MMTV integration site family, me
54429	TAS2R5	taste receptor, type 2, member 5
54438	GFOD1	glucose-fructose oxidoreductase domain contai
54455	FBXO42	F-box protein 42
54511	HMGCLL1	3-hydroxymethyl-3-methylglutaryl-CoA lyase-lik
	5453	POU3F1 POU class 3 homeobox 1
54532	USP53	ubiquitin specific peptidase 53
54551	MAGEL2	MAGE-like 2
54583	EGLN1	egl nine homolog 1 (C. elegans)
54585	LZTFL1	leucine zipper transcription factor-like 1
54626	HES2	hairy and enhancer of split 2 (Drosophila)
54665	RSBN1	round spermatid basic protein 1
54715	RBFOX1	RNA binding protein, fox-1 homolog (C. elegans)
54762	GRAMD1C	GRAM domain containing 1C
54798	DCHS2	dachsous 2 (Drosophila)
54805	CNNM2	cyclin M2
54814	QPCTL	glutaminyl-peptide cyclotransferase-like
54836	BSPRY	B-box and SPRY domain containing
54858	PGPEP1	pyroglutamyl-peptidase I
54890	ALKBH5	alkB, alkylation repair homolog 5 (E. coli)

54894	RNF43	ring finger protein 43
54928	IMPAD1	inositol monophosphatase domain containing 1
5493	PPL	periplakin
54932	EXD3	exonuclease 3'-5' domain containing 3
54985	HCFC1R1	host cell factor C1 regulator 1 (XPO1 dependent
550112	LOC550112	uncharacterized LOC550112
55106	SLFN12	schlafen family member 12
55112	WDR60	WD repeat domain 60
55118	CRTAC1	cartilage acidic protein 1
55150	C19orf73	chromosome 19 open reading frame 73
55186	SLC25A36	solute carrier family 25, member 36
55214	LEPREL1	leprecan-like 1
55236	UBA6	ubiquitin-like modifier activating enzyme 6
55279	ZNF654	zinc finger protein 654
55314	TMEM144	transmembrane protein 144
55321	C20orf46	chromosome 20 open reading frame 46
5533	PPP3CC	protein phosphatase 3, catalytic subunit, gamma
55351	STK32B	serine/threonine kinase 32B
55357	TBC1D2	TBC1 domain family, member 2
554251	FBXO48	F-box protein 48
554279	C1orf98	chromosome 1 open reading frame 98
55534	MAML3	mastermind-like 3 (Drosophila)
55556	ENOSF1	enolase superfamily member 1
55640	FLVCR2	feline leukemia virus subgroup C cellular receptor
55647	RAB20	RAB20, member RAS oncogene family
55650	PIGV	phosphatidylinositol glycan anchor biosynthesis
55689	YEATS2	YEATS domain containing 2
55691	FRMD4A	FERM domain containing 4A
5570	PKIB	protein kinase (cAMP-dependent, catalytic) inhibitor
55726	C12orf11	chromosome 12 open reading frame 11
55760	DHX32	DEAH (Asp-Glu-Ala-His) box polypeptide 32
55784	MCTP2	multiple C2 domains, transmembrane 2
55799	CACNA2D3	calcium channel, voltage-dependent, alpha 2/delta
55800	SCN3B	sodium channel, voltage-gated, type III, beta
55805	LRP2BP	LRP2 binding protein
55824	PAG1	phosphoprotein associated with glycosphingolipid
55893	ZNF395	zinc finger protein 395
55917	CTTNBP2NL	CTTNBP2 N-terminal like
55974	SLC50A1	solute carrier family 50 (sugar transporter), member
5598	MAPK7	mitogen-activated protein kinase 7
56033	BARX1	BARX homeobox 1
5604	MAP2K1	mitogen-activated protein kinase kinase 1
56109	PCDHGA6	protocadherin gamma subfamily A, 6
56135	PCDHAC1	protocadherin alpha subfamily C, 1
56204	KIAA1370	KIAA1370
56256	SERTAD4	SERTA domain containing 4
56270	WDR45L	WDR45-like
56301	SLC7A10	solute carrier family 7 (neutral amino acid transporter)
56341	PRMT8	protein arginine methyltransferase 8
56477	CCL28	chemokine (C-C motif) ligand 28
56849	TCEAL7	transcription elongation factor A (SII)-like 7
56899	ANKS1B	ankyrin repeat and sterile alpha motif domain containing

56901	NDUFA4L2	NADH dehydrogenase (ubiquinone) 1 alpha sub
56913	C1GALT1	core 1 synthase, glycoprotein-N-acetylgalactosa
56917	MEIS3	Meis homeobox 3
56929	FEM1C	fem-1 homolog c (C. elegans)
56950	SMYD2	SET and MYND domain containing 2
56985	C17orf48	chromosome 17 open reading frame 48
57035	C1orf63	chromosome 1 open reading frame 63
57110	HRASLS	HRAS-like suppressor
57111	RAB25	RAB25, member RAS oncogene family
57125	PLXDC1	plexin domain containing 1
57168	ASPHD2	aspartate beta-hydroxylase domain containing :
57188	ADAMTSL3	ADAMTS-like 3
57221	KIAA1244	KIAA1244
57393	TMEM27	transmembrane protein 27
57396	CLK4	CDC-like kinase 4
5742	PTGS1	prostaglandin-endoperoxide synthase 1 (prosta;
57469	PNMAL2	PNMA-like 2
57475	PLEKHH1	pleckstrin homology domain containing, family
57488	ESYT2	extended synaptotagmin-like protein 2
57493	HEG1	HEG homolog 1 (zebrafish)
57497	LRFN2	leucine rich repeat and fibronectin type III doma
57501	KIAA1257	KIAA1257
57519	STARD9	StAR-related lipid transfer (START) domain cont
57524	CASKIN1	CASK interacting protein 1
57526	PCDH19	protocadherin 19
57528	KCTD16	potassium channel tetramerisation domain con
57529	RGAG1	retrotransposon gag domain containing 1
57535	KIAA1324	KIAA1324
57546	PDP2	pyruvate dehydrogenase phosphatase catalytic s
57559	STAMBPL1	STAM binding protein-like 1
57561	ARRDC3	arrestin domain containing 3
57574	4-Mar	membrane-associated ring finger (C3HC4) 4
57575	PCDH10	protocadherin 10
57616	TSHZ3	teashirt zinc finger homeobox 3
57643	ZSWIM5	zinc finger, SWIM-type containing 5
57644	MYH7B	myosin, heavy chain 7B, cardiac muscle, beta
57683	ZDBF2	zinc finger, DBF-type containing 2
57690	TNRC6C	trinucleotide repeat containing 6C
577	BAI3	brain-specific angiogenesis inhibitor 3
57709	SLC7A14	solute carrier family 7 (orphan transporter), me
57711	ZNF529	zinc finger protein 529
57715	SEMA4G	sema domain, immunoglobulin domain (Ig), tra
57732	ZFYVE28	zinc finger, FYVE domain containing 28
57801	HES4	hairy and enhancer of split 4 (Drosophila)
5787	PTPRB	protein tyrosine phosphatase, receptor type, B
5794	PTPRH	protein tyrosine phosphatase, receptor type, H
5798	PTPRN	protein tyrosine phosphatase, receptor type, N
5800	PTPRO	protein tyrosine phosphatase, receptor type, O
583	BBS2	Bardet-Biedl syndrome 2
5870	RAB6A	RAB6A, member RAS oncogene family
5872	RAB13	RAB13, member RAS oncogene family
5923	RASGRF1	Ras protein-specific guanine nucleotide-releasir

59269	HIVEP3	human immunodeficiency virus type I enhancer
5939	RBMS2	RNA binding motif, single stranded interacting p
5997	RGS2	regulator of G-protein signaling 2, 24kDa
5998	RGS3	regulator of G-protein signaling 3
6000	RGS7	regulator of G-protein signaling 7
6001	RGS10	regulator of G-protein signaling 10
6018	RLF	rearranged L-myc fusion
6019	RLN2	relaxin 2
60401	EDA2R	ectodysplasin A2 receptor
60468	BACH2	BTB and CNC homology 1, basic leucine zipper t
60676	PAPPA2	pappalysin 2
60682	SMAP1	small ArfGAP 1
6092	ROBO2	roundabout, axon guidance receptor, homolog
6307	MSMO1	methylsterol monooxygenase 1
6322	SCML1	sex comb on midleg-like 1 (Drosophila)
6330	SCN4B	sodium channel, voltage-gated, type IV, beta
63875	MRPL17	mitochondrial ribosomal protein L17
63917	GALNT11	UDP-N-acetyl-alpha-D-galactosamine:polypepti
6405	SEMA3F	sema domain, immunoglobulin domain (Ig), sho
6406	SEMG1	semenogelin I
64063	PRSS22	protease, serine, 22
64102	TNMD	tenomodulin
641371	ACOT1	acyl-CoA thioesterase 1
641649	TMEM91	transmembrane protein 91
64218	SEMA4A	sema domain, immunoglobulin domain (Ig), tra
642273	FAM110C	family with sequence similarity 110, member C
64236	PDLIM2	PDZ and LIM domain 2 (mystique)
64285	RHBDF1	rhomboid 5 homolog 1 (Drosophila)
642946	FLVCR1-AS1	FLVCR1 antisense RNA 1 (non-protein coding)
642987	TMEM232	transmembrane protein 232
64343	AZI2	5-azacytidine induced 2
643641	ZNF862	zinc finger protein 862
644242	LOC644242	uncharacterized LOC644242
64430	C14orf135	chromosome 14 open reading frame 135
64478	CSMD1	CUB and Sushi multiple domains 1
64506	CPEB1	cytoplasmic polyadenylation element binding p
645166	LOC645166	lymphocyte-specific protein 1 pseudogene
645426	TMEM191C	transmembrane protein 191C
645591	LOC645591	uncharacterized LOC645591
6457	SH3GL3	SH3-domain GRB2-like 3
645784	ANKRD36BP	ankyrin repeat domain 36B pseudogene 2
6461	SHB	Src homology 2 domain containing adaptor prot
64651	CSRNP1	cysteine-serine-rich nuclear protein 1
646658	SYNDIG1L	synapse differentiation inducing 1-like
64778	FNDC3B	fibronectin type III domain containing 3B
64799	IQCH	IQ motif containing H
64900	LPIN3	lipin 3
64926	RASAL3	RAS protein activator like 3
65009	NDRG4	NDRG family member 4
65010	SLC26A6	solute carrier family 26, member 6
65084	TMEM135	transmembrane protein 135
651746	ANKRD33B	ankyrin repeat domain 33B

653319	KIAA0895L	KIAA0895-like
653583	PHLDB3	pleckstrin homology-like domain, family B, men
6543	SLC8A2	solute carrier family 8 (sodium/calcium exchang
6546	SLC8A1	solute carrier family 8 (sodium/calcium exchang
6547	SLC8A3	solute carrier family 8 (sodium/calcium exchang
6553	SLC9A5	solute carrier family 9 (sodium/hydrogen excha
65981	CAPRIN2	caprin family member 2
65985	AACS	acetoacetyl-CoA synthetase
65996	MGC2752	CENPB DNA-binding domains containing 1 pseu
661	POLR3D	polymerase (RNA) III (DNA directed) polypeptid
6615	SNAI1	snail homolog 1 (Drosophila)
6617	SNAPC1	small nuclear RNA activating complex, polypept
6619	SNAPC3	small nuclear RNA activating complex, polypept
6640	SNTA1	syntrophin, alpha 1 (dystrophin-associated prot
6674	SPAG1	sperm associated antigen 1
6690	SPINK1	serine peptidase inhibitor, Kazal type 1
6751	SSTR1	somatostatin receptor 1
677768	SCARNA13	small Cajal body-specific RNA 1.
6804	STX1A	syntaxin 1A (brain)
6855	SYP	synaptophysin
6863	TAC1	tachykinin, precursor 1
6900	CNTN2	contactin 2 (axonal)
6911	TBX6	T-box 6
692233	SNORD117	small nucleolar RNA, C/D box 117
6928	HNF1B	HNF1 homeobox B
7003	TEAD1	TEA domain family member 1 (SV40 transcriptic
7005	TEAD3	TEA domain family member 3
7006	TEC	tec protein tyrosine kinase
7089	TLE2	transducin-like enhancer of split 2 (E(sp1) homc
7126	TNFAIP1	tumor necrosis factor, alpha-induced protein 1 (
7188	TRAF5	TNF receptor-associated factor 5
723790	HIST2H2AAA4	histone cluster 2, H2aa4
728229	TMEM191B	transmembrane protein 191B
728537	LOC728537	uncharacterized LOC728537
728577	CNTNAP3B	contactin associated protein-like 3B
7286	TUFT1	tuftelin 1
728752	LOC728752	uncharacterized LOC728752
7291	TWIST1	twist homolog 1 (Drosophila)
729603	LOC729603	calcium binding protein P22 pseudogene
729956	SHISA7	shisa homolog 7 (Xenopus laevis)
729970	LOC729970	hCG2028352-like
729993	SHISA9	shisa homolog 9 (Xenopus laevis)
7403	KDM6A	lysine (K)-specific demethylase 6A
7425	VGf	VGf nerve growth factor inducible
7434	VIPR2	vasoactive intestinal peptide receptor 2
7447	VSNL1	visinin-like 1
7464	CORO2A	coronin, actin binding protein, 2A
7473	WNT3	wingless-type MMTV integration site family, me
7525	YES1	v-yes-1 Yamaguchi sarcoma viral oncogene horr
7593	MZF1	myeloid zinc finger 1
7597	ZBTB25	zinc finger and BTB domain containing 25
761	CA3	carbonic anhydrase III, muscle specific

768	CA9	carbonic anhydrase IX
770	CA11	carbonic anhydrase XI
7718	ZNF165	zinc finger protein 165
7737	RNF113A	ring finger protein 113A
777	CACNA1E	calcium channel, voltage-dependent, R type, alj
7804	LRP8	low density lipoprotein receptor-related proteir
784	CACNB3	calcium channel, voltage-dependent, beta 3 sut
7846	TUBA1A	tubulin, alpha 1a
785	CACNB4	calcium channel, voltage-dependent, beta 4 sut
79001	VKORC1	vitamin K epoxide reductase complex, subunit 1
79036	C19orf50	chromosome 19 open reading frame 50
79081	C11orf48	chromosome 11 open reading frame 48
79090	TRAPPC6A	trafficking protein particle complex 6A
790952	ESRG	embryonic stem cell related (non-protein codin,
79098	C1orf116	chromosome 1 open reading frame 116
7919	DDX39B	DEAD (Asp-Glu-Ala-Asp) box polypeptide 39B
79228	THOC6	THO complex 6 homolog (Drosophila)
7923	HSD17B8	hydroxysteroid (17-beta) dehydrogenase 8
79365	BHLHE41	basic helix-loop-helix family, member e41
79369	B3GNT4	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosan
79567	FAM65A	family with sequence similarity 65, member A
79583	TMEM231	transmembrane protein 231
79589	RNF128	ring finger protein 128
796	CALCA	calcitonin-related polypeptide alpha
79628	SH3TC2	SH3 domain and tetratricopeptide repeats 2
79635	CCDC121	coiled-coil domain containing 121
79639	TMEM53	transmembrane protein 53
79646	PANK3	pantothenate kinase 3
79656	BEND5	BEN domain containing 5
79661	NEIL1	nei endonuclease VIII-like 1 (E. coli)
79667	FLJ13197	uncharacterized FLJ13197
79690	GAL3ST4	galactose-3-O-sulfotransferase 4
79729	SH3D21	SH3 domain containing 21
79739	TTLL7	tubulin tyrosine ligase-like family, member 7
79772	MCTP1	multiple C2 domains, transmembrane 1
79783	C7orf10	chromosome 7 open reading frame 10
79816	TLE6	transducin-like enhancer of split 6 (E(sp1) homc
79841	AGBL2	ATP/GTP binding protein-like 2
79854	LINC00115	long intergenic non-protein coding RNA 115
79873	NUDT18	nudix (nucleoside diphosphate linked moiety X)
79896	THNSL1	threonine synthase-like 1 (S. cerevisiae)
79899	PRR5L	proline rich 5 like
79919	C2orf54	chromosome 2 open reading frame 54
79930	DOK3	docking protein 3
79937	CNTNAP3	contactin associated protein-like 3
79939	SLC35E1	solute carrier family 35, member E1
79958	DENND1C	DENN/MADD domain containing 1C
79960	PHF17	PHD finger protein 17
79963	ABCA11P	ATP-binding cassette, sub-family A (ABC1), mer
79987	SVEP1	sushi, von Willebrand factor type A, EGF and pe
79991	OBFC1	oligonucleotide/oligosaccharide-binding fold co
79992	AGPAT4-IT1	AGPAT4 intronic transcript 1 (non-protein codir

80070	ADAMTS20	ADAM metallopeptidase with thrombospondin
80108	ZFP2	zinc finger protein 2 homolog (mouse)
80115	BAIAP2L2	BAI1-associated protein 2-like 2
80173	IFT74	intraflagellar transport 74 homolog (Chlamydon
80312	TET1	tet methylcytosine dioxygenase 1
80329	ULBP1	UL16 binding protein 1
80339	PNPLA3	patatin-like phospholipase domain containing 3
80705	TSGA10	testis specific, 10
80736	SLC44A4	solute carrier family 44, member 4
80758	PRR7	proline rich 7 (synaptic)
80856	KIAA1715	KIAA1715
80864	EGFL8	EGF-like-domain, multiple 8
81544	GDPD5	glycerophosphodiester phosphodiesterase dom
81551	STMN4	stathmin-like 4
81575	APOLD1	apolipoprotein L domain containing 1
81603	TRIM8	tripartite motif containing 8
81671	VMP1	vacuole membrane protein 1
817	CAMK2D	calcium/calmodulin-dependent protein kinase I
81788	NUAK2	NUAK family, SNF1-like kinase, 2
81855	SFXN3	sideroflexin 3
83259	PCDH11Y	protocadherin 11 Y-linked
8337	HIST2H2AA3	histone cluster 2, H2aa3
8353	HIST1H3E	histone cluster 1, H3e
83591	THAP2	THAP domain containing, apoptosis associated
83592	AKR1E2	aldo-keto reductase family 1, member E2
83715	ESPN	espin
83723	FAM57B	family with sequence similarity 57, member B
83851	SYT16	synaptotagmin XVI
83856	FSD1L	fibronectin type III and SPRY domain containing
83886	PRSS27	protease, serine 27
83891	SNX25	sorting nexin 25
8398	PLA2G6	phospholipase A2, group VI (cytosolic, calcium-i
84000	TMPRSS13	transmembrane protease, serine 13
8403	SOX14	SRY (sex determining region Y)-box 14
84033	OBSCN	obscurin, cytoskeletal calmodulin and titin-inter
84034	EMILIN2	elastin microfibril interfacier 2
84058	WDR54	WD repeat domain 54
84084	RAB6C	RAB6C, member RAS oncogene family
84129	ACAD11	acyl-CoA dehydrogenase family, member 11
84163	GTF2IRD2	GTF2I repeat domain containing 2
84222	TMEM191A	transmembrane protein 191A
84249	PSD2	pleckstrin and Sec7 domain containing 2
84251	SGIP1	SH3-domain GRB2-like (endophilin) interacting
84261	FBXW9	F-box and WD repeat domain containing 9
84293	C10orf58	chromosome 10 open reading frame 58
84314	TMEM107	transmembrane protein 107
84324	SARNP	SAP domain containing ribonucleoprotein
8433	UTF1	undifferentiated embryonic cell transcription fa
84336	TMEM101	transmembrane protein 101
84449	ZNF333	zinc finger protein 333
84460	ZMAT1	zinc finger, matrin-type 1
84557	MAP1LC3A	microtubule-associated protein 1 light chain 3 a

84617	TUBB6	tubulin, beta 6 class V
8462	KLF11	Kruppel-like factor 11
84634	KISS1R	KISS1 receptor
84678	KDM2B	lysine (K)-specific demethylase 2B
84695	LOXL3	lysyl oxidase-like 3
84698	CAPS2	calcyphosine 2
84700	MYO18B	myosin XVIIIIB
84706	GPT2	glutamic pyruvate transaminase (alanine amino
84708	LNX1	ligand of numb-protein X 1
84709	C4orf49	chromosome 4 open reading frame 49
84848	MGC16121	uncharacterized protein MGC16121
84910	TMEM87B	transmembrane protein 87B
84929	FIBCD1	fibrinogen C domain containing 1
84941	HSH2D	hematopoietic SH2 domain containing
84951	TNS4	tensin 4
84957	RELT	RELT tumor necrosis factor receptor
84962	JUB	jub, ajuba homolog (Xenopus laevis)
84966	IGSF21	immunoglobulin superfamily, member 21
84969	TOX2	TOX high mobility group box family member 2
8504	PEX3	peroxisomal biogenesis factor 3
8525	DGKZ	diacylglycerol kinase, zeta
85301	COL27A1	collagen, type XXVII, alpha 1
85360	SYDE1	synapse defective 1, Rho GTPase, homolog 1 (C.
85443	DCLK3	doublecortin-like kinase 3
85465	EPT1	ethanolaminephosphotransferase 1 (CDP-ethan
85480	TSLP	thymic stromal lymphopietin
860	RUNX2	runt-related transcription factor 2
8622	PDE8B	phosphodiesterase 8B
8637	EIF4EBP3	eukaryotic translation initiation factor 4E bindin
8701	DNAH11	dynein, axonemal, heavy chain 11
8715	NOL4	nucleolar protein 4
8793	TNFRSF10D	tumor necrosis factor receptor superfamily, me
8795	TNFRSF10B	tumor necrosis factor receptor superfamily, me
8797	TNFRSF10A	tumor necrosis factor receptor superfamily, me
883	CCBL1	cysteine conjugate-beta lyase, cytoplasmic
8862	APLN	apelin
8911	CACNA1I	calcium channel, voltage-dependent, T type, alç
89782	LMLN	leishmanolysin-like (metallopeptidase M8 famil
89795	NAV3	neuron navigator 3
8989	TRPA1	transient receptor potential cation channel, sub
8999	CDKL2	cyclin-dependent kinase-like 2 (CDC2-related kii
9001	HAP1	huntingtin-associated protein 1
9020	MAP3K14	mitogen-activated protein kinase kinase kinase
90332	EXOC3L2	exocyst complex component 3-like 2
90338	ZNF160	zinc finger protein 160
90423	ATP6V1E2	ATPase, H ⁺ transporting, lysosomal 31kDa, V1 s
9044	BTA1	BTA1 RNA polymerase II, B-TFIID transcription
9052	GPRC5A	G protein-coupled receptor, family C, group 5, r
90557	CCDC74A	coiled-coil domain containing 74A
90594	ZNF439	zinc finger protein 439
90627	STARD13	StAR-related lipid transfer (START) domain cont
90673	PPP1R3E	protein phosphatase 1, regulatory subunit 3E

9076	CLDN1	claudin 1
90853	SPOCD1	SPOC domain containing 1
90874	ZNF697	zinc finger protein 697
9098	USP6	ubiquitin specific peptidase 6 (Tre-2 oncogene)
90993	CREB3L1	cAMP responsive element binding protein 3-like
9118	INA	internexin neuronal intermediate filament prot
91319	DERL3	Der1-like domain family, member 3
91373	UAP1L1	UDP-N-acteylglucosamine pyrophosphorylase 1
91409	CCDC74B	coiled-coil domain containing 74B
9143	SYNGR3	synaptogyrin 3
91452	ACBD5	acyl-CoA binding domain containing 5
91523	FAM113B	family with sequence similarity 113, member B
91607	SLFN11	schlafen family member 11
91662	NLRP12	NLR family, pyrin domain containing 12
91663	MYADM	myeloid-associated differentiation marker
91947	ARRDC4	arrestin domain containing 4
9196	KCNAB3	potassium voltage-gated channel, shaker-relate
9201	DCLK1	doublecortin-like kinase 1
92092	ZC3HAV1L	zinc finger CCCH-type, antiviral 1-like
92162	TMEM88	transmembrane protein 88
92211	CDHR1	cadherin-related family member 1
92270	ATP6AP1L	ATPase, H ⁺ transporting, lysosomal accessory p
92421	CHMP4C	charged multivesicular body protein 4C
92565	FANK1	fibronectin type III and ankyrin repeat domains
9278	ZBTB22	zinc finger and BTB domain containing 22
92949	ADAMTSL1	ADAMTS-like 1
930	CD19	CD19 molecule
9311	ACCN3	amiloride-sensitive cation channel 3
93129	ORAI3	ORAI calcium release-activated calcium modula
9350	CER1	cerberus 1, cysteine knot superfamily, homolog
9363	RAB33A	RAB33A, member RAS oncogene family
93649	MYOCD	myocardin
9369	NRXN3	neurexin 3
9378	NRXN1	neurexin 1
9388	LIPG	lipase, endothelial
93953	ACRC	acidic repeat containing
94122	SYTL5	synaptotagmin-like 5
9413	FAM189A2	family with sequence similarity 189, member A2
9424	KCNK6	potassium channel, subfamily K, member 6
9468	PCYT1B	phosphate cytidyltransferase 1, choline, beta
9478	CABP1	calcium binding protein 1
9497	SLC4A7	solute carrier family 4, sodium bicarbonate cotr
9518	GDF15	growth differentiation factor 15
953	ENTPD1	ectonucleoside triphosphate diphosphohydrola
954	ENTPD2	ectonucleoside triphosphate diphosphohydrola
9568	GABBR2	gamma-aminobutyric acid (GABA) B receptor, 2
9586	CREB5	cAMP responsive element binding protein 5
9628	RGS6	regulator of G-protein signaling 6
9645	MICAL2	microtubule associated monooxygenase, calponi
9708	PCDHGA8	protocadherin gamma subfamily A, 8
9718	ECE2	endothelin converting enzyme :
9725	TMEM63A	transmembrane protein 63A

9744	ACAP1	ArfGAP with coiled-coil, ankyrin repeat and PH c
9780	PIEZO1	piezo-type mechanosensitive ion channel comp
9796	PHYHIP	phytanoyl-CoA 2-hydroxylase interacting protei
98	ACYP2	acylphosphatase 2, muscle type
9820	CUL7	cullin 7
9829	DNAJC6	DnaJ (Hsp40) homolog, subfamily C, member 6
9853	RUSC2	RUN and SH3 domain containing 2
9899	SV2B	synaptic vesicle glycoprotein 2B
9931	HELZ	helicase with zinc finger
9956	HS3ST2	heparan sulfate (glucosamine) 3-O-sulfotransfer
9982	FGFBP1	fibroblast growth factor binding protein 1
9985	REC8	REC8 homolog (yeast)

p-value	FDR q-value
1.58E-90	7.92E-89
6.89E-62	1.72E-60
1.09E-41	1.81E-40
4.70E-39	5.87E-38
3.48E-33	3.48E-32
3.64E-31	3.04E-30
3.59E-30	2.56E-29
6.93E-21	4.33E-20
4.06E-20	2.25E-19
5.03E-20	2.52E-19

HALLMARK_MT	HALLMARK_CH	HALLMARK_EPI	HALLMARK_GL'	HALLMARK_P5:	HALLMARK_MY	HALLMARK_API
HALLMARK_MT	HALLMARK_CHOLESTEROL_HOMEOSTASIS					
HALLMARK_MTORC1_SIGNALING				HALLMARK_P5:	HALLMARK_MY	HALLMARK_API
HALLMARK_MTORC1_SIGNALING				HALLMARK_P53_PATHWAY		
HALLMARK_MTORC1_SIGNALING				HALLMARK_MYOGENESIS		
HALLMARK_MTORC1_SIGNALING						
FA_SIGNALING_	HALLMARK_CHOLESTEROL_HOMEOSTASIS			HALLMARK_P53_PATHWAY	HALLMARK_API	
FA_SIGNALING_	HALLMARK_CHOLESTEROL_HOMEOSTASIS					
FA_SIGNALING_VIA_NFKB	HALLMARK_EPI	HALLMARK_GLYCOLYSIS				
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESEN	HALLMARK_P53_PATHWAY		HALLMARK_API		
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION					
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION					
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION					
FA_SIGNALING_VIA_NFKB			HALLMARK_GL'	HALLMARK_P53_PATHWAY	HALLMARK_API	
FA_SIGNALING_VIA_NFKB				HALLMARK_P53_PATHWAY		
FA_SIGNALING_VIA_NFKB				HALLMARK_P53_PATHWAY		
FA_SIGNALING_VIA_NFKB						
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FA_SIGNALING_VIA_NFKB						
FA_SIGNALING_VIA_NFKB						
HALLMARK_MTORC1_SIGNALING			HALLMARK_GL'	HALLMARK_P53_PATHWAY		
HALLMARK_MTORC1_SIGNALING			HALLMARK_GLYCOLYSIS			
HALLMARK_MTORC1_SIGNALING			HALLMARK_GLYCOLYSIS			
HALLMARK_MTORC1_SIGNALING			HALLMARK_GLYCOLYSIS			

HALLMARK_MT	HALLMARK_CHOLESTEROL_HOMEOSTASIS		
HALLMARK_MTORC1_SIGNALING		HALLMARK_P53_PATHWAY	HALLMARK_APO
HALLMARK_MTORC1_SIGNALING			
FA_SIGNALING_VIA_NFKB	HALLMARK_EPI	HALLMARK_GLYCOLYSIS	HALLMARK_APO
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESEN	HALLMARK_P53_PATHWAY	HALLMARK_APO
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRAN	HALLMARK_MY	HALLMARK_APO
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		HALLMARK_APO
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		
FA_SIGNALING_VIA_NFKB	HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION		
FA_SIGNALING_VIA_NFKB		HALLMARK_P53	HALLMARK_MYOGENESIS
FA_SIGNALING_VIA_NFKB		HALLMARK_P53	HALLMARK_MYOGENESIS
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	HALLMARK_APO
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	HALLMARK_APO
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB		HALLMARK_P53_PATHWAY	
FA_SIGNALING_VIA_NFKB			HALLMARK_APO
FA_SIGNALING_VIA_NFKB			HALLMARK_APO
FA_SIGNALING_VIA_NFKB			
FA_SIGNALING_VIA_NFKB			
FA_SIGNALING_VIA_NFKB			
FA_SIGNALING_VIA_NFKB			
FA_SIGNALING_VIA_NFKB			

affinity glutamate transporter, system Xag), member 1

e 21

ociated coagulation inhibitor)

) 9

alpha 1A subunit

s), member 2

ber 8

ene homolog

el, 7

ber 15

2)

ptide 11

e 3

eric

n 1)

type 1 motif, 1

kinase 1

og (mouse)

ene homolog B (avian)

ain containing 1

risiae)

sis 1

precursor)

se 1 homolog D (*S. cerevisiae*)

rotein

umber 2

4

e) 8

type 1 motif, 5

it of VLA-3 receptor)

ntaining 2A

cha polypeptide

ubunit 1

proteoglycan (testican) 2

member 5

ber 5

ly down-regulated 4

g 1

coli)

inase 3

ltransferase 4

aha 1B subunit
eptide 1

nsporters), member 4

(parkin)

member C

aha 1F subunit

: subunit

its CDK4)

3

olog (*S. cerevisiae*)

e G (32kD)-like

1 complex, alpha subunit 1 pseudogene 9

(Drosophila)

1 C)

ase)

e 1

ember 1

porter), member 13

family, member 4
of N-acetylgalactosaminyltransferase 13 (GalNAc-T13)
factor 2

containing 12

member 13C

acid PH domain 2

peptide 1

name 1

entry SgK494

receptor

eag-related), member 8

ane protein 2

og (*S. cerevisiae*)

orter), member 1

orter), member 14

taining 11

(*Xenopus laevis*)

type 8B, member 3

:4

on antiporter 2), member 1

porter), member 12
ptide 1

idogene 2

ositol anchor 2
;6-like

pe 5
er 2

erase)

. cerevisiae)

phila)-like 3 (Hu antigen C)

cerevisiae)

oxylic acid transporter 13)

tor 3

omain)
tin protein ligas

ein

ollistatin-like domains 2

: 2

ubunit C2

lpha 1
lpha 2

amma 1

molog (*Xenopus laevis*)

acetylglucosaminyltransferase, isozyme C (putative)

de N-acetylgalactosaminyltransferase 2 (GalNAc-T2
nouse)

-type motif 13

G (with RhoGef domain) member 3

gulated
midinotransferase)
ge factor

r), member 5

channel, subfamily M, beta member 4
ic polypeptide-like 3C
te 5
releasing hormone)

:protein coding)

-type motif 7

member A

siae)

pseudogene
family, member 6
member 10d, decoy with truncated death domain pseudogene
(protein type B-like)

artate 2A

receptor-like 2

binding protein
pseudogene

cbfB type

ltransferase 6

elix-loop-helix protein

member 4C1

de N-acetylgalactosaminyltransferase-like 4

number 1

ly J, member 6

fier, subfamily S, member 1

or 2

7

15
e 3

coding)

seudogene

9

seudogene

i-protein coding)

calcineurin-dependent 4

ysin 1

: 1

chordin-like)

(Xenopus laevis)

atalytic subunit

ing 1

hatase 4
, class A
, class H

orming protein 3
(l-specific)
ed)

ie 3

ember 4

ning 1

ie 1

) 1

a isozyme

or family, member 2

, class V

bitor beta

elta subunit 3

oid microdomains 1

nber 1

porter light chain, asc system), member 10

ontaining 1B

complex, 4-like 2
amine 3-beta-galactosyltransferase, 1

glandin G/H synthase and cyclooxygenase)

H (with MyTH4 domain) member 1

ain containing 2

aining 9

taining 16

ubunit 2

mber 14

asmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4G

ig factor 1

binding protein
protein 2

transcription factor 2

2 (Drosophila)

de N-acetylgalactosaminyltransferase 11 (GalNAc-T11)
part basic domain, secreted, (semaphorin) 3F

transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A

protein 1

protein B

umber 3
ger), member 2
ger), member 1
ger), member 3
nger), member 5

dogene
e D, 44kDa

ide 1, 43kDa
ide 3, 50kDa
ein A1, 59kDa, acidic component)

onal enhancer factor)

olog, Drosophila)
(endothelial)

umber 3
olog 1

gha 1E subunit
18, apolipoprotein e receptor
unit
unit

vinyltransferase

log, Drosophila)

-type motif 18

ber 11, pseudogene
ntraxin domain containing 1
ntaining 1

type 1 motif, 20

nonas)

ain containing 5

I delta

protein 2

1-like

ndependent)

acting RhoGEF

protein 1

ctor 1

Ipha

transferase) 2

. elegans)

olamine-specific)

ig protein 3

mber 10d, decoy with truncated death domain

mber 10b

mber 10a

pha 1l subunit

y)

family A, member 1

nase)

14

ubunit E2

factor-associated, 170kDa (Mot1 homolog, *S. cerevisiae*)

number A

aining 13

1

ein, alpha

-like 1

d subfamily, beta member 3

rotein 1-like

1

tor 3

(*Xenopus laevis*)

ansporter, member 7

se 1

se 2

n and LIM domain containing 2

domains 1
onent 1

rase 2

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