

Supplementary 3 Co-expressed genes

SNAI1 co-expressed genes

Dataset item (Gene symbol)	Entrez ID	Gene symbol	Description	Chromosome	Map location
KIFC3	3801	KIFC3	kinesin family member C3	16	16q13-q21
VASN	114990	VASN	vasorin	16	16p13.3
SERPINH1	871	SERPINH1	serpin peptidase inhibitor, clade H (heat shock protein 47), member 1, (collagen binding protein 1)	11	11q13.5
EPHA2	1969	EPHA2	EPH receptor A2	1	1p36
MSN	4478	MSN	moesin	X	Xq11.1
CEPB	1051	CEPB	CCAAT/enhancer binding protein (C/EBP), beta	20	20q13.1
ID3	3399	ID3	inhibitor of DNA binding 3, dominant negative helix-loop-helix protein	1	1p36.13-p36.12
TUBB6	84617	TUBB6	tubulin, beta 6 class V	18	18p11.21
ACTB	60	ACTB	actin, beta	7	7p22
PLAUR	5329	PLAUR	plasminogen activator, urokinase receptor	19	19q13
BMP2	650	BMP2	bone morphogenetic protein 2	20	20p12
COL13A1	1305	COL13A1	collagen, type XIII, alpha 1	10	10q22
FHL3	2275	FHL3	four and a half LIM domains 3	1	1p34
RAP2B	5912	RAP2B	RAP2B, member of RAS oncogene family	3	3q25.2
USB1	79650	USB1	U6 snRNA biogenesis 1	16	16q21
RNF122	79845	RNF122	ring finger protein 122	8	8p12
ITPRIP	85450	ITPRIP	inositol 1,4,5-trisphosphate receptor interacting protein	10	10q25.1
NFIL3	4783	NFIL3	nuclear factor, interleukin 3 regulated	9	9q22

C1QTNF1	114897	C1QTNF1	C1q and tumor necrosis factor related protein 1	17	17q25.3
FAM20C	56975	FAM20C	family with sequence similarity 20, member C	7	7p22.3
CCDC71L	168455	CCDC71L	coiled-coil domain containing 71-like	7	7q22.3
CCL2	6347	CCL2	chemokine (C-C motif) ligand 2	17	17q11.2-q12
FSCN1	6624	FSCN1	fascin actin-bundling protein 1	7	7p22
PPP1R18	170954	PPP1R18	protein phosphatase 1, regulatory subunit 18	6	6p21.3
SLC10A3	8273	SLC10A3	solute carrier family 10, member 3	X	Xq28
PLK3	1263	PLK3	polo-like kinase 3	1	1p34.1
E2F4	1874	E2F4	E2F transcription factor 4, p107/p130-binding	16	16q22.1
LIMK1	3984	LIMK1	LIM domain kinase 1	7	7q11.23
PLOD1	5351	PLOD1	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 1	1	1p36.22
TPST1	8460	TPST1	tyrosylprotein sulfotransferase 1	7	7q11.21
NCS1	23413	NCS1	neuronal calcium sensor 1	9	9q34
MSANTD3	91283	MSANTD3	Myb/SANT-like DNA-binding domain containing 3	9	9q31.1
ADA	100	ADA	adenosine deaminase	20	20q13.12
ICAM1	3383	ICAM1	intercellular adhesion molecule 1	19	19p13.3-p13.2
ITGA5	3678	ITGA5	integrin, alpha 5 (fibronectin receptor, alpha polypeptide)	12	12q11-q13
PML	5371	PML	promyelocytic leukemia	15	15q22
ZYX	7791	ZYX	zyxin	7	7q32
PIM1	5292	PIM1	Pim-1 proto-oncogene, serine/threonine kinase	6	6p21.2
RBMS1	5937	RBMS1	RNA binding motif, single stranded interacting protein 1	2	2q24.2
PLOD3	8985	PLOD3	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 3	7	7q22
SOCS3	9021	SOCS3	suppressor of cytokine signaling 3	17	17q25.3
GFPT2	9945	GFPT2	glutamine-fructose-6-phosphate transaminase 2	5	5q34-q35

ARL4C	10123	ARL4C	ADP-ribosylation factor-like 4C	2	2q37.1
CDC42EP1	11135	CDC42EP1	CDC42 effector protein (Rho GTPase binding) 1	22	22q13.1
SH3BGRL3	83442	SH3BGRL3	SH3 domain binding glutamate-rich protein like 3	1	1p36.11
TNFRSF12A	51330	TNFRSF12A	tumor necrosis factor receptor superfamily, member 12A	16	16p13.3
COTL1	23406	COTL1	coactosin-like F-actin binding protein 1	16	16q24.1
ACOT9	23597	ACOT9	acyl-CoA thioesterase 9	X	Xp22.11
CPNE2	221184	CPNE2	copine II	16	16q13
PXDC1	221749	PXDC1	PX domain containing 1	6	6p25.2
NABP1	64859	NABP1	nucleic acid binding protein 1	2	2q32.3
ETS2	2114	ETS2	v-ets avian erythroblastosis virus E26 oncogene homolog 2	21	21q22.2
GPR4	2828	GPR4	G protein-coupled receptor 4	19	19q13.3
MCAM	4162	MCAM	melanoma cell adhesion molecule	11	11q23.3
PGF	5228	PGF	placental growth factor	14	14q24.3
S100A10	6281	S100A10	S100 calcium binding protein A10	1	1q21
TRIP10	9322	TRIP10	thyroid hormone receptor interactor 10	19	19p13.3
THEMIS2	9473	THEMIS2	thymocyte selection associated family member 2	1	1p35.3
ADAMTS4	9507	ADAMTS4	ADAM metallopeptidase with thrombospondin type 1 motif, 4	1	1q21-q23
TUBA1C	84790	TUBA1C	tubulin, alpha 1c	12	12q13.12
MAP7D1	55700	MAP7D1	MAP7 domain containing 1	1	1p34.3
MLKL	197259	MLKL	mixed lineage kinase domain-like	16	16q23.1
ENO1	2023	ENO1	enolase 1, (alpha)	1	1p36.2
YBX1	4904	YBX1	Y box binding protein 1	1	1p34
FAM127A	8933	FAM127A	family with sequence similarity 127, member A	X	Xq26
MRC2	9902	MRC2	mannose receptor, C type 2	17	17q23.2
ARPC1B	10095	ARPC1B	actin related protein 2/3 complex, subunit 1B, 41kDa	7	7q22.1

ARPC2	10109	ARPC2	actin related protein 2/3 complex, subunit 2, 34kDa	2	2q36.1
COLGALT1	79709	COLGALT1	collagen beta(1-O)galactosyltransferase 1	19	19p13.11
RIN3	79890	RIN3	Ras and Rab interactor 3	14	14q32.12
MEMO1	51072	MEMO1	mediator of cell motility 1	2	2p22-p21
TMEM255B	348013	TMEM255B	transmembrane protein 255B	13	13q34
FAM20A	54757	FAM20A	family with sequence similarity 20, member A	17	17q24.2
RHBDL2	54933	RHBDL2	rhomboid, veinlet-like 2 (<i>Drosophila</i>)	1	1p34.3
SLC35C1	55343	SLC35C1	solute carrier family 35 (GDP-fucose transporter), member C1	11	11p11.2
CLDN14	23562	CLDN14	claudin 14	21	21q22.3
AGPAT4	56895	AGPAT4	1-acylglycerol-3-phosphate O-acyltransferase 4	6	6q26
P3H1	64175	P3H1	prolyl 3-hydroxylase 1	1	1p34.1
AAED1	195827	AAED1	AhpC/TSA antioxidant enzyme domain containing 1	9	9q22.32
ALPL	249	ALPL	alkaline phosphatase, liver/bone/kidney	1	1p36.12
BMP1	649	BMP1	bone morphogenetic protein 1	8	8p21.3
DUSP7	1849	DUSP7	dual specificity phosphatase 7	3	3p21
EFNB1	1947	EFNB1	ephrin-B1	X	Xq12
EMP3	2014	EMP3	epithelial membrane protein 3	19	19q13.3
CFH	3075	CFH	complement factor H	1	1q32
IL15RA	3601	IL15RA	interleukin 15 receptor, alpha	10	10p15.1
LMNA	4000	LMNA	lamin A/C	1	1q22
PCDHGC3	5098	PCDHGC3	protocadherin gamma subfamily C, 3	5	5q31
PDGFA	5154	PDGFA	platelet-derived growth factor alpha polypeptide	7	7p22
PRNP	5621	PRNP	prion protein	20	20p13
PSMB2	5690	PSMB2	proteasome (prosome, macropain) subunit, beta type, 2	1	1p34.2
RAB3IL1	5866	RAB3IL1	RAB3A interacting protein (rabin3)-like 1	11	11q12.2

SLC2A3	6515	SLC2A3	solute carrier family 2 (facilitated glucose transporter), member 3	12	12p13.3
TNFRSF1A	7132	TNFRSF1A	tumor necrosis factor receptor superfamily, member 1A	12	12p13.2
S1PR2	9294	S1PR2	sphingosine-1-phosphate receptor 2	19	19p13.2
JOSD1	9929	JOSD1	Josephin domain containing 1	22	22q13.1
UBE2E3	10477	UBE2E3	ubiquitin-conjugating enzyme E2E 3	2	2q32.1
SLC25A37	51312	SLC25A37	solute carrier family 25 (mitochondrial iron transporter), member 37	8	8p21.2
MPP6	51678	MPP6	membrane protein, palmitoylated 6 (MAGUK p55 subfamily member 6)	7	7p15
TMEM39B	55116	TMEM39B	transmembrane protein 39B	1	1p35.1
HABP4	22927	HABP4	hyaluronan binding protein 4	9	9q22.3-q31
AVEN	57099	AVEN	apoptosis, caspase activation inhibitor	15	15q13.1
NXN	64359	NXN	nucleoredoxin	17	17p13.3
BIN1	274	BIN1	bridging integrator 1	2	2q14
ANXA1	301	ANXA1	annexin A1	9	9q21.13
CDH3	1001	CDH3	cadherin 3, type 1, P-cadherin (placental)	16	16q22.1
CYB5R3	1727	CYB5R3	cytochrome b5 reductase 3	22	22q13.2
ENG	2022	ENG	endoglin	9	9q34.11
FYN	2534	FYN	FYN proto-oncogene, Src family tyrosine kinase	6	6q21
PFKP	5214	PFKP	phosphofructokinase, platelet	10	10p15.3-p15.2
SHOX2	6474	SHOX2	short stature homeobox 2	3	3q25.32
VIM	7431	VIM	vimentin	10	10p13
FOSL1	8061	FOSL1	FOS-like antigen 1	11	11q13
TAGLN2	8407	TAGLN2	transgelin 2	1	1q21-q25
ZPR1	8882	ZPR1	ZPR1 zinc finger	11	11q23.3
NUP93	9688	NUP93	nucleoporin 93kDa	16	16q13

PLEKHF1	79156	PLEKHF1	pleckstrin homology domain containing, family F (with FYVE domain) member 1	19	19q12
RHBDF2	79651	RHBDF2	rhomboid 5 homolog 2 (Drosophila)	17	17q25.1
SPSB1	80176	SPSB1	splA/ryanodine receptor domain and SOCS box containing 1	1	1p36.22
FAM127C	441518	FAM127C	family with sequence similarity 127, member C	X	Xq26.3
ANGPTL4	51129	ANGPTL4	angiopoietin-like 4	19	19p13.3
RASSF4	83937	RASSF4	Ras association (RalGDS/AF-6) domain family member 4	10	10q11.21
NIP7	51388	NIP7	NIP7, nucleolar pre-rRNA processing protein	16	16q22.1
DNAJB11	51726	DNAJB11	DnaJ (Hsp40) homolog, subfamily B, member 11	3	3q27.3
BATF3	55509	BATF3	basic leucine zipper transcription factor, ATF-like 3	1	1q32.3
LYAR	55646	LYAR	Ly1 antibody reactive	4	4p16.3
PLSCR3	57048	PLSCR3	phospholipid scramblase 3	17	17p13.1
TRIM47	91107	TRIM47	tripartite motif containing 47	17	17q25
TMEM189	387521	TMEM189	transmembrane protein 189	20	20q13.2
ADGRE5	976	ADGRE5	adhesion G protein-coupled receptor E5	19	19p13.12
HBEGF	1839	HBEGF	heparin-binding EGF-like growth factor	5	5q23
EPHB2	2048	EPHB2	EPH receptor B2	1	1p36.1-p35
GALNS	2588	GALNS	galactosamine (N-acetyl)-6-sulfatase	16	16q24.3
GPR3	2827	GPR3	G protein-coupled receptor 3	1	1p36.1-p35
GPC	2995	GPC	glycophorin C (Gerbich blood group)	2	2q14-q21
IFRD1	3475	IFRD1	interferon-related developmental regulator 1	7	7q31.1
IGFBP3	3486	IGFBP3	insulin-like growth factor binding protein 3	7	7p12.3
LTBR	4055	LTBR	lymphotoxin beta receptor (TNFR superfamily, member 3)	12	12p13
OSM	5008	OSM	oncostatin M	22	22q12.2
PVR	5817	PVR	poliovirus receptor	19	19q13.2

VEGFC	7424	VEGFC	vascular endothelial growth factor C	4	4q34.3
SLC16A3	9123	SLC16A3	solute carrier family 16 (monocarboxylate transporter), member 3	17	17q25
IL32	9235	IL32	interleukin 32	16	16p13.3
SH2B2	10603	SH2B2	SH2B adaptor protein 2	7	7q22
PDIA5	10954	PDIA5	protein disulfide isomerase family A, member 5	3	3q21.1
CPNE8	144402	CPNE8	copine VIII	12	12q12
VPS37B	79720	VPS37B	vacuolar protein sorting 37 homolog B (<i>S. cerevisiae</i>)	12	12q24.31
CD276	80381	CD276	CD276 molecule	15	15q23-q24
ARHGEF4	50649	ARHGEF4	Rho guanine nucleotide exchange factor (GEF) 4	2	2q22
HHIPL1	84439	HHIPL1	HHIP-like 1	14	14q32
MEDAG	84935	MEDAG	mesenteric estrogen-dependent adipogenesis	13	13q12.3
FXYD5	53827	FXYD5	FXYD domain containing ion transport regulator 5	19	19q13.12
FBLIM1	54751	FBLIM1	filamin binding LIM protein 1	1	1p36.21
RBM38	55544	RBM38	RNA binding motif protein 38	20	20q13.31
PLEKHM2	23207	PLEKHM2	pleckstrin homology domain containing, family M (with RUN domain) member 2	1	1p36.21
FAM171A1	221061	FAM171A1	family with sequence similarity 171, member A1	10	10p13
REXO2	25996	REXO2	RNA exonuclease 2	11	11q23.2
FAM58A	92002	FAM58A	family with sequence similarity 58, member A	X	Xq28
CHIC2	26511	CHIC2	cysteine-rich hydrophobic domain 2	4	4q11
SPNS2	124976	SPNS2	spinster homolog 2 (<i>Drosophila</i>)	17	17p13.2
CDC20	991	CDC20	cell division cycle 20	1	1p34.1
GNAI1	2770	GNAI1	guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 1	7	7q21
HRH1	3269	HRH1	histamine receptor H1	3	3p25

IL6	3569	IL6	interleukin 6	7	7p21
LYN	4067	LYN	LYN proto-oncogene, Src family tyrosine kinase	8	8q13
PFDN2	5202	PFDN2	prefoldin subunit 2	1	1q23.3
PLXNA1	5361	PLXNA1	plexin A1	3	3q21.3
RELB	5971	RELB	v-rel avian reticuloendotheliosis viral oncogene homolog B	19	19q13.32
TYRO3	7301	TYRO3	TYRO3 protein tyrosine kinase	15	15q15
MALL	7851	MALL	mal, T-cell differentiation protein-like	2	2q13
DYSF	8291	DYSF	dysferlin	2	2p13.3
NCK2	8440	NCK2	NCK adaptor protein 2	2	2q12
YBX3	8531	YBX3	Y box binding protein 3	12	12p13.1
TNFSF9	8744	TNFSF9	tumor necrosis factor (ligand) superfamily, member 9	19	19p13.3
SPHK1	8877	SPHK1	sphingosine kinase 1	17	17q25.2
RPS6KA4	8986	RPS6KA4	ribosomal protein S6 kinase, 90kDa, polypeptide 4	11	11q11-q13
ITGB1BP1	9270	ITGB1BP1	integrin beta 1 binding protein 1	2	2p25.2
MAP4K4	9448	MAP4K4	mitogen-activated protein kinase kinase kinase kinase 4	2	2q11.2-q12
ECE2	9718	ECE2	endothelin converting enzyme 2	3	3q27.1
NUTF2	10204	NUTF2	nuclear transport factor 2	16	16q22.1
PRSS53	339105	PRSS53	protease, serine, 53	16	16p11.2
TTYH3	80727	TTYH3	tweety family member 3	7	7p22
SOX7	83595	SOX7	SRY (sex determining region Y)-box 7	8	8p23.1
RBM17	84991	RBM17	RNA binding motif protein 17	10	10p15.1
SYDE1	85360	SYDE1	synapse defective 1, Rho GTPase, homolog 1 (C. elegans)	19	19p13.12
CHST12	55501	CHST12	carbohydrate (chondroitin 4) sulfotransferase 12	7	7p22
JMJD6	23210	JMJD6	jumonji domain containing 6	17	17q25
CORO1C	23603	CORO1C	coronin, actin binding protein, 1C	12	12q24.1

KCMF1	56888	KCMF1	potassium channel modulatory factor 1	2	2p11.2
SMCO4	56935	SMCO4	single-pass membrane protein with coiled-coil domains 4	11	11q21
RCN3	57333	RCN3	reticulocalbin 3, EF-hand calcium binding domain	19	19q13.33
BRI3	25798	BRI3	brain protein I3	7	7q21.3
MIIP	60672	MIIP	migration and invasion inhibitory protein	1	1p36.22
WDR91	29062	WDR91	WD repeat domain 91	7	7q33
NRBP1	29959	NRBP1	nuclear receptor binding protein 1	2	2p23
NRBF2	29982	NRBF2	nuclear receptor binding factor 2	10	10q21.3
RHOG	391	RHOG	ras homolog family member G	11	11p15.5-p15.4
BID	637	BID	BH3 interacting domain death agonist	22	22q11.1
CDC25B	994	CDC25B	cell division cycle 25B	20	20p13
CDKN2A	1029	CDKN2A	cyclin-dependent kinase inhibitor 2A	9	9p21
CTRL	1506	CTRL	chymotrypsin-like	16	16q22.1
PHC2	1912	PHC2	polyhomeotic homolog 2 (Drosophila)	1	1p34.3
IFNAR2	3455	IFNAR2	interferon (alpha, beta and omega) receptor 2	21	21q22.11
LCAT	3931	LCAT	lecithin-cholesterol acyltransferase	16	16q22.1
FADS3	3995	FADS3	fatty acid desaturase 3	11	11q12-q13.1
NFKBIE	4794	NFKBIE	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon	6	6p21.1
NNMT	4837	NNMT	nicotinamide N-methyltransferase	11	11q23.1
PRRG1	5638	PRRG1	proline rich Gla (G-carboxyglutamic acid) 1	X	Xp21.1
SRF	6722	SRF	serum response factor (c-fos serum response element-binding transcription factor)	6	6p21.1
SRM	6723	SRM	spermidine synthase	1	1p36-p22

TGFBI	7045	TGFBI	transforming growth factor, beta-induced, 68kDa	5	5q31
SLC5A6	8884	SLC5A6	solute carrier family 5 (sodium/multivitamin and iodide cotransporter), member 6	2	2p23
TP53I3	9540	TP53I3	tumor protein p53 inducible protein 3	2	2p23.3
EMC8	10328	EMC8	ER membrane protein complex subunit 8	16	16q24
MSL3	10943	MSL3	male-specific lethal 3 homolog (Drosophila)	X	Xp22.3
LSM6	11157	LSM6	LSM6 homolog, U6 small nuclear RNA and mRNA degradation associated	4	4q31.22
CHST11	50515	CHST11	carbohydrate (chondroitin 4) sulfotransferase 11	12	12q
B3GNT5	84002	B3GNT5	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 5	3	3q28
EVA1A	84141	EVA1A	eva-1 homolog A (<i>C. elegans</i>)	2	2p12
MICALL1	85377	MICALL1	MICAL-like 1	22	22q13.1
CCNYL1	151195	CCNYL1	cyclin Y-like 1	2	2q33.3
IKBIP	121457	IKBIP	IKBKB interacting protein	12	12q23.1
BEND6	221336	BEND6	BEN domain containing 6	6	6p12.1
CFAP20	29105	CFAP20	cilia and flagella associated protein 20	16	16q21
LIX1L	128077	LIX1L	limb and CNS expressed 1 like	1	1q21.1
SNX8	29886	SNX8	sorting nexin 8	7	7p22.3
SH3KBP1	30011	SH3KBP1	SH3-domain kinase binding protein 1	X	Xp22.1-p21.3
NT5DC2	64943	NT5DC2	5'-nucleotidase domain containing 2	3	3p21.1
ACTN1	87	ACTN1	actinin, alpha 1	14	14q24 14q2 2-q24
ADPRH	141	ADPRH	ADP-ribosylarginine hydrolase	3	3q13.31-q13.33
ANXA5	308	ANXA5	annexin A5	4	4q27

C1R	715	C1R	complement component 1, r subcomponent	12	12p13
C5AR1	728	C5AR1	complement component 5a receptor 1	19	19q13.3-q13.4
CENPA	1058	CENPA	centromere protein A	2	2p23.3
CNN2	1265	CNN2	calponin 2	19	19p13.3
CREM	1390	CREM	cAMP responsive element modulator	10	10p11.21
ACSL4	2182	ACSL4	acyl-CoA synthetase long-chain family member 4	X	Xq22.3-q23
GPX7	2882	GPX7	glutathione peroxidase 7	1	1p32
IFI16	3428	IFI16	interferon, gamma-inducible protein 16	1	1q22
KARS	3735	KARS	lysyl-tRNA synthetase	16	16q23.1
MAGOH	4116	MAGOH	mago homolog, exon junction complex core component	1	1p32.3
MGAT1	4245	MGAT1	mannosyl (alpha-1,3-)glycoprotein beta-1,2-N-acetylglucosaminyltransferase	5	5q35
NOS3	4846	NOS3	nitric oxide synthase 3 (endothelial cell)	7	7q36
SERPINE2	5270	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2	2	2q36.1
PLS3	5358	PLS3	plastin 3	X	Xq23
POR	5447	POR	P450 (cytochrome) oxidoreductase	7	7q11.2
RSU1	6251	RSU1	Ras suppressor protein 1	10	10p13
S100A11	6282	S100A11	S100 calcium binding protein A11	1	1q21
SLC11A1	6556	SLC11A1	solute carrier family 11 (proton-coupled divalent metal ion transporter), member 1	2	2q35
SOD2	6648	SOD2	superoxide dismutase 2, mitochondrial	6	6q25.3
TKT	7086	TKT	transketolase	3	3p14.3
UPP1	7378	UPP1	uridine phosphorylase 1	7	7p12.3

LRP8	7804	LRP8	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	1	1p34
TMSB10	9168	TMSB10	thymosin beta 10	2	2p11.2
ACTR3	10096	ACTR3	ARP3 actin-related protein 3 homolog (yeast)	2	2q14.1
PDIA6	10130	PDIA6	protein disulfide isomerase family A, member 6	2	2p25.1
PNRC1	10957	PNRC1	proline-rich nuclear receptor coactivator 1	6	6q15
TWF2	11344	TWF2	twinfilin actin binding protein 2	3	3p21.1
B3GNT4	79369	B3GNT4	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 4	12	12q24
COL18A1	80781	COL18A1	collagen, type XVIII, alpha 1	21	21q22.3
RAB42	115273	RAB42	RAB42, member RAS oncogene family	1	1p35.3
TCF7L1	83439	TCF7L1	transcription factor 7-like 1 (T-cell specific, HMG-box)	2	2p11.2
AKR1E2	83592	AKR1E2	aldo-keto reductase family 1, member E2	10	10p15.1
UTP11L	51118	UTP11L	UTP11-like, U3 small nucleolar ribonucleoprotein (yeast)	1	1p34.3
WBP5	51186	WBP5	WW domain binding protein 5	X	Xq22.2
ZDHHC18	84243	ZDHHC18	zinc finger, DHHC-type containing 18	1	1p36.11
FAM126A	84668	FAM126A	family with sequence similarity 126, member A	7	7p15.3
RELT	84957	RELT	RELT tumor necrosis factor receptor	11	11q13.4
UBASH3B	84959	UBASH3B	ubiquitin associated and SH3 domain containing B	11	11q24.1
TOX2	84969	TOX2	TOX high mobility group box family member 2	20	20q13.12
LANCL3	347404	LANCL3	LanC lantibiotic synthetase component C-like 3 (bacterial)	X	Xp21.1
GLIPR2	152007	GLIPR2	GLI pathogenesis-related 2	9	9p13.3
GPR84	53831	GPR84	G protein-coupled receptor 84	12	12q13.13
SMIM10	644538	SMIM10	small integral membrane protein 10	X	Xq26.3
PDSS1	23590	PDSS1	prenyl (decaprenyl) diphosphate synthase, subunit 1	10	10p12.1
TTC7A	57217	TTC7A	tetratricopeptide repeat domain 7A	2	2p21

MKL1	57591	MKL1	megakaryoblastic leukemia (translocation) 1	22	22q13
WFDC1	58189	WFDC1	WAP four-disulfide core domain 1	16	16q24.3
CXCL16	58191	CXCL16	chemokine (C-X-C motif) ligand 16	17	17p13
LILRA5	353514	LILRA5	leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 5	19	19q13.4
FAM127B	26071	FAM127B	family with sequence similarity 127, member B	X	Xq26.3
SCHIP1	29970	SCHIP1	schwannomin interacting protein 1	3	3q25.32-q25.33
TAX1BP3	30851	TAX1BP3	Tax1 (human T-cell leukemia virus type I) binding protein 3	17	17p13
ELFN1	392617	ELFN1	extracellular leucine-rich repeat and fibronectin type III domain containing 1	7	7p22.3
CCNG2	901	CCNG2	cyclin G2	4	4q21.1
DMXL1	1657	DMXL1	Dmx-like 1	5	5q22
FBP1	2203	FBP1	fructose-1,6-bisphosphatase 1	9	9q22.3
GLUD2	2747	GLUD2	glutamate dehydrogenase 2	X	Xq24-q25
NUMA1	4926	NUMA1	nuclear mitotic apparatus protein 1	11	11q13
PGGT1B	5229	PGGT1B	protein geranylgeranyltransferase type I, beta subunit	5	5q22.3
VEZF1	7716	VEZF1	vascular endothelial zinc finger 1	17	17q22
COQ7	10229	COQ7	coenzyme Q7 homolog, ubiquinone (yeast)	16	16p12.3
ZNF181	339318	ZNF181	zinc finger protein 181	19	19q13.11
ERI2	112479	ERI2	ERI1 exoribonuclease family member 2	16	16p12.3
GMPR2	51292	GMPR2	guanosine monophosphate reductase 2	14	14q12
DNAJC14	85406	DNAJC14	DnaJ (Hsp40) homolog, subfamily C, member 14	12	12q13.2
HECTD4	283450	HECTD4	HECT domain containing E3 ubiquitin protein ligase 4	12	12q24.13
ZNF763	284390	ZNF763	zinc finger protein 763	19	19p13.2

TMEM161B	153396	TMEM161B	transmembrane protein 161B	5	5q14.3
RALGPS2	55103	RALGPS2	Ral GEF with PH domain and SH3 binding motif 2	1	1q25.2
AP1AR	55435	AP1AR	adaptor-related protein complex 1 associated regulatory protein	4	4q25
FAM179B	23116	FAM179B	family with sequence similarity 179, member B	14	14q21.2
TBC1D9	23158	TBC1D9	TBC1 domain family, member 9 (with GRAM domain)	4	4q31.21
MYO5C	55930	MYO5C	myosin VC	15	15q21
LRTOMT	220074	LRTOMT	leucine rich transmembrane and O-methyltransferase domain containing	11	11q13.4
UBE3B	89910	UBE3B	ubiquitin protein ligase E3B	12	12q24.11
CERS6	253782	CERS6	ceramide synthase 6	2	2q24.3
EPB41L5	57669	EPB41L5	erythrocyte membrane protein band 4.1 like 5	2	2q14.2
NEK9	91754	NEK9	NIMA-related kinase 9	14	14q24.3
MSI2	124540	MSI2	musashi RNA-binding protein 2	17	17q22
CYB5D1	124637	CYB5D1	cytochrome b5 domain containing 1	17	17p13.1
GPR160	26996	GPR160	G protein-coupled receptor 160	3	3q26.2-q27
TMEM30B	161291	TMEM30B	transmembrane protein 30B	14	14q23.1
METTL15	196074	METTL15	methyltransferase like 15	11	11p14.1
PHOSPHO2	493911	PHOSPHO2	phosphatase, orphan 2	2	2q31.1
ARHGAP35	2909	ARHGAP35	Rho GTPase activating protein 35	19	19q13.3
PPM1A	5494	PPM1A	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A	14	14q23.1
DNALI1	7802	DNALI1	dynein, axonemal, light intermediate chain 1	1	1p35.1
SLC24A1	9187	SLC24A1	solute carrier family 24 (sodium/potassium/calcium exchanger), member 1	15	15q22
SCAMP1	9522	SCAMP1	secretory carrier membrane protein 1	5	5q14.1
KIAA0430	9665	KIAA0430	KIAA0430	16	16p13.11
KIAA0232	9778	KIAA0232	KIAA0232	4	4p16.1

MATR3	9782	MATR3	matrin 3	5	5q31.2
MLPH	79083	MLPH	melanophilin	2	2q37.3
SAP30L	79685	SAP30L	SAP30-like	5	5q33.2
THSD4	79875	THSD4	thrombospondin, type I, domain containing 4	15	15q23
DCAF11	80344	DCAF11	DDB1 and CUL4 associated factor 11	14	14q11.2
PLA2G12A	81579	PLA2G12A	phospholipase A2, group XIIA	4	4q25
DNAL1	83544	DNAL1	dynein, axonemal, light chain 1	14	14q24.3
TTC30B	150737	TTC30B	tetratricopeptide repeat domain 30B	2	2q31.2
IMPACT	55364	IMPACT	impact RWD domain protein	18	18q11.2-q12.1
COG2	22796	COG2	component of oligomeric golgi complex 2	1	1q42.2
CPEB3	22849	CPEB3	cytoplasmic polyadenylation element binding protein 3	10	10q23.32
ARSG	22901	ARSG	arylsulfatase G	17	17q24.2
KBTBD4	55709	KBTBD4	kelch repeat and BTB (POZ) domain containing 4	11	11p11.2
FAM47E	100129 583	FAM47E	family with sequence similarity 47, member E	4	4q21.1
ERGIC1	57222	ERGIC1	endoplasmic reticulum-golgi intermediate compartment 1	5	5q35.1
ZNF30	90075	ZNF30	zinc finger protein 30	19	19q13.11
RALGAPA1	253959	RALGAPA1	Ral GTPase activating protein, alpha subunit 1 (catalytic)	14	14q13.2
WDR19	57728	WDR19	WD repeat domain 19	4	4p14
LRIG1	26018	LRIG1	leucine-rich repeats and immunoglobulin-like domains 1	3	3p14
GIGYF2	26058	GIGYF2	GRB10 interacting GYF protein 2	2	2q37.1
RASEF	158158	RASEF	RAS and EF-hand domain containing	9	9q21.32
ZNF564	163050	ZNF564	zinc finger protein 564	19	19p13.2
FBXL17	64839	FBXL17	F-box and leucine-rich repeat protein 17	5	5q21.3

NBR1	4077	NBR1	neighbor of BRCA1 gene 1	17	17q21.31
SLC22A5	6584	SLC22A5	solute carrier family 22 (organic cation/carnitine transporter), member 5	5	5q23.3
TLE3	7090	TLE3	transducin-like enhancer of split 3	15	15q22
RAD50	10111	RAD50	RAD50 homolog, double strand break repair protein	5	5q31
ZNF546	339327	ZNF546	zinc finger protein 546	19	19q13.2
SPEF2	79925	SPEF2	sperm flagellar 2	5	5p13.2
RUNDC1	146923	RUNDC1	RUN domain containing 1	17	17q21.31
PDIK1L	149420	PDIK1L	PDLIM1 interacting kinase 1 like	1	1p36.11
FAM13B	51306	FAM13B	family with sequence similarity 13, member B	5	5q31
USP30	84749	USP30	ubiquitin specific peptidase 30	12	12q24.11
RBM47	54502	RBM47	RNA binding motif protein 47	4	4p14
AFTPH	54812	AFTPH	aftiphilin	2	2p14
ZNF619	285267	ZNF619	zinc finger protein 619	3	3p22.1
TTC8	123016	TTC8	tetratricopeptide repeat domain 8	14	14q31.3
HCAR1	27198	HCAR1	hydroxycarboxylic acid receptor 1	12	12q24.31
ZNF709	163051	ZNF709	zinc finger protein 709	19	19p13.2
TRIM23	373	TRIM23	tripartite motif containing 23	5	5q12.3
LRBA	987	LRBA	LPS-responsive vesicle trafficking, beach and anchor containing	4	4q31.3
ESR1	2099	ESR1	estrogen receptor 1	6	6q25.1
ALDH6A1	4329	ALDH6A1	aldehyde dehydrogenase 6 family, member A1	14	14q24.3
MSH3	4437	MSH3	mutS homolog 3	5	5q14.1
TAPT1	202018	TAPT1	transmembrane anterior posterior transformation 1	4	4p15.32
SKP1	6500	SKP1	S-phase kinase-associated protein 1	5	5q31
CCDC30	728621	CCDC30	coiled-coil domain containing 30	1	1p34.2
SPG11	80208	SPG11	spastic paraplegia 11 (autosomal recessive)	15	15q14

TIGD6	81789	TIGD6	tigger transposable element derived 6	5	5q32
KDM3B	51780	KDM3B	lysine (K)-specific demethylase 3B	5	5q31
ZNF740	283337	ZNF740	zinc finger protein 740	12	12q13.13
ZNF844	284391	ZNF844	zinc finger protein 844	19	19p13.2
AGGF1	55109	AGGF1	angiogenic factor with G patch and FHA domains 1	5	5q13.3
SLC39A9	55334	SLC39A9	solute carrier family 39, member 9	14	14q24.1
HIF1AN	55662	HIF1AN	hypoxia inducible factor 1, alpha subunit inhibitor	10	10q24
FAM63A	55793	FAM63A	family with sequence similarity 63, member A	1	1q21.3
FNIP1	96459	FNIP1	folliculin interacting protein 1	5	5q23.3
RAD17	5884	RAD17	RAD17 checkpoint clamp loader component	5	5q13
SALL2	6297	SALL2	spalt-like transcription factor 2	14	14q11.1-q12
ZNF20	7568	ZNF20	zinc finger protein 20	19	19p13.2
ASB8	140461	ASB8	ankyrin repeat and SOCS box containing 8	12	12q13.11
BCDIN3D	144233	BCDIN3D	BCDIN3 domain containing	12	12q13.12
KIAA0319L	79932	KIAA0319L	KIAA0319-like	1	1p34.2
SEPSECS	51091	SEPSECS	Sep (O-phosphoserine) tRNA:Sec (selenocysteine) tRNA synthase	4	4p15.2
CIPC	85457	CIPC	CLOCK-interacting pacemaker	14	14q24.3
MARVELD2	153562	MARVELD2	MARVEL domain containing 2	5	5q13.2
HHAT	55733	HHAT	hedgehog acyltransferase	1	1q32
ZNF620	253639	ZNF620	zinc finger protein 620	3	3p22.1
ARID2	196528	ARID2	AT rich interactive domain 2 (ARID, RFX-like)	12	12q12
KCNJ11	3767	KCNJ11	potassium channel, inwardly rectifying subfamily J, member 11	11	11p15.1
RABEP1	9135	RABEP1	rabaptin, RAB GTPase binding effector protein 1	17	17p13.2
DCTN4	51164	DCTN4	dynactin 4 (p62)	5	5q33.1
ANKRA2	57763	ANKRA2	ankyrin repeat, family A (RFXANK-like), 2	5	5q12-q13

MOAP1	64112	MOAP1	modulator of apoptosis 1	14	14q32
ERBB3	2065	ERBB3	erb-b2 receptor tyrosine kinase 3	12	12q13
XBP1	7494	XBP1	X-box binding protein 1	22	22q12.1 22q12
PATZ1	23598	PATZ1	POZ (BTB) and AT hook containing zinc finger 1	22	22q12.2
ILDR1	286676	ILDR1	immunoglobulin-like domain containing receptor 1	3	3q13.33
ZFP14	57677	ZFP14	ZFP14 zinc finger protein	19	19q13.12
GATA3	2625	GATA3	GATA binding protein 3	10	10p15
MYB	4602	MYB	v-myb avian myeloblastosis viral oncogene homolog	6	6q22-q23
RALGPS1	9649	RALGPS1	Ral GEF with PH domain and SH3 binding motif 1	9	9q33.3
NUDT12	83594	NUDT12	nudix (nucleoside diphosphate linked moiety X)-type motif 12	5	5q21.2
GIN1	54826	GIN1	gypsy retrotransposon integrase 1	5	5q21.1
EXOC6	54536	EXOC6	exocyst complex component 6	10	10q23.33
CCDC125	202243	CCDC125	coiled-coil domain containing 125	5	5q13.2
FOXA1	3169	FOXA1	forkhead box A1	14	14q21.1

SNAI2 co-expressed genes

Dataset item (Gene symbol)	Entrez ID	Gene symbol	Description	Chromosome	Map location
BGN	633	BGN	biglycan	X	Xq28
BMP1	649	BMP1	bone morphogenetic protein 1	8	8p21.3
P3H1	64175	P3H1	prolyl 3-hydroxylase 1	1	1p34.1
COL6A1	1291	COL6A1	collagen, type VI, alpha 1	21	21q22.3
COL5A3	50509	COL5A3	collagen, type V, alpha 3	19	19p13.2
OLFML2B	25903	OLFML2B	olfactomedin-like 2B	1	1q23.3

COL6A2	1292	COL6A2	collagen, type VI, alpha 2	21	21q22.3
LAMC3	10319	LAMC3	laminin, gamma 3	9	9q34.12
ENPEP	2028	ENPEP	glutamyl aminopeptidase (aminopeptidase A)	4	4q25
DENND2A	27147	DENND2A	DENN/MADD domain containing 2A	7	7q34
LOXL2	4017	LOXL2	lysyl oxidase-like 2	8	8p21.3
EFNB1	1947	EFNB1	ephrin-B1	X	Xq12
THY1	7070	THY1	Thy-1 cell surface antigen	11	11q23.3
MRC2	9902	MRC2	mannose receptor, C type 2	17	17q23.2
ARSI	340075	ARSI	arylsulfatase family, member I	5	5q32
COL16A1	1307	COL16A1	collagen, type XVI, alpha 1	1	1p35-p34
MAF	4094	MAF	v-maf avian musculoaponeurotic fibrosarcoma oncogene homolog	16	16q22-q23
SRPX	8406	SRPX	sushi-repeat containing protein, X-linked	X	Xp21.1
TPST1	8460	TPST1	tyrosylprotein sulfotransferase 1	7	7q11.21
PLXDC1	57125	PLXDC1	plexin domain containing 1	17	17q21.1
SERPINH1	871	SERPINH1	serpin peptidase inhibitor, clade H (heat shock protein 47), member 1, (collagen binding protein 1)	11	11q13.5
PGF	5228	PGF	placental growth factor	14	14q24.3
TGFB1	7045	TGFB1	transforming growth factor, beta-induced, 68kDa	5	5q31
EMILIN1	11117	EMILIN1	elastin microfibril interfacser 1	2	2p23.3-p23.2
EVA1A	84141	EVA1A	eva-1 homolog A (<i>C. elegans</i>)	2	2p12
GRID1	2894	GRID1	glutamate receptor, ionotropic, delta 1	10	10q22
MMP14	4323	MMP14	matrix metallopeptidase 14 (membrane-inserted)	14	14q11.2
PCDHGC3	5098	PCDHGC3	protocadherin gamma subfamily C, 3	5	5q31
ST3GAL2	6483	ST3GAL2	ST3 beta-galactoside alpha-2,3-sialyltransferase 2	16	16q22.1
NPR2	4882	NPR2	natriuretic peptide receptor 2	9	9p21-p12

VIM	7431	VIM	vimentin	10	10p13
RFX8	731220	RFX8	RFX family member 8, lacking RFX DNA binding domain	2	2q11.2
FKBP7	51661	FKBP7	FK506 binding protein 7	2	2q31.2
CPXM1	56265	CPXM1	carboxypeptidase X (M14 family), member 1	20	20p13
LAMA4	3910	LAMA4	laminin, alpha 4	6	6q21
PDGFRB	5159	PDGFRB	platelet-derived growth factor receptor, beta polypeptide	5	5q33.1
GLIS1	148979	GLIS1	GLIS family zinc finger 1	1	1p32.3
ITGA5	3678	ITGA5	integrin, alpha 5 (fibronectin receptor, alpha polypeptide)	12	12q11-q13
MMP13	4322	MMP13	matrix metallopeptidase 13	11	11q22.3
TGFB1I1	7041	TGFB1I1	transforming growth factor beta 1 induced transcript 1	16	16p11.2
COL18A1	80781	COL18A1	collagen, type XVIII, alpha 1	21	21q22.3
CD248	57124	CD248	CD248 molecule, endosialin	11	11q13
RUNX2	860	RUNX2	runt-related transcription factor 2	6	6p21
EXT2	2132	EXT2	exostosin glycosyltransferase 2	11	11p12-p11
FHL3	2275	FHL3	four and a half LIM domains 3	1	1p34
GLG1	2734	GLG1	golgi glycoprotein 1	16	16q22.3
NOS2	4843	NOS2	nitric oxide synthase 2, inducible	17	17q11.2
PROS1	5627	PROS1	protein S (alpha)	3	3q11.2
CLIP2	7461	CLIP2	CAP-GLY domain containing linker protein 2	7	7q11.23
COPZ2	51226	COPZ2	coatomer protein complex, subunit zeta 2	17	17q21.32
PTRF	284119	PTRF	polymerase I and transcript release factor	17	17q21.2
RNF175	285533	RNF175	ring finger protein 175	4	4q31.3
LIX1L	128077	LIX1L	limb and CNS expressed 1 like	1	1q21.1
PRELP	5549	PRELP	proline/arginine-rich end leucine-rich repeat protein	1	1q32
MXRA8	54587	MXRA8	matrix-remodelling associated 8	1	1p36.33

FAM20C	56975	FAM20C	family with sequence similarity 20, member C	7	7p22.3
HEYL	26508	HEYL	hes-related family bHLH transcription factor with YRPW motif-like	1	1p34.3
ELFN1	392617	ELFN1	extracellular leucine-rich repeat and fibronectin type III domain containing 1	7	7p22.3
LGALS1	3956	LGALS1	lectin, galactoside-binding, soluble, 1	22	22q13.1
PCOLCE	5118	PCOLCE	procollagen C-endopeptidase enhancer	7	7q22
S100A3	6274	S100A3	S100 calcium binding protein A3	1	1q21
SPARC	6678	SPARC	secreted protein, acidic, cysteine-rich (osteonectin)	5	5q31.3-q32
TBX15	6913	TBX15	T-box 15	1	1p11.1
LZTS1	11178	LZTS1	leucine zipper, putative tumor suppressor 1	8	8p22
SYDE1	85360	SYDE1	synapse defective 1, Rho GTPase, homolog 1 (<i>C. elegans</i>)	19	19p13.12
COL5A1	1289	COL5A1	collagen, type V, alpha 1	9	9q34.2-q34.3
MFAP2	4237	MFAP2	microfibrillar-associated protein 2	1	1p36.1-p35
NID1	4811	NID1	nidogen 1	1	1q43
PRRX1	5396	PRRX1	paired related homeobox 1	1	1q24
HTRA1	5654	HTRA1	HtrA serine peptidase 1	10	10q26.3
SHOX2	6474	SHOX2	short stature homeobox 2	3	3q25.32
FEZ1	9638	FEZ1	fasciculation and elongation protein zeta 1 (zygin I)	11	11q24.2
KDELC1	79070	KDELC1	KDEL (Lys-Asp-Glu-Leu) containing 1	13	13q33
PRKCDBP	112464	PRKCDBP	protein kinase C, delta binding protein	11	11p15.4
CCDC102B	79839	CCDC102B	coiled-coil domain containing 102B	18	18q22.1
PODNL1	79883	PODNL1	podocan-like 1	19	19p13.12
DACT3	147906	DACT3	dishevelled-binding antagonist of beta-catenin 3	19	19q13.32
PCDH18	54510	PCDH18	protocadherin 18	4	4q31
RCN3	57333	RCN3	reticulocalbin 3, EF-hand calcium binding domain	19	19q13.33

SCARF2	91179	SCARF2	scavenger receptor class F, member 2	22	22q11.21
SRPX2	27286	SRPX2	sushi-repeat containing protein, X-linked 2	X	Xq22.1
CDH23	64072	CDH23	cadherin-related 23	10	10q22.1
COL3A1	1281	COL3A1	collagen, type III, alpha 1	2	2q31
FRZB	2487	FRZB	frizzled-related protein	2	2q32.1
HTR7	3363	HTR7	5-hydroxytryptamine (serotonin) receptor 7, adenylate cyclase-coupled	10	10q21-q24
MMP2	4313	MMP2	matrix metallopeptidase 2	16	16q12.2
TIMP2	7077	TIMP2	TIMP metallopeptidase inhibitor 2	17	17q25
DYSF	8291	DYSF	dysferlin	2	2p13.3
ADAMTS14	140766	ADAMTS14	ADAM metallopeptidase with thrombospondin type 1 motif, 14	10	10q21
CYGB	114757	CYGB	cytoglobin	17	17q25
CNRIP1	25927	CNRIP1	cannabinoid receptor interacting protein 1	2	2p14
ADGRA2	25960	ADGRA2	adhesion G protein-coupled receptor A2	8	8p11.23
EDNRA	1909	EDNRA	endothelin receptor type A	4	4q31.22
HIC1	3090	HIC1	hypermethylated in cancer 1	17	17p13.3
IGFBP3	3486	IGFBP3	insulin-like growth factor binding protein 3	7	7p12.3
KIFC3	3801	KIFC3	kinesin family member C3	16	16q13-q21
CHSY3	337876	CHSY3	chondroitin sulfate synthase 3	5	5q23.3
CPQ	10404	CPQ	carboxypeptidase Q	8	8q22.2
TMEM43	79188	TMEM43	transmembrane protein 43	3	3p25.1
TSPAN11	441631	TSPAN11	tetraspanin 11	12	12p11.21
C1QTNF6	114904	C1QTNF6	C1q and tumor necrosis factor related protein 6	22	22q13.1
P4HA3	283208	P4HA3	prolyl 4-hydroxylase, alpha polypeptide III	11	11q13.4
IKBIP	121457	IKBIP	IKBKB interacting protein	12	12q23.1
TSPAN18	90139	TSPAN18	tetraspanin 18	11	11p11.2

EFEMP2	30008	EFEMP2	EGF containing fibulin-like extracellular matrix protein 2	11	11q13.1
CALD1	800	CALD1	caldesmon 1	7	7q33
COL1A1	1277	COL1A1	collagen, type I, alpha 1	17	17q21.33
DUSP7	1849	DUSP7	dual specificity phosphatase 7	3	3p21
EMP3	2014	EMP3	epithelial membrane protein 3	19	19q13.3
EGFLAM	133584	EGFLAM	EGF-like, fibronectin type III and laminin G domains	5	5p13.2-p13.1
GAS1	2619	GAS1	growth arrest-specific 1	9	9q21.3-q22
HLX	3142	HLX	H2.0-like homeobox	1	1q41
KCNJ15	3772	KCNJ15	potassium channel, inwardly rectifying subfamily J, member 15	21	21q22.2
LAMB1	3912	LAMB1	laminin, beta 1	7	7q22
ST5	6764	ST5	suppression of tumorigenicity 5	11	11p15
TGFB1	7040	TGFB1	transforming growth factor, beta 1	19	19q13.1
PDLIM7	9260	PDLIM7	PDZ and LIM domain 7 (enigma)	5	5q35.3
MAFB	9935	MAFB	v-maf avian musculoaponeurotic fibrosarcoma oncogene homolog B	20	20q12
CD276	80381	CD276	CD276 molecule	15	15q23-q24
ITM2C	81618	ITM2C	integral membrane protein 2C	2	2q37
JAM3	83700	JAM3	junctional adhesion molecule 3	11	11q25
PHLDB1	23187	PHLDB1	pleckstrin homology-like domain, family B, member 1	11	11q23.3
SH3PXD2B	285590	SH3PXD2B	SH3 and PX domains 2B	5	5q35.1
OAF	220323	OAF	out at first homolog	11	11q23.3
POPDC2	64091	POPDC2	popeye domain containing 2	3	3q13.33
COL1A2	1278	COL1A2	collagen, type I, alpha 2	7	7q22.1
COL6A3	1293	COL6A3	collagen, type VI, alpha 3	2	2q37
HGF	3082	HGF	hepatocyte growth factor (hepatopoietin A; scatter factor)	7	7q21.1
SLC12A4	6560	SLC12A4	solute carrier family 12 (potassium/chloride transporter), member 4	16	16q22.1

MMP28	79148	MMP28	matrix metallopeptidase 28	17	17q12
GLT8D2	83468	GLT8D2	glycosyltransferase 8 domain containing 2	12	12q
SMIM3	85027	SMIM3	small integral membrane protein 3	5	5q33.1
LARP6	55323	LARP6	La ribonucleoprotein domain family, member 6	15	15q23
PCDHGC5	56097	PCDHGC5	protocadherin gamma subfamily C, 5	5	5q31
BOC	91653	BOC	BOC cell adhesion associated, oncogene regulated	3	3q13.2
VSTM4	196740	VSTM4	V-set and transmembrane domain containing 4	10	10q11.23
HTR2A	3356	HTR2A	5-hydroxytryptamine (serotonin) receptor 2A, G protein-coupled	13	13q14-q21
RAB3IL1	5866	RAB3IL1	RAB3A interacting protein (rabin3)-like 1	11	11q12.2
CUBN	8029	CUBN	cubilin (intrinsic factor-cobalamin receptor)	10	10p12.31
CORO2B	10391	CORO2B	coronin, actin binding protein, 2B	15	15q23
SPON2	10417	SPON2	spondin 2, extracellular matrix protein	4	4p16.3
PROCR	10544	PROCR	protein C receptor, endothelial	20	20q11.2
FSTL1	11167	FSTL1	follistatin-like 1	3	3q13.33
FKBP9	11328	FKBP9	FK506 binding protein 9, 63 kDa	7	7p11.1
CTHRC1	115908	CTHRC1	collagen triple helix repeat containing 1	8	8q22.3
ZNF469	84627	ZNF469	zinc finger protein 469	16	16q24
ANTXR2	118429	ANTXR2	anthrax toxin receptor 2	4	4q21.21
COL23A1	91522	COL23A1	collagen, type XXIII, alpha 1	5	5q35.3
FAM43A	131583	FAM43A	family with sequence similarity 43, member A	3	3q29
EBF1	1879	EBF1	early B-cell factor 1	5	5q34
FAT2	2196	FAT2	FAT atypical cadherin 2	5	5q33.1
FMO1	2326	FMO1	flavin containing monooxygenase 1	1	1q24.3
GPX8	493869	GPX8	glutathione peroxidase 8 (putative)	5	5q11.2
GPX7	2882	GPX7	glutathione peroxidase 7	1	1p32

CFH	3075	CFH	complement factor H	1	1q32
KRT14	3861	KRT14	keratin 14, type I	17	17q21.2
LAMC1	3915	LAMC1	laminin, gamma 1 (formerly LAMB2)	1	1q31
LRP1	4035	LRP1	low density lipoprotein receptor-related protein 1	12	12q13.3
MYLK	4638	MYLK	myosin light chain kinase	3	3q21
DDR2	4921	DDR2	discoidin domain receptor tyrosine kinase 2	1	1q23.3
PLS3	5358	PLS3	plastin 3	X	Xq23
FSCN1	6624	FSCN1	fascin actin-bundling protein 1	7	7p22
CHST3	9469	CHST3	carbohydrate (chondroitin 6) sulfotransferase 3	10	10q22.1
SH3PXD2A	9644	SH3PXD2A	SH3 and PX domains 2A	10	10q24.33
PDPN	10630	PDPN	podoplanin	1	1p36.21
CILP2	148113	CILP2	cartilage intermediate layer protein 2	19	19p13.11
NID2	22795	NID2	nidogen 2 (osteonidogen)	14	14q22.1
ARHGEF40	55701	ARHGEF40	Rho guanine nucleotide exchange factor (GEF) 40	14	14q11.2
ANKH	56172	ANKH	ANKH inorganic pyrophosphate transport regulator	5	5p15.1
MSRB3	253827	MSRB3	methionine sulfoxide reductase B3	12	12q14.3
BEND6	221336	BEND6	BEN domain containing 6	6	6p12.1
TSHZ3	57616	TSHZ3	teashirt zinc finger homeobox 3	19	19q12
DCBLD2	131566	DCBLD2	discoidin, CUB and LCCL domain containing 2	3	3q12.1 3
CAV1	857	CAV1	caveolin 1, caveolae protein, 22kDa	7	7q31.1
COL4A2	1284	COL4A2	collagen, type IV, alpha 2	13	13q34
COL5A2	1290	COL5A2	collagen, type V, alpha 2	2	2q14-q32
HAS2	3037	HAS2	hyaluronan synthase 2	8	8q24.12
ISLR	3671	ISLR	immunoglobulin superfamily containing leucine-rich repeat	15	15q23-q24
LOX	4015	LOX	lysyl oxidase	5	5q23.2

MSX1	4487	MSX1	msh homeobox 1	4	4p16.2
NDN	4692	NDN	necdin, melanoma antigen (MAGE) family member	15	15q11.2-q12
PDGFRL	5157	PDGFRL	platelet-derived growth factor receptor-like	8	8p22-p21.3
SMTN	6525	SMTN	smoothelin	22	22q12.2
TPM2	7169	TPM2	tropomyosin 2 (beta)	9	9p13
NRP2	8828	NRP2	neuropilin 2	2	2q33.3
CACNA1G	8913	CACNA1G	calcium channel, voltage-dependent, T type, alpha 1G subunit	17	17q22
NREP	9315	NREP	neuronal regeneration related protein	5	5q22.1
ADAMTS2	9509	ADAMTS2	ADAM metallopeptidase with thrombospondin type 1 motif, 2	5	5qter
TRAM2	9697	TRAM2	translocation associated membrane protein 2	6	6p21.1-p12
GLIPR1	11010	GLIPR1	GLI pathogenesis-related 1	12	12q21.2
FAT4	79633	FAT4	FAT atypical cadherin 4	4	4q28.1
TMEM255B	348013	TMEM255B	transmembrane protein 255B	13	13q34
UACA	55075	UACA	uveal autoantigen with coiled-coil domains and ankyrin repeats	15	15q22-q24
RHOJ	57381	RHOJ	ras homolog family member J	14	14q23.2
DEPDC7	91614	DEPDC7	DEP domain containing 7	11	11p13
FAM69C	125704	FAM69C	family with sequence similarity 69, member C	18	18q22.3
C1R	715	C1R	complement component 1, r subcomponent	12	12p13
CAV2	858	CAV2	caveolin 2	7	7q31.1
CDH11	1009	CDH11	cadherin 11, type 2, OB-cadherin (osteoblast)	16	16q21
CNN2	1265	CNN2	calponin 2	19	19p13.3
KRT16	3868	KRT16	keratin 16, type I	17	17q21.2
CD99	4267	CD99	CD99 molecule	X Y	Xp22.32 and Yp11.3
PDGFA	5154	PDGFA	platelet-derived growth factor alpha polypeptide	7	7p22

PKD2	5311	PKD2	polycystic kidney disease 2 (autosomal dominant)	4	4q22.1
PPIC	5480	PPIC	peptidylprolyl isomerase C (cyclophilin C)	5	5q23.2
PTPRD	5789	PTPRD	protein tyrosine phosphatase, receptor type, D	9	9p23-p24.3
RECK	8434	RECK	reversion-inducing-cysteine-rich protein with kazal motifs	9	9p13.3
ARL4C	10123	ARL4C	ADP-ribosylation factor-like 4C	2	2q37.1
CLMP	79827	CLMP	CXADR-like membrane protein	11	11q24.1
FAM126A	84668	FAM126A	family with sequence similarity 126, member A	7	7p15.3
WDR86	349136	WDR86	WD repeat domain 86	7	7q36.1
PID1	55022	PID1	phosphotyrosine interaction domain containing 1	2	2q36.3
BATF3	55509	BATF3	basic leucine zipper transcription factor, ATF-like 3	1	1q32.3
ANGPTL2	23452	ANGPTL2	angiopoietin-like 2	9	9q34
AGPAT4	56895	AGPAT4	1-acylglycerol-3-phosphate O-acyltransferase 4	6	6q26
UCN2	90226	UCN2	urocortin 2	3	3p21.3
CMTM3	123920	CMTM3	CKLF-like MARVEL transmembrane domain containing 3	16	16q21
FAM212A	389119	FAM212A	family with sequence similarity 212, member A	3	3p21.31
FAM101B	359845	FAM101B	family with sequence similarity 101, member B	17	17p13
COL7A1	1294	COL7A1	collagen, type VII, alpha 1	3	3p21.1
VCAN	1462	VCAN	versican	5	5q14.3
DCN	1634	DCN	decorin	12	12q21.33
GLI2	2736	GLI2	GLI family zinc finger 2	2	2q14
GSN	2934	GSN	gelsolin	9	9q33
HRH1	3269	HRH1	histamine receptor H1	3	3p25
NAP1L3	4675	NAP1L3	nucleosome assembly protein 1-like 3	X	Xq21.3-q22
PCSK5	5125	PCSK5	proprotein convertase subtilisin/kexin type 5	9	9q21.3
SFRP4	6424	SFRP4	secreted frizzled-related protein 4	7	7p14.1

ZYX	7791	ZYX	zyxin	7	7q32
ADAM19	8728	ADAM19	ADAM metallopeptidase domain 19	5	5q33.3
CRTAP	10491	CRTAP	cartilage associated protein	3	3p22.3
POSTN	10631	POSTN	periostin, osteoblast specific factor	13	13q13.3
LAYN	143903	LAYN	layilin	11	11q23.1
ZFHX4	79776	ZFHX4	zinc finger homeobox 4	8	8q21.11
ARHGAP28	79822	ARHGAP28	Rho GTPase activating protein 28	18	18p11.31
CERCAM	51148	CERCAM	cerebral endothelial cell adhesion molecule	9	9q34.11
HHIPL1	84439	HHIPL1	HHIP-like 1	14	14q32
MAGEL2	54551	MAGEL2	melanoma antigen family L2	15	15q11.2
ACVRL1	94	ACVRL1	activin A receptor type II-like 1	12	12q13.13
CAMK2A	815	CAMK2A	calcium/calmodulin-dependent protein kinase II alpha	5	5q32
RCBTB2	1102	RCBTB2	regulator of chromosome condensation (RCC1) and BTB (POZ) domain containing protein 2	13	13q14.3
DPYSL3	1809	DPYSL3	dihydropyrimidinase-like 3	5	5q32
FAP	2191	FAP	fibroblast activation protein, alpha	2	2q23
ID3	3399	ID3	inhibitor of DNA binding 3, dominant negative helix-loop-helix protein	1	1p36.13-p36.12
MCAM	4162	MCAM	melanoma cell adhesion molecule	11	11q23.3
PPEF1	5475	PPEF1	protein phosphatase, EF-hand calcium binding domain 1	X	Xp22
SOD3	6649	SOD3	superoxide dismutase 3, extracellular	4	4p15.2
TNFRSF1A	7132	TNFRSF1A	tumor necrosis factor receptor superfamily, member 1A	12	12p13.2
ADAM12	8038	ADAM12	ADAM metallopeptidase domain 12	10	10q26
MIA	8190	MIA	melanoma inhibitory activity	19	19q13.2
PPM1F	9647	PPM1F	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1F	22	22q11.22

RNF144A	9781	RNF144A	ring finger protein 144A	2	2p25.2
GFPT2	9945	GFPT2	glutamine-fructose-6-phosphate transaminase 2	5	5q34-q35
LRRC17	10234	LRRC17	leucine rich repeat containing 17	7	7q22.1
FERMT2	10979	FERMT2	fermitin family member 2	14	14q22.1
ADAMTS7	11173	ADAMTS7	ADAM metallopeptidase with thrombospondin type 1 motif, 7	15	15q24.2
MFRP	83552	MFRP	membrane frizzled-related protein	11	11q23
MARVELD1	83742	MARVELD1	MARVEL domain containing 1	10	10q24.2
RASL12	51285	RASL12	RAS-like, family 12	15	15q11.2-q22.33
OLFML1	283298	OLFML1	olfactomedin-like 1	11	11p15.4
FAM20A	54757	FAM20A	family with sequence similarity 20, member A	17	17q24.2
BNC2	54796	BNC2	basonuclin 2	9	9p22.2
SOBP	55084	SOBP	sine oculis binding protein homolog	6	6q21
LRIG3	121227	LRIG3	leucine-rich repeats and immunoglobulin-like domains 3	12	12q14.1
EGFL6	25975	EGFL6	EGF-like-domain, multiple 6	X	Xp22
GPR153	387509	GPR153	G protein-coupled receptor 153	1	1p36.31
CTGF	1490	CTGF	connective tissue growth factor	6	6q23.1
DAB2	1601	DAB2	Dab, mitogen-responsive phosphoprotein, homolog 2 (Drosophila)	5	5p13.1
DFNA5	1687	DFNA5	deafness, autosomal dominant 5	7	7p15
EVC2	132884	EVC2	Ellis van Creveld syndrome 2	4	4p16.2
TNC	3371	TNC	tenascin C	9	9q33
MAB21L1	4081	MAB21L1	mab-21-like 1 (<i>C. elegans</i>)	13	13q13
NNMT	4837	NNMT	nicotinamide N-methyltransferase	11	11q23.1
PLOD1	5351	PLOD1	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 1	1	1p36.22
VEGFC	7424	VEGFC	vascular endothelial growth factor C	4	4q34.3

SPHK1	8877	SPHK1	sphingosine kinase 1	17	17q25.2
MSC	9242	MSC	musculin	8	8q21
MAP4K4	9448	MAP4K4	mitogen-activated protein kinase kinase kinase kinase 4	2	2q11.2-q12
VGLL4	9686	VGLL4	vestigial-like family member 4	3	3p25.3
SLC36A1	206358	SLC36A1	solute carrier family 36 (proton/amino acid symporter), member 1	5	5q33.1
HEPH	9843	HEPH	hephaestin	X	Xq11-q12
LHFP	10186	LHFP	lipoma HMGIC fusion partner	13	13q12
RBFOX2	23543	RBFOX2	RNA binding protein, fox-1 homolog (<i>C. elegans</i>) 2	22	22q13.1
LY96	23643	LY96	lymphocyte antigen 96	8	8q21.11
IGDCC4	57722	IGDCC4	immunoglobulin superfamily, DCC subclass, member 4	15	15q22.31
JAZF1	221895	JAZF1	JAZF zinc finger 1	7	7p15.2-p15.1
DSE	29940	DSE	dermatan sulfate epimerase	6	6q22
PLEKHG2	64857	PLEKHG2	pleckstrin homology domain containing, family G (with RhoGef domain) member 2	19	19q13.2
ARSE	415	ARSE	arylsulfatase E (chondrodysplasia punctata 1)	X	Xp22.3
GAP43	2596	GAP43	growth associated protein 43	3	3q13.31
GYPC	2995	GYPC	glycophorin C (Gerbich blood group)	2	2q14-q21
LUM	4060	LUM	lumican	12	12q21.33
PLTP	5360	PLTP	phospholipid transfer protein	20	20q13.12
SCN4B	6330	SCN4B	sodium channel, voltage gated, type IV beta subunit	11	11q23.3
SDC2	6383	SDC2	syndecan 2	8	8q22-q23
TBX5	6910	TBX5	T-box 5	12	12q24.1
TNFAIP6	7130	TNFAIP6	tumor necrosis factor, alpha-induced protein 6	2	2q23.3
XPNPEP2	7512	XPNPEP2	X-prolyl aminopeptidase (aminopeptidase P) 2, membrane-bound	X	Xq25
NRP1	8829	NRP1	neuropilin 1	10	10p12

WISP1	8840	WISP1	WNT1 inducible signaling pathway protein 1	8	8q24.22
CYTH3	9265	CYTH3	cytohesin 3	7	7p22.1
MYL9	10398	MYL9	myosin, light chain 9, regulatory	20	20q11.23
TMEM119	338773	TMEM119	transmembrane protein 119	12	12q23.3
ITPRIP	85450	ITPRIP	inositol 1,4,5-trisphosphate receptor interacting protein	10	10q25.1
FKBP14	55033	FKBP14	FK506 binding protein 14, 22 kDa	7	7p14.3
EOGT	285203	EOGT	EGF domain-specific O-linked N-acetylglucosamine (GlcNAc) transferase	3	3p14.1
BACE1	23621	BACE1	beta-site APP-cleaving enzyme 1	11	11q23.2-q23.3
TCEAL7	56849	TCEAL7	transcription elongation factor A (SII)-like 7	X	Xq22.1
EHD2	30846	EHD2	EH-domain containing 2	19	19q13.3
ARAP3	64411	ARAP3	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 3	5	5q31.3
RFTN2	130132	RFTN2	raftlin family member 2	2	2q33.1
ACTA2	59	ACTA2	actin, alpha 2, smooth muscle, aorta	10	10q23.3
CSPG4	1464	CSPG4	chondroitin sulfate proteoglycan 4	15	15q24.2
ETV1	2115	ETV1	ets variant 1	7	7p21.3
FOXF2	2295	FOXF2	forkhead box F2	6	6p25.3
GAS6	2621	GAS6	growth arrest-specific 6	13	13q34
IGFBP7	3490	IGFBP7	insulin-like growth factor binding protein 7	4	4q12
IL1RAP	3556	IL1RAP	interleukin 1 receptor accessory protein	3	3q28
LAMC2	3918	LAMC2	laminin, gamma 2	1	1q25-q31
LCAT	3931	LCAT	lecithin-cholesterol acyltransferase	16	16q22.1
MEIS2	4212	MEIS2	Meis homeobox 2	15	15q14
OLFML2A	169611	OLFML2A	olfactomedin-like 2A	9	9q33.3
RARRES2	5919	RARRES2	retinoic acid receptor responder (tazarotene induced) 2	7	7q36.1

SGCD	6444	SGCD	sarcoglycan, delta (35kDa dystrophin-associated glycoprotein)	5	5q33-q34
GXYLT2	727936	GXYLT2	glucoside xylosyltransferase 2	3	3p13
TMEM204	79652	TMEM204	transmembrane protein 204	16	16p13.3
BICC1	80114	BICC1	BicC family RNA binding protein 1	10	10q21.1
ADAM33	80332	ADAM33	ADAM metallopeptidase domain 33	20	20p13
HMCN1	83872	HMCN1	hemicentin 1	1	1q25.3-q31.1
TUBB6	84617	TUBB6	tubulin, beta 6 class V	18	18p11.21
FNDC1	84624	FNDC1	fibronectin type III domain containing 1	6	6q25
TWIST2	117581	TWIST2	twist family bHLH transcription factor 2	2	2q37.3
CCDC80	151887	CCDC80	coiled-coil domain containing 80	3	3q13.2
GNG2	54331	GNG2	guanine nucleotide binding protein (G protein), gamma 2	14	14q21
KIRREL	55243	KIRREL	kin of IRRE like (<i>Drosophila</i>)	1	1q23.1
THSD1	55901	THSD1	thrombospondin, type I, domain containing 1	13	13q14.3
PCDHB14	56122	PCDHB14	protocadherin beta 14	5	5q31
FLRT2	23768	FLRT2	fibronectin leucine rich transmembrane protein 2	14	14q24-q32
DNAJB5	25822	DNAJB5	DnaJ (Hsp40) homolog, subfamily B, member 5	9	9p13.3
IFFO1	25900	IFFO1	intermediate filament family orphan 1	12	12p13.3
PDE7B	27115	PDE7B	phosphodiesterase 7B	6	6q23-q24
DKK3	27122	DKK3	dickkopf WNT signaling pathway inhibitor 3	11	11p15.2
FIBIN	387758	FIBIN	fin bud initiation factor homolog (zebrafish)	11	11p14.2
ALDH1L2	160428	ALDH1L2	aldehyde dehydrogenase 1 family, member L2	12	12q23.3
ACVR1	90	ACVR1	activin A receptor, type I	2	2q23-q24
GRAMD3	65983	GRAMD3	GRAM domain containing 3	5	5q23.2
C1S	716	C1S	complement component 1, s subcomponent	12	12p13
MEF2C	4208	MEF2C	myocyte enhancer factor 2C	5	5q14.3

MYO1E	4643	MYO1E	myosin IE	15	15q21-q22
NT5E	4907	NT5E	5'-nucleotidase, ecto (CD73)	6	6q14-q21
SERPINF1	5176	SERPINF1	serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1	17	17p13.3
PRNP	5621	PRNP	prion protein	20	20p13
CLEC11A	6320	CLEC11A	C-type lectin domain family 11, member A	19	19q13.3
ZCCHC5	203430	ZCCHC5	zinc finger, CCHC domain containing 5	X	Xq21.1
TCF4	6925	TCF4	transcription factor 4	18	18q21.1
TRPC1	7220	TRPC1	transient receptor potential cation channel, subfamily C, member 1	3	3q23
GAS7	8522	GAS7	growth arrest-specific 7	17	17p13.1
GPC6	10082	GPC6	glypican 6	13	13q32
ARPC2	10109	ARPC2	actin related protein 2/3 complex, subunit 2, 34kDa	2	2q36.1
SEMA3A	10371	SEMA3A	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A	7	7p12.1
STON1	11037	STON1	stonin 1	2	2p16.3
KCTD12	115207	KCTD12	potassium channel tetramerization domain containing 12	13	13q22.3
CCDC8	83987	CCDC8	coiled-coil domain containing 8	19	19q13.32
PCDH12	51294	PCDH12	protocadherin 12	5	5q31
TM6SF2	53345	TM6SF2	transmembrane 6 superfamily member 2	19	19p13.3-p12
CYTL1	54360	CYTL1	cytokine-like 1	4	4p16-p15
HABP4	22927	HABP4	hyaluronan binding protein 4	9	9q22.3-q31
PARVA	55742	PARVA	parvin, alpha	11	11p15.3
CYP26B1	56603	CYP26B1	cytochrome P450, family 26, subfamily B, polypeptide 1	2	2p13.2
RBMS3	27303	RBMS3	RNA binding motif, single stranded interacting protein 3	3	3p24-p23
OLFM2	93145	OLFM2	olfactomedin 2	19	19p13.2

FAM180A	389558	FAM180A	family with sequence similarity 180, member A	7	7q33
ROBO3	64221	ROBO3	roundabout guidance receptor 3	11	11q24.2
NXN	64359	NXN	nucleoredoxin	17	17p13.3
ACTN1	87	ACTN1	actinin, alpha 1	14	14q24 14q2 2-q24
AEBP1	165	AEBP1	AE binding protein 1	7	7p13
JAG1	182	JAG1	jagged 1	20	20p12.1- p11.23
ARSB	411	ARSB	arylsulfatase B	5	5q14.1
SERPING1	710	SERPING1	serpin peptidase inhibitor, clade G (C1 inhibitor), member 1	11	11q12.1
CYB5R3	1727	CYB5R3	cytochrome b5 reductase 3	22	22q13.2
EXTL2	2135	EXTL2	exostosin-like glycosyltransferase 2	1	1p21
FBLN1	2192	FBLN1	fibulin 1	22	22q13.31
FLNA	2316	FLNA	filamin A, alpha	X	Xq28
HSPG2	3339	HSPG2	heparan sulfate proteoglycan 2	1	1p36.1-p34
LAMB3	3914	LAMB3	laminin, beta 3	1	1q32
MSN	4478	MSN	moesin	X	Xq11.1
CEP112	201134	CEP112	centrosomal protein 112kDa	17	17q24.1
SERPINE2	5270	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2	2	2q36.1
TCF7L2	6934	TCF7L2	transcription factor 7-like 2 (T-cell specific, HMG-box)	10	10q25.3
TGFB3	7043	TGFB3	transforming growth factor, beta 3	14	14q24
MALL	7851	MALL	mal, T-cell differentiation protein-like	2	2q13
FIGNL2	401720	FIGNL2	fidgetin-like 2	12	12q13.13
DCHS1	8642	DCHS1	dachsous cadherin-related 1	11	11p15.4

WISP2	8839	WISP2	WNT1 inducible signaling pathway protein 2	20	20q13.12
ZEB2	9839	ZEB2	zinc finger E-box binding homeobox 2	2	2q22.3
MRVI1	10335	MRVI1	murine retrovirus integration site 1 homolog	11	11p15
CPNE8	144402	CPNE8	copine VIII	12	12q12
BEAN1	146227	BEAN1	brain expressed, associated with NEDD4, 1	16	16q21
KLHL29	114818	KLHL29	kelch-like family member 29	2	2p24.1
SH3RF3	344558	SH3RF3	SH3 domain containing ring finger 3	2	2q13
RASGRP4	115727	RASGRP4	RAS guanyl releasing protein 4	19	19q13.1
CRISPLD2	83716	CRISPLD2	cysteine-rich secretory protein LCCL domain containing 2	16	16q24.1
KCTD10	83892	KCTD10	potassium channel tetramerization domain containing 10	12	12q24.11
ANTXR1	84168	ANTXR1	anthrax toxin receptor 1	2	2p13.1
FAT3	120114	FAT3	FAT atypical cadherin 3	11	11q14.3
ANKRD6	22881	ANKRD6	ankyrin repeat domain 6	6	6q15
MPRIP	23164	MPRIP	myosin phosphatase Rho interacting protein	17	17p11.2
EIF5A2	56648	EIF5A2	eukaryotic translation initiation factor 5A2	3	3q26.2
EBF3	253738	EBF3	early B-cell factor 3	10	10q26.3
FAM162B	221303	FAM162B	family with sequence similarity 162, member B	6	6q22.1
ARHGAP31	57514	ARHGAP31	Rho GTPase activating protein 31	3	3q13.33
FAM26E	254228	FAM26E	family with sequence similarity 26, member E	6	6q22.1
MXRA5	25878	MXRA5	matrix-remodelling associated 5	X	Xp22.33
MDFIC	29969	MDFIC	MyoD family inhibitor domain containing	7	7q31.1-q31.2
A2M	2	A2M	alpha-2-macroglobulin	12	12p13.31
ANXA5	308	ANXA5	annexin A5	4	4q27
COL4A1	1282	COL4A1	collagen, type IV, alpha 1	13	13q34
EMX2	2018	EMX2	empty spiracles homeobox 2	10	10q26.1

LAMA2	3908	LAMA2	laminin, alpha 2	6	6q22-q23
PDGFRA	5156	PDGFRA	platelet-derived growth factor receptor, alpha polypeptide	4	4q12
PTGFRN	5738	PTGFRN	prostaglandin F2 receptor inhibitor	1	1p13.1
RBMS2	5939	RBMS2	RNA binding motif, single stranded interacting protein 2	12	12q13.3
GLIS3	169792	GLIS3	GLIS family zinc finger 3	9	9p24.2
ZEB1	6935	ZEB1	zinc finger E-box binding homeobox 1	10	10p11.2
THBS2	7058	THBS2	thrombospondin 2	6	6q27
TRO	7216	TRO	trophinin	X	Xp11.22-p11.21
TP63	8626	TP63	tumor protein p63	3	3q28
QKI	9444	QKI	QKI, KH domain containing, RNA binding	6	6q26
TMEM240	339453	TMEM240	transmembrane protein 240	1	1p36.33
ARHGEF25	115557	ARHGEF25	Rho guanine nucleotide exchange factor (GEF) 25	12	12q13.3
CHST11	50515	CHST11	carbohydrate (chondroitin 4) sulfotransferase 11	12	12q
HSPA12B	116835	HSPA12B	heat shock 70kD protein 12B	20	20p13
DACT1	51339	DACT1	dishevelled-binding antagonist of beta-catenin 1	14	14q23.1
LPCAT2	54947	LPCAT2	lysophosphatidylcholine acyltransferase 2	16	16q12.2
DZIP1	22873	DZIP1	DAZ interacting zinc finger protein 1	13	13q32.1
UNC5B	219699	UNC5B	unc-5 netrin receptor B	10	10q22.1
RGL1	23179	RGL1	ral guanine nucleotide dissociation stimulator-like 1	1	1q25.3
PLSCR3	57048	PLSCR3	phospholipid scramblase 3	17	17p13.1
FMNL3	91010	FMNL3	formin-like 3	12	12q13.12
NEXN	91624	NEXN	nexilin (F actin binding protein)	1	1p31.1
OR7C1	26664	OR7C1	olfactory receptor, family 7, subfamily C, member 1	19	19p13.1
MAMDC2	256691	MAMDC2	MAM domain containing 2	9	9q21.12

FNDC4	64838	FNDC4	fibronectin type III domain containing 4	2	2p23.3
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SNAI3 co-expressed genes

Dataset item (Gene symbol)	Entrez ID	Gene symbol	Description	Chromosome	Map location
S1PR4	8698	S1PR4	sphingosine-1-phosphate receptor 4	19	19p13.3
RASAL3	64926	RASAL3	RAS protein activator like 3	19	19p13.12
HMHA1	23526	HMHA1	histocompatibility (minor) HA-1	19	19p13.3
PTPRCAP	5790	PTPRCAP	protein tyrosine phosphatase, receptor type, C-associated protein	11	11q13.3
TBC1D10C	374403	TBC1D10C	TBC1 domain family, member 10C	11	11q13.2
CCDC88B	283234	CCDC88B	coiled-coil domain containing 88B	11	11q12.3
MFNG	4242	MFNG	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase	22	22q12
CORO1A	11151	CORO1A	coronin, actin binding protein, 1A	16	16p11.2
ARHGAP9	64333	ARHGAP9	Rho GTPase activating protein 9	12	12q13.3
ICAM3	3385	ICAM3	intercellular adhesion molecule 3	19	19p13.3-p13.2
WAS	7454	WAS	Wiskott-Aldrich syndrome	X	Xp11.4-p11.21
ACAP1	9744	ACAP1	ArfGAP with coiled-coil, ankyrin repeat and PH domains 1	17	17p13.1
LYL1	4066	LYL1	lymphoblastic leukemia associated hematopoiesis regulator 1	19	19p13.2
GIMAP1	170575	GIMAP1	GTPase, IMAP family member 1	7	7q36.1
GMFG	9535	GMFG	glia maturation factor, gamma	19	19q13.2
CD27	939	CD27	CD27 molecule	12	12p13
LAT	27040	LAT	linker for activation of T cells	16	16p11.2
GZMM	3004	GZMM	granzyme M (lymphocyte met-ase 1)	19	19p13.3

HCLS1	3059	HCLS1	hematopoietic cell-specific Lyn substrate 1	3	3q13
IGFLR1	79713	IGFLR1	IGF-like family receptor 1	19	19q13.12
CD6	923	CD6	CD6 molecule	11	11q13
ZAP70	7535	ZAP70	zeta-chain (TCR) associated protein kinase 70kDa	2	2q12
FAM78A	286336	FAM78A	family with sequence similarity 78, member A	9	9q34
PARVG	64098	PARVG	parvin, gamma	22	22q13.31
FUT7	2529	FUT7	fucosyltransferase 7 (alpha (1,3) fucosyltransferase)	9	9q34.3
MYO1F	4542	MYO1F	myosin IF	19	19p13.3-p13.2
NCF4	4689	NCF4	neutrophil cytosolic factor 4, 40kDa	22	22q13.1
PSTPIP1	9051	PSTPIP1	proline-serine-threonine phosphatase interacting protein 1	15	15q24.3
HCST	10870	HCST	hematopoietic cell signal transducer	19	19q13.1
MAP4K1	11184	MAP4K1	mitogen-activated protein kinase kinase kinase kinase 1	19	19q13.1-q13.4
PVRIG	79037	PVRIG	poliovirus receptor related immunoglobulin domain containing	7	7q22.1
FERMT3	83706	FERMT3	fermitin family member 3	11	11q13.1
SASH3	54440	SASH3	SAM and SH3 domain containing 3	X	Xq26
GPSM3	63940	GPSM3	G-protein signaling modulator 3	6	6p21.3
FMNL1	752	FMNL1	formin-like 1	17	17q21
CD3D	915	CD3D	CD3d molecule, delta (CD3-TCR complex)	11	11q23
GRAP	10750	GRAP	GRB2-related adaptor protein	17	17p11.2
TMC8	147138	TMC8	transmembrane channel-like 8	17	17q25.3
CARD11	84433	CARD11	caspase recruitment domain family, member 11	7	7p22
SIT1	27240	SIT1	signaling threshold regulating transmembrane adaptor 1	9	9p13-p12
CD37	951	CD37	CD37 molecule	19	19q13.3

FLT3LG	2323	FLT3LG	fms-related tyrosine kinase 3 ligand	19	19q13.3
LCK	3932	LCK	LCK proto-oncogene, Src family tyrosine kinase	1	1p34.3
PLCB2	5330	PLCB2	phospholipase C, beta 2	15	15q15
SELPLG	6404	SELPLG	selectin P ligand	12	12q24
DOK2	9046	DOK2	docking protein 2, 56kDa	8	8p21.3
TSPAN32	10077	TSPAN32	tetraspanin 32	11	11p15.5
ARHGAP30	257106	ARHGAP30	Rho GTPase activating protein 30	1	1q23.3
MYO1G	64005	MYO1G	myosin IG	7	7p13
DPEP2	64174	DPEP2	dipeptidase 2	16	16q22.1
CD247	919	CD247	CD247 molecule	1	1q24.2
CXCR3	2833	CXCR3	chemokine (C-X-C motif) receptor 3	X	Xq13
LSP1	4046	LSP1	lymphocyte-specific protein 1	11	11p15.5
LY9	4063	LY9	lymphocyte antigen 9	1	1q23.3
RGL4	266747	RGL4	ral guanine nucleotide dissociation stimulator-like 4	22	22q11.23
RAC2	5880	RAC2	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2)	22	22q13.1
TNFRSF1B	7133	TNFRSF1B	tumor necrosis factor receptor superfamily, member 1B	1	1p36.22
EBI3	10148	EBI3	Epstein-Barr virus induced 3	19	19p13.3
LIME1	54923	LIME1	Lck interacting transmembrane adaptor 1	20	20q13.3
GIMAP5	55340	GIMAP5	GTPase, IMAP family member 5	7	7q36.1
JAK3	3718	JAK3	Janus kinase 3	19	19p13.1
PTPN7	5778	PTPN7	protein tyrosine phosphatase, non-receptor type 7	1	1q32.1
CST7	8530	CST7	cystatin F (leukocystatin)	20	20p11.21
AKNA	80709	AKNA	AT-hook transcription factor	9	9q32
CD7	924	CD7	CD7 molecule	17	17q25.2-

						q25.3
HLA-DPB1	3115	HLA-DPB1	major histocompatibility complex, class II, DP beta 1	6	6p21.3	
RASGRP2	10235	RASGRP2	RAS guanyl releasing protein 2 (calcium and DAG-regulated)	11	11q13	
RNF166	115992	RNF166	ring finger protein 166	16	16q24.3	
ABI3	51225	ABI3	ABI family, member 3	17	17q21.3	
P2RY8	286530	P2RY8	purinergic receptor P2Y, G-protein coupled, 8	X Y	Xp22.33; Yp11.3	
FGD2	221472	FGD2	FYVE, RhoGEF and PH domain containing 2	6	6p21.2	
CD79B	974	CD79B	CD79b molecule, immunoglobulin-associated beta	17	17q23	
CFP	5199	CFP	complement factor properdin	X	Xp11.4	
TNFAIP8L2	79626	TNFAIP8L2	tumor necrosis factor, alpha-induced protein 8-like 2	1	1q21.3	
DEF6	50619	DEF6	DEF6 guanine nucleotide exchange factor	6	6p21.33- p21.1	
FAM159A	348378	FAM159A	family with sequence similarity 159, member A	1	1p32.3	
CD3E	916	CD3E	CD3e molecule, epsilon (CD3-TCR complex)	11	11q23	
CD5	921	CD5	CD5 molecule	11	11q13	
CD48	962	CD48	CD48 molecule	1	1q21.3-q22	
IL10RA	3587	IL10RA	interleukin 10 receptor, alpha	11	11q23	
IL16	3603	IL16	interleukin 16	15	15q26.3	
DENND1C	79958	DENND1C	DENN/MADD domain containing 1C	19	19p13.3	
UBASH3A	53347	UBASH3A	ubiquitin associated and SH3 domain containing A	21	21q22.3	
TNFRSF13B	23495	TNFRSF13B	tumor necrosis factor receptor superfamily, member 13B	17	17p11.2	
CYTH4	27128	CYTH4	cytohesin 4	22	22q12.3- q13.1	
TBX21	30009	TBX21	T-box 21	17	17q21.32	

ITGB7	3695	ITGB7	integrin, beta 7	12	12q13.13
PDCD1	5133	PDCD1	programmed cell death 1	2	2q37.3
LST1	7940	LST1	leukocyte specific transcript 1	6	6p21.3
RAB33A	9363	RAB33A	RAB33A, member RAS oncogene family	X	Xq26.1
NCF1	653361	NCF1	neutrophil cytosolic factor 1	7	7q11.23
CD2	914	CD2	CD2 molecule	1	1p13.1
CD79A	973	CD79A	CD79a molecule, immunoglobulin-associated alpha	19	19q13.2
GZMK	3003	GZMK	granzyme K (granzyme 3; tryptase II)	5	5q11.2
SIPA1	6494	SIPA1	signal-induced proliferation-associated 1	11	11q13
TNFRSF4	7293	TNFRSF4	tumor necrosis factor receptor superfamily, member 4	1	1p36
VAV1	7409	VAV1	vav 1 guanine nucleotide exchange factor	19	19p13.2
ARHGAP25	9938	ARHGAP25	Rho GTPase activating protein 25	2	2p13.3
RTP5	285093	RTP5	receptor (chemosensory) transporter protein 5 (putative)	2	2q37.3
ARHGAP15	55843	ARHGAP15	Rho GTPase activating protein 15	2	2q22.2-q22.3
TMIGD2	126259	TMIGD2	transmembrane and immunoglobulin domain containing 2	19	19p13.3
INPP5D	3635	INPP5D	inositol polyphosphate-5-phosphatase, 145kDa	2	2q37.1
LTA	4049	LTA	lymphotoxin alpha	6	6p21.3
PNOC	5368	PNOC	prepronociceptin	8	8p21
STK10	6793	STK10	serine/threonine kinase 10	5	5q35.1
PTCRA	171558	PTCRA	pre T-cell antigen receptor alpha	6	6p21.3
GAB3	139716	GAB3	GRB2-associated binding protein 3	X	Xq28
SIRPG	55423	SIRPG	signal-regulatory protein gamma	20	20p13
IFFO1	25900	IFFO1	intermediate filament family orphan 1	12	12p13.3
CD72	971	CD72	CD72 molecule	9	9p13.3

IRF8	3394	IRF8	interferon regulatory factor 8	16	16q24.1
PIK3CD	5293	PIK3CD	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta	1	1p36.2
SLAMF1	6504	SLAMF1	signaling lymphocytic activation molecule family member 1	1	1q23.3
DOK3	79930	DOK3	docking protein 3	5	5q35.3
BTK	695	BTK	Bruton agammaglobulinemia tyrosine kinase	X	Xq21.33-q22
LGALS2	3957	LGALS2	lectin, galactoside-binding, soluble, 2	22	22q13.1
SPN	6693	SPN	sialophorin	16	16p11.2
TRAF1	7185	TRAF1	TNF receptor-associated factor 1	9	9q33-q34
KCNAB2	8514	KCNAB2	potassium channel, voltage gated subfamily A regulatory beta subunit 2	1	1p36.3
ARHGEF1	9138	ARHGEF1	Rho guanine nucleotide exchange factor (GEF) 1	19	19q13.13
CLEC10A	10462	CLEC10A	C-type lectin domain family 10, member A	17	17p13.1
SP140	11262	SP140	SP140 nuclear body protein	2	2q37.1
TRAF3IP3	80342	TRAF3IP3	TRAF3 interacting protein 3	1	1q32
LIMD2	80774	LIMD2	LIM domain containing 2	17	17q23.3
KLRK1	22914	KLRK1	killer cell lectin-like receptor subfamily K, member 1	12	12p13.2-p12.3
PIK3R5	23533	PIK3R5	phosphoinositide-3-kinase, regulatory subunit 5	17	17p13.1
SCML4	256380	SCML4	sex comb on midleg-like 4 (<i>Drosophila</i>)	6	6q21
NLRC3	197358	NLRC3	NLR family, CARD domain containing 3	16	16p13.3
CD19	930	CD19	CD19 molecule	16	16p11.2
CD53	963	CD53	CD53 molecule	1	1p13
CTSW	1521	CTSW	cathepsin W	11	11q13.1
GNGT2	2793	GNGT2	guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 2	17	17q21

ICAM2	3384	ICAM2	intercellular adhesion molecule 2	17	17q23.3
IL2RG	3561	IL2RG	interleukin 2 receptor, gamma	X	Xq13.1
KLRB1	3820	KLRB1	killer cell lectin-like receptor subfamily B, member 1	12	12p13
PTPN6	5777	PTPN6	protein tyrosine phosphatase, non-receptor type 6	12	12p13
CCL19	6363	CCL19	chemokine (C-C motif) ligand 19	9	9p13
GRAP2	9402	GRAP2	GRB2-related adaptor protein 2	22	22q13.2
SOWAHD	347454	SOWAHD	sosondowah ankyrin repeat domain family member D	X	Xq24
APBB1IP	54518	APBB1IP	amyloid beta (A4) precursor protein-binding, family B, member 1 interacting protein	10	10p12.1
SAMD3	154075	SAMD3	sterile alpha motif domain containing 3	6	6q23.1
PRDM8	56978	PRDM8	PR domain containing 8	4	4q21
ADGRG5	221188	ADGRG5	adhesion G protein-coupled receptor G5	16	16q21
CLECL1	160365	CLECL1	C-type lectin-like 1	12	12p13.31
NCR3	259197	NCR3	natural cytotoxicity triggering receptor 3	6	6p21.3
GPR132	29933	GPR132	G protein-coupled receptor 132	14	14q32.3
ITGAL	3683	ITGAL	integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide)	16	16p11.2
RNASE6	6039	RNASE6	ribonuclease, RNase A family, k6	14	14q11.2
TESPA1	9840	TESPA1	thymocyte expressed, positive selection associated 1	12	12q13.2
SLAMF6	114836	SLAMF6	SLAM family member 6	1	1q23.2
GMIP	51291	GMIP	GEM interacting protein	19	19p13.11
HVCN1	84329	HVCN1	hydrogen voltage gated channel 1	12	12q24.11
TLR9	54106	TLR9	toll-like receptor 9	3	3p21.3
CD1D	912	CD1D	CD1d molecule	1	1q23.1
HLA-DMA	3108	HLA-DMA	major histocompatibility complex, class II, DM alpha	6	6p21.3

SPNS3	201305	SPNS3	spinster homolog 3 (<i>Drosophila</i>)	17	17p13.2
GIMAP7	168537	GIMAP7	GTPase, IMAP family member 7	7	7q36.1
NKG7	4818	NKG7	natural killer cell granule protein 7	19	19q13.41
PDE6G	5148	PDE6G	phosphodiesterase 6G, cGMP-specific, rod, gamma	17	17q25
POU2F2	5452	POU2F2	POU class 2 homeobox 2	19	19q13.2
SPI1	6688	SPI1	Spi-1 proto-oncogene	11	11p11.2
LAT2	7462	LAT2	linker for activation of T cells family, member 2	7	7q11.23
LY86	9450	LY86	lymphocyte antigen 86	6	6p25.1
DCANP1	140947	DCANP1	dendritic cell-associated nuclear protein	5	5q31.1
VAMP5	10791	VAMP5	vesicle-associated membrane protein 5	2	2p11.2
SH3TC1	54436	SH3TC1	SH3 domain and tetratricopeptide repeats 1	4	4p16.1
NLRP1	22861	NLRP1	NLR family, pyrin domain containing 1	17	17p13.2
CRTAM	56253	CRTAM	cytotoxic and regulatory T cell molecule	11	11q24.1
CTLA4	1493	CTLA4	cytotoxic T-lymphocyte-associated protein 4	2	2q33
GFI1	2672	GFI1	growth factor independent 1 transcription repressor	1	1p22
GZMA	3001	GZMA	granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3)	5	5q11-q12
IL12RB1	3594	IL12RB1	interleukin 12 receptor, beta 1	19	19p13.1
ITGB2	3689	ITGB2	integrin, beta 2 (complement component 3 receptor 3 and 4 subunit)	21	21q22.3
PRKCB	5579	PRKCB	protein kinase C, beta	16	16p11.2
STAT4	6775	STAT4	signal transducer and activator of transcription 4	2	2q32.2-q32.3
TNFRSF14	8764	TNFRSF14	tumor necrosis factor receptor superfamily, member 14	1	1p36.32
APOBEC3D	140564	APOBEC3D	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3D	22	22q13.1
IKZF1	10320	IKZF1	IKAROS family zinc finger 1 (Ikaros)	7	7p12.2

SLFN14	342618	SLFN14	schlafen family member 14	17	17q12
SLA2	84174	SLA2	Src-like-adaptor 2	20	20q11.23
MEI1	150365	MEI1	meiotic double-stranded break formation protein 1	22	22q13.2
KLHL6	89857	KLHL6	kelch-like family member 6	3	3q27.3
APOBEC3G	60489	APOBEC3G	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3G	22	22q13.1-q13.2
ZNF831	128611	ZNF831	zinc finger protein 831	20	20q13.32
AIF1	199	AIF1	allograft inflammatory factor 1	6	6p21.3
ARHGAP4	393	ARHGAP4	Rho GTPase activating protein 4	X	Xq28
BLK	640	BLK	BLK proto-oncogene, Src family tyrosine kinase	8	8p23-p22
CD4	920	CD4	CD4 molecule	12	12p13.31
CD8A	925	CD8A	CD8a molecule	2	2p12
CD40LG	959	CD40LG	CD40 ligand	X	Xq26
CD74	972	CD74	CD74 molecule, major histocompatibility complex, class II invariant chain	5	5q32
CSK	1445	CSK	c-src tyrosine kinase	15	15q24.1
PTK2B	2185	PTK2B	protein tyrosine kinase 2 beta	8	8p21.1
FLI1	2313	FLI1	Fli-1 proto-oncogene, ETS transcription factor	11	11q24.1-q24.3
HLA-DMB	3109	HLA-DMB	major histocompatibility complex, class II, DM beta	6	6p21.3
IL3RA	3563	IL3RA	interleukin 3 receptor, alpha (low affinity)	X Y	Xp22.3 or Yp11.3
KLRG1	10219	KLRG1	killer cell lectin-like receptor subfamily G, member 1	12	12p13.31
NRROS	375387	NRROS	negative regulator of reactive oxygen species	3	3q29
IL21R	50615	IL21R	interleukin 21 receptor	16	16p11
PRAM1	84106	PRAM1	PML-RARA regulated adaptor molecule 1	19	19p13.2

FCRLA	84824	FCRLA	Fc receptor-like A	1	1q23.3
SNX20	124460	SNX20	sorting nexin 20	16	16q12.1
CXCR5	643	CXCR5	chemokine (C-X-C motif) receptor 5	11	11q23.3
MEF2B	10027184 9	MEF2B	myocyte enhancer factor 2B	19	19p13.11
PPM1M	132160	PPM1M	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1M	3	3p21.2
DOCK2	1794	DOCK2	dedicator of cytokinesis 2	5	5q35.1
GPR18	2841	GPR18	G protein-coupled receptor 18	13	13q32
HLA-E	3133	HLA-E	major histocompatibility complex, class I, E	6	6p21.3
ITK	3702	ITK	IL2-inducible T-cell kinase	5	5q31-q32
SH2D1A	4068	SH2D1A	SH2 domain containing 1A	X	Xq25
CIITA	4261	CIITA	class II, major histocompatibility complex, transactivator	16	16p13
TIGIT	201633	TIGIT	T cell immunoreceptor with Ig and ITIM domains	3	3q13.31
POU2AF1	5450	POU2AF1	POU class 2 associating factor 1	11	11q23.1
LAPTM5	7805	LAPTM5	lysosomal protein transmembrane 5	1	1p34
SPOCK2	9806	SPOCK2	sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 2	10	10pter-q25.3
ZC3H12D	340152	ZC3H12D	zinc finger CCCH-type containing 12D	6	6q25.1
PYHIN1	149628	PYHIN1	pyrin and HIN domain family, member 1	1	1q23.1
BIN2	51411	BIN2	bridging integrator 2	12	12q13
AGAP2	116986	AGAP2	ArfGAP with GTPase domain, ankyrin repeat and PH domain 2	12	12q14.1
ASB2	51676	ASB2	ankyrin repeat and SOCS box containing 2	14	14q31-q32
GIMAP4	55303	GIMAP4	GTPase, IMAP family member 4	7	7q36.1
PLD4	122618	PLD4	phospholipase D family, member 4	14	14q32.33
WDFY4	57705	WDFY4	WDFY family member 4	10	10q11.23

ZNF276	92822	ZNF276	zinc finger protein 276		16	16q24.3
CD1C	911	CD1C	CD1c molecule		1	1q23.1
EVI2B	2124	EVI2B	ecotropic viral integration site 2B		17	17q11.2
SLA	6503	SLA	Src-like-adaptor		8	8q24
CYTIP	9595	CYTIP	cytohesin 1 interacting protein		2	2q11.2
SH2D3C	10044	SH2D3C	SH2 domain containing 3C		9	9q34.11
LILRA4	23547	LILRA4	leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 4		19	19q13.4
CLDN15	24146	CLDN15	claudin 15		7	7q11.22
ANXA2R	389289	ANXA2R	annexin A2 receptor		5	5p12
CD28	940	CD28	CD28 molecule		2	2q33
ADGRE5	976	ADGRE5	adhesion G protein-coupled receptor E5		19	19p13.12
CYBA	1535	CYBA	cytochrome b-245, alpha polypeptide		16	16q24
P2RX1	5023	P2RX1	purinergic receptor P2X, ligand gated ion channel, 1		17	17p13.3
PRF1	5551	PRF1	perforin 1 (pore forming protein)		10	10q22
TIFAB	497189	TIFAB	TRAF-interacting protein with forkhead-associated domain, family member B		5	5q31.1
CCL5	6352	CCL5	chemokine (C-C motif) ligand 5		17	17q12
CD96	10225	CD96	CD96 molecule		3	3q13.13-q13.2
PLEKHO2	80301	PLEKHO2	pleckstrin homology domain containing, family O member 2		15	15q22.1
FCRL3	115352	FCRL3	Fc receptor-like 3		1	1q21-q22
SLC9A9	285195	SLC9A9	solute carrier family 9, subfamily A (NHE9, cation proton antiporter 9), member 9		3	3q24
CCDC69	26112	CCDC69	coiled-coil domain containing 69		5	5q33.1

AOAH	313	AOAH	acyloxyacyl hydrolase (neutrophil)	7	7p14.2
RHOG	391	RHOG	ras homolog family member G	11	11p15.5-p15.4
CD69	969	CD69	CD69 molecule	12	12p13
HLA-DQB1	3119	HLA-DQB1	major histocompatibility complex, class II, DQ beta 1	6	6p21.3
ZNF80	7634	ZNF80	zinc finger protein 80	3	3q13.3
TNFRSF13C	115650	TNFRSF13C	tumor necrosis factor receptor superfamily, member 13C	22	22q13.1-q13.31
FCRL5	83416	FCRL5	Fc receptor-like 5	1	1q21
GTSF1L	149699	GTSF1L	gametocyte specific factor 1-like	20	20q13.12
TRPV2	51393	TRPV2	transient receptor potential cation channel, subfamily V, member 2	17	17p11.2
TAGAP	117289	TAGAP	T-cell activation RhoGTPase activating protein	6	6q25.3
BTLA	151888	BTLA	B and T lymphocyte associated	3	3q13.2
LCN10	414332	LCN10	lipocalin 10	9	9q34.3
CPNE5	57699	CPNE5	copine V	6	6p21.1
GPR171	29909	GPR171	G protein-coupled receptor 171	3	3q25.1
C1QA	712	C1QA	complement component 1, q subcomponent, A chain	1	1p36.12
APOBEC3H	164668	APOBEC3H	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3H	22	22q13.1
GYPC	2995	GYPC	glycophorin C (Gerbich blood group)	2	2q14-q21
NCKAP1L	3071	NCKAP1L	NCK-associated protein 1-like	12	12q13.1
HLA-DPA1	3113	HLA-DPA1	major histocompatibility complex, class II, DP alpha 1	6	6p21.3
HLA-DRB1	3123	HLA-DRB1	major histocompatibility complex, class II, DR beta 1	6	6p21.3
IL12B	3593	IL12B	interleukin 12B	5	5q33.3
LCP2	3937	LCP2	lymphocyte cytosolic protein 2 (SH2 domain containing leukocyte protein of 76kDa)	5	5q35.1

PSMB10	5699	PSMB10	proteasome (prosome, macropain) subunit, beta type, 10	16	16q22.1
WIPF1	7456	WIPF1	WAS/WASL interacting protein family, member 1	2	2q31.1
EOMES	8320	EOMES	eomesodermin	3	3p24.1
IL18RAP	8807	IL18RAP	interleukin 18 receptor accessory protein	2	2q12
PLAC8	51316	PLAC8	placenta-specific 8	4	4q21.22
DPPA4	55211	DPPA4	developmental pluripotency associated 4	3	3q13.13
NECAP2	55707	NECAP2	NECAP endocytosis associated 2	1	1p36.13
SCIMP	388325	SCIMP	SLP adaptor and CSK interacting membrane protein	17	17p13.2
MOB3A	126308	MOB3A	MOB kinase activator 3A	19	19p13.3
NUGGC	389643	NUGGC	nuclear GTPase, germinal center associated	8	8p21.1
VPREB3	29802	VPREB3	pre-B lymphocyte 3	22	22q11.23 2 2q11
CNR2	1269	CNR2	cannabinoid receptor 2 (macrophage)	1	1p36.11
FGR	2268	FGR	FGR proto-oncogene, Src family tyrosine kinase	1	1p36.2- p36.1
FAM129C	199786	FAM129C	family with sequence similarity 129, member C	19	19p13.11
MAN2B1	4125	MAN2B1	mannosidase, alpha, class 2B, member 1	19	19p13.2
P2RX5	5026	P2RX5	purinergic receptor P2X, ligand gated ion channel, 5	17	17p13.3
XCL2	6846	XCL2	chemokine (C motif) ligand 2	1	1q24.2
TCF7	6932	TCF7	transcription factor 7 (T-cell specific, HMG-box)	5	5q31.1
FAM65B	9750	FAM65B	family with sequence similarity 65, member B	6	6p22.3- p21.32
PIM2	11040	PIM2	Pim-2 proto-oncogene, serine/threonine kinase	X	Xp11.23
TLR10	81793	TLR10	toll-like receptor 10	4	4p14
PLEKHO1	51177	PLEKHO1	pleckstrin homology domain containing, family O member 1	1	1q21.2

PPP1R16B	26051	PPP1R16B	protein phosphatase 1, regulatory subunit 16B		20	20q11.23
ARRB2	409	ARRB2	arrestin, beta 2		17	17p13
TNFRSF17	608	TNFRSF17	tumor necrosis factor receptor superfamily, member 17		16	16p13.1
GPR183	1880	GPR183	G protein-coupled receptor 183		13	13q32.3
EVI2A	2123	EVI2A	ecotropic viral integration site 2A		17	17q11.2
HLA-DRA	3122	HLA-DRA	major histocompatibility complex, class II, DR alpha		6	6p21.3
LAIR1	3903	LAIR1	leukocyte-associated immunoglobulin-like receptor 1		19	19q13.4
MGAT1	4245	MGAT1	mannosyl (alpha-1,3)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase		5	5q35
PECAM1	5175	PECAM1	platelet/endothelial cell adhesion molecule 1		17	17q23.3
PLEK	5341	PLEK	pleckstrin		2	2p13.3
PTPRC	5788	PTPRC	protein tyrosine phosphatase, receptor type, C		1	1q31-q32
SCARF1	8578	SCARF1	scavenger receptor class F, member 1		17	17p13.3
TNFRSF25	8718	TNFRSF25	tumor necrosis factor receptor superfamily, member 25		1	1p36.2
FCMR	9214	FCMR	Fc fragment of IgM receptor		1	1q32.1
NAALADL1	10004	NAALADL1	N-acetylated alpha-linked acidic dipeptidase-like 1		11	11q12
TREML1	340205	TREML1	triggering receptor expressed on myeloid cells-like 1		6	6p21.1
GIMAP6	474344	GIMAP6	GTPase, IMAP family member 6		7	-
FOXP3	50943	FOXP3	forkhead box P3		X	Xp11.23
PAPLN	89932	PAPLN	papilin, proteoglycan-like sulfated glycoprotein		14	14q24.2
STAP1	26228	STAP1	signal transducing adaptor family member 1		4	4q13.2
KANK3	256949	KANK3	KN motif and ankyrin repeat domains 3		19	19p13.2
GRASP	160622	GRASP	GRP1 (general receptor for phosphoinositides 1)-associated scaffold protein		12	12q13.13
ICOS	29851	ICOS	inducible T-cell co-stimulator		2	2q33
MS4A6A	64231	MS4A6A	membrane-spanning 4-domains, subfamily A, member 6A		11	11q12.1

TTC24	164118	TTC24	tetratricopeptide repeat domain 24	1	1q23.1
CD3G	917	CD3G	CD3g molecule, gamma (CD3-TCR complex)	11	11q23
CEBPE	1053	CEBPE	CCAAT/enhancer binding protein (C/EBP), epsilon	14	14q11.2
CEACAM4	1089	CEACAM4	carcinoembryonic antigen-related cell adhesion molecule 4	19	19q13.2
PARP15	165631	PARP15	poly (ADP-ribose) polymerase family, member 15	3	3q21.1
GP1BA	2811	GP1BA	glycoprotein Ib (platelet), alpha polypeptide	17	17p13.2
HLA-DOB	3112	HLA-DOB	major histocompatibility complex, class II, DO beta	6	6p21.3
ITGAX	3687	ITGAX	integrin, alpha X (complement component 3 receptor 4 subunit)	16	16p11.2
LTB	4050	LTB	lymphotoxin beta (TNF superfamily, member 3)	6	6p21.3
TYROBP	7305	TYROBP	TYRO protein tyrosine kinase binding protein	19	19q13.1
MAP3K14	9020	MAP3K14	mitogen-activated protein kinase kinase kinase 14	17	17q21
THEMIS2	9473	THEMIS2	thymocyte selection associated family member 2	1	1p35.3
SEMA4D	10507	SEMA4D	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D	9	9q22.2
CXCR6	10663	CXCR6	chemokine (C-X-C motif) receptor 6	3	3p21
LILRB1	10859	LILRB1	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 1	19	19q13.4
PIK3IP1	113791	PIK3IP1	phosphoinositide-3-kinase interacting protein 1	22	22q12.2
PIK3R6	146850	PIK3R6	phosphoinositide-3-kinase, regulatory subunit 6	17	17p13.1
TOR4A	54863	TOR4A	torsin family 4, member A	9	9q34.3
CHST12	55501	CHST12	carbohydrate (chondroitin 4) sulfotransferase 12	7	7p22
MPEG1	219972	MPEG1	macrophage expressed 1	11	11q12.1
DERL3	91319	DERL3	derlin 3	22	22q11.23
TNFAIP8	25816	TNFAIP8	tumor necrosis factor, alpha-induced protein 8	5	5q23.1
SAMSN1	64092	SAMSN1	SAM domain, SH3 domain and nuclear localization signals 1	21	21q11

MICAL1	64780	MICAL1	microtubule associated monooxygenase, calponin and LIM domain containing 1	6	6q21
TNFRSF8	943	TNFRSF8	tumor necrosis factor receptor superfamily, member 8	1	1p36
FCER2	2208	FCER2	Fc fragment of IgE, low affinity II, receptor for (CD23)	19	19p13.3
FCN1	2219	FCN1	ficolin (collagen/fibrinogen domain containing) 1	9	9q34
ACKR1	2532	ACKR1	atypical chemokine receptor 1 (Duffy blood group)	1	1q21-q22
HLA-DOA	3111	HLA-DOA	major histocompatibility complex, class II, DO alpha	6	6p21.3
SRGN	5552	SRGN	serglycin	10	10q22.1
SSTR3	6753	SSTR3	somatostatin receptor 3	22	22q13.1
IL18BP	10068	IL18BP	interleukin 18 binding protein	11	11q13
RIN3	79890	RIN3	Ras and Rab interactor 3	14	14q32.12
LY96	23643	LY96	lymphocyte antigen 96	8	8q21.11
PRKD2	25865	PRKD2	protein kinase D2	19	19q13.3
ACVRL1	94	ACVRL1	activin A receptor type II-like 1	12	12q13.13
CD22	933	CD22	CD22 molecule	19	19q13.1
CD40	958	CD40	CD40 molecule, TNF receptor superfamily member 5	20	20q12-q13.2
CCR5	1234	CCR5	chemokine (C-C motif) receptor 5 (gene/pseudogene)	3	3p21.31
DGKA	1606	DGKA	diacylglycerol kinase, alpha 80kDa	12	12q13.3
DNASE1L3	1776	DNASE1L3	deoxyribonuclease I-like 3	3	3p14.3
ICAM4	3386	ICAM4	intercellular adhesion molecule 4 (Landsteiner-Wiener blood group)	19	19p13.2
IL2	3558	IL2	interleukin 2	4	4q26-q27
PRKCQ	5588	PRKCQ	protein kinase C, theta	10	10p15
PTGIR	5739	PTGIR	prostaglandin I2 (prostacyclin) receptor (IP)	19	19q13.3
TCL1A	8115	TCL1A	T-cell leukemia/lymphoma 1A	14	14q32.1

TRADD	8717	TRADD	TNFRSF1A-associated via death domain	16	16q22
TNFSF14	8740	TNFSF14	tumor necrosis factor (ligand) superfamily, member 14	19	19p13.3
TNFRSF6B	8771	TNFRSF6B	tumor necrosis factor receptor superfamily, member 6b, decoy	20	20q13.3
USP20	10868	USP20	ubiquitin specific peptidase 20	9	9q34.11
EFHD2	79180	EFHD2	EF-hand domain family, member D2	1	1p36.21
ANGPTL6	83854	ANGPTL6	angiopoietin-like 6	19	19p13.2
RHOF	54509	RHOF	ras homolog family member F (in filopodia)	12	12q24.31
EHBP1L1	254102	EHBP1L1	EH domain binding protein 1-like 1	11	11q13.1
PLA2G2D	26279	PLA2G2D	phospholipase A2, group IID	1	1p36.12
LRRC25	126364	LRRC25	leucine rich repeat containing 25	19	19p13.11
CLEC17A	388512	CLEC17A	C-type lectin domain family 17, member A	19	19p13.12
CLEC2D	29121	CLEC2D	C-type lectin domain family 2, member D	12	12p13
CD1E	913	CD1E	CD1e molecule	1	1q23.1
CD33	945	CD33	CD33 molecule	19	19q13.3
GLYCTK	132158	GLYCTK	glycerate kinase	3	3p21.1
DPEP1	1800	DPEP1	dipeptidase 1 (renal)	16	16q24.3
GRK6	2870	GRK6	G protein-coupled receptor kinase 6	5	5q35
GZMH	2999	GZMH	granzyme H (cathepsin G-like 2, protein h-CCPX)	14	14q11.2
NR1H3	10062	NR1H3	nuclear receptor subfamily 1, group H, member 3	11	11p11.2
RGS19	10287	RGS19	regulator of G-protein signaling 19	20	20q13.33
FCRL2	79368	FCRL2	Fc receptor-like 2	1	1q21
CORO7	79585	CORO7	coronin 7	16	16p13.3
TREML2	79865	TREML2	triggering receptor expressed on myeloid cells-like 2	6	6p21.1
PBX4	80714	PBX4	pre-B-cell leukemia homeobox 4	19	19p12
CD300LF	146722	CD300LF	CD300 molecule-like family member f	17	17q25.1

CD244	51744	CD244	CD244 molecule, natural killer cell receptor 2B4	1	1q23.3
GIMAP8	155038	GIMAP8	GTPase, IMAP family member 8	7	7q36.1
RNPEPL1	57140	RNPEPL1	arginyl aminopeptidase (aminopeptidase B)-like 1	2	2q37.3
STAMBPL1	57559	STAMBPL1	STAM binding protein-like 1	10	10q23.31
SLAMF7	57823	SLAMF7	SLAM family member 7	1	1q23.1-q24.1
GIMAP2	26157	GIMAP2	GTPase, IMAP family member 2	7	7q36.1
WDR81	124997	WDR81	WD repeat domain 81	17	17p13.3
EML3	256364	EML3	echinoderm microtubule associated protein like 3	11	11q12.3
APOE	348	APOE	apolipoprotein E	19	19q13.2
PATL2	197135	PATL2	protein associated with topoisomerase II homolog 2 (yeast)	15	15q21.1
C1QB	713	C1QB	complement component 1, q subcomponent, B chain	1	1p36.12
CD8B	926	CD8B	CD8b molecule	2	2p12
MS4A1	931	MS4A1	membrane-spanning 4-domains, subfamily A, member 1	11	11q12
CTRL	1506	CTRL	chymotrypsin-like	16	16q22.1
EMP3	2014	EMP3	epithelial membrane protein 3	19	19q13.3
GNAI2	2771	GNAI2	guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2	3	3p21.31
IRF3	3661	IRF3	interferon regulatory factor 3	19	19q13.3-q13.4
TGFB1	7040	TGFB1	transforming growth factor, beta 1	19	19q13.1
TNFSF12	8742	TNFSF12	tumor necrosis factor (ligand) superfamily, member 12	17	17p13
IL18R1	8809	IL18R1	interleukin 18 receptor 1	2	2q12
SH2D2A	9047	SH2D2A	SH2 domain containing 2A	1	1q21
LPXN	9404	LPXN	leupaxin	11	11q12.1

APOL3	80833	APOL3	apolipoprotein L, 3	22	22q13.1
FCRL6	343413	FCRL6	Fc receptor-like 6	1	1q23.2
NLRP3	114548	NLRP3	NLR family, pyrin domain containing 3	1	1q44
CCM2	83605	CCM2	cerebral cavernous malformation 2	7	7p13
MILR1	284021	MILR1	mast cell immunoglobulin-like receptor 1	17	17q23.3
MAST3	23031	MAST3	microtubule associated serine/threonine kinase 3	19	19p13.11
KIF21B	23046	KIF21B	kinesin family member 21B	1	1q32.1
CEACAM21	90273	CEACAM21	carcinoembryonic antigen-related cell adhesion molecule 21	19	19q13.2
IPCEF1	26034	IPCEF1	interaction protein for cytohesin exchange factors 1	6	6q25.2
PALD1	27143	PALD1	phosphatase domain containing, paladin 1	10	10q22.1
CD200R1	131450	CD200R1	CD200 receptor 1	3	3q13.2
CR1	1378	CR1	complement component (3b/4b) receptor 1 (Knops blood group)	1	1q32
FYB	2533	FYB	FYN binding protein	5	5p13.1
IRF1	3659	IRF1	interferon regulatory factor 1	5	5q31.1
ISG20	3669	ISG20	interferon stimulated exonuclease gene 20kDa	15	15q26
PPP1R18	170954	PPP1R18	protein phosphatase 1, regulatory subunit 18	6	6p21.3
TFEB	7942	TFEB	transcription factor EB	6	6p21
APBA3	9546	APBA3	amyloid beta (A4) precursor protein-binding, family A, member 3	19	19p13.3
CLEC2B	9976	CLEC2B	C-type lectin domain family 2, member B	12	12p13-p12
TWF2	11344	TWF2	twinfilin actin binding protein 2	3	3p21.1
NLRC5	84166	NLRC5	NLR family, CARD domain containing 5	16	16q13
CECR1	51816	CECR1	cat eye syndrome chromosome region, candidate 1	22	22q11.2
NFKBID	84807	NFKBID	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, delta	19	19q13.12
PPP1R12C	54776	PPP1R12C	protein phosphatase 1, regulatory subunit 12C	19	19q13.42

BATF3	55509	BATF3	basic leucine zipper transcription factor, ATF-like 3	1	1q32.3
ARRDC5	645432	ARRDC5	arrestin domain containing 5	19	19p13.3
SIGLEC10	89790	SIGLEC10	sialic acid binding Ig-like lectin 10	19	19q13.3
RAB37	326624	RAB37	RAB37, member RAS oncogene family	17	17q25.1
BIN1	274	BIN1	bridging integrator 1	2	2q14
FXYD2	486	FXYD2	FXYD domain containing ion transport regulator 2	11	11q23
C1QC	714	C1QC	complement component 1, q subcomponent, C chain	1	1p36.11
CLIC2	1193	CLIC2	chloride intracellular channel 2	X	Xq28
TYMP	1890	TYMP	thymidine phosphorylase	22	22q13.33
ENG	2022	ENG	endoglin	9	9q34.11
KCNA3	3738	KCNA3	potassium channel, voltage gated shaker related subfamily A, member 3	1	1p13.3
PAX5	5079	PAX5	paired box 5	9	9p13
ST3GAL2	6483	ST3GAL2	ST3 beta-galactoside alpha-2,3-sialyltransferase 2	16	16q22.1
CCR2	729230	CCR2	chemokine (C-C motif) receptor 2	3	3p21.31
STX11	8676	STX11	syntaxin 11	6	6q24.2
CYTH1	9267	CYTH1	cytohesin 1	17	17q25
FAM110D	79927	FAM110D	family with sequence similarity 110, member D	1	1p36.11
RLTPR	146206	RLTPR	RGD motif, leucine rich repeats, tropomodulin domain and proline-rich containing	16	16q22.1
MOB3C	148932	MOB3C	MOB kinase activator 3C	1	1p33
ARAP1	116985	ARAP1	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 1	11	11q13.4
LAX1	54900	LAX1	lymphocyte transmembrane adaptor 1	1	1q32.1
KIF17	57576	KIF17	kinesin family member 17	1	1p36.12
ZNF683	257101	ZNF683	zinc finger protein 683	1	1p36.11
DBNL	28988	DBNL	drebrin-like	7	7p13

IL4I1	259307	IL4I1	interleukin 4 induced 1	19	19q13.3-q13.4
SMAP2	64744	SMAP2	small ArfGAP2	1	1p35.3-p34.1
AGER	177	AGER	advanced glycosylation end product-specific receptor	6	6p21.3
HLA-DQA1	3117	HLA-DQA1	major histocompatibility complex, class II, DQ alpha 1	6	6p21.3
HLA-F	3134	HLA-F	major histocompatibility complex, class I, F	6	6p21.3
LCP1	3936	LCP1	lymphocyte cytosolic protein 1 (L-plastin)	13	13q14.3
TLDC2	140711	TLDC2	TBC/LysM-associated domain containing 2	20	20q11.23
RASSF2	9770	RASSF2	Ras association (RalGDS/AF-6) domain family member 2	20	20p13
AP5Z1	9907	AP5Z1	adaptor-related protein complex 5, zeta 1 subunit	7	7p22.2
P2RY14	9934	P2RY14	purinergic receptor P2Y, G-protein coupled, 14	3	3q24-q25.1
SLCO2B1	11309	SLCO2B1	solute carrier organic anion transporter family, member 2B1	11	11q13
TMEM173	340061	TMEM173	transmembrane protein 173	5	5q31.2
FAM26F	441168	FAM26F	family with sequence similarity 26, member F	6	6q22.1
ABHD17A	81926	ABHD17A	abhydrolase domain containing 17A	19	19p13.3
RASSF5	83593	RASSF5	Ras association (RalGDS/AF-6) domain family member 5	1	1q32.1
USHBP1	83878	USHBP1	Usher syndrome 1C binding protein 1	19	19p13
GPBAR1	151306	GPBAR1	G protein-coupled bile acid receptor 1	2	2q35
SOX18	54345	SOX18	SRY (sex determining region Y)-box 18	20	20q13.33
PLEKHM2	23207	PLEKHM2	pleckstrin homology domain containing, family M (with RUN domain) member 2	1	1p36.21
TBC1D22A	25771	TBC1D22A	TBC1 domain family, member 22A	22	22q13.3
C3	718	C3	complement component 3	19	19p13.3-p13.2

CD38	952	CD38	CD38 molecule	4	4p15
GPR25	2848	GPR25	G protein-coupled receptor 25	1	1q32.1
GPX1	2876	GPX1	glutathione peroxidase 1	3	3p21.3
GYPE	2996	GYPE	glycophorin E (MNS blood group)	4	4q31.1
U2AF1L4	199746	U2AF1L4	U2 small nuclear RNA auxiliary factor 1-like 4	19	19q13.12
IRF4	3662	IRF4	interferon regulatory factor 4	6	6p25-p23
NFKB2	4791	NFKB2	nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	10	10q24
SELP	6403	SELP	selectin P (granule membrane protein 140kDa, antigen CD62)	1	1q24.2
TBXAS1	6916	TBXAS1	thromboxane A synthase 1 (platelet)	7	7q34-q35
CLDN5	7122	CLDN5	claudin 5	22	22q11.21
UBA7	7318	UBA7	ubiquitin-like modifier activating enzyme 7	3	3p21
CD300A	11314	CD300A	CD300a molecule	17	17q25.1
DOCK8	81704	DOCK8	dedicator of cytokinesis 8	9	9p24.3
RILP	83547	RILP	Rab interacting lysosomal protein	17	17p13.3
TRAT1	50852	TRAT1	T cell receptor associated transmembrane adaptor 1	3	3q13
KBTBD8	84541	KBTBD8	kelch repeat and BTB (POZ) domain containing 8	3	3p14
GPR174	84636	GPR174	G protein-coupled receptor 174	X	Xq21.1
FAM167B	84734	FAM167B	family with sequence similarity 167, member B	1	1p35.1
CLEC9A	283420	CLEC9A	C-type lectin domain family 9, member A	12	12p13.2
DENND3	22898	DENND3	DENN/MADD domain containing 3	8	8q24.3
SH3BP1	23616	SH3BP1	SH3-domain binding protein 1	22	22q13.1
SIGLEC7	27036	SIGLEC7	sialic acid binding Ig-like lectin 7	19	19q13.3
ARRDC2	27106	ARRDC2	arrestin domain containing 2	19	19p13.11
APOBEC3C	27350	APOBEC3C	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3C	22	22q13.1

GLTSCR2	29997	GLTSCR2	glioma tumor suppressor candidate region gene 2	19	19q13.3
PAOX	196743	PAOX	polyamine oxidase (exo-N4-amino)	10	10q26.3
AVPR2	554	AVPR2	arginine vasopressin receptor 2	X	Xq28
CD86	942	CD86	CD86 molecule	3	3q21
TNFSF8	944	TNFSF8	tumor necrosis factor (ligand) superfamily, member 8	9	9q33
CCR4	1233	CCR4	chemokine (C-C motif) receptor 4	3	3p24
FFAR3	2865	FFAR3	free fatty acid receptor 3	19	19q13.1
IL4R	3566	IL4R	interleukin 4 receptor	16	16p12.1-p11.2
KLRD1	3824	KLRD1	killer cell lectin-like receptor subfamily D, member 1	12	12p13
GAPT	202309	GAPT	GRB2-binding adaptor protein, transmembrane	5	5q11.2
PTGER4	5734	PTGER4	prostaglandin E receptor 4 (subtype EP4)	5	5p13.1
XCL1	6375	XCL1	chemokine (C motif) ligand 1	1	1q23
TSPAN7	7102	TSPAN7	tetraspanin 7	X	Xp11.4
GPR65	8477	GPR65	G protein-coupled receptor 65	14	14q31-q32.1
RPS6KA4	8986	RPS6KA4	ribosomal protein S6 kinase, 90kDa, polypeptide 4	11	11q11-q13
LILRB2	10288	LILRB2	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 2	19	19q13.4
TNIP1	10318	TNIP1	TNFAIP3 interacting protein 1	5	5q32-q33.1
IFI30	10437	IFI30	interferon, gamma-inducible protein 30	19	19p13.1
LILRB3	11025	LILRB3	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3	19	19q13.4
TMEM119	338773	TMEM119	transmembrane protein 119	12	12q23.3
CAPN10	11132	CAPN10	calpain 10	2	2q37.3

ABTB1	80325	ABTB1	ankyrin repeat and BTB (POZ) domain containing 1	3	3q21
LBH	81606	LBH	limb bud and heart development	2	2p23.1
P2RY13	53829	P2RY13	purinergic receptor P2Y, G-protein coupled, 13	3	3q24
CYB561A3	220002	CYB561A3	cytochrome b561 family, member A3	11	11q12.2
ZBTB32	27033	ZBTB32	zinc finger and BTB domain containing 32	19	19q13.1
RILPL2	196383	RILPL2	Rab interacting lysosomal protein-like 2	12	12q24.31
ADCY4	196883	ADCY4	adenylate cyclase 4	14	14q12
C1R	715	C1R	complement component 1, r subcomponent	12	12p13
DTX1	1840	DTX1	deltex 1, E3 ubiquitin ligase	12	12q24.13
DUSP2	1844	DUSP2	dual specificity phosphatase 2	2	2q11
ETS1	2113	ETS1	v-ets avian erythroblastosis virus E26 oncogene homolog 1	11	11q23.3
HLA-B	3106	HLA-B	major histocompatibility complex, class I, B	6	6p21.3
HLA-DRB5	3127	HLA-DRB5	major histocompatibility complex, class II, DR beta 5	6	6p21.3
LTC4S	4056	LTC4S	leukotriene C4 synthase	5	5q35
PSMB9	5698	PSMB9	proteasome (prosome, macropain) subunit, beta type, 9	6	6p21.3
CCL4	6351	CCL4	chemokine (C-C motif) ligand 4	17	17q12
TCN2	6948	TCN2	transcobalamin II	22	22q12.2
SOCS1	8651	SOCS1	suppressor of cytokine signaling 1	16	16p13.13
ABCA7	10347	ABCA7	ATP-binding cassette, sub-family A (ABC1), member 7	19	19p13.3
CD226	10666	CD226	CD226 molecule	18	18q22.3
BTN3A2	11118	BTN3A2	butyrophilin, subfamily 3, member A2	6	6p22.1
RASSF1	11186	RASSF1	Ras association (RalGDS/AF-6) domain family member 1	3	3p21.3
FBXO31	79791	FBXO31	F-box protein 31	16	16q24.2
RASGRP4	115727	RASGRP4	RAS guanyl releasing protein 4	19	19q13.1
MZB1	51237	MZB1	marginal zone B and B1 cell-specific protein	5	5q31.2

SLC15A3	51296	SLC15A3	solute carrier family 15 (oligopeptide transporter), member 3	11	11q12.2
ECSCR	641700	ECSCR	endothelial cell surface expressed chemotaxis and apoptosis regulator	5	5q31.2
PHYKPL	85007	PHYKPL	5-phosphohydroxy-L-lysine phospho-lyase	5	5q35.3
FUOM	282969	FUOM	fucose mutarotase	10	10q26.3
BANK1	55024	BANK1	B-cell scaffold protein with ankyrin repeats 1	4	4q24
FNBP1	23048	FNBP1	formin binding protein 1	9	9q34
ISCU	23479	ISCU	iron-sulfur cluster assembly enzyme	12	12q24.1
FCHSD1	89848	FCHSD1	FCH and double SH3 domains 1	5	5q31.3
FMNL3	91010	FMNL3	formin-like 3	12	12q13.12
TMEM88	92162	TMEM88	transmembrane protein 88	17	17p13.1
GCSAM	257144	GCSAM	germinal center-associated, signaling and motility	3	3q13.2
RGS18	64407	RGS18	regulator of G-protein signaling 18	1	1q31.2
ADA	100	ADA	adenosine deaminase	20	20q13.12
FASLG	356	FASLG	Fas ligand (TNF superfamily, member 6)	1	1q23
CSNK1G2	1455	CSNK1G2	casein kinase 1, gamma 2	19	19p13.3
FES	2242	FES	FES proto-oncogene, tyrosine kinase	15	15q26.1
HCK	3055	HCK	HCK proto-oncogene, Src family tyrosine kinase	20	20q11-q12
HIC1	3090	HIC1	hypermethylated in cancer 1	17	17p13.3
HLA-DQA2	3118	HLA-DQA2	major histocompatibility complex, class II, DQ alpha 2	6	6p21.3
HLX	3142	HLX	H2.0-like homeobox	1	1q41
IRF5	3663	IRF5	interferon regulatory factor 5	7	7q32
MATK	4145	MATK	megakaryocyte-associated tyrosine kinase	19	19p13.3
CXCL9	4283	CXCL9	chemokine (C-X-C motif) ligand 9	4	4q21
ARHGAP27	201176	ARHGAP27	Rho GTPase activating protein 27	17	17q21.31
MYO9B	4650	MYO9B	myosin IXB	19	19p13.1

MAPK11	5600	MAPK11	mitogen-activated protein kinase 11	22	22q13.33
RELB	5971	RELB	v-rel avian reticuloendotheliosis viral oncogene homolog B	19	19q13.32
CCL23	6368	CCL23	chemokine (C-C motif) ligand 23	17	17q12
S100Z	170591	S100Z	S100 calcium binding protein Z	5	5q13.3
ELL	8178	ELL	elongation factor RNA polymerase II	19	19p13.1
IKBKG	8517	IKBKG	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma	X	Xq28
SIGLEC14	10004958 7	SIGLEC14	sialic acid binding Ig-like lectin 14	19	19q13.4
ARPC1B	10095	ARPC1B	actin related protein 2/3 complex, subunit 1B, 41kDa	7	7q22.1
GPA33	10223	GPA33	glycoprotein A33 (transmembrane)	1	1q24.1
FGL2	10875	FGL2	fibrinogen-like 2	7	7q11.23
EHD1	10938	EHD1	EH-domain containing 1	11	11q13
LILRB4	11006	LILRB4	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 4	19	19q13.4
TMEM204	79652	TMEM204	transmembrane protein 204	16	16p13.3
KIAA0226L	80183	KIAA0226L	KIAA0226-like	13	13q14.13
MS4A4A	51338	MS4A4A	membrane-spanning 4-domains, subfamily A, member 4A	11	11q12
RELT	84957	RELT	RELT tumor necrosis factor receptor	11	11q13.4
TMEM255B	348013	TMEM255B	transmembrane protein 255B	13	13q34
ANKDD1A	348094	ANKDD1A	ankyrin repeat and death domain containing 1A	15	15q22.31
PRR5	55615	PRR5	proline rich 5 (renal)	22	22q13
SLAMF8	56833	SLAMF8	SLAM family member 8	1	1q23.2
TMEM259	91304	TMEM259	transmembrane protein 259	19	19p13.3
OR52N4	390072	OR52N4	olfactory receptor, family 52, subfamily N, member 4 (gene/pseudogene)	11	11p15.4
PILRA	29992	PILRA	paired immunoglobulin-like type 2 receptor alpha	7	7q22.1

CSF1R	1436	CSF1R	colony stimulating factor 1 receptor	5	5q32
S1PR1	1901	S1PR1	sphingosine-1-phosphate receptor 1	1	1p21
FYN	2534	FYN	FYN proto-oncogene, Src family tyrosine kinase	6	6q21
GZMB	3002	GZMB	granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1)	14	14q11.2
IL7R	3575	IL7R	interleukin 7 receptor	5	5p13
IL9R	3581	IL9R	interleukin 9 receptor	X Y	Xq28 and Yq12
LGALS9	3965	LGALS9	lectin, galactoside-binding, soluble, 9	17	17q11.2
NFKBIE	4794	NFKBIE	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon	6	6p21.1
SERPINB9	5272	SERPINB9	serpin peptidase inhibitor, clade B (ovalbumin), member 9	6	6p25
ABCD4	5826	ABCD4	ATP-binding cassette, sub-family D (ALD), member 4	14	14q24.3
RPS9	6203	RPS9	ribosomal protein S9	19	19q13.4
TNFAIP3	7128	TNFAIP3	tumor necrosis factor, alpha-induced protein 3	6	6q23
SLC7A7	9056	SLC7A7	solute carrier family 7 (amino acid transporter light chain, y+L system), member 7	14	14q11.2
PCSK7	9159	PCSK7	proprotein convertase subtilisin/kexin type 7	11	11q23-q24
PPM1F	9647	PPM1F	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1F	22	22q11.22
RASA4	10156	RASA4	RAS p21 protein activator 4	7	7q22
KLF2	10365	KLF2	Kruppel-like factor 2	19	19p13.11
CCR9	10803	CCR9	chemokine (C-C motif) receptor 9	3	3p21.3
BTN3A1	11119	BTN3A1	butyrophilin, subfamily 3, member A1	6	6p22.1
TNFSF12-TNFSF13	407977	TNFSF12-TNFSF13	TNFSF12-TNFSF13 readthrough	17	17p13.1

FCRL1	115350	FCRL1	Fc receptor-like 1		1	1q21-q22
FCRL4	83417	FCRL4	Fc receptor-like 4		1	1q21
UBXN1	51035	UBXN1	UBX domain protein 1		11	11q12.3
FKBP11	51303	FKBP11	FK506 binding protein 11, 19 kDa		12	12q13.12
NFAM1	150372	NFAM1	NFAT activating protein with ITAM motif 1		22	22q13.2
TMEM150B	284417	TMEM150B	transmembrane protein 150B		19	19q13.42
TMEM140	55281	TMEM140	transmembrane protein 140		7	7q33
NAGK	55577	NAGK	N-acetylglucosamine kinase		2	2p13.3
MAP7D1	55700	MAP7D1	MAP7 domain containing 1		1	1p34.3
STAB1	23166	STAB1	stabilin 1		3	3p21.1
GPR150	285601	GPR150	G protein-coupled receptor 150		5	5q15
MCOLN2	255231	MCOLN2	mucolipin 2		1	1p22
PLCXD2	257068	PLCXD2	phosphatidylinositol-specific phospholipase C, X domain containing 2		3	3q13.2
JSRP1	126306	JSRP1	junctional sarcoplasmic reticulum protein 1		19	19p13.3
BCL11B	64919	BCL11B	B-cell CLL/lymphoma 11B (zinc finger protein)		14	14q32.2
BIRC3	330	BIRC3	baculoviral IAP repeat containing 3		11	11q22
SERPING1	710	SERPING1	serpin peptidase inhibitor, clade G (C1 inhibitor), member 1		11	11q12.1
CASP4	837	CASP4	caspase 4, apoptosis-related cysteine peptidase		11	11q22.2-q22.3
CD1B	910	CD1B	CD1b molecule		1	1q23.1
CR2	1380	CR2	complement component (3d/Epstein Barr virus) receptor 2		1	1q32
CSF2RA	1438	CSF2RA	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)		X Y	Xp22.32 and Yp11.3
CTSH	1512	CTSH	cathepsin H		15	15q25.1
CTSS	1520	CTSS	cathepsin S		1	1q21

FTL	2512	FTL	ferritin, light polypeptide	19	19q13.33
GGT5	2687	GGT5	gamma-glutamyltransferase 5	22	22q11.23
RAPGEF1	2889	RAPGEF1	Rap guanine nucleotide exchange factor (GEF) 1	9	9q34.3
KCNN3	3782	KCNN3	potassium channel, calcium activated intermediate/small conductance subfamily N alpha, member 3	1	1q21.3
MEOX1	4222	MEOX1	mesenchyme homeobox 1	17	17q21
MNDA	4332	MNDA	myeloid cell nuclear differentiation antigen	1	1q22
RNH1	6050	RNH1	ribonuclease/angiogenin inhibitor 1	11	11p15.5
CCL14	6358	CCL14	chemokine (C-C motif) ligand 14	17	17q12
CCL21	6366	CCL21	chemokine (C-C motif) ligand 21	9	9p13
TSPAN4	7106	TSPAN4	tetraspanin 4	11	11p15.5
TXK	7294	TXK	TXK tyrosine kinase	4	4p12
TYK2	7297	TYK2	tyrosine kinase 2	19	19p13.2
APOL1	8542	APOL1	apolipoprotein L, 1	22	22q13.1
SIGLEC5	8778	SIGLEC5	sialic acid binding Ig-like lectin 5	19	19q13.3
IL32	9235	IL32	interleukin 32	16	16p13.3
STK17B	9262	STK17B	serine/threonine kinase 17b	2	2q32.3
CCM2L	140706	CCM2L	cerebral cavernous malformation 2-like	20	20q11.2
ELMO1	9844	ELMO1	engulfment and cell motility 1	7	7p14.1
BTN2A2	10385	BTN2A2	butyrophilin, subfamily 2, member A2	6	6p22.1
OGFR	11054	OGFR	opioid growth factor receptor	20	20q13.3
ZBED2	79413	ZBED2	zinc finger, BED-type containing 2	3	3q13.2
PRCD	768206	PRCD	progressive rod-cone degeneration	17	17q25.1
ZBP1	81030	ZBP1	Z-DNA binding protein 1	20	20q13.31
HSPA12B	116835	HSPA12B	heat shock 70kD protein 12B	20	20p13

GNG2	54331	GNG2	guanine nucleotide binding protein (G protein), gamma 2	14	14q21
FBXW5	54461	FBXW5	F-box and WD repeat domain containing 5	9	9q34.3
HEXDC	284004	HEXDC	hexosaminidase (glycosyl hydrolase family 20, catalytic domain) containing	17	17q25.3
HEMGN	55363	HEMGN	hemogen	9	9q22.33
RASA3	22821	RASA3	RAS p21 protein activator 3	13	13q34
VASH1	22846	VASH1	vasohibin 1	14	14q24.3
RFTN1	23180	RFTN1	raftlin, lipid raft linker 1	3	3p24.3
COTL1	23406	COTL1	coactosin-like F-actin binding protein 1	16	16q24.1
PLSCR3	57048	PLSCR3	phospholipid scramblase 3	17	17p13.1
TVP23A	780776	TVP23A	trans-golgi network vesicle protein 23 homolog A (<i>S. cerevisiae</i>)	16	16p13.13
ALDH16A1	126133	ALDH16A1	aldehyde dehydrogenase 16 family, member A1	19	19q13.33
ST6GALNAC6	30815	ST6GALNAC6	ST6 (alpha-N-acetyl-neuraminyl-2,3-beta-galactosyl-1,3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 6	9	9q34.11
PDLIM2	64236	PDLIM2	PDZ and LIM domain 2 (mystique)	8	8p21.3
ALOX5AP	241	ALOX5AP	arachidonate 5-lipoxygenase-activating protein	13	13q12
FAM43A	131583	FAM43A	family with sequence similarity 43, member A	3	3q29
VPS51	738	VPS51	vacuolar protein sorting 51 homolog (<i>S. cerevisiae</i>)	11	11q13
CASP1	834	CASP1	caspase 1, apoptosis-related cysteine peptidase	11	11q23
RUNX3	864	RUNX3	runt-related transcription factor 3	1	1p36
CD68	968	CD68	CD68 molecule	17	17p13
PLK3	1263	PLK3	polo-like kinase 3	1	1p34.1
FCGR2B	2213	FCGR2B	Fc fragment of IgG, low affinity IIb, receptor (CD32)	1	1q23
GSN	2934	GSN	gelsolin	9	9q33
HLA-A	3105	HLA-A	major histocompatibility complex, class I, A	6	6p21.3
HLA-C	3107	HLA-C	major histocompatibility complex, class I, C	6	6p21.3

ADM5	199800	ADM5	adrenomedullin 5 (putative)	19	19q13.33
IL18	3606	IL18	interleukin 18	11	11q23.1
CCL17	6361	CCL17	chemokine (C-C motif) ligand 17	16	16q13
ZBTB17	7709	ZBTB17	zinc finger and BTB domain containing 17	1	1p36.13
CXCR4	7852	CXCR4	chemokine (C-X-C motif) receptor 4	2	2q21
UTF1	8433	UTF1	undifferentiated embryonic cell transcription factor 1	10	10q26
MMP23B	8510	MMP23B	matrix metallopeptidase 23B	1	1p36.3
CH25H	9023	CH25H	cholesterol 25-hydroxylase	10	10q23
TRIM22	10346	TRIM22	tripartite motif containing 22	11	11p15
CELF2	10659	CELF2	CUGBP, Elav-like family member 2	10	10p13
LILRB5	10990	LILRB5	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5	19	19q13.4
KCTD17	79734	KCTD17	potassium channel tetramerization domain containing 17	22	22q12.3
PQLC1	80148	PQLC1	PQ loop repeat containing 1	18	18q23
ODF3B	440836	ODF3B	outer dense fiber of sperm tails 3B	22	22q13.33
NAGPA	51172	NAGPA	N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase	16	16p13.3
RAB4B	53916	RAB4B	RAB4B, member RAS oncogene family	19	19q13.2
SIRPB2	284759	SIRPB2	signal-regulatory protein beta 2	20	20p13
PLCL2	23228	PLCL2	phospholipase C-like 2	3	3p24.3
SEL1L3	23231	SEL1L3	sel-1 suppressor of lin-12-like 3 (<i>C. elegans</i>)	4	4p15.2
OAF	220323	OAF	out at first homolog	11	11q23.3
THEMIS	387357	THEMIS	thymocyte selection associated	6	6q22.33
P2RY10	27334	P2RY10	purinergic receptor P2Y, G-protein coupled, 10	X	Xq21.1
CCDC102A	92922	CCDC102A	coiled-coil domain containing 102A	16	16q21
BACH2	60468	BACH2	BTB and CNC homology 1, basic leucine zipper transcription factor 2	6	6q15

ALOX5	240	ALOX5	arachidonate 5-lipoxygenase	10	10q11.2
BAX	581	BAX	BCL2-associated X protein	19	19q13.3-q13.4
PRDM1	639	PRDM1	PR domain containing 1, with ZNF domain	6	6q21
MLKL	197259	MLKL	mixed lineage kinase domain-like	16	16q23.1
CAMK4	814	CAMK4	calcium/calmodulin-dependent protein kinase IV	5	5q21.3
CETP	1071	CETP	cholesterol ester transfer protein, plasma	16	16q21
CMKLR1	1240	CMKLR1	chemerin chemokine-like receptor 1	12	12q24.1
DPT	1805	DPT	dermatopontin	1	1q12-q23
FCER1G	2207	FCER1G	Fc fragment of IgE, high affinity I, receptor for; gamma polypeptide	1	1q23
GRK5	2869	GRK5	G protein-coupled receptor kinase 5	10	10q26.11
IL11RA	3590	IL11RA	interleukin 11 receptor, alpha	9	9p13
FXYD1	5348	FXYD1	FXYD domain containing ion transport regulator 1	19	19q13.1
RGS1	5996	RGS1	regulator of G-protein signaling 1	1	1q31
SNRNP70	6625	SNRNP70	small nuclear ribonucleoprotein 70kDa (U1)	19	19q13.3
BTN3A3	10384	BTN3A3	butyrophilin, subfamily 3, member A3	6	6p21.3
RGS14	10636	RGS14	regulator of G-protein signaling 14	5	5q35.3
FBXL15	79176	FBXL15	F-box and leucine-rich repeat protein 15	10	10q24.32
GSDMD	79792	GSDMD	gasdermin D	8	8q24.3
ZNF524	147807	ZNF524	zinc finger protein 524	19	19q13.42
GPR146	115330	GPR146	G protein-coupled receptor 146	7	7p22.3
DHH	50846	DHH	desert hedgehog	12	12q13.1
CLEC1A	51267	CLEC1A	C-type lectin domain family 1, member A	12	12p13.2
HAVCR2	84868	HAVCR2	hepatitis A virus cellular receptor 2	5	5q33.3
CPVL	54504	CPVL	carboxypeptidase, vitellogenin-like	7	7p15.1

PLAC9	219348	PLAC9	placenta-specific 9	10	10q22.3
DUSP22	56940	DUSP22	dual specificity phosphatase 22	6	6p25.3
LPAR5	57121	LPAR5	lysophosphatidic acid receptor 5	12	12p13.31
TMEM86B	255043	TMEM86B	transmembrane protein 86B	19	19q13.42
CLEC14A	161198	CLEC14A	C-type lectin domain family 14, member A	14	14q21.1
TRABD2A	129293	TRABD2A	TraB domain containing 2A	2	2p11.2
GPATCH3	63906	GPATCH3	G patch domain containing 3	1	1p35.3-p35.1
CARD9	64170	CARD9	caspase recruitment domain family, member 9	9	9q34.3
ABCD2	225	ABCD2	ATP-binding cassette, sub-family D (ALD), member 2	12	12q12
B2M	567	B2M	beta-2-microglobulin	15	15q21.1
XCR1	2829	XCR1	chemokine (C motif) receptor 1	3	3p21.3
GRN	2896	GRN	granulin	17	17q21.32
HK3	3101	HK3	hexokinase 3 (white cell)	5	5q35.2
ZBTB48	3104	ZBTB48	zinc finger and BTB domain containing 48	1	1p36.3
IL15RA	3601	IL15RA	interleukin 15 receptor, alpha	10	10p15.1
IRF7	3665	IRF7	interferon regulatory factor 7	11	11p15.5
LCAT	3931	LCAT	lecithin-cholesterol acyltransferase	16	16q22.1
LRCH4	4034	LRCH4	leucine-rich repeats and calponin homology (CH) domain containing 4	7	7q22
MAP3K11	4296	MAP3K11	mitogen-activated protein kinase kinase kinase 11	11	11q13.1-q13.3
MMP19	4327	MMP19	matrix metallopeptidase 19	12	12q14
PTGDS	5730	PTGDS	prostaglandin D2 synthase 21kDa (brain)	9	9q34.2-q34.3
RENBP	5973	RENBP	renin binding protein	X	Xq28

SSBP4	170463	SSBP4	single stranded DNA binding protein 4	19	19p13.1
SYK	6850	SYK	spleen tyrosine kinase	9	9q22
TAZ	6901	TAZ	tafazzin	X	Xq28
CLEC3B	7123	CLEC3B	C-type lectin domain family 3, member B	3	3p22-p21.3
ST8SIA4	7903	ST8SIA4	ST8 alpha-N-acetyl-neuraminate alpha-2,8-sialyltransferase 4	5	5q21
DTHD1	401124	DTHD1	death domain containing 1	4	4p14
LCNL1	401562	LCNL1	lipocalin-like 1	9	9q34.3
CDK10	8558	CDK10	cyclin-dependent kinase 10	16	16q24
EIF3G	8666	EIF3G	eukaryotic translation initiation factor 3, subunit G	19	19p13.2
VPS9D1	9605	VPS9D1	VPS9 domain containing 1	16	16q24
CROCC	9696	CROCC	ciliary rootlet coiled-coil, rootletin	1	1p36.13
CLASRP	11129	CLASRP	CLK4-associating serine/arginine rich protein	19	19q13.3
MIB2	142678	MIB2	mindbomb E3 ubiquitin protein ligase 2	1	1p36.33
TNIP2	79155	TNIP2	TNFAIP3 interacting protein 2	4	4p16.3
MOB2	81532	MOB2	MOB kinase activator 2	11	11p15.5
SLC25A28	81894	SLC25A28	solute carrier family 25 (mitochondrial iron transporter), member 28	10	10q24.2
NRIP2	83714	NRIP2	nuclear receptor interacting protein 2	12	12p13.33
EMILIN2	84034	EMILIN2	elastin microfibril interfacer 2	18	18p11.3
ZMYND15	84225	ZMYND15	zinc finger, MYND-type containing 15	17	17p13.2
HDAC7	51564	HDAC7	histone deacetylase 7	12	12q13.1
ZGPAT	84619	ZGPAT	zinc finger, CCCH-type with G patch domain	20	20q13.3
TWIST2	117581	TWIST2	twist family bHLH transcription factor 2	2	2q37.3
FAM73B	84895	FAM73B	family with sequence similarity 73, member B	9	9q34.11
TOX2	84969	TOX2	TOX high mobility group box family member 2	20	20q13.12
RAB24	53917	RAB24	RAB24, member RAS oncogene family	5	5q35.3

RASIP1	54922	RASIP1	Ras interacting protein 1	19	19q13.33
ARHGEF15	22899	ARHGEF15	Rho guanine nucleotide exchange factor (GEF) 15	17	17p13.1
YPEL4	219539	YPEL4	yippee-like 4	11	11q12.1
ZNF628	89887	ZNF628	zinc finger protein 628	19	19q13.42
MKL1	57591	MKL1	megakaryoblastic leukemia (translocation) 1	22	22q13
TIMD4	91937	TIMD4	T-cell immunoglobulin and mucin domain containing 4	5	5q33.3
TPGS1	91978	TPGS1	tubulin polyglutamylase complex subunit 1	19	19p13.3
RCSD1	92241	RCSD1	RCSD domain containing 1	1	1q24.2
LCN6	158062	LCN6	lipocalin 6	9	9q34.3
UBAP1L	390595	UBAP1L	ubiquitin associated protein 1-like	15	15q22.31
CXXC1	30827	CXXC1	CXXC finger protein 1	18	18q12
ADRBK1	156	ADRBK1	adrenergic, beta, receptor kinase 1	11	11q13.1
ASIP	434	ASIP	agouti signaling protein	20	20q11.2-q12
CASP10	843	CASP10	caspase 10, apoptosis-related cysteine peptidase	2	2q33-q34
CHKB	1120	CHKB	choline kinase beta	22	22q13.33
CRYBB1	1414	CRYBB1	crystallin, beta B1	22	22q12.1
FCGR1B	2210	FCGR1B	Fc fragment of IgG, high affinity Ib, receptor (CD64)	1	1p11.2
FPR1	2357	FPR1	formyl peptide receptor 1	19	19q13.4
GPR31	2853	GPR31	G protein-coupled receptor 31	6	6q27
LAG3	3902	LAG3	lymphocyte-activation gene 3	12	12p13.32
MAN2C1	4123	MAN2C1	mannosidase, alpha, class 2C, member 1	15	15q24.2
P2RY11	5032	P2RY11	purinergic receptor P2Y, G-protein coupled, 11	19	19p13.2
PSMB8	5696	PSMB8	proteasome (prosome, macropain) subunit, beta type, 8	6	6p21.3
RGS13	6003	RGS13	regulator of G-protein signaling 13	1	1q31.2

VWF	7450	VWF	von Willebrand factor	12	12p13.3
MAD1L1	8379	MAD1L1	MAD1 mitotic arrest deficient-like 1 (yeast)	7	7p22
CPZ	8532	CPZ	carboxypeptidase Z	4	4p16.1
CAMK1	8536	CAMK1	calcium/calmodulin-dependent protein kinase I	3	3p25.3
JMJD7-PLA2G4B	8681	JMJD7-PLA2G4B	JMJD7-PLA2G4B readthrough	15	15q11.2-q21.3
HYAL2	8692	HYAL2	hyaluronoglucosaminidase 2	3	3p21.3
DOCK11	139818	DOCK11	dedicator of cytokinesis 11	X	Xq24
CTDP1	9150	CTDP1	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) phosphatase, subunit 1	18	18q23
CD83	9308	CD83	CD83 molecule	6	6p23
STARD8	9754	STARD8	StAR-related lipid transfer (START) domain containing 8	X	Xq13.1
TSSC4	10078	TSSC4	tumor suppressing subtransferable candidate 4	11	11p15.5
NPC2	10577	NPC2	Niemann-Pick disease, type C2	14	14q24.3
MXD4	10608	MXD4	MAX dimerization protein 4	4	4p16.3
CDC37	11140	CDC37	cell division cycle 37	19	19p13.2
LENG1	79165	LENG1	leukocyte receptor cluster (LRC) member 1	19	19q13.4
CENPT	80152	CENPT	centromere protein T	16	16q22.1
TRABD	80305	TRABD	TraB domain containing	22	22q13.33
OTOA	146183	OTOA	otoancorin	16	16p12.2 16p12.2
ITM2C	81618	ITM2C	integral membrane protein 2C	2	2q37
CYGB	114757	CYGB	cytoglobin	17	17q25
SH3BGRL3	83442	SH3BGRL3	SH3 domain binding glutamate-rich protein like 3	1	1p36.11
VILL	50853	VILL	villin-like	3	3p21.3

CALHM2	51063	CALHM2	calcium homeostasis modulator 2	10	10q24.33
EGFL7	51162	EGFL7	EGF-like-domain, multiple 7	9	9q34.3
RASSF4	83937	RASSF4	Ras association (RalGDS/AF-6) domain family member 4	10	10q11.21
NUDT22	84304	NUDT22	nudix (nucleoside diphosphate linked moiety X)-type motif 22	11	11q13.1
SIRT6	51548	SIRT6	sirtuin 6	19	19p13.3
MED15	51586	MED15	mediator complex subunit 15	22	22q11.2
CCDC12	151903	CCDC12	coiled-coil domain containing 12	3	3p21.31
MBD3	53615	MBD3	methyl-CpG binding domain protein 3	19	19p13.3
EXOC3L1	283849	EXOC3L1	exocyst complex component 3-like 1	16	16q22.1
FAM193B	54540	FAM193B	family with sequence similarity 193, member B	5	5q35.3
SLC25A42	284439	SLC25A42	solute carrier family 25, member 42	19	19p13.11
CARD8	22900	CARD8	caspase recruitment domain family, member 8	19	19q13.33
LIMS2	55679	LIMS2	LIM and senescent cell antigen-like domains 2	2	2q14.3
ADAP2	55803	ADAP2	ArfGAP with dual PH domains 2	17	17q11.2
BIN3	55909	BIN3	bridging integrator 3	8	8p21.3
KIAA0930	23313	KIAA0930	KIAA0930	22	22q13.31
APOL2	23780	APOL2	apolipoprotein L, 2	22	22q12
ZNF775	285971	ZNF775	zinc finger protein 775	7	7q36.1
REXO1	57455	REXO1	REX1, RNA exonuclease 1 homolog	19	19p13.3
CACTIN	58509	CACTIN	cactin, spliceosome C complex subunit	19	19p13.3
PTPN22	26191	PTPN22	protein tyrosine phosphatase, non-receptor type 22 (lymphoid)	1	1p13.2
SHKBP1	92799	SHKBP1	SH3KBP1 binding protein 1	19	19q13.2
SH3KBP1	30011	SH3KBP1	SH3-domain kinase binding protein 1	X	Xp22.1-p21.3
POPDC2	64091	POPDC2	popeye domain containing 2	3	3q13.33

SOX17	64321	SOX17	SRY (sex determining region Y)-box 17	8	8q11.23
C3AR1	719	C3AR1	complement component 3a receptor 1	12	12p13.31
CD81	975	CD81	CD81 molecule	11	11p15.5
CCR7	1236	CCR7	chemokine (C-C motif) receptor 7	17	17q12-q21.2
E2F4	1874	E2F4	E2F transcription factor 4, p107/p130-binding	16	16q22.1
FOLR2	2350	FOLR2	folate receptor 2 (fetal)	11	11q13.3-q13.5
GJA4	2701	GJA4	gap junction protein, alpha 4, 37kDa	1	1p35.1
ITGAD	3681	ITGAD	integrin, alpha D	16	16p11.2
ITGAE	3682	ITGAE	integrin, alpha E (antigen CD103, human mucosal lymphocyte antigen 1; alpha polypeptide)	17	17p13
LMO2	4005	LMO2	LIM domain only 2 (rhombotin-like 1)	11	11p13
MFAP4	4239	MFAP4	microfibrillar-associated protein 4	17	17p11.2
PDE1B	5153	PDE1B	phosphodiesterase 1B, calmodulin-dependent	12	12q13
PIK3CG	5294	PIK3CG	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma	7	7q22.3
PIN1	5300	PIN1	peptidylprolyl cis/trans isomerase, NIMA-interacting 1	19	19p13
PPP3CC	5533	PPP3CC	protein phosphatase 3, catalytic subunit, gamma isoform	8	8p21.3
RPL28	6158	RPL28	ribosomal protein L28	19	19q13.4
SBF1	6305	SBF1	SET binding factor 1	22	22q13.33
SIGLEC1	6614	SIGLEC1	sialic acid binding Ig-like lectin 1, sialoadhesin	20	20p13
STK11	6794	STK11	serine/threonine kinase 11	19	19p13.3
STX4	6810	STX4	syntaxin 4	16	16p11.2
VAMP1	6843	VAMP1	vesicle-associated membrane protein 1 (synaptobrevin 1)	12	12p
TAPBP	6892	TAPBP	TAP binding protein (tapasin)	6	6p21.3

GTPBP6	8225	GTPBP6	GTP binding protein 6 (putative)	X Y	Xp22.33; Yp11.32
AKAP17A	8227	AKAP17A	A kinase (PRKA) anchor protein 17A	X Y	Xp22.33 and Yp11.32
CCDC61	729440	CCDC61	coiled-coil domain containing 61	19	19q13.32
TAF1C	9013	TAF1C	TATA box binding protein (TBP)-associated factor, RNA polymerase I, C, 110kDa	16	16q24
RAB11B	9230	RAB11B	RAB11B, member RAS oncogene family	19	19p13.2
STK17A	9263	STK17A	serine/threonine kinase 17a	7	7p13
CD101	9398	CD101	CD101 molecule	1	1p13
PEX16	9409	PEX16	peroxisomal biogenesis factor 16	11	11p11.2
ARFRP1	10139	ARFRP1	ADP-ribosylation factor related protein 1	20	20q13.3
TMEM240	339453	TMEM240	transmembrane protein 240	1	1p36.33
TMEM243	79161	TMEM243	transmembrane protein 243, mitochondrial	7	7q21.12
NDUFS7	374291	NDUFS7	NADH dehydrogenase (ubiquinone) Fe-S protein 7, 20kDa (NADH-coenzyme Q reductase)	19	19p13.3
CHMP6	79643	CHMP6	charged multivesicular body protein 6	17	17q25.3
SLC8B1	80024	SLC8B1	solute carrier family 8 (sodium/lithium/calcium exchanger), member B1	12	12q24.13
ADAM33	80332	ADAM33	ADAM metallopeptidase domain 33	20	20p13
PDCD1LG2	80380	PDCD1LG2	programmed cell death 1 ligand 2	9	9p24.2
AZIN2	113451	AZIN2	antizyme inhibitor 2	1	1p35.1
ENTHD2	146705	ENTHD2	ENTH domain containing 2	17	17q25.3
CCDC42	146849	CCDC42	coiled-coil domain containing 42	17	17p13.1
CCDC130	81576	CCDC130	coiled-coil domain containing 130	19	19p13.2
ADAMTS10	81794	ADAMTS10	ADAM metallopeptidase with thrombospondin type 1 motif, 10	19	19p13.2

CLEC4A	50856	CLEC4A	C-type lectin domain family 4, member A	12	12p13
HDAC10	83933	HDAC10	histone deacetylase 10	22	22q13.31
IFI27L2	83982	IFI27L2	interferon, alpha-inducible protein 27-like 2	14	14q32.12
PIK3AP1	118788	PIK3AP1	phosphoinositide-3-kinase adaptor protein 1	10	10q24.1
MIER2	54531	MIER2	mesoderm induction early response 1, family member 2	19	19p13.3
HABP4	22927	HABP4	hyaluronan binding protein 4	9	9q22.3-q31
TCF25	22980	TCF25	transcription factor 25 (basic helix-loop-helix)	16	16q24.3
SLC12A9	56996	SLC12A9	solute carrier family 12, member 9	7	7q22
EXOC3L2	90332	EXOC3L2	exocyst complex component 3-like 2	19	19q13.32
NLRC4	58484	NLRC4	NLR family, CARD domain containing 4	2	2p22.3
SLC39A13	91252	SLC39A13	solute carrier family 39 (zinc transporter), member 13	11	11p11.2
MTG1	92170	MTG1	mitochondrial ribosome-associated GTPase 1	10	10q26.3
VENTX	27287	VENTX	VENT homeobox	10	10q26.3
OSCAR	126014	OSCAR	osteoclast associated, immunoglobulin-like receptor	19	19q13.42
FAM212A	389119	FAM212A	family with sequence similarity 212, member A	3	3p21.31
LIX1L	128077	LIX1L	limb and CNS expressed 1 like	1	1q21.1
ADCY7	113	ADCY7	adenylate cyclase 7	16	16q12.1
CSF2RB	1439	CSF2RB	colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage)	22	22q13.1
CTSZ	1522	CTSZ	cathepsin Z	20	20q13.32
ESR2	2100	ESR2	estrogen receptor 2 (ER beta)	14	14q23.2
GNG11	2791	GNG11	guanine nucleotide binding protein (G protein), gamma 11	7	7q21
HPS1	3257	HPS1	Hermansky-Pudlak syndrome 1	10	10q23.1-q23.3
IL15	3600	IL15	interleukin 15	4	4q31

APOBEC3F	200316	APOBEC3F	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3F	22	22q13.1
MAF	4094	MAF	v-maf avian musculoaponeurotic fibrosarcoma oncogene homolog	16	16q22-q23
OAZ1	4946	OAZ1	ornithine decarboxylase antizyme 1	19	19p13.3
PFN1	5216	PFN1	profilin 1	17	17p13.3
PHF1	5252	PHF1	PHD finger protein 1	6	6p21.3
MAP2K2	5605	MAP2K2	mitogen-activated protein kinase kinase 2	19	19p13.3
LGMN	5641	LGMN	legumain	14	14q32.1
CAPN15	6650	CAPN15	calpain 15	16	16p13.3
SPG7	6687	SPG7	spastic paraplegia 7 (pure and complicated autosomal recessive)	16	16q24.3
TIE1	7075	TIE1	tyrosine kinase with immunoglobulin-like and EGF-like domains 1	1	1p34-p33
NR1H2	7376	NR1H2	nuclear receptor subfamily 1, group H, member 2	19	19q13.3
ZRSR2	8233	ZRSR2	zinc finger (CCCH type), RNA-binding motif and serine/arginine rich 2	X	Xp22.1
DGKZ	8525	DGKZ	diacylglycerol kinase, zeta	11	11p11.2
TOX	9760	TOX	thymocyte selection-associated high mobility group box	8	8q12.1
MAFB	9935	MAFB	v-maf avian musculoaponeurotic fibrosarcoma oncogene homolog B	20	20q12
IGSF6	10261	IGSF6	immunoglobulin superfamily, member 6	16	16p12.2
NOD1	10392	NOD1	nucleotide-binding oligomerization domain containing 1	7	7p14.3
CD300C	10871	CD300C	CD300c molecule	17	17q25.1
INMT	11185	INMT	indolethylamine N-methyltransferase	7	7p14.3
ZNF668	79759	ZNF668	zinc finger protein 668	16	16p11.2
ADAT3	113179	ADAT3	adenosine deaminase, tRNA-specific 3	19	19p13.3
TSC22D4	81628	TSC22D4	TSC22 domain family, member 4	7	7p21-p15
CARD16	114769	CARD16	caspase recruitment domain family, member 16	11	11q22
PLVAP	83483	PLVAP	plasmalemma vesicle associated protein	19	19p13.2
NOSIP	51070	NOSIP	nitric oxide synthase interacting protein	19	19q13.33

NTNG2	84628	NTNG2	netrin G2	9	9q34
SPSB2	84727	SPSB2	splA/ryanodine receptor domain and SOCS box containing 2	12	12p13.31
SHANK3	85358	SHANK3	SH3 and multiple ankyrin repeat domains 3	22	22q13.3
TUBGCP6	85378	TUBGCP6	tubulin, gamma complex associated protein 6	22	22q13.31-q13.33
FXYD7	53822	FXYD7	FXYD domain containing ion transport regulator 7	19	19q13.12
ROBO4	54538	ROBO4	roundabout guidance receptor 4	11	11q24.2
KLHDC4	54758	KLHDC4	kelch domain containing 4	16	16q24
ZNF575	284346	ZNF575	zinc finger protein 575	19	19q13.31
RNF126	55658	RNF126	ring finger protein 126	19	19p13.3
SBNO2	22904	SBNO2	strawberry notch homolog 2 (<i>Drosophila</i>)	19	19p13.3
LMBR1L	55716	LMBR1L	limb development membrane protein 1-like	12	12q13.12
FCHO1	23149	FCHO1	FCH domain only 1	19	19p13.11
ATG4B	23192	ATG4B	autophagy related 4B, cysteine peptidase	2	2q37.3
CBX7	23492	CBX7	chromobox homolog 7	22	22q13.1
SUGP1	57794	SUGP1	SURP and G patch domain containing 1	19	19p13.11
CTDSP1	58190	CTDSP1	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 1	2	2q35
ARHGAP22	58504	ARHGAP22	Rho GTPase activating protein 22	10	10q11.22
LILRA5	353514	LILRA5	leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 5	19	19q13.4
CNRIP1	25927	CNRIP1	cannabinoid receptor interacting protein 1	2	2p14
CCDC9	26093	CCDC9	coiled-coil domain containing 9	19	19q13.32
PRPF31	26121	PRPF31	pre-mRNA processing factor 31	19	19q13.42
SP140L	93349	SP140L	SP140 nuclear body protein-like	2	2q37.1

EPSTI1	94240	EPSTI1	epithelial stromal interaction 1 (breast)	13	13q13.3
ANAPC2	29882	ANAPC2	anaphase promoting complex subunit 2	9	9q34.3
COL4A3	1285	COL4A3	collagen, type IV, alpha 3 (Goodpasture antigen)	2	2q36-q37
GAS6	2621	GAS6	growth arrest-specific 6	13	13q34
GPR35	2859	GPR35	G protein-coupled receptor 35	2	2q37.3
HLA-DQB2	3120	HLA-DQB2	major histocompatibility complex, class II, DQ beta 2	6	6p21
IL10	3586	IL10	interleukin 10	1	1q31-q32
TNFRSF9	3604	TNFRSF9	tumor necrosis factor receptor superfamily, member 9	1	1p36
JUNB	3726	JUNB	jun B proto-oncogene	19	19p13.2
POLR2E	5434	POLR2E	polymerase (RNA) II (DNA directed) polypeptide E, 25kDa	19	19p13.3
RARRES2	5919	RARRES2	retinoic acid receptor responder (tazarotene induced) 2	7	7q36.1
RPL13	6137	RPL13	ribosomal protein L13	16	16q24.3 17 p11.2
RPS15	6209	RPS15	ribosomal protein S15	19	19p13.3
RRAS	6237	RRAS	related RAS viral (r-ras) oncogene homolog	19	19q13.33
STAT5A	6776	STAT5A	signal transducer and activator of transcription 5A	17	17q11.2
WNT1	7471	WNT1	wingless-type MMTV integration site family, member 1	12	12q13
ZYX	7791	ZYX	zyxin	7	7q32
LTBP4	8425	LTBP4	latent transforming growth factor beta binding protein 4	19	19q13.1- q13.2
AP1M1	8907	AP1M1	adaptor-related protein complex 1, mu 1 subunit	19	19p13.12
SART1	9092	SART1	squamous cell carcinoma antigen recognized by T cells 1	11	11q13.1
SNX17	9784	SNX17	sorting nexin 17	2	2p23.3
CCDC85B	11007	CCDC85B	coiled-coil domain containing 85B	11	11q12.1
TMC6	11322	TMC6	transmembrane channel-like 6	17	17q25.3

OGFOD2	79676	OGFOD2	2-oxoglutarate and iron-dependent oxygenase domain containing 2	12	12q24.31
PRKCDBP	112464	PRKCDBP	protein kinase C, delta binding protein	11	11p15.4
NPL	80896	NPL	N-acetylneuraminate pyruvate lyase (dihydrodipicolinate synthase)	1	1q25
LENG8	114823	LENG8	leukocyte receptor cluster (LRC) member 8	19	19q13.42
INO80B	83444	INO80B	INO80 complex subunit B	2	2p13.1
ARL6IP4	51329	ARL6IP4	ADP-ribosylation factor-like 6 interacting protein 4	12	12q24.31
COX4I2	84701	COX4I2	cytochrome c oxidase subunit IV isoform 2 (lung)	20	20q11.21
PARP10	84875	PARP10	poly (ADP-ribose) polymerase family, member 10	8	8q24.3
SYTL1	84958	SYTL1	synaptotagmin-like 1	1	1p36.11
CHFR	55743	CHFR	checkpoint with forkhead and ring finger domains, E3 ubiquitin protein ligase	12	12q24.33
DMAP1	55929	DMAP1	DNA methyltransferase 1 associated protein 1	1	1p34
CTDNEP1	23399	CTDNEP1	CTD nuclear envelope phosphatase 1	17	17p13
PLD3	23646	PLD3	phospholipase D family, member 3	19	19q13.2
GJC2	57165	GJC2	gap junction protein, gamma 2, 47kDa	1	1q42.13
SLC38A10	124565	SLC38A10	solute carrier family 38, member 10	17	17q25.3
SPNS2	124976	SPNS2	spinster homolog 2 (<i>Drosophila</i>)	17	17p13.2
SIGLEC9	27180	SIGLEC9	sialic acid binding Ig-like lectin 9	19	19q13.41
SIGLEC8	27181	SIGLEC8	sialic acid binding Ig-like lectin 8	19	19q13.33-q13.41
MIIP	60672	MIIP	migration and invasion inhibitory protein	1	1p36.22
TMEM176B	28959	TMEM176B	transmembrane protein 176B	7	7q36.1
CLEC12A	160364	CLEC12A	C-type lectin domain family 12, member A	12	12p13.2
ROBO3	64221	ROBO3	roundabout guidance receptor 3	11	11q24.2
LGI4	163175	LGI4	leucine-rich repeat LGI family, member 4	19	19q13.12 1

						9q13.11
ZFAND2B	130617	ZFAND2B	zinc finger, AN1-type domain 2B	2	2q35	
ADAM8	101	ADAM8	ADAM metallopeptidase domain 8	10	10q26.3	
APOC1	341	APOC1	apolipoprotein C-I	19	19q13.2	
TSPO	706	TSPO	translocator protein (18kDa)	22	22q13.31	
ACSF3	197322	ACSF3	acyl-CoA synthetase family member 3	16	16q24.3	
CEBPA	1050	CEBPA	CCAAT/enhancer binding protein (C/EBP), alpha	19	19q13.1	
COL4A4	1286	COL4A4	collagen, type IV, alpha 4	2	2q35-q37	
CTSG	1511	CTSG	cathepsin G	14	14q11.2	
CYBB	1536	CYBB	cytochrome b-245, beta polypeptide	X	Xp21.1	
FCGR1A	2209	FCGR1A	Fc fragment of IgG, high affinity Ia, receptor (CD64)	1	1q21.2-q21.3	
GALT	2592	GALT	galactose-1-phosphate uridylyltransferase	9	9p13	
CCR10	2826	CCR10	chemokine (C-C motif) receptor 10	17	17q21.1-q21.3	
UTS2R	2837	UTS2R	urotensin 2 receptor	17	17q25.3	
HOXD9	3235	HOXD9	homeobox D9	2	2q31.1	
ID3	3399	ID3	inhibitor of DNA binding 3, dominant negative helix-loop-helix protein	1	1p36.13-p36.12	
IGFBP7	3490	IGFBP7	insulin-like growth factor binding protein 7	4	4q12	
MEFV	4210	MEFV	Mediterranean fever	16	16p13.3	
NOS3	4846	NOS3	nitric oxide synthase 3 (endothelial cell)	7	7q36	
POLRMT	5442	POLRMT	polymerase (RNA) mitochondrial (DNA directed)	19	19p13.3	
POU6F1	5463	POU6F1	POU class 6 homeobox 1	12	12q13.13	
RAB3IL1	5866	RAB3IL1	RAB3A interacting protein (rabin3)-like 1	11	11q12.2	

RING1	6015	RING1	ring finger protein 1	6	6p21.3
CCL22	6367	CCL22	chemokine (C-C motif) ligand 22	16	16q13
DDX26B	203522	DDX26B	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 26B	X	Xq26.3
CDK11A	728642	CDK11A	cyclin-dependent kinase 11A	1	1p36.33
AIP	9049	AIP	aryl hydrocarbon receptor interacting protein	11	11q13.3
PDLIM7	9260	PDLIM7	PDZ and LIM domain 7 (enigma)	5	5q35.3
CHST2	9435	CHST2	carbohydrate (N-acetylglucosamine-6-O) sulfotransferase 2	3	3q24
MVP	9961	MVP	major vault protein	16	16p11.2
SH2B3	10019	SH2B3	SH2B adaptor protein 3	12	12q24
MED16	10025	MED16	mediator complex subunit 16	19	19p13.3
FAM151A	338094	FAM151A	family with sequence similarity 151, member A	1	-
RAPGEF3	10411	RAPGEF3	Rap guanine nucleotide exchange factor (GEF) 3	12	12q13.1
TAF6L	10629	TAF6L	TAF6-like RNA polymerase II, p300/CBP-associated factor (PCAF)-associated factor, 65kDa	11	11q12.3
GPIHBP1	338328	GPIHBP1	glycosylphosphatidylinositol anchored high density lipoprotein binding protein 1	8	8q24.3
MMRN2	79812	MMRN2	multimerin 2	10	10q23.2
STARD5	80765	STARD5	StAR-related lipid transfer (START) domain containing 5	15	15q26
B9D2	80776	B9D2	B9 protein domain 2	19	19q13.2
PM20D1	148811	PM20D1	peptidase M20 domain containing 1	1	1q32.1
AMDHD2	51005	AMDHD2	amidohydrolase domain containing 2	16	16p13.3
ORAI1	84876	ORAI1	ORAI calcium release-activated calcium modulator 1	12	12q24.31
ATOH8	84913	ATOH8	ataonal bHLH transcription factor 8	2	2p11.2
ZGLP1	10012528 8	ZGLP1	zinc finger, GATA-like protein 1	19	19p13.2

TREM2	54209	TREM2	triggering receptor expressed on myeloid cells 2	6	6p21.1
ZCCHC18	644353	ZCCHC18	zinc finger, CCHC domain containing 18	X	Xq22.2
PLEKHJ1	55111	PLEKHJ1	pleckstrin homology domain containing, family J member 1	19	19p13.3
MAP1S	55201	MAP1S	microtubule-associated protein 1S	19	19p13.11
TFEC	22797	TFEC	transcription factor EC	7	7q31.2
CCDC94	55702	CCDC94	coiled-coil domain containing 94	19	19p13.3
CCDC152	10012979 2	CCDC152	coiled-coil domain containing 152	5	5p12
SHD	56961	SHD	Src homology 2 domain containing transforming protein D	19	19p13.3
LRRN4CL	221091	LRRN4CL	LRRN4 C-terminal like	11	11q12.3
JDP2	122953	JDP2	Jun dimerization protein 2	14	14q24.3
NCKAP5L	57701	NCKAP5L	NCK-associated protein 5-like	12	12q13.12
SCRN2	90507	SCRN2	secernin 2	17	17q21.32
SPSB3	90864	SPSB3	splA/ryanodine receptor domain and SOCS box containing 3	16	16p13.3
TECPR1	25851	TECPR1	tectonin beta-propeller repeat containing 1	7	7q21.3
RPS19BP1	91582	RPS19BP1	ribosomal protein S19 binding protein 1	22	22q13.1
HSF5	124535	HSF5	heat shock transcription factor family member 5	17	17q22
GBGT1	26301	GBGT1	globoside alpha-1,3-N-acetylgalactosaminyltransferase 1	9	9q34.13-q34.3
DPH7	92715	DPH7	diphthamide biosynthesis 7	9	9q34.3
CC2D2B	387707	CC2D2B	coiled-coil and C2 domain containing 2B	10	10q24.1
SGSM3	27352	SGSM3	small G protein signaling modulator 3	22	22q13.1-q13.2
JOSD2	126119	JOSD2	Josephin domain containing 2	19	19q13.33
MFSD12	126321	MFSD12	major facilitator superfamily domain containing 12	19	19p13.3

ZDHC8	29801	ZDHC8	zinc finger, DHHC-type containing 8	22	22q11.21
TFPT	29844	TFPT	TCF3 (E2A) fusion partner (in childhood Leukemia)	19	19q13
SERTAD1	29950	SERTAD1	SERTA domain containing 1	19	19q13.1-q13.2
FOXD4L6	653404	FOXD4L6	forkhead box D4-like 6	9	9q21.11
AKR1B1	231	AKR1B1	aldo-keto reductase family 1, member B1 (aldose reductase)	7	7q35
C1S	716	C1S	complement component 1, s subcomponent	12	12p13
CAPG	822	CAPG	capping protein (actin filament), gelsolin-like	2	2p11.2
CAPN3	825	CAPN3	calpain 3	15	15q15.1
CNN2	1265	CNN2	calponin 2	19	19p13.3
CRHBP	1393	CRHBP	corticotropin releasing hormone binding protein	5	5q13.3
DAPK3	1613	DAPK3	death-associated protein kinase 3	19	19p13.3
MEGF6	1953	MEGF6	multiple EGF-like-domains 6	1	1p36.3
FOXF1	2294	FOXF1	forkhead box F1	16	16q24
GPR15	2838	GPR15	G protein-coupled receptor 15	3	3q11.2-q13.1
GUK1	2987	GUK1	guanylate kinase 1	1	1q32-q41
FAAP20	199990	FAAP20	Fanconi anemia core complex associated protein 20	1	1p36.33
IGFBP6	3489	IGFBP6	insulin-like growth factor binding protein 6	12	12q13
KCND1	3750	KCND1	potassium channel, voltage gated Shal related subfamily D, member 1	X	Xp11.23
LAIR2	3904	LAIR2	leukocyte-associated immunoglobulin-like receptor 2	19	19q13.4
MEF2C	4208	MEF2C	myocyte enhancer factor 2C	5	5q14.3
NDN	4692	NDN	necdin, melanoma antigen (MAGE) family member	15	15q11.2-q12
NFKBIB	4793	NFKBIB	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor,	19	19q13.1

			beta		
SERPINF1	5176	SERPINF1	serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1	17	17p13.3
ABCB1	5243	ABCB1	ATP-binding cassette, sub-family B (MDR/TAP), member 1	7	7q21.12
PLCG2	5336	PLCG2	phospholipase C, gamma 2 (phosphatidylinositol-specific)	16	16q24.1
CCL3	6348	CCL3	chemokine (C-C motif) ligand 3	17	17q12
R3HCC1	203069	R3HCC1	R3H domain and coiled-coil containing 1	8	8p21.3
TRAF2	7186	TRAF2	TNF receptor-associated factor 2	9	9q34
CCRL2	9034	CCRL2	chemokine (C-C motif) receptor-like 2	3	3p21
TRIP10	9322	TRIP10	thyroid hormone receptor interactor 10	19	19p13.3
TMEM37	140738	TMEM37	transmembrane protein 37	2	2q14.2
SAFB2	9667	SAFB2	scaffold attachment factor B2	19	19p13.3
NEURL2	140825	NEURL2	neuralized E3 ubiquitin protein ligase 2	20	20q13.12
TCIRG1	10312	TCIRG1	T-cell, immune regulator 1, ATPase, H ⁺ transporting, lysosomal V0 subunit A3	11	11q13.2
BATF	10538	BATF	basic leucine zipper transcription factor, ATF-like	14	14q24.3
RBCK1	10616	RBCK1	RanBP-type and C3HC4-type zinc finger containing 1	20	20p13
TRIOBP	11078	TRIOBP	TRIO and F-actin binding protein	22	22q13.1
PNKP	11284	PNKP	polynucleotide kinase 3'-phosphatase	19	19q13.3-q13.4
RBM42	79171	RBM42	RNA binding motif protein 42	19	19q13.12
MICALL2	79778	MICALL2	MICAL-like 2	7	7p22.3
LYSMD4	145748	LYSMD4	LysM, putative peptidoglycan-binding, domain containing 4	15	15q26.3
UBXN6	80700	UBXN6	UBX domain protein 6	19	19p13
SPATC1	375686	SPATC1	spermatogenesis and centriole associated 1	8	8q24.3

CCDC124	115098	CCDC124	coiled-coil domain containing 124	19	19p13.11
MINK1	50488	MINK1	misshapen-like kinase 1	17	17p13.2
DOHH	83475	DOHH	deoxyhypusine hydroxylase/monooxygenase	19	19p13.3
MRGPRF	116535	MRGPRF	MAS-related GPR, member F	11	11q13.3
ATAD3B	83858	ATAD3B	ATPase family, AAA domain containing 3B	1	1p36.33
TBC1D10A	83874	TBC1D10A	TBC1 domain family, member 10A	22	22q12.2
ZNF394	84124	ZNF394	zinc finger protein 394	7	7q22.1
FLYWCH1	84256	FLYWCH1	FLYWCH-type zinc finger 1	16	16p13.3
ALKBH7	84266	ALKBH7	alkB homolog 7	19	19p13.3
ZNF414	84330	ZNF414	zinc finger protein 414	19	19p13.2
LSM10	84967	LSM10	LSM10, U7 small nuclear RNA associated	1	1p34.3
WDR86	349136	WDR86	WD repeat domain 86	7	7q36.1
DEF8	54849	DEF8	differentially expressed in FDCP 8 homolog (mouse)	16	16q24.3
FBXL8	55336	FBXL8	F-box and leucine-rich repeat protein 8	16	16q22.1
IKZF3	22806	IKZF3	IKAROS family zinc finger 3 (Aiolos)	17	17q21
TBC1D2B	23102	TBC1D2B	TBC1 domain family, member 2B	15	15q24.3-q25.1
SPPL2B	56928	SPPL2B	signal peptide peptidase like 2B	19	19p13.3
THAP3	90326	THAP3	THAP domain containing, apoptosis associated protein 3	1	1p36.31
ZFYVE28	57732	ZFYVE28	zinc finger, FYVE domain containing 28	4	4p16.3
ADGRA2	25960	ADGRA2	adhesion G protein-coupled receptor A2	8	8p11.23
CD300LB	124599	CD300LB	CD300 molecule-like family member b	17	17q25.1
ADAMDEC1	27299	ADAMDEC1	ADAM-like, decysin 1	8	8p21.2
ZNF787	126208	ZNF787	zinc finger protein 787	19	19q13.43
MTMR14	64419	MTMR14	myotubularin related protein 14	3	3p26

NADK	65220	NADK	NAD kinase	1	1p36.33
SLC25A6	293	SLC25A6	solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 6	X Y	Xp22.32 and Yp11.3
CDK3	1018	CDK3	cyclin-dependent kinase 3	17	17q25.1
CHST13	166012	CHST13	carbohydrate (chondroitin 4) sulfotransferase 13	3	3q21.3
FAU	2197	FAU	Finkel-Biskis-Reilly murine sarcoma virus (FBR-MuSV) ubiquitously expressed	11	11q13
FCER1A	2205	FCER1A	Fc fragment of IgE, high affinity I, receptor for; alpha polypeptide	1	1q23
JCHAIN	3512	JCHAIN	joining chain of multimeric IgA and IgM	4	4q21
KIFC3	3801	KIFC3	kinesin family member C3	16	16q13-q21
KIR3DL2	3812	KIR3DL2	killer cell immunoglobulin-like receptor, three domains, long cytoplasmic tail, 2	19	19q13.4
NCF2	4688	NCF2	neutrophil cytosolic factor 2	1	1q25
NPR1	4881	NPR1	natriuretic peptide receptor 1	1	1q21-q22
PML	5371	PML	promyelocytic leukemia	15	15q22
RPS19	6223	RPS19	ribosomal protein S19	19	19q13.2
CXCL12	6387	CXCL12	chemokine (C-X-C motif) ligand 12	10	10q11.1
SLC22A3	6581	SLC22A3	solute carrier family 22 (organic cation transporter), member 3	6	6q25.3
CLEC4C	170482	CLEC4C	C-type lectin domain family 4, member C	12	12p13.2-p12.3
TRIM21	6737	TRIM21	tripartite motif containing 21	11	11p15.5
TPO	7173	TPO	thyroid peroxidase	2	2p25
VEGFB	7423	VEGFB	vascular endothelial growth factor B	11	11q13
SLC25A53	401612	SLC25A53	solute carrier family 25, member 53	X	Xq22.2
MKNK1	8569	MKNK1	MAP kinase interacting serine/threonine kinase 1	1	1p33

CFLAR	8837	CFLAR	CASP8 and FADD-like apoptosis regulator	2	2q33-q34
FAM53B	9679	FAM53B	family with sequence similarity 53, member B	10	10q26.13
ARPC2	10109	ARPC2	actin related protein 2/3 complex, subunit 2, 34kDa	2	2q36.1
LPAR6	10161	LPAR6	lysophosphatidic acid receptor 6	13	13q14
TNK2	10188	TNK2	tyrosine kinase, non-receptor, 2	3	3q29
ADAM28	10863	ADAM28	ADAM metallopeptidase domain 28	8	8p21.2
FASTK	10922	FASTK	Fas-activated serine/threonine kinase	7	7q35
KLHL36	79786	KLHL36	kelch-like family member 36	16	16q24.1
ARMC5	79798	ARMC5	armadillo repeat containing 5	16	16p11.2
PEAR1	375033	PEAR1	platelet endothelial aggregation receptor 1	1	1q23.1
ZNF688	146542	ZNF688	zinc finger protein 688	16	16p11.2
STK11IP	114790	STK11IP	serine/threonine kinase 11 interacting protein	2	2q35
OSBPL7	114881	OSBPL7	oxysterol binding protein-like 7	17	17q21
MFRP	83552	MFRP	membrane frizzled-related protein	11	11q23
TMUB1	83590	TMUB1	transmembrane and ubiquitin-like domain containing 1	7	7q36.1
SDF4	51150	SDF4	stromal cell derived factor 4	1	1p36.33
SCAND1	51282	SCAND1	SCAN domain containing 1	20	20q11.1-q11.23
UBE2J2	118424	UBE2J2	ubiquitin-conjugating enzyme E2, J2	1	1p36.33
SDHAF1	644096	SDHAF1	succinate dehydrogenase complex assembly factor 1	19	19q13.12
GPN2	54707	GPN2	GPN-loop GTPase 2	1	1p36.11
METRNL	284207	METRNL	meteorin, glial cell differentiation regulator-like	17	17q25.3
DNAJC17	55192	DNAJC17	DnaJ (Hsp40) homolog, subfamily C, member 17	15	15q15.1
LRRC70	10013073 3	LRRC70	leucine rich repeat containing 70	5	5q12.1

SPHK2	56848	SPHK2	sphingosine kinase 2	19	19q13.2
NCLN	56926	NCLN	nicalin	19	19p13.3
CLEC4E	26253	CLEC4E	C-type lectin domain family 4, member E	12	12p13.31
EPN1	29924	EPN1	epsin 1	19	19q13.42
NABP1	64859	NABP1	nucleic acid binding protein 1	2	2q32.3
COPA	1314	COPA	coatomer protein complex, subunit alpha	1	1q23.2
DBT	1629	DBT	dihydrolipoamide branched chain transacylase E2	1	1p31
DLG1	1739	DLG1	discs, large homolog 1 (<i>Drosophila</i>)	3	3q29
GMFB	2764	GMFB	glia maturation factor, beta	14	14q22.2
GOLGB1	2804	GOLGB1	golgin B1	3	3q13
GTF2H3	2967	GTF2H3	general transcription factor IIH, polypeptide 3, 34kDa	12	12q24.31
ZNF627	199692	ZNF627	zinc finger protein 627	19	19p13.2
NF1	4763	NF1	neurofibromin 1	17	17q11.2
OPA1	4976	OPA1	optic atrophy 1 (autosomal dominant)	3	3q29
MAPK8	5599	MAPK8	mitogen-activated protein kinase 8	10	10q11.22
HLTF	6596	HLTF	helicase-like transcription factor	3	3q25.1-q26.1
TOP1	7150	TOP1	topoisomerase (DNA) I	20	20q12-q13.1
UBE2H	7328	UBE2H	ubiquitin-conjugating enzyme E2H	7	7q32
SLMAP	7871	SLMAP	sarcolemma associated protein	3	3p21.2-p14.3
TRIP11	9321	TRIP11	thyroid hormone receptor interactor 11	14	14q31-q32
RNF14	9604	RNF14	ring finger protein 14	5	5q23.3-q31.1

BCLAF1	9774	BCLAF1	BCL2-associated transcription factor 1	6	6q23.3
SPTLC1	10558	SPTLC1	serine palmitoyltransferase, long chain base subunit 1	9	9q22.2
PAIP1	10605	PAIP1	poly(A) binding protein interacting protein 1	5	5p12
SRSF10	10772	SRSF10	serine/arginine-rich splicing factor 10	1	1p36.11
PALB2	79728	PALB2	partner and localizer of BRCA2	16	16p12.2
MYEF2	50804	MYEF2	myelin expression factor 2	15	15q21.1
NMD3	51068	NMD3	NMD3 ribosome export adaptor	3	3q26.1
PCYOX1	51449	PCYOX1	prenylcysteine oxidase 1	2	2p13.3
PHAX	51808	PHAX	phosphorylated adaptor for RNA export	5	5q23.2
EAF1	85403	EAF1	ELL associated factor 1	3	3p25.1
CPSF2	53981	CPSF2	cleavage and polyadenylation specific factor 2, 100kDa	14	14q31.1
DCUN1D1	54165	DCUN1D1	DCN1, defective in cullin neddylation 1, domain containing 1	3	3q26.3
STRBP	55342	STRBP	spermatid perinuclear RNA binding protein	9	9q33.3
IMPACT	55364	IMPACT	impact RWD domain protein	18	18q11.2-q12.1
SLC30A6	55676	SLC30A6	solute carrier family 30 (zinc transporter), member 6	2	2p22.3
KLHDC10	23008	KLHDC10	kelch domain containing 10	7	7q32.2
SLC25A40	55972	SLC25A40	solute carrier family 25, member 40	7	7q21.12
UBFD1	56061	UBFD1	ubiquitin family domain containing 1	16	16p12
DPY19L4	286148	DPY19L4	dpy-19-like 4 (<i>C. elegans</i>)	8	8q22.1
TM9SF3	56889	TM9SF3	transmembrane 9 superfamily member 3	10	10q24.1
CERS6	253782	CERS6	ceramide synthase 6	2	2q24.3
RALGAPA1	253959	RALGAPA1	Ral GTPase activating protein, alpha subunit 1 (catalytic)	14	14q13.2
DSTYK	25778	DSTYK	dual serine/threonine and tyrosine protein kinase	1	1q32.1
ELMOD2	255520	ELMOD2	ELMO/CED-12 domain containing 2	4	4q31.1

PIGM	93183	PIGM	phosphatidylinositol glycan anchor biosynthesis, class M	1	1q23.2
TRMT10A	93587	TRMT10A	tRNA methyltransferase 10 homolog A (<i>S. cerevisiae</i>)	4	4q23
FLVCR1	28982	FLVCR1	feline leukemia virus subgroup C cellular receptor 1	1	1q32.3
LMBR1	64327	LMBR1	limb development membrane protein 1	7	7q36
CSNK1G3	1456	CSNK1G3	casein kinase 1, gamma 3	5	5q23
DHX15	1665	DHX15	DEAH (Asp-Glu-Ala-His) box helicase 15	4	4p15.3
GOLGA4	2803	GOLGA4	golgin A4	3	3p22-p21.3
GTF2I	2969	GTF2I	general transcription factor Iii	7	7q11.23
UBE2K	3093	UBE2K	ubiquitin-conjugating enzyme E2K	4	4p14
HSPA9	3313	HSPA9	heat shock 70kDa protein 9 (mortalin)	5	5q31.1
IPP	3652	IPP	intracisternal A particle-promoted polypeptide	1	1p34-p32
TNPO1	3842	TNPO1	transportin 1	5	5q13.2
CAPRIN1	4076	CAPRIN1	cell cycle associated protein 1	11	11p13
MYO6	4646	MYO6	myosin VI	6	6q13
NARS	4677	NARS	asparaginyl-tRNA synthetase	18	18q21.31
ATXN2	6311	ATXN2	ataxin 2	12	12q24.1
NEK4	6787	NEK4	NIMA-related kinase 4	3	3p21.1
FAM199X	139231	FAM199X	family with sequence similarity 199, X-linked	X	Xq22.2
SMG7	9887	SMG7	SMG7 nonsense mediated mRNA decay factor	1	1q25
PDCD6IP	10015	PDCD6IP	programmed cell death 6 interacting protein	3	3p22.3
HMGXB4	10042	HMGXB4	HMG box domain containing 4	22	22q13.1
LRPPRC	10128	LRPPRC	leucine-rich pentatricopeptide repeat containing	2	2p21
ZMPSTE24	10269	ZMPSTE24	zinc metallopeptidase STE24	1	1p34
SEC24B	10427	SEC24B	SEC24 family member B	4	4q25
RAB10	10890	RAB10	RAB10, member RAS oncogene family	2	2p23.3

TMED2	10959	TMED2	transmembrane emp24 domain trafficking protein 2	12	12q24.31
CEP97	79598	CEP97	centrosomal protein 97kDa	3	3q12.3
ERI2	112479	ERI2	ERI1 exoribonuclease family member 2	16	16p12.3
ZC3H14	79882	ZC3H14	zinc finger CCCH-type containing 14	14	14q31.3
PLA2G12A	81579	PLA2G12A	phospholipase A2, group XIIA	4	4q25
TMED7	51014	TMED7	transmembrane emp24 protein transport domain containing 7	5	5q22.3
TADA1	117143	TADA1	transcriptional adaptor 1	1	1q24.1
ATAD1	84896	ATAD1	ATPase family, AAA domain containing 1	10	10q23.31
TTC30B	150737	TTC30B	tetratricopeptide repeat domain 30B	2	2q31.2
ESRP1	54845	ESRP1	epithelial splicing regulatory protein 1	8	8q22.1
SRFBP1	153443	SRFBP1	serum response factor binding protein 1	5	5q23.1
EXD2	55218	EXD2	exonuclease 3'-5' domain containing 2	14	14q24.1
SLC39A9	55334	SLC39A9	solute carrier family 39, member 9	14	14q24.1
TMEM184C	55751	TMEM184C	transmembrane protein 184C	4	4q31.23
UHRF1BP1L	23074	UHRF1BP1L	UHRF1 binding protein 1-like	12	12q23.1
FBXO28	23219	FBXO28	F-box protein 28	1	1q42.11
KIAA0895	23366	KIAA0895	KIAA0895	7	7p14.2
CFAP97	57587	CFAP97	cilia and flagella associated protein 97	4	4q35.1
USP37	57695	USP37	ubiquitin specific peptidase 37	2	2q35
TUBGCP4	27229	TUBGCP4	tubulin, gamma complex associated protein 4	15	15q15
IFT81	28981	IFT81	intraflagellar transport 81	12	12q24.13
NUCKS1	64710	NUCKS1	nuclear casein kinase and cyclin-dependent kinase substrate 1	1	1q32.1
SLC30A5	64924	SLC30A5	solute carrier family 30 (zinc transporter), member 5	5	5q12.1
ZBTB41	360023	ZBTB41	zinc finger and BTB domain containing 41	1	1q31.3
IDE	3416	IDE	insulin-degrading enzyme	10	10q23-q25

KTN1	3895	KTN1	kinectin 1 (kinesin receptor)	14	14q22.1
SRSF1	6426	SRSF1	serine/arginine-rich splicing factor 1	17	17q22
TROVE2	6738	TROVE2	TROVE domain family, member 2	1	1q31
USP7	7874	USP7	ubiquitin specific peptidase 7 (herpes virus-associated)	16	16p13.3
CLOCK	9575	CLOCK	clock circadian regulator	4	4q12
TTC37	9652	TTC37	tetratricopeptide repeat domain 37	5	5q15
FAM20B	9917	FAM20B	family with sequence similarity 20, member B	1	1q25
NEBL	10529	NEBL	nebulette	10	10p12
STAG2	10735	STAG2	stromal antigen 2	X	Xq25
ZMYND11	10771	ZMYND11	zinc finger, MYND-type containing 11	10	10p14
PAPOLA	10914	PAPOLA	poly(A) polymerase alpha	14	14q32.31
TRUB1	142940	TRUB1	TruB pseudouridine (psi) synthase family member 1	10	10q25.3
RSRC1	51319	RSRC1	arginine-serine-rich coiled-coil 1	3	3q25.32
MBTPS2	51360	MBTPS2	membrane-bound transcription factor peptidase, site 2	X	Xp22.12-p22.11
HOOK1	51361	HOOK1	hook microtubule-tethering protein 1	1	1p32.1
RBM27	54439	RBM27	RNA binding motif protein 27	5	5q32
LARP1B	55132	LARP1B	La ribonucleoprotein domain family, member 1B	4	4q28.2
UEVLD	55293	UEVLD	UEV and lactate/malate dehydrogenase domains	11	11p15.1
IARS2	55699	IARS2	isoleucyl-tRNA synthetase 2, mitochondrial	1	1q41
TTLL5	23093	TTLL5	tubulin tyrosine ligase-like family member 5	14	14q24.3
THOC2	57187	THOC2	THO complex 2	X	Xq25-q26.3
RAB3GAP2	25782	RAB3GAP2	RAB3 GTPase activating protein subunit 2 (non-catalytic)	1	1q41
KIF1BP	26128	KIF1BP	KIF1 binding protein	10	10q22.1
AFF4	27125	AFF4	AF4/FMR2 family, member 4	5	5q31

UBQLN1	29979	UBQLN1	ubiquilin 1		9	9q22 9q21. 2-q21.3
UBR3	130507	UBR3	ubiquitin protein ligase E3 component n-recognin 3 (putative)		2	2q31.1
ATP2A2	488	ATP2A2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2		12	12q24.11
BMPR1A	657	BMPR1A	bone morphogenetic protein receptor, type IA		10	10q22.3
CDS1	1040	CDS1	CDP-diacylglycerol synthase (phosphatidate cytidylyltransferase) 1		4	4q21.23
PRRC1	133619	PRRC1	proline-rich coiled-coil 1		5	5q23.2
KPNA1	3836	KPNA1	karyopherin alpha 1 (importin alpha 5)		3	3q21
SMAD5	4090	SMAD5	SMAD family member 5		5	5q31
OCRL	4952	OCRL	oculocerebrorenal syndrome of Lowe		X	Xq25
TWF1	5756	TWF1	twinfilin actin binding protein 1		12	12q12
SRPK2	6733	SRPK2	SRSF protein kinase 2		7	7q22-q31.1
MAP4K3	8491	MAP4K3	mitogen-activated protein kinase kinase kinase kinase 3		2	2p22.1
ZMYM4	9202	ZMYM4	zinc finger, MYM-type 4		1	1p32-p34
MATR3	9782	MATR3	matrin 3		5	5q31.2
RAD50	10111	RAD50	RAD50 homolog, double strand break repair protein		5	5q31
SLC30A9	10463	SLC30A9	solute carrier family 30 (zinc transporter), member 9		4	4p13
ZNF322	79692	ZNF322	zinc finger protein 322		6	6p22.1
KIAA1715	80856	KIAA1715	KIAA1715		2	2q31
ZFR	51663	ZFR	zinc finger RNA binding protein		5	5p13.3
AFTPH	54812	AFTPH	aftiphilin		2	2p14
TMEM33	55161	TMEM33	transmembrane protein 33		4	4p13
SCYL2	55681	SCYL2	SCY1-like 2 (<i>S. cerevisiae</i>)		12	12q23.1
ARL6IP1	23204	ARL6IP1	ADP-ribosylation factor-like 6 interacting protein 1		16	16p12- p11.2

MIB1	57534	MIB1	mindbomb E3 ubiquitin protein ligase 1	18	18q11.2
GMCL1	64395	GMCL1	germ cell-less, spermatogenesis associated 1	2	2p13.3
RMND5A	64795	RMND5A	required for meiotic nuclear division 5 homolog A (<i>S. cerevisiae</i>)	2	2p11.2
ARID2	196528	ARID2	AT rich interactive domain 2 (ARID, RFX-like)	12	12q12
CLCN3	1182	CLCN3	chloride channel, voltage-sensitive 3	4	4q33
GSPT1	2935	GSPT1	G1 to S phase transition 1	16	16p13.1
HNRNPU	3192	HNRNPU	heterogeneous nuclear ribonucleoprotein U (scaffold attachment factor A)	1	1q44
PPP2R5E	5529	PPP2R5E	protein phosphatase 2, regulatory subunit B', epsilon isoform	14	14q23.1
RAD23B	5887	RAD23B	RAD23 homolog B, nucleotide excision repair protein	9	9q31.2
RBBP5	5929	RBBP5	retinoblastoma binding protein 5	1	1q32
ZNF148	7707	ZNF148	zinc finger protein 148	3	3q21
APOOL	139322	APOOL	apolipoprotein O-like	X	Xq21.1
BLZF1	8548	BLZF1	basic leucine zipper nuclear factor 1	1	1q24
SNX4	8723	SNX4	sorting nexin 4	3	3q21.2
IPO7	10527	IPO7	importin 7	11	11p15.4
ZNF664	144348	ZNF664	zinc finger protein 664	12	12q24.31
CDC73	79577	CDC73	cell division cycle 73	1	1q25
BROX	148362	BROX	BRO1 domain and CAAX motif containing	1	1q41
RLIM	51132	RLIM	ring finger protein, LIM domain interacting	X	Xq13-q21
DCTN4	51164	DCTN4	dynactin 4 (p62)	5	5q33.1
TMEM209	84928	TMEM209	transmembrane protein 209	7	7q32.2
RRN3	54700	RRN3	RRN3 RNA polymerase I transcription factor homolog (<i>S. cerevisiae</i>)	16	16p12
RPRD1A	55197	RPRD1A	regulation of nuclear pre-mRNA domain containing 1A	18	18q12.2
FBXO21	23014	FBXO21	F-box protein 21	12	12q24.22
PDS5A	23244	PDS5A	PDS5 cohesin associated factor A	4	4p14

ADNP	23394	ADNP	activity-dependent neuroprotector homeobox	20	20q13.13
YIPF6	286451	YIPF6	Yip1 domain family, member 6	X	Xq12
AHCTF1	25909	AHCTF1	AT hook containing transcription factor 1	1	1q44
ZNF638	27332	ZNF638	zinc finger protein 638	2	2p13.1
PIK3R4	30849	PIK3R4	phosphoinositide-3-kinase, regulatory subunit 4	3	3q22.1
PHKA1	5255	PHKA1	phosphorylase kinase, alpha 1 (muscle)	X	Xq12-q13
PTPN11	5781	PTPN11	protein tyrosine phosphatase, non-receptor type 11	12	12q24
SCAMP1	9522	SCAMP1	secretory carrier membrane protein 1	5	5q14.1
TTC26	79989	TTC26	tetratricopeptide repeat domain 26	7	7q34
LARP4	113251	LARP4	La ribonucleoprotein domain family, member 4	12	12q13.12
LRRC58	116064	LRRC58	leucine rich repeat containing 58	3	3q13.33
GFM1	85476	GFM1	G elongation factor, mitochondrial 1	3	3q25
PPP4R2	151987	PPP4R2	protein phosphatase 4, regulatory subunit 2	3	3p13
CCAR1	55749	CCAR1	cell division cycle and apoptosis regulator 1	10	10q21.3
PUM2	23369	PUM2	pumilio RNA-binding family member 2	2	2p24.1
KIF5B	3799	KIF5B	kinesin family member 5B	10	10p11.22
CAMSAP2	23271	CAMSAP2	calmodulin regulated spectrin-associated protein family, member 2	1	1q32.1
TOR1AIP2	163590	TOR1AIP2	torsin A interacting protein 2	1	1q25.2
DHX9	1660	DHX9	DEAH (Asp-Glu-Ala-His) box helicase 9	1	1q25
GSK3B	2932	GSK3B	glycogen synthase kinase 3 beta	3	3q13.3
WASL	8976	WASL	Wiskott-Aldrich syndrome-like	7	7q31.3
PREPL	9581	PREPL	prolyl endopeptidase-like	2	2p21
MRPL19	9801	MRPL19	mitochondrial ribosomal protein L19	2	2p11.1-q11.2
TOMM70A	9868	TOMM70A	translocase of outer mitochondrial membrane 70 homolog A (<i>S. cerevisiae</i>)	3	3q12.2

GRHL2	79977	GRHL2	grainyhead-like 2 (<i>Drosophila</i>)	8	8q22.3
EPT1	85465	EPT1	ethanolaminephosphotransferase 1	2	2p23.3
MARVELD2	153562	MARVELD2	MARVEL domain containing 2	5	5q13.2
HNRNPK	3190	HNRNPK	heterogeneous nuclear ribonucleoprotein K	9	9q21.32-q21.33
SUDS3	64426	SUDS3	suppressor of defective silencing 3 homolog (<i>S. cerevisiae</i>)	12	12q24.23
NCKAP1	10787	NCKAP1	NCK-associated protein 1	2	2q32