

Supplementary Data Table S1: Dependence Genes

GENE	description	ch	bp	clustered SNPs
A2BP1	ataxin 2-binding protein 1	16	6009133	6
ABI1P	abl-interactor 1 pseudogene	14	55083079	4
ACCN1	amiloride-sensitive cation channel 1, neuronal (degenerin)	17	28364218	6
ACSS1	acyl-CoA synthetase short-chain family member 1	20	24934873	4
ADAM12	ADAM metallopeptidase domain 12 (meltrin alpha)	10	127693415	5
ADAMTS18	ADAM metallopeptidase with thrombospondin type 1 motif, 18	16	75873929	5
ADAMTS3	ADAM metallopeptidase with thrombospondin type 1 motif, 3	4	73365551	4
ADD1	adducin 1 (alpha)	4	2815382	4
ADH1C	alcohol dehydrogenase 1C (class I), gamma polypeptide	4	100476672	3
ADHFE1	alcohol dehydrogenase, iron containing, 1	8	67507288	4
AKAP13	A kinase (PRKA) anchor protein 13	15	83724875	5
AKR1CL2	aldo-keto reductase family 1, member C-like 2	10	4858402	4
ALDH9A1	aldehyde dehydrogenase 9 family, member A1	1	163898077	4
ALDOAP2	aldolase A, fructose-bisphosphate pseudogene 2	10	127345434	4
ANK2	ankyrin 2, neuronal	4	114190319	5
ANKRD15	ankyrin repeat domain 15	9	494703	6
ANKRD38	ankyrin repeat domain 38	1	62475409	3
AQP9	aquaporin 9	15	56217771	5
ARHGAP26	Rho GTPase activating protein 26	5	142130476	12
ARHGAP28	Rho GTPase activating protein 28	18	6824484	4
ARNTL2	aryl hydrocarbon receptor nuclear translocator-like 2	12	27377255	5
ARSB	arylsulfatase B	5	78108788	4
ASB13	ankyrin repeat and SOCS box-containing 13	10	5720837	3
ATF6	activating transcription factor 6	1	160002708	4
ATRN	attractin	20	3399676	3
ATRNL1	attractin-like 1	10	116843114	4
B3GNTL1	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase-like 1	17	78494956	6
BTBD11	BTB (POZ) domain containing 11	12	106236327	5
C10orf11	chromosome 10 open reading frame 11	10	77212525	9
C11orf74	chromosome 11 open reading frame 74	11	36572669	8
C4orf13	chromosome 4 open reading frame 13	4	147395627	8
C4orf22	chromosome 4 open reading frame 22	4	81475898	6
C6orf162	chromosome 6 open reading frame 162	6	88103446	4
C6orf71	chromosome 6 open reading frame 71	6	150731721	5

C7	complement component 7	5	40945356	10
C8A	complement component 8, alpha polypeptide	1	57093065	3
CACNB2	calcium channel, voltage-dependent, beta 2 subunit	10	18469612	5
CAND1	cullin-associated and neddylation-dissociated 1	12	65949416	5
CAPN13	calpain 13	2	30799141	4
CARD11	caspase recruitment domain family, member 11	7	2912308	4
CASQ2	calsequestrin 2 (cardiac muscle)	1	116044166	4
CCDC3	coiled-coil domain containing 3	10	12978631	4
CCM2	cerebral cavernous malformation 2	7	45006312	3
CCRL2	chemokine (C-C motif) receptor-like 2	3	46423725	3
CD38	CD38 molecule	4	15389029	3
CDC25B	cell division cycle 25B	20	3724401	3
CDC42BPA	CDC42 binding protein kinase alpha (DMPK-like)	1	225246676	4
CDCA2	cell division cycle associated 2	8	25372428	4
CDH13	cadherin 13, H-cadherin (heart)	16	81218079	14
CDH7	cadherin 7, type 2	18	61568468	4
CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)	9	21992902	3
CDYL2	chromodomain protein, Y-like 2	16	79195179	6
CEP70	centrosomal protein 70kDa	3	139695876	3
CHIA	chitinase, acidic	1	111635007	4
CHST11	carbohydrate (chondroitin 4) sulfotransferase 11	12	103370614	6
CLEC12A	C-type lectin domain family 12, member A	12	10015281	3
CLSTN2	calsyntenin 2	3	141136897	10
CNOT4	CCR4-NOT transcription complex, subunit 4	7	134697089	4
CNTN6	contactin 6	3	1109629	9
CNTNAP2	contactin associated protein-like 2	7	145444386	21
CNTNAP5	contactin associated protein-like 5	2	124499334	5
COL14A1	collagen, type XIV, alpha 1 (undulin)	8	121206533	4
COL4A2	collagen, type IV, alpha 2	13	109757632	13
COMMD1	copper metabolism (Murr1) domain containing 1	2	61986307	4
CPLX4	complexin 4	18	55113634	4
CPN2	carboxypeptidase N, polypeptide 2, 83kD	3	195542189	5
CPVL	carboxypeptidase, vitellogenic-like	7	29001772	4
CREB5	cAMP responsive element binding protein 5	7	28305465	5
CSMD1	CUB and Sushi multiple domains 1	8	2782789	14
CSMD2	CUB and Sushi multiple domains 2	1	33752196	5
CSRP3	cysteine and glycine-rich protein 3 (cardiac LIM protein)	11	19160154	3

CTNNA3	catenin (cadherin-associated protein), alpha 3	10	67349937	4
CTNND2	catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein)	5	11024952	4
CUBN	cubilin (intrinsic factor-cobalamin receptor)	10	16906534	4
DAAM1	dishevelled associated activator of morphogenesis 1	14	58725152	4
DAB1	disabled homolog 1 (Drosophila)	1	57236167	10
DAD1	defender against cell death 1	14	22103647	6
DCAMKL1	doublecortin and CaM kinase-like 1	13	35243478	4
DCTN4	dynactin 4 (p62)	5	150068502	3
DDEF1	development and differentiation enhancing factor 1	8	131133535	4
DEFA4	defensin, alpha 4, corticostatin	8	6780755	4
DEFA6	defensin, alpha 6, Paneth cell-specific	8	6769629	3
DEFB127	defensin, beta 127	20	86186	5
DERA	2-deoxyribose-5-phosphate aldolase homolog (C. elegans)	12	15955545	4
DNAHL1	dynein, axonemal, heavy like 1	17	74051432	3
DNAPTP6	DNA polymerase-transactivated protein 6	2	200879041	3
DNMT3B	DNA (cytosine-5-)-methyltransferase 3 beta	20	30813852	4
DOCK5	dedicator of cytokinesis 5	8	25098204	5
EBF	early B-cell factor	5	158058006	4
EMR1	egf-like module containing, mucin-like, hormone receptor-like 1	19	6838582	6
ENTPD4	ectonucleoside triphosphate diphosphohydrolase 4	8	23346075	3
EPHA7	EPH receptor A7	6	94007860	3
ERCC4	excision repair cross-complementing rodent repair deficiency, complementation group 4	16	13921524	3
F3	coagulation factor III (thromboplastin, tissue factor)	1	94767461	3
F5	coagulation factor V (proaccelerin, labile factor)	1	167750033	4
FABP2	fatty acid binding protein 2, intestinal	4	120457853	4
FAIM	Fas apoptotic inhibitory molecule	3	139810232	4
FAM120B	family with sequence similarity 120B	6	170457769	4
FAM19A4	family with sequence similarity 19 (chemokine (C-C motif)-like), member A4	3	68863607	7
FAM57A	family with sequence similarity 57, member A	17	582597	4
FARS2	phenylalanine-tRNA synthetase 2 (mitochondrial)	6	5206726	4
FBXO31	F-box protein 31	16	85920443	3
FHIT	fragile histidine triad gene	3	59710076	15
FHOD3	formin homology 2 domain containing 3	18	32131700	8
FLJ10159	hypothetical protein FLJ10159	6	107918261	3
FLJ16008	FLJ16008 protein	2	127657882	4
FLJ16124	FLJ16124 protein	2	65517349	6

FLJ34503	hypothetical protein FLJ34503	6	114331995	3
FLJ37307	hypothetical protein FLJ37307	13	51288888	3
FLJ44379	similar to S-100 protein, alpha chain	3	63613384	5
FLJ45872	FLJ45872 protein	8	138890869	4
FREM2	FRAS1 related extracellular matrix protein 2	13	38159482	4
FRMD3	FERM domain containing 3	9	85052120	4
FRY	furry homolog (Drosophila)	13	31503437	4
FUCA2	fucosidase, alpha-L- 2, plasma	6	143857935	4
GABRA1	gamma-aminobutyric acid (GABA) A receptor, alpha 1	5	161206983	4
GABRG3	gamma-aminobutyric acid (GABA) A receptor, gamma 3	15	25399391	5
GDAP1L1	ganglioside-induced differentiation-associated protein 1-like 1	20	42309322	5
GEMIN4	gem (nuclear organelle) associated protein 4	17	594608	3
GJB7	gap junction protein, beta 7	6	88049417	4
GLG1	golgi apparatus protein 1	16	73043357	4
GOLT1A	golgi transport 1 homolog A (S. cerevisiae)	1	202433911	4
GPC5	glypican 5	13	90848930	5
GPR135	G protein-coupled receptor 135	14	58965491	4
GRIK2	glutamate receptor, ionotropic, kainate 2	6	101953675	4
GRIK4	glutamate receptor, ionotropic, kainate 4	11	120036238	6
GRIN2A	glutamate receptor, ionotropic, N-methyl D-aspartate 2A	16	9762923	4
GRM3	glutamate receptor, metabotropic 3	7	86111166	4
HDAC9	histone deacetylase 9	7	18501894	4
HECA	headcase homolog (Drosophila)	6	139497942	4
HMGCLL1	3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase-like 1	6	55407132	9
HPCAL1	hippocalcin-like 1	2	10360491	5
HPSE2	heparanase 2	10	100208867	9
HSD17B2	hydroxysteroid (17-beta) dehydrogenase 2	16	80626364	5
HTR3B	5-hydroxytryptamine (serotonin) receptor 3B	11	113280799	6
IFT52	intraflagellar transport 52 homolog (Chlamydomonas)	20	41652993	5
IGSF11	immunoglobulin superfamily, member 11	3	120102167	4
IL18RAP	interleukin 18 receptor accessory protein	2	102401686	4
IL1F5	interleukin 1 family, member 5 (delta)	2	113532686	3
IL1F8	interleukin 1 family, member 8 (eta)	2	113496139	4
IL1RAP	interleukin 1 receptor accessory protein	3	191714585	6
IMMP2L	IMP2 inner mitochondrial membrane peptidase-like (S. cerevisiae)	7	110090346	6
IMPA2	inositol(myo)-1(or 4)-monophosphatase 2	18	11971455	4
JMJD2C	jumonji domain containing 2C	9	6748083	4

KC6	keratoconus gene 6	18	37314233	5
KCNIP4	Kv channel interacting protein 4	4	20339337	5
KCNJ6	potassium inwardly-rectifying channel, subfamily J, member 6	21	37918655	5
KCNK10	potassium channel, subfamily K, member 10	14	87720993	4
KCNMA1	potassium large conductance calcium-activated channel, subfamily M, alpha member 1	10	78299366	11
KCNQ5	potassium voltage-gated channel, KQT-like subfamily, member 5	6	73388556	6
KCTD10	potassium channel tetramerisation domain containing 10	12	108370843	3
KCTD9	potassium channel tetramerisation domain containing 9	8	25341280	6
KIAA1576	KIAA1576 protein	16	76379984	4
KISS1	KiSS-1 metastasis-suppressor	1	202426092	4
KLHL25	kelch-like 25 (Drosophila)	15	84103561	4
LAMC1	laminin, gamma 1 (formerly LAMB2)	1	181259176	5
LGI2	leucine-rich repeat LGI family, member 2	4	24612488	5
LIN7A	lin-7 homolog A (C. elegans)	12	79715302	5
LPA	lipoprotein, Lp(a)	6	160872505	5
LPAL2	lipoprotein, Lp(a)-like 2	6	160807831	4
LPP	LIM domain containing preferred translocation partner in lipoma	3	189413415	4
LRP1B	low density lipoprotein-related protein 1B (deleted in tumors)	2	140705466	4
LRRC15	leucine rich repeat containing 15	3	195557273	5
LRRC4C	leucine rich repeat containing 4C	11	40092329	4
LRRC8D	leucine rich repeat containing 8 family, member D	1	90060101	5
LRRN3	leucine rich repeat neuronal 3	7	110518419	4
LRRN6C	leucine rich repeat neuronal 6C	9	27938528	7
LSM6	LSM6 homolog, U6 small nuclear RNA associated (S. cerevisiae)	4	147316343	3
MAML3	mastermind-like 3 (Drosophila)	4	140856995	10
MAN1C1	mannosidase, alpha, class 1C, member 1	1	25816546	5
MAP2	microtubule-associated protein 2	2	209997016	4
MAP3K7IP2	mitogen-activated protein kinase kinase kinase 7 interacting protein 2	6	149680756	6
MAPK4	mitogen-activated protein kinase 4	18	46340482	6
MGST3	microsomal glutathione S-transferase 3	1	163867074	4
MIRN101-2	microRNA 101-2	9	4840296	3
MOV10L1	Mov10L1, Moloney leukemia virus 10-like 1, homolog (mouse)	22	48870621	4
MPHOSPH6	M-phase phosphoprotein 6	16	80739272	4
MRPS33P2	mitochondrial ribosomal protein S33 pseudogene 2	4	37684800	4
MS4A3	membrane-spanning 4-domains, subfamily A, member 3 (hematopoietic cell-specific)	11	59580677	4
MTMR7	myotubularin related protein 7	8	17199910	4

MYBL2	v-myb myeloblastosis viral oncogene homolog (avian)-like 2	20	41729123	3
MYLK	myosin, light polypeptide kinase	3	124813833	7
MYO1G	myosin IG	7	44968786	5
MYO5A	myosin VA (heavy polypeptide 12, myosin)	15	50392602	3
NAV2	neuron navigator 2	11	19691488	8
NELL1	NEL-like 1 (chicken)	11	20647712	5
NKAIN2		6	124166768	4
NLGN1	neuroligin 1	3	174598938	4
NME7	non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase)	1	167368393	4
OR51A10P	olfactory receptor, family 51, subfamily A, member 10 pseudogene	11	5446310	3
OR51I2	olfactory receptor, family 51, subfamily I, member 2	11	5431295	3
OR51N1P	olfactory receptor, family 51, subfamily N, member 1 pseudogene	11	4764560	3
OR52Y1P	olfactory receptor, family 52, subfamily Y, member 1 pseudogene	11	4771575	3
OR9Q1	olfactory receptor, family 9, subfamily Q, member 1	11	57547929	4
PALLD	palladin, cytoskeletal associated protein	4	169654792	6
PAPPA2	pappalysin 2	1	174698930	5
PARD3B	par-3 partitioning defective 3 homolog B	2	205118761	4
PBX1	pre-B-cell leukemia transcription factor 1	1	162795561	4
PDE1C	phosphodiesterase 1C, calmodulin-dependent 70kDa	7	31795772	9
PDE5A	phosphodiesterase 5A, cGMP-specific	4	120634998	14
PDE8B	phosphodiesterase 8B	5	76542462	4
PDE9A	phosphodiesterase 9A	21	42946931	3
PEBP4	phosphatidylethanolamine-binding protein 4	8	22626713	4
PEPD	peptidase D	19	38569699	7
PEX3	peroxisomal biogenesis factor 3	6	143813810	4
PIG38	proliferation-inducing protein 38	13	42685704	5
PINX1	PIN2-interacting protein 1	8	10659883	5
PKP4	plakophilin 4	2	159021722	7
PLB1	phospholipase B1	2	28572486	4
PLCB1	phospholipase C, beta 1 (phosphoinositide-specific)	20	8061296	4
PLEKHA6	pleckstrin homology domain containing, family A member 6	1	202454604	7
PLXNC1	plexin C1	12	93066630	4
PNOC	prepronociceptin	8	28230568	6
POLE	polymerase (DNA directed), epsilon	12	131710421	5
POLR1A	polymerase (RNA) I polypeptide A, 194kDa	2	86107891	4
PPAPDC1A	phosphatidic acid phosphatase type 2 domain containing 1A	10	122206456	4
PPARGC1B	peroxisome proliferative activated receptor, gamma, coactivator 1, beta	5	149090057	3

PPFIBP1	PTPRF interacting protein, binding protein 1 (liprin beta 1)	12	27568312	4
PREX1	phosphatidylinositol 3,4,5-trisphosphate-dependent RAC exchanger 1	20	46674200	6
PTK2B	PTK2B protein tyrosine kinase 2 beta	8	27224916	5
PTN	pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1)	7	136562628	4
PTPN14	protein tyrosine phosphatase, non-receptor type 14	1	212597634	4
PTPRG	protein tyrosine phosphatase, receptor type, G	3	61522285	4
PTPRM	protein tyrosine phosphatase, receptor type, M	18	7557817	5
PTPRN2	protein tyrosine phosphatase, receptor type, N polypeptide 2	7	157024516	4
PZP	pregnancy-zone protein	12	9192703	5
RAD51L1	RAD51-like 1 (<i>S. cerevisiae</i>)	14	67356262	5
RAG2	recombination activating gene 2	11	36570069	3
RCL1	RNA terminal phosphate cyclase-like 1	9	4782937	9
RFXDC1	regulatory factor X domain containing 1	6	117305069	6
RGS7	regulator of G-protein signalling 7	1	239005494	4
RIN2	Ras and Rab interactor 2	20	19818210	4
RNF111	ring finger protein 111	15	57067157	4
ROBO2	roundabout, axon guidance receptor, homolog 2 (<i>Drosophila</i>)	3	77172621	9
RORA	RAR-related orphan receptor A	15	58576755	9
RPS7P1	ribosomal protein S7 pseudogene 1	17	23818967	4
RUNX2	runt-related transcription factor 2	6	45404032	5
RYR3	ryanodine receptor 3	15	31390469	5
S100A10	S100 calcium binding protein A10 (annexin II ligand, calpactin I, light polypeptide (p11))	1	150222018	5
SART3	squamous cell carcinoma antigen recognised by T cells 3	12	107440487	3
SCEL	sciellin	13	77007860	3
SCHIP1	schwannomin interacting protein 1	3	160474238	4
SCYL1BP1	SCY1-like 1 binding protein 1	1	168767894	3
SDHB	succinate dehydrogenase complex, subunit B, iron sulfur (lp)	1	17217840	3
SELE	selectin E (endothelial adhesion molecule 1)	1	167958406	4
SERPINA12	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 12	14	94023373	5
SGCZ	sarcoglycan zeta	8	13991744	6
SGK2	serum/glucocorticoid regulated kinase 2	20	41621100	3
SH3GL2	SH3-domain GRB2-like 2	9	17569194	4
SLC11A2	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 2	12	49666044	4
SLC13A2	solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2	17	23824791	3
SLC24A2	solute carrier family 24 (sodium/potassium/calcium exchanger), member 2	9	19505978	6
SLC2A9	solute carrier family 2 (facilitated glucose transporter), member 9	4	9436946	15
SLC39A6	solute carrier family 39 (zinc transporter), member 6	18	31943197	5

SLC9A8	solute carrier family 9 (sodium/hydrogen exchanger), member 8	20	47862657	5
SLIT3	slit homolog 3 (Drosophila)	5	168025857	5
SNORA9	small nucleolar RNA, H/ACA box 9	7	44991502	3
SOCS5	suppressor of cytokine signaling 5	2	46779603	4
SORCS2	sortilin-related VPS10 domain containing receptor 2	4	7245373	6
SPOCK1	sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1	5	136338886	5
SPTB	spectrin, beta, erythrocytic (includes spherocytosis, clinical type I)	14	64282754	4
SPTBN1	spectrin, beta, non-erythrocytic 1	2	54601684	7
SSBP3	single stranded DNA binding protein 3	1	54464783	4
ST6GALNAC3	ST6 (alpha-N-acetyl-neuraminyl-2,3-beta-galactosyl-1,3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 3	1	76312992	4
STARD13	START domain containing 13	13	32575307	5
STS-1	Cbl-interacting protein Sts-1	11	122031640	6
SV2C	synaptic vesicle glycoprotein 2C	5	75415061	7
TBC1D1	TBC1 (tre-2/USP6, BUB2, cdc16) domain family, member 1	4	37569115	7
TDRD9	tudor domain containing 9	14	103506687	7
THSD4	thrombospondin, type I, domain containing 4	15	69220842	4
TM9SF3	transmembrane 9 superfamily member 3	10	98270420	7
TMEM132C	transmembrane protein 132C	12	127318855	4
TMEM23	transmembrane protein 23	10	51735351	7
TRB@	T cell receptor beta locus	7	141645314	11
TRBV20-1	T cell receptor beta variable 20-1	7	142015233	3
TRBV21-1	T cell receptor beta variable 21-1	7	142025416	4
TRBV22	T cell receptor beta variable 22	7	142030237	3
TRPM8	transient receptor potential cation channel, subfamily M, member 8	2	234490782	4
TSPAN14	tetraspanin 14	10	82204047	3
TSPAN9	tetraspanin 9	12	3056818	5
UCK2	uridine-cytidine kinase 2	1	164063514	5
UNC5C	unc-5 homolog C (C. elegans)	4	96308712	4
VANGL1	vang-like 1 (van gogh, Drosophila)	1	115986097	3
VAV3	vav 3 oncogene	1	107915310	5
WDR27	WD repeat domain 27	6	169599232	8
WISP1	WNT1 inducible signaling pathway protein 1	8	134272494	4
ZBTB16	zinc finger and BTB domain containing 16	11	113435641	6
ZNF248	zinc finger protein 248	10	38157905	5
ZNF609	zinc finger protein 609	15	62578672	4
ZNF96	zinc finger protein 96	6	28454973	4

Supplementary Data Table S2: Abstinence Genes

GENE	description	ch	bp	clustered SNPs
A2BP1	ataxin 2-binding protein 1	16	6009133	3
ACADSB	acyl-Coenzyme A dehydrogenase, short/branched chain 1-acylglycerol-3-phosphate O-acyltransferase 5	10	124758524	5
AGPAT5	(lysophosphatidic acid acyltransferase, epsilon)	8	6553286	3
ANKFY1	ankyrin repeat and FYVE domain containing 1	17	4013950	3
ATP10B	ATPase, Class V, type 10B	5	159922705	4
C8orf13	chromosome 8 open reading frame 13	8	11316382	3
CACHD1	cache domain containing 1	1	64744186	3
CALB2	calbindin 2, 29kDa (calretinin)	16	69950127	3
CDH6	cadherin 6, type 2, K-cadherin (fetal kidney)	5	31229553	3
CLEC2D	C-type lectin domain family 2, member D	12	9713576	3
CSMD1	CUB and Sushi multiple domains 1	8	2782789	10
CSMD3	CUB and Sushi multiple domains 3	8	113304333	3
CTNNA3	catenin (cadherin-associated protein), alpha 3	10	67349937	7
DKFZp761B107	hypothetical protein DKFZp761B107	4	24437679	3
DPP10	dipeptidyl-peptidase 10	2	115636202	4
DSCAM	Down syndrome cell adhesion molecule	21	40306213	3
ELL	elongation factor RNA polymerase II	19	18414473	4
EXT1	exostoses (multiple) 1	8	118880783	3
FARS2	phenylalanine-tRNA synthetase 2 (mitochondrial)	6	5206726	6
FHIT	fragile histidine triad gene	3	59710076	7
FLJ21986	hypothetical protein FLJ21986	7	120416032	3
FLJ32110	hypothetical protein FLJ32110	7	88226689	3
GPR176	G protein-coupled receptor 176	15	37880223	4
GPR39	G protein-coupled receptor 39	2	132891086	3
GRM7	glutamate receptor, metabotropic 7	3	6877927	5
IGL@	immunoglobulin lambda locus	22	20710659	3
INADL	InaD-like (Drosophila)	1	61980737	3
KALRN	kalirin, RhoGEF kinase	3	125296275	3
KIAA1600	KIAA1600	10	116571773	4
KIF1B	kinesin family member 1B	1	10193418	8
KSR2	kinase suppressor of ras 2	12	116389387	3
LAPTM4B	lysosomal associated protein transmembrane 4 beta	8	98856985	7

LPP	LIM domain containing preferred translocation partner in lipoma	3	189413415	9
LRRN6C	leucine rich repeat neuronal 6C	9	27938528	7
LRRTM3	leucine rich repeat transmembrane neuronal 3	10	68355819	3
MAML2	mastermind-like 2 (Drosophila)	11	95351088	3
MGC34646	hypothetical protein MGC34646	8	62363104	3
MUC19	mucin 19, oligomeric	12	39073517	4
MYO5A	myosin VA (heavy polypeptide 12, myosin)	15	50392602	3
NCAM1	neural cell adhesion molecule 1	11	112337368	4
NDST3	N-deacetylase/N-sulfotransferase (heparan glucosaminyl) 3	4	119174948	8
NRXN1	neurexin 1	2	50000992	3
OR2D3	olfactory receptor, family 2, subfamily D, member 3	11	6898809	4
OR8B2	olfactory receptor, family 8, subfamily B, member 2	11	123757508	4
OR8C1P	olfactory receptor, family 8, subfamily C, member 1 pseudogene	11	123752047	3
PAN3	PAN3 polyA specific ribonuclease subunit homolog (S. cerevisiae)	13	27646417	3
PCDH15	protocadherin 15	10	55250866	3
PHACTR1	phosphatase and actin regulator 1	6	12825819	4
PIGN	phosphatidylinositol glycan anchor biosynthesis, class N	18	57862437	3
PLA2G4A	phospholipase A2, group IVA (cytosolic, calcium-dependent)	1	185064728	3
PTGER3	prostaglandin E receptor 3 (subtype EP3)	1	71090624	3
RARB	retinoic acid receptor, beta	3	25444758	3
RARS	arginyl-tRNA synthetase	5	167846041	3
RBM35A	RNA binding motif protein 35A	8	95722576	4
ROR1	receptor tyrosine kinase-like orphan receptor 1	1	64012302	3
RYR3	ryanodine receptor 3	15	31390469	3
SLC14A2	solute carrier family 14 (urea transporter), member 2	18	41448764	4
SLC2A12	solute carrier family 2 (facilitated glucose transporter), member 12	6	134350412	3
SLIT3	slit homolog 3 (Drosophila)	5	168025857	3
SUHW2	suppressor of hairy wing homolog 2 (Drosophila)	22	21168767	3
TAS2R44	taste receptor, type 2, member 44	12	11074274	3
TAS2R48	taste receptor, type 2, member 48	12	11065538	4
TECTA	tectorin alpha	11	120478585	7
UBE2G1	ubiquitin-conjugating enzyme E2G 1 (UBC7 homolog, yeast)	17	4119261	4
WWOX	WW domain containing oxidoreductase	16	76691052	3
XKR4	XK, Kell blood group complex subunit-related family, member 4	8	56177571	6
ZZEF1	zinc finger, ZZ-type with EF-hand domain 1	17	3854488	3