

SP-MODC vs SP-MO - 2704 DEGs

Symbol ID	Entrez Gene Name	Fold change	FDR adjusted p value (q-value)
Gm4951	predicted gene 4951/interferon-inducible GTPase 1-like	6836.3	0.0173
ligp1	interferon inducible GTPase 1	6325.7	0.0003
Ccl7	chemokine (C-C motif) ligand 7	3132.3	0.0003
TMEM171	transmembrane protein 171	1036.1	0.0313
MMP14	matrix metalloproteinase 14	848.6	0.0003
SPINT1	serine peptidase inhibitor, Kunitz type 1	807.3	0.0005
CD38	CD38 molecule	746.5	0.0003
Cxcl9	chemokine (C-X-C motif) ligand 9	681.2	0.0003
SPON1	spondin 1	671.4	0.0003
SNX24	sorting nexin 24	629.9	0.0032
SDC4	syndecan 4	598.4	0.0237
Serpina3g	serine (or cysteine) peptidase inhibitor, clade A, member 3G	565.0	0.0003
DAB2	DAB adaptor protein 2	547.2	0.0003
DNASE1L3	deoxyribonuclease 1 like 3	499.7	0.0003
ITGA9	integrin subunit alpha 9	477.4	0.0046
IFI44	interferon induced protein 44	462.1	0.0003
HTR7	5-hydroxytryptamine receptor 7	440.2	0.0003
CD72	CD72 molecule	418.2	0.0005
IL18BP	interleukin 18 binding protein	384.0	0.0003
SCIMP	SLP adaptor and CSK interacting membrane protein	345.8	0.0003
MERTK	MER proto-oncogene, tyrosine kinase	318.9	0.0003
LHFPL2	LHFPL tetraspan subfamily member 2	304.9	0.0003
4930430E12Rik	RIKEN cDNA 4930430E12 gene	300.9	0.0003
PROCR	protein C receptor	296.7	0.0003
HPGDS	hematopoietic prostaglandin D synthase	271.2	0.0003
UPP1	uridine phosphorylase 1	255.3	0.0003
SPIC	Spi-C transcription factor	253.5	0.0003
C1QB	complement C1q B chain	242.7	0.0003
SECTM1	secreted and transmembrane 1	215.1	0.0195
GPR31	G protein-coupled receptor 31	211.6	0.0003
KCNJ10	potassium inwardly rectifying channel subfamily J member 10	176.3	0.0003
C1QC	complement C1q C chain	174.4	0.0003
RAB3IL1	RAB3A interacting protein like 1	173.6	0.0003
ANPEP	alanyl aminopeptidase, membrane	164.6	0.0098
EDNRB	endothelin receptor type B	161.5	0.0003
Bvht	braveheart long non-coding RNA	143.8	0.0160
SLAMF7	SLAM family member 7	138.6	0.0003
VCAM1	vascular cell adhesion molecule 1	133.4	0.0008
C1QA	complement C1q A chain	125.1	0.0003
CD200R1L	CD200 receptor 1 like	116.2	0.0010
BATF2	basic leucine zipper ATF-like transcription factor 2	115.5	0.0075
HEBP1	heme binding protein 1	114.3	0.0003
IL21R	interleukin 21 receptor	112.5	0.0003
Saa3	serum amyloid A 3	109.7	0.0003
SLAMF6	SLAM family member 6	109.3	0.0003
SPP1	secreted phosphoprotein 1	105.9	0.0003
PLXNA1	plexin A1	105.1	0.0003
FSCN1	fascin actin-bundling protein 1	97.2	0.0003
IL10	interleukin 10	93.5	0.0003
CXCL10	C-X-C motif chemokine ligand 10	93.2	0.0003
CCR7	C-C motif chemokine receptor 7	83.7	0.0003
HLA-DRB5	major histocompatibility complex, class II, DR beta 5	82.8	0.0003
Ccl2	chemokine (C-C motif) ligand 2	82.5	0.0003
A630012P03Rik	RIKEN cDNA A630012P03 gene	82.1	0.0003
CTTNBP2NL	CTTNBP2 N-terminal like	81.9	0.0003
STK39	serine/threonine kinase 39	71.1	0.0003
RALGDS	ral guanine nucleotide dissociation stimulator	68.8	0.0003
STAB1	stabilin 1	68.8	0.0003
PLAU	plasminogen activator, urokinase	68.4	0.0003
CLEC6A	C-type lectin domain containing 6A	65.8	0.0003
IFIT2	interferon induced protein with tetratricopeptide repeats 2	65.4	0.0003
ISG15	ISG15 ubiquitin like modifier	64.4	0.0003
FABP5	fatty acid binding protein 5	59.4	0.0003
OASL	2'-5'-oligoadenylate synthetase like	57.9	0.0003
CNN3	calponin 3	57.4	0.0003
C4A/C4B	complement C4B (Chido blood group)	57.0	0.0003
SERPINB9	serpin family B member 9	56.5	0.0003
HLA-DQB1	major histocompatibility complex, class II, DQ beta 1	55.0	0.0003
ASS1	argininosuccinate synthase 1	54.0	0.0003
IFIT1B	interferon induced protein with tetratricopeptide repeats 1B	53.5	0.0003
GBP2	guanylate binding protein 2	50.1	0.0003
IL1R2	interleukin 1 receptor type 2	49.7	0.0003
CA13	carbonic anhydrase 13	49.5	0.0003
CCND2	cyclin D2	49.5	0.0003
HLA-DQA1	major histocompatibility complex, class II, DQ alpha 1	49.3	0.0003
CCND1	cyclin D1	45.9	0.0013
SOCS1	suppressor of cytokine signaling 1	44.8	0.0003
MS4A7	membrane spanning 4-domains A7	44.3	0.0003
Plpp1	phospholipid phosphatase 1	42.9	0.0378
AW112010	expressed sequence AW112010	41.8	0.0003
NCAPG2	non-SMC condensin II complex subunit G2	40.3	0.0003
CCL4	C-C motif chemokine ligand 4	40.1	0.0003
CD5L	CD5 molecule like	39.0	0.0003
DHFR	dihydrofolate reductase	38.9	0.0003

Stra6l	STRA6-like	37.7	0.0003
RGL1	ral guanine nucleotide dissociation stimulator like 1	35.7	0.0100
IF16	interferon gamma inducible protein 16	34.8	0.0003
Klrk1	killer cell lectin-like receptor subfamily K, member 1	33.8	0.0003
CXCL16	C-X-C motif chemokine ligand 16	33.6	0.0003
IL1RN	interleukin 1 receptor antagonist	32.9	0.0003
SLC37A2	solute carrier family 37 member 2	30.7	0.0003
CCL5	C-C motif chemokine ligand 5	30.5	0.0180
TARM1	T cell-interacting, activating receptor on myeloid cells 1	28.9	0.0003
RAB7B	RAB7B, member RAS oncogene family	28.5	0.0003
CCL24	C-C motif chemokine ligand 24	28.4	0.0003
RAB20	RAB20, member RAS oncogene family	27.9	0.0003
AXL	AXL receptor tyrosine kinase	26.6	0.0003
IFIT3	interferon induced protein with tetratricopeptide repeats 3	26.1	0.0003
SOAT2	sterol O-acyltransferase 2	25.7	0.0003
CD274	CD274 molecule	25.5	0.0003
CHCHD10	coiled-coil-helix-coiled-coil-helix domain containing 10	25.3	0.0003
MAF	MAF bZIP transcription factor	24.8	0.0003
RSAD2	radical S-adenosyl methionine domain containing 2	24.4	0.0003
TFEC	transcription factor EC	24.4	0.0003
Trim30c	tripartite motif-containing 30C	24.1	0.0003
TMA16	translation machinery associated 16 homolog	23.9	0.0398
A93000719Rik	RIKEN cDNA A93000719 gene	23.7	0.0003
FCGR1A	Fc fragment of IgG receptor Ia	22.9	0.0003
ETV5	ETS variant transcription factor 5	22.6	0.0003
CMKLR1	chemerin chemokine-like receptor 1	21.7	0.0003
ACP2	acid phosphatase 2, lysosomal	21.2	0.0003
LGMN	legumain	21.2	0.0003
Gm12250	predicted gene 12250	21.0	0.0003
FRMD4B	FERM domain containing 4B	20.9	0.0003
GPR84	G protein-coupled receptor 84	20.4	0.0003
GALNT3	polypeptide N-acetylgalactosaminyltransferase 3	19.6	0.0003
ADAP2	ArfGAP with dual PH domains 2	19.5	0.0003
TLR1	toll like receptor 1	19.2	0.0091
CSTB	cystatin B	18.6	0.0003
A530040E14Rik	RIKEN cDNA A530040E14 gene	18.4	0.0089
FNIP2	folliculin interacting protein 2	18.3	0.0003
GBP7	guanylate binding protein 7	18.2	0.0003
IFIT3	interferon induced protein with tetratricopeptide repeats 3	17.8	0.0003
PF4	platelet factor 4	17.3	0.0003
IL1A	interleukin 1 alpha	17.0	0.0003
SOD2	superoxide dismutase 2	16.4	0.0003
TGM2	transglutaminase 2	16.2	0.0003
RASGEF1B	RasGEF domain family member 1B	15.9	0.0003
PHF11	PHD finger protein 11	15.7	0.0003
SLC15A3	solute carrier family 15 member 3	15.6	0.0003
TMEM86A	transmembrane protein 86A	15.5	0.0003
CLIC4	chloride intracellular channel 4	15.5	0.0003
SDC3	syndecan 3	15.4	0.0003
GOT1	glutamic-oxaloacetic transaminase 1	15.0	0.0003
TLR4	toll like receptor 4	14.8	0.0003
SLAMF8	SLAM family member 8	14.7	0.0003
CIITA	class II major histocompatibility complex transactivator	14.4	0.0003
ANXA4	annexin A4	14.1	0.0003
Bst2	bone marrow stromal cell antigen 2	14.0	0.0073
ISG20	interferon stimulated exonuclease gene 20	13.9	0.0003
CNDP2	carnosine dipeptidase 2	13.9	0.0003
RGS1	regulator of G protein signaling 1	13.6	0.0003
USP18	ubiquitin specific peptidase 18	13.6	0.0003
FCGR3A	Fc fragment of IgG receptor IIIa	13.6	0.0050
LGALS3BP	galectin 3 binding protein	13.5	0.0003
BLVRB	biliverdin reductase B	13.4	0.0052
NAMPT	nicotinamide phosphoribosyltransferase	13.3	0.0003
SLC12A7	solute carrier family 12 member 7	13.1	0.0003
GZMB	granzyme B	13.0	0.0003
ABCC3	ATP binding cassette subfamily C member 3	13.0	0.0003
IGF2R	insulin like growth factor 2 receptor	13.0	0.0003
BCL2L1	BCL2 like 1	12.7	0.0003
ACP5	acid phosphatase 5, tartrate resistant	12.6	0.0003
SNX8	sorting nexin 8	12.6	0.0003
ST7	suppression of tumorigenicity 7	12.4	0.0003
OAS3	2'-5'-oligoadenylate synthetase 3	12.2	0.0003
AIG1	androgen induced 1	12.1	0.0003
Slc36a3os	solute carrier family 36 (proton/amino acid symporter), member 3, opposite strand	12.1	0.0010
TMEM140	transmembrane protein 140	11.9	0.0003
SH3PXD2B	SH3 and PX domains 2B	11.8	0.0003
CD86	CD86 molecule	11.8	0.0003
PRDX1	peroxiredoxin 1	11.8	0.0003
Gbp3	guanylate binding protein 3	11.5	0.0064
RENBP	renin binding protein	11.5	0.0003
TNFRSF11A	TNF receptor superfamily member 11a	11.4	0.0003
PDLIM4	PDZ and LIM domain 4	11.4	0.0003
MYOF	myoferlin	11.4	0.0003
CCR1	C-C motif chemokine receptor 1	11.4	0.0103
TMEM106A	transmembrane protein 106A	11.4	0.0003
RTP4	receptor transporter protein 4	11.3	0.0003

GLA	galactosidase alpha	11.3	0.0110
HRH2	histamine receptor H2	11.1	0.0003
Irgm1	immunity-related GTPase family M member 1	11.1	0.0003
IL15RA	interleukin 15 receptor subunit alpha	11.1	0.0163
CLCN7	chloride voltage-gated channel 7	11.0	0.0003
ARHGAP19	Rho GTPase activating protein 19	10.8	0.0010
UBE2L6	ubiquitin conjugating enzyme E2 L6	10.7	0.0003
GLRX	glutaredoxin	10.7	0.0003
GDF3	growth differentiation factor 3	10.5	0.0003
P2RY12	purinergic receptor P2Y12	10.4	0.0297
GPR15	G protein-coupled receptor 15	10.3	0.0003
CARD11	caspase recruitment domain family member 11	10.3	0.0003
SGCB	sarcoglycan beta	10.1	0.0003
CD40	CD40 molecule	10.0	0.0003
FGL2	fibrinogen like 2	10.0	0.0003
NT5DC2	5'-nucleotidase domain containing 2	9.9	0.0003
MAGOHB	mago homolog B, exon junction complex subunit	9.9	0.0003
PLIN2	perilipin 2	9.8	0.0003
NRP2	neuropilin 2	9.8	0.0003
MAFB	MAF bZIP transcription factor B	9.8	0.0003
SLC3A2	solute carrier family 3 member 2	9.7	0.0003
TLR9	toll like receptor 9	9.7	0.0003
CREB3L1	cAMP responsive element binding protein 3 like 1	9.5	0.0003
SHTN1	shootin 1	9.5	0.0003
PTAFR	platelet activating factor receptor	9.4	0.0003
CTSZ	cathepsin Z	9.4	0.0003
SLCO3A1	solute carrier organic anion transporter family member 3A1	9.3	0.0003
F10	coagulation factor X	9.3	0.0003
CTSC	cathepsin C	9.3	0.0003
Oasl2	2'-5' oligoadenylate synthetase-like 2	9.3	0.0003
MRC1	mannose receptor C-type 1	9.2	0.0003
TCF7L2	transcription factor 7 like 2	9.1	0.0003
SLC40A1	solute carrier family 40 member 1	9.1	0.0003
TGM1	transglutaminase 1	9.0	0.0003
SIGLEC1	sialic acid binding Ig like lectin 1	8.9	0.0005
FAM234B	family with sequence similarity 234 member B	8.9	0.0003
IFIH1	interferon induced with helicase C domain 1	8.9	0.0003
GRN	granulin precursor	8.8	0.0013
CD200R1	CD200 receptor 1	8.7	0.0003
SCAMP1	secretory carrier membrane protein 1	8.7	0.0003
GINS1	GINS complex subunit 1	8.7	0.0358
TXN	thioredoxin	8.7	0.0003
CD93	CD93 molecule	8.6	0.0003
HOOK2	hook microtubule tethering protein 2	8.5	0.0096
CST7	cystatin F	8.4	0.0003
GTPBP8	GTP binding protein 8 (putative)	8.3	0.0013
PLD3	phospholipase D family member 3	8.2	0.0129
GNG12	G protein subunit gamma 12	8.1	0.0003
P2RX4	purinergic receptor P2X 4	8.1	0.0003
BLVRA	biliverdin reductase A	8.0	0.0003
BST1	bone marrow stromal cell antigen 1	8.0	0.0003
IKBKE	inhibitor of nuclear factor kappa B kinase subunit epsilon	7.9	0.0003
TOR3A	torsin family 3 member A	7.9	0.0003
LACC1	laccase domain containing 1	7.9	0.0003
UAP1L1	UDP-N-acetylglucosamine pyrophosphorylase 1 like 1	7.9	0.0003
TIFA	TRAF interacting protein with forkhead associated domain	7.9	0.0398
SLC7A8	solute carrier family 7 member 8	7.9	0.0003
SLC66A1	solute carrier family 66 member 1	7.8	0.0126
C18orf54	chromosome 18 open reading frame 54	7.8	0.0003
M1	metallothionein 1	7.7	0.0003
TNF	tumor necrosis factor	7.6	0.0003
DNASE2	deoxyribonuclease 2, lysosomal	7.5	0.0003
XAF1	XIAP associated factor 1	7.5	0.0003
MIF	macrophage migration inhibitory factor	7.5	0.0003
Tha1	threonine aldolase 1	7.5	0.0003
PARP12	poly(ADP-ribose) polymerase family member 12	7.4	0.0015
TNIP3	TNFAIP3 interacting protein 3	7.4	0.0003
PNP	purine nucleoside phosphorylase	7.4	0.0003
Mx2	MX dynamin-like GTPase 2	7.4	0.0003
RIPK3	receptor interacting serine/threonine kinase 3	7.3	0.0003
RIC1	RIC1 homolog, RAB6A GEF complex partner 1	7.3	0.0003
RASGRP1	RAS guanyl releasing protein 1	7.3	0.0003
DPP7	dipeptidyl peptidase 7	7.3	0.0119
PSMB9	proteasome subunit beta 9	7.3	0.0032
CRELD2	cysteine rich with EGF like domains 2	7.2	0.0176
MOV10	Mov10 RISC complex RNA helicase	7.2	0.0003
GNS	glucosamine (N-acetyl)-6-sulfatase	7.2	0.0003
LRP12	LDL receptor related protein 12	7.2	0.0003
SCO1	SCO cytochrome c oxidase assembly protein 1	7.2	0.0003
ZNFX1	zinc finger NFX1-type containing 1	7.1	0.0003
POR	cytochrome p450 oxidoreductase	7.1	0.0003
APOBEC3B	apolipoprotein B mRNA editing enzyme catalytic subunit 3B	7.0	0.0052
LGALS8	galectin 8	7.0	0.0003
CSRP1	cysteine and glycine rich protein 1	7.0	0.0003
CTSV	cathepsin V	7.0	0.0003
PSME2	proteasome activator subunit 2	6.9	0.0003

HAT1	histone acetyltransferase 1	6.9	0.0003
CYCS	cytochrome c, somatic	6.9	0.0003
RMDN3	regulator of microtubule dynamics 3	6.9	0.0003
TUBB2A	tubulin beta 2A class IIa	6.8	0.0003
PLA2G15	phospholipase A2 group XV	6.8	0.0003
Trim30a	tripartite motif-containing 30A	6.8	0.0003
CLEC5A	C-type lectin domain containing 5A	6.8	0.0003
TCEAL9	transcription elongation factor A like 9	6.7	0.0003
Dock4	dedicator of cytokinesis 4	6.7	0.0003
Marcks	myristoylated alanine rich protein kinase C substrate	6.7	0.0003
MSR1	macrophage scavenger receptor 1	6.6	0.0003
DDHD1	DDHD domain containing 1	6.6	0.0003
LPXN	leupaxin	6.5	0.0003
ATP6V1C1	ATPase H+ transporting V1 subunit C1	6.5	0.0003
ICAM1	intercellular adhesion molecule 1	6.5	0.0003
MFSD11	major facilitator superfamily domain containing 11	6.5	0.0191
HLA-G	major histocompatibility complex, class I, G	6.5	0.0003
Fbxw17	F-box and WD-40 domain protein 17	6.5	0.0003
C130026I21Rik	RIKEN cDNA C130026I21 gene	6.4	0.0003
GMPPB	GDP-mannose pyrophosphorylase B	6.4	0.0003
IL4R	interleukin 4 receptor	6.4	0.0003
MTHFR	methylenetetrahydrofolate reductase	6.4	0.0003
SLC48A1	solute carrier family 48 member 1	6.4	0.0003
PML	promyelocytic leukemia	6.4	0.0003
NMI	N-myc and STAT interactor	6.4	0.0003
PRPF38A	pre-mRNA processing factor 38A	6.4	0.0115
Ranbp2	RAN binding protein 2	6.3	0.0003
DHX58	DEXH-box helicase 58	6.3	0.0003
Nlrp5	NLR family, CARD domain containing 5	6.3	0.0003
LY9	lymphocyte antigen 9	6.2	0.0003
DRAM1	DNA damage regulated autophagy modulator 1	6.2	0.0003
SRXN1	sulfiredoxin 1	6.2	0.0003
HMGA1	high mobility group AT-hook 1	6.1	0.0003
MARCKSL1	MARCKS like 1	6.1	0.0003
PSMA5	proteasome subunit alpha 5	6.1	0.0003
PLA2G4A	phospholipase A2 group IVA	6.1	0.0003
CLEC4E	C-type lectin domain family 4 member E	6.0	0.0003
HEATR1	HEAT repeat containing 1	6.0	0.0003
ADAM9	ADAM metalloproteinase domain 9	5.9	0.0003
ELL2	elongation factor for RNA polymerase II 2	5.9	0.0003
MMP19	matrix metalloproteinase 19	5.9	0.0003
S1PR2	sphingosine-1-phosphate receptor 2	5.9	0.0130
SLC39A6	solute carrier family 39 member 6	5.9	0.0003
SLC23A2	solute carrier family 23 member 2	5.8	0.0356
EFHD2	EF-hand domain family member D2	5.8	0.0003
VMP1	vacuole membrane protein 1	5.8	0.0003
SLC45A4	solute carrier family 45 member 4	5.8	0.0003
GGA2	golgi associated, gamma adaptin ear containing, ARF binding protein 2	5.7	0.0003
Gk	glycerol kinase	5.7	0.0003
PARP14	poly(ADP-ribose) polymerase family member 14	5.7	0.0003
TNS3	tensin 3	5.7	0.0003
ABCG1	ATP binding cassette subfamily G member 1	5.7	0.0003
Psmb6	proteasome subunit beta 6	5.7	0.0003
VIPAS39	VPS33B interacting protein, apical-basolateral polarity regulator, spe-39 homolog	5.7	0.0056
LGALS9B	galectin 9B	5.6	0.0003
CD69	CD69 molecule	5.6	0.0003
DTX2	deltex E3 ubiquitin ligase 2	5.6	0.0058
RUFY3	RUN and FYVE domain containing 3	5.6	0.0003
TMEM67	transmembrane protein 67	5.5	0.0003
RFC3	replication factor C subunit 3	5.5	0.0003
NT5C3A	5'-nucleotidase, cytosolic IIIA	5.5	0.0003
GCLM	glutamate-cysteine ligase modifier subunit	5.5	0.0003
SLC38A6	solute carrier family 38 member 6	5.5	0.0003
NLRP1	NLR family pyrin domain containing 1	5.5	0.0485
FBXO6	F-box protein 6	5.5	0.0003
TAP1	transporter 1, ATP binding cassette subfamily B member	5.5	0.0003
RAB1A	RAB1A, member RAS oncogene family	5.5	0.0003
ARID5A	AT-rich interaction domain 5A	5.5	0.0394
PGPEP1	pyroglutamyl-peptidase I	5.4	0.0139
CPNE2	copine 2	5.4	0.0003
CALR	calreticulin	5.3	0.0003
NCEH1	neutral cholesterol ester hydrolase 1	5.3	0.0003
MITF	melanocyte inducing transcription factor	5.3	0.0003
CDKN1A	cyclin dependent kinase inhibitor 1A	5.3	0.0003
PPT1	palmitoyl-protein thioesterase 1	5.2	0.0028
ABCD3	ATP binding cassette subfamily D member 3	5.2	0.0003
SDCBP	syndecan binding protein	5.2	0.0003
WDR62	WD repeat domain 62	5.2	0.0160
ARMCX3	armadillo repeat containing X-linked 3	5.2	0.0003
NAA20	N(alpha)-acetyltransferase 20, NatB catalytic subunit	5.2	0.0003
PSMA3	proteasome subunit alpha 3	5.2	0.0003
AKR1A1	aldo-keto reductase family 1 member A1	5.1	0.0003
BCL2A1	BCL2 related protein A1	5.1	0.0003
SLC7A7	solute carrier family 7 member 7	5.1	0.0003
TNFRSF14	TNF receptor superfamily member 14	5.1	0.0003
PSMB10	proteasome subunit beta 10	5.1	0.0003

OXCT1	3-oxoacid CoA-transferase 1	5.1	0.0003
IFI30	IFI30 lysosomal thiol reductase	5.1	0.0003
PARP11	poly(ADP-ribose) polymerase family member 11	5.1	0.0003
TESK1	testis associated actin remodelling kinase 1	5.1	0.0003
IQSEC2	IQ motif and Sec7 domain ArGFEF 2	5.0	0.0003
USB1	U6 snRNA biogenesis phosphodiesterase 1	5.0	0.0003
RHOH	ras homolog family member H	5.0	0.0003
SLC38A7	solute carrier family 38 member 7	5.0	0.0003
LITAF	lipopolysaccharide induced TNF factor	5.0	0.0013
SLC31A2	solute carrier family 31 member 2	5.0	0.0008
EIF1AX	eukaryotic translation initiation factor 1A X-linked	5.0	0.0003
PLGRKT	plasminogen receptor with a C-terminal lysine	5.0	0.0056
Zfp821	zinc finger protein 821	5.0	0.0003
DENND1A	DENN domain containing 1A	5.0	0.0003
PD XK	pyridoxal kinase	5.0	0.0003
IGSF8	immunoglobulin superfamily member 8	5.0	0.0005
JDP2	Jun dimerization protein 2	4.9	0.0003
PARP9	poly(ADP-ribose) polymerase family member 9	4.9	0.0026
HIF1A	hypoxia inducible factor 1 subunit alpha	4.9	0.0003
TAX1BP1	Tax1 binding protein 1	4.9	0.0003
PLEKHM2	pleckstrin homology and RUN domain containing M2	4.9	0.0003
NMRAL1	NmrA like redox sensor 1	4.8	0.0003
GNG2	G protein subunit gamma 2	4.8	0.0003
NAGK	N-acetylglucosamine kinase	4.8	0.0013
SOCS3	suppressor of cytokine signaling 3	4.8	0.0003
CREM	cAMP responsive element modulator	4.8	0.0003
SLC29A3	solute carrier family 29 member 3	4.8	0.0003
IFI35	interferon induced protein 35	4.8	0.0003
ADORA2B	adenosine A2b receptor	4.8	0.0003
COA5	cytochrome c oxidase assembly factor 5	4.7	0.0003
Tuba1b	tubulin, alpha 1B	4.7	0.0060
SLC11A1	solute carrier family 11 member 1	4.7	0.0003
IFT22	intraflagellar transport 22	4.7	0.0003
Trim30b	tripartite motif-containing 30B	4.7	0.0003
Sifn1	schlafen 1	4.7	0.0003
CLEC4D	C-type lectin domain family 4 member D	4.7	0.0003
MAN2A1	mannosidase alpha class 2A member 1	4.7	0.0003
AHSA1	activator of HSP90 ATPase activity 1	4.7	0.0003
PFKFB3	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 3	4.6	0.0003
SPRED1	sprouty related EVH1 domain containing 1	4.6	0.0003
DAXX	death domain associated protein	4.6	0.0003
Ddx60	DEXD/H-box helicase 60	4.6	0.0003
CEPT1	choline/ethanolamine phosphotransferase 1	4.6	0.0003
SLC35F6	solute carrier family 35 member F6	4.6	0.0003
SEC24D	SEC24 homolog D, COPII coat complex component	4.6	0.0003
TRAFD1	TRAF-type zinc finger domain containing 1	4.6	0.0044
PSMD14	proteasome 26S subunit, non-ATPase 14	4.6	0.0003
MFS1	major facilitator superfamily domain containing 1	4.6	0.0003
CD164	CD164 molecule	4.6	0.0003
PSMD7	proteasome 26S subunit, non-ATPase 7	4.6	0.0003
PDE7B	phosphodiesterase 7B	4.5	0.0003
Gm5711	peptidylprolyl isomerase A pseudogene 3_1234.1	4.5	0.0003
CCDC86	coiled-coil domain containing 86	4.5	0.0003
RABGGTB	Rab geranylgeranyltransferase subunit beta	4.5	0.0003
RAP2B	RAP2B, member of RAS oncogene family	4.5	0.0003
TOR1AIP2	torsin 1A interacting protein 2	4.5	0.0003
CNP	2',3'-cyclic nucleotide 3' phosphodiesterase	4.5	0.0003
SNX2	sorting nexin 2	4.5	0.0003
PSMB8	proteasome subunit beta 8	4.5	0.0003
XPO1	exportin 1	4.5	0.0003
TSPAN3	tetraspanin 3	4.5	0.0003
RBM47	RNA binding motif protein 47	4.4	0.0003
WASHC5	WASH complex subunit 5	4.4	0.0003
Wfdc18	WAP four-disulfide core domain 18	4.4	0.0003
Pgap2	post-GPI attachment to proteins 2	4.4	0.0003
OAS2	2'-5'-oligoadenylate synthetase 2	4.4	0.0003
Ddx58	DEXD/H-box helicase 58	4.4	0.0003
CFLAR	CASP8 and FADD like apoptosis regulator	4.4	0.0003
ATP6V1G1	ATPase H+ transporting V1 subunit G1	4.4	0.0003
GTF2F1	general transcription factor IIF subunit 1	4.4	0.0003
FE22	fasciculation and elongation protein zeta 2	4.4	0.0003
NPC1	NPC intracellular cholesterol transporter 1	4.4	0.0003
TRIM21	tripartite motif containing 21	4.3	0.0003
C19orf12	chromosome 19 open reading frame 12	4.3	0.0003
PKD3	pyruvate dehydrogenase kinase 3	4.3	0.0003
ATP6V1D	ATPase H+ transporting V1 subunit D	4.3	0.0003
ARID5B	AT-rich interaction domain 5B	4.3	0.0003
MRPL52	mitochondrial ribosomal protein L52	4.3	0.0003
SP140	SP140 nuclear body protein	4.3	0.0084
TAPBPL	TAP binding protein like	4.3	0.0003
TP53INP2	tumor protein p53 inducible nuclear protein 2	4.3	0.0003
RAPGEF2	Rap guanine nucleotide exchange factor 2	4.3	0.0003
MCFD2	multiple coagulation factor deficiency 2	4.3	0.0003
MRPL42	mitochondrial ribosomal protein L42	4.3	0.0003
SLC31A1	solute carrier family 31 member 1	4.3	0.0050
Gm6377	predicted gene 6377	4.3	0.0003

BAHD1	bromo adjacent homology domain containing 1	4.2	0.0003
Pvr	poliovirus receptor	4.2	0.0003
Ifi272a	interferon, alpha-inducible protein 27 like 2A	4.2	0.0003
HS1BP3	HCLS1 binding protein 3	4.2	0.0003
ODC1	ornithine decarboxylase 1	4.2	0.0003
AOAH	acyloxyacyl hydrolase	4.2	0.0003
CACYBP	calcyclin binding protein	4.2	0.0003
HLA-E	major histocompatibility complex, class I, E	4.2	0.0003
STXBP3	syntaxin binding protein 3	4.2	0.0003
PSMD11	proteasome 26S subunit, non-ATPase 11	4.2	0.0003
RAB32	RAB32, member RAS oncogene family	4.2	0.0003
TPP1	tripeptidyl peptidase 1	4.2	0.0003
Mir21c	microRNA 21c	4.1	0.0003
TBC1D9	TBC1 domain family member 9	4.1	0.0003
BCL3	BCL3 transcription coactivator	4.1	0.0003
Fcrl1	Fc receptor-like 1	4.1	0.0003
MPI	mannose phosphate isomerase	4.1	0.0003
TXNRD1	thioredoxin reductase 1	4.1	0.0003
CHST14	carbohydrate sulfotransferase 14	4.1	0.0227
ARL6IP1	ADP ribosylation factor like GTPase 6 interacting protein 1	4.1	0.0003
HSPH1	heat shock protein family H (Hsp110) member 1	4.1	0.0003
ATP6V1A	ATPase H+ transporting V1 subunit A	4.1	0.0003
PSMB2	proteasome subunit beta 2	4.1	0.0003
CFP	complement factor properdin	4.1	0.0003
DTX3L	deltex E3 ubiquitin ligase 3L	4.1	0.0034
MRPS22	mitochondrial ribosomal protein S22	4.1	0.0003
CD180	CD180 molecule	4.0	0.0003
GBA	glucosylceramidase beta	4.0	0.0003
TEFM	transcription elongation factor, mitochondrial	4.0	0.0003
EEF1E1	eukaryotic translation elongation factor 1 epsilon 1	4.0	0.0003
NOC4L	nucleolar complex associated 4 homolog	4.0	0.0003
IL1B	interleukin 1 beta	4.0	0.0003
HSD17B12	hydroxysteroid 17-beta dehydrogenase 12	4.0	0.0003
ALAS1	5'-aminolevulinate synthase 1	4.0	0.0003
Cbr2	carbonyl reductase 2	4.0	0.0003
ATP8A1	ATPase phospholipid transporting 8A1	4.0	0.0003
C1RL	complement C1r subcomponent like	4.0	0.0003
DTNBP1	dystrobrein binding protein 1	3.9	0.0003
PAK1	p21 (RAC1) activated kinase 1	3.9	0.0003
STIP1	stress induced phosphoprotein 1	3.9	0.0003
STAR5	STAR related lipid transfer domain containing 5	3.9	0.0139
HELZ2	helicase with zinc finger 2	3.9	0.0010
ITSN1	intersectin 1	3.9	0.0003
PEA15	proliferation and apoptosis adaptor protein 15	3.9	0.0003
SASH1	SAM and SH3 domain containing 1	3.9	0.0003
SMOX	spermine oxidase	3.9	0.0101
DERL2	derlin 2	3.9	0.0003
PLD2	phospholipase D2	3.9	0.0003
TMEM126A	transmembrane protein 126A	3.9	0.0003
NASP	nuclear autoantigenic sperm protein	3.9	0.0003
PSMA4	proteasome subunit alpha 4	3.9	0.0003
PSMC2	proteasome 26S subunit, ATPase 2	3.8	0.0003
ATP6V1H	ATPase H+ transporting V1 subunit H	3.8	0.0003
GADD45B	growth arrest and DNA damage inducible beta	3.8	0.0003
SGPL1	sphingosine-1-phosphate lyase 1	3.8	0.0003
PSME1	proteasome activator subunit 1	3.8	0.0005
Gm13509	adaptor protein complex AP-2, mu1 pseudogene	3.8	0.0015
PDZD11	PDZ domain containing 11	3.8	0.0003
P4HA1	prolyl 4-hydroxylase subunit alpha 1	3.8	0.0010
MITD1	microtubule interacting and trafficking domain containing 1	3.8	0.0003
FRMD4A	FERM domain containing 4A	3.8	0.0003
PSMD12	proteasome 26S subunit, non-ATPase 12	3.8	0.0003
Slc25a22	solute carrier family 25 member 22	3.8	0.0003
BCL2A1	BCL2 related protein A1	3.8	0.0003
CD68	CD68 molecule	3.8	0.0003
CMPK2	cytidine/uridine monophosphate kinase 2	3.8	0.0028
RARS1	arginyl-tRNA synthetase 1	3.8	0.0003
HILPDA	hypoxia inducible lipid droplet associated	3.8	0.0003
ATP6AP2	ATPase H+ transporting accessory protein 2	3.7	0.0003
Zranb2	zinc finger, RAN-binding domain containing 2	3.7	0.0003
ST3GAL5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5	3.7	0.0003
LARP1	La ribonucleoprotein domain family member 1	3.7	0.0003
ADRM1	adhesion regulating molecule 1	3.7	0.0003
TAP2	transporter 2, ATP binding cassette subfamily B member	3.7	0.0130
PFKL	phosphofructokinase, liver type	3.7	0.0003
DRAM2	DNA damage regulated autophagy modulator 2	3.7	0.0003
ACADL	acyl-CoA dehydrogenase long chain	3.7	0.0003
DHRS3	dehydrogenase/reductase 3	3.7	0.0003
VAV1	vav guanine nucleotide exchange factor 1	3.7	0.0378
CLTC	clathrin heavy chain	3.7	0.0003
MRPL27	mitochondrial ribosomal protein L27	3.7	0.0145
GNL3	G protein nucleolar 3	3.7	0.0291
CTSS	cathepsin S	3.7	0.0003
PIGU	phosphatidylinositol glycan anchor biosynthesis class U	3.7	0.0003
NUDT9	nudix hydrolase 9	3.6	0.0003
MX1	MX dynamin like GTPase 1	3.6	0.0003

PNPT1	polyribonucleotide nucleotidyltransferase 1	3.6	0.0003
EIF2S2	eukaryotic translation initiation factor 2 subunit beta	3.6	0.0036
FUBP1	far upstream element binding protein 1	3.6	0.0003
MRPS18C	mitochondrial ribosomal protein S18C	3.6	0.0003
PSMA6	proteasome subunit alpha 6	3.6	0.0003
PSMB7	proteasome subunit beta 7	3.6	0.0003
TPST1	tyrosylprotein sulfotransferase 1	3.6	0.0003
CPQ	carboxypeptidase Q	3.6	0.0003
SOAT1	sterol O-acyltransferase 1	3.6	0.0003
APP	amyloid beta precursor protein	3.6	0.0003
CCDC25	coiled-coil domain containing 25	3.6	0.0003
ANAPC10	anaphase promoting complex subunit 10	3.6	0.0450
TSP0	translocator protein	3.6	0.0003
HPF1	histone PARylation factor 1	3.6	0.0003
POLA2	DNA polymerase alpha 2, accessory subunit	3.6	0.0003
RRAD	RRAD, Ras related glycolysis inhibitor and calcium channel regulator	3.6	0.0003
CD1D	CD1d molecule	3.6	0.0003
IRF1	interferon regulatory factor 1	3.5	0.0003
PSMD3	proteasome 26S subunit, non-ATPase 3	3.5	0.0003
MEFV	MEFV innate immunity regulator, pyrin	3.5	0.0084
PLOD1	procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	3.5	0.0003
VPS29	VPS29 retromer complex component	3.5	0.0003
Basp1	brain abundant, membrane attached signal protein 1	3.5	0.0003
HTT	huntingtin	3.5	0.0003
TMEM65	transmembrane protein 65	3.5	0.0003
RAN	RAN, member RAS oncogene family	3.5	0.0003
SQSTM1	sequestosome 1	3.5	0.0003
PDIA6	protein disulfide isomerase family A member 6	3.5	0.0003
PFKP	phosphofructokinase, platelet	3.5	0.0003
LIPA	lipase A, lysosomal acid type	3.5	0.0003
APOOL	apolipoprotein O like	3.5	0.0003
DNMT3A	DNA methyltransferase 3 alpha	3.4	0.0003
COMMD3-BMI1	COMMD3-BMI1 readthrough	3.4	0.0003
PPRC1	PPARG related coactivator 1	3.4	0.0003
SNX10	sorting nexin 10	3.4	0.0003
SRGAP2	SLIT-ROBO Rho GTPase activating protein 2	3.4	0.0003
TRIM6-TRIM34	TRIM6-TRIM34 readthrough	3.4	0.0003
Ms4a4a	membrane spanning 4-domains A4A	3.4	0.0003
CARS1	cysteinyI-tRNA synthetase 1	3.4	0.0003
EPB41L2	erythrocyte membrane protein band 4.1 like 2	3.4	0.0003
PNO1	partner of NOB1 homolog	3.4	0.0003
TRIM14	tripartite motif containing 14	3.4	0.0008
KEAP1	kelch like ECH associated protein 1	3.4	0.0003
NFKBIE	NFKB inhibitor epsilon	3.4	0.0003
Rrbp1	ribosome binding protein 1	3.4	0.0003
CCT3	chaperonin containing TCP1 subunit 3	3.4	0.0003
EIF2S1	eukaryotic translation initiation factor 2 subunit alpha	3.4	0.0005
HSPA9	heat shock protein family A (Hsp70) member 9	3.3	0.0003
SNX6	sorting nexin 6	3.3	0.0003
SLC30A5	solute carrier family 30 member 5	3.3	0.0003
PSAT1	phosphoserine aminotransferase 1	3.3	0.0003
CD53	CD53 molecule	3.3	0.0003
C3orf14	chromosome 3 open reading frame 14	3.3	0.0003
TMEM14C	transmembrane protein 14C	3.3	0.0003
ARFGAP3	ADP ribosylation factor GTPase activating protein 3	3.3	0.0003
LRRC59	leucine rich repeat containing 59	3.3	0.0003
PSMB5	proteasome subunit beta 5	3.3	0.0265
SLC25A25	solute carrier family 25 member 25	3.3	0.0003
STX12	syntaxin 12	3.3	0.0003
HSP90AB1	heat shock protein 90 alpha family class B member 1	3.3	0.0003
LRRC25	leucine rich repeat containing 25	3.3	0.0003
TPCN2	two pore segment channel 2	3.2	0.0003
GLMP	glycosylated lysosomal membrane protein	3.2	0.0003
PSMC6	proteasome 26S subunit, ATPase 6	3.2	0.0003
GNPDA1	glucosamine-6-phosphate deaminase 1	3.2	0.0003
SNRNP1	small nuclear ribonucleoprotein D1 polypeptide	3.2	0.0003
CLN8	CLN8 transmembrane ER and ERGIC protein	3.2	0.0003
ITPA	inosine triphosphatase	3.2	0.0017
MSANTD4	Myb/SANT DNA binding domain containing 4 with coiled-coils	3.2	0.0003
VAT1	vesicle amine transport 1	3.2	0.0003
ELOC	elongin C	3.2	0.0003
CHID1	chitinase domain containing 1	3.2	0.0003
GPR160	G protein-coupled receptor 160	3.2	0.0003
TCIRG1	T cell immune regulator 1, ATPase H+ transporting V0 subunit a3	3.2	0.0003
COMMD9	COMM domain containing 9	3.2	0.0003
RHBDF2	rhomboïd 5 homolog 2	3.2	0.0003
LAMP2	lysosomal associated membrane protein 2	3.2	0.0003
CLTB	clathrin light chain B	3.2	0.0003
PDIA4	protein disulfide isomerase family A member 4	3.2	0.0003
A413582	expressed sequence A413582	3.2	0.0003
TXNDC9	thioredoxin domain containing 9	3.2	0.0003
VPS26A	VPS26, retromer complex component A	3.2	0.0003
HLA-DMA	major histocompatibility complex, class II, DM alpha	3.1	0.0003
HSPA1A	heat shock protein family A (Hsp70) member 1A	3.1	0.0003
NDUFA12	NADH:ubiquinone oxidoreductase subunit A12	3.1	0.0003
EPST11	epithelial stromal interaction 1	3.1	0.0003

TXNL1	thioredoxin like 1	3.1	0.0003
USP14	ubiquitin specific peptidase 14	3.1	0.0003
CORO2A	coronin 2A	3.1	0.0003
MLLT6	MLLT6, PHD finger containing	3.1	0.0003
PARVG	parvin gamma	3.1	0.0003
PPARG	peroxisome proliferator activated receptor gamma	3.1	0.0003
CCNH	cyclin H	3.1	0.0112
LAMTOR3	late endosomal/lysosomal adaptor, MAPK and MTOR activator 3	3.1	0.0379
ECM1	extracellular matrix protein 1	3.1	0.0003
PPP1R11	protein phosphatase 1 regulatory inhibitor subunit 11	3.1	0.0003
TMEM120A	transmembrane protein 120A	3.1	0.0003
TMX1	thioredoxin related transmembrane protein 1	3.1	0.0003
FZD7	frizzled class receptor 7	3.1	0.0003
RBM7	RNA binding motif protein 7	3.1	0.0163
DNAJA1	DnaJ heat shock protein family (Hsp40) member A1	3.1	0.0003
NIPA2	NIPA magnesium transporter 2	3.1	0.0165
ZCCHC2	zinc finger CCHC-type containing 2	3.1	0.0003
SNX18	sorting nexin 18	3.1	0.0003
PSMC3	proteasome 26S subunit, ATPase 3	3.1	0.0003
ST13	ST13 Hsp70 interacting protein	3.1	0.0003
RASA4	RAS p21 protein activator 4	3.1	0.0008
RPP30	ribonuclease P/MRP subunit p30	3.0	0.0003
SKAP2	src kinase associated phosphoprotein 2	3.0	0.0003
KPNA3	karyopherin subunit alpha 3	3.0	0.0019
PLEK	pleckstrin	3.0	0.0003
PSMC4	proteasome 26S subunit, ATPase 4	3.0	0.0003
UGCG	UDP-glucose ceramide glucosyltransferase	3.0	0.0003
DNAJC2	DnaJ heat shock protein family (Hsp40) member C2	3.0	0.0003
TNFAIP2	TNF alpha induced protein 2	3.0	0.0003
LGALS1	galactin 1	3.0	0.0003
HDC	histidine decarboxylase	3.0	0.0003
PDIA3	protein disulfide isomerase family A member 3	3.0	0.0003
IL3RA	interleukin 3 receptor subunit alpha	3.0	0.0003
LARS2	leucyl-tRNA synthetase 2, mitochondrial	3.0	0.0003
CLIP2	CAP-Gly domain containing linker protein 2	3.0	0.0003
SMARCB1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily b, member 1	3.0	0.0003
BRI3	brain protein I3	3.0	0.0003
PSMB4	proteasome subunit beta 4	3.0	0.0003
DNM1L	dynamin 1 like	3.0	0.0003
DSE	dermatan sulfate epimerase	3.0	0.0003
NT5M	5',3'-nucleotidase, mitochondrial	3.0	0.0086
NOD1	nucleotide binding oligomerization domain containing 1	3.0	0.0003
PPP1R13B	protein phosphatase 1 regulatory subunit 13B	3.0	0.0003
PSMD2	proteasome 26S subunit, non-ATPase 2	3.0	0.0019
TMEM268	transmembrane protein 268	3.0	0.0003
ANXA3	annexin A3	3.0	0.0003
IDUA	alpha-L-iduronidase	3.0	0.0005
HMOX2	heme oxygenase 2	3.0	0.0015
COX5A	cytochrome c oxidase subunit 5A	3.0	0.0086
FOXP4	forkhead box P4	3.0	0.0003
TMEM199	transmembrane protein 199	3.0	0.0003
ALDH1B1	aldehyde dehydrogenase 1 family member B1	3.0	0.0003
GTF3C6	general transcription factor IIIC subunit 6	2.9	0.0376
ADAM17	ADAM metalloproteinase domain 17	2.9	0.0003
RAP2C	RAP2C, member of RAS oncogene family	2.9	0.0003
SESN2	sestrin 2	2.9	0.0040
TTC1	tetratricopeptide repeat domain 1	2.9	0.0003
THEMIS2	thymocyte selection associated family member 2	2.9	0.0003
DNAJB11	DnaJ heat shock protein family (Hsp40) member B11	2.9	0.0003
MRPL45	mitochondrial ribosomal protein L45	2.9	0.0003
AP3S1	adaptor related protein complex 3 subunit sigma 1	2.9	0.0003
SMCR8	SMCR8-C9orf72 complex subunit	2.9	0.0003
FCER1G	Fc fragment of IgE receptor Ig	2.9	0.0003
HSP90B1	heat shock protein 90 beta family member 1	2.9	0.0003
YIF1B	Yip1 interacting factor homolog B, membrane trafficking protein	2.9	0.0003
MED9	mediator complex subunit 9	2.9	0.0003
MTCH2	mitochondrial carrier 2	2.9	0.0003
UBE2N	ubiquitin conjugating enzyme E2 N	2.9	0.0003
SELENOW	selenoprotein W	2.9	0.0003
COMMD3	COMM domain containing 3	2.9	0.0003
GALK2	galactokinase 2	2.9	0.0026
MRPL13	mitochondrial ribosomal protein L13	2.9	0.0022
NDUFS4	NADH:ubiquinone oxidoreductase subunit S4	2.9	0.0003
Bex3	brain expressed X-linked 3	2.9	0.0003
NDUFAB1	NADH:ubiquinone oxidoreductase subunit AB1	2.9	0.0003
MRPL51	mitochondrial ribosomal protein L51	2.9	0.0003
PECAM1	platelet and endothelial cell adhesion molecule 1	2.9	0.0003
SAR1B	secretion associated Ras related GTPase 1B	2.9	0.0003
SPPL2A	signal peptide peptidase like 2A	2.9	0.0003
MRPS36	mitochondrial ribosomal protein S36	2.9	0.0003
HAX1	HCLS1 associated protein X-1	2.9	0.0003
IMPACT	impact RWD domain protein	2.9	0.0003
SNX3	sorting nexin 3	2.9	0.0003
PLEKHO2	pleckstrin homology domain containing O2	2.9	0.0003
TGFBI	transforming growth factor beta induced	2.8	0.0003
EIF2AK2	eukaryotic translation initiation factor 2 alpha kinase 2	2.8	0.0003



ADAR	adenosine deaminase RNA specific	2.8	0.0160
ALKBH7	alkB homolog 7	2.8	0.0003
SUSD6	sushi domain containing 6	2.8	0.0003
ABR	ABR activator of RhoGEF and GTPase	2.8	0.0003
RPF2	ribosome production factor 2 homolog	2.8	0.0471
SNAP29	synaptosome associated protein 29	2.8	0.0003
AAR2	AAR2 splicing factor	2.8	0.0003
Mpp1	membrane palmitoylated protein 1	2.8	0.0003
ACOT13	acyl-CoA thioesterase 13	2.8	0.0003
CLPP	caseinolytic mitochondrial matrix peptidase proteolytic subunit	2.8	0.0003
SEC23B	SEC23 homolog B, coat complex II component	2.8	0.0003
2610001J05Rik	RIKEN cDNA 2610001J05 gene	2.8	0.0003
FNDC3A	fibronectin type III domain containing 3A	2.8	0.0003
MOCS2	molybdenum cofactor synthesis 2	2.8	0.0003
RRP9	ribosomal RNA processing 9, U3 small nucleolar RNA binding protein	2.8	0.0003
BAK1	BCL2 antagonist/killer 1	2.8	0.0042
MRPL1	mitochondrial ribosomal protein L1	2.8	0.0003
Shhg6	small nucleolar RNA host gene 6	2.8	0.0003
FEN1	flap structure-specific endonuclease 1	2.8	0.0163
NUDT19	nudix hydrolase 19	2.8	0.0003
CASP8	caspase 8	2.8	0.0003
MTX2	metaxin 2	2.8	0.0003
DNAJC17	DnaJ heat shock protein family (Hsp40) member C17	2.8	0.0065
CCDC90B	coiled-coil domain containing 90B	2.8	0.0003
DNAJC13	DnaJ heat shock protein family (Hsp40) member C13	2.8	0.0003
Evl	Enah/Vasp-like	2.8	0.0003
Cox7a2	cytochrome c oxidase subunit 7A2	2.8	0.0003
PPIL1	peptidylprolyl isomerase like 1	2.8	0.0003
NOL12	nucleolar protein 12	2.8	0.0003
KPNA4	karyopherin subunit alpha 4	2.7	0.0003
NDUFA5	NADH:ubiquinone oxidoreductase subunit A5	2.7	0.0003
FKBP2	FKBP prolyl isomerase 2	2.7	0.0003
Chmp4b	charged multivesicular body protein 4B	2.7	0.0003
MRPL39	mitochondrial ribosomal protein L39	2.7	0.0003
SDHAF4	succinate dehydrogenase complex assembly factor 4	2.7	0.0003
DHX40	DEAH-box helicase 40	2.7	0.0003
Samd9l	sterile alpha motif domain containing 9-like	2.7	0.0003
GAPDH	glyceraldehyde-3-phosphate dehydrogenase	2.7	0.0003
TIMM8B	translocase of inner mitochondrial membrane 8 homolog B	2.7	0.0003
M6PR	mannose-6-phosphate receptor, cation dependent	2.7	0.0003
NAAA	N-acylethanolamine acid amidase	2.7	0.0448
BOLA3	bolA family member 3	2.7	0.0013
COMMD4	COMM domain containing 4	2.7	0.0003
BRCC3	BRCA1/BRCA2-containing complex subunit 3	2.7	0.0003
RELB	RELB proto-oncogene, NF-kB subunit	2.7	0.0003
RNF103	ring finger protein 103	2.7	0.0003
RNF141	ring finger protein 141	2.7	0.0003
HSP90AA1	heat shock protein 90 alpha family class A member 1	2.7	0.0003
EIF4A1	eukaryotic translation initiation factor 4A1	2.7	0.0003
GALC	galactosylceramidase	2.7	0.0003
ASCC2	activating signal cointegrator 1 complex subunit 2	2.7	0.0003
UTP4	UTP4 small subunit processome component	2.7	0.0003
STAM2	signal transducing adaptor molecule 2	2.7	0.0003
CAPZA2	capping actin protein of muscle Z-line subunit alpha 2	2.7	0.0003
HSDL2	hydroxysteroid dehydrogenase like 2	2.7	0.0003
TCEAL8	transcription elongation factor A like 8	2.7	0.0003
ATP2A2	ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 2	2.7	0.0405
PAFAH1B2	platelet activating factor acetylhydrolase 1b catalytic subunit 2	2.7	0.0005
MFS12	major facilitator superfamily domain containing 12	2.6	0.0003
OGFR	opioid growth factor receptor	2.6	0.0003
FAF2	Fas associated factor family member 2	2.6	0.0003
ATP13A2	ATPase cation transporting 13A2	2.6	0.0431
RPS27L	ribosomal protein S27 like	2.6	0.0003
TMEM192	transmembrane protein 192	2.6	0.0003
KRCC1	lysine rich coiled-coil 1	2.6	0.0003
MAP11	microtubule associated protein 11	2.6	0.0003
SCPEP1	serine carboxypeptidase 1	2.6	0.0015
ATP1B3	ATPase Na+/K+ transporting subunit beta 3	2.6	0.0003
PICALM	phosphatidylinositol binding clathrin assembly protein	2.6	0.0003
RNASEH2B	ribonuclease H2 subunit B	2.6	0.0003
COX18	cytochrome c oxidase assembly factor COX18	2.6	0.0003
PSMA1	proteasome subunit alpha 1	2.6	0.0003
ERAP1	endoplasmic reticulum aminopeptidase 1	2.6	0.0213
GAB3	GRB2 associated binding protein 3	2.6	0.0003
SLC16A6	solute carrier family 16 member 6	2.6	0.0003
AP1S1	adaptor related protein complex 1 subunit sigma 1	2.6	0.0003
FBXO7	F-box protein 7	2.6	0.0003
UCHL3	ubiquitin C-terminal hydrolase L3	2.6	0.0003
Calm1	calmodulin 1	2.6	0.0003
ZNF281	zinc finger protein 281	2.6	0.0105
PSMA2	proteasome subunit alpha 2	2.6	0.0003
TRAF2	TNF receptor associated factor 2	2.6	0.0003
GABARAP	GABA type A receptor-associated protein	2.6	0.0084
RAB5C	RAB5C, member RAS oncogene family	2.6	0.0003
SLFN5	schlafen family member 5	2.6	0.0003
PFDN1	prefoldin subunit 1	2.6	0.0003

GUCA1A	guanylate cyclase activator 1A	2.6	0.0003
MBNL2	muscleblind like splicing regulator 2	2.6	0.0003
TMEM256	transmembrane protein 256	2.6	0.0003
ENTPD1	ectonucleoside triphosphate diphosphohydrolase 1	2.6	0.0003
Rps19bp1	ribosomal protein S19 binding protein 1	2.6	0.0003
NRROS	negative regulator of reactive oxygen species	2.6	0.0003
TWF1	twinfilin actin binding protein 1	2.6	0.0032
SEC13	SEC13 homolog, nuclear pore and COPII coat complex component	2.6	0.0003
TFG	trafficking from ER to golgi regulator	2.6	0.0003
MMADHC	metabolism of cobalamin associated D	2.6	0.0003
TBK1	TANK binding kinase 1	2.6	0.0003
C1orf174	chromosome 1 open reading frame 174	2.6	0.0003
AK2	adenylate kinase 2	2.6	0.0003
MORF4L2	mortality factor 4 like 2	2.5	0.0003
ABRACL	ABRA C-terminal like	2.5	0.0003
MRPL46	mitochondrial ribosomal protein L46	2.5	0.0003
NDUFB6	NADH:ubiquinone oxidoreductase subunit B6	2.5	0.0044
CNIH4	cornichon family AMPA receptor auxiliary protein 4	2.5	0.0013
DYNLL1	dynein light chain LC8-type 1	2.5	0.0003
WSB2	WD repeat and SOCS box containing 2	2.5	0.0003
PLEKHO1	pleckstrin homology domain containing O1	2.5	0.0003
MARCHF1	membrane associated ring-CH-type finger 1	2.5	0.0003
MRPS2	mitochondrial ribosomal protein S2	2.5	0.0003
NOP58	NOP58 ribonucleoprotein	2.5	0.0003
PCGF5	polycomb group ring finger 5	2.5	0.0003
ATP5MC3	ATP synthase membrane subunit c locus 3	2.5	0.0003
N4BP1	NEDD4 binding protein 1	2.5	0.0003
CPEB4	cytoplasmic polyadenylation element binding protein 4	2.5	0.0003
RNF114	ring finger protein 114	2.5	0.0010
CHCHD1	coiled-coil-helix-coiled-coil-helix domain containing 1	2.5	0.0003
NBN	nibrin	2.5	0.0003
SP110	SP110 nuclear body protein	2.5	0.0003
MYD88	MYD88 innate immune signal transduction adaptor	2.5	0.0003
EFCAB14	EF-hand calcium binding domain 14	2.5	0.0003
VWA5A	von Willebrand factor A domain containing 5A	2.5	0.0003
PLAC8	placenta associated 8	2.5	0.0003
Rnf19b	ring finger protein 19B	2.5	0.0003
COX5B	cytochrome c oxidase subunit 5B	2.5	0.0003
SELENOS	selenoprotein S	2.5	0.0022
MRPL32	mitochondrial ribosomal protein L32	2.5	0.0003
VAV2	vav guanine nucleotide exchange factor 2	2.5	0.0003
C6orf47	chromosome 6 open reading frame 47	2.5	0.0181
FGD2	FYVE, RhoGEF and PH domain containing 2	2.5	0.0003
CHORDC1	cysteine and histidine rich domain containing 1	2.5	0.0003
MTHFS	methenyltetrahydrofolate synthetase	2.5	0.0075
CCT6A	chaperonin containing TCP1 subunit 6A	2.5	0.0003
C18orf32	chromosome 18 open reading frame 32	2.5	0.0003
PTPMT1	protein tyrosine phosphatase mitochondrial 1	2.5	0.0005
FBXL5	F-box and leucine rich repeat protein 5	2.5	0.0019
Apip	APAF1 interacting protein	2.5	0.0003
GHDC	GH3 domain containing	2.5	0.0003
MAPK9	mitogen-activated protein kinase 9	2.5	0.0136
YWHAQ	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein gamma	2.5	0.0003
POMP	proteasome maturation protein	2.5	0.0003
EIF5B	eukaryotic translation initiation factor 5B	2.5	0.0010
GHITM	growth hormone inducible transmembrane protein	2.5	0.0003
PMPCB	peptidase, mitochondrial processing beta subunit	2.5	0.0003
SRFBP1	serum response factor binding protein 1	2.5	0.0003
ZFP90	ZFP90 zinc finger protein	2.5	0.0333
PSMD10	proteasome 26S subunit, non-ATPase 10	2.5	0.0003
ACER3	alkaline ceramidase 3	2.5	0.0003
GRB2	growth factor receptor bound protein 2	2.5	0.0087
AGFG1	ArfGAP with FG repeats 1	2.4	0.0003
APTX	apratxin	2.4	0.0005
PSMB3	proteasome subunit beta 3	2.4	0.0003
TMEM214	transmembrane protein 214	2.4	0.0003
CWC27	CWC27 spliceosome associated cyclophilin	2.4	0.0003
EBNA1BP2	EBNA1 binding protein 2	2.4	0.0003
HIKESHI	heat shock protein nuclear import factor hikeshi	2.4	0.0050
MRPS10	mitochondrial ribosomal protein S10	2.4	0.0003
PBDC1	polysaccharide biosynthesis domain containing 1	2.4	0.0013
PSMD4	proteasome 26S subunit, non-ATPase 4	2.4	0.0003
CUL2	cullin 2	2.4	0.0003
YWHAE	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein epsilon	2.4	0.0003
CD151	CD151 molecule (Raph blood group)	2.4	0.0003
MAPK6	mitogen-activated protein kinase 6	2.4	0.0003
VPS35	VPS35 retromer complex component	2.4	0.0003
RAB10	RAB10, member RAS oncogene family	2.4	0.0003
MCM3	minichromosome maintenance complex component 3	2.4	0.0003
0610009B22Rik	RIKEN cDNA 0610009B22 gene	2.4	0.0003
STX2	syntaxin 2	2.4	0.0003
CANX	calnexin	2.4	0.0028
VCP	valosin containing protein	2.4	0.0003
Spout1	SPOUT domain containing methyltransferase 1	2.4	0.0003
NUFIP1	nuclear FMR1 interacting protein 1	2.4	0.0044
ZNF800	zinc finger protein 800	2.4	0.0003

POLE4	DNA polymerase epsilon 4, accessory subunit	2.4	0.0003
FARSB	phenylalanyl-tRNA synthetase subunit beta	2.4	0.0003
C1QBP	complement C1q binding protein	2.4	0.0003
RBBP7	RB binding protein 7, chromatin remodeling factor	2.4	0.0003
SLC35B1	solute carrier family 35 member B1	2.4	0.0003
ASB13	ankyrin repeat and SOCS box containing 13	2.4	0.0003
AZI2	5-azacytidine induced 2	2.4	0.0003
FAM20C	FAM20C golgi associated secretory pathway kinase	2.4	0.0003
CAPRN1	cell cycle associated protein 1	2.4	0.0003
GCH1	GTP cyclohydrolase 1	2.4	0.0019
HNRNPH2	heterogeneous nuclear ribonucleoprotein H2	2.4	0.0003
MTHFD2	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methylenetetrahydrofolate cyclohydrolase	2.4	0.0003
ATP5F1B	ATP synthase F1 subunit beta	2.4	0.0180
ETFa	electron transfer flavoprotein subunit alpha	2.4	0.0003
ARL1	ADP ribosylation factor like GTPase 1	2.4	0.0003
LPL	lipoprotein lipase	2.4	0.0003
NFE2L1	nuclear factor, erythroid 2 like 1	2.4	0.0003
RNF115	ring finger protein 115	2.4	0.0003
Mrp15	mitochondrial ribosomal protein L15	2.4	0.0003
Mrp17	mitochondrial ribosomal protein L17	2.4	0.0003
NPC2	NPC intracellular cholesterol transporter 2	2.4	0.0003
DYNLL2	dynein light chain LC8-type 2	2.4	0.0003
UBFD1	ubiquitin family domain containing 1	2.4	0.0230
CD81	CD81 molecule	2.4	0.0003
KARS1	lysyl-tRNA synthetase 1	2.4	0.0003
MEMO1	mediator of cell motility 1	2.4	0.0003
MED21	mediator complex subunit 21	2.4	0.0283
AIDA	axin interactor, dorsalization associated	2.4	0.0017
IST1	IST1 factor associated with ESCRT-III	2.4	0.0003
SARAF	store-operated calcium entry associated regulatory factor	2.4	0.0003
CASP7	caspase 7	2.4	0.0003
CLTA	clathrin light chain A	2.4	0.0003
LAT2	linker for activation of T cells family member 2	2.3	0.0028
SLC36A1	solute carrier family 36 member 1	2.3	0.0003
BNIP3	BCL2 interacting protein 3	2.3	0.0003
AP5B1	adaptor related protein complex 5 subunit beta 1	2.3	0.0003
MRPL41	mitochondrial ribosomal protein L41	2.3	0.0003
UTP6	UTP6 small subunit processome component	2.3	0.0003
PA2G4	proliferation-associated 2G4	2.3	0.0003
PTPN2	protein tyrosine phosphatase non-receptor type 2	2.3	0.0003
SH3BP2	SH3 domain binding protein 2	2.3	0.0003
UBE2M	ubiquitin conjugating enzyme E2 M	2.3	0.0003
ASCC3	activating signal cointegrator 1 complex subunit 3	2.3	0.0003
NDUFC2	NADH:ubiquinone oxidoreductase subunit C2	2.3	0.0003
NUP93	nucleoporin 93	2.3	0.0003
TEX264	testis expressed 264, ER-phagy receptor	2.3	0.0003
PLEKHM1	pleckstrin homology and RUN domain containing M1	2.3	0.0017
SIGLEC9	sialic acid binding Ig like lectin 9	2.3	0.0003
CRYZL1	crystallin zeta like 1	2.3	0.0003
NMD3	NMD3 ribosome export adaptor	2.3	0.0003
PRELID3B	PREL1 domain containing 3B	2.3	0.0139
IDH3A	isocitrate dehydrogenase (NAD(+)) 3 catalytic subunit alpha	2.3	0.0054
MRPL35	mitochondrial ribosomal protein L35	2.3	0.0054
LRRC8C	leucine rich repeat containing 8 VRAC subunit C	2.3	0.0003
MYDGF	myeloid derived growth factor	2.3	0.0003
Pira2	paired-Ig-like receptor A2	2.3	0.0003
NDUFA9	NADH:ubiquinone oxidoreductase subunit A9	2.3	0.0003
NDUFAF8	NADH:ubiquinone oxidoreductase complex assembly factor 8	2.3	0.0003
ITGB1BP1	integrin subunit beta 1 binding protein 1	2.3	0.0404
PUS1	pseudouridine synthase 1	2.3	0.0003
GNA12	G protein subunit alpha 12	2.3	0.0003
MRPL55	mitochondrial ribosomal protein L55	2.3	0.0214
AZIN1	antizyme inhibitor 1	2.3	0.0003
Gar1	GAR1 ribonucleoprotein	2.3	0.0005
ITGA5	integrin subunit alpha 5	2.3	0.0003
NCOA7	nuclear receptor coactivator 7	2.3	0.0091
PDCL3	phosducin like 3	2.3	0.0003
SLC2A1	solute carrier family 2 member 1	2.3	0.0003
ABI3	ABI family member 3	2.3	0.0295
ATP6V1B2	ATPase H+ transporting V1 subunit B2	2.3	0.0003
GDE1	glycerophosphodiester phosphodiesterase 1	2.3	0.0003
TIMM23	translocase of inner mitochondrial membrane 23	2.3	0.0224
APBA3	amyloid beta precursor protein binding family A member 3	2.3	0.0003
ATP5MC1	ATP synthase membrane subunit c locus 1	2.3	0.0003
NSFL1C	NSFL1 cofactor	2.3	0.0003
RNF185	ring finger protein 185	2.3	0.0003
TREM3	triggering receptor expressed on myeloid cells 3	2.3	0.0003
ANKIB1	ankyrin repeat and IBR domain containing 1	2.3	0.0410
UCHL5	ubiquitin C-terminal hydrolase L5	2.3	0.0003
ECE1	endothelin converting enzyme 1	2.3	0.0003
ANKFY1	ankyrin repeat and FYVE domain containing 1	2.3	0.0003
RAB7A	RAB7A, member RAS oncogene family	2.2	0.0003
Rps4l	ribosomal protein S4-like	2.2	0.0003
YWHAH	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein eta	2.2	0.0003
ATP5PO	ATP synthase peripheral stalk subunit OSCP	2.2	0.0003
RABEP1	rabaptin, RAB GTPase binding effector protein 1	2.2	0.0168

STX7	syntaxin 7	2.2	0.0003
VTA1	vesicle trafficking 1	2.2	0.0003
NMT1	N-myristoyltransferase 1	2.2	0.0003
NOP2	NOP2 nucleolar protein	2.2	0.0003
PRDX5	peroxiredoxin 5	2.2	0.0160
APOBEC1	apolipoprotein B mRNA editing enzyme catalytic subunit 1	2.2	0.0003
NDUFAF3	NADH:ubiquinone oxidoreductase complex assembly factor 3	2.2	0.0136
SIL1	SIL1 nucleotide exchange factor	2.2	0.0003
METTL6	methyltransferase like 6	2.2	0.0003
PKM	pyruvate kinase M1/2	2.2	0.0003
THAP7	THAP domain containing 7	2.2	0.0003
BLOC1S6	biogenesis of lysosomal organelles complex 1 subunit 6	2.2	0.0022
NHLRC3	NHL repeat containing 3	2.2	0.0003
HEXA	hexosaminidase subunit alpha	2.2	0.0003
TRAPPC3	trafficking protein particle complex 3	2.2	0.0003
DHRS7B	dehydrogenase/reductase 7B	2.2	0.0003
RAB9A	RAB9A, member RAS oncogene family	2.2	0.0003
LAMTOR1	late endosomal/lysosomal adaptor, MAPK and MTOR activator 1	2.2	0.0003
TTC32	tetratricopeptide repeat domain 32	2.2	0.0005
CHMP2A	charged multivesicular body protein 2A	2.2	0.0003
MAX	MYC associated factor X	2.2	0.0003
Gabpb1	GA binding protein transcription factor subunit beta 1	2.2	0.0003
BMP2K	BMP2 inducible kinase	2.2	0.0003
ID2	inhibitor of DNA binding 2	2.2	0.0003
PATL1	PAT1 homolog 1, processing body mRNA decay factor	2.2	0.0003
RPN1	ribophorin I	2.2	0.0003
GPR65	G protein-coupled receptor 65	2.2	0.0003
HNRNPLL	heterogeneous nuclear ribonucleoprotein L like	2.2	0.0003
OSBPL8	oxysterol binding protein like 8	2.2	0.0003
DCAF13	DDB1 and CUL4 associated factor 13	2.2	0.0003
GTPBP4	GTP binding protein 4	2.2	0.0003
EHD4	EH domain containing 4	2.2	0.0003
RBBP8	RB binding protein 8, endonuclease	2.2	0.0003
TMEM173	transmembrane protein 173	2.2	0.0003
MRPL11	mitochondrial ribosomal protein L11	2.2	0.0003
TSSC4	tumor suppressing subtransferable candidate 4	2.2	0.0003
COA4	cytochrome c oxidase assembly factor 4 homolog	2.2	0.0003
PPP3R1	protein phosphatase 3 regulatory subunit B, alpha	2.2	0.0003
ATP6V0D1	ATPase H+ transporting V0 subunit d1	2.2	0.0213
CSNK2B	casein kinase 2 beta	2.2	0.0003
PIK3CB	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta	2.2	0.0003
TRPM2	transient receptor potential cation channel subfamily M member 2	2.2	0.0418
ELOF1	elongation factor 1 homolog	2.2	0.0003
EDF1	endothelial differentiation related factor 1	2.2	0.0003
RNPEP	arginyl aminopeptidase	2.2	0.0003
B4galt5	beta-1,4-galactosyltransferase 5	2.2	0.0145
SSBP1	single stranded DNA binding protein 1	2.2	0.0003
CYFIP1	cytoplasmic FMR1 interacting protein 1	2.2	0.0003
PDE6D	phosphodiesterase 6D	2.2	0.0003
TM2D1	TM2 domain containing 1	2.2	0.0003
Uqcrb	ubiquinol-cytochrome c reductase binding protein	2.2	0.0003
ZCRB1	zinc finger CCHC-type and RNA binding motif containing 1	2.2	0.0003
VDAC2	voltage dependent anion channel 2	2.2	0.0003
ACSL1	acyl-CoA synthetase long chain family member 1	2.2	0.0003
DROSHA	drosha ribonuclease III	2.2	0.0003
PSMG1	proteasome assembly chaperone 1	2.2	0.0003
BCCIP	BRCA2 and CDKN1A interacting protein	2.2	0.0008
PLAA	phospholipase A2 activating protein	2.2	0.0003
SLC33A1	solute carrier family 33 member 1	2.2	0.0217
MPEG1	macrophage expressed 1	2.2	0.0008
MED10	mediator complex subunit 10	2.2	0.0003
PRPF3	pre-mRNA processing factor 3	2.2	0.0003
AREL1	apoptosis resistant E3 ubiquitin protein ligase 1	2.2	0.0010
ETV3	ETS variant transcription factor 3	2.2	0.0003
CHD1	chromodomain helicase DNA binding protein 1	2.2	0.0003
LYAR	Ly1 antibody reactive	2.2	0.0003
ZNF705A	zinc finger protein 705A	2.2	0.0498
ORC4	origin recognition complex subunit 4	2.2	0.0058
CCDC71L	coiled-coil domain containing 71 like	2.1	0.0005
MRPL16	mitochondrial ribosomal protein L16	2.1	0.0003
AKIP1	A-kinase interacting protein 1	2.1	0.0015
PTGS2	prostaglandin-endoperoxide synthase 2	2.1	0.0003
KIF1C	kinesin family member 1C	2.1	0.0366
ARHGAP10	Rho GTPase activating protein 10	2.1	0.0003
HPSE	heparanase	2.1	0.0003
MYC	MYC proto-oncogene, bHLH transcription factor	2.1	0.0003
P2rx7	purinergic receptor P2X 7	2.1	0.0038
LMBRD1	LMBR1 domain containing 1	2.1	0.0005
FNIP1	folliculin interacting protein 1	2.1	0.0003
TOX4	TOX high mobility group box family member 4	2.1	0.0003
CCZ1	CCZ1 homolog B, vacuolar protein trafficking and biogenesis associated	2.1	0.0003
LAMTOR5	late endosomal/lysosomal adaptor, MAPK and MTOR activator 5	2.1	0.0003
NSMCE1	NSE1 homolog, SMC5-SMC6 complex component	2.1	0.0003
RAD23B	RAD23 homolog B, nucleotide excision repair protein	2.1	0.0003
CDC42EP2	CDC42 effector protein 2	2.1	0.0003
LAMP1	lysosomal associated membrane protein 1	2.1	0.0003

TBC1D10A	TBC1 domain family member 10A	2.1	0.0003
BRX1	biogenesis of ribosomes BRX1	2.1	0.0003
EXOSC9	exosome component 9	2.1	0.0003
ZWINT	ZW10 interacting kinetochore protein	2.1	0.0003
PELL1	pellino E3 ubiquitin protein ligase 1	2.1	0.0087
VT1B	vesicle transport through interaction with t-SNAREs 1B	2.1	0.0019
1810037117Rik	RIKEN cDNA 1810037117 gene	2.1	0.0003
COP55	COP9 signalosome subunit 5	2.1	0.0005
EXOSC3	exosome component 3	2.1	0.0003
PSMG4	proteasome assembly chaperone 4	2.1	0.0003
NDUFB9	NADH:ubiquinone oxidoreductase subunit B9	2.1	0.0003
NSMCE2	NSE2 (MMS21) homolog, SMC5-SMC6 complex SUMO ligase	2.1	0.0003
ATP6V1E1	ATPase H+ transporting V1 subunit E1	2.1	0.0003
SH3BGR1	SH3 domain binding glutamate rich protein like	2.1	0.0003
FLCN	folliculin	2.1	0.0003
DCLRE1C	DNA cross-link repair 1C	2.1	0.0003
SH3GL1	SH3 domain containing GRB2 like 1, endophilin A2	2.1	0.0017
POLE3	DNA polymerase epsilon 3, accessory subunit	2.1	0.0003
SGTA	small glutamine rich tetratricopeptide repeat containing alpha	2.1	0.0003
PGK1	phosphoglycerate kinase 1	2.1	0.0003
CXorf21	chromosome X open reading frame 21	2.1	0.0003
U2af1	U2 small nuclear ribonucleoprotein auxiliary factor (U2AF) 1	2.1	0.0003
TOP1	DNA topoisomerase I	2.1	0.0003
PRMT5	protein arginine methyltransferase 5	2.1	0.0036
TAF11	TATA-box binding protein associated factor 11	2.1	0.0003
UXT	ubiquitously expressed prefoldin like chaperone	2.1	0.0003
BTAF1	B-TFIID TATA-box binding protein associated factor 1	2.1	0.0003
IPO13	importin 13	2.1	0.0022
PRKCSH	protein kinase C substrate 80K-H	2.1	0.0003
SCFD1	sec1 family domain containing 1	2.1	0.0003
ITGAX	integrin subunit alpha X	2.1	0.0003
KCTD6	potassium channel tetramerization domain containing 6	2.1	0.0003
MRPL44	mitochondrial ribosomal protein L44	2.1	0.0003
VAPA	VAMP associated protein A	2.1	0.0003
WASHC3	WASH complex subunit 3	2.1	0.0003
TMEM209	transmembrane protein 209	2.1	0.0003
ARL8A	ADP ribosylation factor like GTPase 8A	2.1	0.0003
CCT8	chaperonin containing TCP1 subunit 8	2.1	0.0003
Slc2a6	solute carrier family 2 member 6	2.1	0.0064
SUMF1	sulfatase modifying factor 1	2.1	0.0003
USP15	ubiquitin specific peptidase 15	2.1	0.0003
AFF1	AF4/FMR2 family member 1	2.1	0.0003
GNA13	G protein subunit alpha 13	2.1	0.0089
TBC1D13	TBC1 domain family member 13	2.1	0.0003
TMBIM6	transmembrane BAX inhibitor motif containing 6	2.1	0.0003
FAM220A	family with sequence similarity 220 member A	2.1	0.0013
TUBB	tubulin beta class I	2.1	0.0445
MTM1	myotubularin 1	2.1	0.0003
SH2B2	SH2B adaptor protein 2	2.1	0.0003
UQCQC2	ubiquinol-cytochrome c reductase complex assembly factor 2	2.1	0.0026
DNAJA2	DnaJ heat shock protein family (Hsp40) member A2	2.1	0.0003
PMVK	phosphomevalonate kinase	2.1	0.0003
DYNLRB1	dynein light chain roadblock-type 1	2.1	0.0003
CHCHD2	coiled-coil-helix-coiled-coil-helix domain containing 2	2.1	0.0003
DOK1	docking protein 1	2.1	0.0003
ZDHHC5	zinc finger DHHC-type containing 5	2.1	0.0127
SIRT6	sirtuin 6	2.0	0.0003
CAMK2D	calcium/calmodulin dependent protein kinase II delta	2.0	0.0003
IL15	interleukin 15	2.0	0.0005
UBE2K	ubiquitin conjugating enzyme E2 K	2.0	0.0003
DDX24	DEAD-box helicase 24	2.0	0.0003
EEF1AKMT1	EEF1A lysine methyltransferase 1	2.0	0.0003
IPO9	importin 9	2.0	0.0003
EPS8	epidermal growth factor receptor pathway substrate 8	2.0	0.0003
LSM12	LSM12 homolog	2.0	0.0003
C9orf64	chromosome 9 open reading frame 64	2.0	0.0003
BROX	BRO1 domain and CAAX motif containing	2.0	0.0129
KCTD5	potassium channel tetramerization domain containing 5	2.0	0.0003
Arf2	ADP-ribosylation factor 2	2.0	0.0003
HPRT1	hypoxanthine phosphoribosyltransferase 1	2.0	0.0003
BIRC6	baculoviral IAP repeat containing 6	2.0	0.0309
HTATIP2	HIV-1 Tat interactive protein 2	2.0	0.0003
PSMD6	proteasome 26S subunit, non-ATPase 6	2.0	0.0122
CBR1	carbonyl reductase 1	2.0	0.0003
NUP54	nucleoporin 54	2.0	0.0003
HPS4	HPS4 biogenesis of lysosomal organelles complex 3 subunit 2	2.0	0.0003
ZNF513	zinc finger protein 513	2.0	0.0003
METAP2	methionyl aminopeptidase 2	2.0	0.0003
MPHOSPH6	M-phase phosphoprotein 6	2.0	0.0005
WDR61	WD repeat domain 61	2.0	0.0058
SNX1	sorting nexin 1	2.0	0.0003
TIMM13	translocase of inner mitochondrial membrane 13	2.0	0.0013
Fundc2	FUN14 domain containing 2	2.0	0.0008
RPAIN	RPA interacting protein	2.0	0.0005
ACO2	aconitase 2	2.0	0.0292
TMCO4	transmembrane and coiled-coil domains 4	2.0	0.0013

MOSPD2	motile sperm domain containing 2	2.0	0.0003
SRD5A3	steroid 5 alpha-reductase 3	2.0	0.0122
EIF6	eukaryotic translation initiation factor 6	2.0	0.0028
MOSPD1	motile sperm domain containing 1	2.0	0.0015
RUVBL1	RuvB like AAA ATPase 1	2.0	0.0003
TMEM33	transmembrane protein 33	2.0	0.0032
Mad2l2	mitotic arrest deficient 2 like 2	2.0	0.0008
COX8A	cytochrome c oxidase subunit 8A	2.0	0.0003
POLR2G	RNA polymerase II subunit G	2.0	0.0005
ZFYVE19	zinc finger FYVE-type containing 19	2.0	0.0017
ARF4	ADP ribosylation factor 4	2.0	0.0010
HVCN1	hydrogen voltage gated channel 1	2.0	0.0024
SNF8	SNF8 subunit of ESCRT-II	2.0	0.0003
CDC123	cell division cycle 123	2.0	0.0283
JAML	junction adhesion molecule like	2.0	0.0017
Ints9	integrator complex subunit 9	2.0	0.0005
DNTTIP2	deoxynucleotidyltransferase terminal interacting protein 2	2.0	0.0150
CMTM3	CKLF like MARVEL transmembrane domain containing 3	2.0	0.0003
SNX11	sorting nexin 11	2.0	0.0003
MRPL54	mitochondrial ribosomal protein L54	2.0	0.0003
DERA	deoxyribose-phosphate aldolase	2.0	0.0008
ELAVL1	ELAV like RNA binding protein 1	2.0	0.0003
ATP5PF	ATP synthase peripheral stalk subunit F6	2.0	0.0024
NRAS	NRAS proto-oncogene, GTPase	2.0	0.0030
COX6A1	cytochrome c oxidase subunit 6A1	2.0	0.0003
COX7B	cytochrome c oxidase subunit 7B	2.0	0.0032
SMARCA4	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4	2.0	0.0003
TOR1AIP1	torsin 1A interacting protein 1	2.0	0.0019
GTF2H1	general transcription factor IIH subunit 1	2.0	0.0003
PEBP1	phosphatidylethanolamine binding protein 1	2.0	0.0003
PDCD10	programmed cell death 10	2.0	0.0003
TOMM40	translocase of outer mitochondrial membrane 40	2.0	0.0003
UBA1	ubiquitin like modifier activating enzyme 1	2.0	0.0013
MECP2	methyl-CpG binding protein 2	2.0	0.0048
WDR18	WD repeat domain 18	2.0	0.0409
AGA	aspartylglucosaminidase	2.0	0.0005
Clec4a4	C-type lectin domain family 4, member a4	2.0	0.0003
SH3GLB1	SH3 domain containing GRB2 like, endophilin B1	2.0	0.0008
U2SURP	U2 snRNP associated SURP domain containing	2.0	0.0005
CPSF2	cleavage and polyadenylation specific factor 2	2.0	0.0367
LZIC	leucine zipper and CTNBP1 domain containing	2.0	0.0005
NAPA	NSF attachment protein alpha	2.0	0.0474
PFDN4	prefoldin subunit 4	2.0	0.0008
Alg1	ALG1, chitobiosyldiphosphodolichol beta-mannosyltransferase	2.0	0.0015
COPS6	COP9 signalosome subunit 6	2.0	0.0210
QCCT	glutaminy-peptide cyclotransferase	2.0	0.0013
CCNG1	cyclin G1	2.0	0.0003
HSPB11	heat shock protein family B (small) member 11	2.0	0.0038
G3BP1	G3BP stress granule assembly factor 1	2.0	0.0095
AGTRAP	angiotensin II receptor associated protein	2.0	0.0003
FIP1L1	factor interacting with PAPOLA and CPSF1	2.0	0.0003
PSME4	proteasome activator subunit 4	2.0	0.0044
EPRS1	glutamyl-prolyl-tRNA synthetase 1	2.0	0.0005
NFXL1	nuclear transcription factor, X-box binding like 1	2.0	0.0003
NIT1	nitrilase 1	2.0	0.0276
CTSH	cathepsin H	2.0	0.0077
HDHD2	haloacid dehalogenase like hydrolase domain containing 2	2.0	0.0062
RWDD4	RWD domain containing 4	2.0	0.0060
DDX1	DEAD-box helicase 1	1.9	0.0101
Poldip2	DNA polymerase delta interacting protein 2	1.9	0.0003
PSMA7	proteasome subunit alpha 7	1.9	0.0003
SERGEF	secretion regulating guanine nucleotide exchange factor	1.9	0.0015
SRPRA	SRP receptor subunit alpha	1.9	0.0008
TMEM60	transmembrane protein 60	1.9	0.0030
PYM1	PYM homolog 1, exon junction complex associated factor	1.9	0.0013
SF3A1	splicing factor 3a subunit 1	1.9	0.0003
SMAD1	SMAD family member 1	1.9	0.0005
Pgm2	phosphoglucomutase 2	1.9	0.0003
VPS50	VPS50 subunit of EARP/GARPII complex	1.9	0.0005
WDR41	WD repeat domain 41	1.9	0.0017
CMC1	C-X9-C motif containing 1	1.9	0.0034
RARS2	arginyl-tRNA synthetase 2, mitochondrial	1.9	0.0042
STARD3NL	STARD3 N-terminal like	1.9	0.0003
USP12	ubiquitin specific peptidase 12	1.9	0.0003
UTP23	UTP23 small subunit processome component	1.9	0.0098
PGAM5	PGAM family member 5, mitochondrial serine/threonine protein phosphatase	1.9	0.0008
MAP3K8	mitogen-activated protein kinase kinase kinase 8	1.9	0.0008
NUBP2	nucleotide binding protein 2	1.9	0.0003
CACUL1	CDK2 associated cullin domain 1	1.9	0.0005
Sifn2	schlafen 2	1.9	0.0008
MED11	mediator complex subunit 11	1.9	0.0003
RPE	ribulose-5-phosphate-3-epimerase	1.9	0.0036
Cops2	COP9 signalosome subunit 2	1.9	0.0062
ZNF703	zinc finger protein 703	1.9	0.0003
NENF	neudesin neurotrophic factor	1.9	0.0044
RHEB	Ras homolog, mTORC1 binding	1.9	0.0003

ASAH1	N-acylsphingosine amidohydrolase 1	1.9	0.0109
FFAR2	free fatty acid receptor 2	1.9	0.0034
SCNM1	sodium channel modifier 1	1.9	0.0003
SLC25A20	solute carrier family 25 member 20	1.9	0.0005
SPATA5L1	spermatogenesis associated 5 like 1	1.9	0.0040
TARS1	threonyl-tRNA synthetase 1	1.9	0.0003
FUCA2	alpha-L-fucosidase 2	1.9	0.0003
YIPF5	Yip1 domain family member 5	1.9	0.0003
MAPK1IP1L	mitogen-activated protein kinase 1 interacting protein 1 like	1.9	0.0110
TDRD7	tudor domain containing 7	1.9	0.0003
TMEM167A	transmembrane protein 167A	1.9	0.0078
NUS1	NUS1 dehydrodolichyl diphosphate synthase subunit	1.9	0.0005
MAP1S	microtubule associated protein 1S	1.9	0.0003
RUVBL2	RuvB like AAA ATPase 2	1.9	0.0038
NSF	N-ethylmaleimide sensitive factor, vesicle fusing ATPase	1.9	0.0003
STX8	syntaxin 8	1.9	0.0019
ASL	argininosuccinate lyase	1.9	0.0003
NACC1	nucleus accumbens associated 1	1.9	0.0015
OCRL	OCRL inositol polyphosphate-5-phosphatase	1.9	0.0015
PHC2	polyhomeotic homolog 2	1.9	0.0003
ARHGDI1A	Rho GDP dissociation inhibitor alpha	1.9	0.0010
FUOM	fucose mutarotase	1.9	0.0124
NIPSNAP3A	nipsnap homolog 3A	1.9	0.0010
NUDCD2	NudC domain containing 2	1.9	0.0064
TMEM68	transmembrane protein 68	1.9	0.0403
Hnmpab	heterogeneous nuclear ribonucleoprotein A/B	1.9	0.0003
VPS54	VPS54 subunit of GARP complex	1.9	0.0240
ISOC1	isochorismatase domain containing 1	1.9	0.0008
SET	SET nuclear proto-oncogene	1.9	0.0003
RNF139	ring finger protein 139	1.9	0.0005
TANK	TRAF family member associated NFkB activator	1.9	0.0015
CCDC59	coiled-coil domain containing 59	1.9	0.0024
MRPS5	mitochondrial ribosomal protein S5	1.9	0.0134
SRP19	signal recognition particle 19	1.9	0.0008
Med8	mediator complex subunit 8	1.9	0.0253
CLDND1	claudin domain containing 1	1.9	0.0003
PLBD2	phospholipase B domain containing 2	1.9	0.0003
VPS18	VPS18 core subunit of CORVET and HOPS complexes	1.9	0.0005
ZDHHC12	zinc finger DHHC-type containing 12	1.9	0.0044
MPHOSPH10	M-phase phosphoprotein 10	1.9	0.0017
PTPN1	protein tyrosine phosphatase non-receptor type 1	1.9	0.0005
CD47	CD47 molecule	1.9	0.0129
KCNK6	potassium two pore domain channel subfamily K member 6	1.9	0.0005
NAA15	N(alpha)-acetyltransferase 15, NatA auxiliary subunit	1.9	0.0210
SNX12	sorting nexin 12	1.9	0.0024
LRPPRC	leucine rich pentatricopeptide repeat containing	1.9	0.0077
NUPR1	nuclear protein 1, transcriptional regulator	1.9	0.0003
TXNDC17	thioredoxin domain containing 17	1.9	0.0010
MRPL22	mitochondrial ribosomal protein L22	1.9	0.0022
NDUFA8	NADH:ubiquinone oxidoreductase subunit A8	1.9	0.0195
Acp1	acid phosphatase 1	1.9	0.0010
SUCLG1	succinate-CoA ligase alpha subunit	1.9	0.0003
TTC9C	tetratricopeptide repeat domain 9C	1.9	0.0019
ARL5A	ADP ribosylation factor like GTPase 5A	1.9	0.0005
Atg5	autophagy related 5	1.9	0.0008
VAMP7	vesicle associated membrane protein 7	1.9	0.0028
PSMB1	proteasome subunit beta 1	1.9	0.0026
TAI12	TATA-box binding protein associated factor 12	1.9	0.0003
MVB12A	multivesicular body subunit 12A	1.9	0.0008
NEU1	neuraminidase 1	1.9	0.0005
PDCD5	programmed cell death 5	1.9	0.0022
CHCHD3	coiled-coil-helix-coiled-coil-helix domain containing 3	1.9	0.0019
PWP1	PWP1 homolog, endonuclease	1.9	0.0003
UQCRC1	ubiquinol-cytochrome c reductase, complex III subunit X	1.9	0.0005
THUMP3	THUMP domain containing 3	1.9	0.0017
RTCA	RNA 3'-terminal phosphate cyclase	1.9	0.0042
SLC8B1	solute carrier family 8 member B1	1.9	0.0003
SNRPF	small nuclear ribonucleoprotein polypeptide F	1.9	0.0010
BNIP1	BCL2 interacting protein 1	1.9	0.0028
PIN4	peptidylprolyl cis/trans isomerase, NIMA-interacting 4	1.9	0.0026
Rsl1	regulator of sex limited protein 1	1.9	0.0162
DNAJC11	DnaJ heat shock protein family (Hsp40) member C11	1.9	0.0005
LAPTM4A	lysosomal protein transmembrane 4 alpha	1.9	0.0129
NDUFV2	NADH:ubiquinone oxidoreductase core subunit V2	1.9	0.0203
TMEM131	transmembrane protein 131	1.9	0.0026
PFN1	profilin 1	1.9	0.0017
CKLF	chemokine like factor	1.9	0.0038
ARF3	ADP ribosylation factor 3	1.9	0.0005
MCTS1	MCTS1 re-initiation and release factor	1.9	0.0008
DNAJC21	DnaJ heat shock protein family (Hsp40) member C21	1.8	0.0008
PEX14	peroxisomal biogenesis factor 14	1.8	0.0360
Akr1b10	aldo-keto reductase family 1, member B10 (aldose reductase)	1.8	0.0044
Gpr137b-ps	G protein-coupled receptor 137B, pseudogene	1.8	0.0048
PLEKHA2	pleckstrin homology domain containing A2	1.8	0.0003
CD63	CD63 molecule	1.8	0.0010
AP1G1	adaptor related protein complex 1 subunit gamma 1	1.8	0.0008

EAF1	ELL associated factor 1	1.8	0.0005
Tardbp	TAR DNA binding protein	1.8	0.0303
UBAC1	UBA domain containing 1	1.8	0.0015
COX14	cytochrome c oxidase assembly factor COX14	1.8	0.0008
PLRG1	pleiotropic regulator 1	1.8	0.0005
GPR107	G protein-coupled receptor 107	1.8	0.0100
TNFAIP8	TNF alpha induced protein 8	1.8	0.0017
XDH	xanthine dehydrogenase	1.8	0.0013
GOLT1B	golgi transport 1B	1.8	0.0017
JAGN1	jagunal homolog 1	1.8	0.0022
SMIM15	small integral membrane protein 15	1.8	0.0015
TMEM51	transmembrane protein 51	1.8	0.0005
Ctso	cathepsin O	1.8	0.0010
ETF1	eukaryotic translation termination factor 1	1.8	0.0003
Sec61g	Sec61 translocon gamma subunit	1.8	0.0028
DDX18	DEAD-box helicase 18	1.8	0.0010
OSTM1	osteoclastogenesis associated transmembrane protein 1	1.8	0.0003
SRSF9	serine and arginine rich splicing factor 9	1.8	0.0003
SPG21	SPG21 abhydrolase domain containing, maspardin	1.8	0.0197
TRIP12	thyroid hormone receptor interactor 12	1.8	0.0015
INPPL1	inositol polyphosphate phosphatase like 1	1.8	0.0017
Ap3b1	adaptor related protein complex 3 subunit beta 1	1.8	0.0008
SPNS1	sphingolipid transporter 1 (putative)	1.8	0.0013
PTTG1	PTTG1 regulator of sister chromatid separation, securin	1.8	0.0003
Abcg3	ATP binding cassette subfamily G member 3	1.8	0.0015
SPCS1	signal peptidase complex subunit 1	1.8	0.0130
NOD2	nucleotide binding oligomerization domain containing 2	1.8	0.0056
YARS1	tyrosyl-tRNA synthetase 1	1.8	0.0017
E2F4	E2F transcription factor 4	1.8	0.0003
ACTR2	actin related protein 2	1.8	0.0015
INSIG2	insulin induced gene 2	1.8	0.0235
LOC100912029	similar to DNA segment, Chr 19, Brigham & Womens Genetics 1357 expressed	1.8	0.0013
MED7	mediator complex subunit 7	1.8	0.0065
GRPEL1	GrpE like 1, mitochondrial	1.8	0.0071
RRS1	ribosome biogenesis regulator 1 homolog	1.8	0.0030
ACOT8	acyl-CoA thioesterase 8	1.8	0.0191
C18orf21	chromosome 18 open reading frame 21	1.8	0.0109
INTS4	integrator complex subunit 4	1.8	0.0167
SLC16A10	solute carrier family 16 member 10	1.8	0.0380
SDHD	succinate dehydrogenase complex subunit D	1.8	0.0005
SEH1L	SEH1 like nucleoporin	1.8	0.0022
UBASH3B	ubiquitin associated and SH3 domain containing B	1.8	0.0024
UBQLN1	ubiquilin 1	1.8	0.0095
Dync1i2	dynein cytoplasmic 1 intermediate chain 2	1.8	0.0087
PPHLN1	periphilin 1	1.8	0.0008
PRDX4	peroxiredoxin 4	1.8	0.0056
CC2D1A	coiled-coil and C2 domain containing 1A	1.8	0.0022
PLA2G7	phospholipase A2 group VII	1.8	0.0044
SMARCE1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	1.8	0.0010
ABCC1	ATP binding cassette subfamily C member 1	1.8	0.0333
SYAP1	synapse associated protein 1	1.8	0.0015
COP7B	COP9 signalosome subunit 7B	1.8	0.0036
SEPTIN7	septin 7	1.8	0.0010
CAPG	capping actin protein, gelsolin like	1.8	0.0013
CWC15	CWC15 spliceosome associated protein homolog	1.8	0.0015
KRAS	KRAS proto-oncogene, GTPase	1.8	0.0139
TGS1	trimethylguanosine synthase 1	1.8	0.0183
ATG3	autophagy related 3	1.8	0.0008
RAB8B	RAB8B, member RAS oncogene family	1.8	0.0071
PEPD	peptidase D	1.8	0.0019
PGS1	phosphatidylglycerophosphate synthase 1	1.8	0.0500
SF3B4	splicing factor 3b subunit 4	1.8	0.0044
UNC93B1	unc-93 homolog B1, TLR signaling regulator	1.8	0.0103
TCP1	t-complex 1	1.8	0.0054
ACTR10	actin related protein 10	1.8	0.0026
Exoc1	exocyst complex component 1	1.8	0.0010
LEPROTL1	leptin receptor overlapping transcript like 1	1.8	0.0015
ADPRM	ADP-ribose/CDP-alcohol diphosphatase, manganese dependent	1.8	0.0030
ATAD3A	ATPase family AAA domain containing 3A	1.8	0.0052
SLC25A51	solute carrier family 25 member 51	1.8	0.0295
Fam50a	family with sequence similarity 50, member A	1.8	0.0022
PRDX2	peroxiredoxin 2	1.8	0.0038
USP25	ubiquitin specific peptidase 25	1.8	0.0024
SYVN1	synoviolin 1	1.8	0.0067
TMEM87B	transmembrane protein 87B	1.8	0.0028
UMPS	uridine monophosphate synthetase	1.8	0.0238
ATP5IF1	ATP synthase inhibitory factor subunit 1	1.8	0.0030
HINT1	histidine triad nucleotide binding protein 1	1.8	0.0005
IMMT	inner membrane mitochondrial protein	1.8	0.0008
GFM1	G elongation factor mitochondrial 1	1.8	0.0160
HIP1	huntingtin interacting protein 1	1.8	0.0042
RP2	RP2 activator of ARL3 GTPase	1.8	0.0077
ZNF131	zinc finger protein 131	1.8	0.0050
CCT7	chaperonin containing TCP1 subunit 7	1.7	0.0078
CEP83	centrosomal protein 83	1.7	0.0026
ETNK1	ethanolamine kinase 1	1.7	0.0010



FARSA	phenylalanyl-tRNA synthetase subunit alpha	1.7	0.0017
SDHAF2	succinate dehydrogenase complex assembly factor 2	1.7	0.0015
AATF	apoptosis antagonizing transcription factor	1.7	0.0064
ATP6V0A2	ATPase H+ transporting V0 subunit a2	1.7	0.0040
DGKZ	diacylglycerol kinase zeta	1.7	0.0064
Sp100	nuclear antigen Sp100	1.7	0.0203
C12orf4	chromosome 12 open reading frame 4	1.7	0.0054
DOHH	deoxyhypusine hydroxylase	1.7	0.0046
POLR2C	RNA polymerase II subunit C	1.7	0.0040
FAM98B	family with sequence similarity 98 member B	1.7	0.0127
MRPS34	mitochondrial ribosomal protein S34	1.7	0.0064
RASSF2	Ras association domain family member 2	1.7	0.0019
STAMBIP	STAM binding protein	1.7	0.0036
AKT3	AKT serine/threonine kinase 3	1.7	0.0430
IDH3B	isocitrate dehydrogenase (NAD(+)) 3 non-catalytic subunit beta	1.7	0.0127
PHYH	phytanoyl-CoA 2-hydroxylase	1.7	0.0024
TARS2	threonyl-tRNA synthetase 2, mitochondrial	1.7	0.0073
PPLP1	proline, glutamate and leucine rich protein 1	1.7	0.0054
PDCD6IP	programmed cell death 6 interacting protein	1.7	0.0022
PPIH	peptidylprolyl isomerase H	1.7	0.0221
SZRD1	SUZ RNA binding domain containing 1	1.7	0.0013
MRPL23	mitochondrial ribosomal protein L23	1.7	0.0163
WTAP	WT1 associated protein	1.7	0.0022
EMC7	ER membrane protein complex subunit 7	1.7	0.0028
GFER	growth factor, augments of liver regeneration	1.7	0.0114
MGAT4B	alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase B	1.7	0.0040
RBM8A	RNA binding motif protein 8A	1.7	0.0026
SELENOT	selenoprotein T	1.7	0.0017
TTYH3	tweety family member 3	1.7	0.0030
ERP44	endoplasmic reticulum protein 44	1.7	0.0184
DENND4B	DENN domain containing 4B	1.7	0.0019
NDUFS7	NADH:ubiquinone oxidoreductase core subunit S7	1.7	0.0044
LY86	lymphocyte antigen 86	1.7	0.0040
TAF6L	TATA-box binding protein associated factor 6 like	1.7	0.0100
CBX1	chromobox 1	1.7	0.0064
Kira7	killer cell lectin-like receptor, subfamily A, member 4	1.7	0.0121
GMPPA	GDP-mannose pyrophosphorylase A	1.7	0.0030
PRPSAP2	phosphoribosyl pyrophosphate synthetase associated protein 2	1.7	0.0069
HSPA5	heat shock protein family A (Hsp70) member 5	1.7	0.0211
RANGAP1	Ran GTPase activating protein 1	1.7	0.0042
UBAP2L	ubiquitin associated protein 2 like	1.7	0.0229
NOLC1	nucleolar and coiled-body phosphoprotein 1	1.7	0.0065
SNX20	sorting nexin 20	1.7	0.0019
DPM2	dolichyl-phosphate mannosyltransferase subunit 2, regulatory	1.7	0.0040
Rbx1	ring-box 1	1.7	0.0062
IRF2BPL	interferon regulatory factor 2 binding protein like	1.7	0.0032
MAFG	MAF bZIP transcription factor G	1.7	0.0235
PPP5C	protein phosphatase 5 catalytic subunit	1.7	0.0052
PSMG2	proteasome assembly chaperone 2	1.7	0.0217
TNPO1	transportin 1	1.7	0.0078
B230307C23Rik	RIKEN cDNA B230307C23 gene	1.7	0.0470
CARHSP1	calcium regulated heat stable protein 1	1.7	0.0034
CNEP1R1	CTD nuclear envelope phosphatase 1 regulatory subunit 1	1.7	0.0078
SNRPB2	small nuclear ribonucleoprotein polypeptide B2	1.7	0.0046
C6orf89	chromosome 6 open reading frame 89	1.7	0.0036
PMM2	phosphomannomutase 2	1.7	0.0100
RIPK1	receptor interacting serine/threonine kinase 1	1.7	0.0500
TOMM40L	translocase of outer mitochondrial membrane 40 like	1.7	0.0069
HK1	hexokinase 1	1.7	0.0096
MBD2	methyl-CpG binding domain protein 2	1.7	0.0024
RNF25	ring finger protein 25	1.7	0.0048
SNX13	sorting nexin 13	1.7	0.0044
AIFM1	apoptosis inducing factor mitochondria associated 1	1.7	0.0100
BC147527	cDNA sequence BC147527	1.7	0.0098
C6orf62	chromosome 6 open reading frame 62	1.7	0.0084
GUSB	glucuronidase beta	1.7	0.0096
SESTD1	SEC14 and spectrin domain containing 1	1.7	0.0103
COPB2	coatamer protein complex subunit beta 2	1.7	0.0024
POP4	POP4 homolog, ribonuclease P/MRP subunit	1.7	0.0095
SLC6A6	solute carrier family 6 member 6	1.7	0.0220
FAM49A	family with sequence similarity 49 member A	1.7	0.0198
OLA1	Obg like ATPase 1	1.7	0.0115
OSTC	oligosaccharyltransferase complex non-catalytic subunit	1.7	0.0036
TRIM26	tripartite motif containing 26	1.7	0.0046
TRIOBP	TRIO and F-actin binding protein	1.7	0.0024
UBLCP1	ubiquitin like domain containing CTD phosphatase 1	1.7	0.0114
DHDDS	dehydrodolichyl diphosphate synthase subunit	1.7	0.0077
NAT1	N-acetyltransferase 1	1.7	0.0200
CRLF2	cytokine receptor like factor 2	1.7	0.0046
MRPS11	mitochondrial ribosomal protein S11	1.7	0.0170
PMPCA	peptidase, mitochondrial processing alpha subunit	1.7	0.0184
PPIF	peptidylprolyl isomerase F	1.7	0.0101
TBCA	tubulin folding cofactor A	1.7	0.0075
UFM1	ubiquitin fold modifier 1	1.7	0.0073
Gas2l1	growth arrest-specific 2 like 1	1.7	0.0129
DLD	dihydroliipoamide dehydrogenase	1.7	0.0136

FUNDC1	FUN14 domain containing 1	1.7	0.0115
HCCS	holocytochrome c synthase	1.7	0.0114
AP2S1	adaptor related protein complex 2 subunit sigma 1	1.7	0.0080
HCK	HCK proto-oncogene, Src family tyrosine kinase	1.7	0.0370
RGS10	regulator of G protein signaling 10	1.7	0.0062
BNIP2	BCL2 interacting protein 2	1.7	0.0071
OCIA1	OCIA domain containing 1	1.7	0.0107
SARS1	seryl-tRNA synthetase 1	1.7	0.0058
UBE2Q2	ubiquitin conjugating enzyme E2 Q2	1.7	0.0145
DCTN4	dynactin subunit 4	1.7	0.0042
Ldha	lactate dehydrogenase A	1.7	0.0054
PTCD2	pentatricopeptide repeat domain 2	1.7	0.0075
Brms1	BRMS1, transcriptional repressor and anoiakis regulator	1.7	0.0050
POLR2D	RNA polymerase II subunit D	1.7	0.0145
EIF3B	eukaryotic translation initiation factor 3 subunit B	1.7	0.0101
PAPOLA	poly(A) polymerase alpha	1.7	0.0414
RNF4	ring finger protein 4	1.7	0.0042
MED6	mediator complex subunit 6	1.7	0.0154
DPP3	dipeptidyl peptidase 3	1.7	0.0032
GDA	guanine deaminase	1.7	0.0100
CHMP6	charged multivesicular body protein 6	1.6	0.0093
ZNF616	zinc finger protein 616	1.6	0.0130
GLRX3	glutaredoxin 3	1.6	0.0073
MKLN1	muskelin 1	1.6	0.0270
NRBF2	nuclear receptor binding factor 2	1.6	0.0155
UTP3	UTP3 small subunit processome component	1.6	0.0064
CTNNB1	catenin beta 1	1.6	0.0040
TNFRSF1A	TNF receptor superfamily member 1A	1.6	0.0409
VPS41	VPS41 subunit of HOPS complex	1.6	0.0147
C9orf85	chromosome 9 open reading frame 85	1.6	0.0160
PPP2R2A	protein phosphatase 2 regulatory subunit Balpha	1.6	0.0054
SCAMP2	secretory carrier membrane protein 2	1.6	0.0060
TMEM30A	transmembrane protein 30A	1.6	0.0084
DNAJA3	DnaJ heat shock protein family (Hsp40) member A3	1.6	0.0130
ATOX1	antioxidant 1 copper chaperone	1.6	0.0071
CLPTM1	CLPTM1 regulator of GABA type A receptor forward trafficking	1.6	0.0046
NDST2	N-deacetylase and N-sulfotransferase 2	1.6	0.0093
IFT52	intraflagellar transport 52	1.6	0.0082
EYA3	EYA transcriptional coactivator and phosphatase 3	1.6	0.0062
PPP1R9B	protein phosphatase 1 regulatory subunit 9B	1.6	0.0096
MIER2	MIER family member 2	1.6	0.0321
PARVB	parvin beta	1.6	0.0054
PSME3	proteasome activator subunit 3	1.6	0.0062
DAPK3	death associated protein kinase 3	1.6	0.0109
FUBP3	far upstream element binding protein 3	1.6	0.0248
MRPS14	mitochondrial ribosomal protein S14	1.6	0.0348
KRTCAP2	keratinocyte associated protein 2	1.6	0.0208
RNF7	ring finger protein 7	1.6	0.0100
TVP23B	trans-golgi network vesicle protein 23 homolog B	1.6	0.0206
ADPRH	ADP-ribosylarginine hydrolase	1.6	0.0062
Zfp53	zinc finger protein 53	1.6	0.0484
ARF1	ADP ribosylation factor 1	1.6	0.0075
RNASEH1	ribonuclease H1	1.6	0.0192
ZNRD1	zinc ribbon domain containing 1	1.6	0.0096
COPB1	coatamer protein complex subunit beta 1	1.6	0.0078
SAP30	Sin3A associated protein 30	1.6	0.0117
UBE2E1	ubiquitin conjugating enzyme E2 E1	1.6	0.0205
ISCA2	iron-sulfur cluster assembly 2	1.6	0.0180
NUCKS1	nuclear casein kinase and cyclin dependent kinase substrate 1	1.6	0.0383
PPP1R14B	protein phosphatase 1 regulatory inhibitor subunit 14B	1.6	0.0235
TMEM205	transmembrane protein 205	1.6	0.0488
ETV6	ETS variant transcription factor 6	1.6	0.0126
RNF149	ring finger protein 149	1.6	0.0139
XPNPEP1	X-prolyl aminopeptidase 1	1.6	0.0210
COG2	component of oligomeric golgi complex 2	1.6	0.0142
ATP6V1F	ATPase H+ transporting V1 subunit F	1.6	0.0050
PPP6C	protein phosphatase 6 catalytic subunit	1.6	0.0234
TLR2	toll like receptor 2	1.6	0.0095
NDUFB7	NADH:ubiquinone oxidoreductase subunit B7	1.6	0.0101
TRADD	TNFRSF1A associated via death domain	1.6	0.0121
ATF6B	activating transcription factor 6 beta	1.6	0.0082
GOSR1	golgi SNAP receptor complex member 1	1.6	0.0119
RWDD1	RWD domain containing 1	1.6	0.0142
ATXN7L1	ataxin 7 like 1	1.6	0.0203
PSMD8	proteasome 26S subunit, non-ATPase 8	1.6	0.0087
TLK2	tousled like kinase 2	1.6	0.0168
DMAP1	DNA methyltransferase 1 associated protein 1	1.6	0.0262
RBM28	RNA binding motif protein 28	1.6	0.0139
DPP9	dipeptidyl peptidase 9	1.6	0.0107
QKI	QKI, KH domain containing RNA binding	1.6	0.0117
TUBA1C	tubulin alpha 1c	1.6	0.0112
IRF2	interferon regulatory factor 2	1.6	0.0218
PACSLIN2	protein kinase C and casein kinase substrate in neurons 2	1.6	0.0086
MAPK7	mitogen-activated protein kinase 7	1.6	0.0115
TSG101	tumor susceptibility 101	1.6	0.0134
ARRB2	arrestin beta 2	1.6	0.0112

UGP2	UDP-glucose pyrophosphorylase 2	1.6	0.0105
GPS1	G protein pathway suppressor 1	1.6	0.0126
APEH	acylaminoacyl-peptide hydrolase	1.6	0.0115
IFNGR2	interferon gamma receptor 2	1.6	0.0095
TUFM	Tu translation elongation factor, mitochondrial	1.6	0.0162
RBM34	RNA binding motif protein 34	1.6	0.0286
SMG9	SMG9 nonsense mediated mRNA decay factor	1.6	0.0144
INTS11	integrator complex subunit 11	1.6	0.0257
RCE1	Ras converting CAAX endopeptidase 1	1.6	0.0327
SIRPA	signal regulatory protein alpha	1.6	0.0384
CANT1	calcium activated nucleotidase 1	1.6	0.0157
Cox7c	cytochrome c oxidase subunit 7C	1.6	0.0110
NTPCR	nucleoside-triphosphatase, cancer-related	1.6	0.0221
SVBP	small vasohibin binding protein	1.6	0.0229
ZNF444	zinc finger protein 444	1.6	0.0341
MRPS16	mitochondrial ribosomal protein S16	1.6	0.0178
POLR2K	RNA polymerase II subunit K	1.6	0.0341
NUDT22	nudix hydrolase 22	1.6	0.0360
UBE2Z	ubiquitin conjugating enzyme E2 Z	1.6	0.0091
COPE	coatamer protein complex subunit epsilon	1.6	0.0124
ENSA	endosulfine alpha	1.6	0.0405
CSTF2T	cleavage stimulation factor subunit 2 tau variant	1.6	0.0168
Hnrnpa3	heterogeneous nuclear ribonucleoprotein A3	1.6	0.0206
ARHGEF7	Rho guanine nucleotide exchange factor 7	1.6	0.0121
ADORA2A	adenosine A2a receptor	1.6	0.0257
PLCL2	phospholipase C like 2	1.6	0.0139
CFL1	cofilin 1	1.6	0.0337
AP1B1	adaptor related protein complex 1 subunit beta 1	1.6	0.0145
HSBP1	heat shock factor binding protein 1	1.6	0.0132
SAV1	salvador family WW domain containing protein 1	1.6	0.0345
CAB39L	calcium binding protein 39 like	1.6	0.0286
ATP6VOB	ATPase H+ transporting V0 subunit b	1.6	0.0136
SEC11A	SEC11 homolog A, signal peptidase complex subunit	1.6	0.0157
SKIL	SKI like proto-oncogene	1.6	0.0186
LUC7L3	LUC7 like 3 pre-mRNA splicing factor	1.6	0.0220
Ggta1	glycoprotein galactosyltransferase alpha 1, 3	1.6	0.0165
ZDHHC13	zinc finger DHHC-type containing 13	1.6	0.0223
HNRNPA2B1	heterogeneous nuclear ribonucleoprotein A2/B1	1.6	0.0181
PSMF1	proteasome inhibitor subunit 1	1.6	0.0394
GGPS1	geranylgeranyl diphosphate synthase 1	1.6	0.0367
CLP1	cleavage and polyadenylation factor I subunit 1	1.6	0.0301
NOC2L	NOC2 like nucleolar associated transcriptional repressor	1.6	0.0173
RUNX3	RUNX family transcription factor 3	1.6	0.0344
GSKIP	GSK3B interacting protein	1.6	0.0285
P2RY6	pyrimidineric receptor P2Y6	1.6	0.0187
ATP6V0E1	ATPase H+ transporting V0 subunit e1	1.6	0.0178
FAM76A	family with sequence similarity 76 member A	1.6	0.0211
PFDN6	prefoldin subunit 6	1.6	0.0243
CYBC1	cytochrome b-245 chaperone 1	1.6	0.0149
SLC20A1	solute carrier family 20 member 1	1.6	0.0379
Faim	Fas apoptotic inhibitory molecule	1.5	0.0256
MRPL30	mitochondrial ribosomal protein L30	1.5	0.0206
CYTH4	cytohesin 4	1.5	0.0248
IRAK2	interleukin 1 receptor associated kinase 2	1.5	0.0235
ANXA5	annexin A5	1.5	0.0217
GINS4	GINS complex subunit 4	1.5	0.0345
SCARB2	scavenger receptor class B member 2	1.5	0.0218
ATP5F1A	ATP synthase F1 subunit alpha	1.5	0.0341
KCMF1	potassium channel modulatory factor 1	1.5	0.0218
LRPAP1	LDL receptor related protein associated protein 1	1.5	0.0426
YKT6	YKT6 v-SNARE homolog	1.5	0.0167
C11orf58	chromosome 11 open reading frame 58	1.5	0.0229
SHISA5	shisa family member 5	1.5	0.0345
SACM1L	SAC1 like phosphatidylinositol phosphatase	1.5	0.0249
TUSC1	tumor suppressor candidate 1	1.5	0.0338
LRRC42	leucine rich repeat containing 42	1.5	0.0392
NANS	N-acetylneuraminase synthase	1.5	0.0194
PPP4R2	protein phosphatase 4 regulatory subunit 2	1.5	0.0224
GABARAPL1	GABA type A receptor associated protein like 1	1.5	0.0265
MOCOS	molybdenum cofactor sulfurase	1.5	0.0340
TNIP2	TNFAIP3 interacting protein 2	1.5	0.0330
GYPC	glycophorin C (Gerbich blood group)	1.5	0.0439
EIF1AY	eukaryotic translation initiation factor 1A Y-linked	1.5	0.0218
FAM3A	family with sequence similarity 3 member A	1.5	0.0443
ECPAS	Ecm29 proteasome adaptor and scaffold	1.5	0.0246
NDUFA10	NADH:ubiquinone oxidoreductase subunit A10	1.5	0.0257
Cd52	CD52 antigen	1.5	0.0343
LETM1	leucine zipper and EF-hand containing transmembrane protein 1	1.5	0.0282
RAB12	RAB12, member RAS oncogene family	1.5	0.0435
TLE4	TLE family member 4, transcriptional corepressor	1.5	0.0366
Tgoln1	trans-golgi network protein	1.5	0.0186
SMG8	SMG8 nonsense mediated mRNA decay factor	1.5	0.0412
CNOT4	CCR4-NOT transcription complex subunit 4	1.5	0.0390
TRIM56	tripartite motif containing 56	1.5	0.0292
RAB14	RAB14, member RAS oncogene family	1.5	0.0253
RAB18	RAB18, member RAS oncogene family	1.5	0.0328

SWI5	SWI5 homologous recombination repair protein	1.5	0.0279
TBC1D1	TBC1 domain family member 1	1.5	0.0376
UBE2J2	ubiquitin conjugating enzyme E2 J2	1.5	0.0325
RAE1	ribonucleic acid export 1	1.5	0.0325
DRG1	developmentally regulated GTP binding protein 1	1.5	0.0357
TMEM165	transmembrane protein 165	1.5	0.0347
AHCL1	adenosylhomocysteinase like 1	1.5	0.0277
VPS4B	vacuolar protein sorting 4 homolog B	1.5	0.0295
KDM5C	lysine demethylase 5C	1.5	0.0328
SEC22B	SEC22 homolog B, vesicle trafficking protein (gene/pseudogene)	1.5	0.0344
POLDIP3	DNA polymerase delta interacting protein 3	1.5	0.0288
MAPRE1	microtubule associated protein RP/EB family member 1	1.5	0.0423
MORC3	MORC family CW-type zinc finger 3	1.5	0.0333
UNC50	unc-50 inner nuclear membrane RNA binding protein	1.5	0.0421
TRPV2	transient receptor potential cation channel subfamily V member 2	1.5	0.0298
MBD3	methyl-CpG binding domain protein 3	1.5	0.0376
ALDH3A2	aldehyde dehydrogenase 3 family member A2	-1.5	0.0338
ULK3	unc-51 like kinase 3	-1.5	0.0479
ACTR8	actin related protein 8	-1.5	0.0479
MFS10	major facilitator superfamily domain containing 10	-1.5	0.0407
ZNF598	zinc finger protein 598	-1.5	0.0340
RPL11	ribosomal protein L11	-1.5	0.0274
ARID4A	AT-rich interaction domain 4A	-1.5	0.0289
EZH1	enhancer of zeste 1 polycomb repressive complex 2 subunit	-1.5	0.0488
TMEM94	transmembrane protein 94	-1.5	0.0413
SH3TC1	SH3 domain and tetratricopeptide repeats 1	-1.5	0.0322
ME2	malic enzyme 2	-1.5	0.0348
NF2	neurofibromin 2	-1.5	0.0379
FAM126A	family with sequence similarity 126 member A	-1.5	0.0285
Ikzf1	IKAROS family zinc finger 1	-1.5	0.0270
Rps17	ribosomal protein S17	-1.5	0.0224
RPL9	ribosomal protein L9	-1.5	0.0286
PTP4A3	protein tyrosine phosphatase 4A3	-1.5	0.0298
TMEM123	transmembrane protein 123	-1.5	0.0194
RAB5B	RAB5B, member RAS oncogene family	-1.5	0.0178
YEATS4	YEATS domain containing 4	-1.5	0.0309
TMPO	thymopoietin	-1.5	0.0348
ELMO2	engulfment and cell motility 2	-1.5	0.0217
TNFAIP3	TNF alpha induced protein 3	-1.5	0.0331
EXOC6	exocyst complex component 6	-1.5	0.0254
Mapre2	microtubule-associated protein, RP/EB family, member 2	-1.5	0.0426
SMAD4	SMAD family member 4	-1.5	0.0307
RPS23	ribosomal protein S23	-1.5	0.0316
SESN1	sestrin 1	-1.5	0.0318
MIER1	MIER1 transcriptional regulator	-1.6	0.0453
PRKD3	protein kinase D3	-1.6	0.0271
C5orf30	chromosome 5 open reading frame 30	-1.6	0.0214
ZNF519	zinc finger protein 519	-1.6	0.0370
DHRS4	dehydrogenase/reductase 4	-1.6	0.0401
FIG4	FIG4 phosphoinositide 5-phosphatase	-1.6	0.0245
SPPL3	signal peptide peptidase like 3	-1.6	0.0130
MLYCD	malonyl-CoA decarboxylase	-1.6	0.0337
ANXA11	annexin A11	-1.6	0.0167
LIN7C	lin-7 homolog C, crumbs cell polarity complex component	-1.6	0.0186
ISCU	iron-sulfur cluster assembly enzyme	-1.6	0.0139
Rpl32	ribosomal protein L32	-1.6	0.0124
PSTPIP2	proline-serine-threonine phosphatase interacting protein 2	-1.6	0.0211
STX16	syntaxin 16	-1.6	0.0154
CYHR1	cysteine and histidine rich 1	-1.6	0.0430
PEX5	peroxisomal biogenesis factor 5	-1.6	0.0144
WIP1	WD repeat domain, phosphoinositide interacting 2	-1.6	0.0279
LMNB1	lamin B1	-1.6	0.0373
SKIV2L	Ski2 like RNA helicase	-1.6	0.0107
FBR1	fibrosin	-1.6	0.0155
TMEM63A	transmembrane protein 63A	-1.6	0.0134
HSD17B10	hydroxysteroid 17-beta dehydrogenase 10	-1.6	0.0175
Cyp4f16	cytochrome P450, family 4, subfamily f, polypeptide 16	-1.6	0.0100
AKR1B1	aldo-keto reductase family 1 member B	-1.6	0.0124
FAM160B2	family with sequence similarity 160 member B2	-1.6	0.0142
ARHGDI1	Rho GDP dissociation inhibitor beta	-1.6	0.0197
ACAA2	acetyl-CoA acyltransferase 2	-1.6	0.0126
RBFA	ribosome binding factor A	-1.6	0.0163
EGLN1	egl-9 family hypoxia inducible factor 1	-1.6	0.0109
EPS15	epidermal growth factor receptor pathway substrate 15	-1.6	0.0160
RYR1	ryanodine receptor 1	-1.6	0.0273
PPM1A	protein phosphatase, Mg2+/Mn2+ dependent 1A	-1.6	0.0067
Anp32a	acidic (leucine-rich) nuclear phosphoprotein 32 family, member A	-1.6	0.0154
RPIA	ribose 5-phosphate isomerase A	-1.6	0.0122
C1orf162	chromosome 1 open reading frame 162	-1.6	0.0073
ADIPOR1	adiponectin receptor 1	-1.6	0.0155
RPL7	ribosomal protein L7	-1.6	0.0186
FBXL6	F-box and leucine rich repeat protein 6	-1.6	0.0105
DUSP7	dual specificity phosphatase 7	-1.6	0.0152
RASAL3	RAS protein activator like 3	-1.6	0.0127
ZNF592	zinc finger protein 592	-1.6	0.0069
SFR1	SWI5 dependent homologous recombination repair protein 1	-1.6	0.0095

SLAIN2	SLAIN motif family member 2	-1.6	0.0064
MAPK8IP3	mitogen-activated protein kinase 8 interacting protein 3	-1.6	0.0100
RPL4	ribosomal protein L4	-1.6	0.0334
ZFYVE27	zinc finger FYVE-type containing 27	-1.6	0.0132
HP1BP3	heterochromatin protein 1 binding protein 3	-1.6	0.0058
FAM111A	family with sequence similarity 111 member A	-1.6	0.0071
RNF44	ring finger protein 44	-1.6	0.0075
PAPSS1	3'-phosphoadenosine 5'-phosphosulfate synthase 1	-1.6	0.0110
Yaf2	YY1 associated factor 2	-1.6	0.0246
OSBPL2	oxysterol binding protein like 2	-1.6	0.0126
KCTD10	potassium channel tetramerization domain containing 10	-1.6	0.0082
RNF216	ring finger protein 216	-1.6	0.0129
UBQLN2	ubiquilin 2	-1.6	0.0137
Oard1	O-acyl-ADP-ribose deacylase 1	-1.6	0.0119
FDXR	ferredoxin reductase	-1.6	0.0277
CAPN7	calpain 7	-1.6	0.0065
KLHL6	kelch like family member 6	-1.6	0.0129
RPS21	ribosomal protein S21	-1.6	0.0058
ARL10	ADP ribosylation factor like GTPase 10	-1.6	0.0129
DCAF12	DDB1 and CUL4 associated factor 12	-1.7	0.0034
DCTN6	dynactin subunit 6	-1.7	0.0086
Phkg2	phosphorylase kinase catalytic subunit gamma 2	-1.7	0.0091
MYLIP	myosin regulatory light chain interacting protein	-1.7	0.0077
OSER1	oxidative stress responsive serine rich 1	-1.7	0.0180
SF3B1	splicing factor 3b subunit 1	-1.7	0.0438
VAMP2	vesicle associated membrane protein 2	-1.7	0.0107
MAFK	MAF bZIP transcription factor K	-1.7	0.0257
WDFY4	WDFY family member 4	-1.7	0.0172
CCNI	cyclin I	-1.7	0.0274
SAMD1	sterile alpha motif domain containing 1	-1.7	0.0056
SMC4	structural maintenance of chromosomes 4	-1.7	0.0416
KDM3A	lysine demethylase 3A	-1.7	0.0058
PIK3C3	phosphatidylinositol 3-kinase catalytic subunit type 3	-1.7	0.0086
UQCRHL	ubiquinol-cytochrome c reductase hinge protein like	-1.7	0.0202
SH3BP5	SH3 domain binding protein 5	-1.7	0.0044
CLK4	CDC-like kinase 4	-1.7	0.0117
PRDM2	PR/SET domain 2	-1.7	0.0048
PTS	6-pyruvoyltetrahydropterin synthase	-1.7	0.0110
NIPBL	NIPBL cohesin loading factor	-1.7	0.0499
GALNT1	polypeptide N-acetylgalactosaminyltransferase 1	-1.7	0.0026
PPP2CB	protein phosphatase 2 catalytic subunit beta	-1.7	0.0344
CCNY	cyclin Y	-1.7	0.0036
NDUFB11	NADH:ubiquinone oxidoreductase subunit B11	-1.7	0.0288
SETD2	SET domain containing 2, histone lysine methyltransferase	-1.7	0.0026
TIMP2	TIMP metalloproteinase inhibitor 2	-1.7	0.0098
ANKRD13A	ankyrin repeat domain 13A	-1.7	0.0030
Rps3a1	ribosomal protein S3A1	-1.7	0.0038
HERPUD2	HERPUD family member 2	-1.7	0.0030
WDTC1	WD and tetratricopeptide repeats 1	-1.7	0.0036
HLA-DOA	major histocompatibility complex, class II, DO alpha	-1.7	0.0280
LSM14B	LSM family member 14B	-1.7	0.0056
Gm7536	ribosomal protein L27A pseudogene	-1.7	0.0488
PKNOX1	PBX/knotted 1 homeobox 1	-1.7	0.0030
RNF113A	ring finger protein 113A	-1.7	0.0126
Ddx3x	DEAD-box helicase 3, X-linked	-1.7	0.0042
DUS3L	dihydrouridine synthase 3 like	-1.7	0.0044
Zfp706	zinc finger protein 706	-1.7	0.0036
TMEM38B	transmembrane protein 38B	-1.7	0.0030
IBTK	inhibitor of Bruton tyrosine kinase	-1.7	0.0142
SP3	Sp3 transcription factor	-1.7	0.0093
BRD9	bromodomain containing 9	-1.7	0.0042
PCYT2	phosphate cytidylyltransferase 2, ethanolamine	-1.7	0.0089
S100A13	S100 calcium binding protein A13	-1.7	0.0024
THAP3	THAP domain containing 3	-1.7	0.0115
RIOX1	ribosomal oxygenase 1	-1.7	0.0073
MBTPS1	membrane bound transcription factor peptidase, site 1	-1.7	0.0149
G6PC3	glucose-6-phosphatase catalytic subunit 3	-1.7	0.0098
ATP11B	ATPase phospholipid transporting 11B (putative)	-1.7	0.0036
RPS7	ribosomal protein S7	-1.7	0.0022
RPL27A	ribosomal protein L27a	-1.7	0.0040
ST3GAL1	ST3 beta-galactoside alpha-2,3-sialyltransferase 1	-1.7	0.0030
ZMYND11	zinc finger MYND-type containing 11	-1.7	0.0022
NABP1	nucleic acid binding protein 1	-1.7	0.0091
REXO1	RNA exonuclease 1 homolog	-1.7	0.0015
MSL2	MSL complex subunit 2	-1.7	0.0038
ATMIN	ATM interactor	-1.7	0.0130
ARGLU1	arginine and glutamate rich 1	-1.7	0.0028
AIM2	absent in melanoma 2	-1.7	0.0030
BCL10	BCL10 immune signaling adaptor	-1.7	0.0017
ZDHC9	zinc finger DHHC-type containing 9	-1.7	0.0028
RPS5	ribosomal protein S5	-1.7	0.0132
CARS2	cysteinyI-tRNA synthetase 2, mitochondrial	-1.8	0.0109
ELMSAN1	ELM2 and Myb/SANT domain containing 1	-1.8	0.0054
Erd1	erythroid differentiation regulator 1	-1.8	0.0463
EPC2	enhancer of polycomb homolog 2	-1.8	0.0042
KMT5B	lysine methyltransferase 5B	-1.8	0.0093

PNISR	PNN interacting serine and arginine rich protein	-1.8	0.0159
POU2F2	POU class 2 homeobox 2	-1.8	0.0062
RPL10A	ribosomal protein L10a	-1.8	0.0005
AMFR	autocrine motility factor receptor	-1.8	0.0026
Gm15427	predicted pseudogene 15427	-1.8	0.0418
ARRDC1	arrestin domain containing 1	-1.8	0.0071
THBS1	thrombospondin 1	-1.8	0.0008
VPS36	vacuolar protein sorting 36 homolog	-1.8	0.0013
NAA10	N(alpha)-acetyltransferase 10, NatA catalytic subunit	-1.8	0.0042
AGO2	argonaute RISC catalytic component 2	-1.8	0.0191
GIT2	GIT ArfGAP 2	-1.8	0.0008
RNF220	ring finger protein 220	-1.8	0.0019
RPL37	ribosomal protein L37	-1.8	0.0010
Rpl23a	ribosomal protein L23A	-1.8	0.0010
ARL6IP6	ADP ribosylation factor like GTPase 6 interacting protein 6	-1.8	0.0187
MCL1	MCL1 apoptosis regulator, BCL2 family member	-1.8	0.0412
ATRX	ATRX chromatin remodeler	-1.8	0.0109
IDS	iduronate 2-sulfatase	-1.8	0.0010
FBRSL1	fibrosin like 1	-1.8	0.0028
PIP5K1C	phosphatidylinositol-4-phosphate 5-kinase type 1 gamma	-1.8	0.0017
RPL21	ribosomal protein L21	-1.8	0.0015
DDX5	DEAD-box helicase 5	-1.8	0.0134
Rpl22l1	ribosomal protein L22 like 1	-1.8	0.0015
IRS2	insulin receptor substrate 2	-1.8	0.0064
NEK7	NIMA related kinase 7	-1.8	0.0075
DOCK10	dedicator of cytokinesis 10	-1.8	0.0093
GTF2I	general transcription factor Iii	-1.8	0.0067
ELOVL5	ELOVL fatty acid elongase 5	-1.8	0.0013
RPL18A	ribosomal protein L18a	-1.8	0.0038
ZCCHC24	zinc finger CCHC-type containing 24	-1.8	0.0017
BORCS6	BLOC-1 related complex subunit 6	-1.8	0.0013
MLLT10	MLLT10 histone lysine methyltransferase DOT1L cofactor	-1.8	0.0147
AKAP8	A-kinase anchoring protein 8	-1.8	0.0003
MOB2	MOB kinase activator 2	-1.8	0.0028
TAF8	TATA-box binding protein associated factor 8	-1.8	0.0030
Supt20	SPT20 SAGA complex component	-1.8	0.0462
ZNF467	zinc finger protein 467	-1.8	0.0214
DYM	dymeclin	-1.8	0.0010
DBI	diazepam binding inhibitor, acyl-CoA binding protein	-1.8	0.0005
PTPRE	protein tyrosine phosphatase receptor type E	-1.8	0.0019
FES	FES proto-oncogene, tyrosine kinase	-1.8	0.0008
ATRNL1	atractin like 1	-1.8	0.0044
EEF2	eukaryotic translation elongation factor 2	-1.8	0.0048
LRRC8D	leucine rich repeat containing 8 VRAC subunit D	-1.8	0.0005
WBP1	WW domain binding protein 1	-1.8	0.0042
RPL5	ribosomal protein L5	-1.8	0.0036
PPP2R5A	protein phosphatase 2 regulatory subunit B'alpha	-1.8	0.0008
DVL1	dishevelled segment polarity protein 1	-1.8	0.0005
Taf4	TATA-box binding protein associated factor 4	-1.8	0.0046
FGD3	FYVE, RhoGEF and PH domain containing 3	-1.8	0.0194
REL	REL proto-oncogene, NF-kB subunit	-1.8	0.0282
ESYT2	extended synaptotagmin 2	-1.8	0.0010
ZZEF1	zinc finger ZZ-type and EF-hand domain containing 1	-1.8	0.0134
SMAD3	SMAD family member 3	-1.8	0.0477
ABHD2	abhydrolase domain containing 2	-1.9	0.0034
TBC1D15	TBC1 domain family member 15	-1.9	0.0008
SLC25A4	solute carrier family 25 member 4	-1.9	0.0008
RAB27A	RAB27A, member RAS oncogene family	-1.9	0.0005
DIAPH1	diaphanous related formin 1	-1.9	0.0096
EIF4A2	eukaryotic translation initiation factor 4A2	-1.9	0.0005
TMEM259	transmembrane protein 259	-1.9	0.0003
EXT2	exostosin glycosyltransferase 2	-1.9	0.0008
MIS18A	MIS18 kinetochore protein A	-1.9	0.0019
SP1	Sp1 transcription factor	-1.9	0.0003
TBL1XR1	transducin beta like 1 X-linked receptor 1	-1.9	0.0005
NSD3	nuclear receptor binding SET domain protein 3	-1.9	0.0017
KLHL5	kelch like family member 5	-1.9	0.0003
ZNF335	zinc finger protein 335	-1.9	0.0396
C16orf70	chromosome 16 open reading frame 70	-1.9	0.0013
CST3	cystatin C	-1.9	0.0010
DOCK2	dedicator of cytokinesis 2	-1.9	0.0022
PLXNC1	plexin C1	-1.9	0.0048
CASP3	caspase 3	-1.9	0.0003
CHP1	calcineurin like EF-hand protein 1	-1.9	0.0315
ILK	integrin linked kinase	-1.9	0.0124
FURIN	furin, paired basic amino acid cleaving enzyme	-1.9	0.0003
SH3BGRL3	SH3 domain binding glutamate rich protein like 3	-1.9	0.0003
INSIG1	insulin induced gene 1	-1.9	0.0008
RPS15	ribosomal protein S15	-1.9	0.0005
ADAM15	ADAM metalloproteinase domain 15	-1.9	0.0003
CLINT1	clathrin interactor 1	-1.9	0.0003
MEF2A	myocyte enhancer factor 2A	-1.9	0.0003
PRKAG1	protein kinase AMP-activated non-catalytic subunit gamma 1	-1.9	0.0003
PCYOX1	prenylcysteine oxidase 1	-1.9	0.0019
VSIR	V-set immunoregulatory receptor	-1.9	0.0064
CDYL	chromodomain Y like	-1.9	0.0013

LIMD1	LIM domains containing 1	-1.9	0.0003
NFKBID	NFKB inhibitor delta	-1.9	0.0003
PPTC7	PTC7 protein phosphatase homolog	-1.9	0.0003
ZNF622	zinc finger protein 622	-1.9	0.0003
FAU	FAU ubiquitin like and ribosomal protein S30 fusion	-1.9	0.0005
TAOK3	TAO kinase 3	-1.9	0.0013
BRD1	bromodomain containing 1	-1.9	0.0017
LENG8	leukocyte receptor cluster member 8	-1.9	0.0450
INPP5A	inositol polyphosphate-5-phosphatase A	-1.9	0.0010
Gm9843	predicted gene 9843	-1.9	0.0065
GATAD2B	GATA zinc finger domain containing 2B	-1.9	0.0003
GPD1L	glycerol-3-phosphate dehydrogenase 1 like	-1.9	0.0003
TNFRSF1B	TNF receptor superfamily member 1B	-1.9	0.0015
CDC42SE1	CDC42 small effector 1	-1.9	0.0015
PPP1CB	protein phosphatase 1 catalytic subunit beta	-1.9	0.0003
GPI	glucose-6-phosphate isomerase	-1.9	0.0038
NFIL3	nuclear factor, interleukin 3 regulated	-1.9	0.0003
PIK3CA	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha	-1.9	0.0005
NCF1	neutrophil cytosolic factor 1	-1.9	0.0003
MAZ	MYC associated zinc finger protein	-1.9	0.0003
RPS4Y1	ribosomal protein S4 Y-linked 1	-1.9	0.0003
RPS27	ribosomal protein S27	-2.0	0.0044
MAN1A1	mannosidase alpha class 1A member 1	-2.0	0.0008
RPLP0	ribosomal protein lateral stalk subunit P0	-2.0	0.0003
Ttc7b	tetratricopeptide repeat domain 7B	-2.0	0.0036
CABLES2	Cdk5 and Abl enzyme substrate 2	-2.0	0.0003
Rps13-ps2	ribosomal protein S13, pseudogene 2	-2.0	0.0243
SAP30L	SAP30 like	-2.0	0.0017
AP1S2	adaptor related protein complex 1 subunit sigma 2	-2.0	0.0003
ATXN3	ataxin 3	-2.0	0.0003
GLUL	glutamate-ammonia ligase	-2.0	0.0357
Srm2	serine/arginine repetitive matrix 2	-2.0	0.0082
VARS	valyl-tRNA synthetase 1	-2.0	0.0003
RPSA	ribosomal protein SA	-2.0	0.0117
SEMA4B	semaphorin 4B	-2.0	0.0003
TNRC6A	trinucleotide repeat containing adaptor 6A	-2.0	0.0003
ELK3	ETS transcription factor ELK3	-2.0	0.0015
STIM2	stromal interaction molecule 2	-2.0	0.0003
PGGHG	protein-glucosylgalactosylhydroxylysine glucosidase	-2.0	0.0003
RALBP1	ralA binding protein 1	-2.0	0.0005
H2-K2	histocompatibility 2, Q region locus 9	-2.0	0.0003
EMB	embigin	-2.0	0.0003
PGLS	6-phosphogluconolactonase	-2.0	0.0003
PRKCB	protein kinase C beta	-2.0	0.0005
CYP4F3	cytochrome P450 family 4 subfamily F member 3	-2.0	0.0013
RCHY1	ring finger and CHY zinc finger domain containing 1	-2.0	0.0003
SMIM3	small integral membrane protein 3	-2.0	0.0003
NCOA2	nuclear receptor coactivator 2	-2.0	0.0003
HERPUD1	homocysteine inducible ER protein with ubiquitin like domain 1	-2.0	0.0003
LDB1	LIM domain binding 1	-2.0	0.0003
MFS14B	major facilitator superfamily domain containing 14B	-2.0	0.0003
PCF11	PCF11 cleavage and polyadenylation factor subunit	-2.0	0.0038
MPRIP	myosin phosphatase Rho interacting protein	-2.0	0.0003
LRRC61	leucine rich repeat containing 61	-2.0	0.0003
SGK1	serum/glucocorticoid regulated kinase 1	-2.0	0.0003
SUPT4H1	SPT4 homolog, DSIF elongation factor subunit	-2.0	0.0003
HES6	hes family bHLH transcription factor 6	-2.0	0.0003
CNOT6L	CCR4-NOT transcription complex subunit 6 like	-2.0	0.0003
CTPS2	CTP synthase 2	-2.0	0.0008
PAXX	PAXX non-homologous end joining factor	-2.0	0.0046
ADPGK	ADP dependent glucokinase	-2.0	0.0003
S100A1	S100 calcium binding protein A1	-2.0	0.0028
RPS11	ribosomal protein S11	-2.0	0.0003
FAM160B1	family with sequence similarity 160 member B1	-2.0	0.0003
IKKB	inhibitor of nuclear factor kappa B kinase subunit beta	-2.0	0.0202
Mmg12	membrane magnesium transporter 2	-2.0	0.0058
SLC66A3	solute carrier family 66 member 3	-2.0	0.0003
KIDINS220	kinase D interacting substrate 220	-2.0	0.0003
SPTBN1	spectrin beta, non-erythrocytic 1	-2.0	0.0003
ATP8B2	ATPase phospholipid transporting 8B2	-2.0	0.0003
HK2	hexokinase 2	-2.0	0.0003
LYPLA2	lysophospholipase 2	-2.1	0.0003
RERE	arginine-glutamic acid dipeptide repeats	-2.1	0.0003
WDR3	WD repeat domain 3	-2.1	0.0034
ZCCHC7	zinc finger CCHC-type containing 7	-2.1	0.0003
DALRD3	DALR anticodon binding domain containing 3	-2.1	0.0015
FGD4	FYVE, RhoGEF and PH domain containing 4	-2.1	0.0003
IDH1	isocitrate dehydrogenase (NADP(+)) 1	-2.1	0.0003
JMJD1C	jumonji domain containing 1C	-2.1	0.0459
HIGD2A	HIG1 hypoxia inducible domain family member 2A	-2.1	0.0003
UBR2	ubiquitin protein ligase E3 component n-recogin 2	-2.1	0.0003
DUSP6	dual specificity phosphatase 6	-2.1	0.0003
Clasrp	CLK4-associating serine/arginine rich protein	-2.1	0.0003
LILRA5	leukocyte immunoglobulin like receptor A5	-2.1	0.0026
SREBF2	sterol regulatory element binding transcription factor 2	-2.1	0.0003
PTBP2	polypyrimidine tract binding protein 2	-2.1	0.0364

Tnfrsf13b	TNF receptor superfamily member 13B	-2.1	0.0003
TSPAN32	tetraspanin 32	-2.1	0.0003
Mapk1ip1	mitogen-activated protein kinase 1 interacting protein 1	-2.1	0.0003
TNFRSF21	TNF receptor superfamily member 21	-2.1	0.0036
CXCR4	C-X-C motif chemokine receptor 4	-2.1	0.0003
NCOR1	nuclear receptor corepressor 1	-2.1	0.0003
RMND5B	required for meiotic nuclear division 5 homolog B	-2.1	0.0060
PHF3	PHD finger protein 3	-2.1	0.0019
STK11	serine/threonine kinase 11	-2.1	0.0003
FAM43A	family with sequence similarity 43 member A	-2.1	0.0005
PER1	period circadian regulator 1	-2.1	0.0003
ABCD1	ATP binding cassette subfamily D member 1	-2.1	0.0003
CERT1	ceramide transporter 1	-2.1	0.0234
STAT5B	signal transducer and activator of transcription 5B	-2.1	0.0003
TRAPPC6A	trafficking protein particle complex 6A	-2.1	0.0003
CMAS	cytidine monophosphate N-acetylneuraminic acid synthetase	-2.1	0.0003
C2CD5	C2 calcium dependent domain containing 5	-2.1	0.0010
NCOR2	nuclear receptor corepressor 2	-2.1	0.0003
CAPN2	calpain 2	-2.1	0.0003
GALNT10	polypeptide N-acetylgalactosaminyltransferase 10	-2.1	0.0003
SMPD1	sphingomyelin phosphodiesterase 1	-2.1	0.0003
PIK3R6	phosphoinositide-3-kinase regulatory subunit 6	-2.1	0.0003
TES	testin LIM domain protein	-2.1	0.0003
FEM1C	fem-1 homolog C	-2.1	0.0003
P2RY2	purinergic receptor P2Y2	-2.1	0.0050
CEBPZ	CCAAT enhancer binding protein zeta	-2.2	0.0005
CERS5	ceramide synthase 5	-2.2	0.0010
TSPAN14	tetraspanin 14	-2.2	0.0003
ZNF746	zinc finger protein 746	-2.2	0.0003
MAP1LC3A	microtubule associated protein 1 light chain 3 alpha	-2.2	0.0003
MSRA	methionine sulfoxide reductase A	-2.2	0.0003
RIC8A	RIC8 guanine nucleotide exchange factor A	-2.2	0.0130
ZSWIM6	zinc finger SWIM-type containing 6	-2.2	0.0003
TTC5	tetratricopeptide repeat domain 5	-2.2	0.0003
RPS27A	ribosomal protein S27a	-2.2	0.0003
MSMO1	methylsterol monooxygenase 1	-2.2	0.0003
SLC25A28	solute carrier family 25 member 28	-2.2	0.0003
PARP6	poly(ADP-ribose) polymerase family member 6	-2.2	0.0010
CD79B	CD79b molecule	-2.2	0.0028
SH2B1	SH2B adaptor protein 1	-2.2	0.0003
CDK2	cyclin dependent kinase 2	-2.2	0.0003
PHF14	PHD finger protein 14	-2.2	0.0003
PRKD2	protein kinase D2	-2.2	0.0003
RPL37A	ribosomal protein L37a	-2.2	0.0003
JUN	Jun proto-oncogene, AP-1 transcription factor subunit	-2.3	0.0003
CFAP43	cilia and flagella associated protein 43	-2.3	0.0003
CDK17	cyclin dependent kinase 17	-2.3	0.0003
INF2	inverted formin, FH2 and WH2 domain containing	-2.3	0.0003
GLUD1	glutamate dehydrogenase 1	-2.3	0.0003
PRRC2B	proline rich coiled-coil 2B	-2.3	0.0145
Epb414aos	erythrocyte membrane protein band 4.1 like 4a, opposite strand	-2.3	0.0028
SLMAP	sarcolemma associated protein	-2.3	0.0003
DNAJB9	DnaJ heat shock protein family (Hsp40) member B9	-2.3	0.0003
Kctd2	potassium channel tetramerization domain containing 2	-2.3	0.0003
ORX1	oxidation resistance 1	-2.3	0.0003
Rhno1	RAD9-HUS1-RAD1 interacting nuclear orphan 1	-2.3	0.0003
TM6SF1	transmembrane 6 superfamily member 1	-2.3	0.0003
GRAMD1A	GRAM domain containing 1A	-2.3	0.0003
CDK19	cyclin dependent kinase 19	-2.3	0.0003
CEBPD	CCAAT enhancer binding protein delta	-2.3	0.0026
GSTO1	glutathione S-transferase omega 1	-2.3	0.0003
SLA	Src like adaptor	-2.3	0.0003
GXYLT1	glucoside xylosyltransferase 1	-2.3	0.0003
POLG	DNA polymerase gamma, catalytic subunit	-2.3	0.0003
KDM4A	lysine demethylase 4A	-2.3	0.0003
AKT1	AKT serine/threonine kinase 1	-2.3	0.0003
CAST	calpastatin	-2.3	0.0078
USP48	ubiquitin specific peptidase 48	-2.3	0.0003
NFATC3	nuclear factor of activated T cells 3	-2.3	0.0003
ADD1	adducin 1	-2.3	0.0003
MAP4K4	mitogen-activated protein kinase kinase kinase kinase 4	-2.3	0.0003
SH3BP5L	SH3 binding domain protein 5 like	-2.3	0.0005
ING3	inhibitor of growth family member 3	-2.3	0.0003
HPS3	HPS3 biogenesis of lysosomal organelles complex 2 subunit 1	-2.3	0.0003
SH3BP1	SH3 domain binding protein 1	-2.3	0.0038
LMF1	lipase maturation factor 1	-2.3	0.0032
RP9	RP9 pre-mRNA splicing factor	-2.3	0.0003
JOSD1	Josephin domain containing 1	-2.3	0.0003
FAR1	fatty acyl-CoA reductase 1	-2.4	0.0003
Ppp1r12a	protein phosphatase 1, regulatory subunit 12A	-2.4	0.0003
NR2C2	nuclear receptor subfamily 2 group C member 2	-2.4	0.0162
RGS3	regulator of G protein signaling 3	-2.4	0.0003
ATXN7	ataxin 7	-2.4	0.0003
SMC6	structural maintenance of chromosomes 6	-2.4	0.0003
GALNT6	polypeptide N-acetylgalactosaminyltransferase 6	-2.4	0.0003
2310001H17Rik	RIKEN cDNA 2310001H17 gene	-2.4	0.0003



SAMSN1	SAM domain, SH3 domain and nuclear localization signals 1	-2.4	0.0003
MBOAT7	membrane bound O-acyltransferase domain containing 7	-2.4	0.0300
CDC42BPB	CDC42 binding protein kinase beta	-2.4	0.0003
DUSP22	dual specificity phosphatase 22	-2.4	0.0003
AUH	AU RNA binding methylglutaconyl-CoA hydratase	-2.4	0.0003
5530601H04Rik	RIKEN cDNA 5530601H04 gene	-2.4	0.0003
UBP1	upstream binding protein 1	-2.4	0.0003
FAM234A	family with sequence similarity 234 member A	-2.4	0.0126
HJURP	Holliday junction recognition protein	-2.4	0.0003
PIK3R5	phosphoinositide-3-kinase regulatory subunit 5	-2.4	0.0003
XPR1	xenotropic and polytropic retrovirus receptor 1	-2.4	0.0003
C1GALT1	core 1 synthase, glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase 1	-2.4	0.0003
DUSP5	dual specificity phosphatase 5	-2.4	0.0022
CRAMP1	cramped chromatin regulator homolog 1	-2.4	0.0003
Cd99	CD99 antigen	-2.4	0.0003
GD11	GDP dissociation inhibitor 1	-2.4	0.0003
ZNF217	zinc finger protein 217	-2.4	0.0003
LMO4	LIM domain only 4	-2.4	0.0150
LDLR	low density lipoprotein receptor	-2.4	0.0003
STK19	serine/threonine kinase 19	-2.4	0.0003
IPMK	inositol polyphosphate multikinase	-2.4	0.0056
NFATC1	nuclear factor of activated T cells 1	-2.5	0.0003
RXRβ	retinoid X receptor beta	-2.5	0.0003
PKD1	polycystin 1, transient receptor potential channel interacting	-2.5	0.0186
SIAH2	siah E3 ubiquitin protein ligase 2	-2.5	0.0003
HnmpH1	heterogeneous nuclear ribonucleoprotein H1	-2.5	0.0454
PLXND1	plexin D1	-2.5	0.0003
Gm4149	ribosomal protein L37a pseudogene	-2.5	0.0005
DOK3	docking protein 3	-2.5	0.0003
ADCY7	adenylate cyclase 7	-2.5	0.0003
Rbm33	RNA binding motif protein 33	-2.5	0.0003
RNF38	ring finger protein 38	-2.5	0.0003
MR11	methylthioribose-1-phosphate isomerase 1	-2.5	0.0013
UNC119B	unc-119 lipid binding chaperone B	-2.5	0.0003
HIPK1	homeodomain interacting protein kinase 1	-2.5	0.0003
CCNL1	cyclin L1	-2.5	0.0003
CLEC12A	C-type lectin domain family 12 member A	-2.5	0.0003
EIF3F	eukaryotic translation initiation factor 3 subunit F	-2.5	0.0003
M1P	migration and invasion inhibitory protein	-2.5	0.0003
FBXO9	F-box protein 9	-2.5	0.0003
ING1	inhibitor of growth family member 1	-2.5	0.0003
PPA2	inorganic pyrophosphatase 2	-2.5	0.0003
SCAF8	SR-related CTD associated factor 8	-2.6	0.0230
IL16	interleukin 16	-2.6	0.0030
ACOX3	acyl-CoA oxidase 3, pristanoyl	-2.6	0.0003
CHKB	choline kinase beta	-2.6	0.0003
AKAP8L	A-kinase anchoring protein 8 like	-2.6	0.0003
S100A6	S100 calcium binding protein A6	-2.6	0.0003
DYRK2	dual specificity tyrosine phosphorylation regulated kinase 2	-2.6	0.0003
TACC1	transforming acidic coiled-coil containing protein 1	-2.6	0.0003
AMPD2	adenosine monophosphate deaminase 2	-2.6	0.0003
LCN2	lipocalin 2	-2.6	0.0003
ADIPOR2	adiponectin receptor 2	-2.6	0.0003
TALDO1	transaldolase 1	-2.6	0.0003
CROT	carnitine O-octanoyltransferase	-2.6	0.0003
ING2	inhibitor of growth family member 2	-2.6	0.0003
CABIN1	calcineurin binding protein 1	-2.6	0.0003
RAB3D	RAB3D, member RAS oncogene family	-2.6	0.0003
KMT2E	lysine methyltransferase 2E	-2.6	0.0003
CBLB	Cbl proto-oncogene B	-2.6	0.0003
STK11IP	serine/threonine kinase 11 interacting protein	-2.6	0.0003
IQGAP2	IQ motif containing GTPase activating protein 2	-2.6	0.0003
Rprd2	regulation of nuclear pre-mRNA domain containing 2	-2.7	0.0003
ITGAM	integrin subunit alpha M	-2.7	0.0019
PXMP4	peroxisomal membrane protein 4	-2.7	0.0044
NCF2	neutrophil cytosolic factor 2	-2.7	0.0003
Gm8129	ribosomal protein L38 pseudogene	-2.7	0.0356
MS4A8	membrane spanning 4-domains A8	-2.7	0.0003
SENPE6	SUMO specific peptidase 6	-2.7	0.0003
ST3GAL4	ST3 beta-galactoside alpha-2,3-sialyltransferase 4	-2.7	0.0003
ANKRD10	ankyrin repeat domain 10	-2.7	0.0003
GPCPD1	glycerophosphocholine phosphodiesterase 1	-2.7	0.0003
ANXA2	annexin A2	-2.7	0.0003
FLNA	filamin A	-2.7	0.0003
CBX4	chromobox 4	-2.7	0.0003
OSM	oncostatin M	-2.7	0.0003
SETD7	SET domain containing 7, histone lysine methyltransferase	-2.7	0.0003
SETX	senataxin	-2.7	0.0010
HP	haptoglobin	-2.7	0.0017
Srsf5	serine/arginine-rich splicing factor 5	-2.7	0.0003
APLP2	amyloid beta precursor like protein 2	-2.7	0.0003
GRK3	G protein-coupled receptor kinase 3	-2.7	0.0003
CAMKK1	calcium/calmodulin dependent protein kinase kinase 1	-2.7	0.0003
MTMR12	myotubularin related protein 12	-2.7	0.0003
ARHGAP4	Rho GTPase activating protein 4	-2.8	0.0003
ACADM	acyl-CoA dehydrogenase medium chain	-2.8	0.0003

STOM	stomatin	-2.8	0.0003
CNST	consortin, connexin sorting protein	-2.8	0.0003
NOTCH1	notch receptor 1	-2.8	0.0003
Cdadc1	cytidine and dCMP deaminase domain containing 1	-2.8	0.0003
RASSF4	Ras association domain family member 4	-2.8	0.0003
EIF4EBP2	eukaryotic translation initiation factor 4E binding protein 2	-2.8	0.0008
PHF21A	PHD finger protein 21A	-2.8	0.0003
ADSS1	adenylosuccinate synthase 1	-2.8	0.0003
OLFM1	olfactomedin 1	-2.8	0.0003
SLC38A2	solute carrier family 38 member 2	-2.8	0.0003
NFKBIA	NFKB inhibitor alpha	-2.8	0.0003
PTGER4	prostaglandin E receptor 4	-2.8	0.0003
RBL2	RB transcriptional corepressor like 2	-2.8	0.0003
NFKBIZ	NFKB inhibitor zeta	-2.8	0.0003
DAP	death associated protein	-2.8	0.0003
ACYP1	acylphosphatase 1	-2.8	0.0003
RELT	RELT TNF receptor	-2.8	0.0003
MTFR1	mitochondrial fission regulator 1	-2.9	0.0003
NIN	ninein	-2.9	0.0003
RASA3	RAS p21 protein activator 3	-2.9	0.0003
NPEPL1	aminopeptidase like 1	-2.9	0.0003
RRAS	RAS related	-2.9	0.0003
KCNAB2	potassium voltage-gated channel subfamily A regulatory beta subunit 2	-2.9	0.0003
PIM1	Pim-1 proto-oncogene, serine/threonine kinase	-2.9	0.0003
CAMK2G	calcium/calmodulin dependent protein kinase II gamma	-2.9	0.0003
RFX1	regulatory factor X1	-2.9	0.0003
PAN3	poly(A) specific ribonuclease subunit PAN3	-2.9	0.0003
SEPTIN11	septin 11	-2.9	0.0034
HDAC5	histone deacetylase 5	-2.9	0.0003
HSD17B11	hydroxysteroid 17-beta dehydrogenase 11	-2.9	0.0003
IFFO1	intermediate filament family orphan 1	-2.9	0.0003
SUN2	Sad1 and UNC84 domain containing 2	-2.9	0.0163
KCTD20	potassium channel tetramerization domain containing 20	-2.9	0.0003
MID1IP1	MID1 interacting protein 1	-2.9	0.0003
SLC44A2	solute carrier family 44 member 2	-2.9	0.0010
HEATR5A	HEAT repeat containing 5A	-2.9	0.0003
MAPK14	mitogen-activated protein kinase 14	-2.9	0.0003
EPC1	enhancer of polycomb homolog 1	-2.9	0.0005
ULK1	unc-51 like autophagy activating kinase 1	-3.0	0.0003
PLCB3	phospholipase C beta 3	-3.0	0.0003
FCHO2	FCH and mu domain containing endocytic adaptor 2	-3.0	0.0003
NXPE4	neurexophilin and PC-esterase domain family member 4	-3.0	0.0398
ADAM8	ADAM metallopeptidase domain 8	-3.0	0.0003
PNRC1	proline rich nuclear receptor coactivator 1	-3.0	0.0003
GPX1	glutathione peroxidase 1	-3.0	0.0015
TRAF3IP3	TRAF3 interacting protein 3	-3.0	0.0003
APOBR	apolipoprotein B receptor	-3.0	0.0010
SLC46A3	solute carrier family 46 member 3	-3.0	0.0003
CASP2	caspase 2	-3.0	0.0003
PHKA2	phosphorylase kinase regulatory subunit alpha 2	-3.0	0.0003
Gm2651	COX11 homolog, cytochrome c oxidase assembly protein pseudogene	-3.0	0.0309
HFE	homeostatic iron regulator	-3.0	0.0003
CCM2	CCM2 scaffold protein	-3.0	0.0003
SORL1	sortilin related receptor 1	-3.0	0.0003
EMP3	epithelial membrane protein 3	-3.0	0.0003
PTPRO	protein tyrosine phosphatase receptor type O	-3.0	0.0003
POLR2E	RNA polymerase II subunit E	-3.1	0.0003
VRK1	VRK serine/threonine kinase 1	-3.1	0.0003
ATP23	ATP23 metallopeptidase and ATP synthase assembly factor homolog	-3.1	0.0003
ELL	elongation factor for RNA polymerase II	-3.1	0.0003
MAPK3	mitogen-activated protein kinase 3	-3.1	0.0003
PBXIP1	PBX homeobox interacting protein 1	-3.1	0.0003
ZBTB44	zinc finger and BTB domain containing 44	-3.1	0.0003
SEC11C	SEC11 homolog C, signal peptidase complex subunit	-3.1	0.0003
RB1CC1	RB1 inducible coiled-coil 1	-3.1	0.0003
SC5D	sterol-C5-desaturase	-3.1	0.0003
EGR1	early growth response 1	-3.1	0.0003
HACD4	3-hydroxyacyl-CoA dehydratase 4	-3.1	0.0003
EEPD1	endonuclease/exonuclease/phosphatase family domain containing 1	-3.1	0.0003
SLC66A2	solute carrier family 66 member 2	-3.1	0.0003
BTG1	BTG anti-proliferation factor 1	-3.1	0.0003
ITGAL	integrin subunit alpha L	-3.1	0.0003
MAML1	mastermind like transcriptional coactivator 1	-3.1	0.0003
IER5	immediate early response 5	-3.1	0.0003
NOTCH2	notch receptor 2	-3.1	0.0003
ALDH2	aldehyde dehydrogenase 2 family member	-3.2	0.0003
TPRG1L	tumor protein p63 regulated 1 like	-3.2	0.0003
MDP1	magnesium dependent phosphatase 1	-3.2	0.0003
Rbm38	RNA binding motif protein 38	-3.2	0.0003
SELPLG	selectin P ligand	-3.2	0.0003
DDIT4	DNA damage inducible transcript 4	-3.2	0.0003
DENND5A	DENN domain containing 5A	-3.2	0.0003
PLEKHN1	pleckstrin homology domain containing N1	-3.2	0.0003
COX7A2L	cytochrome c oxidase subunit 7A2 like	-3.2	0.0003
GSTM5	glutathione S-transferase mu 5	-3.2	0.0003
MAP3K14	mitogen-activated protein kinase kinase kinase 14	-3.2	0.0003

TAGLN2	transgelin 2	-3.3	0.0003
Zfp740	zinc finger protein 740	-3.3	0.0003
PPP3CA	protein phosphatase 3 catalytic subunit alpha	-3.3	0.0003
TOP2B	DNA topoisomerase II beta	-3.3	0.0003
TEC	tec protein tyrosine kinase	-3.3	0.0003
CLK1	CDC like kinase 1	-3.3	0.0003
NUDT7	nudix hydrolase 7	-3.3	0.0003
NADK	NAD kinase	-3.3	0.0017
ACSS1	acyl-CoA synthetase short chain family member 1	-3.3	0.0003
JUP	junction plakoglobin	-3.3	0.0008
CENPA	centromere protein A	-3.4	0.0003
GLIPR1	GLI pathogenesis related 1	-3.4	0.0003
HERC1	HECT and RLD domain containing E3 ubiquitin protein ligase family member 1	-3.4	0.0003
RGL2	ral guanine nucleotide dissociation stimulator like 2	-3.4	0.0003
PSTPIP1	proline-serine-threonine phosphatase interacting protein 1	-3.4	0.0003
MYO1G	myosin IG	-3.4	0.0139
LRMP	lymphoid restricted membrane protein	-3.4	0.0003
ZFP36	ZFP36 ring finger protein	-3.4	0.0003
RPS6KA1	ribosomal protein S6 kinase A1	-3.4	0.0003
KHNYN	KH and NYN domain containing	-3.4	0.0003
KLF10	Kruppel like factor 10	-3.5	0.0003
DEF6	DEF6 guanine nucleotide exchange factor	-3.5	0.0119
DEGS1	delta 4-desaturase, sphingolipid 1	-3.5	0.0003
TCEA3	transcription elongation factor A3	-3.5	0.0003
RASSF5	Ras association domain family member 5	-3.5	0.0003
RN7SK	RNA component of 7SK nuclear ribonucleoprotein	-3.5	0.0005
ARHGAP39	Rho GTPase activating protein 39	-3.5	0.0003
TMEM176A	transmembrane protein 176A	-3.5	0.0013
VGLL4	vestigial like family member 4	-3.5	0.0052
ZFP36L2	ZFP36 ring finger protein like 2	-3.5	0.0003
CDC42EP3	CDC42 effector protein 3	-3.5	0.0003
PAG1	phosphoprotein membrane anchor with glycosphingolipid microdomains 1	-3.5	0.0003
CD36	CD36 molecule	-3.6	0.0003
ALOX5AP	arachidonate 5-lipoxygenase activating protein	-3.6	0.0003
HECA	hdc homolog, cell cycle regulator	-3.6	0.0003
2410006H16Rik	RIKEN cDNA 2410006H16 gene	-3.6	0.0003
SNRK	SNF related kinase	-3.6	0.0024
Naip1	NLR family, apoptosis inhibitory protein 1	-3.6	0.0091
SGPP1	sphingosine-1-phosphate phosphatase 1	-3.6	0.0003
DXO	decapping exoribonuclease	-3.6	0.0003
ST3GAL3	ST3 beta-galactoside alpha-2,3-sialyltransferase 3	-3.6	0.0003
CHST12	carbohydrate sulfotransferase 12	-3.6	0.0003
ARHGAP15	Rho GTPase activating protein 15	-3.6	0.0003
PIAS3	protein inhibitor of activated STAT 3	-3.6	0.0003
NAPSA	napsin A aspartic peptidase	-3.6	0.0003
STK17B	serine/threonine kinase 17b	-3.7	0.0003
FUT4	fucosyltransferase 4	-3.7	0.0003
PFKFB4	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4	-3.7	0.0003
S100A8	S100 calcium binding protein A8	-3.7	0.0003
TSPAN17	tetraspanin 17	-3.7	0.0003
CDKN2AIP	CDKN2A interacting protein	-3.7	0.0003
POLM	DNA polymerase mu	-3.7	0.0003
SEPTIN6	septin 6	-3.7	0.0003
Slc41a3	solute carrier family 41, member 3	-3.7	0.0003
IVNS1ABP	influenza virus NS1A binding protein	-3.7	0.0003
ASAP1	ArfGAP with SH3 domain, ankyrin repeat and PH domain 1	-3.7	0.0003
DGKD	diacylglycerol kinase delta	-3.7	0.0003
PATZ1	POZ/BTB and AT hook containing zinc finger 1	-3.7	0.0003
ZBTB42	zinc finger and BTB domain containing 42	-3.8	0.0003
OGT	O-linked N-acetylglucosamine (GlcNAc) transferase	-3.8	0.0003
HADH	hydroxyacyl-CoA dehydrogenase	-3.8	0.0003
CCDC85B	coiled-coil domain containing 85B	-3.8	0.0003
PDE1B	phosphodiesterase 1B	-3.8	0.0003
TECR	trans-2,3-enoyl-CoA reductase	-3.8	0.0003
BRD3	bromodomain containing 3	-3.8	0.0003
C7orf50	chromosome 7 open reading frame 50	-3.8	0.0425
CSF1	colony stimulating factor 1	-3.8	0.0003
CD300LB	CD300 molecule like family member b	-3.8	0.0003
SLK	STE20 like kinase	-3.8	0.0003
ANTXR2	ANTXR cell adhesion molecule 2	-3.8	0.0003
KLF13	Kruppel like factor 13	-3.8	0.0003
S100A11	S100 calcium binding protein A11	-3.8	0.0003
AKNA	AT-hook transcription factor	-3.9	0.0003
IMPA2	inositol monophosphatase 2	-3.9	0.0003
PDE4B	phosphodiesterase 4B	-3.9	0.0003
BC035044	cDNA sequence BC035044	-3.9	0.0013
GPX4	glutathione peroxidase 4	-3.9	0.0003
GPR132	G protein-coupled receptor 132	-3.9	0.0003
Skk38	serine/threonine kinase 38	-3.9	0.0003
ARHGAP18	Rho GTPase activating protein 18	-3.9	0.0003
TXNIP	thioredoxin interacting protein	-4.0	0.0003
CKAP4	cytoskeleton associated protein 4	-4.0	0.0003
SRPK2	SRSF protein kinase 2	-4.0	0.0003
PAQR7	progesterin and adipoQ receptor family member 7	-4.0	0.0003
THBD	thrombomodulin	-4.0	0.0003
LYST	lysosomal trafficking regulator	-4.0	0.0003

CDKN1B	cyclin dependent kinase inhibitor 1B	-4.0	0.0003
SPATA13	spermatogenesis associated 13	-4.0	0.0003
ARSB	arylsulfatase B	-4.0	0.0003
ARL2BP	ADP ribosylation factor like GTPase 2 binding protein	-4.0	0.0003
TIAM1	T cell lymphoma invasion and metastasis 1	-4.1	0.0003
Tsc22d3	TSC22 domain family, member 3	-4.1	0.0003
Arl4c	ADP ribosylation factor like GTPase 4C	-4.1	0.0003
SFXN3	sideroflexin 3	-4.1	0.0003
NUDT4	nudix hydrolase 4	-4.1	0.0003
MGST1	microsomal glutathione S-transferase 1	-4.1	0.0003
MAN2A2	mannosidase alpha class 2A member 2	-4.1	0.0003
BNIP3L	BCL2 interacting protein 3 like	-4.1	0.0003
FOXO3	forkhead box O3	-4.2	0.0003
IFNGR1	interferon gamma receptor 1	-4.2	0.0003
LTA4H	leukotriene A4 hydrolase	-4.2	0.0003
HERC4	HECT and RLD domain containing E3 ubiquitin protein ligase 4	-4.2	0.0003
AK3	adenylate kinase 3	-4.2	0.0003
LRRK2	leucine rich repeat kinase 2	-4.2	0.0003
NAGA	alpha-N-acetylgalactosaminidase	-4.2	0.0003
RFX7	regulatory factor X7	-4.3	0.0003
INPP5F	inositol polyphosphate-5-phosphatase F	-4.3	0.0242
PIK3CG	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma	-4.3	0.0003
JUNB	JunB proto-oncogene, AP-1 transcription factor subunit	-4.3	0.0003
TMEM43	transmembrane protein 43	-4.3	0.0003
PNPLA7	patatin like phospholipase domain containing 7	-4.3	0.0003
CDS2	CDP-diacylglycerol synthase 2	-4.3	0.0003
ITGA4	integrin subunit alpha 4	-4.3	0.0003
Fmn1	formin-like 1	-4.3	0.0003
FOS	Fos proto-oncogene, AP-1 transcription factor subunit	-4.4	0.0003
SELENOM	selenoprotein M	-4.4	0.0003
EMILIN2	elastin microfibril interfacier 2	-4.4	0.0126
PCMTD2	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 2	-4.4	0.0003
CAMKK2	calcium/calmodulin dependent protein kinase kinase 2	-4.5	0.0003
BCOR	BCL6 corepressor	-4.5	0.0003
HDAC10	histone deacetylase 10	-4.5	0.0003
SUN1	Sad1 and UNC84 domain containing 1	-4.5	0.0003
ORAI2	ORAI calcium release-activated calcium modulator 2	-4.5	0.0270
PCNX1	pecanex 1	-4.5	0.0003
ATP10D	ATPase phospholipid transporting 10D (putative)	-4.5	0.0003
CORO1A	coronin 1A	-4.5	0.0003
STAP1	signal transducing adaptor family member 1	-4.5	0.0003
Agfg2	ArfGAP with FG repeats 2	-4.6	0.0003
DCLRE1B	DNA cross-link repair 1B	-4.6	0.0003
Ppp1r15a	protein phosphatase 1, regulatory subunit 15A	-4.6	0.0022
IMPDH1	inosine monophosphate dehydrogenase 1	-4.6	0.0003
RCN1	reticulocalbin 1	-4.6	0.0003
CNN2	calponin 2	-4.6	0.0003
C21orf91	chromosome 21 open reading frame 91	-4.6	0.0003
Fam193b	family with sequence similarity 193, member B	-4.6	0.0173
ARHGEF37	Rho guanine nucleotide exchange factor 37	-4.7	0.0003
BBC3	BCL2 binding component 3	-4.7	0.0003
IP6K3	inositol hexakisphosphate kinase 3	-4.7	0.0003
LTB4R	leukotriene B4 receptor	-4.7	0.0003
HCST	hematopoietic cell signal transducer	-4.7	0.0003
SVIL	supervillin	-4.7	0.0003
SFT2D2	SFT2 domain containing 2	-4.7	0.0003
DEDD2	death effector domain containing 2	-4.7	0.0003
PON2	paraoxonase 2	-4.8	0.0003
MAN2B1	mannosidase alpha class 2B member 1	-4.8	0.0003
SMPDL3A	sphingomyelin phosphodiesterase acid like 3A	-4.8	0.0003
Chil3	chitinase-like 3	-4.9	0.0003
UBE2H	ubiquitin conjugating enzyme E2 H	-4.9	0.0003
RELL1	RELT like 1	-4.9	0.0003
C5orf34	chromosome 5 open reading frame 34	-4.9	0.0003
ACAP3	ArfGAP with coiled-coil, ankyrin repeat and PH domains 3	-4.9	0.0003
IQSEC1	IQ motif and Sec7 domain ArfGEF 1	-4.9	0.0003
CSNK1E	casein kinase 1 epsilon	-4.9	0.0003
TSPAN5	tetraspanin 5	-4.9	0.0003
ARRB1	arrestin beta 1	-4.9	0.0003
S100A10	S100 calcium binding protein A10	-5.0	0.0003
NTNG2	netrin G2	-5.0	0.0003
CYP4F2	cytochrome P450 family 4 subfamily F member 2	-5.0	0.0003
ARHGAP26	Rho GTPase activating protein 26	-5.0	0.0003
ROGDI	rogdi atypical leucine zipper	-5.0	0.0003
RASGRP4	RAS guanyl releasing protein 4	-5.1	0.0003
GLIPR2	GLI pathogenesis related 2	-5.1	0.0003
OAZ2	ornithine decarboxylase antizyme 2	-5.1	0.0003
GIMAP6	GTPase, IMAP family member 6	-5.1	0.0003
LSP1	lymphocyte specific protein 1	-5.1	0.0003
ADK	adenosine kinase	-5.1	0.0003
DHRS7	dehydrogenase/reductase 7	-5.1	0.0003
NQO2	N-ribosyl-dihydroxynicotinamide:quinone reductase 2	-5.1	0.0071
EIF2AK3	eukaryotic translation initiation factor 2 alpha kinase 3	-5.2	0.0003
CD9	CD9 molecule	-5.2	0.0003
TPCN1	two pore segment channel 1	-5.2	0.0003
ARRDC3	arrestin domain containing 3	-5.2	0.0003

Mtus1	microtubule associated scaffold protein 1	-5.2	0.0003
KIF7	Kruppel like factor 7	-5.2	0.0003
ARHGEF1	Rho guanine nucleotide exchange factor 1	-5.3	0.0003
ATP1A3	ATPase Na+/K+ transporting subunit alpha 3	-5.3	0.0019
STK24	serine/threonine kinase 24	-5.3	0.0003
GAS7	growth arrest specific 7	-5.3	0.0003
BAIAP2	BAR/IMD domain containing adaptor protein 2	-5.3	0.0003
SLC1A5	solute carrier family 1 member 5	-5.4	0.0003
BHLHE40	basic helix-loop-helix family member e40	-5.4	0.0003
RUNX2	RUNX family transcription factor 2	-5.5	0.0003
ADSS2	adenylosuccinate synthase 2	-5.5	0.0003
TPPP3	tubulin polymerization promoting protein family member 3	-5.5	0.0398
RNF167	ring finger protein 167	-5.5	0.0003
ANKRD44	ankyrin repeat domain 44	-5.5	0.0003
DOCK8	dedicator of cytokinesis 8	-5.6	0.0003
CKS2	CDC28 protein kinase regulatory subunit 2	-5.6	0.0003
ZER1	zyg-11 related cell cycle regulator	-5.6	0.0003
AGPAT4	1-acylglycerol-3-phosphate O-acyltransferase 4	-5.6	0.0003
PDLIM7	PDZ and LIM domain 7	-5.7	0.0003
SMARCA2	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2	-5.7	0.0003
MAP3K5	mitogen-activated protein kinase kinase kinase 5	-5.7	0.0003
A1839979	expressed sequence A1839979	-5.7	0.0003
CAT	catalase	-5.7	0.0003
CYTIP	cytohesin 1 interacting protein	-5.8	0.0003
ASXL1	ASXL transcriptional regulator 1	-5.8	0.0003
FOSL2	FOS like 2, AP-1 transcription factor subunit	-5.8	0.0003
Gad1-ps	glutamate decarboxylase 1, pseudogene	-5.8	0.0003
CCDC125	coiled-coil domain containing 125	-5.8	0.0022
SELENBP1	selenium binding protein 1	-5.8	0.0003
AKAP13	A-kinase anchoring protein 13	-5.8	0.0003
CALCOCO1	calcium binding and coiled-coil domain 1	-5.8	0.0003
RARA	retinoic acid receptor alpha	-5.8	0.0003
PIM3	Pim-3 proto-oncogene, serine/threonine kinase	-5.9	0.0026
DSTYK	dual serine/threonine and tyrosine protein kinase	-5.9	0.0003
RND3	Rho family GTPase 3	-5.9	0.0003
RGS2	regulator of G protein signaling 2	-6.0	0.0003
RAB11FIP1	RAB11 family interacting protein 1	-6.0	0.0003
1600010M07Rik	RIKEN cDNA 1600010M07 gene	-6.0	0.0091
RAP1GAP2	RAP1 GTPase activating protein 2	-6.0	0.0003
STN1	STN1 subunit of CST complex	-6.0	0.0003
HLCS	holocarboxylase synthetase	-6.1	0.0003
FOXO4	forkhead box O4	-6.1	0.0003
TMEM176B	transmembrane protein 176B	-6.1	0.0003
RPL3L	ribosomal protein L3 like	-6.1	0.0003
PLCB2	phospholipase C beta 2	-6.1	0.0003
ABTB1	ankyrin repeat and BTB domain containing 1	-6.2	0.0003
PMM1	phosphomannomutase 1	-6.2	0.0044
ZFYVE9	zinc finger FYVE-type containing 9	-6.3	0.0149
PLEC	plectin	-6.3	0.0040
PHF20L1	PHD finger protein 20 like 1	-6.3	0.0003
ARHGEF6	Rac/Cdc42 guanine nucleotide exchange factor 6	-6.4	0.0003
Adgre4	adhesion G protein-coupled receptor E4	-6.4	0.0003
PRKAG2	protein kinase AMP-activated non-catalytic subunit gamma 2	-6.4	0.0003
CYP27A1	cytochrome P450 family 27 subfamily A member 1	-6.4	0.0003
ABCA7	ATP binding cassette subfamily A member 7	-6.6	0.0003
KIAA0040	KIAA0040	-6.6	0.0003
CALHM2	calcium homeostasis modulator family member 2	-6.7	0.0003
FAM117A	family with sequence similarity 117 member A	-6.7	0.0003
Ppifa4	protein tyrosine phosphatase, receptor type, f polypeptide (PTPRF), interacting protein (liprin), alpha 4	-6.8	0.0003
CCNG2	cyclin G2	-6.8	0.0003
DENND4A	DENN domain containing 4A	-6.9	0.0003
Sik1	salt inducible kinase 1	-6.9	0.0003
TBC1D8	TBC1 domain family member 8	-6.9	0.0003
UNC119	unc-119 lipid binding chaperone	-6.9	0.0003
NDUFAF7	NADH:ubiquinone oxidoreductase complex assembly factor 7	-6.9	0.0003
PITHD1	PITH domain containing 1	-6.9	0.0003
ARHGEF3	Rho guanine nucleotide exchange factor 3	-7.1	0.0003
TOB1	transducer of ERBB2, 1	-7.1	0.0003
Slpi	secretory leukocyte peptidase inhibitor	-7.1	0.0003
MMP8	matrix metalloproteinase 8	-7.2	0.0003
CSGALNACT2	chondroitin sulfate N-acetylgalactosaminyltransferase 2	-7.2	0.0003
HOPX	HOP homeobox	-7.2	0.0003
GDPD3	glycerophosphodiester phosphodiesterase domain containing 3	-7.2	0.0003
IER2	immediate early response 2	-7.3	0.0003
KLF11	Kruppel like factor 11	-7.3	0.0003
SORT1	sortilin 1	-7.3	0.0217
DNA2	DNA replication helicase/nuclease 2	-7.3	0.0003
BTG2	BTG anti-proliferation factor 2	-7.4	0.0003
IL17RA	interleukin 17 receptor A	-7.4	0.0003
CRIP1	cysteine rich protein 1	-7.5	0.0003
SSBP3	single stranded DNA binding protein 3	-7.6	0.0003
MFSD6	major facilitator superfamily domain containing 6	-7.7	0.0003
IPCEF1	interaction protein for cytohesin exchange factors 1	-7.7	0.0003
GCNT1	glucosaminyl (N-acetyl) transferase 1	-7.8	0.0003
DOCK5	dedicator of cytokinesis 5	-7.9	0.0003
MEGF9	multiple EGF like domains 9	-8.0	0.0003

FABP4	fatty acid binding protein 4	-8.1	0.0003
RCSL1	RCSL domain containing 1	-8.1	0.0003
KLHL24	kelch like family member 24	-8.1	0.0003
TMC8	transmembrane channel like 8	-8.1	0.0003
NBEAL2	neurobeachin like 2	-8.1	0.0003
GRK6	G protein-coupled receptor kinase 6	-8.2	0.0286
ITGB7	integrin subunit beta 7	-8.2	0.0003
C16orf54	chromosome 16 open reading frame 54	-8.3	0.0003
Mxd4	Max dimerization protein 4	-8.5	0.0003
Pisd-ps1	phosphatidylserine decarboxylase, pseudogene 1	-8.6	0.0003
CMC2	C-X9-C motif containing 2	-8.7	0.0093
SUSD1	sushi domain containing 1	-8.8	0.0003
NEDD9	neural precursor cell expressed, developmentally down-regulated 9	-8.8	0.0003
HES1	hes family bHLH transcription factor 1	-8.9	0.0003
TMCC1	transmembrane and coiled-coil domain family 1	-9.0	0.0003
LILRB3	leukocyte immunoglobulin like receptor B3	-9.0	0.0003
RABGAP1L	RAB GTPase activating protein 1 like	-9.0	0.0003
RNASE6	ribonuclease A family member k6	-9.1	0.0003
KLF2	Kruppel like factor 2	-9.1	0.0003
NAV1	neuron navigator 1	-9.2	0.0003
DENND3	DENN domain containing 3	-9.3	0.0003
DUSP1	dual specificity phosphatase 1	-9.3	0.0003
XPC	XPC complex subunit, DNA damage recognition and repair factor	-9.3	0.0003
LPCAT4	lysophosphatidylcholine acyltransferase 4	-9.4	0.0003
ADGRE5	adhesion G protein-coupled receptor E5	-9.4	0.0003
FAM102A	family with sequence similarity 102 member A	-9.5	0.0003
CXCL3	C-X-C motif chemokine ligand 3	-9.5	0.0003
STK10	serine/threonine kinase 10	-9.5	0.0003
NUP210	nucleoporin 210	-9.6	0.0003
Gm12814	selection and upkeep of intraepithelial T cells 4	-9.6	0.0003
INTS6L	integrator complex subunit 6 like	-9.7	0.0003
Ccl9	chemokine (C-C motif) ligand 9	-9.8	0.0042
GRTC1	CREB regulated transcription coactivator 1	-10.0	0.0064
PINK1	PTEN induced kinase 1	-10.1	0.0077
2610507I01Rik	RIKEN cDNA 2610507I01 gene	-10.1	0.0003
RASSF3	Ras association domain family member 3	-10.2	0.0003
BANK1	B cell scaffold protein with ankyrin repeats 1	-10.3	0.0003
PLEKHG3	pleckstrin homology and RhoGEF domain containing G3	-10.3	0.0003
SGMS1	sphingomyelin synthase 1	-10.3	0.0003
SCNN1A	sodium channel epithelial 1 alpha subunit	-10.4	0.0005
NIBAN1	niban apoptosis regulator 1	-10.6	0.0003
RIN3	Ras and Rab interactor 3	-10.7	0.0010
SYNE3	spectrin repeat containing nuclear envelope family member 3	-10.9	0.0003
Fbx20	F-box and leucine-rich repeat protein 20	-10.9	0.0003
PRKAR2B	protein kinase cAMP-dependent type II regulatory subunit beta	-11.0	0.0003
SULF2	sulfatase 2	-11.0	0.0040
Bmyc	brain expressed myelocytomatosis oncogene	-11.1	0.0003
STK26	serine/threonine kinase 26	-11.1	0.0003
HIP1R	huntingtin interacting protein 1 related	-11.1	0.0194
MATK	megakaryocyte-associated tyrosine kinase	-11.1	0.0003
MCTP1	multiple C2 and transmembrane domain containing 1	-11.2	0.0003
MFNG	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase	-11.2	0.0003
S100A9	S100 calcium binding protein A9	-11.3	0.0003
ARMC3	armadillo repeat containing 3	-11.6	0.0003
PACS1	phosphofurin acidic cluster sorting protein 1	-11.8	0.0003
CFH	complement factor H	-11.8	0.0003
HSD11B1	hydroxysteroid 11-beta dehydrogenase 1	-11.8	0.0003
DGKA	diacylglycerol kinase alpha	-11.9	0.0003
LDLRAD3	low density lipoprotein receptor class A domain containing 3	-12.4	0.0003
ADAMTS10	ADAM metalloproteinase with thrombospondin type 1 motif 10	-12.4	0.0003
ENO3	enolase 3	-12.5	0.0003
BMF	Bcl2 modifying factor	-12.6	0.0042
KRT80	keratin 80	-12.6	0.0003
Tmc6	transmembrane channel like 6	-12.6	0.0003
Mir1941	microRNA 1941	-12.7	0.0003
RACGAP1	Rac GTPase activating protein 1	-12.7	0.0003
ARHGAP45	Rho GTPase activating protein 45	-12.7	0.0003
SIGLEC10	sialic acid binding Ig like lectin 10	-12.8	0.0008
INPP5J	inositol polyphosphate-5-phosphatase J	-13.0	0.0003
PRKAB2	protein kinase AMP-activated non-catalytic subunit beta 2	-13.1	0.0003
FAM107B	family with sequence similarity 107 member B	-13.2	0.0003
ANXA1	annexin A1	-13.3	0.0003
Gm13373	predicted gene 13373	-13.3	0.0003
PLP2	proteolipid protein 2	-13.5	0.0003
BTLA	B and T lymphocyte associated	-13.6	0.0003
SGMS2	sphingomyelin synthase 2	-13.8	0.0003
CPD	carboxypeptidase D	-13.9	0.0003
Ear2	eosinophil-associated, ribonuclease A family, member 2	-14.0	0.0003
APOE	apolipoprotein E	-14.0	0.0003
KLF4	Kruppel like factor 4	-14.1	0.0003
ADRB2	adrenoceptor beta 2	-14.4	0.0003
SSH2	slingshot protein phosphatase 2	-14.4	0.0003
MVB12B	multivesicular body subunit 12B	-14.5	0.0003
MXI1	MAX interactor 1, dimerization protein	-14.9	0.0052
Hist1h1c	histone cluster 1 H1 family member c	-14.9	0.0003
IL31RA	interleukin 31 receptor A	-15.1	0.0008

F13A1	coagulation factor XIII A chain	-15.3	0.0003
RNF144A	ring finger protein 144A	-15.7	0.0003
PADI4	peptidyl arginine deiminase 4	-15.8	0.0078
AHR	aryl hydrocarbon receptor	-15.9	0.0003
E2F2	E2F transcription factor 2	-16.0	0.0003
LTB	lymphotoxin beta	-16.3	0.0040
PYGL	glycogen phosphorylase L	-16.4	0.0003
MBOAT1	membrane bound O-acyltransferase domain containing 1	-16.7	0.0003
CD37	CD37 molecule	-17.0	0.0003
SUSD3	sushi domain containing 3	-17.0	0.0139
RAMP1	receptor activity modifying protein 1	-17.4	0.0034
Ccl6	chemokine (C-C motif) ligand 6	-17.5	0.0003
NRM	nurim	-17.6	0.0389
VCL	vinculin	-17.9	0.0003
CSRP2	cysteine and glycine rich protein 2	-17.9	0.0003
EEF2K	eukaryotic elongation factor 2 kinase	-18.0	0.0003
LMNA	lamin A/C	-18.0	0.0098
MEF2C	myocyte enhancer factor 2C	-18.2	0.0003
SERPINB1	serpin family B member 1	-18.3	0.0003
MDM1	Mdm1 nuclear protein	-18.4	0.0003
RARG	retinoic acid receptor gamma	-18.5	0.0232
GRAMD4	GRAM domain containing 4	-18.5	0.0003
HGF	hepatocyte growth factor	-19.1	0.0003
KIF21B	kinesin family member 21B	-19.3	0.0003
Apoc1	apolipoprotein C1	-19.4	0.0003
PRKCC	protein kinase C theta	-20.0	0.0003
SPN	sialoporphin	-20.5	0.0003
Adamdec1	ADAM-like, decysin 1	-20.6	0.0003
A430046D13Rik	Riken cDNA A430046D13 gene	-20.7	0.0003
SATB1	SATB homeobox 1	-21.1	0.0003
LDHB	lactate dehydrogenase B	-21.2	0.0003
FAM160A2	family with sequence similarity 160 member A2	-21.4	0.0003
KSR1	kinase suppressor of ras 1	-21.7	0.0003
YPEL3	yippee like 3	-22.6	0.0003
TACSTD2	tumor associated calcium signal transducer 2	-22.8	0.0003
SH2D3C	SH2 domain containing 3C	-23.6	0.0003
Igkv6-17	immunoglobulin kappa variable 6-17	-23.9	0.0032
NR4A1	nuclear receptor subfamily 4 group A member 1	-24.0	0.0003
PDLIM1	PDZ and LIM domain 1	-25.2	0.0003
Mbp	myelin basic protein	-25.8	0.0003
ACAP1	ArfGAP with coiled-coil, ankyrin repeat and PH domains 1	-25.9	0.0003
HAAO	3-hydroxyanthranilate 3,4-dioxygenase	-26.3	0.0003
CEBPE	CCAAT enhancer binding protein epsilon	-26.5	0.0268
GADD45A	growth arrest and DNA damage inducible alpha	-26.6	0.0003
NFE2	nuclear factor, erythroid 2	-27.0	0.0003
ST8SIA4	ST8 alpha-N-acetyl-neuraminidase alpha-2,8-sialyltransferase 4	-28.5	0.0003
CEACAM1	CEA cell adhesion molecule 1	-28.5	0.0003
FMO5	flavin containing dimethylalanine monooxygenase 5	-28.8	0.0003
SEMA7A	semaphorin 7A (John Milton Hagen blood group)	-28.8	0.0003
ACE	angiotensin I converting enzyme	-29.0	0.0003
SLC12A2	solute carrier family 12 member 2	-29.2	0.0003
AQP9	aquaporin 9	-29.9	0.0003
PDE3B	phosphodiesterase 3B	-30.0	0.0003
CTSE	cathepsin E	-30.6	0.0003
ATP2A3	ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 3	-32.5	0.0003
Gtf2ird2	GTF2I repeat domain containing 2	-32.7	0.0003
GALNT9	polypeptide N-acetylgalactosaminyltransferase 9	-36.2	0.0003
TCP11L2	t-complex 11 like 2	-36.2	0.0003
NHSL2	NHS like 2	-38.4	0.0003
S1PR4	sphingosine-1-phosphate receptor 4	-40.1	0.0003
Frat1	FRAT regulator of WNT signaling pathway 1	-40.7	0.0170
CBX7	chromobox 7	-42.1	0.0003
ABCD2	ATP binding cassette subfamily D member 2	-44.9	0.0003
ADD3	adducin 3	-44.9	0.0003
TMEM154	transmembrane protein 154	-46.9	0.0003
TUBA8	tubulin alpha 8	-47.7	0.0003
NRARP	NOTCH regulated ankyrin repeat protein	-48.5	0.0003
CCDC88C	coiled-coil domain containing 88C	-48.9	0.0003
CX3CR1	C-X3-C motif chemokine receptor 1	-50.1	0.0003
HPGD	15-hydroxyprostaglandin dehydrogenase	-51.0	0.0003
GAPT	GRB2 binding adaptor protein, transmembrane	-51.3	0.0003
Meis1	Meis homeobox 1	-52.6	0.0003
Cd24a	CD24a antigen	-52.6	0.0003
RGCC	regulator of cell cycle	-55.1	0.0003
MAP3K6	mitogen-activated protein kinase kinase 6	-55.3	0.0003
PI16	peptidase inhibitor 16	-56.4	0.0003
ARAP3	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 3	-57.0	0.0003
S1PR5	sphingosine-1-phosphate receptor 5	-59.8	0.0003
SLC6A13	solute carrier family 6 member 13	-61.4	0.0003
LTF	lactotransferrin	-61.9	0.0003
SERPINB10	serpin family B member 10	-63.3	0.0003
L1CAM	L1 cell adhesion molecule	-64.5	0.0003
RGS18	regulator of G protein signaling 18	-64.7	0.0003
Gm1673	predicted gene 1673	-65.0	0.0005
GABBR1	gamma-aminobutyric acid type B receptor subunit 1	-68.2	0.0003
RAB11FIP4	RAB11 family interacting protein 4	-73.0	0.0003

FRAT2	FRAT regulator of WNT signaling pathway 2	-73.4	0.0124
CAMP	cathelicidin antimicrobial peptide	-77.1	0.0003
ABCA9	ATP binding cassette subfamily A member 9	-77.3	0.0003
SEPTIN1	septin 1	-78.6	0.0069
TMEM71	transmembrane protein 71	-79.0	0.0003
Cyp2ab1	cytochrome P450, family 2, subfamily ab, polypeptide 1	-83.6	0.0003
Nedd4	neural precursor cell expressed, developmentally down-regulated 4	-84.1	0.0003
CD300LG	CD300 molecule like family member g	-87.0	0.0003
ADAM19	ADAM metalloproteinase domain 19	-87.4	0.0003
RFX2	regulatory factor X2	-96.9	0.0003
PADI2	peptidyl arginine deiminase 2	-99.7	0.0003
ANKRD33B	ankyrin repeat domain 33B	-101.5	0.0003
TIAM2	T cell lymphoma invasion and metastasis 2	-104.7	0.0003
SLC2A3	solute carrier family 2 member 3	-128.9	0.0003
FOSB	FosB proto-oncogene, AP-1 transcription factor subunit	-130.9	0.0003
RAB44	RAB44, member RAS oncogene family	-133.3	0.0003
Gm10384	predicted gene 10384	-139.1	0.0003
STXBP6	syntaxin binding protein 6	-143.5	0.0003
PGLYRP1	peptidoglycan recognition protein 1	-161.3	0.0003
SYNE1	spectrin repeat containing nuclear envelope protein 1	-180.6	0.0003
MYLK	myosin light chain kinase	-183.2	0.0003
ITGB3	integrin subunit beta 3	-186.6	0.0147
Dapk2	death-associated protein kinase 2	-223.6	0.0003
P2RX1	purinergic receptor P2X 1	-270.0	0.0003
CCR3	C-C motif chemokine receptor 3	-296.1	0.0003
FGFR1	fibroblast growth factor receptor 1	-308.7	0.0003
TESC	tescalcin	-338.5	0.0361
GF11B	growth factor independent 1B transcriptional repressor	-370.9	0.0003
Gm8091	stearoyl-CoA desaturase 5 pseudogene	-484.7	0.0003
SYTL1	synaptotagmin like 1	-490.8	0.0089
ALOX5	arachidonate 5-lipoxygenase	-613.1	0.0003
IL5RA	interleukin 5 receptor subunit alpha	-622.1	0.0003
ALOX15	arachidonate 15-lipoxygenase	-695.5	0.0003
RFLNB	refilin B	-701.8	0.0003
4930412C18Rik	RIKEN cDNA 4930412C18 gene	-702.8	0.0003
MMP9	matrix metalloproteinase 9	-779.8	0.0003
F5	coagulation factor V	-791.3	0.0015
9830107B12Rik	RIKEN cDNA A530064D06 gene	-1066.7	0.0003
SIGLEC8	sialic acid binding Ig like lectin 8	-1104.4	0.0069
Retnlq	resistin like gamma	-4320.6	0.0003



## SP-MODC vs SP-MO - 70 DEMs

miRNA symbol	miRbase ID	Fold Change	P-Value
mmu-miR-155-5p	MIMAT0000165	50.94	0.00100
mmu-miR-21a-3p	MIMAT0004628	15.18	0.00100
mmu-miR-132	MIMAT0000144	13.70	0.00700
mmu-miR-669a	MIMAT0003477	12.58	0.02800
mmu-miR-674-5p	MIMAT0003740	12.20	0.03900
mmu-miR-30b-3p	MIMAT0004524	12.14	0.04700
mmu-miR-28a-3p	MIMAT0004661	10.71	0.02100
mmu-miR-126-3p	MIMAT0000138	10.18	0.00000
mmu-miR-21	MIMAT0000530	7.71	0.00000
mmu-miR-22-3p	MIMAT0000531	7.20	0.00500
mmu-miR-199a-3p	MIMAT0004563	7.19	0.00600
mmu-miR-7b	MIMAT0000780	6.93	0.00200
mmu-miR-126-5p	MIMAT0000137	6.71	0.02300
mmu-miR-2182	MIMAT0011286	6.52	9.00E-03
mmu-miR-28	MIMAT0000653	6.18	0.00400
mmu-miR-712	MIMAT0003502	6.14	0.00500
mmu-miR-222	MIMAT0000891	5.85	0.00100
mmu-miR-212-3p	MIMAT0000659	5.64	0.00200
mmu-miR-466b-3-3p	MIMAT0004876	5.57	0.04100
mmu-miR-143	MIMAT0000247	5.49	0.00200
mmu-miR-324-3p	MIMAT0000556	5.18	0.02700
mmu-miR-7a	MIMAT0000677	5.03	0.04300
mmu-miR-145	MIMAT0000157	4.90	0.04800
mmu-miR-1949	MIMAT0009416	4.42	0.00800
mmu-miR-342-5p	MIMAT0004653	3.85	0.01500
mmu-miR-378a-5p	MIMAT0000742	3.70	0.02600
mmu-miR-29b	MIMAT0000127	3.67	0.00000
mmu-miR-467b	MIMAT0005448	3.14	0.04000
mmu-miR-467c	MIMAT0004885	3.12	0.00800
mmu-miR-22-5p	MIMAT0004629	3.10	0.01100
mmu-miR-466a-3p	MIMAT0002107	3.08	0.02900
mmu-miR-141-3p	MIMAT0000153	2.93	0.00500
mmu-miR-1937b	MIMAT0009414	2.84	0.03000
mmu-miR-29a-5p	MIMAT0004631	2.65	0.04300
mmu-miR-1937c	MIMAT0009414	2.64	0.01800
mmu-miR-1274a	MIMAT0009445	2.56	0.02300
mmu-miR-467a	MIMAT0003409	2.47	0.03500
mmu-miR-2138	MIMAT0011214	2.45	0.00200
mmu-miR-146a	MIMAT0000158	2.27	0.02800
mmu-miR-29c	MIMAT0000536	2.18	0.00100
mmu-miR-135a	MIMAT0000147	-2.02	0.03300
mmu-miR-491	MIMAT0003486	-2.06	0.02100
mmu-miR-532-5p	MIMAT0002889	-2.07	9E-3
hsa-miR-213	MIMAT0000660	-2.09	0.03100

mmu-miR-152-3p	MIMAT0000162	-2.09	0.03200
rno-miR-339-3p	MIMAT0004648	-2.16	0.05000
mmu-miR-194-5p	MIMAT0000224	-2.51	0.04200
mmu-miR-141-5p	MIMAT0004533	-2.57	0.03700
rno-miR-532-5p	MIMAT0005322	-2.59	0.01200
mmu-miR-223-3p	MIMAT0000665	-2.70	0.00700
rno-miR-200b-3p	MIMAT0000875	-2.73	0.03300
rno-miR-340-3p	MIMAT0000585	-2.82	0.04500
mmu-miR-26a-5p	MIMAT0000533	-2.99	0.02600
mmu-miR-192-5p	MIMAT0000517	-3.22	0.01200
mmu-miR-463	MIMAT0004758	-3.28	0.02600
mmu-miR-1939	MIMAT0009403	-3.40	0.04600
mmu-miR-1961	MIMAT0009434	-3.41	0.03000
mmu-miR-16-5p	MIMAT0000527	-3.86	0.00000
mmu-miR-27a-3p	MIMAT0000537	-3.89	0.01500
mmu-miR-196a-5p	MIMAT0000518	-4.12	0.00400
mmu-miR-682	MIMAT0003459	-4.18	0.01700
mmu-miR-429	MIMAT0001537	-4.48	0.01800
rno-miR-196c	MIMAT0005303	-4.98	0.04800
mmu-miR-139-5p	MIMAT0000656	-5.00	0.01600
mmu-miR-26b-3p	MIMAT0004630	-5.15	0.03500
mmu-miR-146b	MIMAT0038172	-5.81	0.00200
mmu-miR-361-5p	MIMAT0000704	-6.80	0.01600
rno-miR-146B	MIMAT0005595	-7.09	0.00400
mmu-miR-1951	MIMAT0009422	-7.58	0.03400
mmu-miR-149-5p	MIMAT0000159	-10.53	0.02700

**BM-IMO vs BM-MO - 1686 DEGs**

Symbol ID	Entrez Gene Name	fold change	FDR adjusted p value (q-value)
Gzmb	granzyme B	1140.93	0.0071
Gzma	granzyme A	512.36	0.0412
Il2rb	interleukin 2 receptor subunit beta	141.53	0.0131
Ilgp1	interferon inducible GTPase 1	111.04	0.0005
Serpina3f	serine (or cysteine) peptidase inhibitor, clade A, member 3G	75.90	0.0005
Ubd	ubiquitin D	70.23	0.0010
Lipg	lipase G, endothelial type	55.52	0.0005
Thy1	Thy-1 cell surface antigen	50.63	0.0005
Snord104	small nucleolar RNA, C/D box 104	44.14	0.0005
Il18bp	interleukin 18 binding protein	29.30	0.0065
Serpina3g	serine (or cysteine) peptidase inhibitor, clade A, member 3G	27.97	0.0005
Upp1	uridine phosphorylase 1	26.30	0.0005
C1qb	complement C1q B chain	24.12	0.0034
C1qc	complement C1q C chain	18.30	0.0084
Gbp2	guanylate binding protein 2	16.71	0.0005
Isg15	ISG15 ubiquitin like modifier	16.60	0.0005
Gbp7	guanylate binding protein 7	14.64	0.0005
Socs1	suppressor of cytokine signaling 1	14.60	0.0005
C1qa	complement C1q A chain	12.68	0.0014
Ifit1	interferon induced protein with tetratricopeptide repeats 1B	12.62	0.0005
Pbl1d1	phenazine biosynthesis like protein domain containing	11.70	0.0005
Ddx60	DEXD/H-box helicase 60	11.53	0.0005
Saa3	serum amyloid A 3	10.57	0.0005
Spic	Spi-C transcription factor	10.23	0.0005
AW112010	expressed sequence AW112010	9.32	0.0005
Gm12250	predicted gene 12250	9.17	0.0005
Rsad2	radical S-adenosyl methionine domain containing 2	8.60	0.0005
Prkcq	protein kinase C theta	8.39	0.0005
Ctsg	cathepsin G	7.48	0.0005
Oasl2	2'-5' oligoadenylate synthetase-like 2	7.37	0.0005
Oasl1	2'-5'-oligoadenylate synthetase like	7.11	0.0005
Oas3	2'-5'-oligoadenylate synthetase 3	6.98	0.0005
Nlrc5	NLR family, CARD domain containing 5	6.62	0.0005
Isg20	interferon stimulated exonuclease gene 20	6.61	0.0005
Retnlg	resistin like gamma	6.59	0.0005
Elane	elastase, neutrophil expressed	6.44	0.0034
Klrl1	killer cell lectin-like receptor subfamily K, member 1	6.30	0.0005
Cmpk2	cytidine/uridine monophosphate kinase 2	6.08	0.0005
Bst2	bone marrow stromal cell antigen 2	6.06	0.0109
Usp18	ubiquitin specific peptidase 18	5.88	0.0005
Ccr3	C-C motif chemokine receptor 3	5.73	0.0005
Rtp4	receptor transporter protein 4	5.68	0.0005
Prtn3	proteinase 3	5.67	0.0122
Aqp9	aquaporin 9	5.66	0.0005
A830012C17Rik	RIKEN cDNA A830012C17 gene	5.59	0.0117
Mpo	myeloperoxidase	5.57	0.0005
Batf2	basic leucine zipper ATF-like transcription factor 2	5.53	0.0146
Il5ra	interleukin 5 receptor subunit alpha	5.47	0.0005
Gimap9	GTPase, IMAP family member 9	5.40	0.0005
Irgm1	immunity-related GTPase family M member 1	5.34	0.0005
Il1r2	interleukin 1 receptor type 2	5.30	0.0005
Nkg7	natural killer cell granule protein 7	5.27	0.0143
Alox15	arachidonate 15-lipoxygenase	5.16	0.0005
Cxcl10	C-X-C motif chemokine ligand 10	5.01	0.0005
Ear1	ribonuclease A family member 2	5.01	0.0005
Psmb9	proteasome subunit beta 9	4.99	0.0005
Rcn1	reticulocalbin 1	4.97	0.0005
Irf7	interferon regulatory factor 7	4.95	0.0456
Tuba8	tubulin alpha 8	4.89	0.0005
Oas1b	2'-5' oligoadenylate synthetase 1B	4.86	0.0166
Parp12	poly(ADP-ribose) polymerase family member 12	4.82	0.0005
Mov10	Mov10 RISC complex RNA helicase	4.72	0.0005
Csf1	colony stimulating factor 1	4.71	0.0005
Orm1	orosomucoid 1	4.59	0.0390
Ube2l6	ubiquitin conjugating enzyme E2 L6	4.59	0.0005
P2ry14	purinergic receptor P2Y14	4.37	0.0005
Mgam	maltase-glucoamylase	4.35	0.0005
Tnfrsf18	TNF receptor superfamily member 18	4.33	0.0005
Stfa1	stefin A1	4.33	0.0005
Tap1	transporter 1, ATP binding cassette subfamily B member	4.32	0.0005
H2-T22	histocompatibility 2, T region locus 22	4.31	0.0243
Hdc	histidine decarboxylase	4.21	0.0005
Cst7	cystatin F	4.20	0.0005
Ddit4	DNA damage inducible transcript 4	4.12	0.0005
Ifit3	interferon induced protein with tetratricopeptide repeats 3	4.12	0.0005

Mitd1	microtubule interacting and trafficking domain containing 1	4.06	0.0005
Ifit3b	interferon induced protein with tetratricopeptide repeats 3	4.05	0.0058
Btbd35f4	BTB domain containing 35, family member 7	4.04	0.0005
Xaf1	XIAP associated factor 1	3.94	0.0005
Trim30b	tripartite motif-containing 30B	3.90	0.0005
Oas2	2'-5'-oligoadenylate synthetase 2	3.86	0.0005
Basp1	brain abundant, membrane attached signal protein 1	3.85	0.0005
Fbxw17	F-box and WD-40 domain protein 17	3.82	0.0005
Adam8	ADAM metalloproteinase domain 8	3.79	0.0005
1600014C10Rik	chromosome 19 open reading frame 12	3.72	0.0005
Ifit2	interferon induced protein with tetratricopeptide repeats 2	3.71	0.0005
Tmem140	transmembrane protein 140	3.64	0.0018
Clec4b2	C-type lectin domain family 4, member b2	3.64	0.0005
G0s2	G0/G1 switch 2	3.64	0.0005
Psmb8	proteasome subunit beta 8	3.63	0.0005
Tagap	T cell activation RhoGTPase activating protein	3.63	0.0005
Cxcr2	C-X-C motif chemokine receptor 2	3.62	0.0005
Gfi1	growth factor independent 1 transcriptional repressor	3.61	0.0005
Ffar2	free fatty acid receptor 2	3.58	0.0005
Nt5c3	5'-nucleotidase, cytosolic IIIA	3.57	0.0005
Nmi	N-myc and STAT interactor	3.49	0.0005
Tbrg1	transforming growth factor beta regulator 1	3.48	0.0005
Lrr1	leucine rich repeat protein 1	3.48	0.0005
Lrg1	leucine rich alpha-2-glycoprotein 1	3.45	0.0005
Tap2	transporter 2, ATP binding cassette subfamily B member	3.43	0.0005
Abtb2	ankyrin repeat and BTB domain containing 2	3.43	0.0005
Prss16	serine protease 16	3.34	0.0005
Rgcc	regulator of cell cycle	3.33	0.0005
Ear6	eosinophil-associated, ribonuclease A family, member 2	3.33	0.0005
Alas1	5'-aminolevulinatase synthase 1	3.31	0.0005
Gm2651	COX11 homolog, cytochrome c oxidase assembly protein pseudogene	3.31	0.0005
Ass1	argininosuccinate synthase 1	3.31	0.0005
Mrgpra2b	MAS related GPR family member X3	3.27	0.0005
Mgst2	microsomal glutathione S-transferase 2	3.26	0.0005
Ddx58	DEXD/H-box helicase 58	3.26	0.0005
Fgl2	fibrinogen like 2	3.26	0.0005
Chst13	carbohydrate sulfotransferase 13	3.26	0.0005
Psme2	proteasome activator subunit 2	3.25	0.0014
Irf1	interferon regulatory factor 1	3.24	0.0005
Lin28a	lin-28 homolog A	3.22	0.0005
Fignl1	fidgetin like 1	3.21	0.0005
Ppp1r42	protein phosphatase 1 regulatory subunit 42	3.19	0.0005
Tacstd2	tumor associated calcium signal transducer 2	3.18	0.0005
Spint2	serine peptidase inhibitor, Kunitz type 2	3.17	0.0005
Eef2k	eukaryotic elongation factor 2 kinase	3.17	0.0005
Prom1	prominin 1	3.15	0.0005
Cebpe	CCAAT enhancer binding protein epsilon	3.10	0.0005
A1506816	expressed sequence A1506816	3.08	0.0005
Ifih1	interferon induced with helicase C domain 1	3.06	0.0005
Serp1b1a	serpin family B member 1	3.05	0.0005
2810408111Rik	RIKEN cDNA 2810408111 gene	3.03	0.0018
Cdca7	cell division cycle associated 7	3.01	0.0005
Adtrp	androgen dependent TFPI regulating protein	3.01	0.0005
Psmb10	proteasome subunit beta 10	3.01	0.0010
Ankrd22	ankyrin repeat domain 22	2.99	0.0005
Pbk	PDZ binding kinase	2.99	0.0005
Agpat2	1-acylglycerol-3-phosphate O-acyltransferase 2	2.99	0.0005
Agri	agrin	2.99	0.0005
Tnfrsf26	tumor necrosis factor receptor superfamily, member 26	2.98	0.0005
Ifi35	interferon induced protein 35	2.98	0.0005
Tmem216	transmembrane protein 216	2.95	0.0163
Magohb	mago homolog B, exon junction complex subunit	2.95	0.0005
Dok2	docking protein 2	2.95	0.0005
H2-T24	histocompatibility 2, T region locus 24	2.95	0.0456
Mmp9	matrix metalloproteinase 9	2.93	0.0005
Ccnf	cyclin F	2.92	0.0005
Inpp5j	inositol polyphosphate-5-phosphatase J	2.92	0.0005
Cenpw	centromere protein W	2.89	0.0005
Parp11	poly(ADP-ribose) polymerase family member 11	2.89	0.0005
Tfec	transcription factor EC	2.89	0.0005
Trim30d	tripartite motif-containing 30A	2.87	0.0005
Abhd5	abhydrolase domain containing 5	2.86	0.0005
Lgals3bp	galectin 3 binding protein	2.86	0.0005
Gpr84	G protein-coupled receptor 84	2.86	0.0005
Gclm	glutamate-cysteine ligase modifier subunit	2.84	0.0074
Cldn1	claudin 1	2.82	0.0005
Eif2ak2	eukaryotic translation initiation factor 2 alpha kinase 2	2.80	0.0005
Brca1	BRCA1 DNA repair associated	2.80	0.0005

Krtcap3	keratinocyte associated protein 3	2.79	0.0005
H2-K1	major histocompatibility complex, class I, A	2.78	0.0005
Chpt1	choline phosphotransferase 1	2.78	0.0005
Gm8091	stearoyl-CoA desaturase 5 pseudogene	2.78	0.0005
Trim21	tripartite motif containing 21	2.77	0.0005
Cdc45	cell division cycle 45	2.75	0.0005
Nampt	nicotinamide phosphoribosyltransferase	2.75	0.0005
Rasl11b	RAS like family 11 member B	2.74	0.0005
Ckap4	cytoskeleton associated protein 4	2.72	0.0005
Stk39	serine/threonine kinase 39	2.72	0.0005
Cd63	CD63 molecule	2.71	0.0005
Olfml2b	olfactomedin like 2B	2.71	0.0065
Dut	deoxyuridine triphosphatase	2.71	0.0005
Ska1	spindle and kinetochore associated complex subunit 1	2.71	0.0005
Hsd11b1	hydroxysteroid 11-beta dehydrogenase 1	2.71	0.0005
Lbp	lipopolysaccharide binding protein	2.71	0.0005
Siglecg	sialic acid binding Ig like lectin 10	2.70	0.0353
Rmdn3	regulator of microtubule dynamics 3	2.69	0.0022
Slc27a4	solute carrier family 27 member 4	2.68	0.0402
Pnp	purine nucleoside phosphorylase	2.68	0.0005
Hpf1	histone PARylation factor 1	2.67	0.0005
Got1	glutamic-oxaloacetic transaminase 1	2.66	0.0005
Vcam1	vascular cell adhesion molecule 1	2.66	0.0146
Depdc1b	DEP domain containing 1B	2.64	0.0005
Cdk1	cyclin dependent kinase 1	2.64	0.0005
Rasa2	RAS p21 protein activator 2	2.63	0.0005
Nusap1	nucleolar and spindle associated protein 1	2.63	0.0087
Plk1	polo like kinase 1	2.62	0.0005
Lmo1	LIM domain only 1	2.61	0.0005
Cyb561a3	cytochrome b561 family member A3	2.60	0.0005
Mcm10	minichromosome maintenance 10 replication initiation factor	2.59	0.0005
Prkd2	protein kinase D2	2.59	0.0005
Smc4	structural maintenance of chromosomes 4	2.59	0.0005
Zmpste24	zinc metalloproteinase STE24	2.58	0.0005
Twsg1	twisted gastrulation BMP signaling modulator 1	2.58	0.0005
Tmem40	transmembrane protein 40	2.57	0.0005
Hacd2	3-hydroxyacyl-CoA dehydratase 2	2.56	0.0010
Psme1	proteasome activator subunit 1	2.56	0.0030
Chil1	chitinase 3 like 1	2.56	0.0247
Cdc25a	cell division cycle 25A	2.55	0.0005
Susd1	sushi domain containing 1	2.55	0.0005
Xpc	XPC complex subunit, DNA damage recognition and repair factor	2.54	0.0005
Hmgn2	high mobility group nucleosomal binding domain 2	2.54	0.0005
Rad51	RAD51 recombinase	2.53	0.0010
Casp7	caspase 7	2.53	0.0005
Rtkn2	rhotekin 2	2.53	0.0005
Ccne1	cyclin E1	2.53	0.0005
Tyms	thymidylate synthetase	2.53	0.0005
Tnnt1	troponin T1, slow skeletal type	2.51	0.0005
Helz2	helicase with zinc finger 2	2.51	0.0045
Rdh12	retinol dehydrogenase 12	2.51	0.0005
Enpp5	ectonucleotide pyrophosphatase/phosphodiesterase family member 5	2.50	0.0005
Ica1	islet cell autoantigen 1	2.50	0.0005
Rad51ap1	RAD51 associated protein 1	2.50	0.0005
Slc43a3	solute carrier family 43 member 3	2.50	0.0005
1810037117Rik	RIKEN cDNA 1810037117 gene	2.50	0.0005
Samd9l	sterile alpha motif domain containing 9-like	2.49	0.0005
B4galt6	beta-1,4-galactosyltransferase 6	2.49	0.0005
4930438A08Rik	RIKEN cDNA 4930438A08 gene	2.49	0.0005
Tspo	translocator protein	2.49	0.0005
Dhx58	DEXH-box helicase 58	2.49	0.0005
Ifi205	interferon gamma inducible protein 16	2.49	0.0005
Spdl1	spindle apparatus coiled-coil protein 1	2.49	0.0005
Pole2	DNA polymerase epsilon 2, accessory subunit	2.48	0.0005
Trim34a	TRIM6-TRIM34 readthrough	2.47	0.0005
Chaf1a	chromatin assembly factor 1 subunit A	2.47	0.0022
Ccdc34	coiled-coil domain containing 34	2.47	0.0005
Slc4c1	solute carrier organic anion transporter family member 4C1	2.47	0.0005
Wars	tryptophanyl-tRNA synthetase 1	2.47	0.0214
Pclaf	PCNA clamp associated factor	2.46	0.0005
Spc25	SPC25 component of NDC80 kinetochore complex	2.46	0.0005
Olfm4	olfactomedin 4	2.46	0.0005
Cep128	centrosomal protein 128	2.46	0.0005
Cd81	CD81 molecule	2.45	0.0005
Mybl2	MYB proto-oncogene like 2	2.45	0.0005
Mcm2	minichromosome maintenance complex component 2	2.44	0.0005
Ckap2l	cytoskeleton associated protein 2 like	2.44	0.0005
Klhl6	kelch like family member 6	2.44	0.0005

Rrm2	ribonucleotide reductase regulatory subunit M2	2.44	0.0005
Tnfsf13b	TNF superfamily member 13b	2.44	0.0005
Ube2c	ubiquitin conjugating enzyme E2 C	2.44	0.0005
H2afx	H2A.X variant histone	2.43	0.0410
Lig1	DNA ligase 1	2.43	0.0005
Trim59	tripartite motif containing 59	2.43	0.0005
Cenpe	centromere protein E	2.43	0.0005
Top2a	DNA topoisomerase II alpha	2.42	0.0078
Dtl	denticleless E3 ubiquitin protein ligase homolog	2.41	0.0005
Lta4h	leukotriene A4 hydrolase	2.41	0.0005
H2-T23	major histocompatibility complex, class I, E	2.40	0.0095
S1pr4	sphingosine-1-phosphate receptor 4	2.40	0.0005
Dach1	dachshund family transcription factor 1	2.40	0.0005
Ly75	lymphocyte antigen 75	2.39	0.0005
Aurka	aurora kinase A	2.39	0.0005
Pglyrp1	peptidoglycan recognition protein 1	2.39	0.0005
Tapbp1	TAP binding protein like	2.38	0.0005
Chaf1b	chromatin assembly factor 1 subunit B	2.38	0.0005
Anxa1	annexin A1	2.38	0.0005
Klf5	Kruppel like factor 5	2.37	0.0005
Rn7sk	RNA component of 7SK nuclear ribonucleoprotein	2.37	0.0087
Cep19	centrosomal protein 19	2.37	0.0005
Mrpl51	mitochondrial ribosomal protein L51	2.37	0.0005
Txn1	thioredoxin	2.37	0.0005
Glrx	glutaredoxin	2.37	0.0005
Fen1	flap structure-specific endonuclease 1	2.37	0.0010
Il1rn	interleukin 1 receptor antagonist	2.37	0.0005
Stmn1	stathmin 1	2.37	0.0005
Tpx2	TPX2 microtubule nucleation factor	2.37	0.0005
Parp14	poly(ADP-ribose) polymerase family member 14	2.36	0.0005
Tacc3	transforming acidic coiled-coil containing protein 3	2.36	0.0005
Dgat2	diacylglycerol O-acyltransferase 2	2.36	0.0005
Atad2	ATPase family AAA domain containing 2	2.36	0.0005
Lars2	leucyl-tRNA synthetase 2, mitochondrial	2.36	0.0005
Mtfr2	mitochondrial fission regulator 2	2.36	0.0005
Kn1	kinetochore scaffold 1	2.36	0.0298
Adgrg3	adhesion G protein-coupled receptor G3	2.35	0.0005
Spc24	SPC24 component of NDC80 kinetochore complex	2.35	0.0276
1810055G02Rik	chromosome 11 open reading frame 24	2.35	0.0005
Cdc7	cell division cycle 7	2.35	0.0005
Hrh2	histamine receptor H2	2.35	0.0005
Sema7a	semaphorin 7A (John Milton Hagen blood group)	2.35	0.0005
Ccna2	cyclin A2	2.35	0.0005
Syne1	spectrin repeat containing nuclear envelope protein 1	2.35	0.0005
Dgat1	diacylglycerol O-acyltransferase 1	2.34	0.0005
Mapk13	mitogen-activated protein kinase 13	2.34	0.0005
Ppil1	peptidylprolyl isomerase like 1	2.34	0.0005
Pole	DNA polymerase epsilon, catalytic subunit	2.34	0.0030
Uchl3	ubiquitin C-terminal hydrolase L3	2.33	0.0005
Trim12c	tripartite motif containing 5	2.33	0.0010
Acap1	ArfGAP with coiled-coil, ankyrin repeat and PH domains 1	2.33	0.0005
Larp1b	La ribonucleoprotein domain family, member 1B	2.33	0.0340
Shcbp1	SHC binding and spindle associated 1	2.33	0.0005
Tagln2	transgelin 2	2.33	0.0005
Gys1	glycogen synthase 1	2.32	0.0005
Ska2	spindle and kinetochore associated complex subunit 2	2.32	0.0234
Uchl5	ubiquitin C-terminal hydrolase L5	2.31	0.0005
9830107B12Rik	RIKEN cDNA A530064D06 gene	2.31	0.0005
Acadl	acyl-CoA dehydrogenase long chain	2.31	0.0005
Ets1	ETS proto-oncogene 1, transcription factor	2.31	0.0005
Knstrn	kinetochore localized astrin (SPAG5) binding protein	2.31	0.0005
Ap3s1	adaptor related protein complex 3 subunit sigma 1	2.31	0.0005
Vasp	vasodilator stimulated phosphoprotein	2.31	0.0258
Tmco4	transmembrane and coiled-coil domains 4	2.30	0.0005
Dnmt1	DNA methyltransferase 1	2.30	0.0078
Lsm2	LSM2 homolog, U6 small nuclear RNA and mRNA degradation associated	2.30	0.0005
Armc3	armadillo repeat containing 3	2.29	0.0135
Gmfs	GDP-mannose 4,6-dehydratase	2.29	0.0005
Rrm1	ribonucleotide reductase catalytic subunit M1	2.29	0.0005
Cd24a	CD24a antigen	2.29	0.0005
Tbc1d2	TBC1 domain family member 2	2.29	0.0005
Pxylp1	2-phosphoxylose phosphatase 1	2.29	0.0005
Tnf	tumor necrosis factor	2.29	0.0005
Pla2g4a	phospholipase A2 group IVA	2.29	0.0005
Nedd4	neural precursor cell expressed, developmentally down-regulated 4	2.28	0.0005
Arap3	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 3	2.28	0.0005
Tcf19	transcription factor 19	2.28	0.0005
Cenpi	centromere protein I	2.28	0.0005

Il18rap	interleukin 18 receptor accessory protein	2.28	0.0005
Kif15	kinesin family member 15	2.27	0.0247
Cks1b	CDC28 protein kinase regulatory subunit 1B	2.27	0.0005
Gtse1	G2 and S-phase expressed 1	2.27	0.0005
Rpia	ribose 5-phosphate isomerase A	2.27	0.0005
Noc4l	nucleolar complex associated 4 homolog	2.26	0.0005
Birc5	baculoviral IAP repeat containing 5	2.26	0.0005
Mif	macrophage migration inhibitory factor	2.26	0.0005
Nup37	nucleoporin 37	2.26	0.0005
Adpgk	ADP dependent glucokinase	2.25	0.0005
Nuf2	NUF2 component of NDC80 kinetochore complex	2.25	0.0005
Kif4	kinesin family member 4A	2.25	0.0005
Mcm3	minichromosome maintenance complex component 3	2.25	0.0005
Wfdc21	WAP four-disulfide core domain 21	2.24	0.0005
Anln	anillin actin binding protein	2.24	0.0005
Ccnb1	cyclin B1	2.24	0.0005
Trem3	triggering receptor expressed on myeloid cells 3	2.24	0.0005
Mgl2	C-type lectin domain containing 10A	2.24	0.0005
Poc1a	POC1 centriolar protein A	2.24	0.0005
Cpne2	copine 2	2.23	0.0005
Cenpj	centromere protein J	2.23	0.0005
Rfc5	replication factor C subunit 5	2.22	0.0030
Stradb	STE20 related adaptor beta	2.22	0.0005
Ccnd3	cyclin D3	2.22	0.0005
Tmem154	transmembrane protein 154	2.22	0.0005
Gapt	GRB2 binding adaptor protein, transmembrane	2.21	0.0005
Melk	maternal embryonic leucine zipper kinase	2.21	0.0005
Ptpn7	protein tyrosine phosphatase non-receptor type 7	2.21	0.0005
Sfxn1	sideroflexin 1	2.20	0.0005
Snrpd1	small nuclear ribonucleoprotein D1 polypeptide	2.20	0.0005
Fcnb	ficolin 1	2.20	0.0005
Mcm5	minichromosome maintenance complex component 5	2.20	0.0005
Pdk3	pyruvate dehydrogenase kinase 3	2.20	0.0005
Ncaph	non-SMC condensin I complex, subunit H	2.19	0.0005
Dennd3	DENN domain containing 3	2.19	0.0005
Fam110a	family with sequence similarity 110 member A	2.19	0.0005
Usb1	U6 snRNA biogenesis phosphodiesterase 1	2.19	0.0005
Cep55	centrosomal protein 55	2.19	0.0005
Dxo	decapping exoribonuclease	2.19	0.0005
Dnajc9	DnaJ heat shock protein family (Hsp40) member C9	2.19	0.0068
Cdkn3	cyclin-dependent kinase inhibitor 3	2.19	0.0048
Dapk2	death-associated protein kinase 2	2.19	0.0005
Stxbp5	syntaxin binding protein 5	2.19	0.0005
Cd164	CD164 molecule	2.18	0.0005
Ndc1	NDC1 transmembrane nucleoporin	2.18	0.0005
Cdca7l	cell division cycle associated 7 like	2.18	0.0005
Cd9	CD9 molecule	2.18	0.0005
Cenpp	centromere protein P	2.18	0.0502
Kif2c	kinesin family member 2C	2.18	0.0005
Ywhah	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein eta	2.18	0.0005
Cyfp2	cytoplasmic FMR1 interacting protein 2	2.17	0.0005
Plxnc1	plexin C1	2.17	0.0005
Tnk2	tyrosine kinase non receptor 2	2.17	0.0005
Kifc1	kinesin family member C1	2.17	0.0005
Slc40a1	solute carrier family 40 member 1	2.17	0.0005
Kif22	kinesin family member 22	2.17	0.0005
Diaph3	diaphanous related formin 3	2.17	0.0005
Ncapg	non-SMC condensin I complex subunit G	2.17	0.0005
Aurkb	aurora kinase B	2.17	0.0005
H2-Eb1	major histocompatibility complex, class II, DR beta 5	2.16	0.0005
Hat1	histone acetyltransferase 1	2.16	0.0005
Traip	TRAF interacting protein	2.16	0.0005
Pdlim7	PDZ and LIM domain 7	2.16	0.0005
Kcnk12	potassium two pore domain channel subfamily K member 12	2.16	0.0034
Pml	promyelocytic leukemia	2.16	0.0005
Cpne3	copine 3	2.15	0.0005
Faap24	FA core complex associated protein 24	2.15	0.0005
Myb	MYB proto-oncogene, transcription factor	2.15	0.0005
Ncf1	neutrophil cytosolic factor 1	2.15	0.0005
Epx	eosinophil peroxidase	2.15	0.0005
Mcm7	minichromosome maintenance complex component 7	2.15	0.0120
Larp1	La ribonucleoprotein domain family member 1	2.15	0.0005
Rflnb	refilin B	2.14	0.0005
Plau	plasminogen activator, urokinase	2.14	0.0005
Tinagl1	tubulointerstitial nephritis antigen like 1	2.14	0.0005
Mpzl1	myelin protein zero like 1	2.14	0.0005
Asf1b	anti-silencing function 1B histone chaperone	2.14	0.0005
Hmmr	hyaluronan mediated motility receptor	2.14	0.0005

Csrp1	cysteine and glycine rich protein 1	2.13	0.0005
Cptp	ceramide-1-phosphate transfer protein	2.13	0.0005
Erap1	endoplasmic reticulum aminopeptidase 1	2.13	0.0386
Ifnlr1	interferon lambda receptor 1	2.13	0.0005
Tuba1b	tubulin, alpha 1B	2.12	0.0105
Fam102a	family with sequence similarity 102 member A	2.12	0.0005
P2rx1	purinergic receptor P2X 1	2.12	0.0005
Bak1	BCL2 antagonist/killer 1	2.11	0.0014
Shmt2	serine hydroxymethyltransferase 2	2.11	0.0005
Cchcr1	coiled-coil alpha-helical rod protein 1	2.11	0.0005
Cox18	cytochrome c oxidase assembly factor COX18	2.11	0.0010
Fancd2	FA complementation group D2	2.11	0.0005
Tipin	timeless interacting protein	2.11	0.0005
Ano10	anoctamin 10	2.11	0.0433
Wipi1	WD repeat domain, phosphoinositide interacting 1	2.11	0.0005
Slc37a1	solute carrier family 37 member 1	2.11	0.0218
Brip1os	BRCA1 interacting protein C-terminal helicase 1, opposite strand	2.11	0.0034
Anapc5	anaphase promoting complex subunit 5	2.10	0.0005
Cbx5	chromobox 5	2.10	0.0005
Cdca8	cell division cycle associated 8	2.10	0.0005
Mcu	mitochondrial calcium uniporter	2.10	0.0005
Tssc4	tumor suppressing subtransferable candidate 4	2.10	0.0005
Ilf2	interleukin enhancer binding factor 2	2.10	0.0010
Ect2	epithelial cell transforming 2	2.10	0.0005
Hvcn1	hydrogen voltage gated channel 1	2.10	0.0005
Trim12a	tripartite motif-containing 12A	2.10	0.0128
Nudt3	nudix hydrolase 3	2.09	0.0005
Arhgef39	Rho guanine nucleotide exchange factor 39	2.09	0.0005
Adar	adenosine deaminase RNA specific	2.09	0.0287
Net1	neuroepithelial cell transforming 1	2.09	0.0005
Plk4	polo like kinase 4	2.08	0.0005
Stk26	serine/threonine kinase 26	2.08	0.0005
Prr11	proline rich 11	2.08	0.0034
Ncapd2	non-SMC condensin I complex subunit D2	2.08	0.0005
Arrb2	arrestin beta 2	2.08	0.0005
Mad2l1	mitotic arrest deficient 2 like 1	2.08	0.0005
Zfp141	zinc finger protein 816	2.08	0.0005
Ccnh	cyclin H	2.08	0.0261
Prc1	protein regulator of cytokinesis 1	2.08	0.0014
Rfc3	replication factor C subunit 3	2.08	0.0005
Dstn	destrin-like 1	2.07	0.0065
Ran	RAN, member RAS oncogene family	2.07	0.0005
Pif1	PIF1 5'-to-3' DNA helicase	2.07	0.0005
Tubb5	tubulin beta class I	2.07	0.0005
Entpd5	ectonucleoside triphosphate diphosphohydrolase 5 (inactive)	2.07	0.0005
Clec5a	C-type lectin domain containing 5A	2.06	0.0005
Parvg	parvin gamma	2.06	0.0005
Rnaseh2b	ribonuclease H2 subunit B	2.06	0.0005
BC037034	microtubule associated protein 11	2.06	0.0005
Mipep	mitochondrial intermediate peptidase	2.06	0.0005
Ube2t	ubiquitin conjugating enzyme E2 T	2.06	0.0005
C1rl	complement C1r subcomponent like	2.06	0.0005
Cenph	centromere protein H	2.05	0.0005
Cdca4	cell division cycle associated 4	2.05	0.0005
Max	MYC associated factor X	2.05	0.0005
Ccnb2	cyclin B2	2.05	0.0005
Riox1	ribosomal oxygenase 1	2.05	0.0005
Itgb2l	integrin beta 2-like	2.05	0.0005
Nsmce1	NSE1 homolog, SMC5-SMC6 complex component	2.04	0.0005
Ezh2	enhancer of zeste 2 polycomb repressive complex 2 subunit	2.04	0.0109
Ncapg2	non-SMC condensin II complex subunit G2	2.04	0.0005
BC030867	chromosome 17 open reading frame 53	2.04	0.0093
Dpy30	dpy-30 histone methyltransferase complex regulatory subunit	2.04	0.0005
Rab27a	RAB27A, member RAS oncogene family	2.04	0.0005
Gpr160	G protein-coupled receptor 160	2.04	0.0005
Psmg1	proteasome assembly chaperone 1	2.04	0.0005
Tmx4	thioredoxin related transmembrane protein 4	2.04	0.0005
Rhoh	ras homolog family member H	2.03	0.0005
Spag5	sperm associated antigen 5	2.03	0.0005
Kif20a	kinesin family member 20A	2.03	0.0114
Tes	testin LIM domain protein	2.03	0.0005
Tnfaip2	TNF alpha induced protein 2	2.03	0.0005
Ap5b1	adaptor related protein complex 5 subunit beta 1	2.03	0.0005
Inhba	inhibin subunit beta A	2.03	0.0005
Ero1l	endoplasmic reticulum oxidoreductase 1 alpha	2.03	0.0005
Pde6d	phosphodiesterase 6D	2.03	0.0005
S100a11	S100 calcium binding protein A11	2.03	0.0005
Tuba4a	tubulin alpha 4a	2.02	0.0107



Rpa3	replication protein A3	2.02	0.0005
MsrA	methionine sulfoxide reductase A	2.02	0.0005
Slc17a9	solute carrier family 17 member 9	2.02	0.0005
Nmral1	NmrA like redox sensor 1	2.02	0.0005
Hyls1	HYLS1 centriolar and ciliogenesis associated	2.02	0.0146
Lsm5	LSM5 homolog, U6 small nuclear RNA and mRNA degradation associated	2.02	0.0005
Pold1	DNA polymerase delta 1, catalytic subunit	2.02	0.0005
Qsox1	quiescin sulfhydryl oxidase 1	2.02	0.0005
Mlec	malectin	2.02	0.0005
Mki67	marker of proliferation Ki-67	2.01	0.0212
Lgals9	galectin 9B	2.01	0.0005
Mdh2	malate dehydrogenase 2	2.01	0.0005
Bub1	BUB1 mitotic checkpoint serine/threonine kinase	2.01	0.0005
Golim4	golgi integral membrane protein 4	2.01	0.0005
Nsl1	NSL1 component of MIS12 kinetochore complex	2.01	0.0030
Ppp1r3d	protein phosphatase 1 regulatory subunit 3D	2.01	0.0005
Atp8b4	ATPase phospholipid transporting 8B4 (putative)	2.01	0.0005
B2m	beta-2-microglobulin	2.01	0.0005
Nup210	nucleoporin 210	2.01	0.0014
Parpbb	PARP1 binding protein	2.01	0.0010
Zwilch	zwilch kinetochore protein	2.01	0.0005
Ncoa4	nuclear receptor coactivator 4	2.00	0.0005
Stk19	serine/threonine kinase 19	2.00	0.0005
Lmnb1	lamin B1	2.00	0.0005
Ttk	TTK protein kinase	2.00	0.0005
Smc2	structural maintenance of chromosomes 2	2.00	0.0005
Tubb4b	tubulin beta 4B class IVb	2.00	0.0423
Mvb12b	multivesicular body subunit 12B	2.00	0.0005
Rab20	RAB20, member RAS oncogene family	1.99	0.0010
Triobp	TRIO and F-actin binding protein	1.98	0.0005
Pip5k1b	phosphatidylinositol-4-phosphate 5-kinase type 1 beta	1.98	0.0030
Actn1	actinin alpha 1	1.98	0.0005
Cdca2	cell division cycle associated 2	1.98	0.0005
Rbm43	RNA binding motif protein 43	1.97	0.0037
Msantd3	Myb/SANT DNA binding domain containing 3	1.97	0.0005
Txnrd1	thioredoxin reductase 1	1.97	0.0005
Ak2	adenylate kinase 2	1.97	0.0005
Fcho1	FCH and mu domain containing endocytic adaptor 1	1.97	0.0005
Erg	ETS transcription factor ERG	1.96	0.0005
Kif20b	kinesin family member 20B	1.96	0.0005
Wdhd1	WD repeat and HMG-box DNA binding protein 1	1.96	0.0005
Cdkn2c	cyclin dependent kinase inhibitor 2C	1.96	0.0005
Dtnbp1	dystrobrevin binding protein 1	1.96	0.0005
Jdp2	Jun dimerization protein 2	1.96	0.0005
Cenpa	centromere protein A	1.95	0.0005
Lmnb2	lamin B2	1.95	0.0005
Prim2	DNA primase subunit 2	1.95	0.0005
Asf1a	anti-silencing function 1A histone chaperone	1.95	0.0325
Tmed3	transmembrane p24 trafficking protein 3	1.95	0.0005
Cd177	CD177 molecule	1.94	0.0372
Ptgr1	prostaglandin reductase 1	1.94	0.0005
Cox5a	cytochrome c oxidase subunit 5A	1.94	0.0018
Nucks1	nuclear casein kinase and cyclin dependent kinase substrate 1	1.94	0.0005
Atp11b	ATPase phospholipid transporting 11B (putative)	1.94	0.0005
Cox7a2	cytochrome c oxidase subunit 7A2	1.94	0.0005
Gmnn	geminin DNA replication inhibitor	1.94	0.0005
Sp100	nuclear antigen Sp100	1.94	0.0005
Hsp90aa1	heat shock protein 90 alpha family class A member 1	1.94	0.0005
Serpine2	serpin family E member 2	1.94	0.0030
Tspan2	tetraspanin 2	1.94	0.0018
Cd69	CD69 molecule	1.93	0.0051
Iqsec1	IQ motif and Sec7 domain ArfGEF 1	1.93	0.0005
Troap	trophinin associated protein	1.93	0.0005
Ebna1bp2	EBNA1 binding protein 2	1.92	0.0014
Ogfr	opioid growth factor receptor	1.92	0.0005
Cdc20	cell division cycle 20	1.92	0.0068
Npepps	aminopeptidase puromycin sensitive	1.92	0.0005
Pnkp	polynucleotide kinase 3'-phosphatase	1.92	0.0184
Mrpl18	mitochondrial ribosomal protein L18	1.92	0.0319
Dnajc13	DnaJ heat shock protein family (Hsp40) member C13	1.92	0.0146
Optn	optineurin	1.91	0.0005
Psm14	proteasome 26S subunit, non-ATPase 14	1.91	0.0005
Scamp1	secretory carrier membrane protein 1	1.91	0.0005
Rangap1	Ran GTPase activating protein 1	1.91	0.0005
Chst11	carbohydrate sulfotransferase 11	1.91	0.0010
Gng12	G protein subunit gamma 12	1.91	0.0048
Hmgb2	high mobility group box 2	1.91	0.0026
Smtn	smoothelin	1.91	0.0005

Mis12	MIS12 kinetochore complex component	1.90	0.0051
Stip1	stress induced phosphoprotein 1	1.90	0.0005
Slbp	stem-loop binding protein	1.90	0.0177
Gabpb1	GA binding protein transcription factor subunit beta 1	1.90	0.0005
Acpp	acid phosphatase, prostate	1.90	0.0005
Ptgs1	prostaglandin-endoperoxide synthase 1	1.90	0.0216
Dbf4	DBF4 zinc finger	1.89	0.0005
Yaf2	YY1 associated factor 2	1.89	0.0005
Ckap5	cytoskeleton associated protein 5	1.89	0.0005
Fbx14	F-box and leucine rich repeat protein 14	1.89	0.0005
Phldb3	pleckstrin homology like domain family B member 3	1.88	0.0014
Rab44	RAB44, member RAS oncogene family	1.88	0.0005
Siglece	sialic acid binding Ig like lectin 9	1.88	0.0005
Atp6v1d	ATPase H+ transporting V1 subunit D	1.88	0.0071
Asns	asparagine synthetase (glutamine-hydrolyzing)	1.88	0.0010
Clspn	claspin	1.88	0.0010
Rnf26	ring finger protein 26	1.87	0.0005
Sun2	Sad1 and UNC84 domain containing 2	1.87	0.0010
Hsd12	hydroxysteroid dehydrogenase like 2	1.87	0.0005
Sgms2	sphingomyelin synthase 2	1.87	0.0005
Armc8	armadillo repeat containing 8	1.87	0.0005
Gadd45b	growth arrest and DNA damage inducible beta	1.87	0.0005
Mrpl41	mitochondrial ribosomal protein L41	1.87	0.0005
Stim1	stromal interaction molecule 1	1.87	0.0005
Lnpk	lunapark, ER junction formation factor	1.87	0.0041
B4galt3	beta-1,4-galactosyltransferase 3	1.86	0.0005
Fbxo5	F-box protein 5	1.86	0.0005
Bcl3	BCL3 transcription coactivator	1.86	0.0005
Ccr1	C-C motif chemokine receptor 1	1.86	0.0349
Apmap	adipocyte plasma membrane associated protein	1.86	0.0005
Gna15	G protein subunit alpha 15	1.86	0.0005
4930579G24Rik	chromosome 4 open reading frame 46	1.86	0.0014
Msrb2	methionine sulfoxide reductase B2	1.86	0.0014
Tonsl	tonsoku like, DNA repair protein	1.85	0.0018
Pwp1	PWP1 homolog, endonuclease	1.85	0.0005
Anxa3	annexin A3	1.85	0.0005
Rnf114	ring finger protein 114	1.85	0.0109
Desi1	desumoylating isopeptidase 1	1.85	0.0131
Gm8582	spermatogenesis associated glutamate (E)-rich protein 2 pseudogene	1.85	0.0114
Tnfrsf14	TNF receptor superfamily member 14	1.85	0.0005
Banf1	barrier to autointegration factor 1	1.85	0.0010
2700099C18Rik	NDC80 homolog, kinetochore complex component pseudogene	1.85	0.0170
Atpi1f1	ATP synthase inhibitory factor subunit 1	1.85	0.0005
Cars	cysteinyl-tRNA synthetase 1	1.85	0.0005
Ckap2	cytoskeleton associated protein 2	1.85	0.0014
Abca13	ATP binding cassette subfamily A member 13	1.84	0.0022
Mms22l	MMS22 like, DNA repair protein	1.84	0.0154
H2-M3	major histocompatibility complex, class I, G	1.84	0.0005
Slf1	schlafen 1	1.84	0.0005
Gm8995	predicted gene 8995	1.84	0.0071
Tuba1c	tubulin alpha 1c	1.84	0.0005
Nelfe	negative elongation factor complex member E	1.83	0.0005
Rab28	RAB28, member RAS oncogene family	1.83	0.0005
Memo1	mediator of cell motility 1	1.83	0.0018
Idh3a	isocitrate dehydrogenase (NAD(+)) 3 catalytic subunit alpha	1.83	0.0240
Incenp	inner centromere protein	1.83	0.0005
Mppe1	metallophosphoesterase 1	1.83	0.0051
Gm26839	predicted gene, 26839	1.83	0.0276
Kif23	kinesin family member 23	1.83	0.0005
Sp110	SP110 nuclear body protein	1.83	0.0005
Cdca5	cell division cycle associated 5	1.82	0.0005
Hnmpab	heterogeneous nuclear ribonucleoprotein A/B	1.82	0.0005
Etnk1	ethanolamine kinase 1	1.82	0.0005
Med31	mediator complex subunit 31	1.82	0.0161
Psmg2	proteasome assembly chaperone 2	1.82	0.0041
Usp46	ubiquitin specific peptidase 46	1.82	0.0010
Igf1r	insulin like growth factor 1 receptor	1.82	0.0018
Lsm8	LSM8 homolog, U6 small nuclear RNA associated	1.82	0.0005
Rtn3	reticulin 3	1.82	0.0114
Tmbim6	transmembrane BAX inhibitor motif containing 6	1.82	0.0005
Pfn1	profilin 1	1.81	0.0005
Gadd45a	growth arrest and DNA damage inducible alpha	1.81	0.0010
Cenpl	centromere protein L	1.81	0.0045
Sdcbp	syndecan binding protein	1.81	0.0014
Glipr2	GLI pathogenesis related 2	1.81	0.0005
Nasp	nuclear autoantigenic sperm protein	1.81	0.0005
Ndubf7	NADH:ubiquinone oxidoreductase subunit B7	1.81	0.0005
Aspm	abnormal spindle microtubule assembly	1.80	0.0321

Rac2	Rac family small GTPase 2	1.80	0.0112
Acbd6	acyl-CoA binding domain containing 6	1.80	0.0018
Ncam1	neural cell adhesion molecule 1	1.80	0.0005
Fam3c	family with sequence similarity 3 member C	1.80	0.0022
Nsd2	nuclear receptor binding SET domain protein 2	1.80	0.0037
Efcab14	EF-hand calcium binding domain 14	1.80	0.0026
Anp32e	acidic (leucine-rich) nuclear phosphoprotein 32 family, member E	1.80	0.0005
Mbnl3	muscleblind like splicing regulator 3	1.80	0.0062
Acot7	acyl-CoA thioesterase 7	1.80	0.0267
Nucb2	nucleobindin 2	1.80	0.0005
Mrp15	mitochondrial ribosomal protein L15	1.79	0.0041
Arsb	arylsulfatase B	1.79	0.0018
Nop58	NOP58 ribonucleoprotein	1.79	0.0071
Atp11a	ATPase phospholipid transporting 11A	1.79	0.0005
Tkt	transketolase	1.79	0.0005
Dtymk	deoxythymidylate kinase	1.79	0.0018
Hp	haptoglobin	1.79	0.0005
Arhgdib	Rho GDP dissociation inhibitor beta	1.79	0.0005
Pola2	DNA polymerase alpha 2, accessory subunit	1.79	0.0018
Anp32b	acidic (leucine-rich) nuclear phosphoprotein 32 family, member B	1.78	0.0005
Igf2r	insulin like growth factor 2 receptor	1.78	0.0022
Igfbp4	insulin like growth factor binding protein 4	1.78	0.0058
Ndufa12	NADH:ubiquinone oxidoreductase subunit A12	1.78	0.0095
Nfyb	nuclear transcription factor Y subunit beta	1.78	0.0068
Def6	DEF6 guanine nucleotide exchange factor	1.78	0.0131
Mcee	methylmalonyl-CoA epimerase	1.78	0.0041
Tdp1	tyrosyl-DNA phosphodiesterase 1	1.78	0.0005
Paqr7	progesterin and adipoQ receptor family member 7	1.78	0.0005
E2f8	E2F transcription factor 8	1.78	0.0005
Mcm4	minichromosome maintenance complex component 4	1.78	0.0005
Mrp144	mitochondrial ribosomal protein L44	1.78	0.0010
Ndufab1	NADH:ubiquinone oxidoreductase subunit AB1	1.78	0.0058
Dnaja1	DnaJ heat shock protein family (Hsp40) member A1	1.77	0.0347
Pcgf5	polycomb group ring finger 5	1.77	0.0041
Ppih	peptidylprolyl isomerase H	1.77	0.0048
Ankrd46	ankyrin repeat domain 46	1.77	0.0005
Coq7	coenzyme Q7, hydroxylase	1.77	0.0168
Gtf2ird2	GTF2I repeat domain containing 2	1.77	0.0048
Slc25a22	solute carrier family 25 member 22	1.77	0.0005
Micu1	mitochondrial calcium uptake 1	1.77	0.0005
Ubpap2	ubiquitin associated protein 2	1.77	0.0055
Zfp687	zinc finger protein 687	1.77	0.0265
Marcks1	MARCKS like 1	1.77	0.0005
Ipcef1	interaction protein for cytohesin exchange factors 1	1.76	0.0005
Ldha	lactate dehydrogenase A	1.76	0.0005
Wdr5	WD repeat domain 5	1.76	0.0005
Foxp4	forkhead box P4	1.76	0.0014
Rpp30	ribonuclease P/MRP subunit p30	1.76	0.0107
Psat1	phosphoserine aminotransferase 1	1.76	0.0034
Pak1	p21 (RAC1) activated kinase 1	1.76	0.0159
Gtf2f1	general transcription factor IIF subunit 1	1.76	0.0005
Rpe	ribose-5-phosphate-3-epimerase	1.75	0.0022
Rybp	RING1 and YY1 binding protein	1.75	0.0005
Ppid	peptidylprolyl isomerase D	1.74	0.0026
Rnf141	ring finger protein 141	1.74	0.0058
Set	SET nuclear proto-oncogene	1.74	0.0005
Pnpla8	patatin like phospholipase domain containing 8	1.74	0.0014
Top1	DNA topoisomerase I	1.74	0.0005
C2cd5	C2 calcium dependent domain containing 5	1.74	0.0034
Pold3	DNA polymerase delta 3, accessory subunit	1.74	0.0285
Psmc3	proteasome 26S subunit, ATPase 3	1.74	0.0005
Alox5	arachidonate 5-lipoxygenase	1.74	0.0005
Gpd2	glycerol-3-phosphate dehydrogenase 2	1.74	0.0045
U2af1	U2 small nuclear ribonucleoprotein auxiliary factor (U2AF) 1	1.74	0.0010
Cops7b	COP9 signalosome subunit 7B	1.74	0.0030
Cdc25c	cell division cycle 25C	1.74	0.0048
Brcc3	BRCA1/BRCA2-containing complex subunit 3	1.74	0.0173
Gyg	glycogenin 1	1.74	0.0005
Keap1	kelch like ECH associated protein 1	1.74	0.0014
Satb1	SATB homeobox 1	1.73	0.0022
Pgm2	phosphoglucomutase 2	1.73	0.0005
F730016J06Rik	RIKEN cDNA F730016J06 gene	1.73	0.0243
Nomo1	NODAL modulator 1	1.73	0.0022
Esyt2	extended synaptotagmin 2	1.73	0.0005
Vkorc111	vitamin K epoxide reductase complex subunit 1 like 1	1.73	0.0065
Ezr	ezrin	1.72	0.0010
Agtrap	angiotensin II receptor associated protein	1.72	0.0005
Ndufs4	NADH:ubiquinone oxidoreductase subunit S4	1.72	0.0018

Gpi1	glucose-6-phosphate isomerase	1.72	0.0005
Mrps18c	mitochondrial ribosomal protein S18C	1.72	0.0005
Rasa13	RAS protein activator like 3	1.72	0.0010
Slc16a6	solute carrier family 16 member 6	1.72	0.0414
Cytc	cytochrome c, somatic	1.71	0.0022
Arl6ip1	ADP ribosylation factor like GTPase 6 interacting protein 1	1.71	0.0005
Pbx1	PBX homeobox 1	1.71	0.0099
Sln2	schlafen 2	1.71	0.0005
Cacybp	calcyclin binding protein	1.71	0.0026
Mcm3ap	minichromosome maintenance complex component 3 associated protein	1.71	0.0030
Rpn1	ribophorin I	1.71	0.0026
Tspan32	tetraspanin 32	1.71	0.0026
Cdk2	cyclin dependent kinase 2	1.71	0.0014
Gbe1	1,4-alpha-glucan branching enzyme 1	1.70	0.0022
Pigu	phosphatidylinositol glycan anchor biosynthesis class U	1.70	0.0048
Gpsm2	G protein signaling modulator 2	1.70	0.0495
Camk2g	calcium/calmodulin dependent protein kinase II gamma	1.70	0.0037
Pik3cb	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta	1.70	0.0010
Slc45a4	solute carrier family 45 member 4	1.70	0.0041
Acs11	acyl-CoA synthetase long chain family member 1	1.69	0.0005
Neil3	nei like DNA glycosylase 3	1.69	0.0131
Calm3	calmodulin 1	1.69	0.0005
Nudcd2	NudC domain containing 2	1.69	0.0120
Nup205	nucleoporin 205	1.69	0.0018
Cklf	chemokine like factor	1.69	0.0140
Psm6	proteasome subunit alpha 6	1.69	0.0005
Arfgef1	ADP ribosylation factor guanine nucleotide exchange factor 1	1.69	0.0005
Noct	nocturnin	1.69	0.0117
Clec2d	C-type lectin domain family 2, member D	1.69	0.0030
Vdac1	voltage dependent anion channel 1	1.69	0.0005
Gapdh	glyceraldehyde-3-phosphate dehydrogenase	1.69	0.0005
Ndufv3	NADH:ubiquinone oxidoreductase subunit V3	1.69	0.0416
Tra2a	transformer 2 alpha homolog	1.69	0.0005
Atp5j	ATP synthase peripheral stalk subunit F6	1.68	0.0133
G6pdx	glucose-6-phosphate dehydrogenase	1.68	0.0010
Med9	mediator complex subunit 9	1.68	0.0109
Samd1	sterile alpha motif domain containing 1	1.68	0.0018
Ube2m	ubiquitin conjugating enzyme E2 M	1.68	0.0005
Slc39a11	solute carrier family 39 member 11	1.68	0.0014
Stil	STIL centriolar assembly protein	1.68	0.0062
Ltb4r1	leukotriene B4 receptor	1.68	0.0005
Cenpm	centromere protein M	1.67	0.0306
Eth1	ETHE1 persulfide dioxygenase	1.67	0.0041
Znfx1	zinc finger NFX1-type containing 1	1.67	0.0084
Anxr2	ANTXR cell adhesion molecule 2	1.67	0.0014
Gtpbp1	GTP binding protein 1	1.67	0.0014
Pgk1	phosphoglycerate kinase 1	1.67	0.0010
Cstf2	cleavage stimulation factor subunit 2	1.67	0.0030
Sae1	SUMO1 activating enzyme subunit 1	1.67	0.0010
Vcl	vinculin	1.67	0.0022
Cbx3	chromobox 3	1.67	0.0093
Baiap2	BAR/IMD domain containing adaptor protein 2	1.66	0.0114
Rps6ka1	ribosomal protein S6 kinase A1	1.66	0.0010
Atp2a3	ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 3	1.66	0.0048
Esco2	establishment of sister chromatid cohesion N-acetyltransferase 2	1.66	0.0051
Gsn	gelsolin	1.66	0.0005
Tmc8	transmembrane channel like 8	1.66	0.0018
Alg8	ALG8 alpha-1,3-glucosyltransferase	1.66	0.0125
Ksr1	kinase suppressor of ras 1	1.66	0.0081
Pa2g4	proliferation-associated 2G4	1.66	0.0026
Psmc6	proteasome 26S subunit, ATPase 6	1.66	0.0014
Limk2	LIM domain kinase 2	1.66	0.0048
Csnk2b	casein kinase 2 beta	1.65	0.0014
Mrps22	mitochondrial ribosomal protein S22	1.65	0.0243
Prps1	phosphoribosyl pyrophosphate synthetase 1	1.65	0.0143
Ints11	integrator complex subunit 11	1.65	0.0034
Pole4	DNA polymerase epsilon 4, accessory subunit	1.65	0.0062
4932438A13Rik	KIAA1109	1.65	0.0441
Capn1	calpain 1	1.65	0.0010
Fam117a	family with sequence similarity 117 member A	1.65	0.0010
Map2k3	mitogen-activated protein kinase kinase 3	1.65	0.0034
Mospd1	motile sperm domain containing 1	1.65	0.0137
Hk1	hexokinase 1	1.64	0.0034
Dnajc2	DnaJ heat shock protein family (Hsp40) member C2	1.64	0.0048
Tesk2	testis associated actin remodelling kinase 2	1.64	0.0068
Hibch	3-hydroxyisobutyryl-CoA hydrolase	1.64	0.0114
Atp8a1	ATPase phospholipid transporting 8A1	1.64	0.0117
D030056L22Rik	chromosome 9 open reading frame 40	1.64	0.0145

Chd7	chromodomain helicase DNA binding protein 7	1.64	0.0362
Ncaph2	non-SMC condensin II complex subunit H2	1.64	0.0034
A430005L14Rik	chromosome 1 open reading frame 174	1.64	0.0101
Clec4a2	C-type lectin domain family 4, member a4	1.64	0.0034
Lmf2	lipase maturation factor 2	1.64	0.0034
Rnf144a	ring finger protein 144A	1.64	0.0018
Abhd2	abhydrolase domain containing 2	1.63	0.0099
E2f1	E2F transcription factor 1	1.63	0.0045
Rab3d	RAB3D, member RAS oncogene family	1.63	0.0022
Pidd1	p53-induced death domain protein 1	1.63	0.0401
Pygl	glycogen phosphorylase L	1.63	0.0030
Dbr1	debranching RNA lariats 1	1.63	0.0095
Plscr3	phospholipid scramblase 3	1.63	0.0022
Cops3	COP9 signalosome subunit 3	1.63	0.0149
Brd3	bromodomain containing 3	1.63	0.0030
Nsmce2	NSE2 (MMS21) homolog, SMC5-SMC6 complex SUMO ligase	1.63	0.0065
Hmgb3	high mobility group box 3	1.63	0.0161
Chchd1	coiled-coil-helix-coiled-coil-helix domain containing 1	1.63	0.0180
Rad21	RAD21 cohesin complex component	1.63	0.0022
Snrpf	small nuclear ribonucleoprotein polypeptide F	1.63	0.0071
Clic4	chloride intracellular channel 4	1.63	0.0018
Fkbp2	FKBP prolyl isomerase 2	1.63	0.0084
Ncbp1	nuclear cap binding protein subunit 1	1.63	0.0068
Mrpl45	mitochondrial ribosomal protein L45	1.62	0.0090
Kiz	kizuna centrosomal protein	1.62	0.0131
Ccdc25	coiled-coil domain containing 25	1.62	0.0087
E330009J07Rik	DENN domain containing 11	1.62	0.0062
Eif5a	eukaryotic translation initiation factor 5A	1.62	0.0334
Cks2	CDC28 protein kinase regulatory subunit 2	1.62	0.0030
Lyar	Ly1 antibody reactive	1.62	0.0151
Nup160	nucleoporin 160	1.62	0.0068
Psmc2	proteasome 26S subunit, ATPase 2	1.62	0.0022
Rbbp7	RB binding protein 7, chromatin remodeling factor	1.62	0.0107
Stx2	syntaxin 2	1.61	0.0034
Ankrd28	ankyrin repeat domain 28	1.61	0.0026
Hck	HCK proto-oncogene, Src family tyrosine kinase	1.61	0.0062
Arpp19	cAMP regulated phosphoprotein 19	1.61	0.0177
Tpm3	tropomyosin 3	1.61	0.0010
Gadd45g	growth arrest and DNA damage inducible gamma	1.61	0.0133
Irf2bp1	interferon regulatory factor 2 binding protein 1	1.61	0.0090
Snx11	sorting nexin 11	1.61	0.0071
Bcl2l1	BCL2 like 1	1.61	0.0081
Mus81	MUS81 structure-specific endonuclease subunit	1.61	0.0146
Numb	NUMB endocytic adaptor protein	1.61	0.0030
Dpp9	dipeptidyl peptidase 9	1.61	0.0026
Naa40	N(alpha)-acetyltransferase 40, NatD catalytic subunit	1.61	0.0022
Plp2	proteolipid protein 2	1.61	0.0034
Cebpd	CCAAT enhancer binding protein delta	1.61	0.0084
Tmem248	transmembrane protein 248	1.60	0.0018
Agpat5	1-acylglycerol-3-phosphate O-acyltransferase 5	1.60	0.0145
Impa2	inositol monophosphatase 2	1.60	0.0087
Alyref	Aly/REF export factor	1.60	0.0289
Asb7	ankyrin repeat and SOCS box containing 7	1.60	0.0198
Pigyl	phosphatidylinositol glycan anchor biosynthesis class Y	1.60	0.0159
Tapt1	transmembrane anterior posterior transformation 1	1.60	0.0114
Ttc32	tetratricopeptide repeat domain 32	1.60	0.0445
Atg16l2	autophagy related 16 like 2	1.60	0.0146
Mfn2	mitofusin 2	1.60	0.0105
Rgs18	regulator of G protein signaling 18	1.60	0.0137
Dmxi2	Dmx like 2	1.60	0.0247
Kars	lysyl-tRNA synthetase 1	1.60	0.0041
Rap2c	RAP2C, member of RAS oncogene family	1.60	0.0055
Mfsd10	major facilitator superfamily domain containing 10	1.59	0.0062
Map3k9	mitogen-activated protein kinase kinase kinase 9	1.59	0.0058
Anp32a	acidic (leucine-rich) nuclear phosphoprotein 32 family, member A	1.59	0.0041
Faf1	Fas associated factor 1	1.59	0.0074
Hjurp	Holliday junction recognition protein	1.59	0.0030
Rogdi	rogdi atypical leucine zipper	1.59	0.0041
Pafah2	platelet activating factor acetylhydrolase 2	1.58	0.0125
Srsf4	serine and arginine rich splicing factor 4	1.58	0.0051
Pcmt1	protein-L-isoaspartate (D-aspartate) O-methyltransferase 1	1.58	0.0074
Racgap1	Rac GTPase activating protein 1	1.58	0.0022
Trim56	tripartite motif containing 56	1.58	0.0030
Cct3	chaperonin containing TCP1 subunit 3	1.58	0.0131
Reep4	receptor accessory protein 4	1.58	0.0074
Cep83	centrosomal protein 83	1.58	0.0095
Rnf14	ring finger protein 14	1.58	0.0084
Impdh1	inosine monophosphate dehydrogenase 1	1.58	0.0243

Nfatc2ip	nuclear factor of activated T cells 2 interacting protein	1.58	0.0143
Rgs19	regulator of G protein signaling 19	1.58	0.0041
Adk	adenosine kinase	1.57	0.0374
Hnrnpa2b1	heterogeneous nuclear ribonucleoprotein A2/B1	1.57	0.0030
Lonp2	lon peptidase 2, peroxisomal	1.57	0.0163
Sec13	SEC13 homolog, nuclear pore and COPII coat complex component	1.57	0.0068
Heatr6	HEAT repeat containing 6	1.57	0.0112
Ttc39c	tetratricopeptide repeat domain 39C	1.57	0.0175
Ap1s1	adaptor related protein complex 1 subunit sigma 1	1.57	0.0101
Rad52	RAD52 homolog, DNA repair protein	1.57	0.0443
Chtf8	chromosome transmission fidelity factor 8	1.57	0.0062
Mmadhc	metabolism of cobalamin associated D	1.57	0.0093
Agap1	ArfGAP with GTPase domain, ankyrin repeat and PH domain 1	1.57	0.0154
Abrac1	ABRA C-terminal like	1.57	0.0095
Golt1b	golgi transport 1B	1.56	0.0187
Ripk3	receptor interacting serine/threonine kinase 3	1.56	0.0131
Atxn10	ataxin 10	1.56	0.0045
Cab39l	calcium binding protein 39 like	1.56	0.0146
Prdx6	peroxiredoxin 6	1.56	0.0062
Psm12	proteasome 26S subunit, non-ATPase 12	1.56	0.0122
Rnaset2b	ribonuclease T2	1.56	0.0145
Psip1	PC4 and SFRS1 interacting protein 1	1.56	0.0332
Fam222b	family with sequence similarity 222 member B	1.56	0.0107
Nup93	nucleoporin 93	1.56	0.0180
Cfl1	cofilin 1	1.56	0.0045
Rnf5	ring finger protein 5	1.56	0.0101
Trim11	tripartite motif-containing 11	1.56	0.0074
Hdgf	heparin binding growth factor	1.55	0.0095
Strip1	striatin interacting protein 1	1.55	0.0385
Hspa8	heat shock protein family A (Hsp70) member 8	1.55	0.0030
Mpi	mannose phosphate isomerase	1.55	0.0396
Rdm1	RAD52 motif containing 1	1.55	0.0229
Cnn2	calponin 2	1.55	0.0078
Plcb2	phospholipase C beta 2	1.55	0.0406
Fmo5	flavin containing dimethylaniline monooxygenase 5	1.55	0.0133
Tecr	trans-2,3-enoyl-CoA reductase	1.55	0.0140
Rpa1	replication protein A1	1.54	0.0084
Rnaset2a	ribonuclease T2	1.54	0.0114
Lpgat1	lysophosphatidylglycerol acyltransferase 1	1.53	0.0112
Psmb2	proteasome subunit beta 2	1.53	0.0090
Atp5g1	ATP synthase membrane subunit c locus 1	1.53	0.0313
A1467606	chromosome 16 open reading frame 54	1.53	0.0084
Nfu1	NFU1 iron-sulfur cluster scaffold	1.53	0.0128
Dhrs7	dehydrogenase/reductase 7	1.53	0.0093
Dhdds	dehydrodolichyl diphosphate synthase subunit	1.53	0.0101
Rbbp8	RB binding protein 8, endonuclease	1.53	0.0161
Srp19	signal recognition particle 19	1.53	0.0231
Taf12	TATA-box binding protein associated factor 12	1.53	0.0168
Cdc14a	cell division cycle 14A	1.53	0.0256
Daxx	death domain associated protein	1.53	0.0071
Fkbp4	FKBP prolyl isomerase 4	1.53	0.0101
Psmb7	proteasome subunit beta 7	1.53	0.0131
Smc1a	structural maintenance of chromosomes 1A	1.52	0.0122
Rars	arginyl-tRNA synthetase 1	1.52	0.0146
Leprotl1	leptin receptor overlapping transcript like 1	1.52	0.0149
Samp	SAP domain containing ribonucleoprotein	1.52	0.0120
Ube2k	ubiquitin conjugating enzyme E2 K	1.52	0.0212
Cyb5r4	cytochrome b5 reductase 4	1.52	0.0065
Fzr1	fizzy and cell division cycle 20 related 1	1.52	0.0431
Tmem71	transmembrane protein 71	1.52	0.0125
Mthfd2	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methylenetetrahydrofolate cyclohydr	1.51	0.0145
Rhno1	RAD9-HUS1-RAD1 interacting nuclear orphan 1	1.51	0.0269
Ap2s1	adaptor related protein complex 2 subunit sigma 1	1.51	0.0140
Cct7	chaperonin containing TCP1 subunit 7	1.51	0.0366
Fcgr1	Fc fragment of IgG receptor Ia	1.51	0.0149
Pelp1	proline, glutamate and leucine rich protein 1	1.51	0.0184
Epsti1	epithelial stromal interaction 1	1.51	0.0173
Snrpg	small nuclear ribonucleoprotein polypeptide G	1.51	0.0229
Rab21	RAB21, member RAS oncogene family	1.51	0.0263
Larp7	La ribonucleoprotein domain family member 7	1.51	0.0184
Neu1	neuraminidase 1	1.51	0.0112
Rab6a	RAB6A, member RAS oncogene family	1.51	0.0182
Mis18a	MIS18 kinetochore protein A	1.50	0.0251
H2afz	H2A.Z variant histone 1	1.50	0.0125
Anxa11	annexin A11	1.50	0.0105
Tsnax	translin associated factor X	-1.50	0.0227
Zcchc7	zinc finger CCHC-type containing 7	-1.50	0.0319
Bri3	brain protein I3	-1.50	0.0274

Mbn1	muscleblind like splicing regulator 1	-1.50	0.0214
Tpcn1	two pore segment channel 1	-1.50	0.0236
Pon2	paraoxonase 2	-1.50	0.0220
A630001G21Rik	RIKEN cDNA A630001G21 gene	-1.51	0.0225
Fbxw5	F-box and WD repeat domain containing 5	-1.51	0.0212
Ftl1	ferritin light chain	-1.51	0.0145
Sft2d2	SFT2 domain containing 2	-1.51	0.0372
Tmem259	transmembrane protein 259	-1.51	0.0087
Eif1a	eukaryotic translation initiation factor 1A X-linked	-1.51	0.0493
Map1lc3a	microtubule associated protein 1 light chain 3 alpha	-1.51	0.0460
Atp1b3	ATPase Na+/K+ transporting subunit beta 3	-1.51	0.0404
Mnt	MAX network transcriptional repressor	-1.51	0.0198
Vps41	VPS41 subunit of HOPS complex	-1.52	0.0456
Gltp	glycolipid transfer protein	-1.52	0.0081
Stat5b	signal transducer and activator of transcription 5B	-1.52	0.0090
Ttc5	tetratricopeptide repeat domain 5	-1.52	0.0229
Rpl26	ribosomal protein L26	-1.52	0.0058
Degs1	delta 4-desaturase, sphingolipid 1	-1.52	0.0229
Itch	itchy E3 ubiquitin protein ligase	-1.52	0.0218
Stx17	syntaxin 17	-1.52	0.0222
Rack1	receptor for activated C kinase 1	-1.53	0.0107
Syf2	SYF2 pre-mRNA splicing factor	-1.53	0.0112
Ing3	inhibitor of growth family member 3	-1.53	0.0191
Plekhm2	pleckstrin homology and RUN domain containing M2	-1.53	0.0449
Atox1	antioxidant 1 copper chaperone	-1.53	0.0090
Pik3ca	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha	-1.53	0.0133
Rps4x	ribosomal protein S4 Y-linked 1	-1.53	0.0048
Mrpl52	mitochondrial ribosomal protein L52	-1.54	0.0498
Dgkg	diacylglycerol kinase gamma	-1.54	0.0114
Phf21a	PHD finger protein 21A	-1.54	0.0180
Prpsap2	phosphoribosyl pyrophosphate synthetase associated protein 2	-1.54	0.0339
Ptpn22	protein tyrosine phosphatase non-receptor type 22	-1.54	0.0355
Lyn	LYN proto-oncogene, Src family tyrosine kinase	-1.55	0.0051
Tm2d2	TM2 domain containing 2	-1.55	0.0177
Mcl1	MCL1 apoptosis regulator, BCL2 family member	-1.55	0.0308
Pcnx	pecanex 1	-1.55	0.0131
Pofut2	protein O-fucosyltransferase 2	-1.55	0.0131
Qk	QKI, KH domain containing RNA binding	-1.55	0.0078
Ivns1abp	influenza virus NS1A binding protein	-1.55	0.0068
Bcl10	BCL10 immune signaling adaptor	-1.56	0.0058
Cdc42ep4	CDC42 effector protein 4	-1.56	0.0161
Arl11	ADP ribosylation factor like GTPase 11	-1.56	0.0112
Epn1	epsin 1	-1.56	0.0045
Bmp2k	BMP2 inducible kinase	-1.56	0.0208
Rnf111	ring finger protein 111	-1.56	0.0095
Snx1	sorting nexin 1	-1.56	0.0055
Ifi204	interferon gamma inducible protein 16	-1.56	0.0055
Tmem192	transmembrane protein 192	-1.56	0.0319
Tnfrsf21	TNF receptor superfamily member 21	-1.57	0.0203
Pnir	PNN interacting serine and arginine rich protein	-1.57	0.0254
Soat1	sterol O-acyltransferase 1	-1.57	0.0294
Zfp516	zinc finger protein 516	-1.57	0.0058
Smad4	SMAD family member 4	-1.57	0.0137
Pan3	poly(A) specific ribonuclease subunit PAN3	-1.57	0.0109
Tmem106a	transmembrane protein 106A	-1.57	0.0101
Colgalt1	collagen beta(1-O)galactosyltransferase 1	-1.57	0.0051
Marcks	myristoylated alanine rich protein kinase C substrate	-1.57	0.0109
Qdpr	quinoid dihydropteridine reductase	-1.57	0.0381
Rfk	riboflavin kinase	-1.57	0.0140
Adam17	ADAM metallopeptidase domain 17	-1.57	0.0170
Dnase2a	deoxyribonuclease 2, lysosomal	-1.57	0.0201
Itga5	integrin subunit alpha 5	-1.57	0.0317
Zfp800	zinc finger protein 800	-1.57	0.0370
Tpt1	tumor protein, translationally-controlled 1	-1.58	0.0131
Nfkbie	NFKB inhibitor epsilon	-1.58	0.0128
Mx1	MX dynamin-like GTPase 2	-1.58	0.0090
Nsf	N-ethylmaleimide sensitive factor, vesicle fusing ATPase	-1.58	0.0087
Ints6l	integrator complex subunit 6 like	-1.58	0.0383
Prkag2	protein kinase AMP-activated non-catalytic subunit gamma 2	-1.58	0.0135
Frrs1	ferric chelate reductase 1	-1.58	0.0140
Eif3e	eukaryotic translation initiation factor 3 subunit E	-1.58	0.0048
Ncoa3	nuclear receptor coactivator 3	-1.58	0.0229
Dock10	dedicator of cytokinesis 10	-1.59	0.0240
Polm	DNA polymerase mu	-1.59	0.0120
Sp3	Sp3 transcription factor	-1.59	0.0045
Supt4a	SPT4 homolog, DSIF elongation factor subunit	-1.59	0.0101
Tmem185b	transmembrane protein 185B	-1.59	0.0087
Nipbl	NIPBL cohesin loading factor	-1.59	0.0345

Sgk3	serum/glucocorticoid regulated kinase family member 3	-1.59	0.0058
Fibp	FGF1 intracellular binding protein	-1.59	0.0194
Srm2	serine/arginine repetitive matrix 2	-1.59	0.0443
Tyropb	TYRO protein tyrosine kinase binding protein	-1.59	0.0388
Atxn7l1	ataxin 7 like 1	-1.59	0.0128
Gmppa	GDP-mannose pyrophosphorylase A	-1.59	0.0099
Ncoa1	nuclear receptor coactivator 1	-1.60	0.0109
Cnot6l	CCR4-NOT transcription complex subunit 6 like	-1.60	0.0137
Tfeb	transcription factor EB	-1.60	0.0045
Rpl27a	ribosomal protein L27a	-1.60	0.0022
Plekho2	pleckstrin homology domain containing O2	-1.60	0.0014
Ddx3x	DEAD-box helicase 3, X-linked	-1.60	0.0030
Nptn	neuroplastin	-1.60	0.0055
Uvr3g	UV radiation resistance associated	-1.60	0.0058
Akap8l	A-kinase anchoring protein 8 like	-1.61	0.0090
Dus3l	dihydrouridine synthase 3 like	-1.61	0.0090
Tm9sf4	transmembrane 9 superfamily member 4	-1.61	0.0037
D1Erd622e	chromosome 5 open reading frame 30	-1.61	0.0058
Ripk2	receptor interacting serine/threonine kinase 2	-1.61	0.0151
Tmsb10	thymosin beta 4 X-linked	-1.61	0.0018
Arndc3	arrestin domain containing 3	-1.61	0.0071
Erbin	erb2 interacting protein	-1.61	0.0037
Prex1	phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 1	-1.61	0.0265
Rassf3	Ras association domain family member 3	-1.61	0.0030
Fech	ferrochelatase	-1.62	0.0143
Usp8	ubiquitin specific peptidase 8	-1.62	0.0095
Vamp4	vesicle associated membrane protein 4	-1.62	0.0131
Pik3r6	phosphoinositide-3-kinase regulatory subunit 6	-1.62	0.0030
Dguok	deoxyguanosine kinase	-1.62	0.0161
Eid1	EP300 interacting inhibitor of differentiation 1	-1.62	0.0058
Tpp2	tripeptidyl peptidase 2	-1.62	0.0037
Lrrk1	leucine rich repeat kinase 1	-1.62	0.0095
Scarb2	scavenger receptor class B member 2	-1.62	0.0048
Slamf8	SLAM family member 8	-1.62	0.0222
Dclre1c	DNA cross-link repair 1C	-1.62	0.0133
Tacc1	transforming acidic coiled-coil containing protein 1	-1.63	0.0022
Mtdh	metadherin	-1.63	0.0041
Hpse	heparanase	-1.63	0.0014
Borcs6	BLOC-1 related complex subunit 6	-1.63	0.0055
Eif4g3	eukaryotic translation initiation factor 4 gamma 3	-1.63	0.0018
Hbp1	HMG-box transcription factor 1	-1.63	0.0249
Plod3	procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	-1.63	0.0074
Mapk1ip1	mitogen-activated protein kinase 1 interacting protein 1	-1.64	0.0159
Parp8	poly(ADP-ribose) polymerase family member 8	-1.64	0.0030
Rassf5	Ras association domain family member 5	-1.64	0.0022
Eif3f	eukaryotic translation initiation factor 3 subunit F	-1.64	0.0101
Oxa1l	OXA1L mitochondrial inner membrane protein	-1.64	0.0234
Zfp706	zinc finger protein 706	-1.64	0.0026
Akr1a1	aldo-keto reductase family 1 member A1	-1.65	0.0026
Ndst2	N-deacetylase and N-sulfotransferase 2	-1.65	0.0037
Plekhg3	pleckstrin homology and RhoGEF domain containing G3	-1.65	0.0014
Wipi2	WD repeat domain, phosphoinositide interacting 2	-1.65	0.0140
Eef1a1	eukaryotic translation elongation factor 1 alpha 1	-1.65	0.0026
Polb	DNA polymerase beta	-1.65	0.0055
Rps27	ribosomal protein S27	-1.65	0.0022
Tpt1-ps3	tumor protein, translationally-controlled, pseudogene 3	-1.66	0.0131
Asap1	ArfGAP with SH3 domain, ankyrin repeat and PH domain 1	-1.66	0.0005
Acox3	acyl-CoA oxidase 3, pristanoyl	-1.66	0.0022
Ap1g2	adaptor related protein complex 1 subunit gamma 2	-1.66	0.0112
Etv3	ETS variant transcription factor 3	-1.66	0.0101
Lmbrd1	LMBR1 domain containing 1	-1.67	0.0306
Prpsap1	phosphoribosyl pyrophosphate synthetase associated protein 1	-1.67	0.0055
Secisbp2l	SECIS binding protein 2 like	-1.67	0.0034
Serp1	stress associated endoplasmic reticulum protein 1	-1.67	0.0037
Ccs	copper chaperone for superoxide dismutase	-1.67	0.0146
Fmnl1	formin-like 1	-1.67	0.0005
Adrb2	adrenoceptor beta 2	-1.67	0.0065
Stom	stomatin	-1.68	0.0010
Fndc3a	fibronectin type III domain containing 3A	-1.68	0.0010
Zfp703	zinc finger protein 703	-1.68	0.0018
Arrb1	arrestin beta 1	-1.69	0.0245
Gpr141	G protein-coupled receptor 141	-1.69	0.0010
Rap1b	RAP1B, member of RAS oncogene family	-1.69	0.0058
Rabep2	rabaptin, RAB GTPase binding effector protein 2	-1.69	0.0034
Samsn1	SAM domain, SH3 domain and nuclear localization signals 1	-1.69	0.0010
Prdx1	peroxiredoxin 1	-1.70	0.0041
Cyb5a	cytochrome b5 type A	-1.70	0.0087
Cyb5r3	cytochrome b5 reductase 3	-1.70	0.0045



Ubac2	UBA domain containing 2	-1.70	0.0062
Sh3bgrl	SH3 domain binding glutamate rich protein like	-1.71	0.0005
Lamp1	lysosomal associated membrane protein 1	-1.71	0.0182
Leng8	leukocyte receptor cluster member 8	-1.71	0.0018
Nedd9	neural precursor cell expressed, developmentally down-regulated 9	-1.71	0.0014
Rabggta	Rab geranylgeranyltransferase subunit alpha	-1.71	0.0018
Arf2	ADP-ribosylation factor 2	-1.72	0.0022
Atg13	autophagy related 13	-1.72	0.0037
Laptm5	lysosomal protein transmembrane 5	-1.72	0.0005
Otulin	OTU deubiquitinase with linear linkage specificity	-1.72	0.0014
Rprd2	regulation of nuclear pre-mRNA domain containing 2	-1.72	0.0030
Ppp1r9b	protein phosphatase 1 regulatory subunit 9B	-1.72	0.0005
Xdh	xanthine dehydrogenase	-1.72	0.0005
Dstyk	dual serine/threonine and tyrosine protein kinase	-1.72	0.0005
Kmt2e	lysine methyltransferase 2E	-1.72	0.0306
Fam174a	family with sequence similarity 174 member A	-1.72	0.0062
Gdpd3	glycerophosphodiester phosphodiesterase domain containing 3	-1.73	0.0168
Tbc1d5	TBC1 domain family member 5	-1.73	0.0018
Npepl1	aminopeptidase like 1	-1.73	0.0022
Tab2	TGF-beta activated kinase 1 (MAP3K7) binding protein 2	-1.73	0.0229
Pbxip1	PBX homeobox interacting protein 1	-1.74	0.0014
Srsf5	serine/arginine-rich splicing factor 5	-1.74	0.0005
Cicn4	chloride voltage-gated channel 4	-1.74	0.0026
Lrpap1	LDL receptor related protein associated protein 1	-1.74	0.0051
Rap2b	RAP2B, member of RAS oncogene family	-1.74	0.0005
Matk	MAF bZIP transcription factor K	-1.75	0.0037
Ythdf3	YTH N6-methyladenosine RNA binding protein 3	-1.75	0.0022
Mxd4	Max dimerization protein 4	-1.75	0.0005
Iscu	iron-sulfur cluster assembly enzyme	-1.75	0.0014
Ifi209	interferon gamma inducible protein 16	-1.75	0.0005
Stk11ip	serine/threonine kinase 11 interacting protein	-1.76	0.0010
Ctsh	cathepsin H	-1.76	0.0191
Pim1	Pim-1 proto-oncogene, serine/threonine kinase	-1.76	0.0078
Plbd1	phospholipase B domain containing 1	-1.76	0.0030
Ift46	intraflagellar transport 46	-1.76	0.0135
Sipa1l3	signal-induced proliferation-associated 1 like 3	-1.77	0.0071
Eef2	eukaryotic translation elongation factor 2	-1.77	0.0005
Dusp6	dual specificity phosphatase 6	-1.77	0.0005
Slc25a38	solute carrier family 25 member 38	-1.77	0.0010
Fbxw4	F-box and WD repeat domain containing 4	-1.77	0.0214
Phka2	phosphorylase kinase regulatory subunit alpha 2	-1.77	0.0005
Pip5k1c	phosphatidylinositol-4-phosphate 5-kinase type 1 gamma	-1.78	0.0005
Ccnt1	cyclin T1	-1.78	0.0018
Adam9	ADAM metallopeptidase domain 9	-1.78	0.0010
Cat	catalase	-1.78	0.0005
Slc25a36	solute carrier family 25 member 36	-1.78	0.0014
Pleckhn1	pleckstrin homology domain containing N1	-1.79	0.0037
Leprot	leptin receptor overlapping transcript	-1.79	0.0005
Herc4	HECT and RLD domain containing E3 ubiquitin protein ligase 4	-1.80	0.0014
Sde2	SDE2 telomere maintenance homolog	-1.80	0.0005
Fgd4	FYVE, RhoGEF and PH domain containing 4	-1.80	0.0005
Klf6	Kruppel like factor 6	-1.80	0.0005
Renbp	renin binding protein	-1.80	0.0051
Ogt	O-linked N-acetylglucosamine (GlcNAc) transferase	-1.80	0.0005
Spty2d1	SPT2 chromatin protein domain containing 1	-1.80	0.0010
Fam168a	family with sequence similarity 168 member A	-1.81	0.0005
Dnajb9	DnaJ heat shock protein family (Hsp40) member B9	-1.81	0.0010
Rps11	ribosomal protein S11	-1.82	0.0005
Serpib10	serpin family B member 10	-1.82	0.0005
Fgr	FGR proto-oncogene, Src family tyrosine kinase	-1.82	0.0078
Abcd2	ATP binding cassette subfamily D member 2	-1.83	0.0005
Ear2	eosinophil-associated, ribonuclease A family, member 2	-1.83	0.0005
Ucp2	uncoupling protein 2	-1.84	0.0037
Akap10	A-kinase anchoring protein 10	-1.84	0.0014
Arsa	arylsulfatase A	-1.84	0.0018
Sdc3	syndecan 3	-1.84	0.0005
Tusc1	tumor suppressor candidate 1	-1.85	0.0014
Zfp106	zinc finger protein 106	-1.85	0.0005
Spag9	sperm associated antigen 9	-1.86	0.0005
Glipr1	GLI pathogenesis related 1	-1.86	0.0005
Foxo3	forkhead box O3	-1.86	0.0005
Gpcpd1	glycerophosphocholine phosphodiesterase 1	-1.86	0.0005
Mmp8	matrix metallopeptidase 8	-1.86	0.0005
Nadk	NAD kinase	-1.86	0.0340
Eif4a2	eukaryotic translation initiation factor 4A2	-1.86	0.0005
Fcho2	FCH and mu domain containing endocytic adaptor 2	-1.87	0.0005
4833420G17Rik	chromosome 5 open reading frame 34	-1.87	0.0005
Pnrc1	proline rich nuclear receptor coactivator 1	-1.88	0.0005

Nuak2	NUAK family kinase 2	-1.88	0.0005
Prdx2	peroxiredoxin 2	-1.88	0.0005
Ptprc	protein tyrosine phosphatase receptor type C	-1.88	0.0005
Zfand2a	zinc finger AN1-type containing 2A	-1.88	0.0005
Itgb1	integrin subunit beta 1	-1.88	0.0005
Rbbp6	RB binding protein 6, ubiquitin ligase	-1.88	0.0196
Ext2	exostosin glycosyltransferase 2	-1.89	0.0005
Nkiras2	NFKB inhibitor interacting Ras like 2	-1.89	0.0135
Akap13	A-kinase anchoring protein 13	-1.89	0.0005
Rap2a	RAP2A, member of RAS oncogene family	-1.89	0.0005
Malt1	MALT1 paracaspase	-1.90	0.0005
Bin1	bridging integrator 1	-1.90	0.0014
Ifngr2	interferon gamma receptor 2	-1.90	0.0005
Nek7	NIMA related kinase 7	-1.90	0.0005
Cebpg	CCAAT enhancer binding protein gamma	-1.90	0.0048
Glul	glutamate-ammonia ligase	-1.91	0.0005
Sirpa	signal regulatory protein alpha	-1.91	0.0005
Tubb2a	tubulin beta 2A class IIa	-1.91	0.0005
Cyth4	cytohesin 4	-1.91	0.0005
Sh2b2	SH2B adaptor protein 2	-1.91	0.0005
Ggh	gamma-glutamyl hydrolase	-1.91	0.0014
Slc38a1	solute carrier family 38 member 1	-1.91	0.0005
Kctd12	potassium channel tetramerization domain containing 12	-1.92	0.0005
Lilra6	leukocyte immunoglobulin like receptor B3	-1.92	0.0010
Ptger4	prostaglandin E receptor 4	-1.92	0.0005
Tmcc1	transmembrane and coiled-coil domain family 1	-1.92	0.0005
Cik1	CDC like kinase 1	-1.92	0.0005
Itgal	integrin subunit alpha L	-1.93	0.0131
Lrrc8d	leucine rich repeat containing 8 VRAC subunit D	-1.93	0.0005
CAA01147332.	CD99 antigen	-1.94	0.0010
Tmem86a	transmembrane protein 86A	-1.94	0.0010
Pip4k2a	phosphatidylinositol-5-phosphate 4-kinase type 2 alpha	-1.94	0.0005
Gatc	glutamyl-tRNA amidotransferase subunit C	-1.94	0.0041
Klhl5	kelch like family member 5	-1.95	0.0005
Ulk1	unc-51 like autophagy activating kinase 1	-1.96	0.0068
Fem1c	fem-1 homolog C	-1.96	0.0005
Ier5	immediate early response 5	-1.96	0.0245
Birc3	baculoviral IAP repeat containing 3	-1.97	0.0005
Zbtb44	zinc finger and BTB domain containing 44	-1.97	0.0010
AW549877	chromosome 5 open reading frame 51	-1.97	0.0005
Irak2	interleukin 1 receptor associated kinase 2	-1.97	0.0005
Stard3nl	STARD3 N-terminal like	-1.97	0.0005
Klf13	Kruppel like factor 13	-1.97	0.0005
Orai3	ORAI calcium release-activated calcium modulator 3	-1.98	0.0005
Rxra	retinoid X receptor alpha	-1.98	0.0005
Fbrsl1	fibrosin like 1	-1.98	0.0005
Polr2e	RNA polymerase II subunit E	-1.99	0.0005
Prkx	protein kinase X-linked	-2.00	0.0005
Pqlc3	solute carrier family 66 member 3	-2.00	0.0005
Cd300lb	CD300 molecule like family member b	-2.00	0.0005
Plbd2	phospholipase B domain containing 2	-2.01	0.0005
Xpr1	xenotropic and polytropic retrovirus receptor 1	-2.01	0.0005
Ahcy12	adenosylhomocysteinase like 2	-2.02	0.0005
ldh1	isocitrate dehydrogenase (NADP(+)) 1	-2.02	0.0005
Tnfaip8l2	TNF alpha induced protein 8 like 2	-2.02	0.0005
Papss1	3'-phosphoadenosine 5'-phosphosulfate synthase 1	-2.03	0.0005
Stk17b	serine/threonine kinase 17b	-2.03	0.0005
Stx16	syntaxin 16	-2.03	0.0005
Zfp710	zinc finger protein 710	-2.04	0.0005
Trib1	tribbles pseudokinase 1	-2.04	0.0005
H2-DMa	major histocompatibility complex, class II, DM alpha	-2.04	0.0005
Slc35f6	solute carrier family 35 member F6	-2.05	0.0005
Ptp4a1	protein tyrosine phosphatase 4A1	-2.05	0.0214
Npc2	NPC intracellular cholesterol transporter 2	-2.05	0.0005
Timp2	TIMP metalloproteinase inhibitor 2	-2.05	0.0010
Fkbp1a	FKBP prolyl isomerase 1A	-2.05	0.0005
Rpl10	ribosomal protein L10	-2.05	0.0005
Adcy7	adenylate cyclase 7	-2.06	0.0005
Gab2	GRB2 associated binding protein 2	-2.06	0.0005
Ap1s2	adaptor related protein complex 1 subunit sigma 2	-2.06	0.0005
Fam53a	family with sequence similarity 53 member A	-2.06	0.0010
Add3	adducin 3	-2.07	0.0005
Pacs2	phosphofurin acidic cluster sorting protein 2	-2.07	0.0081
Rps13-ps2	ribosomal protein S13, pseudogene 2	-2.07	0.0220
Abl1	ABL proto-oncogene 1, non-receptor tyrosine kinase	-2.08	0.0005
Cers6	ceramide synthase 6	-2.08	0.0005
Themis2	thymocyte selection associated family member 2	-2.08	0.0005
Ndufaf7	NADH:ubiquinone oxidoreductase complex assembly factor 7	-2.08	0.0005

Man2a2	mannosidase alpha class 2A member 2	-2.08	0.0005
Spata13	spermatogenesis associated 13	-2.08	0.0005
Sumf1	sulfatase modifying factor 1	-2.08	0.0005
Ctsb	cathepsin B	-2.09	0.0005
Pdpf	pancreatic progenitor cell differentiation and proliferation factor	-2.10	0.0005
Hps3	HPS3 biogenesis of lysosomal organelles complex 2 subunit 1	-2.10	0.0005
Akr1b3	aldo-keto reductase family 1 member B	-2.11	0.0005
Jarid2	jumonji and AT-rich interaction domain containing 2	-2.12	0.0005
Abcb7	ATP binding cassette subfamily B member 7	-2.12	0.0005
Tmem159	transmembrane protein 159	-2.13	0.0018
Dusp1	dual specificity phosphatase 1	-2.13	0.0005
Tgfb	transforming growth factor beta induced	-2.13	0.0005
Lbh	LBH regulator of WNT signaling pathway	-2.13	0.0005
Wsb1	WD repeat and SOCS box containing 1	-2.13	0.0005
Npc1	NPC intracellular cholesterol transporter 1	-2.14	0.0328
Mfap3	microfibril associated protein 3	-2.14	0.0030
Myo1g	myosin IG	-2.14	0.0278
Tspan17	tetraspanin 17	-2.14	0.0005
Trim8	tripartite motif containing 8	-2.15	0.0005
Zfp362	zinc finger protein 362	-2.15	0.0005
Naaa	N-acylethanolamine acid amidase	-2.15	0.0173
Swap70	switching B cell complex subunit SWAP70	-2.16	0.0005
Mfng	MFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase	-2.16	0.0005
Zfp622	zinc finger protein 622	-2.17	0.0005
P2rx4	purinergic receptor P2X 4	-2.17	0.0005
Atxn3	ataxin 3	-2.17	0.0005
Junb	JunB proto-oncogene, AP-1 transcription factor subunit	-2.18	0.0151
Atraid	all-trans retinoic acid induced differentiation factor	-2.19	0.0005
Thap3	THAP domain containing 3	-2.19	0.0005
Vwa5a	von Willebrand factor A domain containing 5A	-2.19	0.0005
Mdp1	magnesium dependent phosphatase 1	-2.19	0.0005
Coq10a	coenzyme Q10A	-2.20	0.0005
Ssh2	slingshot protein phosphatase 2	-2.20	0.0005
Ankle2	ankyrin repeat and LEM domain containing 2	-2.20	0.0005
Ccn1	cyclin L1	-2.20	0.0005
Faim	Fas apoptotic inhibitory molecule	-2.20	0.0005
Socs6	suppressor of cytokine signaling 6	-2.20	0.0005
Gch1	GTP cyclohydrolase 1	-2.21	0.0128
Glud1	glutamate dehydrogenase 1	-2.22	0.0005
Mdm1	Mdm1 nuclear protein	-2.22	0.0005
Iffo1	intermediate filament family orphan 1	-2.23	0.0005
Bcl2l11	BCL2 like 11	-2.23	0.0005
Sgpl1	sphingosine-1-phosphate lyase 1	-2.23	0.0005
Cyp4f13	cytochrome P450 family 4 subfamily F member 3	-2.23	0.0005
Cebpb	CCAAT enhancer binding protein beta	-2.23	0.0005
Prmt3	protein arginine methyltransferase 3	-2.24	0.0005
Bhlhe40	basic helix-loop-helix family member e40	-2.24	0.0005
Prdx4	peroxiredoxin 4	-2.25	0.0005
Ddhd1	DDHD domain containing 1	-2.25	0.0005
Laptn4a	lysosomal protein transmembrane 4 alpha	-2.25	0.0030
Rap1gap2	RAP1 GTPase activating protein 2	-2.25	0.0005
Zdhhc9	zinc finger DHHC-type containing 9	-2.25	0.0005
Rnf149	ring finger protein 149	-2.25	0.0005
Cox7a2l	cytochrome c oxidase subunit 7A2 like	-2.25	0.0005
Man1a	mannosidase alpha class 1A member 1	-2.26	0.0005
Tnip2	TNFAIP3 interacting protein 2	-2.28	0.0005
Scarb1	scavenger receptor class B member 1	-2.28	0.0125
Trim26	tripartite motif containing 26	-2.28	0.0005
Lima1	LIM domain and actin binding 1	-2.29	0.0034
Zfand5	zinc finger AN1-type containing 5	-2.29	0.0005
Pdlim1	PDZ and LIM domain 1	-2.30	0.0005
Naga	alpha-N-acetylgalactosaminidase	-2.30	0.0005
Sat1	spermidine/spermine N1-acetyltransferase 1	-2.30	0.0005
Ldlr	low density lipoprotein receptor	-2.32	0.0101
Nufip1	nuclear FMR1 interacting protein 1	-2.33	0.0234
Rgs2	regulator of G protein signaling 2	-2.33	0.0005
Sod1	superoxide dismutase 1	-2.33	0.0005
Lrrc25	leucine rich repeat containing 25	-2.34	0.0005
Cd40	CD40 molecule	-2.34	0.0005
Irs2	insulin receptor substrate 2	-2.35	0.0005
P4ha1	prolyl 4-hydroxylase subunit alpha 1	-2.36	0.0306
Rasa3	RAS p21 protein activator 3	-2.36	0.0005
Adam15	ADAM metallopeptidase domain 15	-2.36	0.0005
Mbp	myelin basic protein	-2.36	0.0005
Plek	pleckstrin	-2.36	0.0005
Hps5	HPS5 biogenesis of lysosomal organelles complex 2 subunit 2	-2.38	0.0005
Xylt1	xylosyltransferase 1	-2.38	0.0005
Atp1a1	ATPase Na+/K+ transporting subunit alpha 1	-2.39	0.0005

Notch2	notch receptor 2	-2.39	0.0005
Itga4	integrin subunit alpha 4	-2.39	0.0005
Acbd5	acyl-CoA binding domain containing 5	-2.39	0.0005
Ly9	lymphocyte antigen 9	-2.40	0.0005
Stk10	serine/threonine kinase 10	-2.40	0.0005
Rps27rt	ribosomal protein S27	-2.40	0.0018
Rnf13	ring finger protein 13	-2.41	0.0005
Scpep1	serine carboxypeptidase 1	-2.42	0.0374
Rnf215	ring finger protein 215	-2.45	0.0005
Matk	megakaryocyte-associated tyrosine kinase	-2.45	0.0005
Map3k8	mitogen-activated protein kinase kinase kinase 8	-2.46	0.0005
Dna2	DNA replication helicase/nuclease 2	-2.47	0.0005
Acss1	acyl-CoA synthetase short chain family member 1	-2.48	0.0005
Vcan	versican	-2.48	0.0005
Pde4b	phosphodiesterase 4B	-2.48	0.0005
S100a6	S100 calcium binding protein A6	-2.48	0.0005
Rnase6	ribonuclease A family member k6	-2.49	0.0005
Mpeg1	macrophage expressed 1	-2.49	0.0005
Ifnar1	interferon alpha and beta receptor subunit 1	-2.49	0.0005
Tiam2	T cell lymphoma invasion and metastasis 2	-2.49	0.0005
St3gal1	ST3 beta-galactoside alpha-2,3-sialyltransferase 1	-2.50	0.0005
Inf2	inverted formin, FH2 and WH2 domain containing	-2.51	0.0005
Relb	RELB proto-oncogene, NF-kB subunit	-2.52	0.0005
Jun	Jun proto-oncogene, AP-1 transcription factor subunit	-2.53	0.0005
Tiparp	TCDD inducible poly(ADP-ribose) polymerase	-2.53	0.0398
Zfp36l2	ZFP36 ring finger protein like 2	-2.54	0.0005
Epb41l2	erythrocyte membrane protein band 4.1 like 2	-2.54	0.0005
Fbxo4	F-box protein 4	-2.54	0.0005
Wdr3	WD repeat domain 3	-2.55	0.0005
Fos	Fos proto-oncogene, AP-1 transcription factor subunit	-2.56	0.0005
Slc29a1	solute carrier family 29 member 1 (Augustine blood group)	-2.56	0.0045
Gsto1	glutathione S-transferase omega 1	-2.56	0.0005
Elmo2	engulfment and cell motility 2	-2.57	0.0005
Cryl1	crystallin lambda 1	-2.57	0.0005
Pepd	peptidase D	-2.57	0.0005
Skil	SKI like proto-oncogene	-2.59	0.0005
Lsp1	lymphocyte specific protein 1	-2.60	0.0005
Klhl24	kelch like family member 24	-2.60	0.0005
Iivbl	iivB acetolactate synthase like	-2.60	0.0005
Slc29a3	solute carrier family 29 member 3	-2.61	0.0005
Adgre1	adhesion G protein-coupled receptor E1	-2.61	0.0005
Pim3	Pim-3 proto-oncogene, serine/threonine kinase	-2.62	0.0345
BC035044	cDNA sequence BC035044	-2.63	0.0122
Txndc5	thioredoxin domain containing 5	-2.65	0.0005
Fyb	FYN binding protein 1	-2.66	0.0005
Osgin2	oxidative stress induced growth inhibitor family member 2	-2.66	0.0005
Klf3	Kruppel like factor 3	-2.66	0.0005
Atrnl1	attractin like 1	-2.66	0.0005
Ets2	ETS proto-oncogene 2, transcription factor	-2.66	0.0005
Asah1	N-acylsphingosine amidohydrolase 1	-2.66	0.0005
Cep170	centrosomal protein 170	-2.67	0.0005
Mfsd6	major facilitator superfamily domain containing 6	-2.69	0.0005
Fyn	FYN proto-oncogene, Src family tyrosine kinase	-2.70	0.0005
Klf10	Kruppel like factor 10	-2.71	0.0005
Cst3	cystatin C	-2.72	0.0005
Btg1	BTG anti-proliferation factor 1	-2.72	0.0005
Rcan1	regulator of calcineurin 1	-2.73	0.0005
Smpd3a	sphingomyelin phosphodiesterase acid like 3A	-2.73	0.0005
Bcl6	BCL6 transcription repressor	-2.74	0.0005
Tpm4	tropomyosin 4	-2.75	0.0005
Ikbkb	inhibitor of nuclear factor kappa B kinase subunit beta	-2.76	0.0005
Dcxr	dicarbonyl and L-xylulose reductase	-2.79	0.0005
Zfp386	zinc finger protein 519	-2.79	0.0005
Ifi207	interferon gamma inducible protein 16	-2.79	0.0005
Casp6	caspase 6	-2.80	0.0005
Slc41a3	solute carrier family 41, member 3	-2.81	0.0005
Ncor2	nuclear receptor corepressor 2	-2.84	0.0005
Tet2	tet methylcytosine dioxygenase 2	-2.84	0.0005
Zc3h12a	zinc finger CCCH-type containing 12A	-2.84	0.0005
Galnt10	polypeptide N-acetylgalactosaminyltransferase 10	-2.85	0.0005
Lpxn	leupaxin	-2.85	0.0005
Tmem135	transmembrane protein 135	-2.86	0.0005
Arl6ip5	ADP ribosylation factor like GTPase 6 interacting protein 5	-2.86	0.0005
Gpr132	G protein-coupled receptor 132	-2.86	0.0090
Kif1c	kinesin family member 1C	-2.87	0.0081
H1f0	H1 histone family, member 0	-2.87	0.0005
BC028528	chromosome 1 open reading frame 54	-2.89	0.0005
Crip1	cysteine rich protein 1	-2.90	0.0005

March1	membrane associated ring-CH-type finger 1	-2.91	0.0005
Chmp2b	charged multivesicular body protein 2B	-2.91	0.0026
Hacd4	3-hydroxyacyl-CoA dehydratase 4	-2.91	0.0005
Calcoco1	calcium binding and coiled-coil domain 1	-2.93	0.0005
Gamt	guanidinoacetate N-methyltransferase	-2.94	0.0005
Fabp5	fatty acid binding protein 5	-2.95	0.0005
Ckb	creatine kinase B	-2.95	0.0005
Evl	Enah/Vasp-like	-2.96	0.0095
Dusp7	dual specificity phosphatase 7	-2.96	0.0005
Fgd2	FYVE, RhoGEF and PH domain containing 2	-2.97	0.0005
Il17ra	interleukin 17 receptor A	-2.97	0.0005
5031439G07Rik	KIAA0930	-2.97	0.0005
Camkk2	calcium/calmodulin dependent protein kinase kinase 2	-2.99	0.0005
Mettl17	methyltransferase like 17	-3.00	0.0005
Slc25a4	solute carrier family 25 member 4	-3.01	0.0005
Trpv2	transient receptor potential cation channel subfamily V member 2	-3.01	0.0005
Aplp2	amyloid beta precursor like protein 2	-3.01	0.0005
Epb414aos	erythrocyte membrane protein band 4.1 like 4a, opposite strand	-3.02	0.0005
Ptprj	protein tyrosine phosphatase receptor type J	-3.03	0.0005
2410006H16Rik	RIKEN cDNA 2410006H16 gene	-3.03	0.0005
Anxa5	annexin A5	-3.05	0.0005
Ctsl	cathepsin V	-3.05	0.0005
Nabp1	nucleic acid binding protein 1	-3.06	0.0005
Nfil3	nuclear factor, interleukin 3 regulated	-3.06	0.0005
Ifrd1	interferon related developmental regulator 1	-3.07	0.0005
Fam43a	family with sequence similarity 43 member A	-3.07	0.0005
Msr1	macrophage scavenger receptor 1	-3.07	0.0005
Fam129a	niban apoptosis regulator 1	-3.08	0.0005
Abhd4	abhydrolase domain containing 4	-3.09	0.0005
Appl2	adaptor protein, phosphotyrosine interacting with PH domain and leucine zipper 2	-3.11	0.0005
Adamts10	ADAM metalloproteinase with thrombospondin type 1 motif 10	-3.12	0.0005
Map3k1	mitogen-activated protein kinase kinase kinase 1	-3.12	0.0005
Klra2	killer cell lectin-like receptor, subfamily A, member 4	-3.13	0.0005
Aco1	aconitase 1	-3.14	0.0005
Sh3glb1	SH3 domain containing GRB2 like, endophilin B1	-3.17	0.0005
Atp2b1	ATPase plasma membrane Ca2+ transporting 1	-3.18	0.0005
Clec4e	C-type lectin domain family 4 member E	-3.18	0.0005
Slc15a4	solute carrier family 15 member 4	-3.20	0.0005
Ypel3	yippee like 3	-3.22	0.0005
Rgs1	regulator of G protein signaling 1	-3.23	0.0005
Bbc3	BCL2 binding component 3	-3.28	0.0005
Foxn3	forkhead box N3	-3.29	0.0345
Mef2a	myocyte enhancer factor 2A	-3.29	0.0005
Ifngr1	interferon gamma receptor 1	-3.31	0.0005
Cebpa	CCAAT enhancer binding protein alpha	-3.32	0.0005
Mef2d	myocyte enhancer factor 2D	-3.32	0.0137
Hlcs	holocarboxylase synthetase	-3.33	0.0005
Sgk1	serum/glucocorticoid regulated kinase 1	-3.35	0.0005
Cd79b	CD79b molecule	-3.35	0.0005
Tcea3	transcription elongation factor A3	-3.35	0.0005
Pmaip1	phorbol-12-myristate-13-acetate-induced protein 1	-3.36	0.0005
Rel	REL proto-oncogene, NF-kB subunit	-3.36	0.0005
Abhd12	abhydrolase domain containing 12	-3.37	0.0005
Alpk1	alpha kinase 1	-3.39	0.0005
Tnfrsf3	TNF alpha induced protein 3	-3.41	0.0005
Atp10d	ATPase phospholipid transporting 10D (putative)	-3.42	0.0005
Hdac5	histone deacetylase 5	-3.42	0.0005
Ehd4	EH domain containing 4	-3.45	0.0005
Hadh	hydroxyacyl-CoA dehydrogenase	-3.45	0.0005
Psap	prosaposin	-3.45	0.0005
Ccdc85b	coiled-coil domain containing 85B	-3.49	0.0005
Arhgef3	Rho guanine nucleotide exchange factor 3	-3.49	0.0005
Siah2	siah E3 ubiquitin protein ligase 2	-3.50	0.0005
Tgfr2	transforming growth factor beta receptor 2	-3.56	0.0005
Ccr1	C-C motif chemokine receptor like 2	-3.59	0.0005
Bach1	BTB domain and CNC homolog 1	-3.66	0.0005
Insig1	insulin induced gene 1	-3.66	0.0005
Ms4a6c	membrane-spanning 4-domains, subfamily A, member 6C	-3.68	0.0058
Tnfrsf13b	TNF receptor superfamily member 13B	-3.68	0.0005
Cd48	CD48 molecule	-3.69	0.0005
Lrrc8c	leucine rich repeat containing 8 VRAC subunit C	-3.69	0.0005
Capn2	calpain 2	-3.70	0.0005
Limd1	LIM domains containing 1	-3.70	0.0005
Tle1	TLE family member 1, transcriptional corepressor	-3.74	0.0005
Sema4d	semaphorin 4D	-3.75	0.0005
Emb	embigin	-3.75	0.0005
Dyrk2	dual specificity tyrosine phosphorylation regulated kinase 2	-3.76	0.0005
Trim3	tripartite motif containing 3	-3.77	0.0005

Naip6	NLR family, apoptosis inhibitory protein 1	-3.78	0.0037
Ccl3	C-C motif chemokine ligand 3 like 3	-3.80	0.0005
Irf5	interferon regulatory factor 5	-3.80	0.0005
Prcp	prolylcarboxypeptidase	-3.80	0.0005
Sgms1	sphingomyelin synthase 1	-3.81	0.0005
Guca1a	guanylate cyclase activator 1A	-3.84	0.0005
Arl10	ADP ribosylation factor like GTPase 10	-3.85	0.0005
Map3k14	mitogen-activated protein kinase kinase kinase 14	-3.86	0.0005
Spr	sepiapterin reductase	-3.87	0.0005
Slc16a10	solute carrier family 16 member 10	-3.90	0.0005
Rasa4	RAS p21 protein activator 4	-3.91	0.0475
Nrp1	neuropilin 1	-3.93	0.0005
Arhgap26	Rho GTPase activating protein 26	-3.95	0.0005
Map4k4	mitogen-activated protein kinase kinase kinase kinase 4	-3.96	0.0005
Cytip	cytohesin 1 interacting protein	-3.97	0.0005
Gpr18	G protein-coupled receptor 18	-3.99	0.0236
Fbxl20	F-box and leucine-rich repeat protein 20	-4.02	0.0005
Asph	aspartate beta-hydroxylase	-4.02	0.0005
Slc11a1	solute carrier family 11 member 1	-4.03	0.0276
Gabarapl1	GABA type A receptor associated protein like 1	-4.10	0.0005
Tstd3	thiosulfate sulfurtransferase (rhodanese)-like domain containing 3	-4.10	0.0473
Cdc42ep2	CDC42 effector protein 2	-4.11	0.0005
Ctsa	cathepsin A	-4.12	0.0005
Spata6	spermatogenesis associated 6	-4.12	0.0005
Lat2	linker for activation of T cells family member 2	-4.13	0.0170
Tmbim1	transmembrane BAX inhibitor motif containing 1	-4.15	0.0005
Ly86	lymphocyte antigen 86	-4.15	0.0005
Ctss	cathepsin S	-4.20	0.0005
Gm5150	predicted gene 5150	-4.27	0.0005
Gramd4	GRAM domain containing 4	-4.28	0.0005
Smpd13b	sphingomyelin phosphodiesterase acid like 3B	-4.28	0.0005
Cdkn1a	cyclin dependent kinase inhibitor 1A	-4.29	0.0005
Mcub	mitochondrial calcium uniporter dominant negative beta subunit	-4.29	0.0005
Zswim6	zinc finger SWIM-type containing 6	-4.29	0.0005
Arhgap39	Rho GTPase activating protein 39	-4.33	0.0005
Tnfrsf1b	TNF receptor superfamily member 1B	-4.37	0.0005
Cmtm3	CKLF like MARVEL transmembrane domain containing 3	-4.39	0.0005
L1cam	L1 cell adhesion molecule	-4.40	0.0005
Hgsnat	heparan-alpha-glucosaminide N-acetyltransferase	-4.41	0.0005
Arrdc4	arrestin domain containing 4	-4.42	0.0005
Lipa	lipase A, lysosomal acid type	-4.42	0.0005
Nfkbiz	NFKB inhibitor zeta	-4.53	0.0005
Mir1941	microRNA 1941	-4.68	0.0037
Lpl	lipoprotein lipase	-4.68	0.0005
Cln8	CLN8 transmembrane ER and ERGIC protein	-4.72	0.0005
Trio	trio Rho guanine nucleotide exchange factor	-4.72	0.0005
Sfxn3	sideroflexin 3	-4.74	0.0005
Ccdc50	coiled-coil domain containing 50	-4.80	0.0005
Fam49a	family with sequence similarity 49 member A	-4.86	0.0005
A1839979	expressed sequence A1839979	-4.92	0.0005
Aim2	absent in melanoma 2	-4.94	0.0005
Apobec1	apolipoprotein B mRNA editing enzyme catalytic subunit 1	-4.96	0.0005
Dusp5	dual specificity phosphatase 5	-4.97	0.0175
Cd2ap	CD2 associated protein	-4.99	0.0240
Tmem109	transmembrane protein 109	-4.99	0.0030
Tifab	TIFA inhibitor	-5.02	0.0005
Galnt11	polypeptide N-acetylgalactosaminyltransferase 11	-5.08	0.0005
Slc2a6	solute carrier family 2 member 6	-5.08	0.0034
Wfdc17	WAP four-disulfide core domain 18	-5.10	0.0005
Cd180	CD180 molecule	-5.11	0.0005
Tlr7	toll like receptor 7	-5.11	0.0005
Agpat4	1-acylglycerol-3-phosphate O-acyltransferase 4	-5.17	0.0005
Cd68	CD68 molecule	-5.18	0.0005
Plekho1	pleckstrin homology domain containing O1	-5.26	0.0005
Bmx	BMX non-receptor tyrosine kinase	-5.28	0.0005
Fosl2	FOS like 2, AP-1 transcription factor subunit	-5.28	0.0005
Gpr137b-ps	G protein-coupled receptor 137B, pseudogene	-5.29	0.0005
Sowahc	soosowahc ankyrin repeat domain family member C	-5.32	0.0005
Trem14	triggering receptor expressed on myeloid cells like 4	-5.36	0.0005
Plk2	polo like kinase 2	-5.42	0.0005
Cd300a	CD300a molecule	-5.43	0.0005
Nat8l	N-acetyltransferase 8 like	-5.43	0.0180
Gm2a	GM2 ganglioside activator	-5.44	0.0005
Il6ra	interleukin 6 receptor	-5.46	0.0005
Mtss1	MTSS I-BAR domain containing 1	-5.51	0.0005
Nupr1	nuclear protein 1, transcriptional regulator	-5.55	0.0005
Clec10a	C-type lectin domain containing 10A	-5.61	0.0005
Mafb	MAF bZIP transcription factor B	-5.61	0.0005

Ryr1	ryanodine receptor 1	-5.65	0.0005
Arl4c	ADP ribosylation factor like GTPase 4C	-5.68	0.0005
Haao	3-hydroxyanthranilate 3,4-dioxygenase	-5.70	0.0005
Krt80	keratin 80	-5.71	0.0005
Adgre4	adhesion G protein-coupled receptor E4	-5.81	0.0005
Sik1	salt inducible kinase 1	-5.81	0.0005
Bag3	BCL2 associated athanogene 3	-5.82	0.0005
Olfm1	olfactomedin 1	-5.86	0.0005
Cyth3	cytohesin 3	-5.88	0.0285
Zfp385a	zinc finger protein 385A	-5.96	0.0005
Selenop	selenoprotein P	-5.98	0.0005
Calhm2	calcium homeostasis modulator family member 2	-6.07	0.0005
Dse	dermatan sulfate epimerase	-6.11	0.0005
Zscan26	zinc finger and SCAN domain containing 26	-6.15	0.0005
Pld4	phospholipase D family member 4	-6.24	0.0005
Cd302	CD302 molecule	-6.25	0.0005
Rassf4	Ras association domain family member 4	-6.30	0.0005
Ccl9	chemokine (C-C motif) ligand 9	-6.36	0.0201
Inpp1	inositol polyphosphate phosphatase like 1	-6.37	0.0005
Pdcd4	programmed cell death 4	-6.40	0.0030
Prr5l	proline rich 5 like	-6.43	0.0005
Rgs10	regulator of G protein signaling 10	-6.44	0.0005
Zfp467	zinc finger protein 467	-6.48	0.0005
Gm1673	predicted gene 1673	-6.48	0.0005
Nxpe1-ps	neurexophilin and PC-esterase domain family, member 1, pseudogene	-6.53	0.0122
Bcl2a1d	BCL2 related protein A1	-6.55	0.0014
Per1	period circadian regulator 1	-6.58	0.0005
Gm14321	predicted gene 14321	-6.63	0.0146
Prkch	protein kinase C eta	-6.74	0.0005
Mfsd7a	solute carrier family 49 member 3	-6.76	0.0041
Grk3	G protein-coupled receptor kinase 3	-6.82	0.0005
Il10ra	interleukin 10 receptor subunit alpha	-6.83	0.0005
Abi3	ABI family member 3	-6.92	0.0034
P2rx7	purinergic receptor P2X 7	-6.96	0.0005
Slc8a1	solute carrier family 8 member A1	-6.99	0.0005
Hip1	huntingtin interacting protein 1	-7.02	0.0005
Il6st	interleukin 6 signal transducer	-7.07	0.0037
Plxnb2	plexin B2	-7.22	0.0435
Nxpe4	neurexophilin and PC-esterase domain family member 4	-7.25	0.0005
Dusp2	dual specificity phosphatase 2	-7.27	0.0005
Il1b	interleukin 1 beta	-7.27	0.0005
Tmem51	transmembrane protein 51	-7.29	0.0005
Zfp361l	ZFP36 ring finger protein like 1	-7.31	0.0005
Emilin2	elastin microfibril interfacer 2	-7.33	0.0145
Tbc1d9	TBC1 domain family member 9	-7.33	0.0005
Fam234a	family with sequence similarity 234 member A	-7.43	0.0109
Hopx	HOP homeobox	-7.44	0.0005
Rras	RAS related	-7.50	0.0005
Elk3	ETS transcription factor ELK3	-7.61	0.0005
Clec4a1	zinc finger protein 705A	-7.67	0.0376
Prkab2	protein kinase AMP-activated non-catalytic subunit beta 2	-7.76	0.0005
Arhgef10l	Rho guanine nucleotide exchange factor 10 like	-7.79	0.0133
Csf1r	colony stimulating factor 1 receptor	-7.80	0.0005
Pparg	peroxisome proliferator activated receptor gamma	-7.81	0.0005
Rhoq	ras homolog family member Q	-7.83	0.0014
F13a1	coagulation factor XIII A chain	-7.89	0.0005
Arl5c	ADP ribosylation factor like GTPase 5C	-8.04	0.0005
Clec4d	C-type lectin domain family 4 member D	-8.07	0.0005
Ids	iduronate 2-sulfatase	-8.13	0.0005
Rftn1	raftlin, lipid raft linker 1	-8.15	0.0005
Mink1	misshapen like kinase 1	-8.22	0.0005
Galt9	polypeptide N-acetylgalactosaminyltransferase 9	-8.35	0.0005
Zeb2	zinc finger E-box binding homeobox 2	-8.40	0.0005
Mef2c	myocyte enhancer factor 2C	-8.42	0.0005
Ptpro	protein tyrosine phosphatase receptor type O	-8.52	0.0005
Ms4a4a	membrane spanning 4-domains A4A	-8.54	0.0005
P2ry6	pyrimidinergic receptor P2Y6	-8.80	0.0005
Cfh	complement factor H	-8.93	0.0005
Bmyc	brain expressed myelocytomatosis oncogene	-9.06	0.0005
Cyp4f16	cytochrome P450, family 4, subfamily f, polypeptide 16	-9.15	0.0005
Zcchc24	zinc finger CCHC-type containing 24	-9.32	0.0005
Cd300e	CD300e molecule	-9.36	0.0304
Tlr8	toll like receptor 8	-9.36	0.0010
Ms4a8a	membrane spanning 4-domains A8	-9.37	0.0005
St8sia4	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 4	-9.38	0.0005
Tmem176a	transmembrane protein 176A	-9.42	0.0005
Metrn1	meteorin like, glial cell differentiation regulator	-9.43	0.0005
Tlr2	toll like receptor 2	-9.83	0.0005

Tgif1	TGFB induced factor homeobox 1	-10.26	0.0212
Gm13373	predicted gene 13373	-10.56	0.0005
Arhgef37	Rho guanine nucleotide exchange factor 37	-10.89	0.0005
Hfe	homeostatic iron regulator	-10.98	0.0005
Bmf	Bcl2 modifying factor	-11.05	0.0265
Mob3b	MOB kinase activator 3B	-11.19	0.0005
Lilra5	leukocyte immunoglobulin like receptor A5	-11.31	0.0005
Cd36	CD36 molecule	-11.43	0.0005
Fabp4	fatty acid binding protein 4	-11.43	0.0005
Thbs1	thrombospondin 1	-11.52	0.0005
Pou2f2	POU class 2 homeobox 2	-11.54	0.0005
Dusp22	dual specificity phosphatase 22	-11.67	0.0005
Plekhm3	pleckstrin homology domain containing M3	-11.81	0.0005
Fam214a	family with sequence similarity 214 member A	-11.82	0.0005
Pid1	phosphotyrosine interaction domain containing 1	-11.91	0.0005
Sulf2	sulfatase 2	-11.98	0.0026
Tmem176b	transmembrane protein 176B	-12.03	0.0005
Cdc42bpb	CDC42 binding protein kinase beta	-12.28	0.0005
Rnd3	Rho family GTPase 3	-12.29	0.0005
Slc46a3	solute carrier family 46 member 3	-12.39	0.0005
Nlrp3	NLR family pyrin domain containing 3	-12.84	0.0005
Klf4	Kruppel like factor 4	-12.95	0.0005
Ext1	exostosin glycosyltransferase 1	-13.03	0.0005
Apoc1	apolipoprotein C1	-13.14	0.0005
Cyp27a1	cytochrome P450 family 27 subfamily A member 1	-13.30	0.0005
Eno3	enolase 3	-14.30	0.0005
Dusp3	dual specificity phosphatase 3	-14.31	0.0005
Fcgrt	Fc fragment of IgG receptor and transporter	-14.37	0.0005
S1pr5	sphingosine-1-phosphate receptor 5	-14.39	0.0005
Ip6k3	inositol hexakisphosphate kinase 3	-14.46	0.0005
Hes1	hes family bHLH transcription factor 1	-16.09	0.0005
Trps1	transcriptional repressor GATA binding 1	-16.48	0.0005
Btla	B and T lymphocyte associated	-16.59	0.0005
Gm6377	predicted gene 6377	-16.87	0.0005
Cd300lg	CD300 molecule like family member g	-16.94	0.0005
Ldlrad3	low density lipoprotein receptor class A domain containing 3	-17.08	0.0005
Ace	angiotensin I converting enzyme	-17.21	0.0005
Itgb5	integrin subunit beta 5	-17.30	0.0005
Atf3	activating transcription factor 3	-18.06	0.0005
Gm5547	predicted gene 5547	-18.78	0.0163
ApoE	apolipoprotein E	-20.03	0.0005
Clec2l	C-type lectin domain family 2, member d	-20.85	0.0005
Hpgd	15-hydroxyprostaglandin dehydrogenase	-20.91	0.0005
Skint3	selection and upkeep of intraepithelial T cells 4	-21.32	0.0005
Fn1	fibronectin 1	-23.54	0.0005
Cd83	CD83 molecule	-24.13	0.0005
Abca9	ATP binding cassette subfamily A member 9	-25.04	0.0005
Stxbp6	syntaxin binding protein 6	-30.59	0.0005
Cyp2ab1	cytochrome P450, family 2, subfamily ab, polypeptide 1	-31.32	0.0005
Thbd	thrombomodulin	-34.58	0.0005
Nr4a1	nuclear receptor subfamily 4 group A member 1	-38.27	0.0005



## BM-iMO vs BM-MO - 36 DEMs

miRNA symbol	miRbase ID	Fold change	P-value
mmu-miR-21a-3p	MIMAT0004628	5.67	0.007
mmu-miR-486	MIMAT0003130	5.45	0.003
mmu-miR-712	MIMAT0003502	4.84	0.037
mmu-miR-186#	MIMAT0004540	4.70	0.024
mmu-miR-2182	MIMAT0011286	4.52	0.014
mmu-miR-29c-5p	MIMAT0004632	4.34	0.025
mmu-miR-28	MIMAT0000653	3.96	0.004
mmu-miR-99b-5p	MIMAT0000132	3.61	0.012
mmu-miR-1949	MIMAT0009416	3.24	0.015
mmu-miR-22-5p	MIMAT0004629	3.18	0.023
mmu-miR-222	MIMAT0000891	2.98	0.014
mmu-miR-126-3p	MIMAT0000138	2.95	0.001
mmu-miR-7a-5p	MIMAT0000677	2.86	0.01
mmu-miR-1274a	MIMAT0009445	2.54	0.003
mmu-miR-29b	MIMAT0000127	2.48	0.042
mmu-miR-18a-3p	MIMAT0004626	2.44	0.006
mmu-miR-378a-5p	MIMAT0000742	2.43	0.003
mmu-miR-210	MIMAT0000658	2.40	0.016
mmu-miR-21	MIMAT0000530	2.32	0.041
rno-miR-148b-5p	MIMAT0004645	2.21	0.008
mmu-miR-2134	MIMAT0011210	2.08	0.05
mmu-miR-669a	MIMAT0003477	2.08	0.026
mmu-miR-30a-3p	MIMAT0000129	-2.25	0.011
mmu-miR-223	MIMAT0000665	-2.61	0.047
mmu-miR-16	MIMAT0000527	-2.87	0.001
mmu-miR-2183	MIMAT0011287	-2.94	0.037
mmu-miR-107	MIMAT0000647	-2.99	0.013
mmu-miR-467a	MIMAT0004887	-3.14	0.007
rno-miR-350	MIMAT0000604	-3.42	0.031
mmu-miR-1941-3p	MIMAT0009406	-4.12	0.028
rno-miR-223-3p	MIMAT0000892	-4.93	0.032
mmu-miR-322	MIMAT0000547	-5.71	0.031
mmu-miR-338-5p	MIMAT0004647	-9.26	0.044
mmu-miR-1969	MIMAT0009442	-10.75	0.029
mmu-miR-322#	MIMAT0000549	-25.64	0.003
mmu-miR-139-3p	MIMAT0004662	-47.62	0.04