

The differential expressed mRNAs between PTSD groups and control groups or puerarin treatment groups and PTSD groups (n=3/group)

DEG		PTSD vs. control			DEG		PTSD+pue vs. PTSD		
Gene	Full name	log2FC	P value	Regulation	Gene	Full name	log2FC	P value	Regulation
LOC108348082	LOC108348082	2.5	2.05E-02	up	Dhrs2	Dehydrogenase/reductase (SDR family) member 2	7	2.67E-02	up
Map2k3	mitogen-activated protein kinase kinase 3	2.5	2.05E-02	up	Rpl8	Ribosomal protein L8	4.58	7.34E-05	up
LOC103689956	LOC103689956	2.49	2.15E-02	up	Ddr1	Discoidin domain receptor tyrosine kinase 1	4.24	2.32E-03	up
Lgals1	Galectin-related protein	2.28	3.22E-11	up	Atp1b2	Sodium/potassium-transporting atpase subunit beta	3.32	1.39E-03	up
Rplp2	galectin like	2.03	8.87E-03	up	Smim26	RGD1566320	3.16	1.36E-03	up
Xpo7	ribosomal protein lateral stalk subunit P2	1.98	8.59E-03	up	Mtpap	AP associated domain containing 1	3.01	1.27E-04	up
H3f3c	H3 histone family member 3C	1.97	2.98E-02	up	Slc26a6	Solute carrier family 26	2.89	3.01E-04	up
Gypc	glycophorin C	1.97	3.83E-06	up	Pstpip2	Similar to macrophage actin-associated-tyrosine-phosphorylated protein	2.82	2.17E-04	up
Ncoa4	nuclear receptor coactivator 4	1.94	2.14E-02	up	LOC108348142	LOC108348142	2.67	2.06E-07	up
LOC100911575	LOC100911575	1.7	1.35E-04	up	Vps37a	Vacuolar protein sorting 37 homolog A	2.67	3.94E-03	up
Clic2	ret proto-oncogene	1.64	3.19E-04	up	Tst	Thiosulfate/3-mercaptopyruvate sulfurtransferase	2.56	2.08E-03	up
Ret	Proto-oncogene tyrosine-protein kinase receptor	1.59	1.12E-04	up	Nr1d1	Transcriptional repressor	2.5	8.45E-03	up
Slc6a9	Solute carrier family 6	1.55	7.83E-06	up	Mgst3	Microsomal glutathione S-transferase 3	2.4	6.12E-06	up

Cdca3	Cell division cycle-associated protein 3	1.55	6.79E-05	up	Cwc22	CWC22 spliceosome-associated protein	2.37	2.70E-03	up
Tspan8	Tetraspanin-8	1.5	1.45E-07	up	Wdr91	WD repeat-containing protein 91	2.36	4.33E-02	up
RT1-CE10	RT1 class I, locus CE10	1.43	7.99E-06	up	Prg4	Proteoglycan 4	2.34	3.44E-04	up
Nprl3	GATOR complex protein	1.39	4.80E-02	up	Rcor3	REST corepressor 3	2.27	8.12E-03	up
Clic4	chloride intracellular channel 4	1.32	4.35E-05	up	Mib1	E3 ubiquitin-protein ligase mind-bomb; Mindbomb E3 ubiquitin protein ligase 1	2.27	2.12E-03	up
Ppox	Protoporphyrinogen/copro porphyrinogen iii oxidase	1.28	7.21E-04	up	Chst15	Carbohydrate sulfotransferase 15	2.24	1.90E-02	up
LOC103690020	LOC103690020	1.27	1.85E-03	up	Gprasp1	G protein-coupled receptor associated sorting protein 1	2.24	9.19E-03	up
Als2cl	ALS2 C-terminal like	1.25	8.08E-04	up	Eme2	Essential meiotic structure-specific endonuclease subunit 2	2.2	1.54E-05	up
Asf1b	Histone chaperone ASF1B	1.24	6.61E-05	up	Hivep1	Human immunodeficiency virus type I enhancer binding protein 1	2.2	2.66E-05	up
Gfi1b	Zinc finger protein Gfi-1b	1.22	9.58E-04	up	Tsen54	TSEN54 tRNA splicing endonuclease subunit	2.19	1.58E-02	up
Spta1	spectrin alpha	1.16	3.83E-03	up	Snrpa	Small nuclear ribonucleoprotein polypeptide A	2.14	8.02E-03	up
Cenpw	Centromere protein w	1.15	4.44E-03	up	RT1-T24-1	RT1 class I, locus T24, gene 1	2.13	1.47E-02	up
Ifit1bl	interferon-induced protein with tetratricopeptide repeats 1B-like	1.15	2.11E-03	up	Fdxr	NADPH:adrenodoxin oxidoreductase	2.11	4.74E-03	up
Cd36	CD36 molecule	1.14	3.32E-04	up	Ptpn4	Protein tyrosine phosphatase, non-receptor type 4	2.08	3.09E-02	up

RGD1565355	RGD1565355	1.14	3.32E-04	up	Apbb3	Amyloid beta precursor protein binding family b member 3	2.06	9.72E-03	up
Kifc1	Kinesin-like C1	1.14	1.53E-03	up	RGD1562310	Putative uncharacterized protein RGD1562310	2.06	2.32E-02	up
Supt4h1	SPT4 homolog	1.12	1.40E-04	up	Zfp609	Zinc finger protein 609	2.05	6.77E-05	up
Cd226	CD226 molecule	1.09	1.37E-03	up	Btbd7	BTB (POZ) domain containing 7	2.04	7.62E-03	up
Spag5	Sperm-associated antigen 5	1.08	8.00E-04	up	Acaca	Acetyl-coa carboxylase / biotin carboxylase 1	2.01	1.48E-03	up
Slc43a1	Mfs transporter, lat3 family, solute carrier family 43, member 1	1.08	1.28E-03	up	Tsc22d2	TSC22 domain family, member 2	2.01	1.31E-03	up
Tex2	testis expressed 2	1.07	2.82E-03	up	Grk3	Grk3	2	1.35E-02	up
Trak2	Trafficking kinesin-binding protein 2	1.03	1.45E-03	up	Net1	Neuroepithelial cell transforming 1	1.99	2.38E-02	up
Ell2	elongation factor for RNA polymerase II 2	1.02	3.08E-03	up	Heatr6	Heat repeat-containing protein 6	1.99	1.75E-02	up
Gng12	G protein subunit gamma 12	1.02	2.63E-02	up	Zfp316	Zinc finger protein 316	1.97	1.60E-02	up
Hemgn	hemogen	1	9.01E-07	up	Tasor2	Family with sequence similarity 208	1.96	2.54E-03	up
Creg1	cellular repressor of E1A stimulated genes 1	0.99	5.33E-04	up	Megf9	Multiple EGF-like-domains 9	1.94	1.29E-02	up
Slc1a5	Neutral amino acid transporter B(0)	0.97	1.11E-02	up	Cep170	entrosomal protein of 170 kda-like	1.91	7.99E-03	up
Nrtn	Neurturin	0.94	1.69E-03	up	Ly75	Lymphocyte antigen 75	1.91	5.12E-03	up
Tacc3	Transforming acidic coiled-coil containing protein 3	0.94	2.91E-02	up	Drosha	Drosha	1.86	3.51E-03	up
Dand5	DAN domain family member 5	0.94	1.45E-02	up	Rcn1	Reticulocalbin 1	1.86	1.57E-02	up
RT1-A	RT1 class Ia, locus A	0.94	8.81E-05	up	LOC684841	LOC684841	1.85	4.99E-04	up

Dpf3	Double PHD fingers 3	0.93	2.02E-03	up	Gnptab	N-acetylglucosamine-1-phosphate transferase, alpha and beta subunits	1.81	1.02E-02	up
Syng1	Synaptogyrin-1	0.93	2.19E-02	up	Sowaha	Sowaha	1.81	7.09E-05	up
LOC100362738	LOC100362738	0.92	2.84E-03	up	Lemd3	LEM domain containing 3	1.81	8.76E-03	up
Mylk	Myosin light chain kinase	0.92	5.18E-04	up	Vamp1	Vesicle-associated membrane protein 1	1.8	1.22E-02	up
Kel	Kell metallo-endorpeptidase	0.91	5.85E-03	up	Szt2	Seizure threshold 2 homolog	1.79	4.42E-06	up
Dmtn	Dematin	0.91	1.08E-02	up	Nrtn	Neurturin	1.78	1.56E-04	up
Cggbp1	CGG triplet repeat-binding protein 1	0.91	7.08E-03	up	Zfp692	Zinc finger protein 692	1.78	3.11E-02	up
Lims1	LIM zinc finger domain containing 1	0.9	7.47E-03	up	Tp73	Transformation related protein 73	1.78	1.17E-02	up
Ppp1r15a	Protein phosphatase 1 regulatory subunit 15A	0.9	1.90E-03	up	RGD1563222	RGD1563222	1.77	7.14E-04	up
Kcnab1	Potassium voltage-gated channel subfamily A member regulatory beta subunit 1	0.9	2.22E-03	up	Exosc5	Exosome component 5	1.77	8.75E-06	up
Nadk2	NAD kinase 2	0.89	1.40E-02	up	F8	Coagulation factor VIII, procoagulant component	1.76	3.06E-04	up
Rgs18	Regulator of G protein signaling 18	0.89	3.57E-02	up	Adamts14	ADAM metallopeptidase with thrombospondin type 1 motif, 14	1.76	7.30E-03	up
Isg15	Ubiquitin-like protein ISG15	0.88	4.73E-03	up	Kif13a	Kinesin family member 13A	1.76	2.98E-02	up
RGD1359290	LOC100362738	0.88	1.36E-04	up	Bloc1s3	Biogenesis of lysosome-related organelles complex 1 subunit 3	1.76	1.22E-03	up

Prpf2	PRA1 domain family member 2	0.88	2.84E-03	up	Cep68	Centrosomal protein cep68; Centrosomal protein 68	1.75	3.61E-02	up
Usp15	Ubiquitin specific peptidase 15	0.87	8.49E-03	up	Fem1c	Fem-1 homolog c	1.75	1.07E-02	up
Pnpla8	Patatin like phospholipase domain containing 8	0.86	1.03E-02	up	Zbtb39	Zinc finger and BTB domain containing 39	1.74	4.19E-02	up
Rnf167	E3 ubiquitin-protein ligase RNF167	0.86	1.12E-03	up	Angel1	Protein angel homolog 1	1.74	3.30E-02	up
Mfsd12	Major facilitator superfamily domain-containing protein 12	0.86	2.10E-03	up	Wdr90	WD repeat domain 90	1.73	2.43E-02	up
Eloc	Elongin-C	0.86	2.08E-02	up	Chst3	Chondroitin 6-sulfotransferase 3	1.73	2.02E-02	up
Sphk1	Sphingosine kinase 1	0.85	3.59E-03	up	Ap1ar	Adaptor-related protein complex 1 associated regulatory protein	1.72	2.60E-02	up
Relt	Tumor necrosis factor receptor superfamily member 19L	0.85	1.49E-02	up	Nrde2	NRDE-2	1.71	1.69E-02	up
Tsc22d1	TSC22 domain family member 1	0.84	5.55E-04	up	Dcaf10	DDB1- and CUL4-associated factor 10	1.69	3.24E-02	up
Ppp1cb	Protein phosphatase 1 catalytic subunit beta	0.82	4.73E-03	up	Rpusd1	Rna pseudouridylate synthase domain containing 1	1.69	3.02E-02	up
Hmbs	Hydroxymethylbilane synthase	0.82	7.32E-04	up	Higd2a	HIG1 hypoxia inducible domain family, member 2A	1.69	1.14E-03	up
Hbs11	HBS1 like translational GTPase	0.82	1.53E-02	up	Alkbh7	Alkylated dna repair protein alkb homolog 7	1.69	5.81E-03	up
Rraga	Ras-related gtp-binding protein a/b	0.81	1.02E-02	up	Smg6	SMG6 nonsense mediated mRNA decay factor	1.69	1.93E-02	up
Pfdn2	Prefoldin subunit 2	0.81	9.32E-03	up	Gdf15	Growth differentiation factor 15	1.67	6.47E-03	up

Mast2	Microtubule associated serine/threonine kinase 2	0.8	6.76E-03	up	Tp53bp2	Apoptosis-stimulating of p53 protein 2	1.67	2.12E-02	up
Eny2	Transcription and mRNA export factor ENY2	0.8	3.67E-02	up	Pacsin1	Pacsin1	1.67	2.96E-02	up
Rhag	Transcription and mRNA export factor ENY2	0.8	3.24E-02	up	Camk1d	Calcium/calmodulin-dependent protein kinase ID	1.66	9.49E-03	up
C5ar2	Rh associated glycoprotein	0.79	8.05E-03	up	Polr3e	Polymerase (RNA) III (DNA directed) polypeptide E	1.66	2.08E-02	up
Hbb	Hemoglobin subunit beta	0.79	1.91E-02	up	H6pd	Hexose-6-phosphate dehydrogenase	1.65	4.81E-02	up
Cdk11	Cyclin-dependent kinase-like 1	0.79	1.66E-02	up	Stx16	Syntaxin 16	1.65	2.46E-02	up
Rhd	Rhesus blood group glycoprotein	0.79	1.06E-03	up	LOC691418	Hypothetical protein LOC691418	1.65	1.09E-03	up
Hist1h1c	H1.2 linker histone, cluster member	0.79	4.80E-03	up	Atg4d	Autophagy related 4d	1.65	1.68E-04	up
Kcnn4	Intermediate conductance calcium-activated potassium channel protein 4	0.78	3.45E-02	up	Dhodh	Dihydroorotate dehydrogenase	1.64	4.62E-02	up
Glr5	Glutaredoxin-related protein 5	0.77	2.21E-02	up	Zc3h12a	Endoribonuclease ZC3H12A	1.64	1.05E-02	up
Pkn2	Protein kinase N2	0.77	2.74E-02	up	Chd7	Chromodomain-helicase-dna-binding protein 7	1.64	1.81E-03	up
Usp46	Ubiquitin specific peptidase 46	0.77	1.50E-02	up	Atxn7	Ataxin-7	1.64	3.12E-02	up
Cd9	CD9 molecule	0.77	5.42E-03	up	Tbc1d9	TBC1 domain family, member 9	1.64	5.39E-03	up
Scand1	SCAN domain-containing protein 1	0.77	6.60E-03	up	Pex1	Peroxisomal biogenesis factor 1	1.63	4.94E-02	up
Exoc3	Exocyst complex component 3	0.76	4.30E-02	up	Fryl	FRY-like transcription coactivator	1.63	8.79E-06	up

Gda	Guanine deaminase	0.76	2.40E-02	up	Aktip	AKT-interacting protein	1.62	2.73E-02	up
Nedd4l	E3 ubiquitin-protein ligase NEDD4-like	0.76	3.67E-03	up	Sppl2b	Signal peptide peptidase-like 2B	1.62	7.87E-05	up
Dyrk3	Dual specificity tyrosine phosphorylation regulated kinase 3	0.76	2.03E-02	up	Bcl9	B-cell cll/lymphoma 9	1.62	1.09E-02	up
Zfand5	Zinc finger AN1-type containing 5	0.76	1.18E-02	up	Larp4b	La ribonucleoprotein domain family, member 4B	1.62	3.96E-03	up
Stra8	Stimulated by retinoic acid gene 8 protein homolog	0.75	4.69E-02	up	LOC100359916	LOC100359916	1.62	3.31E-02	up
Ubxn2a	UBX domain protein 2A	0.74	4.10E-02	up	Ankrd11	Ankyrin repeat domain 11	1.61	4.29E-06	up
Cir1	Corepressor interacting with RBPJ	0.74	1.93E-02	up	Aars2	Alanine--tRNA ligase	1.61	2.96E-02	up
Zfp91	E3 ubiquitin-protein ligase ZFP91	0.74	3.02E-02	up	Ubr5	Ubiquitin protein ligase e3 component n-recognin 5	1.61	9.26E-06	up
Ppp1r13b	Protein phosphatase 1 regulatory subunit 13B	0.74	3.31E-02	up	Dhrsx	Dehydrogenase/reductase (SDR family) X-linked	1.61	7.20E-05	up
Selenok	Selenoprotein k	0.74	4.29E-02	up	Sstr3	Somatostatin receptor type 3	1.6	2.80E-03	up
Slc25a38	Solute carrier family 25 member 38	0.74	1.84E-03	up	Lilrb4	Leukocyte immunoglobulin-like receptor, subfamily B, member 4	1.6	6.02E-03	up
Hebp1	Heme-binding protein 1	0.74	1.57E-02	up	Ptger1	Receptor for prostaglandin E2	1.59	1.65E-03	up
Rtn4	Reticulon 4	0.73	1.39E-02	up	Cntrl	Centriolin	1.59	1.80E-03	up
Btrc	Beta-transducin repeat containing E3 ubiquitin protein ligase	0.73	1.18E-02	up	Mfsd12	Major facilitator superfamily domain containing 12	1.59	8.74E-05	up
Smg5	SMG5 nonsense mediated mRNA decay factor	0.73	6.54E-03	up	Fam193a	Family with sequence similarity 193, member A	1.59	6.64E-04	up

Ppp2r5b	Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit beta isoform	0.73	1.56E-02	up	Metrn	Meteorin	1.58	2.78E-02	up
Tfdp2	Transcription factor Dp-2	0.72	1.87E-02	up	Igf1r	Insulin-like growth factor 1 receptor	1.57	2.11E-02	up
Zfp217	Zinc finger protein 217	0.72	4.11E-02	up	Pdzd8	PDZ domain containing 8	1.56	1.75E-02	up
Camsap1	almodulin-regulated spectrin-associated protein 1	0.72	3.18E-02	up	Khsrp	Far upstream element-binding protein	1.55	1.74E-04	up
Dennd5a	DENN domain containing 5A	0.72	1.77E-02	up	Atf7	Activating transcription factor 7	1.55	2.04E-02	up
RT1-CE7	Similar to rt1 class i, ce11	0.71	4.52E-02	up	RGD1563941	RGD1563941	1.55	2.37E-02	up
Mmadhc	Metabolism of cobalamin associated D	0.71	9.13E-03	up	Ylpm1	Ylp motif-containing protein 1	1.54	4.79E-04	up
Cep89	Centrosomal protein 89	0.71	1.44E-02	up	Slx4	SLX4 structure-specific endonuclease subunit	1.53	9.16E-03	up
Tinf2	TERF1 interacting nuclear factor 2	0.71	3.23E-02	up	Aebp2	AE binding protein 2	1.53	1.36E-02	up
Ppm1a	Protein phosphatase, Mg2+/Mn2+ dependent 1A	0.71	1.72E-02	up	Runx2	Runt-related transcription factor 2	1.53	1.20E-02	up
Rsrp1	Arginine and serine rich protein 1	0.7	1.12E-02	up	Scand1	SCAN domain-containing 1	1.52	7.02E-04	up
RT1-T24-4	RT1-T24-4	0.7	1.92E-02	up	Plxdc2	Plexin domain containing 2	1.52	2.48E-02	up
LOC100361558	LOC100361558	0.69	1.90E-02	up	Ubxn11	UBX domain-containing protein 11	1.52	3.66E-04	up
Plcl2	Phospholipase C like 2	0.69	1.37E-02	up	Bicral	GLTSCR1-like	1.52	7.52E-03	up
Irf7	Interferon regulatory factor 7	0.69	1.24E-02	up	Hivep3	Human immunodeficiency virus type I enhancer binding protein 3	1.51	6.59E-03	up



Mki67	Proliferation marker protein Ki-67	0.68	4.83E-02	up	Rhbdd3	Rhomboid domain-containing protein 3; Rhomboid domain containing 3	1.51	7.64E-03	up
Ctsd	Cathepsin D	0.68	3.48E-03	up	Arid2	At-rich interactive domain-containing protein 2	1.5	2.36E-03	up
RGD1564480	Similar to rt1 class i, ce11	0.68	6.45E-03	up	Sin3a	SIN3 transcription regulator family member A	1.5	5.39E-04	up
Lpin2	Lipin 2	0.68	2.16E-02	up	Ppig	Peptidyl-prolyl isomerase g	1.5	3.91E-03	up
Ranbp10	RAN binding protein 10	0.67	7.74E-03	up	LOC100910732	LOC100910732	1.49	3.08E-02	up
Tapbp	Transforming growth factor beta 1 induced transcript 1	0.67	1.43E-02	up	Srcin1	SRC kinase signaling inhibitor 1	1.48	1.97E-04	up
Tgfb1i1	Small ArfGAP 1	0.67	3.76E-02	up	Tnfaip811	Tumor necrosis factor, alpha-induced protein 8-like 1	1.48	5.68E-03	up
Smap1	Stromal membrane-associated protein 1	0.66	3.69E-02	up	Prr14l	Proline rich 14-like	1.48	1.02E-03	up
Ubxn11	UBX domain-containing protein 11	0.66	1.41E-02	up	Pam16	annotation not available	1.48	1.19E-02	up
R3hdm4	R3H domain-containing protein 4	0.66	1.80E-02	up	Plekhg2	Pleckstrin homology and rhogef domain containing g2	1.48	6.53E-05	up
Bnip3l	BCL2 interacting protein 3 like	0.65	1.24E-02	up	Huwe1	Hect, uba and wwe domain containing 1	1.47	1.37E-05	up
Ube2h	Ubiquitin-conjugating enzyme E2 H	0.65	6.23E-03	up	Zbtb34	Zinc finger and btb domain-containing protein 34	1.47	4.92E-03	up
Arhgef37	Rho guanine nucleotide exchange factor 37	0.64	2.40E-02	up	Cox8a	Cytochrome c oxidase subunit 8A	1.47	1.03E-03	up

Slc3a2	4F2 cell-surface antigen heavy chain	0.64	1.50E-02	up	Cmtm4	CKLF-like MARVEL transmembrane domain containing 4	1.47	1.14E-03	up
Lgals9	Galectin-9	0.64	2.38E-02	up	Parp14	Poly (ADP-ribose) polymerase family, member 14	1.47	1.02E-04	up
Fhdc1	FH2 domain containing 1	0.64	2.81E-02	up	Blcap	Bladder cancer-associated protein	1.47	2.11E-02	up
Pebp1	Phosphatidylethanolamine -binding protein 1	0.64	2.15E-03	up	Rtel1	Regulator of telomere elongation helicase 1	1.47	2.93E-02	up
Usp4	Ubiquitin specific peptidase 4	0.64	1.01E-02	up	Klf1	Kruppel-like factor 1	1.47	3.40E-04	up
Aspscr1	Tether containing UBX domain for GLUT4	0.63	3.13E-02	up	Arhgap26	Rho GTPase activating protein 26	1.46	4.98E-02	up
Tmem140	Transmembrane protein 140	0.63	3.18E-02	up	LOC361646	LOC361646	1.46	2.11E-02	up
Caprin1	Cell cycle associated protein 1	0.63	2.08E-02	up	Emid1	EMI domain containing 1	1.46	4.60E-02	up
Ppm1d	Protein phosphatase, Mg2+/Mn2+ dependent 1D	0.63	2.72E-02	up	Wdr13	WD repeat domain 13	1.45	1.68E-02	up
Ifrd2	Interferon related developmental regulator 2	0.63	8.14E-03	up	Washc5	WASH complex subunit strumpellin	1.45	1.71E-02	up
Sptb	Spectrin beta	0.63	2.67E-02	up	Tusc2	Tumor suppressor candidate 2	1.45	2.00E-03	up
Babam2	BRISC and BRCA1 A complex member 2	0.63	1.01E-02	up	Wdfy3	WD repeat and FYVE domain containing 3	1.44	2.00E-04	up
Mthfd2	Methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2	0.63	4.24E-02	up	Rasal1	RAS protein activator like 1	1.44	4.87E-02	up
Phospho1	Phosphoethanolamine/phosphocholine phosphatase	0.62	8.48E-03	up	Dnlz	Mitochondrial protein import protein zim17	1.44	2.70E-02	up
Dot11	Histone-lysine N-methyltransferase, H3 lysine-79 specific	0.62	2.73E-02	up	Rom1	Rod outer segment membrane protein 1;	1.44	3.25E-02	up

B2m	Beta-2-microglobulin	0.62	9.47E-03	up	Lrp6	Low density lipoprotein receptor-related protein 6	1.44	6.96E-03	up
Hist3h2ba	Histone cluster 3, h2ba DNA-binding death effector	0.62	3.08E-02	up	Ypel3	Yippee-like 3	1.43	1.72E-03	up
Dedd2	domain-containing protein 2	0.62	1.34E-02	up	Pi4k2a	Phosphatidylinositol 4-kinase type 2-alpha	1.43	2.99E-02	up
Rnf5	E3 ubiquitin-protein ligase RNF5	0.62	1.26E-02	up	Crk	Adapter molecule crk	1.43	1.77E-02	up
Acs11	Long-chain-fatty-acid--Co A ligase 1	0.61	4.95E-02	up	Fbrs11	Fibrosin-like 1	1.43	8.09E-03	up
Ube2m	NEDD8-conjugating enzyme Ubc12	0.61	1.93E-02	up	Gigyf1	PERQ amino acid rich, with GYF domain 1	1.43	7.43E-04	up
Ank1	Ankyrin 1	0.61	3.02E-02	up	Gabbr1	Component of a heterodimeric G-protein coupled receptor for GABA	1.43	5.45E-03	up
Arhgef12	Rho guanine nucleotide exchange factor 12 Rano class II	0.61	3.41E-02	up	Arl2	Adp-ribosylation factor-like protein 2	1.43	2.02E-03	up
RT1-Ba	histocompatibility antigen, B alpha chain	0.61	4.46E-02	up	Tet3	Tet methylcytosine dioxygenase 3	1.42	1.94E-03	up
Uhmk1	Serine/threonine-protein kinase Kist	0.6	3.57E-02	up	Uqcr11	Ubiquinol-cytochrome c reductase, complex III subunit XI	1.42	1.67E-03	up
Lmna	Prelamin-A/C	0.6	3.83E-02	up	Ptov1	Prostate tumor-overexpressed gene 1	1.42	3.02E-04	up
Dcaf8	DDB1 and CUL4 associated factor 8	0.6	4.89E-02	up	Ep400	E1A binding protein p400	1.42	3.55E-05	up
Vbp1	Vhl binding protein 1	0.6	2.96E-02	up	Pygb	Glycogen phosphorylase that regulates glycogen mobilization	1.42	1.77E-02	up
Mob2	MOB kinase activator 2	0.6	4.93E-02	up	Sec63	SEC63	1.42	1.04E-02	up

Tal1	Tal bhlh transcription factor 1	0.6	1.91E-02	up	Zfp236	Zinc finger protein 236	1.42	2.67E-02	up
Atp6v0e1	V-type proton ATPase subunit e 1	0.59	4.24E-02	up	Mre11a	Component of the MRN complex 11a	1.41	2.88E-02	up
Slfn4	Schlafen family member 12-like	0.59	4.48E-02	up	Prr12	Proline rich 12	1.41	1.78E-04	up
Ppt2	Lysosomal thioesterase PPT2	0.59	4.48E-02	up	Dennd4b	Denn domain-containing protein 4b	1.41	3.69E-05	up
Fam220a	Protein FAM220A	0.59	3.03E-02	up	Plekhj1	Pleckstrin homology domain containing, family j member 1	1.41	3.50E-03	up
Spp12b	Signal peptide peptidase-like 2B	0.59	3.18E-02	up	Dcaf1	DDB1 and CUL4-associated factor 1	1.41	5.60E-03	up
Ndufa8	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 8	0.58	4.47E-02	up	Slc52a2	Solute carrier family 52, riboflavin transporter, member 2	1.41	3.17E-02	up
Ptp4a2	Protein tyrosine phosphatase 4A2	0.58	2.25E-02	up	Prr29	Prr29	1.41	2.47E-02	up
Smox	Spermine oxidase	0.58	8.75E-03	up	Tmem14c	Transmembrane protein 14c	1.4	2.46E-03	up
Tmem86b	Alkenylglycerophosphocholine hydrolase	0.58	2.17E-02	up	Bad	Bcl2-associated agonist of cell death	1.4	2.38E-02	up
Trim10	Tripartite motif containing 10	0.58	1.29E-02	up	Rps10	Ribosomal protein S10-like 1	1.4	9.07E-04	up
Usf1	Upstream stimulatory factor 1	0.58	4.54E-02	up	Mfsd13a	Major facilitator superfamily domain-containing 13A	1.4	2.88E-02	up
Ankh	ANKH inorganic pyrophosphate transport regulator	0.57	2.54E-02	up	Fastk	Fas-activated serine/threonine kinase	1.4	6.74E-04	up
Cd59	CD59 molecule	0.56	2.33E-02	up	Otud4	OTU deubiquitinase 4	1.4	4.44E-03	up
Tmem183a	Transmembrane protein 183A	0.56	1.79E-02	up	Tnfrsf25	Tumor necrosis factor ligand superfamily member 15	1.4	2.82E-02	up

Scly	Selenocysteine lyase	0.56	1.18E-02	up	Sec23ip	SEC23 interacting protein	1.4	1.34E-02	up
Nfkbib	Intersectin 1	0.56	4.04E-02	up	Ndufa7	NADH:ubiquinone oxidoreductase subunit A7	1.4	9.24E-03	up
Gng5	Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-5	0.56	4.71E-02	up	Lyl1	Lymphoblastic leukemia associated hematopoiesis regulator 1	1.39	5.25E-05	up
Itsn1	Intersectin-1	0.55	2.51E-02	up	Nlrc5	NLR family, CARD domain containing 5	1.39	5.91E-03	up
Bcl2l1	Bcl-2-like protein 1	0.55	2.81E-02	up	Gpx1	Glutathione peroxidase 1	1.39	1.72E-03	up
Ube2j1	Ubiquitin conjugating enzyme E2 J1	0.55	3.68E-02	up	Trerf1	Transcriptional regulating factor 1	1.39	2.86E-02	up
Tk1	Thymidine kinase, cytosolic	0.55	1.84E-02	up	Pik3c2b	Phosphatidylinositol-4-phosphate 3-kinase, catalytic subunit type 2 beta	1.39	3.65E-03	up
Ell	Elongation factor for RNA polymerase II	0.55	1.45E-02	up	Dedd2	Death effector domain containing 2	1.39	4.40E-04	up
Fam89b	Leucine repeat adapter protein 25	0.55	3.83E-02	up	Peak1	Pseudopodium-enriched atypical kinase 1	1.39	1.99E-02	up
Anapc13	Anaphase-promoting complex subunit 13	0.54	4.18E-02	up	Zfp771	Zinc finger protein 771	1.39	3.71E-03	up
Itga6	Integrin subunit alpha 6	0.54	3.84E-02	up	Bptf	Bromodomain PHD finger transcription factor	1.38	1.55E-04	up
Tspo2	Translocator protein 2	0.53	3.84E-02	up	Ndufb8	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8	1.38	2.76E-03	up
Txn2	Thioredoxin	0.53	4.48E-02	up	Anapc11	Anaphase promoting complex subunit 11	1.38	3.24E-03	up
Abtb1	Ankyrin repeat and BTB/POZ domain-containing protein	0.53	2.00E-02	up	Ptprs	Ptprs	1.37	3.74E-04	up

Ybx2	Y-box-binding protein 2	0.53	1.69E-02	up	Ice1	Interactor of little elongator complex ELL subunit 1	1.37	8.56E-03	up
Ucp2	Mitochondrial uncoupling protein 2	0.52	2.08E-02	up	Clasrp	CLK4-associating serine/arginine rich protein	1.37	9.25E-03	up
Anapc2	Anaphase-promoting complex subunit 2	0.52	4.78E-02	up	Kmt2a	[histone h3]-lysine4 n-trimethyltransferase mll1	1.37	5.28E-05	up
Stradb	STE20 related adaptor beta	0.52	4.81E-02	up	Fam168a	Family with sequence similarity 168, member A	1.37	2.44E-02	up
Epn1	Epsin-1	0.51	2.56E-02	up	Tmem222	Transmembrane protein 222	1.36	5.41E-03	up
Ypel3	Protein yippee-like 3	0.5	4.34E-02	up	Top3b	Topoisomerase (dna) iii beta	1.36	2.04E-02	up
Narf	Nuclear prelamin A recognition factor	0.5	4.52E-02	up	Tnrc6c	Trinucleotide repeat-containing 6c	1.36	3.20E-03	up
Sh3glb1	SH3 domain containing GRB2 like	0.5	3.02E-02	up	LOC100359505	Ribosomal protein S21	1.36	4.03E-02	up
Eif2ak1	Eukaryotic translation initiation factor 2-alpha kinase 1	0.5	4.81E-02	up	Slc6a9	Sodium- and chloride-dependent glycine transporter 1	1.36	4.73E-03	up
Lgals5	Lectin, galactose binding, soluble 5	0.5	1.06E-02	up	Kdm1a	[histone h3]-n6,n6-dimethyl-1-lysine4 fad-dependent demethylase	1.36	7.11E-03	up
Nfe2	Transcription factor NF-E2 45 kDa subunit	0.49	2.83E-02	up	Grina	Glutamate ionotropic receptor nmda type subunit associated protein 1;	1.36	4.06E-04	up
Isca1	Iron-sulfur cluster assembly 1 homolog	0.48	4.20E-02	up	Frat2	Frequently rearranged in advanced T-cell lymphomas 2	1.35	3.39E-02	up

Furin	Furin	0.48	2.39E-02	up	Rnf111	E3 ubiquitin-protein ligase Arkadia; Ring finger protein 111	1.35	6.35E-03	up
Adrm1	Proteasomal ubiquitin receptor ADRM1	0.48	3.61E-02	up	Zfp318	Zinc finger protein 318	1.35	1.06E-02	up
Ehd1	EH domain-containing protein 1	0.48	3.21E-02	up	Sec16a	SEC16 homolog A	1.34	2.38E-04	up
Tent5c	Putative nucleotidyltransferase FAM46C	0.47	3.36E-02	up	Fig4	IG4 phosphoinositide 5-phosphatase	1.34	3.67E-02	up
Cd82	CD82 antigen	0.47	4.03E-02	up	Cox6a1	Cytochrome c oxidase subunit 6A1	1.34	2.85E-03	up
Hexa	Beta-hexosaminidase subunit alpha	0.46	4.01E-02	up	Zfp362	Zinc finger protein 362	1.34	2.48E-02	up
Med25	Mediator of RNA polymerase II transcription subunit 25	0.46	2.13E-02	up	Ndufa11	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 11	1.34	5.90E-03	up
Ttyh3	Protein tweety homolog 3	0.46	4.25E-02	up	Gabarap	Gamma-aminobutyric acid receptor-associated protein	1.34	3.39E-03	up
Ly1l	Protein lyl-1	0.45	1.75E-02	up	Hdac4	Histone deacetylase 4/5	1.33	2.80E-02	up
Cnppd1	Protein CNPPD1	0.45	3.52E-02	up	Galk1	Galactokinase 1	1.33	1.37E-02	up
Rac2	Ras-related C3 botulinum toxin substrate 2	-0.43	3.91E-02	down	Fntb	Protein farnesyltransferase subunit beta	1.33	5.82E-03	up
RT1-Da	Histocompatibility 2, class II antigen E alpha	-0.45	2.92E-02	down	Bcl7c	B-cell cll/lymphoma 7c	1.33	9.15E-03	up
Lasp1	LIM and SH3 domain protein 1	-0.46	3.66E-02	down	Yipf3	Yipf3	1.33	6.09E-03	up
Impdh2	Inosine-5'-monophosphate dehydrogenase 2	-0.48	4.56E-02	down	Ndufb2	Nadh dehydrogenase (ubiquinone) 1 beta subcomplex, 2	1.33	1.30E-02	up
Tcf3	Transcription factor E2-alpha	-0.5	4.00E-02	down	Zzef1	Zinc finger zz-type and ef-hand domain containing 1	1.32	7.08E-04	up

Lck	Tyrosine-protein kinase Lck	-0.52	3.35E-02	down	Arid5b	Arid5b	1.32	3.20E-02	up
Was	Wasp actin nucleation promoting factor	-0.53	4.59E-02	down	Zfp512b	Zinc finger protein 512B	1.32	1.07E-02	up
Esy1	Extended synaptotagmin-1	-0.53	3.53E-02	down	Tomm7	Translocase of outer mitochondrial membrane 7	1.32	7.35E-03	up
Cd74	HLA class II histocompatibility antigen gamma chain	-0.53	1.54E-02	down	Dvl1	dishevelled homolog DVL-1	1.32	1.72E-02	up
Acp5	Tartrate-resistant acid phosphatase type 5	-0.54	1.96E-02	down	Pqlc1	PQ loop repeat containing 1	1.32	1.71E-03	up
Ifi30	Gamma-interferon-inducib le lysosomal thiol reductase	-0.54	2.57E-02	down	Hist4h4	Histone cluster 1, h4m	1.32	3.07E-02	up
Phb2	Prohibitin-2	-0.56	3.91E-02	down	Vps13c	Vacuolar protein sorting 13C	1.32	2.30E-03	up
Gmfg	Glia maturation factor gamma	-0.57	1.78E-02	down	Tspo	Translocator	1.31	9.90E-03	up
Hip1r	Huntingtin-interacting protein 1-related protein	-0.57	2.55E-02	down	Phlpp1	Ph domain and leucine-rich repeat-containing protein phosphatase	1.31	1.02E-02	up
Jup	Junction plakoglobin	-0.57	1.72E-02	down	Map3k1	kinase signal transduction cascade	1.31	2.25E-02	up
Huwe1	HECT, UBA and WWE domain containing E3 ubiquitin protein ligase 1	-0.57	4.09E-02	down	Sptbn4	Spectrin, beta, non-erythrocytic 4	1.31	3.76E-03	up
Snrnp200	U5 small nuclear ribonucleoprotein 200 kDa helicase	-0.58	2.18E-02	down	Klhl42	Kelch-like family, member 42	1.31	6.85E-04	up
Dync1h1	Dynein cytoplasmic 1 heavy chain 1	-0.59	3.09E-02	down	Tnrc18	Trinucleotide repeat containing 18	1.31	1.60E-04	up
Fcer2	Low affinity immunoglobulin epsilon Fc receptor	-0.61	4.51E-02	down	Zfc3h1	Zinc finger, c3h1	1.31	1.38E-02	up



Scd2	domain containing 2	-0.61	2.13E-02	down	Arf5	ADP-ribosylation factor 5	1.31	1.42E-02	up
B4galnt1	Beta-1,4 N-acetylgalactosaminyltransferase 1	-0.62	3.42E-02	down	Zbed5	Zinc finger, BED-type containing 5	1.31	1.02E-02	up
Ndufs2	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2	-0.62	4.73E-02	down	Slf2	Slf2	1.31	1.99E-02	up
Madd	MAP kinase activating death domain	-0.62	3.51E-02	down	Kri1	KRI1	1.31	8.04E-03	up
Rpl5	60S ribosomal protein L5	-0.64	4.24E-03	down	Cd320	CD320 antigen	1.3	4.24E-02	up
Sept1	Septin-1	-0.65	7.10E-03	down	Crabp1	Cellular retinoic acid-binding protein 1	1.3	4.86E-02	up
Bptf	Bromodomain PHD finger transcription factor	-0.65	2.94E-02	down	Rabac1	Prenylated Rab acceptor protein 1	1.3	1.42E-03	up
Rhoh	Rho-related GTP-binding protein RhoH	-0.65	3.07E-02	down	Trak1	Trafficking protein, kinesin binding 1	1.3	1.59E-02	up
Cd79a	B-cell antigen receptor complex-associated protein alpha chain Mitochondrial inner	-0.67	1.71E-02	down	Kmt5c	Histone-lysine N-methyltransferase KMT5C	1.3	2.04E-02	up
Oxa1l	membrane protein OXAIL	-0.67	2.34E-02	down	Tlr9	Toll-like receptor 9	1.3	1.34E-03	up
Setd2	SET domain containing 2	-0.68	4.32E-02	down	Clip1	Cap-gly domain containing linker protein 1	1.3	3.35E-02	up
Fus	FUS RNA binding protein	-0.68	1.70E-02	down	Adamts10	A disintegrin and metalloproteinase with thrombospondin motifs 10	1.29	4.69E-03	up
Nkg7	Protein NKG7	-0.69	2.55E-02	down	Setd2	SET domain containing 2	1.29	3.54E-04	up
Il2rb	Interleukin-2 receptor subunit beta	-0.7	1.88E-02	down	Tmem160	Transmembrane protein 160	1.29	4.71E-03	up

Kat6a	Lysine acetyltransferase 6A	-0.7	1.77E-02	down	Srrm2	Serine/arginine repetitive matrix 2	1.29	3.48E-05	up
Ppp1r14b	Protein phosphatase 1 regulatory inhibitor subunit 14B	-0.71	2.78E-02	down	Hip1	Huntingtin interacting protein 1	1.29	1.26E-02	up
Gzmm	Granzyme M	-0.74	1.35E-02	down	Cbfa2t3	Core-binding factor, runt domain, alpha subunit 2	1.29	2.43E-02	up
Myh9	Myosin-9	-0.74	2.34E-02	down	Blvrb	Biliverdin reductase b	1.29	1.98E-03	up
Psmb8	Proteasome subunit beta type-8	-0.9	1.27E-03	down	Lrp1	Low-density lipoprotein receptor-related protein 1	1.29	1.90E-04	up
Rpl17	60S ribosomal protein L17	-1.05	1.08E-05	down	Srcap	Snf2-related CREBBP activator protein	1.29	7.19E-04	up
Hsd3b7	Hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 7	-1.57	3.46E-02	down	Mycbp2	MYC binding protein 2	1.28	2.32E-04	up
					Psmb5	20S proteasome subunit beta 5	1.28	4.31E-03	up
					Mlxip	MLX interacting protein	1.28	9.12E-03	up
					Ca11	Gastrokine 1	1.28	9.69E-03	up
					Kmt2d	Lysine (K)-specific methyltransferase 2D	1.28	1.26E-04	up
					Prkag1	5'-AMP-activated protein kinase subunit gamma-1	1.28	1.26E-04	up
					LOC100911516	LOC100911516	1.28	1.99E-02	up
					Smarca2	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2	1.28	1.33E-02	up

Leng8	Leukocyte receptor cluster (LRC) member 8	1.27	1.23E-04	up
Slc41a3	Solute carrier family 41, member 3	1.27	1.56E-02	up
Notch2	Notch2	1.27	2.57E-04	up
Rnf213	Ring finger protein 213	1.26	6.60E-04	up
Taf10	Transcription initiation factor TFIID subunit 10	1.26	5.14E-03	up
Epn1	Epsin-1	1.26	1.57E-03	up
Lrch3	Leucine-rich repeats and calponin homology (CH) domain containing 3	1.26	4.94E-02	up
LOC103689968	LOC103689968	1.26	2.88E-02	up
Pop7	Ribonuclease P protein subunit p20	1.26	2.97E-02	up
Kcnn4	Intermediate conductance calcium-activated potassium channel protein 4	1.26	1.10E-02	up
Safb2	Scaffold attachment factor B2	1.26	4.66E-03	up
Wiz	Widely-interspaced zinc finger motifs	1.25	4.40E-03	up
Polrmt	DNA-directed RNA polymerase	1.25	9.11E-03	up
Ntng2	Netrin G2	1.25	4.45E-03	up
Pax5	Paired box 5	1.24	1.09E-02	up
Ttc28	Tetratricopeptide repeat domain 28	1.24	1.74E-02	up
Dpm2	Dolichol phosphate-mannose biosynthesis regulatory protein	1.24	1.16E-02	up
Gimap8	GTPase IMAP family member 8	1.23	2.17E-02	up

Rpl18a	Ribosomal protein L18A	1.23	2.99E-03	up
Abca2	Atp-binding cassette, subfamily a (abc1), member 2	1.23	9.92E-04	up
Ino80	INO80	1.23	2.73E-02	up
RGD1562378	RGD1562378	1.23	2.19E-02	up
Ash11	[histone h3]-lysine4 n-trimethyltransferase ash11	1.23	5.20E-03	up
Fam222b	Family with sequence similarity 222, member B	1.23	2.42E-02	up
Rps15	Ribosomal protein S15	1.23	3.76E-03	up
Helz	Helicase with zinc finger	1.23	1.27E-02	up
Ncor2	Nuclear receptor co-repressor 2	1.23	4.44E-04	up
Rrp1b	Ribosomal RNA processing 1B	1.23	4.33E-02	up
Dync1h1	Dynein cytoplasmic 1 heavy chain 1	1.23	3.35E-04	up
Madd	MAP kinase-activating death domain	1.22	7.57E-04	up
Mcrip1	Mapk-regulated corepressor-interacting protein 1	1.22	3.99E-03	up
Kmt2b	Lysine (K)-specific methyltransferase 2B	1.22	6.38E-04	up
Cmip	c-Maf-inducing protein	1.22	4.11E-04	up
Zcchc2	Zinc finger cchc domain-containing protein 2	1.22	9.53E-03	up
Rictor	RPTOR independent companion of MTOR, complex 2	1.21	3.81E-02	up
Nol9	Nucleolar protein 9	1.21	1.67E-02	up

Snx18	Sorting nexin 18	1.21	1.13E-02	up
Rhoc	Ras homolog family member C	1.21	1.99E-02	up
Chd8	Chromodomain-helicase-DNA-binding protein 8	1.21	2.89E-04	up
Setx	Senataxin	1.2	1.64E-03	up
Fam160b1	Family with sequence similarity 160, member B1	1.2	4.71E-02	up
Srebf2	Sterol regulatory element binding transcription factor 2	1.2	7.16E-04	up
Cog7	Conserved oligomeric Golgi complex subunit 7	1.2	4.06E-02	up
Prrc2b	Proline-rich coiled-coil 2B	1.2	4.15E-04	up
Borcs6	BLOC-1-related complex subunit 6	1.19	1.95E-02	up
Ubr4	Ubiquitin protein ligase e3 component n-recognin 4	1.19	4.57E-04	up
Map4	Microtubule-associated protein 4	1.19	1.05E-03	up
Nfatc2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2	1.18	4.30E-02	up
Dohh	Deoxyhypusine hydroxylase	1.18	2.05E-03	up
Bcl9l	B-cell cl/lymphoma 9-like	1.18	3.14E-03	up
Mllt6	Mixed-lineage leukemia 6	1.18	2.79E-03	up
Rps2	Ribosomal protein S2	1.17	8.85E-03	up
Slc48a1	Solute carrier family 48	1.17	3.77E-03	up

Pih1d1	PIH1 domain-containing protein 1	1.17	7.60E-03	up
Ncoa3	Nuclear receptor coactivator 3	1.17	4.79E-04	up
Tcof1	Treacher Collins-Franceschetti syndrome 1	1.17	9.60E-04	up
Ncoa6	Nuclear receptor coactivator 6	1.17	3.73E-03	up
Stard7	StAR-related lipid transfer (START) domain containing 7	1.17	2.53E-02	up
Morc3	MORC family CW-type zinc finger 3	1.17	2.29E-02	up
Pigq	Phosphatidylinositol n-acetylglucosaminyltransferase subunit q	1.17	2.56E-03	up
Slc38a1	Solute carrier family 38	1.17	9.32E-03	up
Mrpl57	Mitochondrial ribosomal protein l57	1.17	1.81E-02	up
Pkd1	Polycystic kidney disease 1	1.16	1.17E-02	up
Sh2b1	SH2B adapter protein 1	1.16	3.07E-03	up
Anpep	Alanyl aminopeptidase	1.16	3.81E-03	up
Birc6	Baculoviral iap repeat-containing protein 6	1.16	1.63E-03	up
Cox14	Cytochrome c oxidase assembly protein COX14	1.16	1.04E-02	up
RGD1311739	RGD1311739	1.16	5.60E-03	up
Cib1	Calcium and integrin-binding protein 1	1.16	1.56E-02	up
Smim1	Small integral membrane protein 1	1.16	4.07E-02	up
Fkbp8	Peptidyl-prolyl cis-trans isomerase FKBP8	1.15	1.54E-02	up

Pgls	6-phosphogluconolactonase subfamily	1.15	3.00E-03	up
Rai1	Retinoic acid induced 1	1.15	1.13E-02	up
Sys1	SYS1	1.15	6.51E-03	up
Bles03	UPF0696 protein C11orf68 homolog	1.15	2.55E-02	up
Dicer1	Dicer 1	1.15	4.22E-03	up
Tmem134	Transmembrane protein 134	1.15	8.49E-03	up
Ece1	Endothelin converting enzyme 1	1.15	2.37E-03	up
Zmiz1	Zinc finger, MIZ-type containing 1	1.15	3.79E-03	up
Rev3l	REV3-like	1.15	3.52E-02	up
Tubgcp6	Tubulin, gamma complex associated protein 6	1.14	4.65E-02	up
Washc2c	Wash complex subunit fam21	1.14	5.51E-03	up
Foxk1	Forkhead box K1	1.14	1.82E-03	up
Smarcc1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 1	1.14	1.00E-02	up
Bicra	Glioma tumor suppressor candidate region gene 1	1.13	1.29E-03	up
Alad	Delta-aminolevulinic acid dehydratase	1.13	9.76E-03	up
Uvrag	UV radiation resistance associated gene	1.13	1.64E-02	up
Uqcr10	Ubiquinol-cytochrome c reductase subunit 9	1.13	3.29E-02	up
Fam160b2	Family with sequence similarity 160, member B2	1.13	3.20E-02	up

Hivep2	Human immunodeficiency virus type i enhancer binding protein 2	1.13	2.21E-02	up
Plec	Plectin	1.12	1.06E-03	up
Topors	Topoisomerase I binding, arginine/serine-rich	1.12	1.54E-02	up
Crebbp	E1A/CREB-binding protein	1.12	6.27E-03	up
Bdp1	B double prime 1	1.12	4.87E-02	up
Arid1a	At-rich interactive domain-containing protein 1	1.12	8.22E-04	up
Akr7a3	Aflatoxin B1 aldehyde reductase member 3	1.12	5.34E-03	up
Cox4i1	Cytochrome c oxidase subunit 4 isoform 1	1.12	1.38E-02	up
Synj1	Synaptojanin 1	1.11	1.53E-02	up
Herc1	HECT and RLD domain containing E3 ubiquitin protein ligase family member 1	1.11	1.85E-03	up
Ssr4	Translocon-associated protein subunit delta	1.11	1.29E-02	up
Med12	Mediator complex subunit 12	1.11	2.15E-03	up
Arid3a	At-rich interaction domain 3a	1.11	1.25E-02	up
Kat6a	Histone acetyltransferase myst3	1.11	2.18E-03	up
Fcho1	FCH domain only 1	1.11	1.89E-03	up
Atp2b4	Atpase plasma membrane ca2+ transporting 4	1.11	7.50E-03	up
Fis1	Mitochondrial fission 1 protein	1.11	4.65E-02	up



Ppt2	Lysosomal thioesterase PPT2	1.11	1.95E-03	up
Fnbp4	Formin binding protein 4	1.11	2.95E-02	up
Hist3h2ba	Histone cluster 3, h2ba	1.11	8.06E-03	up
Kmt2c	Lysine (K)-specific methyltransferase 2C	1.11	1.51E-02	up
Maf1	Repressor of RNA polymerase III transcription MAF1 homolog	1.1	1.33E-02	up
LOC108351482	LOC108351482	1.1	3.81E-02	up
Jmjd1c	Jumonji domain containing 1C	1.1	6.14E-03	up
MGC95210	Hypothetical LOC287798	1.1	1.20E-02	up
Baz1b	Bromodomain adjacent to zinc finger domain, 1B	1.09	4.51E-03	up
Prrt1	Proline-rich transmembrane protein 1	1.09	1.95E-02	up
Spef1	Sperm flagellar 1	1.09	5.62E-03	up
Emc6	ER membrane protein complex subunit 6	1.09	3.37E-02	up
Hnrnp1	Heterogeneous nuclear ribonucleoprotein f/h	1.09	2.21E-02	up
Bcl2l12	BCL2-like 12	1.09	4.44E-02	up
Alkbh5	RNA demethylase ALKBH5	1.09	1.56E-02	up
Sdr39u1	Short chain dehydrogenase/reductase family 39U, member 1	1.09	3.98E-02	up
Rrp12	Ribosomal RNA processing 12 homolog	1.09	4.20E-02	up

Chd1	Chromodomain-helicase-dna-binding protein 1	1.09	1.12E-02	up
Rskr	Rskr	1.09	3.61E-02	up
Med23	Mediator of RNA polymerase II transcription subunit 23	1.09	2.41E-02	up
Vav2	Vav 2 guanine nucleotide exchange factor	1.09	1.38E-02	up
Mia3	Melanoma inhibitory activity family, member 3	1.08	1.13E-02	up
Vps54	Vacuolar protein sorting-associated protein 54	1.08	3.69E-02	up
Atxn2l	Ataxin 2-like	1.08	4.73E-03	up
Supt4h1	Transcription elongation factor SPT4	1.08	1.05E-02	up
Slc30a10	Solute carrier family 30, member 10	1.08	3.72E-02	up
Glr5	Glutaredoxin 5	1.07	4.63E-02	up
Kdm6b	Lysine-specific demethylase 6b	1.07	1.01E-03	up
Spr	Sepiapterin reductase	1.07	2.48E-02	up
Fau	Ubiquitin-like protein fubi and ribosomal protein S30-like	1.07	1.11E-02	up
Eif5b	Eukaryotic translation initiation factor 5B	1.07	3.97E-02	up
Ptpn23	Protein tyrosine phosphatase, non-receptor type 23	1.07	1.23E-02	up
LOC687780	LOC687780	1.07	1.16E-02	up
Mospd3	Motile sperm domain containing 3	1.07	1.48E-02	up
Nisch	Nischarin	1.07	4.04E-03	up

Gbf1	Golgi-specific brefeldin a-resistance guanine nucleotide exchange factor 1	1.07	2.25E-03	up
Mark2	Serine/threonine-protein kinase MARK2	1.07	2.09E-03	up
Nolc1	Nucleolar and coiled-body phosphoprotein 1	1.07	1.05E-02	up
Rrbp1	Ribosome-binding protein 1	1.06	2.05E-02	up
Smc1a	Structural maintenance of chromosomes protein 1a	1.06	2.85E-02	up
Asb6	Ankyrin repeat and SOCS box-containing 6	1.06	2.35E-02	up
Use1	Unconventional snare in the endoplasmic reticulum protein 1	1.06	2.86E-02	up
Dynlrb1	Dynein light chain roadblock-type 1	1.06	2.56E-02	up
Lmtk2	Lemur tyrosine kinase 2	1.06	3.86E-02	up
Map1lc3a	Microtubule-associated proteins 1A/1B light chain 3A	1.06	8.25E-03	up
Rbbp6	Retinoblastoma binding protein 6	1.06	4.02E-02	up
Cep250	Centrosomal protein 250	1.05	4.94E-02	up
Trappc6a	Trafficking protein particle complex 6A	1.05	2.71E-02	up
Trrap	Trrap	1.05	2.09E-03	up
Mcm3ap	Minichromosome maintenance complex component 3 associated protein	1.05	8.33E-03	up
Fus	Fusion	1.05	8.27E-03	up
Oasl2	2'-5'-oligoadenylate synthase-like protein 2	1.05	2.79E-02	up

Wdfy4	WDFY family member 4	1.05	2.01E-03	up
Sirpa	tyrosine-protein phosphatase non-receptor type substrate 1	1.05	1.24E-03	up
Cope	Coatomer subunit epsilon	1.05	1.07E-02	up
Igf2r	Insulin-like growth factor 2 receptor	1.04	9.45E-03	up
Mink1	Misshapen/nik-related kinase	1.04	2.42E-03	up
Tep1	Telomerase associated protein 1	1.03	6.62E-03	up
Cog1	Conserved oligomeric golgi complex subunit 1	1.03	2.22E-02	up
Paqr9	Progesterin and adipoQ receptor family member IX	1.03	2.14E-02	up
Apaf1	Apoptotic peptidase activating factor 1	1.03	7.62E-03	up
Sipa1l3	Signal-induced proliferation-associated 1 like 3	1.03	4.06E-02	up
LOC100911196	LOC100911196	1.03	2.34E-02	up
Itp3	Inositol 1,4,5-trisphosphate receptor, type 3	1.03	2.85E-03	up
Tpgs1	Tubulin polyglutamylase complex subunit 1	1.03	2.53E-02	up
Map2k2	Dual specificity mitogen-activated protein kinase kinase 2	1.03	1.77E-02	up
Rlf	Rearranged L-myc fusion	1.03	1.66E-02	up

Ubr2	Ubiquitin protein ligase E3 component n-recognin 2	1.03	5.84E-03	up
Sema4d	Semaphorin 4D	1.03	6.56E-03	up
Piezo1	Piezo-type mechanosensitive ion channel component 1/2	1.03	1.38E-02	up
Zfp646	Zinc finger protein 646	1.03	2.08E-02	up
Zfp787	Zinc finger protein 787	1.02	4.81E-02	up
Rhov	Rho-related GTP-binding protein RhoV	1.02	4.81E-02	up
Pik3r4	Phosphoinositide 3-kinase regulatory subunit 4	1.02	4.05E-02	up
Prdm2	[histone h3]-lysine9 n-trimethyltransferase prdm2	1.02	9.82E-03	up
Epor	Receptor for erythropoietin	1.02	1.87E-02	up
Arhgef7	Rho guanine nucleotide exchange factor 7	1.02	1.87E-02	up
Scrib	Similar to PDZ-domain protein scribble	1.02	1.63E-02	up
Polr1a	Polr1a	1.02	2.56E-02	up
Akap9	A-kinase anchoring protein 9	1.02	3.47E-02	up
Mtor	Serine/threonine-protein kinase mTOR	1.01	2.12E-02	up
Scaf8	Sr-related ctd-associated factor 8	1.01	1.35E-02	up
Abtb1	Ankyrin repeat and BTB/POZ domain-containing protein 1	1.01	1.90E-02	up
C2cd3	C2 calcium-dependent domain containing 3	1.01	2.68E-02	up
Cdk11b	Cell division cycle 2-like	1.01	2.88E-02	up
Tex261	Testis expressed 261	1	2.32E-02	up

Arhgef6	Rac/Cdc42 guanine nucleotide exchange factor 6	1	3.01E-02	up
Prrc2a	PRRC2A	1	1.06E-03	up
Dvl3	Dishevelled segment polarity protein 3	1	1.73E-02	up
Kdm2a	Lysine (K)-specific demethylase 2A	1	4.63E-03	up
Scaf4	Splicing factor, arginine/serine-rich 15	1	1.06E-02	up
Helz2	Helicase with zinc finger 2	0.99	2.88E-03	up
Nxf1	Nxf1	0.99	7.90E-03	up
Txn2	Thioredoxin	0.99	2.54E-02	up
Polr2a	Dna-directed rna polymerase ii subunit rpb1	0.99	4.30E-03	up
Spen	Spen	0.99	2.92E-02	up
Macf1	Microtubule-actin crosslinking factor 1	0.99	3.49E-03	up
Kctd7	BTB/POZ domain-containing protein KCTD7	0.99	4.99E-02	up
Chd3	Chromodomain helicase DNA binding protein 3	0.99	2.79E-03	up
Map3k9	Mitogen-activated protein kinase kinase kinase 9	0.98	4.72E-02	up
LOC682402	LOC682402	0.98	2.49E-02	up
Jarid2	Jumonji and AT-rich interaction domain-containing 2	0.98	2.63E-02	up
Rere	Arginine-glutamic acid dipeptide repeats	0.98	1.27E-02	up
Rnf5	E3 ubiquitin-protein ligase RNF5	0.98	3.05E-02	up

Pak4	P21 protein (Cdc42/Rac)-activated kinase 4	0.98	2.46E-02	up
Myof	Myoferlin	0.98	1.37E-02	up
Fnbp1	Formin binding protein 1	0.98	1.58E-02	up
Ctc1	CTS telomere maintenance complex component 1	0.98	3.76E-02	up
Tmem104	Transmembrane protein 104	0.98	3.54E-02	up
Mast3	Microtubule associated serine/threonine kinase 3	0.97	6.43E-03	up
Tecpr1	Tectonin beta-propeller repeat-containing protein 1	0.97	2.44E-02	up
Rhd	Rhesus blood group glycoprotein	0.97	2.05E-02	up
Ahdc1	At-hook dna-binding motif-containing protein 1	0.97	2.98E-02	up
Elmsan1	ELM2 and Myb/SANT-like domain containing 1	0.97	8.58E-03	up
Chd4	Chromodomain-helicase-dna-binding protein 4	0.97	6.42E-03	up
Ccdc88b	Coiled-coil domain containing 88B	0.97	1.14E-02	up
Nup214	Nucleoporin 214	0.97	1.27E-02	up
Psenen	Gamma-secretase subunit PEN-2	0.97	2.48E-02	up
Serf2	Small EDRK-rich factor 2	0.97	3.58E-02	up
Tmem256	Tmem256	0.97	4.67E-02	up
Cand1	ullin-associated NEDD8-dissociated protein 1	0.97	2.54E-02	up

Pnpla7	Patatin-like phospholipase domain containing 7	0.97	2.89E-02	up
Arid4a	AT rich interactive domain 4A	0.97	2.57E-02	up
Pcnx3	Pecanex homolog 3	0.96	6.20E-03	up
Nbeal2	Neurobeachin-like 2	0.96	3.49E-03	up
Map4k4	Mitogen-activated protein kinase kinase kinase kinase 4	0.96	3.67E-03	up
Hba-a1	Hemoglobin alpha, adult chain 3	0.96	4.87E-02	up
Asna1	ATPase Asna1	0.96	4.20E-02	up
Kmt2e	Lysine (K)-specific methyltransferase 2E	0.96	9.65E-03	up
Mrtfa	Megakaryoblastic leukemia	0.96	3.42E-03	up
Spag9	Sperm associated antigen 9	0.96	3.97E-02	up
R3hdm2	R3H domain containing 2	0.95	1.30E-02	up
Itsn2	Intersectin 2	0.95	1.74E-02	up
Man2a1	Alpha-mannosidase 2	0.95	2.00E-02	up
Klf16	Kruppel-like factor 16	0.95	1.78E-02	up
Tpr	Nucleoprotein TPR	0.95	1.19E-02	up
2-Mar	44257	0.95	4.98E-02	up
Plagl2	Pleiomorphic adenoma gene-like 2	0.95	1.33E-02	up
Prpf38b	Pre-mrna processing factor 38b	0.95	4.91E-02	up
Stk10	Serine/threonine kinase 10	0.95	1.94E-03	up
Ubap2	Ubiquitin-associated protein 2	0.95	4.85E-02	up
Kif21b	Kinesin-like protein KIF21B	0.95	7.69E-03	up
Slc12a9	Slc12a9	0.94	3.10E-02	up



Myo18a	Myosin XVIIIa	0.94	1.23E-02	up
Asmtl	Acetylserotonin O-methyltransferase-like	0.94	3.37E-02	up
Usp28	Ubiquitin carboxyl-terminal hydrolase 28	0.94	4.80E-02	up
Icam4	Intercellular adhesion molecule 4	0.94	4.33E-02	up
Pou2f2	Pou domain transcription factor, class 2	0.94	1.45E-02	up
Znfx1	Zinc finger, NFX1-type containing 1	0.94	2.92E-02	up
Vbp1	Vhl binding protein 1	0.94	4.44E-02	up
Fasn	Fatty acid synthase	0.93	8.45E-03	up
Timm13	Mitochondrial import inner membrane translocase subunit Tim13	0.93	2.61E-02	up
Dock10	Dedicator of cytokinesis 10	0.93	1.00E-02	up
Supt6h	Transcription elongation factor spt6	0.93	8.14E-03	up
Smg1	SMG1 phosphatidylinositol 3-kinase-related kinase	0.93	3.40E-03	up
Fzr1	Fizzy/cell division cycle 20 related 1	0.93	2.42E-02	up
Ap2s1	AP-2 complex subunit sigma	0.93	4.07E-02	up
LOC100360781	LOC100360781	0.93	4.72E-02	up
Nuak1	NUAK family, SNF1-like kinase, 1	0.93	3.89E-02	up
Mpg	DNA-3-methyladenine glycosylase	0.93	2.71E-02	up
Ppp1r14b	Protein phosphatase 1, regulatory (inhibitor) subunit 14b	0.93	2.24E-02	up

Notch1	Neurogenic locus notch homolog protein 1	0.92	5.30E-03	up
Pnir	PNN-interacting serine/arginine-rich	0.92	4.22E-02	up
Oaz1	Ornithine decarboxylase antizyme 1	0.92	2.75E-02	up
Slfn13	Schlafen family member 13	0.92	4.77E-02	up
Sf3a1	Splicing factor 3a, subunit 1	0.92	1.54E-02	up
Ptpa	Serine/threonine-protein phosphatase 2A activator	0.92	1.00E-02	up
Hcfc1	Host cell factor C1	0.91	3.03E-02	up
Scaf1	Splicing factor, arginine/serine-rich 19	0.91	5.88E-03	up
Gna13	Guanine nucleotide-binding protein subunit alpha-13	0.91	2.78E-02	up
Nup98	Nuclear pore complex protein Nup98	0.91	4.34E-02	up
Safb	Scaffold attachment factor b	0.91	1.40E-02	up
Svil	Supervillin	0.91	1.24E-02	up
Prpf8	Pre-mrna processing factor 8	0.91	6.90E-03	up
Ppp1r10	Serine/threonine-protein phosphatase 1 regulatory subunit 10	0.91	4.72E-02	up
Khynyn	KH and NYN domain containing	0.91	1.63E-02	up
Tcf20	Transcription factor 20	0.91	2.31E-02	up
Ncoa1	Nuclear receptor coactivator 1	0.91	3.36E-02	up
Cabin1	Calcineurin-binding protein cabin-1	0.91	2.02E-02	up

Rgl2	Ral guanine nucleotide dissociation stimulator-like 2	0.91	3.77E-02	up
Ubal2	Uba-like domain-containing 2	0.9	3.63E-02	up
Eif2ak3	Eukaryotic translation initiation factor 2-alpha kinase 3	0.9	4.64E-02	up
Numa1	Nuclear mitotic apparatus protein 1	0.9	6.60E-03	up
Hectd1	HECT domain containing E3 ubiquitin protein ligase 1	0.9	1.30E-02	up
Uqcrc1	Cytochrome b-c1 complex subunit 1	0.9	2.12E-02	up
Sbno1	Strawberry notch homolog 1	0.9	3.13E-02	up
Trpm2	Transient receptor potential cation channel subfamily M member 2	0.9	2.27E-02	up
Vac14	Protein VAC14 homolog	0.9	2.63E-02	up
Ssbp4	Single stranded DNA binding protein 4	0.89	1.62E-02	up
Shld1	Shld1	0.89	1.05E-02	up
Baz2a	Bromodomain adjacent to zinc finger domain, 2A	0.89	1.66E-02	up
Dcaf15	DDB1 and CUL4 associated factor 15	0.89	4.40E-02	up
Sphk2	Sphingosine kinase 2	0.89	2.74E-02	up
Cic	Capicua transcriptional repressor	0.89	2.12E-02	up
Rpl36	60S ribosomal protein L36	0.89	4.55E-02	up
Pink1	Pten induced putative kinase 1	0.89	3.71E-02	up
Prdx2	Peroxiredoxin-2	0.88	1.92E-02	up

Sec24b	SEC24 family member B	0.88	4.54E-02	up
Inpp5d	Phosphatidylinositol-3,4,5-trisphosphate 5-phosphatase 1	0.88	1.77E-02	up
Foxo1	Forkhead box protein O1	0.88	2.73E-02	up
Ddx46	Probable ATP-dependent RNA helicase DDX46	0.88	1.55E-02	up
Slc6a6	Sodium- and chloride-dependent taurine transporter	0.88	4.79E-02	up
Dad1	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit DAD1	0.87	2.94E-02	up
Sltm	SAFB-like	0.87	3.67E-02	up
Myo9b	Unconventional myosin-IXb	0.87	4.09E-03	up
RGD1305464	RGD1305464	0.87	1.89E-02	up
Ankrd52	Ankyrin repeat domain 52	0.87	1.50E-02	up
Pom121	Nuclear pore complex protein nup121	0.87	1.13E-02	up
Usp9x	Ubiquitin specific peptidase 9 x chromosome	0.87	3.17E-02	up
Tspo2	Translocator protein 2	0.87	4.05E-02	up
Sphk1	Sphingosine kinase 1	0.87	4.52E-02	up
Srgap2	Slit-robo rho gtpase activating protein 2	0.87	4.20E-02	up
Med13	Mediator of RNA polymerase II transcription subunit 13	0.86	4.64E-02	up

Herc2	HECT and RLD domain containing E3 ubiquitin protein ligase 2	0.86	1.15E-02	up
Elf4	E74-like factor 4	0.86	1.92E-02	up
Mnt	MAX network transcriptional repressor	0.86	3.53E-02	up
Sec31a	Protein transport protein Sec31A	0.86	1.33E-02	up
Cnot1	CCR4-NOT transcription complex, subunit 1	0.86	1.12E-02	up
Yy1	YY1 transcription factor	0.86	3.21E-02	up
Ifi2712b	Interferon, alpha-inducible protein 27 like 2B	0.86	1.67E-02	up
Plekhm1	Pleckstrin homology domain-containing family M member 1	0.86	3.55E-02	up
Mgl1	Monoglyceride lipase	0.86	4.44E-02	up
Foxp4	Forkhead box p4	0.86	2.00E-02	up
Usp24	Ubiquitin carboxyl-terminal hydrolase 9/24	0.86	1.74E-02	up
Wdr81	WD repeat-containing protein 81	0.85	1.20E-02	up
Rbl2	Rb transcriptional corepressor like 2	0.85	1.26E-02	up
Mpst	Thiosulfate/3-mercaptopyruvate sulfurtransferase	0.85	1.89E-02	up
Pik3r5	Phosphoinositide-3-kinase, regulatory subunit 5	0.85	3.62E-02	up
Snx15	Sorting nexin-15	0.85	4.20E-02	up
Cpsf1	Cleavage and polyadenylation specific factor 1	0.85	3.44E-02	up

Tut7	Zcchc6 - Zinc finger, CCHC domain containing 6	0.85	3.29E-02	up
Cad	Carbamoyl-phosphate synthetase 2	0.85	1.57E-02	up
Scd2	Stearoyl-coa desaturase	0.85	1.90E-02	up
Foxj2	Forkhead box J2	0.84	4.57E-02	up
Eif4g1	Eukaryotic translation initiation factor 4 gamma, 1	0.84	1.26E-02	up
Tsc2	Tuberous sclerosis 2	0.84	3.19E-02	up
Rps5	Ribosomal protein S5	0.84	4.52E-02	up
Rapgef1	Rap guanine nucleotide exchange factor (GEF) 1	0.84	2.70E-02	up
Aff1	AF4/FMR2 family, member 1	0.84	4.15E-02	up
Vps13d	Vacuolar protein sorting 13 homolog D	0.83	3.04E-02	up
Srebf1	Sterol regulatory element-binding protein 1	0.83	4.47E-02	up
Raver1	Ribonucleoprotein, ptb-binding 1	0.83	6.80E-03	up
Midn	Midnolin	0.83	1.55E-02	up
Ccnd3	G1/S-specific cyclin-D3	0.83	3.46E-02	up
Dop1b	Dop1b	0.82	2.28E-02	up
Irf2bp1	Interferon regulatory factor 2 binding protein 1	0.82	4.16E-02	up
Setd1a	SET domain-containing 1A	0.82	4.45E-02	up
Zfp592	Zinc finger protein 592	0.82	2.60E-02	up
Itr2	Inositol 1,4,5-trisphosphate receptor, type 2	0.81	4.92E-02	up

Smarca4	Swi/snf related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4	0.81	3.42E-02	up
Gse1	Gse1 coiled-coil protein	0.81	4.01E-02	up
Setd5	SET domain containing 5	0.81	4.06E-02	up
Ciita	class ii, major histocompatibility complex, transactivator, isoform cra_c	0.81	2.38E-02	up
Pcnt	Pericentrin	0.81	3.97E-02	up
Vps52	Vacuolar protein sorting-associated protein 52	0.81	3.22E-02	up
Gnb2	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	0.81	1.88E-02	up
Ankrd44	Ankyrin repeat domain 44	0.81	2.10E-02	up
Rab43	Ras-related protein Rab-43	0.81	2.97E-02	up
Slfn4	Schlafen family member 12-like	0.8	1.35E-02	up
Taok3	Thousand and one amino acid protein kinase	0.8	4.28E-02	up
Diaph1	Diaphanous-related formin 1	0.8	2.52E-02	up
Ldlr	Low density lipoprotein receptor	0.8	2.80E-02	up
Rhbdf2	Rhomboid 5 homolog 2	0.8	3.18E-02	up
Phrf1	PHD and ring finger domains 1	0.8	3.90E-02	up

Ikbke	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon	0.8	4.64E-02	up
Cbx7	Chromobox protein homolog 7	0.79	4.66E-02	up
Iqgap1	Iq motif containing gtpase activating protein 1	0.79	9.03E-03	up
Fn1	Fibronectin 1	0.79	1.19E-02	up
Atp5f1d	Atp synthase, h+ transporting, mitochondrial f1 complex, delta subunit	0.79	3.87E-02	up
Tmem131l	Tmem131l	0.79	2.25E-02	up
Pml	Probable transcription factor pml	0.79	4.15E-02	up
Camta2	Calmodulin binding transcription activator 2	0.79	2.00E-02	up
Mknk2	MAP kinase-interacting serine/threonine-protein kinase 2	0.78	2.67E-02	up
Med25	Mediator of rna polymerase ii transcription subunit 25	0.78	2.59E-02	up
Ikzf3	Zinc finger protein, subfamily 1A, 3	0.78	2.66E-02	up
Srrm1	Serine/arginine repetitive matrix 1	0.78	2.28E-02	up
Akna	At-hook transcription factor	0.78	1.82E-02	up
Samhd1	Sam and hd domain containing deoxynucleoside triphosphate triphosphohydrolase 1	0.77	1.24E-02	up



Kbtbd11	Kelch repeat and btb domain-containing protein 11	0.77	4.92E-02	up
Adcy7	Adenylate cyclase 7	0.77	3.14E-02	up
Srsf2	Serine/arginine-rich splicing factor 2	0.77	2.85E-02	up
Fmn11	Formin-like 1	0.77	8.10E-03	up
Son	Son DNA binding protein	0.77	3.14E-02	up
Plxnb2	Plexin B2	0.76	1.08E-02	up
Arhgap27	Rho gtpase-activating protein 12/27	0.76	2.74E-02	up
Cyb561a3	Cytochrome b ascorbate-dependent protein 3	0.76	2.63E-02	up
Phospho1	Phosphoethanolamine/phosphocholine phosphatase 1	0.76	3.82E-02	up
Ikzf1	IKAROS family zinc finger 1	0.76	2.19E-02	up
Card11	Caspase recruitment domain family, member 11	0.75	4.01E-02	up
Tyk2	Tyrosine kinase 2	0.75	4.65E-02	up
Gcn1	CN1 general control of amino-acid synthesis 1-like 1	0.75	2.91E-02	up
Kdm3b	Lysine (K)-specific demethylase 3B	0.74	3.99E-02	up
Atp13a1	Manganese-transporting p-type atpase	0.74	2.33E-02	up
Ddx39b	pliceosome RNA helicase Ddx39b	0.73	2.75E-02	up
Sptan1	Spectrin, alpha, non-erythrocytic 1	0.73	2.35E-02	up
Smap2	Small ArfGAP2	0.73	3.56E-02	up
Actn4	Alpha-actinin-4	0.72	4.03E-02	up

Ubap2l	Ubiquitin-associated protein 2-like	0.72	4.67E-02	up
Ptprc	Protein tyrosine phosphatase, receptor type, c	0.72	2.41E-02	up
Emc10	ER membrane protein complex subunit 10	0.72	3.52E-02	up
Ncor1	Nuclear receptor co-repressor 1	0.71	2.82E-02	up
Myo1g	Myosin IG	0.71	2.71E-02	up
Mbd6	methyl-CpG binding domain protein 6	0.71	3.90E-02	up
Rnf44	Ring finger protein 44	0.7	2.29E-02	up
Csf2ra	Colony stimulating factor 2 receptor, alpha	0.7	2.69E-02	up
Snrnp70	Small nuclear ribonucleoprotein 70 (U1)	0.7	3.31E-02	up
Pitpnm2	Phosphatidylinositol transfer protein, membrane-associated 2	0.7	2.25E-02	up
Ddx17	DEAD (Asp-Glu-Ala-Asp) box polypeptide 17	0.69	2.43E-02	up
Arhgef1	Arhgef1	0.68	2.44E-02	up
Hdac7	Histone deacetylase 7	0.67	4.34E-02	up
Dgka	Diacylglycerol kinase, alpha	0.67	2.70E-02	up
Dock8	Dedicator of cytokinesis 8	0.67	2.85E-02	up
Cyfip2	Cytoplasmic FMR1 interacting protein 2	0.67	3.42E-02	up
Mov10	Moloney leukemia virus 10	0.66	4.46E-02	up
Jak3	Janus kinase 3	0.65	4.24E-02	up
Brd4	Bromodomain containing 4	0.63	4.41E-02	up

Sipa1	Signal-induced proliferation-associated 1	0.62	4.63E-02	up
Ets1	Protein C-ets-1	0.62	3.70E-02	up
Ahnak	AHNAK	0.61	4.43E-02	up
Tln1	Talin 1	0.57	4.73E-02	up
Vim	Vimentins	-0.6	4.63E-02	down
Arpc1b	Actin-related protein 2/3 complex subunit 1B	-0.6	5.00E-02	down
Nrgn	Neurogranin	-0.61	4.05E-02	down
Fcgr1g	High affinity immunoglobulin epsilon receptor subunit gamma	-0.62	3.73E-02	down
Coro1b	Coronin-1B/1C/6	-0.63	4.68E-02	down
Trpc4ap	Transient receptor potential cation channel, subfamily C, member 4 associated protein	-0.64	4.80E-02	down
Rps18	Ribosomal protein s18e	-0.65	4.81E-02	down
Gm2a	GM2 ganglioside activator	-0.66	2.67E-02	down
Eif4h	Eukaryotic translation initiation factor 4H	-0.66	4.74E-02	down
Psm7	20S proteasome subunit alpha 4	-0.68	4.87E-02	down
Cd52	CD52 molecule	-0.68	2.97E-02	down
Fermt3	Fermitin family member 3	-0.69	2.39E-02	down
Klf3	Kruppel-like factor 3	-0.69	2.97E-02	down
Slc25a3	Solute carrier family 25	-0.7	3.55E-02	down
Hdac5	Histone deacetylase 4/5	-0.7	3.52E-02	down
Cyb5r3	NADH-cytochrome b5 reductase 3	-0.7	4.99E-02	down
Laptm5	Lysosomal protein transmembrane 5	-0.7	3.95E-02	down

Caprin1	Caprin-1	-0.71	4.94E-02	down
Rtn3	Reticulon-3	-0.71	4.07E-02	down
Dnajb1	Dnaj (hsp40) homolog, subfamily b, member 1	-0.71	4.96E-02	down
Mxi1	MXI1	-0.71	3.94E-02	down
Tsc22d3	TSC22 domain family, member 3	-0.71	3.95E-02	down
Actr1a	ARPI actin-related protein 1 homolog A, centractin alpha	-0.72	2.14E-02	down
Vwf	Von willebrand factor	-0.73	3.28E-02	down
Ptpn1	Tyrosine-protein phosphatase non-receptor type 1	-0.73	2.41E-02	down
Cytip	Cytohesin-interacting protein	-0.73	3.30E-02	down
Sort1	Sortilin 1	-0.74	4.66E-02	down
Ywhaz	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta	-0.74	1.98E-02	down
Ankh	Ankh inorganic pyrophosphate transport regulator	-0.75	3.92E-02	down
Dap	Death-associated protein 1	-0.75	3.32E-02	down
S1pr1	Sphingosine 1-phosphate receptor 1	-0.75	2.16E-02	down
Rac1	Ras-related C3 botulinum toxin substrate 1	-0.75	1.53E-02	down
Tnpo2	Transportin 2	-0.76	2.38E-02	down
Rps6kb2	Ribosomal protein S6 kinase, polypeptide 2	-0.76	3.26E-02	down
C2cd2l	C2CD2-like	-0.76	3.24E-02	down
Actg1	Actin, cytoplasmic 1	-0.76	1.13E-02	down

Abhd4	Abhydrolase domain containing 4	-0.77	1.29E-02	down
Pabpc1	Polyadenylate-binding protein 1	-0.77	1.92E-02	down
Lsm4	LSM4	-0.77	4.62E-02	down
Rab8a	Ras-related protein Rab-8A	-0.78	1.99E-02	down
Hnrnpk	Heterogeneous nuclear ribonucleoprotein K	-0.78	2.53E-02	down
Ppp1cc	Serine/threonine-protein phosphatase PP1-gamma catalytic subunit	-0.78	4.87E-02	down
Rab5b	RAB5B	-0.78	2.93E-02	down
LOC691141	LOC691141	-0.79	3.44E-02	down
Cdk16	Cyclin-dependent kinase 16	-0.79	3.34E-02	down
Gpi	Glucose-6-phosphate isomerase	-0.79	1.31E-02	down
Prkab1	5'-AMP-activated protein kinase subunit beta-1	-0.79	2.33E-02	down
Ubqln1	Ubiquilin-1	-0.79	1.43E-02	down
Qars	Glutamine--tRNA ligase	-0.79	1.25E-02	down
Tmed10	Transmembrane emp24 domain-containing protein 10	-0.8	2.69E-02	down
Babam2	BRISC and BRCA1-A complex member 2	-0.8	2.11E-02	down
Potef	Actin, cytoplasmic 1	-0.8	8.88E-03	down
LOC100361457	LOC100361457	-0.8	8.88E-03	down
Ctsw	Cathepsin W	-0.8	2.53E-02	down
Eps15	Epidermal growth factor receptor pathway substrate 15	-0.8	3.89E-02	down

Prpsap1	Phosphoribosyl pyrophosphate synthase-associated protein 1	-0.8	2.65E-02	down
Idh3g	Idh3g	-0.81	3.33E-02	down
Eif3g	Eukaryotic translation initiation factor 3 subunit G	-0.81	2.97E-02	down
Wwp2	WW domain containing E3 ubiquitin protein ligase 2	-0.81	2.24E-02	down
Itga6	Integrin, alpha 6	-0.81	3.73E-02	down
Mylk2	Myosin light chain kinase 2	-0.81	2.81E-02	down
Nap111	Nucleosome assembly protein 1-like 1	-0.82	1.66E-02	down
Gnai2	Guanine nucleotide-binding protein G(i) subunit alpha-2	-0.82	6.21E-03	down
Gmfg	Glia maturation factor, gamma	-0.82	2.58E-02	down
Smg5	SMG5 nonsense mediated mRNA decay factor	-0.82	2.06E-02	down
Mpl	MPL	-0.82	3.19E-02	down
Cdv3	CSV3	-0.82	2.14E-02	down
Ube2v1	Ubiquitin-conjugating enzyme E2 variant 1	-0.82	1.80E-02	down
LOC100912618	LOC100912618	-0.82	1.80E-02	down
LOC679539	LOC679539	-0.82	1.80E-02	down
LOC100364435	LOC100364435	-0.83	8.46E-03	down
Prkar1a	cAMP-dependent protein kinase type I-alpha regulatory subunit	-0.83	3.02E-02	down

Cpt1a	Carnitine O-palmitoyltransferase 1	-0.83	4.50E-02	down
Cct7	Chaperonin-containing TCP1 subunit 7	-0.83	3.51E-02	down
Gnas	Neuroendocrine secretory protein 55	-0.83	8.24E-03	down
Elov15	Elongation of very long chain fatty acids protein 5	-0.83	2.41E-02	down
Litaf	Lipopolysaccharide-induced tumor necrosis factor-alpha factor homolog	-0.83	8.43E-03	down
Tmsb10	Thymosin, beta 10-like	-0.83	6.05E-03	down
Eif3d	Eukaryotic translation initiation factor 3 subunit D	-0.84	3.58E-02	down
Pltp	Phospholipid transfer protein	-0.85	2.71E-02	down
Stk24	Serine/threonine-protein kinase 24/25/mst4	-0.85	1.75E-02	down
Cir1	Corepressor interacting with RBPJ 1	-0.85	2.26E-02	down
Ssbp3	Single stranded dna binding protein 3	-0.86	9.46E-03	down
Pip5k1b	Phosphatidylinositol 4-phosphate 5-kinase type-1 beta	-0.86	1.94E-02	down
Lamp1	Lysosome-associated membrane glycoprotein 1	-0.86	1.25E-02	down
Npy	neuropeptide Y	-0.86	4.90E-02	down
Ric8a	RIC8A	-0.86	4.73E-02	down
Ralbp1	Rala binding protein 1	-0.86	3.40E-02	down
LOC100912182	LOC100912182	-0.86	2.52E-02	down
Rpl32	Ribosomal protein L32	-0.86	6.72E-03	down

Rhoa	Transforming protein RhoA	-0.86	3.65E-03	down
Lmo2	LIM domain only 2	-0.87	3.42E-02	down
Capzb	F-actin-capping protein subunit beta	-0.87	5.46E-03	down
Fyco1	FYVE and coiled-coil domain containing 1	-0.88	3.25E-02	down
Cmtm3	CKLF-like MARVEL transmembrane domain containing 3	-0.88	3.04E-02	down
Ube2r2	Ubiquitin-conjugating enzyme E2R 2	-0.88	8.30E-03	down
Gtpbp1	GTP-binding protein 1	-0.88	1.21E-02	down
Gde1	Glycerophosphodiester phosphodiesterase 1	-0.88	3.27E-02	down
Tmed2	Transmembrane emp24 domain-containing protein 2	-0.88	3.76E-02	down
Fkbp4	Peptidyl-prolyl cis-trans isomerase FKBP4;	-0.88	1.67E-02	down
Ift46	Intraflagellar transport protein 46	-0.88	4.57E-02	down
Isy1	ISY1	-0.89	4.11E-02	down
Smap1	Small ArfGAP 1	-0.89	3.58E-02	down
Ccl6	Chemokine (C-C motif) ligand 6	-0.89	8.76E-03	down
Anxa7	Annexin A7	-0.89	3.31E-02	down
Sptb	Spectrin, beta	-0.89	1.33E-02	down
Psmc3	26S proteasome regulatory subunit 6A	-0.89	1.47E-02	down
Rab10	RAB10	-0.89	2.47E-02	down
Nos1ap	Nos1ap	-0.89	3.33E-02	down
Arl5a	ADP-ribosylation factor-like protein 5A	-0.89	2.55E-02	down



Dapp1	Dual adapter for phosphotyrosine and 3-phosphotyrosine and 3-phosphoinositide	-0.89	2.90E-02	down
Spcs2	Signal peptidase complex subunit 2	-0.9	1.42E-02	down
Cers2	Ceramide synthase 2	-0.9	1.67E-02	down
Tbl1xr1	Transducin (beta)-like 1 X-linked receptor 1	-0.9	4.78E-02	down
Plekho1	Pleckstrin homology domain-containing family O member 1	-0.9	5.50E-03	down
Ppp1r12c	Protein phosphatase 1, regulatory subunit 12C	-0.9	3.66E-03	down
Snx3	Vacuolar protein sorting-associated protein 29	-0.9	1.08E-02	down
Entpd5	Ectonucleoside triphosphate diphosphohydrolase 5/6	-0.9	2.60E-02	down
Prdx6	Peroxiredoxin-6	-0.9	2.44E-02	down
Abi1	Abl interactor 1	-0.9	3.82E-02	down
RT1-Da	RT1 class II, locus Da	-0.91	1.56E-03	down
LOC100910650	LOC100910650	-0.91	1.97E-03	down
Bgn	Biglycan	-0.91	5.73E-03	down
Tkt	Transketolase	-0.91	4.65E-03	down
Mpig6b	Megakaryocyte and platelet inhibitory receptor G6b	-0.91	7.78E-03	down
Arf4	ADP-ribosylation factor 4	-0.91	3.56E-02	down
Raly	RALY	-0.91	2.93E-03	down
Cxcr4	C-x-c motif chemokine receptor 4	-0.92	3.48E-02	down
Sfxn1	Sideroflexin-1/3	-0.92	3.85E-02	down
Tax1bp3	Tax1-binding protein 3	-0.92	1.76E-02	down

Tpm3	Tropomyosin alpha-3 chain	-0.92	6.24E-03	down
Rpl26	Ribosomal protein L26	-0.92	1.23E-02	down
Cnn2	Calponin 2	-0.93	3.57E-03	down
Asl	Argininosuccinate lyase	-0.93	4.10E-02	down
Cct2	Chaperonin containing tcp1 subunit 2	-0.93	3.96E-02	down
Ensa	Alpha-endosulfine	-0.93	3.07E-02	down
Hist1h1c	Histone cluster 1, h1d	-0.93	3.51E-02	down
Gsr	Glutathione-disulfide reductase	-0.93	3.66E-02	down
Ank1	Ankyrin 1	-0.93	1.38E-02	down
Pi4kb	Phosphatidylinositol 4-kinase beta	-0.93	2.36E-02	down
Rab37	RAB37	-0.93	3.55E-02	down
Scp2	Sterol carrier protein 2	-0.93	2.68E-02	down
Fam104b	Family with sequence similarity 104, member b	-0.94	4.53E-02	down
Eif1	Eukaryotic translation initiation factor 1	-0.94	1.04E-02	down
Prpf2	PRA1 domain family, member 2	-0.94	3.79E-02	down
Hnrnp1	Heterogeneous nuclear ribonucleoprotein L	-0.94	3.66E-03	down
Akr1b1	Aldose reductase	-0.94	2.32E-02	down
LOC100912228	LOC100912228	-0.95	3.03E-02	down
LOC100363452	LOC100363452	-0.95	2.54E-02	down
Cdca8	Cell division cycle associated 8	-0.95	4.24E-02	down
Itgax	Integrin subunit alpha x	-0.96	3.83E-03	down
Cct3	Chaperonin containing tcp1 subunit 3	-0.96	2.70E-02	down
Gosr2	Golgi SNAP receptor complex member 2	-0.96	3.18E-02	down

Edf1	Endothelial differentiation-related factor 1	-0.96	5.17E-03	down
Syt5	Synaptotagmin-5	-0.96	1.33E-02	down
Cfl1	Cofilin-1	-0.96	1.21E-03	down
Psmc2	PSMC2	-0.96	3.70E-02	down
Fhdc1	FH2 domain containing 1	-0.96	8.39E-03	down
Vamp3	Vesicle-associated membrane protein 3	-0.97	2.83E-02	down
Polr1d	RNA polymerase 1-3	-0.97	2.26E-02	down
Clec16a	C-type lectin domain family 16, member A	-0.97	2.72E-02	down
Naaa	N-acyl ethanolamine-hydrolysing acid amidase	-0.98	1.32E-02	down
Os9	OS9	-0.98	4.11E-03	down
Rab28	Ras-related protein Rab-28	-0.98	1.49E-02	down
Akt3	AKT3	-0.98	4.40E-02	down
Rab11a	Ras-related protein Rab-11A	-0.98	1.66E-02	down
Hnrnpa3	Heterogeneous nuclear ribonucleoprotein a1/a3	-0.98	2.29E-02	down
Dynll2	Dynein light chain 2	-0.98	1.20E-02	down
Phb2	Prohibitin-2	-0.98	1.17E-02	down
Mgrn1	E3 ubiquitin-protein ligase MGRN1	-0.98	7.77E-04	down
Galnt2	Polypeptide N-acetylgalactosaminyltransferase 2	-0.99	6.74E-03	down
Nlk	Serine/threonine-protein kinase NLK	-0.99	2.55E-02	down
Mpp2	Membrane palmitoylated protein 2	-0.99	6.56E-03	down
Rab21	Ras-related protein Rab-21	-0.99	1.55E-02	down

Herpud2	Homocysteine-responsive endoplasmic reticulum-resident ubiquitin-like domain member 2	-0.99	1.02E-02	down
Atg12	ATG12	-0.99	2.82E-02	down
Cdr2	Cerebellar degeneration-related protein 2	-0.99	2.07E-02	down
Tsc1	Tuberous sclerosis 1	-0.99	1.78E-02	down
Eef1g	Eukaryotic translation elongation factor 1 gamma	-0.99	4.93E-04	down
Mat2b	Methionine adenosyltransferase 2 subunit beta	-0.99	3.90E-02	down
Lym2	LYR motif containing 2	-0.99	2.83E-02	down
Mrvi1	MRV integration site 1	-0.99	2.84E-02	down
Ppp1r2	Protein phosphatase inhibitor 2	-1	3.25E-02	down
G6pd	Glucose-6-phosphate 1-dehydrogenase	-1	1.42E-03	down
Agap1	Arf-gap with gtpase, ank repeat and ph domain-containing protein 1	-1	1.17E-02	down
Gga2	Golgi associated, gamma adaptin ear containing, arf binding protein 2, isoform cra_a	-1	7.61E-03	down
RT1-T24-4	RT1 class I, locus T24, gene 4	-1	3.65E-03	down
Erh	ERH	-1	2.31E-02	down
S100a10	Protein S100-A10	-1	2.52E-02	down
Muc20	Mucin 20	-1	3.20E-02	down
Csde1	Cold shock domain-containing protein E1	-1	3.62E-02	down

Atp5f1a	Atp synthase, h+ transporting, mitochondrial f1 complex, alpha subunit 1	-1	2.71E-03	down
Acaa2	Acetyl-coa acyltransferase 2	-1	4.77E-02	down
Adipor1	Adiponectin receptor 1	-1.01	1.02E-02	down
Tfip11	Tuftelin-interacting protein 11	-1.01	1.82E-02	down
Cat	Catalase	-1.01	8.52E-03	down
Hemgn	Hemogen	-1.01	1.38E-03	down
Fam229a	Family with sequence similarity 229, member A	-1.01	7.00E-03	down
Cs	Citrate synthase	-1.01	5.78E-03	down
Eif2ak1	Eukaryotic translation initiation factor 2-alpha kinase 1	-1.01	8.54E-03	down
Csnk1d	Casein kinase I isoform delta	-1.01	2.47E-03	down
Abca4	Atp-binding cassette, sub-family a (abc1), member 4	-1.01	2.48E-02	down
Azin1	Antizyme inhibitor	-1.01	2.84E-02	down
Pnpt1	Polyribonucleotide nucleotidyltransferase 1	-1.02	2.43E-02	down
Cd47	CD47 antigen	-1.02	5.24E-03	down
F13a1	Coagulation factor xiii a1 polypeptide	-1.02	6.74E-03	down
Fdps	Farnesyl diphosphate synthase	-1.02	6.84E-03	down
Chp1	Calcineurin B homologous protein 1	-1.02	1.51E-02	down
Lgmn	Legumain	-1.02	8.09E-03	down
Taldo1	Transaldolase 1	-1.02	1.05E-02	down

Hmgn2	High-mobility group nucleosome-binding domain-containing protein 2	-1.03	2.95E-02	down
LOC100360316	LOC100360316	-1.03	2.95E-02	down
Ahcy	Adenosylhomocysteinase	-1.03	2.77E-02	down
Ascc1	Activating signal cointegrator 1 complex subunit 1	-1.04	1.34E-02	down
Lims1	Activating signal cointegrator 1 complex subunit 1	-1.04	1.41E-02	down
Nucb1	LIM and senescent cell antigen-like-containing domain protein	-1.04	1.03E-03	down
Cng1	Cyclin-G1	-1.04	1.21E-02	down
Cd79b	B29/Ig-beta/CD79b	-1.04	4.64E-03	down
Pygl	Glycogen phosphorylase	-1.04	8.33E-03	down
Dennd5a	DENN domain-containing protein 5A	-1.04	1.52E-02	down
Stim1	Stromal interaction molecule 1	-1.04	1.88E-03	down
Nbr1	NBR1	-1.04	9.29E-03	down
Tmem140	Transmembrane protein 140	-1.04	5.56E-03	down
Marc2	Mitochondrial amidoxime reducing component 2	-1.04	1.75E-02	down
Chfr	Checkpoint with forkhead and ring finger domains, isoform cra_b	-1.05	4.61E-02	down
Ndufa9	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9	-1.05	1.59E-02	down
Procr	Endothelial protein C receptor	-1.05	8.41E-03	down

Anapc5	Anaphase-promoting complex subunit 5	-1.05	1.14E-02	down
Gm5471	Eukaryotic translation initiation factor 1	-1.05	1.33E-02	down
Ccl5	C-c motif chemokine ligand 5	-1.05	1.26E-03	down
Wipi2	WD repeat domain phosphoinositide-interacting protein 2	-1.06	8.32E-03	down
Gid8	Glucose-induced degradation protein 8	-1.06	1.38E-02	down
Tgfb1i1	Transforming growth factor beta-1-induced transcript 1	-1.06	8.88E-03	down
Cd59	CD59	-1.06	1.56E-02	down
Itsn1	Intersectin 1	-1.06	2.02E-03	down
Rpl29	60S ribosomal protein L29	-1.06	1.51E-04	down
Cog4	Component of oligomeric golgi complex 4	-1.06	4.37E-02	down
Rb1cc1	RB1-inducible coiled-coil 1	-1.06	4.19E-02	down
P4hb	Protein disulfide-isomerase	-1.07	2.18E-03	down
Ssu72	RNA polymerase II subunit A C-terminal domain phosphatase SSU72	-1.07	4.68E-03	down
Slc4a1	Solute carrier family 4	-1.07	8.57E-03	down
Sec11c	SEC11 homolog C, signal peptidase complex subunit	-1.07	3.97E-02	down
Lztr1	Leucine-zipper-like transcriptional regulator 1	-1.07	3.96E-02	down
Impdh2	Inosine-5'-monophosphate dehydrogenase 2	-1.07	2.32E-03	down

Optn	Optineurin	-1.07	3.41E-03	down
Eef1e1	Eukaryotic translation elongation factor 1 epsilon 1	-1.07	3.58E-02	down
Pcbp2	poly(rC) binding protein 2	-1.07	8.29E-04	down
Sav1	Protein salvador homolog 1	-1.07	3.51E-02	down
Acadl	acyl-CoA dehydrogenase	-1.07	4.64E-02	down
Ahsa1	Activator of hsp90 atpase activity 1	-1.08	9.04E-03	down
Tnip1	TNFAIP3-interacting protein 1	-1.08	3.94E-03	down
Prmt1	Protein arginine N-methyltransferase 1	-1.08	4.01E-02	down
Smpd1	Sphingomyelin phosphodiesterase 1	-1.08	1.67E-03	down
Naga	Alpha-N-acetylgalactosaminidase	-1.08	7.40E-03	down
Tmem59	Transmembrane protein 59	-1.08	5.83E-03	down
Nipal3	NIPA-like domain containing 3	-1.08	2.10E-02	down
Fuca1	Tissue alpha-L-fucosidase	-1.09	1.26E-02	down
Lgals3bp	Galectin-3-binding protein	-1.09	1.48E-02	down
Ilk	Integrin-linked protein kinase	-1.09	6.22E-04	down
Itgb3	Integrin beta 3	-1.09	1.99E-03	down
Arhgef37	Rho guanine nucleotide exchange factor 37	-1.09	6.26E-03	down
Lrrc41	Leucine-rich repeat-containing protein 41	-1.09	1.62E-02	down
Rps7	Small subunit ribosomal protein s7e	-1.09	3.19E-03	down
Hmbs	Hydroxymethylbilane synthase	-1.09	3.33E-03	down



Foxo4	Forkhead box O4	-1.1	3.38E-03	down
Serbp1	Plasminogen activator inhibitor 1 RNA-binding protein	-1.1	1.79E-02	down
LOC100362830	LOC100362830	-1.1	3.23E-03	down
Skp1	S-phase kinase-associated protein 1	-1.1	2.90E-02	down
Ciao2a	Ciao2a	-1.1	3.80E-02	down
Ctss	Cathepsin S	-1.1	1.75E-02	down
Hadha	Trifunctional enzyme subunit alpha	-1.1	3.55E-03	down
Thy1	Thy-1 membrane glycoprotein	-1.1	4.81E-02	down
Calm1	Calmodulin-1	-1.1	5.90E-03	down
Clip2	Cap-gly domain containing linker protein 2	-1.11	2.79E-03	down
Mylk	Myosin-light-chain kinase	-1.11	1.67E-03	down
Vopp1	Vesicular	-1.11	5.46E-03	down
Rnaset2	Ribonuclease T2	-1.11	1.68E-02	down
Rgs10	Regulator of G-protein signaling 10	-1.11	6.79E-03	down
Psmc5	26S proteasome regulatory subunit 8	-1.11	1.49E-02	down
Ufd1	Ufd1	-1.11	1.68E-02	down
Prkar2b	Prkar2b	-1.11	2.26E-02	down
Comt	Catechol O-methyltransferase	-1.11	2.48E-02	down
Mmadhc	Methylmalonic aciduria and homocystinuria type D homolog	-1.12	8.99E-03	down
Hbs1l	HBS1-like translational GTPase	-1.12	2.49E-02	down
Sept2	Septin-2	-1.12	2.10E-02	down
Sbds	SBDS	-1.12	4.39E-02	down

Hk1	Tachykinin 4	-1.12	8.51E-04	down
Crat	Carnitine O-acetyltransferase	-1.12	2.29E-02	down
Ube2o	Ubiquitin-conjugating enzyme E2O	-1.13	5.35E-03	down
RGD1311703	RGD1311703	-1.13	4.55E-02	down
Rbms2	Rna binding motif, single stranded interacting protein 2, isoform cra_a	-1.13	7.64E-04	down
Ecm1	Extracellular matrix protein 1	-1.13	2.54E-02	down
LOC102555453	LOC102555453	-1.13	1.63E-02	down
Ostf1	Osteoclast-stimulating factor 1	-1.13	3.92E-03	down
Mapk1	Mitogen-activated protein kinase 1	-1.13	9.16E-03	down
Eif4e	Eukaryotic translation initiation factor 4E	-1.13	4.67E-02	down
Mrps35	Mitochondrial ribosomal protein S35	-1.14	2.84E-02	down
Ermap	Erythroblast membrane-associated protein	-1.14	9.12E-03	down
Tor1a	Torsin-1A	-1.14	3.62E-02	down
Alas2	Aminolevulinate, delta-, synthase 2	-1.14	5.63E-03	down
Cd84	CD84 molecule	-1.14	3.31E-02	down
Eral1	Eral1	-1.14	3.53E-02	down
Ube2l3	Ubiquitin-conjugating enzyme e2 l3	-1.14	3.10E-04	down
Fam32a	FAM32A	-1.14	2.80E-03	down
Nop53	Glioma tumor suppressor candidate region gene 2, isoform cra_c	-1.14	4.33E-04	down

Fn3krp	Fructosamine-3-kinase-related protein	-1.14	2.28E-03	down
Fbxo7	F-box only protein 7	-1.15	3.52E-03	down
Tmem127	Transmembrane protein 127	-1.15	2.24E-04	down
Rnf123	E3 ubiquitin-protein ligase RNF123	-1.15	2.10E-03	down
Nans	N-acetylneuraminic acid synthase	-1.15	4.23E-02	down
Trim59	Tripartite motif-containing protein 59	-1.16	2.67E-02	down
Zfand3	Zinc finger, AN1-type domain 3	-1.16	1.25E-03	down
Mapkap1	MAPLAP1	-1.16	8.79E-03	down
Samm50	Sorting and assembly machinery component 50 homolog	-1.16	9.95E-03	down
Eif4e2	Eukaryotic translation initiation factor 4E family member 2	-1.16	7.84E-03	down
Nub1	Negative regulator of ubiquitin-like proteins 1	-1.16	4.33E-03	down
Chmp4b	Chromatin-modifying protein 4B-like 1	-1.16	1.82E-03	down
Zranb2	Zinc finger Ran-binding domain-containing protein 2	-1.16	6.26E-03	down
Nob1	RNA-binding protein NOB1	-1.16	2.55E-02	down
Tra2b	Transformer 2 beta homolog	-1.17	3.06E-02	down
LOC300249	LOC300249	-1.17	6.20E-03	down
Dpf3	D4, zinc and double PHD fingers, family 3	-1.17	1.71E-02	down
Ppp4c	PPP4C	-1.17	6.21E-03	down

Ap4s1	Adaptor-related protein complex 4, sigma 1 subunit	-1.17	1.68E-02	down
Prkrip1	Prkr interacting protein 1	-1.17	9.96E-03	down
Rps11	Ribosomal protein S11	-1.18	2.24E-04	down
Arpc1a	Actin-related protein 2/3 complex subunit 1A	-1.18	2.96E-03	down
Eid1	EP300 interacting inhibitor of differentiation 1	-1.18	4.50E-02	down
Sat2	Spermidine/spermine N1-acetyltransferase family member 2	-1.19	2.09E-02	down
MGC105649	MGC105649	-1.19	3.07E-02	down
Nudt21	Cleavage and polyadenylation specificity factor subunit 5	-1.19	8.79E-03	down
Tal1	TAL bHLH transcription factor 1,	-1.19	1.13E-03	down
Faf1	Fas associated factor 1	-1.19	2.66E-02	down
Ptdss1	Phosphatidylserine synthase 1	-1.19	2.82E-02	down
Bub3	BUB3 mitotic checkpoint protein	-1.19	2.64E-02	down
Ranbp10	Ran-binding protein 9/10	-1.19	3.95E-03	down
Ddrgk1	DDRGK domain containing 1	-1.19	2.79E-02	down
Ei24	Etoposide-induced protein 2.4	-1.19	1.82E-02	down
Ubac1	Ubiquitin-associated domain-containing protein 1	-1.2	9.09E-03	down
Gltp	Glycolipid transfer protein	-1.2	3.46E-03	down

Sept5	Septin 5	-1.2	4.73E-04	down
Ascc2	Activating signal cointegrator 1 complex subunit 2	-1.2	7.10E-03	down
Car2	Carbonic anhydrase 2	-1.2	1.38E-02	down
Ppbp	Chemokine (c-x-c motif) ligand 7, isoform cra_b	-1.2	3.42E-02	down
Tmsb4x	Thymosin beta-4	-1.2	2.04E-03	down
Ociad1	OCIA domain-containing protein 1	-1.21	3.57E-03	down
Smpdl3a	Acid sphingomyelinase-like phosphodiesterase 3a	-1.21	3.70E-02	down
Stxbp1	Syntaxin-binding protein 1	-1.21	1.72E-03	down
Rmdn3	Regulator of microtubule dynamics protein 3	-1.21	4.16E-02	down
Apol3	Apolipoprotein L, 3	-1.21	4.38E-02	down
Ehd3	EH domain-containing protein 3	-1.22	3.85E-04	down
Dctn2	Dynactin subunit 2	-1.22	7.48E-04	down
Rab3il1	RAB3A interacting protein-like 1	-1.22	1.49E-03	down
E1l	Elongation factor RNA polymerase II	-1.22	4.69E-04	down
Eipr1	EARP-interacting protein	-1.22	1.45E-02	down
Rsad2	Radical S-adenosyl methionine domain-containing protein 2	-1.22	7.21E-04	down
Hpse	Heparanase 50 kda subunit	-1.22	7.35E-04	down
Lamp2	Lysosome-associated membrane glycoprotein 2	-1.22	2.92E-02	down

Src	Proto-oncogene tyrosine-protein kinase Src	-1.23	4.88E-04	down
Npm1	Nucleophosmin	-1.23	1.81E-03	down
LOC300303	LOC300303	-1.23	1.81E-03	down
Slc25a21	Solute carrier family 25 (mitochondrial 2-oxodicarboxylate transporter), member 21	-1.23	3.62E-02	down
Ppm1a	Protein phosphatase, mg <sup>2+</sup> /mn <sup>2+</sup> dependent, 1a	-1.23	1.33E-03	down
Chmp3	Charged multivesicular body protein 3	-1.23	3.15E-03	down
Shoc2	SHOC2	-1.23	4.39E-02	down
Slc25a5	Solute carrier family 25 (mitochondrial adenine nucleotide translocator), member 4/5/6/31	-1.23	6.35E-04	down
Stat6	Signal transducer and activator of transcription 6	-1.24	6.21E-04	down
Stk40	Serine/threonine-protein kinase 40	-1.24	5.15E-05	down
Pafah1b1	Platelet-activating factor acetylhydrolase 1b, regulatory subunit 1	-1.24	1.04E-03	down
Hgs	Hepatocyte growth factor-regulated tyrosine kinase substrate	-1.25	7.16E-04	down
St3gal4	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase 4	-1.25	1.04E-02	down
Smtn	Smoothelin	-1.25	2.66E-03	down

Cant1	Soluble calcium-activated nucleotidase 1	-1.25	3.16E-02	down
Eef2k	Eukaryotic elongation factor-2 kinase	-1.25	3.36E-04	down
Auh	Methylglutaconyl-CoA hydratase	-1.25	1.28E-03	down
Rab8b	RAB8B	-1.25	4.43E-04	down
Osbpl1a	Oxysterol-binding protein-related protein 1/2	-1.25	2.02E-03	down
Triobp	TRIO and F-actin binding protein	-1.25	1.05E-03	down
Prx12a	Redox-regulatory protein FAM213A	-1.26	9.43E-03	down
Mast2	Microtubule associated serine/threonine kinase 2	-1.26	1.87E-03	down
Atg13	Autophagy-related protein 13	-1.26	1.39E-02	down
Kel	Kell blood group	-1.26	2.54E-03	down
Cops6	COP9 signalosome subunit 6	-1.26	8.50E-04	down
Dnajb6	Dnaj heat shock protein family (hsp40) member b6	-1.26	3.68E-03	down
Rasgrp3	Ras, guanyl releasing protein 3	-1.27	1.44E-02	down
Ap2a2	Adaptor-related protein complex 2, alpha 2	-1.27	6.68E-05	down
Tcp11l2	T-complex protein 11-like protein 2	-1.27	2.93E-03	down
Acer2	Alkaline ceramidase 2	-1.27	2.86E-02	down
Kif4a	Kinesin family member 4A	-1.27	1.05E-02	down
Rmnd5a	Required for meiotic nuclear division 5 homolog A	-1.27	1.38E-03	down
Stag2	Stromal antigen 2	-1.27	1.52E-02	down

Cdc25b	M-phase inducer phosphatase 2	-1.28	1.63E-03	down
Ctsh	Cathepsin H	-1.28	1.29E-03	down
Ubap1	Ubiquitin-associated protein 1	-1.28	1.15E-02	down
Cd8b	T-cell surface glycoprotein cd8 beta chain	-1.28	6.83E-03	down
Cyp4v3	Cytochrome P450 4V2	-1.28	4.28E-02	down
Atp1b3	Sodium/potassium-transporting ATPase subunit beta-3	-1.28	9.19E-04	down
Als2cl	ALS2 C-terminal like	-1.28	1.13E-02	down
Spta1	Spectrin, alpha	-1.28	1.01E-03	down
Rpl9	Ribosomal protein l9e	-1.29	5.77E-04	down
Pkn2	Serine/threonine-protein kinase n2	-1.29	5.81E-03	down
Nsmaf	Neutral sphingomyelinase (N-SMase) activation associated factor	-1.29	3.50E-02	down
LOC100360449	LOC100360449	-1.29	8.07E-04	down
Fads2	Acyl-coa 6-desaturase	-1.29	5.87E-04	down
Ddit3	Dna damage-inducible transcript 3	-1.29	4.21E-02	down
LOC100364457	LOC100364457	-1.29	7.62E-04	down
Stom	Erythrocyte band 7 integral membrane protein	-1.29	1.94E-04	down
Arl6ip1	ADP-ribosylation factor-like 6 interacting protein 1	-1.3	7.01E-04	down
Tmem43	Transmembrane protein 43	-1.3	2.27E-03	down
Cfap36	Cilia- and flagella-associated protein 36	-1.3	3.48E-02	down



Klh122	Kelch-like protein 22	-1.3	3.91E-02	down
Sec13	SEC13	-1.3	1.02E-02	down
Ankrd46	Ankyrin repeat domain 46	-1.31	2.24E-02	down
Pdcd6	Programmed cell death protein 6	-1.31	2.22E-02	down
Sod2	Superoxide dismutase [Mn]	-1.31	1.55E-04	down
Rbm17	RNA binding motif protein 17	-1.31	3.73E-02	down
Pacsin2	Protein kinase C and casein kinase substrate in neurons 2	-1.31	1.98E-04	down
Dnaja4	Dnaj heat shock protein family (hsp40) member a4	-1.32	1.66E-03	down
Chmp4b11	Chromatin-modifying protein 4B-like 1	-1.32	4.46E-04	down
Rbm3	Rna binding motif (rnp1, rrm) protein 3	-1.32	1.92E-04	down
Mical3	Microtubule associated monooxygenase, calponin and LIM domain containing 3	-1.33	8.31E-04	down
Ptp4a2	Protein tyrosine phosphatase type IVA 2	-1.33	1.22E-04	down
Serinc2	Serine incorporator 2	-1.33	1.95E-02	down
Eif2s3	Eukaryotic translation initiation factor 2 subunit 3, X-linked	-1.33	1.37E-03	down
Sub1	Activated RNA polymerase II transcriptional coactivator p15	-1.33	4.26E-03	down
Itm2b	Integral membrane protein 2B	-1.33	5.53E-05	down
Akirin1	Akirin 1	-1.34	1.60E-03	down

Cdc42	Cell division control protein 42	-1.34	1.40E-05	down
Aco2	Aconitate hydratase	-1.34	9.22E-04	down
Pea15	Phosphoprotein enriched in astrocytes 15	-1.34	5.55E-03	down
Ogfr1l	Opioid growth factor receptor-like 1	-1.34	5.90E-03	down
LOC498222	LOC498222	-1.34	4.18E-02	down
S100a9	S100-A9	-1.34	4.44E-04	down
Stk17b	Serine/threonine-protein kinase 17B	-1.34	5.03E-03	down
Eif1ax	Eukaryotic translation initiation factor 1A	-1.34	1.95E-03	down
Sox6	SRY (sex determining region Y)-box 6	-1.34	3.58E-02	down
Upf3a	UPF3 regulator of nonsense transcripts homolog A	-1.34	1.05E-02	down
Hhex	Hematopoietically expressed homeobox	-1.35	1.36E-02	down
Cep89	Centrosomal protein cep89	-1.35	7.12E-04	down
Plcl2	Phospholipase C-like 2	-1.35	4.72E-04	down
Arl2bp	ADP-ribosylation factor-like protein 2-binding protein	-1.35	1.75E-03	down
Smim3	Small integral membrane protein 3	-1.35	9.18E-03	down
Eif2d	Eukaryotic translation initiation factor 2D	-1.35	7.64E-04	down
Oser1	Oxidative stress responsive serine-rich 1	-1.35	6.57E-03	down
Gna12	Guanine nucleotide-binding protein subunit alpha-12	-1.35	7.16E-05	down
Lpin2	Lipin 2	-1.36	1.07E-03	down

Tsg101	Tumor susceptibility gene 101	-1.36	1.23E-03	down
Eef2	Elongation factor 2	-1.36	2.99E-06	down
Ly86	Lymphocyte antigen 86	-1.36	2.47E-02	down
Chmp2a	Charged multivesicular body protein 2A	-1.36	8.30E-04	down
Ddx28	DEAD (Asp-Glu-Ala-Asp) box polypeptide 28	-1.37	3.61E-02	down
NEWGENE_62018 0	NEWGENE_620180	-1.37	1.99E-03	down
Snf8	Vacuolar-sorting protein SNF8	-1.37	3.14E-02	down
Yod1	Ubiquitin thioesterase OTU1	-1.37	5.95E-03	down
Tpgs2	Tubulin polyglutamylase complex subunit 2	-1.37	1.07E-02	down
Tomm20	Mitochondrial import receptor subunit TOM20	-1.38	2.67E-03	down
Eef1d	Eukaryotic translation elongation factor 1 delta	-1.38	1.23E-04	down
Dcaf8	DDB1- and CUL4-associated factor 8	-1.38	7.92E-04	down
Mtmr14	Myotubularin related protein 14	-1.38	1.31E-03	down
Tmod1	Tropomodulin 1	-1.38	1.45E-03	down
Slc40a1	Solute carrier family 40	-1.38	7.12E-03	down
Reep2	Receptor accessory protein 2	-1.38	4.00E-03	down
Etfbkmt	Electron transfer flavoprotein beta subunit lysine methyltransferase	-1.38	4.09E-03	down

Cchcr1	Coiled-coil alpha-helical rod protein 1	-1.38	7.24E-04	down
Sdc3	Syndecan 3	-1.39	1.72E-03	down
Atp6v1d	Atpase, h+ transporting, v1 subunit d, isoform cra_c	-1.39	3.45E-02	down
Asah1	N-acylsphingosine amidohydrolase 1	-1.39	2.29E-02	down
Arpc3	Actin-related protein 2/3 complex subunit 3	-1.39	5.19E-05	down
LOC100362738	LOC100362738	-1.39	3.38E-05	down
Uqcrc2	Cytochrome b-c1 complex subunit 2	-1.39	1.85E-02	down
Nelfe	Negative elongation factor complex member E	-1.4	2.74E-02	down
Usp4	Ubiquitin carboxyl-terminal hydrolase 4	-1.4	8.12E-05	down
Clu	Clusterin	-1.4	1.27E-05	down
Gucy1b1	Guanylate cyclase soluble subunit beta-1	-1.4	8.34E-03	down
Mpc1	Mitochondrial pyruvate carrier 1	-1.4	3.84E-02	down
Itga2b	Integrin subunit alpha 2b	-1.4	1.89E-06	down
Capza2	Capping actin protein of muscle z-line alpha subunit 2	-1.4	1.30E-02	down
Rps8	Ribosomal protein S8	-1.41	9.83E-07	down
Chn1	N-chimaerin	-1.41	1.88E-02	down
Rpn1	ribophorin i	-1.41	5.62E-03	down
Il1b	Interleukin 1 beta	-1.41	2.42E-03	down
Max	MAX	-1.41	1.39E-05	down
Rwdd1	RWD domain-containing protein 1	-1.41	4.06E-02	down

Nfil3	Nuclear factor interleukin-3-regulated protein	-1.41	2.99E-02	down
Blzf1	Basic leucine zipper nuclear factor 1	-1.41	4.35E-02	down
Sh3glb1	Endophilin-B1	-1.41	4.15E-05	down
Aen	Apoptosis-enhancing nuclease	-1.41	3.71E-03	down
Cct4	T-complex protein 1 subunit delta	-1.42	5.09E-04	down
Ret	Receptor tyrosine-protein kinase	-1.42	9.90E-04	down
8-Mar	44263	-1.42	6.19E-04	down
Yaf2	YY1-associated factor 2	-1.42	9.40E-03	down
Epdr1	Ependymin related 1	-1.42	2.54E-02	down
Atp6ap2	ATPase h <sup>+</sup> transporting accessory protein 2	-1.43	4.22E-03	down
Herc6	HECT and RLD domain containing E3 ubiquitin protein ligase family member 6	-1.43	6.28E-03	down
Rexo2	Oligoribonuclease	-1.43	2.44E-04	down
LOC100363469	LOC100363469	-1.43	2.53E-03	down
Slco3a1	Solute carrier organic anion transporter family, member 3a1	-1.43	1.43E-02	down
Slc44a1	Solute carrier family 44	-1.43	1.61E-02	down
Mybl2	Myeloblastosis oncogene-like 2	-1.43	7.05E-03	down
Tmed7	Transmembrane emp24 domain-containing protein 7	-1.43	2.90E-02	down
Hyal3	Hyaluronidase-3	-1.44	4.53E-03	down
Atg3	ATG3	-1.44	1.35E-03	down
Zfp598	Zinc finger protein 598	-1.44	5.78E-05	down
Rpl4	Ribosomal protein L4	-1.44	6.56E-06	down

Nfyc	Nuclear transcription factor Y subunit gamma	-1.44	1.64E-04	down
Gadd45a	Growth arrest and dna-damage-inducible protein	-1.44	4.13E-03	down
Ago2	Ago2	-1.44	2.64E-05	down
Hsbp1	Heat shock factor-binding protein 1	-1.44	7.35E-04	down
Tax1bp1	Tax1-binding protein 1 homolog	-1.44	8.89E-04	down
Rpl3	60S ribosomal protein L3	-1.45	1.83E-05	down
Stmn1	Stathmin	-1.45	3.23E-02	down
Riok3	RIO kinase 3	-1.45	1.27E-04	down
Anxa4	Annexin a4	-1.45	3.76E-02	down
Fech	Ferrochelatase	-1.46	3.06E-04	down
Ywhah	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein	-1.46	2.04E-05	down
Zscan21	Zinc finger and SCAN domain containing 21	-1.46	7.86E-03	down
LOC100911575	LOC100911575	-1.46	8.76E-03	down
Exoc3	Exocyst complex component 3	-1.46	1.85E-03	down
Glrx	Glutaredoxin-1	-1.46	8.07E-04	down
Mrps15	28S ribosomal protein S15	-1.46	8.07E-03	down
Micu1	MICU1	-1.46	3.06E-04	down
Rnf10	RING finger protein 10	-1.46	6.26E-06	down
Rnf25	Ring finger protein 25	-1.46	1.17E-02	down
Tbcel	Tubulin-specific chaperone cofactor E-like protein	-1.47	4.11E-03	down
Bin3	Bridging integrator 3	-1.47	8.75E-05	down

Tram1	Translocating chain-associated membrane protein 1	-1.47	4.88E-05	down
Rps25	Ribosomal protein s25	-1.47	2.70E-04	down
Alkbh3	Alpha-ketoglutarate-dependent dioxygenase alkB homolog 3	-1.47	1.35E-02	down
Rpl14	Large subunit ribosomal protein 114e	-1.47	3.72E-06	down
Retsat	All-trans-retinol 13,14-reductase	-1.47	3.19E-03	down
Gps2	G protein pathway suppressor	-1.48	1.69E-04	down
Creg1	Cellular repressor of e1a-stimulated genes	-1.48	2.88E-04	down
Sumf1	Sulfatase modifying factor 1	-1.48	2.35E-02	down
Hddc3	HD domain containing 3	-1.48	1.54E-02	down
Rpl24	Ribosomal protein L24	-1.48	4.38E-05	down
Ctsc	Dipeptidyl peptidase 1	-1.48	1.99E-02	down
mrpl9	Mitochondrial ribosomal protein L9	-1.48	5.79E-03	down
Alox12	Arachidonate 12-lipoxygenase, 12S-type	-1.49	9.40E-06	down
Eif1b	Eukaryotic translation initiation factor 1B	-1.49	6.27E-03	down
Arl4a	ADP-ribosylation factor-like protein 4A	-1.49	9.01E-03	down
Btrc	Beta-transducin repeat containing E3 ubiquitin protein ligase	-1.49	1.05E-03	down
Btf3	Basic transcription factor 3	-1.49	2.99E-06	down
Snrnp35	Small nuclear ribonucleoprotein 35	-1.49	1.36E-02	down
Sec14l2	SEC14-like lipid binding 2	-1.49	9.15E-04	down

Pcnp	PEST proteolytic signal-containing nuclear protein	-1.49	2.59E-04	down
Napa	Alpha-soluble NSF attachment protein	-1.49	2.18E-07	down
Serpinb6b	Serine (or cysteine) peptidase inhibitor, clade B, member 6b	-1.49	5.05E-04	down
Ech1	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase	-1.5	2.28E-03	down
Ppib	Peptidyl-prolyl cis-trans isomerase B	-1.5	2.29E-05	down
Nmi	N-myc (and STAT) interactor	-1.5	1.23E-02	down
Enoph1	Enolase-phosphatase E1	-1.5	4.03E-02	down
Prdx3	Peroxiredoxin 3	-1.5	6.62E-04	down
Atp5pf	ATP synthase-coupling factor 6	-1.5	3.92E-03	down
Oxr1	Oxidation resistance protein 1	-1.51	6.34E-03	down
Rrs1	Ribosome biogenesis regulatory protein homolog	-1.51	4.50E-02	down
Kcnab1	Voltage-gated potassium channel subunit beta-1	-1.51	2.79E-04	down
Dlst	2-oxoglutarate dehydrogenase E2 component	-1.51	7.55E-05	down
Rpl6	Large subunit ribosomal protein l6e	-1.52	3.94E-07	down
Ovo11	Ovo like transcriptional repressor 1	-1.52	4.92E-02	down
Stx11	Stx11	-1.52	4.29E-03	down
Dnah2	Dynein, axonemal, heavy chain 2	-1.52	1.82E-03	down
Gpx3	Gpx3	-1.52	2.35E-03	down



Tpm4	Tropomyosin alpha-4 chain	-1.52	6.51E-05	down
Pkm	Pyruvate kinase PKM	-1.52	8.85E-07	down
LOC100364062	LOC100364062	-1.52	1.18E-06	down
Rpl19	Ribosomal protein L19	-1.52	4.00E-05	down
Klf11	Kruppel-like factor 11	-1.53	1.16E-02	down
Txndc17	Thioredoxin domain containing 17	-1.53	3.40E-02	down
Pkd112	Polycystic kidney disease 1 like 2	-1.53	4.85E-03	down
Tubb2a	Tubulin beta-2A	-1.53	3.47E-05	down
Irak1	Interleukin-1 receptor-associated kinase 1	-1.54	5.66E-05	down
Gnpat	Glyceronephosphate O-acyltransferase	-1.54	3.48E-02	down
Tubb1	Tubulin, beta 1	-1.54	1.09E-06	down
Bpgm	Bisphosphoglycerate/phosphoglycerate mutase	-1.54	9.62E-05	down
Dnase2	Deoxyribonuclease 2	-1.54	5.42E-03	down
Mapre1	Microtubule-associated protein RP/EB family member 1	-1.54	6.94E-04	down
Tspan9	Tetraspanin 9	-1.54	3.13E-03	down
Lgalsl	Galectin-like	-1.55	1.47E-04	down
Eif2s2	Eukaryotic translation initiation factor 2	-1.55	1.27E-02	down
Gtf2f1	General transcription factor IIF subunit 1	-1.55	3.87E-03	down
Mknk1	MAP kinase-interacting serine/threonine-protein kinase 1	-1.55	2.10E-05	down
Gsn	Gelsolin	-1.55	1.41E-07	down
Strap	Serine-threonine kinase receptor-associated protein	-1.55	6.23E-03	down

Exoc3l1	Exocyst complex component 3-like 1	-1.55	3.75E-02	down
RGD1310507	RGD1310507	-1.55	6.60E-04	down
Vipr2	Vasoactive intestinal polypeptide receptor 2	-1.55	3.85E-03	down
Pnpla8	Patatin-like phospholipase domain containing 8	-1.55	3.77E-04	down
Hsd17b11	Hydroxysteroid (17-beta) dehydrogenase 11	-1.56	3.57E-03	down
Rpl22l1	Ribosomal protein L22 like 1	-1.56	2.09E-04	down
Arl6ip5	Adp-ribosylation factor like gtpase 6 interacting protein 5	-1.56	4.57E-04	down
Nsg2	Neuronal vesicle trafficking-associated protein 2	-1.56	4.14E-03	down
Tex2	Testis expressed 2	-1.56	5.80E-04	down
Inpp5a	Inositol polyphosphate-5-phosphatase A	-1.56	1.24E-04	down
Tfam	Transcription factor A	-1.56	3.05E-02	down
Klrb1b	Killer cell lectin-like receptor subfamily B member 1B allele A	-1.56	2.99E-03	down
Ncoa4	Nuclear receptor coactivator 4	-1.56	2.78E-03	down
Ccni	Cyclin I	-1.57	1.42E-05	down
Ube2k	Huntingtin interacting protein 2	-1.57	2.35E-04	down
Serinc3	Serine incorporator 3	-1.57	2.68E-05	down
Psm13	26S proteasome non-ATPase regulatory subunit 13	-1.57	6.56E-05	down
Arpp19	Camp-regulated phosphoprotein 19-like	-1.58	1.21E-06	down

LOC100360828	LOC100360828	-1.58	1.21E-06	down
Sar1b	GTP-binding protein SAR1b	-1.58	4.15E-02	down
Rtfdc1	Replication termination factor 2 domain containing 1	-1.58	1.12E-04	down
Rrm1	Ribonucleoside-diphosphate reductase subunit m1	-1.58	1.59E-02	down
Amd1	S-adenosylmethionine decarboxylase proenzyme	-1.58	4.15E-05	down
Prtfdc1	Phosphoribosyl transferase domain containing 1	-1.58	5.38E-03	down
Zfand6	AN1-type zinc finger protein 6	-1.58	1.38E-04	down
Mthfd2	Methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2	-1.58	1.18E-04	down
Itm2a	Integral membrane protein 2A	-1.58	3.06E-02	down
Suds3	Sin3 histone deacetylase corepressor complex component SDS3	-1.58	3.99E-04	down
Rpl35	60S ribosomal protein L35	-1.58	5.76E-07	down
Leprot	Leptin receptor gene-related protein	-1.59	4.00E-04	down
Rras2	Related RAS viral (r-ras) oncogene homolog 2	-1.59	1.37E-02	down
Sirt2	NAD-dependent protein deacetylase sirtuin-2	-1.59	2.39E-06	down
Pgk1	Phosphoglycerate kinase 1	-1.59	6.58E-07	down

Commd1	Copper metabolism (Murr1) domain containing 1	-1.59	6.03E-03	down
Bcl2a1	BCL2-related protein A1	-1.6	2.61E-02	down
Anp32e	Acidic leucine-rich nuclear phosphoprotein 32 family member E	-1.6	1.06E-04	down
Abhd5	1-acylglycerol-3-phosphate O-acyltransferase ABHD5	-1.6	2.33E-03	down
Hdgf	Hepatoma-derived growth factor	-1.6	1.65E-03	down
Tbrg1	Transforming growth factor beta regulator 1	-1.61	6.49E-05	down
Map1lc3b	Microtubule-associated proteins 1A/1B light chain 3B	-1.61	2.41E-05	down
Setd3	Histone-lysine N-methyltransferase setd3-like	-1.61	4.20E-03	down
Mrps17	Mitochondrial ribosomal protein S17	-1.61	1.45E-02	down
Rpl6-ps1	Rpl6-ps1	-1.61	4.63E-04	down
RGD1310352	keratinocytes associated transmembrane protein 2	-1.61	3.13E-03	down
PsmA6	Proteasome subunit alpha type-6	-1.61	7.94E-04	down
Gclm	Glutamate--cysteine ligase regulatory subunit	-1.61	9.43E-05	down
Ypel5	Protein yippee-like 5	-1.61	7.04E-05	down
Lpxn	Leupaxin	-1.62	3.62E-03	down
Add2	Adducin 2	-1.62	2.59E-05	down
Nutf2	Nuclear transport factor 2	-1.62	1.17E-02	down

F2rl3	Coagulation factor ii (thrombin) receptor-like 3	-1.62	3.72E-04	down
Abrac1	ABRA C-terminal like	-1.62	2.84E-03	down
Pdk3	Pyruvate dehydrogenase kinase, isoenzyme 3	-1.63	1.88E-04	down
Gcdh	glutaryl-CoA dehydrogenase	-1.63	1.04E-02	down
Panx1	Pannexin-1	-1.63	1.16E-02	down
Fhl1	Four and a half LIM domains protein 1	-1.63	3.15E-06	down
Naca	Nascent polypeptide-associated complex alpha subunit	-1.63	3.98E-07	down
Pdlim1	PDZ and LIM domain protein 1	-1.63	1.65E-07	down
My112a	Myosin regulatory light chain RLC-A	-1.63	3.38E-06	down
Msh4	DNA mismatch repair protein	-1.63	5.91E-03	down
Ap2m1	AP-2 complex subunit mu	-1.64	4.29E-07	down
Rpl31	Ribosomal protein L31	-1.64	2.48E-05	down
Gda	Guanine deaminase	-1.64	5.09E-04	down
Sars	Serine--tRNA ligase	-1.64	1.82E-04	down
Ube2f	NEDD8-conjugating enzyme UBE2F	-1.64	4.16E-04	down
Preli3b	PRELI domain containing protein 3B	-1.64	2.41E-03	down
Snca	Alpha-synuclein	-1.64	2.94E-04	down
Ctse	Cathepsin E	-1.64	1.05E-04	down
Zmym1	Zinc finger, MYM-type 1	-1.64	1.58E-02	down
Ccdc32	Coiled-coil domain containing 32	-1.64	1.61E-02	down
Larp1b	La ribonucleoprotein domain family, member 1B	-1.65	2.91E-02	down

Cald1	Caldesmon 1	-1.65	4.76E-02	down
Prcp	Lysosomal pro-x carboxypeptidase	-1.65	7.31E-03	down
Ube2d3	UBE2D3	-1.65	1.51E-05	down
LOC100361558	LOC100361558	-1.65	4.47E-04	down
Ptgs1	Prostaglandin-endoperoxide synthase 1	-1.65	2.54E-06	down
Large1	Like-glycosyltransferase	-1.65	2.52E-03	down
Gsta1	Glutathione S-transferase alpha-3	-1.66	3.26E-02	down
LOC108348061	LOC108348061	-1.66	3.26E-02	down
Rpl17	60S ribosomal protein L17	-1.66	4.56E-05	down
Hikeshi	Hikeshi	-1.66	1.65E-02	down
Rps24	Ribosomal protein S24	-1.66	3.31E-05	down
Ccdc92	Coiled-coil domain containing 92	-1.66	1.99E-04	down
Pttg1ip	Pituitary tumor-transforming gene 1 protein-interacting protein	-1.66	4.88E-06	down
Psm4	Proteasome (prosome, macropain) 26s subunit, non-atpase, 4, isoform cra_a	-1.66	2.67E-05	down
Atp6v1c1	V-type proton ATPase subunit C 1	-1.66	2.53E-02	down
Scoc	Short coiled-coil protein	-1.66	3.80E-02	down
Lox13	Lysyl oxidase-like 3	-1.66	3.60E-02	down
Amfr	Autocrine motility factor receptor, E3 ubiquitin protein ligase	-1.67	1.19E-05	down
Sumo2	Sumo2	-1.67	8.15E-04	down

Aig1	Androgen-induced 1	-1.67	3.62E-02	down
LOC361985	LOC361985	-1.68	1.59E-03	down
Rtn4	Reticulon-4	-1.68	5.27E-05	down
Vps29	Vacuolar protein sorting-associated protein 29	-1.68	7.65E-03	down
Pcmt1	Protein-L-isoaspartate(D-aspartate) O-methyltransferase	-1.68	1.22E-05	down
F11r	Junctional adhesion molecule A	-1.68	8.60E-06	down
Ybx3	Cold shock domain protein a	-1.68	1.64E-07	down
Gabbr2	Gamma-aminobutyric acid receptor subunit rho-2	-1.69	3.14E-02	down
Dmac1	Transmembrane protein 261	-1.69	4.55E-02	down
Eef1a1	Elongation factor 1-alpha 1	-1.69	1.70E-07	down
Esam	Endothelial cell-selective adhesion molecule	-1.69	1.23E-02	down
Plek	Pleckstrin	-1.69	1.02E-05	down
Agpat5	1-acylglycerol-3-phosphate O-acyltransferase 5	-1.69	1.17E-02	down
Pls1	Plastin-1	-1.7	3.70E-02	down
Bpifa6	BPI fold containing family A, member 6	-1.7	6.93E-04	down
Asb9	Ankyrin repeat and SOCS box-containing 9	-1.7	9.50E-03	down
Asb11	Ankyrin repeat and socs box-containing protein 11	-1.7	9.50E-03	down

Rab19	Ras-related protein Rab-19	-1.7	1.92E-03	down
Ubb	Ubiquitin	-1.71	8.24E-07	down
Pi4k2b	Phosphatidylinositol 4-kinase type 2-beta	-1.71	4.73E-03	down
Nck2	Non-catalytic region of tyrosine kinase adaptor protein 2	-1.71	1.58E-05	down
Pcna	Proliferating cell nuclear antigen	-1.71	2.91E-02	down
Arsg	Arylsulfatase G	-1.71	8.48E-03	down
Vash1	Vasohibin 1	-1.72	1.56E-04	down
Rpl12	Ribosomal protein L12	-1.72	1.65E-05	down
Clic4	Chloride intracellular channel protein 4	-1.72	3.06E-05	down
Zmat2	Zinc finger, matrin type 2	-1.72	3.76E-03	down
Pam	Peptidyl-glycine alpha-amidating monooxygenase	-1.73	4.04E-03	down
Micall2	MICAL-like protein 2	-1.73	6.98E-04	down
Nol7	Nucleolar protein 7	-1.73	1.69E-02	down
Skap2	Src kinase-associated phosphoprotein 2	-1.73	5.49E-06	down
Pcyt1a	Choline-phosphate cytidylyltransferase A	-1.73	1.20E-02	down
Fcf1	FCF1 rRNA-processing protein	-1.73	5.63E-05	down
Adpgk	ADP-dependent glucokinase	-1.73	5.28E-03	down
G3bp2	GTPase activating protein (SH3 domain) binding protein 2	-1.74	1.03E-02	down
Adk	Adenosine kinase	-1.74	1.72E-04	down
Ppm1d	Protein phosphatase 1D magnesium-dependent, delta isoform	-1.74	3.37E-06	down



Txndc9	Thioredoxin domain containing 9	-1.74	1.20E-02	down
Ap1s2	Adaptor-related protein complex 1, sigma 2	-1.74	9.28E-03	down
Hadhb	Trifunctional enzyme subunit beta	-1.75	7.95E-05	down
Tmed4	Transmembrane emp24 protein transport domain containing 4	-1.75	3.69E-02	down
Kifap3	Kinesin-associated protein 3	-1.75	4.36E-02	down
Ctsb	Cathepsin b	-1.75	4.60E-05	down
Idh3B	Isocitrate dehydrogenase [NAD] subunit beta	-1.75	6.24E-03	down
Rplp2	60S acidic ribosomal protein P2-like	-1.75	2.04E-03	down
Tent5c	Family with sequence similarity 46, member c	-1.75	1.92E-07	down
Krcc1	Lysine-rich coiled-coil protein 1	-1.75	2.67E-03	down
Adh5	S-(hydroxymethyl)glutathione dehydrogenase / alcohol dehydrogenase	-1.75	1.16E-02	down
Adh4	Alcohol dehydrogenase 4 (class ii), pi polypeptide	-1.75	1.16E-02	down
Tceanc2	Transcription elongation factor A (SII) N-terminal and central domain containing 2	-1.75	3.68E-03	down
Acp1	Low molecular weight phosphotyrosine protein phosphatase	-1.76	2.56E-03	down
Tyw1	Radical S-adenosyl methionine and flavodoxin domains 1	-1.76	2.14E-02	down

Xaf1	XIAP associated factor-1	-1.76	1.48E-02	down
Isg20	Interferon stimulated exonuclease gene 20	-1.76	6.17E-06	down
Derl2	Derlin-2/3	-1.77	3.39E-02	down
Sephs2	Selenophosphate synthetase 2	-1.77	1.82E-03	down
Mical2	[F-actin]-monooxygenase MICAL2	-1.77	1.44E-05	down
Shpk	Sedoheptulokinase	-1.78	1.39E-04	down
Cdadc1	Cytidine and dCMP deaminase domain containing 1	-1.78	3.17E-03	down
Pex19	Peroxisomal biogenesis factor 19-like	-1.78	1.33E-02	down
Trim26	Tripartite motif-containing protein 26	-1.78	1.19E-06	down
Ell2	Elongation factor RNA polymerase II 2	-1.78	3.60E-04	down
Vmp1	Vacuole membrane protein 1	-1.78	1.49E-03	down
Acss2	acyl-CoA synthetase short-chain family member 2	-1.79	1.58E-02	down
Nmnat3	Nicotinamide nucleotide adenylyltransferase 3	-1.79	1.97E-04	down
Plek2	Pleckstrin 2	-1.79	2.46E-03	down
Gypc	Glycophorin-C	-1.79	3.38E-03	down
Cnih1	Cornichon family AMPA receptor auxiliary protein 1	-1.79	7.17E-04	down
Slc6a4	Sodium-dependent serotonin transporter	-1.79	6.02E-05	down
Dus2	Dihydrouridine synthase 2	-1.8	6.76E-04	down

Acadv1	Acyl-coa dehydrogenase, very long chain	-1.8	2.58E-04	down
Pdap1	PDGFA associated protein 1	-1.8	1.27E-05	down
Srgn	Serglycin	-1.8	1.64E-07	down
Odc1	Ornithine decarboxylase	-1.8	2.81E-07	down
Vamp7	Vesicle-associated membrane protein 7	-1.8	3.24E-04	down
RGD1597339	RGD1597339	-1.8	4.46E-02	down
Tspan12	Tetraspanin-12	-1.81	4.94E-02	down
Otud5	OTU domain-containing protein 5	-1.81	3.35E-07	down
Dnajb12	Dnaj heat shock protein family (hsp40) member b12	-1.82	9.69E-07	down
Bloc1s5	Biogenesis of lysosome-related organelles complex 1 subunit 5	-1.82	6.78E-03	down
Nup35	Nucleoporin NUP53	-1.82	4.79E-02	down
Hif1an	Hypoxia-inducible factor 1, alpha subunit inhibitor	-1.82	1.12E-02	down
Cwc15	Spliceosome-associated protein CWC15	-1.82	8.65E-03	down
Bap1	Ubiquitin carboxyl-terminal hydrolase BAP1	-1.83	1.42E-05	down
RGD1305178	RGD1305178	-1.83	1.91E-02	down
Mcpt111	Mast cell protease 1	-1.83	2.31E-02	down
Fam149b1	Family with sequence similarity 149, member B1	-1.83	4.85E-03	down

Arpc2	Actin-related protein 2/3 complex subunit 2	-1.83	8.10E-07	down
Syf2	SYF2	-1.84	3.31E-08	down
Myl9	Myosin regulatory light chain 9	-1.84	3.66E-10	down
Tyro3	TYRO3	-1.84	1.36E-04	down
Serpinb1a	Leukocyte elastase inhibitor A	-1.84	7.85E-03	down
Itfg1	Integrin alpha fg-gap repeat containing protein 1	-1.84	1.01E-03	down
Rps4x-ps9	Rps4x-ps9	-1.84	3.74E-07	down
Sdf4	45 kDa calcium-binding protein	-1.85	8.45E-06	down
Nt5c3a	5'-nucleotidase, cytosolic IIIA	-1.85	8.88E-05	down
Calm2	Calmodulin-2	-1.85	9.56E-05	down
Rap1b	Ras-related protein Rap-1b	-1.85	5.47E-06	down
Mnda	Myeloid cell nuclear differentiation antigen	-1.85	4.36E-02	down
Mrpl41	39S ribosomal protein L41	-1.85	2.78E-02	down
Fundc1	FUN14 domain-containing protein 1	-1.86	6.48E-04	down
Selenof	Selenof	-1.86	1.03E-05	down
Drg2	Developmentally regulated GTP binding protein 2	-1.86	2.41E-02	down
Tmx4	Thioredoxin-related transmembrane protein 4	-1.86	2.50E-02	down
Asns	Asparagine synthetase	-1.86	2.31E-06	down
Slc39a11	Solute carrier family 39	-1.87	4.47E-02	down
Cenpu	Cenpu	-1.87	1.79E-02	down

RGD1562667	RGD1562667	-1.87	2.10E-02	down
Mdh1	Malate dehydrogenase 1	-1.87	4.98E-04	down
St3gal5	Lactosylceramide alpha-2,3-sialyltransferase	-1.87	9.89E-06	down
Gpr174	G protein-coupled receptor 174	-1.88	3.01E-02	down
LOC100911991	LOC100911991	-1.88	3.15E-03	down
St3gal2	Beta-galactoside alpha-2,3-sialyltransferase	-1.88	1.21E-05	down
Ppp1r13b	Protein phosphatase 1, regulatory subunit 13B	-1.88	1.81E-04	down
Rpp14	Ribonuclease p protein subunit rpp14	-1.88	4.34E-03	down
Memo1	MEMO1	-1.89	1.33E-05	down
Rtraf	Rtraf	-1.89	8.93E-03	down
Inpp5k	Inositol polyphosphate-5-phosphatase K	-1.89	8.13E-06	down
Adgra2	Adhesion g protein-coupled receptor a2	-1.89	1.10E-05	down
Tpmt	Thiopurine S-methyltransferase	-1.9	4.03E-03	down
Tspyl1	Testis-specific protein, Y-encoded-like	-1.9	3.66E-05	down
Cept1	Choline/ethanolaminephosphotransferase 1	-1.9	2.92E-02	down
Rab5a1	Ras-related protein Rab-5A	-1.9	3.08E-02	down
Mb21d2	Mab-21 domain containing 2	-1.91	2.51E-02	down
Tubb2b	Tubulin beta-2B chain	-1.91	7.39E-03	down
Ube2j1	Ubiquitin-conjugating enzyme E2, J1	-1.92	3.50E-07	down
Eapp	E2F-associated phosphoprotein	-1.92	1.89E-04	down

Bcas2	Breast carcinoma amplified sequence 2	-1.92	1.59E-06	down
Cdc16	Cell division cycle 16	-1.92	2.63E-02	down
Txn1l1	Thioredoxin-like protein 1	-1.92	1.33E-03	down
Evi2a	Ecotropic viral integration site 2A	-1.93	1.46E-04	down
Trim10	Tripartite motif-containing 10	-1.93	8.30E-09	down
Fam162a	FAM162A	-1.94	2.36E-02	down
Svbp	Small vasohibin-binding protein	-1.94	3.16E-02	down
Tpm1	Tropomyosin alpha-1 chain	-1.94	2.02E-05	down
Rps4x	Ribosomal protein S4, X-linked X-like	-1.94	8.50E-11	down
Zfand5	AN1-type zinc finger protein 5	-1.95	9.09E-06	down
Ldha	Lactate dehydrogenase A	-1.95	6.74E-10	down
Trim21	Tripartite motif-containing 21	-1.96	6.17E-04	down
Arhgap28	Rho GTPase activating protein 28	-1.96	5.57E-03	down
Usp46	Ubiquitin carboxyl-terminal hydrolase 46	-1.96	4.21E-04	down
Ginm1	Glycoprotein integral membrane 1	-1.96	2.62E-02	down
Pdcd2	Programmed cell death protein 2	-1.96	1.12E-02	down
Ctla2a	Cytotoxic T lymphocyte-associated protein 2 alpha	-1.96	5.71E-05	down
Rpl5	60S ribosomal protein L5	-1.97	2.08E-10	down
Mllt3	MLLT3	-1.98	3.62E-02	down
Fgl2	Fibrinogen-like 2	-1.98	5.00E-10	down

Tmem117	Transmembrane protein 117	-1.99	4.65E-03	down
Zfp394	Krab and scan domains-containing zinc finger protein	-1.99	4.96E-04	down
Sh3y11	SH3 domain-containing YSC84-like protein 1	-1.99	1.34E-05	down
C1d	C1D nuclear receptor co-repressor	-2	2.63E-02	down
Fbxo22	F-box protein 22	-2	1.14E-02	down
Paip2	Polyadenylate-binding protein-interacting protein 2	-2.01	1.33E-06	down
Rap1a	Ras-related protein Rap-1A	-2.02	5.53E-06	down
F2rl2	Coagulation factor ii (thrombin) receptor-like 2	-2.02	7.48E-06	down
Cd53	Leukocyte surface antigen CD53	-2.02	6.69E-07	down
Me1	Malic enzyme 1	-2.03	5.80E-04	down
Zwint	ZW10 interactor	-2.04	4.09E-05	down
Pla2g2a	Phospholipase A2	-2.04	1.06E-08	down
Map1lc3b2	Microtubule-associated proteins 1A/1B light chain 3B	-2.05	1.24E-03	down
Sumo1	Small ubiquitin-related modifier 1	-2.05	3.53E-05	down
Bnip3l	BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like	-2.05	5.31E-08	down
Tinf2	TERF1 (TRF1)-interacting nuclear factor 2	-2.06	1.11E-05	down
Cox16	COX16 cytochrome c oxidase assembly homolog	-2.06	2.38E-02	down

Calr	Calreticulin	-2.06	6.25E-09	down
Ptpmt1	Phosphatidyglycerophosphatase and protein-tyrosine phosphatase 1	-2.07	1.48E-02	down
Cacybp	Calcyclin-binding protein	-2.07	1.46E-02	down
Actr10	Actin-related protein 10	-2.07	7.21E-05	down
Cops5	COP9 signalosome subunit 5	-2.07	7.96E-04	down
LOC685085	LOC685085	-2.08	1.43E-02	down
Tom111	TOM1-like protein 1	-2.08	4.33E-05	down
Sv2a	Synaptic vesicle glycoprotein 2A	-2.08	9.46E-05	down
Stradb	STE20-related kinase adaptor beta	-2.08	2.76E-07	down
Rgs6	Regulator of G-protein signaling 6	-2.08	2.61E-03	down
Glipr1	GLI pathogenesis-related 1	-2.09	2.68E-07	down
Plp1	Myelin proteolipid	-2.09	1.00E-06	down
Usp15	Ubiquitin carboxyl-terminal hydrolase 15	-2.09	5.47E-06	down
Tacc3	Transforming, acidic coiled-coil containing protein 3	-2.09	1.14E-03	down
Wdr45	WD repeat domain phosphoinositide-interacting protein 4	-2.1	1.61E-06	down
Gnaz	Guanine nucleotide-binding protein G(z) subunit alpha	-2.1	6.76E-06	down
Sdcbp	Syntenin-1	-2.11	2.54E-09	down
Rxfp1	Relaxin/insulin-like family peptide receptor 1	-2.11	2.16E-02	down



Sumo4	Small ubiquitin-related modifier	-2.11	1.07E-02	down
LOC100910850	LOC100910850	-2.11	8.51E-05	down
Morf4l1	Mortality factor 4-like protein 1	-2.12	1.25E-07	down
RGD1564129	RGD1564129	-2.12	2.40E-05	down
LOC100365839	LOC100365839	-2.12	4.53E-03	down
RGD1562420	RGD1562420	-2.12	3.79E-03	down
Tyms	Thymidylate synthetase	-2.13	4.91E-04	down
Mettl9	Methyltransferase like 9-like	-2.13	3.52E-03	down
Hscb	HscB mitochondrial iron-sulfur cluster co-chaperone	-2.13	1.96E-06	down
Psmal1	Proteasome subunit alpha type-1	-2.14	1.54E-03	down
Lyz2	Lysozymes	-2.14	5.01E-13	down
Kcns3	Potassium voltage-gated channel subfamily S member 3	-2.15	8.55E-04	down
Bet1	BET1	-2.16	5.93E-03	down
Pfdn1	Prefoldin subunit 1	-2.16	1.35E-02	down
Ppif	Peptidyl-prolyl cis-trans isomerase F	-2.16	1.13E-07	down
Mfap3l1	Microfibrillar-associated protein 3-like	-2.17	1.18E-02	down
Bcl2l13	BCL2-like 13	-2.17	1.29E-08	down
Cd48	CD48	-2.17	2.04E-06	down
Tcp1l11	T-complex 11-like 1	-2.17	4.75E-04	down
Ap3s1	Adaptor-related protein complex 3, sigma 1	-2.18	4.19E-06	down
Cetn2	Centrin 2, isoform CRA_a	-2.18	2.06E-05	down

Dcun1d1	DCN1-like protein	-2.18	1.91E-05	down
Cdkn3	Cyclin-dependent kinase inhibitor 3	-2.19	1.02E-05	down
Stx5	Syntaxin-5	-2.19	1.10E-10	down
LOC100910882	LOC100910882	-2.19	1.03E-02	down
Bag1	Bcl2 associated athanogene 1	-2.19	4.46E-08	down
Dpm1	Dolichyl-phosphate mannosyltransferase polypeptide 1	-2.2	5.52E-06	down
Gp6	Glycoprotein 6	-2.2	3.40E-08	down
P2rx1	P2X purinoceptor 1	-2.2	2.76E-10	down
Cnbp	Cellular nucleic acid-binding protein	-2.21	3.42E-10	down
Phf7	PHD finger protein 7	-2.21	4.56E-02	down
Atp6v1e1	V-type h <sup>+</sup> -transporting atpase subunit e	-2.21	3.44E-05	down
Cd36	CD36	-2.21	7.34E-07	down
RGD1565355	RGD1565355	-2.21	7.34E-07	down
Thoc7	Tho complex subunit 7	-2.22	4.80E-06	down
Nkap	NF-kappa-B-activating protein	-2.22	4.87E-03	down
Slc35b1	Solute carrier family 35 member B1	-2.22	3.51E-07	down
Ms4a6b1	Membrane-spanning 4-domains, subfamily A, member 6B-like	-2.22	2.45E-02	down
Bcap31	B-cell receptor-associated protein 31	-2.23	2.73E-12	down
Smpdl3b	Sphingomyelin phosphodiesterase, acid-like 3B	-2.24	4.92E-07	down
Cct5	Chaperonin containing tcp1 subunit 5	-2.24	6.68E-06	down
Bsdc1	BSD domain containing 1	-2.24	1.32E-08	down

Tpd5211	Tumor protein D52-like 1	-2.24	2.25E-04	down
Ppp1cb	Serine/threonine-protein phosphatase PP1-beta catalytic subunit	-2.25	9.10E-08	down
Fbxo8	F-box protein 8	-2.25	1.42E-03	down
Epb42	Erythrocyte membrane protein band 4.2	-2.26	1.50E-10	down
Narf	Nuclear prelamin A recognition factor	-2.27	3.96E-10	down
Jazf1	Juxtaposed with another zinc finger protein 1	-2.29	1.69E-03	down
Nhej1	Non-homologous end-joining factor 1	-2.31	1.76E-03	down
Erich1	Glutamate-rich 1	-2.31	3.05E-07	down
Rpl21	Large subunit ribosomal protein l21e	-2.31	4.27E-12	down
Vdac3	Voltage-dependent anion-selective channel protein 3	-2.32	1.35E-09	down
Mcart1	Mitochondrial carrier triple repeat 1	-2.32	1.31E-03	down
RGD1359290	RGD1359290	-2.32	3.16E-11	down
Erp44	Endoplasmic reticulum protein 44	-2.33	5.07E-05	down
Gtse1	G-2 and S-phase expressed 1	-2.33	1.42E-04	down
Cbln2	Cerebellin-2	-2.34	1.96E-03	down
Sftpd	Pulmonary surfactant-associated protein d	-2.35	2.38E-03	down
Chchd3	Coiled-coil-helix-coiled-coil-helix domain-containing protein 3	-2.36	6.37E-08	down
Haus7	HAUS augmin-like complex, subunit 7	-2.38	7.84E-04	down

Pbx1	pre-B-cell leukemia homeobox 1	-2.38	2.49E-04	down
Serpinb6a	Serpin peptidase inhibitor, clade B	-2.38	6.62E-05	down
Cmpk1	UMP-CMP kinase	-2.39	1.80E-10	down
Ttc27	Tetratricopeptide repeat domain 27	-2.4	6.26E-06	down
Tpt1	Tumor protein, translationally-controlled 1	-2.41	5.74E-11	down
Vps45	Vacuolar protein sorting-associated protein 45	-2.41	3.35E-03	down
Pla1a	Phospholipase A1 member A	-2.42	1.01E-09	down
Dstn	Destrin	-2.44	1.46E-09	down
DSTNL1	Destrin	-2.44	1.46E-09	down
Yeats4	Yeats domain containing 4	-2.44	6.46E-03	down
Btg3	Btg anti-proliferation factor 3	-2.45	5.14E-04	down
Ifit1bl	Interferon-induced protein with tetratricopeptide repeats 1-like B	-2.45	9.22E-08	down
Car1	Solute carrier family 40	-2.46	3.13E-08	down
Acbd5	Acyl-CoA-binding domain-containing protein 5	-2.46	4.69E-03	down
Bccip	BRCA2 and CDKN1A interacting protein	-2.47	6.94E-03	down
Dyrk3	Dual specificity tyrosine-phosphorylation-regulated kinase 3	-2.47	2.37E-08	down
Smim15	Small integral membrane protein 15	-2.48	2.51E-03	down
Rpl7	ribosomal protein 17e	-2.48	1.01E-10	down

Sqor	Sulfide quinone reductase-like	-2.48	8.34E-05	down
Gzma	Granzyme A	-2.49	3.36E-03	down
Slc25a17	Solute carrier family 25	-2.51	2.94E-04	down
Chac2	Putative glutathione-specific gamma-glutamylcyclotransferase 2	-2.53	7.09E-08	down
C1galt1	Glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase 1	-2.53	4.03E-05	down
Gsta4	Glutathione S-transferase alpha-4	-2.54	3.49E-11	down
Cd226	CD226 molecule	-2.55	2.03E-08	down
Emb	Embigin	-2.55	8.07E-09	down
Myo5c	Myosin VC	-2.56	1.25E-11	down
Chmp2b	Charged multivesicular body protein 2B	-2.57	1.94E-05	down
Mmrn1	Multimerin 1	-2.57	4.23E-06	down
B2m	Beta-2-microglobulin	-2.58	3.09E-15	down
Mtx2	Metaxin 2	-2.58	2.01E-04	down
Fam172a	Family with sequence similarity 172	-2.58	1.96E-03	down
Dynlt3	Dynein light chain Tctex-type 3	-2.58	5.21E-03	down
Hacd4	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase	-2.58	1.96E-04	down
Rhag	Rh-associated glycoprotein	-2.58	4.37E-07	down
Dnajc8	DnaJ homolog subfamily C member 8	-2.59	8.25E-12	down
Tfdp2	Transcription factor Dp-2	-2.61	5.10E-09	down
Dok4	Docking protein 4	-2.62	7.37E-03	down
Dapk2	Death-associated protein kinase 2	-2.63	3.16E-09	down

Bud31	Bud site selection protein 31	-2.64	2.93E-12	down
Cops3	COP9 signalosome complex subunit 3	-2.65	3.01E-05	down
Tsc22d1	TSC22 domain family protein 1	-2.66	5.46E-15	down
Ndufs4	NADH dehydrogenase [ubiquinone] iron-sulfur protein 4	-2.67	5.34E-04	down
Cep83	Coiled-coil domain-containing protein 41	-2.68	7.51E-05	down
Emc7	Emc7	-2.73	2.19E-03	down
Rala	Ras-related protein Ral-A	-2.76	1.62E-07	down
Crbn	Protein cereblon	-2.77	1.09E-03	down
Fut2	Galactoside 2-alpha-L-fucosyltransferase 2	-2.79	4.27E-04	down
Eif3m	Eukaryotic translation initiation factor 3 subunit M	-2.82	1.37E-08	down
Cd9	CD9	-2.86	3.80E-10	down
Ift20	Intraflagellar transport 20	-2.87	4.97E-03	down
Cox7b	Cytochrome c oxidase subunit 7B	-2.88	1.49E-07	down
Eif3e11	Eif3e11	-2.88	1.53E-06	down
Ufm1	Ubiquitin-fold modifier 1	-2.89	3.67E-03	down
Katna1	Katanin p60 ATPase-containing subunit A1	-2.93	2.08E-06	down
Fopnl	Lish domain-containing protein fopnl	-2.94	7.97E-08	down
Gng12	Guanine nucleotide-binding protein g(i)/g(s)/g(o) subunit gamma-12	-2.96	7.22E-08	down
Clec1b	C-type lectin domain family 1, member B	-3.06	5.46E-16	down

Alg6	Dolichyl pyrophosphate man9glnac2 alpha-1,3-glucosyltransferase	-3.07	2.81E-06	down
P2ry12	Purinergic receptor p2y12	-3.08	1.18E-04	down
Rps3a	40S ribosomal protein S3a	-3.09	1.18E-15	down
Pgm2	Phosphoglucomutase 2	-3.1	2.89E-03	down
Map2k3	Dual specificity mitogen-activated protein kinase kinase 3-like	-3.11	1.14E-02	down
LOC108348082	LOC108348082	-3.11	1.14E-02	down
RGD1562690	RGD1562690	-3.12	1.04E-04	down
LOC103690020	LOC103690020	-3.12	2.50E-08	down
Angpt1	Angiopoietin 1	-3.13	2.26E-05	down
LOC103689956	LOC103689956	-3.16	1.00E-02	down
Ift57	Intraflagellar transport 57	-3.17	1.76E-04	down
LOC100911372	LOC100911372	-3.2	1.93E-04	down
Cyb5r4	Cytochrome b5 reductase 4	-3.47	2.89E-06	down
Clec4f	C-type lectin domain family 4 member F	-3.51	2.13E-04	down
Mrpl32	Mitochondrial ribosomal protein L32	-3.55	3.22E-04	down
Nek2	NIMA-related kinase 2	-3.57	1.19E-04	down
Nek2l1	Nima (never in mitosis gene a)-related kinase 2-like 1	-3.57	1.19E-04	
Bfsp2	Beaded filament structural protein 2, phakinin	-3.57	2.69E-04	down

Pdcd10	Programmed cell death protein 10	-3.65	3.92E-06	down
Gdpd2	Glycerophosphodiester phosphodiesterase domain containing 2	-3.66	2.39E-04	down
Rgs18	Regulator of g-protein signaling 18	-3.66	7.64E-09	down
Fam92a	Family with sequence similarity 92, member A1	-3.73	9.53E-08	down
Gon7	GON7	-3.73	1.19E-06	down
Hnrnpc	Binds pre-mRNA and nucleates the assembly of 40S hnRNP particles	-3.75	7.06E-04	down
Laptm4b	Lysosomal-associated transmembrane protein 4B	-3.81	1.44E-04	down
LOC100912282	LOC100912282	-3.81	4.66E-04	down
Fer115	Fer-1-like family member 5	-4.26	5.67E-05	down
Ubxn2a	UBX domain protein 2A	-4.57	1.69E-14	down
Etfa	Electron transfer flavoprotein subunit alpha	-4.59	1.70E-04	down
Ppp2r3c	Serine/threonine-protein phosphatase 2A regulatory subunit B" subunit gamma	-4.63	2.89E-07	down
Rrm2	Ribonucleoside-diphosphate reductase subunit M2	-4.75	2.01E-05	down
Pkia	cAMP-dependent protein kinase inhibitor alpha	-4.82	3.47E-04	down
Lgals8	Galectin 8	-5.46	1.33E-05	down

PTSD, post-traumatic stress disorder. FC, fold change. VIP, variable importance in the projection. DEG, differential expressed gene. Pue, puerarin.