

Gene Target	Forward Primer	Reverse Primer
Toll Like Receptor 3 (<i>TLR3</i>)	5`-GTA TTG CCT GGT TTG TTA ATT GG-3`	5`-AAG AGT TCA AAG GGG GCA CT-3`
DExD/H-Box Helicase 58 (<i>DDX58</i>)	5`-TGT GCT CCT ACA GGT TGT GGA-3`	5`-CAC TGG GAT CTG ATT CGC AAA A-3`
Interferon Induced With Helicase C Domain 1 (<i>IFIH1</i>)	5`-TCG AAT GGG TAT TCC ACA GAC G-3`	5`-GTG GCG ACT GTC CTC TGA A-3`
Z-DNA Binding Protein 1 (<i>ZBP1</i>)	5`-AAA GCA TGG ACG ATT TAC CG-3`	5`-CAT GTT GAT TGG ATT GTG CTG-3`
Interferon Gamma Inducible Protein 16 (<i>IFI16</i>)	5`-TAG AAG TGC CAG CGT AAC TCC-3`	5`-TGA TTG TGG TCA GTC GTC CAT-3`
ISG15 Ubiquitin-Like Modifier (<i>ISG15</i>)	5`-CGC AGA TCA CCC AGA AGA TCG-3`	5`-TTC GTC GCA TTT GTC CAC CA-3`
2'-5'-Oligoadenylate Synthetase 1 (<i>OAS1</i>)	5`-TGT CCA AGG TGG TAA AGG GTG-3`	5`-CCG GCG ATT TAA CTG ATC CTG-3`
Paired Box 2 (<i>PAX2</i>)	5`-CCC AGC GTC TCT TCC ATC AA-3`	5`-CGT GCT GGG AAC AAT GGT GT-3`
Beta-2-Microglobulin (<i>B2M</i>)	5`-CTC TCT CTT TCT GGC CTG GAG-3`	5`-TCT GCT GGA TGA CGT GAG TA-3`

Supplementary Table S I: Primers used for Quantitative RT-PCR (RT-qPCR) Analysis.

Supplementary Table S II. Antiviral innate immune response genes showing differentially high expression in the corpus and cauda (gene expression values as FPKM, average of 3 donors).

Function	Gene ID	Gene name	Caput	Corpus	Cauda
Viral sensors	TLR3	Toll Like Receptor 3	3.81	15.21	12.59
	DDX58	DExD/H-Box Helicase 58	6.04	61.94	53.32
	IFIH1	Interferon Induced With Helicase C Domain 1	5.79	56.75	48.15
	IFI16	Interferon Gamma Inducible Protein 16	179.41	1317.23	1374.18
Adaptor proteins	MYD88	Myeloid Differentiation Primary Response 88	17.19	53.38	47.17
Signaling proteins	IRAK2	Interleukin 1 Receptor Associated Kinase 2	9.80	20.50	22.80
Transcription factors	IRF7	Interferon Regulatory Factor 7	18.36	72.75	63.85
Antiviral proteins	MX1	MX Dynamin Like GTPase 1	30.50	356.53	328.37
	MX2	MX Dynamin Like GTPase 2	0.24	14.80	12.56
	OAS1	2'-5'-Oligoadenylate Synthetase 1	14.88	119.39	105.24
	OAS2	2'-5'-Oligoadenylate Synthetase 2	3.40	65.54	58.71
	OAS3	2'-5'-Oligoadenylate Synthetase 3	9.91	63.16	55.36
	OASL	2'-5'-Oligoadenylate Synthetase Like	4.45	136.16	114.59
Chemokines/ Cytokines	CXCL10	C-X-C Motif Chemokine Ligand 10	1.39	41.38	46.64
	CXCL11	C-X-C Motif Chemokine Ligand 11	0.47	15.70	16.34

Sample	Sequenced Reads	Aligned Reads
Caput Control siRNA Replicate 1	29,311,312	28,942,321
Caput Control siRNA Replicate 2	25,927,224	25,597,885
Caput Control siRNA Replicate 3	27,820,503	27,413,955
Caput PAX2 siRNA Replicate 1	27,652,710	27,317,469
Caput PAX2 siRNA Replicate 2	26,764,439	26,424,323
Caput PAX2 siRNA Replicate 3	29,708,349	29,319,785

Supplementary Table S III. Reads (sequenced and aligned) for the RNA-seq experiments.

Supplementary Table S IV. List of genes differentially expressed by at least 1.3-fold (FPKM \geq 0.3) following siRNA mediated PAX2-knockdown in Caput HEE cells.

Gene Symbol	NC si	PAX2 si	log2 fold change	Fold change	p value		Gene Symbol	NC si	PAX2 si	log2 fold change	Fold change	p value
AMH	22.31	0.22	-6.65	100.3	5.0E-05		MIR205HG	0.30	5.13	4.11	17.2	5.0E-05
MIR374C	33.44	1.59	-4.40	21.1	5.0E-05		MIR17,MIR17HG,MIR18A,MIR19A,MIR19B1,MIR20A,MIR92A1	1.10	16.80	3.93	15.2	5.0E-05
IL33	3.61	0.38	-3.25	9.5	5.0E-05		RAB11FIP4	1.34	12.43	3.22	9.3	5.0E-05
DAZL	0.50	0.07	-2.88	7.4	5.0E-05		TOMM40L	4.92	32.19	2.71	6.5	5.0E-05
SLC25A15	37.49	5.19	-2.85	7.2	5.0E-05		SLC16A9	0.11	0.70	2.67	6.4	5.0E-05
LOC284454,MIR24-2	48.27	6.70	-2.85	7.2	5.0E-05		C7orf61	0.20	1.13	2.52	5.7	3.6E-03
C3AR1	0.69	0.10	-2.80	7.0	2.5E-04		SFTA1P	0.26	1.34	2.35	5.1	1.3E-03
DUOX2	1.30	0.22	-2.55	5.9	5.0E-05		C7orf57	0.35	1.31	1.91	3.8	5.0E-05
PDCD4	128.91	32.93	-1.97	3.9	5.0E-05		HP	0.19	0.68	1.87	3.6	2.0E-03
SST	4.61	1.24	-1.89	3.7	5.0E-05		GPR64	0.22	0.79	1.86	3.6	5.0E-05
SECTM1	25.74	7.06	-1.87	3.6	5.0E-05		MRAP2	0.24	0.79	1.72	3.3	5.0E-05
LYG2	1.49	0.42	-1.82	3.5	3.5E-04		LTF	19.73	64.27	1.70	3.3	5.0E-05
CYP3A7,CYP3A7-CYP3AP1	0.42	0.12	-1.79	3.5	1.1E-03		SERPINA3	3.42	10.62	1.63	3.1	5.0E-05
FAM150B	1.95	0.57	-1.77	3.4	4.0E-04		CDK14	1.32	4.02	1.61	3.0	5.0E-05
C12orf74	1.17	0.35	-1.72	3.3	1.5E-04		TMEM246	0.45	1.33	1.56	3.0	5.0E-05
CYP2B6	1.07	0.34	-1.65	3.1	5.0E-05		SLC44A2	11.30	33.03	1.55	2.9	5.0E-05
HPSE	9.38	3.00	-1.64	3.1	5.0E-05		C11orf96	1.16	3.34	1.53	2.9	5.0E-05
IFITM2	343.60	110.75	-1.63	3.1	5.0E-05		A4GNT	0.21	0.62	1.53	2.9	9.5E-04
SYNGAP1	9.22	3.06	-1.59	3.0	5.0E-05		GINS2	0.96	2.64	1.45	2.7	5.0E-05
SLC51B	1.23	0.43	-1.53	2.9	1.4E-03		PLIN4	0.27	0.73	1.44	2.7	5.0E-05
IRF8	2.51	0.88	-1.51	2.8	5.0E-05		CNN1	1.96	5.28	1.43	2.7	5.0E-05
FGF14	1.63	0.59	-1.47	2.8	5.0E-05		NKD1	0.17	0.46	1.43	2.7	5.0E-05
CD7	0.67	0.24	-1.46	2.7	5.5E-03		SLC16A14	0.41	1.12	1.43	2.7	5.0E-05
MT1H	5.39	1.99	-1.44	2.7	1.3E-03		MYBL2	4.06	10.78	1.41	2.7	5.0E-05
GBP1P1	2.46	0.91	-1.43	2.7	5.0E-05		RELN	0.40	1.03	1.37	2.6	5.0E-05
CXCL11	5.15	1.91	-1.43	2.7	5.0E-05		TAAR6	0.39	0.98	1.34	2.5	1.3E-03
GPR141	1.53	0.58	-1.40	2.6	5.0E-05		KLF16,REXO1	39.94	99.93	1.32	2.5	5.0E-05
CCR8	1.24	0.47	-1.40	2.6	5.0E-05		AK7	0.29	0.72	1.31	2.5	5.0E-05
IL1RN	21.70	8.43	-1.36	2.6	5.0E-05		NIPAL4	0.36	0.88	1.28	2.4	5.0E-05

ZBP1	10.06	3.94	-1.35	2.6	5.0E-05		TMEM100	0.76	1.83	1.28	2.4	5.0E-05
ANK1	0.78	0.30	-1.35	2.6	5.0E-05		E2F1	0.71	1.69	1.25	2.4	5.0E-05
MRC2	10.74	4.22	-1.35	2.5	5.0E-05		LOC100131825	1.47	3.45	1.24	2.4	5.0E-05
FLJ37035	0.48	0.19	-1.33	2.5	1.6E-03		PTGDS	0.96	2.25	1.23	2.3	1.0E-03
CD38	1.28	0.52	-1.31	2.5	5.0E-05		TPM4	87.94	204.02	1.21	2.3	5.0E-05
ENTPD3	9.14	3.73	-1.29	2.5	5.0E-05		LOC646329	0.36	0.82	1.21	2.3	5.0E-05
GABRQ	2.25	0.93	-1.28	2.4	5.0E-05		DENND2A	0.20	0.47	1.20	2.3	5.0E-05
KRT15	1.42	0.59	-1.26	2.4	5.0E-05		THBD	6.91	15.85	1.20	2.3	5.0E-05
BATF2	8.56	3.62	-1.24	2.4	5.0E-05		ACVR2B-AS1	0.40	0.90	1.19	2.3	3.5E-04
SOX3	0.97	0.41	-1.24	2.4	1.0E-04		HMGB2	14.99	34.18	1.19	2.3	5.0E-05
CKB	130.78	56.13	-1.22	2.3	5.0E-05		UPP1	53.48	119.72	1.16	2.2	5.0E-05
HCG26	1.85	0.80	-1.22	2.3	2.3E-03		CDC45	1.05	2.33	1.15	2.2	5.0E-05
ZNF385D	1.50	0.65	-1.22	2.3	5.0E-05		GANAB	70.43	156.30	1.15	2.2	5.0E-05
MASP1	2.80	1.21	-1.21	2.3	5.0E-05		ZNF702P	2.44	5.42	1.15	2.2	5.0E-05
SAMHD1	66.86	29.13	-1.20	2.3	5.0E-05		LOC399815	0.52	1.15	1.15	2.2	5.0E-05
WFDC12	1.09	0.48	-1.20	2.3	1.0E-02		ZNF616	1.14	2.52	1.15	2.2	5.0E-05
IFIT2	82.83	36.52	-1.18	2.3	5.0E-05		KCNJ2	0.34	0.74	1.14	2.2	5.0E-05
TNFSF13B	4.36	1.92	-1.18	2.3	5.0E-05		SCN5A	0.24	0.52	1.14	2.2	5.0E-05
CXCL10	15.61	6.99	-1.16	2.2	5.0E-05		AURKB	4.56	10.01	1.13	2.2	5.0E-05
SLC2A2	0.44	0.20	-1.15	2.2	1.0E-04		AGPHD1	0.71	1.54	1.12	2.2	2.1E-03
MIRLET7I	39.08	17.66	-1.15	2.2	5.0E-03		RRM2	3.95	8.60	1.12	2.2	5.0E-05
LRRC73	0.81	0.37	-1.15	2.2	5.2E-03		FLJ46906	0.67	1.46	1.11	2.2	2.6E-03
OASL	38.06	17.33	-1.13	2.2	5.0E-05		BIRC5	3.79	8.17	1.11	2.2	5.0E-05
TG	3.07	1.40	-1.13	2.2	5.0E-05		HABP4	2.24	4.80	1.10	2.1	5.0E-05
LINC00473	6.85	3.12	-1.13	2.2	5.0E-05		RBP4	0.74	1.58	1.10	2.1	1.9E-03
MYO1C	54.55	24.93	-1.13	2.2	5.0E-05		CCDC80	18.91	40.41	1.10	2.1	5.0E-05
CD83	1.23	0.56	-1.12	2.2	5.0E-05		DTL	0.61	1.30	1.09	2.1	5.0E-05
CPSF1	77.16	35.68	-1.11	2.2	5.0E-05		CRTAC1	0.44	0.94	1.08	2.1	5.0E-05
CD177	1.20	0.56	-1.11	2.2	5.0E-05		ZNF367	0.36	0.75	1.08	2.1	5.0E-05
PI3	195.16	90.83	-1.10	2.1	5.0E-05		IGFBP5	4.35	9.16	1.07	2.1	5.0E-05
LUM	44.20	20.58	-1.10	2.1	5.0E-05		VSNL1	1.13	2.37	1.07	2.1	5.0E-05
EBNA1BP2	40.74	18.98	-1.10	2.1	5.0E-05		PTX3	3.24	6.80	1.07	2.1	5.0E-05
IL11	6.48	3.03	-1.10	2.1	5.0E-05		MT1L	79.37	163.67	1.04	2.1	5.0E-05
IFI6	1343.57	633.81	-1.08	2.1	5.0E-05		ZCWPW1	1.04	2.14	1.04	2.1	4.5E-04
MLLT11	4.63	2.19	-1.08	2.1	5.0E-05		MAOB	1.56	3.20	1.04	2.1	5.0E-05
COL14A1	1.39	0.66	-1.08	2.1	5.0E-05		TYMS	2.44	4.99	1.03	2.0	1.1E-02
SCG5	3.16	1.50	-1.07	2.1	5.0E-05		SERPINA1	56.61	115.33	1.03	2.0	5.0E-05
TNFAIP6	5.23	2.49	-1.07	2.1	5.0E-05		MCM10	0.33	0.68	1.03	2.0	5.0E-05

ISG15	1151.10	551.81	-1.06	2.1	5.0E-05		PLIN5	2.39	4.85	1.02	2.0	5.0E-05
ARID3B	2.38	1.15	-1.06	2.1	5.0E-05		LGALS2	0.73	1.48	1.02	2.0	2.4E-03
HCP5	14.83	7.15	-1.05	2.1	5.0E-05		SHCBP1	3.18	6.42	1.01	2.0	5.0E-05
CA9	3.77	1.82	-1.05	2.1	5.0E-05		AOX1	1.78	3.59	1.01	2.0	5.0E-05
CPXM1	97.55	47.16	-1.05	2.1	5.0E-05		GFRA1	1.88	3.78	1.01	2.0	5.0E-05
HIST2H2BE	1.18	0.57	-1.04	2.1	5.0E-05		LOC100506421	1.25	2.51	1.01	2.0	5.0E-05
TMEM104	7.96	3.88	-1.04	2.1	5.0E-05		MEGF6	0.31	0.62	1.00	2.0	5.0E-05
ATP8B2	3.57	1.75	-1.03	2.0	5.0E-05		EXO1	0.42	0.83	0.98	2.0	5.0E-05
NT5C3	49.65	24.49	-1.02	2.0	5.0E-05		CADM3,DARC	3.44	6.80	0.98	2.0	5.0E-05
HLA-F	52.16	25.74	-1.02	2.0	5.0E-05		ASH1L	9.46	18.68	0.98	2.0	2.0E-04
DPP4	60.17	29.83	-1.01	2.0	5.0E-05		LTBP1	0.36	0.72	0.98	2.0	5.0E-05
MX2	5.88	2.92	-1.01	2.0	5.0E-05		LINC00672	0.71	1.39	0.97	2.0	5.0E-05
HERC5	47.22	23.47	-1.01	2.0	5.0E-05		SLC29A4	0.50	0.98	0.97	2.0	5.0E-05
C3orf55	1.61	0.80	-1.00	2.0	9.0E-04		CDCA3	2.27	4.40	0.95	1.9	5.0E-05
SMTNL1	1.47	0.73	-1.00	2.0	2.1E-03		EEF1A2	2.16	4.16	0.95	1.9	5.0E-05
RBM11	0.62	0.31	-1.00	2.0	1.4E-03		CCNB2	8.45	16.26	0.94	1.9	1.2E-02
PLSCR2	0.57	0.28	-1.00	2.0	1.0E-02		CHST14	3.97	7.63	0.94	1.9	5.0E-05
SLC38A11	0.48	0.24	-1.00	2.0	1.1E-02		TESC	1.30	2.48	0.93	1.9	2.0E-04
BRSK1	0.91	0.46	-0.99	2.0	5.0E-05		DEPDC1	2.98	5.67	0.93	1.9	5.0E-05
RSAD2	102.89	51.82	-0.99	2.0	5.0E-05		YBX2	1.44	2.74	0.93	1.9	1.5E-04
IL6	198.40	100.44	-0.98	2.0	5.0E-05		MESDC2	25.74	48.97	0.93	1.9	5.0E-05
C8orf34	0.90	0.46	-0.97	2.0	5.0E-05		ZNF678	0.73	1.39	0.92	1.9	5.0E-05
TRPV4	3.50	1.79	-0.97	2.0	5.0E-05		LOC100133612	0.34	0.64	0.92	1.9	2.7E-03
CHPF2	90.48	46.21	-0.97	2.0	5.0E-05		EPHB6	0.91	1.73	0.92	1.9	5.0E-05
ADAM28	11.86	6.06	-0.97	2.0	5.0E-05		TNFSF14	1.23	2.31	0.92	1.9	5.0E-05
TMEM171	5.20	2.66	-0.97	2.0	5.0E-05		ZSCAN5A	0.87	1.64	0.91	1.9	5.0E-05
ENPEP	1.07	0.55	-0.97	2.0	5.0E-05		MYL9	7.47	14.06	0.91	1.9	5.0E-05
ITPRIPL1	0.99	0.51	-0.95	1.9	4.5E-04		FAM65B	0.38	0.71	0.91	1.9	5.0E-05
H1FO	61.19	31.82	-0.94	1.9	5.0E-05		WFDC2	153.49	288.43	0.91	1.9	5.0E-05
NEFL	1.91	1.00	-0.94	1.9	5.0E-05		CENPF	4.58	8.58	0.91	1.9	5.0E-05
HSD17B2	10.73	5.62	-0.93	1.9	5.0E-05		PRSS23	9.05	16.96	0.91	1.9	5.0E-05
PRKAR2B	1.83	0.96	-0.93	1.9	5.0E-05		SLC43A2	10.02	18.78	0.91	1.9	5.0E-05
MUC13	6.23	3.27	-0.93	1.9	5.0E-05		SLIT2	0.84	1.57	0.91	1.9	5.0E-05
SYT11	1.98	1.04	-0.93	1.9	5.0E-05		TAF1D	144.87	271.37	0.91	1.9	5.0E-05
SCARB2	122.03	64.10	-0.93	1.9	5.0E-05		GFPT2	0.36	0.68	0.90	1.9	3.0E-04
IL22RA1	2.10	1.10	-0.93	1.9	5.0E-05		ENSA	41.26	77.08	0.90	1.9	5.0E-05
PFKFB4	4.44	2.33	-0.93	1.9	5.0E-05		TMEM233	0.36	0.67	0.90	1.9	7.9E-03
EVC	99.48	52.27	-0.93	1.9	5.0E-05		FBN2	1.23	2.29	0.90	1.9	5.0E-05

NECAB2	1.16	0.61	-0.93	1.9	3.5E-04	ZNF704	0.27	0.49	0.89	1.9	5.0E-05
VGF	1.11	0.58	-0.93	1.9	1.5E-04	ZNF135	1.51	2.79	0.89	1.8	5.0E-05
FAM84A	27.10	14.28	-0.92	1.9	5.0E-05	ARHGAP19,SLIT1	1.22	2.26	0.88	1.8	5.0E-05
NCALD	16.81	8.91	-0.92	1.9	5.0E-05	RFTN1	2.28	4.20	0.88	1.8	5.0E-05
HHEX	0.98	0.52	-0.91	1.9	7.0E-04	PRIM1	2.35	4.34	0.88	1.8	5.0E-05
ISG20	80.79	43.08	-0.91	1.9	5.0E-05	SIGLEC15	0.65	1.19	0.88	1.8	5.0E-05
AZGP1	0.71	0.38	-0.91	1.9	1.1E-02	ZNF582-AS1	0.72	1.32	0.88	1.8	1.1E-03
BLNK	1.10	0.59	-0.89	1.9	4.5E-04	CENPH	4.11	7.56	0.88	1.8	5.0E-05
SEMA7A	25.83	13.92	-0.89	1.9	5.0E-05	MSRB3	1.89	3.47	0.88	1.8	5.0E-05
FAT2	2.80	1.51	-0.89	1.9	5.0E-05	E2F8	0.64	1.18	0.87	1.8	5.0E-05
FAM71F2	1.02	0.55	-0.89	1.8	3.7E-03	CCNE2	0.67	1.23	0.87	1.8	5.0E-05
PNMAL1	8.27	4.48	-0.88	1.8	5.0E-05	SLC46A3	2.82	5.14	0.87	1.8	5.0E-05
TINAG	0.56	0.30	-0.88	1.8	5.7E-03	HRCT1	0.65	1.19	0.87	1.8	8.9E-03
KCNN3	0.40	0.22	-0.88	1.8	5.0E-05	UHRF1	1.56	2.83	0.86	1.8	5.0E-05
LOC400043	13.84	7.53	-0.88	1.8	5.0E-05	CHI3L2	3.99	7.26	0.86	1.8	5.0E-05
ENPP4	7.86	4.29	-0.87	1.8	5.0E-05	ARHGDIB	5.52	10.01	0.86	1.8	5.0E-05
GHR	0.46	0.25	-0.87	1.8	5.0E-05	LOC100128770	1.14	2.05	0.85	1.8	9.1E-03
FER1L6	1.10	0.60	-0.87	1.8	5.0E-05	CREG2	1.13	2.04	0.85	1.8	1.5E-04
DOK3	0.98	0.54	-0.87	1.8	2.5E-04	TUBB4A	0.35	0.63	0.85	1.8	3.5E-03
CYP3A5	9.43	5.21	-0.86	1.8	5.0E-05	NEIL3	0.53	0.96	0.85	1.8	5.0E-05
TRIM69	2.21	1.22	-0.86	1.8	5.0E-05	HMG2	49.09	88.19	0.85	1.8	5.0E-05
PTPRH	0.69	0.38	-0.86	1.8	5.0E-05	HHIP	4.49	8.07	0.84	1.8	5.0E-05
PSMB9	51.94	28.71	-0.86	1.8	5.0E-05	CNTN6	0.26	0.46	0.84	1.8	5.0E-04
POU2F2	6.17	3.43	-0.85	1.8	5.0E-05	ZNF138	2.01	3.59	0.84	1.8	5.0E-05
CTSC	84.10	46.94	-0.84	1.8	5.0E-05	CD14	4.45	7.96	0.84	1.8	5.0E-05
MFAP3L	6.10	3.41	-0.84	1.8	5.0E-05	SLC2A4RG	9.89	17.68	0.84	1.8	5.0E-05
SAMD9L	20.54	11.48	-0.84	1.8	5.0E-05	ZNF680	2.14	3.82	0.84	1.8	5.0E-05
KRT222	0.71	0.40	-0.84	1.8	5.6E-03	ZNF610	0.47	0.84	0.84	1.8	8.5E-04
ACE2	1.17	0.65	-0.84	1.8	5.0E-05	CASP7	11.58	20.65	0.83	1.8	5.0E-05
CYP4F3	0.49	0.27	-0.84	1.8	1.7E-03	FAM111B	0.69	1.22	0.83	1.8	5.0E-05
SLC15A3	22.34	12.50	-0.84	1.8	5.0E-05	LRP3	1.13	2.02	0.83	1.8	5.0E-05
SV2A	6.70	3.75	-0.84	1.8	5.0E-05	SERPINA5	0.59	1.05	0.83	1.8	1.0E-04
FAM196B	1.72	0.96	-0.83	1.8	5.0E-05	EDIL3	0.47	0.83	0.83	1.8	2.0E-04
UBE2L6	131.02	73.47	-0.83	1.8	5.0E-05	CDKN3	6.94	12.30	0.82	1.8	5.0E-05
ARL6IP1	94.66	53.09	-0.83	1.8	5.0E-05	LAT	0.75	1.32	0.82	1.8	1.1E-03
BST2	138.80	77.85	-0.83	1.8	5.0E-05	JPX	6.14	10.85	0.82	1.8	5.0E-05
IFIT1	134.74	75.62	-0.83	1.8	5.0E-05	STX12	10.87	19.19	0.82	1.8	5.0E-05
CDKN1C	26.47	14.87	-0.83	1.8	5.0E-05	FBXL19-AS1	1.12	1.98	0.82	1.8	5.0E-05

EXOC3L4	2.78	1.56	-0.83	1.8	5.0E-05	HNRNPA1P33,LINC00842	3.12	5.47	0.81	1.8	5.0E-04
TPGS1	4.73	2.66	-0.83	1.8	5.0E-05	TM4SF1	48.17	84.41	0.81	1.8	5.0E-05
MFSD2A	33.68	18.97	-0.83	1.8	5.0E-05	LINC00565	0.31	0.54	0.80	1.7	4.5E-03
GID4	5.60	3.16	-0.83	1.8	5.0E-05	CENPA	2.21	3.84	0.80	1.7	5.0E-05
HSD17B7P2	1.07	0.61	-0.82	1.8	1.9E-03	SPAG5	2.62	4.56	0.80	1.7	5.0E-05
SCG2	0.45	0.26	-0.82	1.8	4.5E-03	NT5M	0.45	0.78	0.80	1.7	9.1E-03
ST3GAL5	5.22	2.96	-0.82	1.8	5.0E-05	PRC1	8.12	14.11	0.80	1.7	5.0E-05
AK5	9.80	5.56	-0.82	1.8	5.0E-05	PMEPA1	46.54	80.68	0.79	1.7	5.0E-05
LOC115110	0.63	0.36	-0.82	1.8	3.2E-03	PIF1	0.95	1.65	0.79	1.7	5.0E-05
RTP4	36.15	20.53	-0.82	1.8	5.0E-05	NCAM1	2.40	4.15	0.79	1.7	5.0E-05
SH3BP1	11.36	6.49	-0.81	1.8	5.0E-05	EMID1	0.35	0.60	0.79	1.7	7.4E-03
KRT23	6.82	3.91	-0.80	1.7	5.0E-05	SORL1	1.05	1.81	0.79	1.7	5.0E-05
ANPEP	80.31	46.04	-0.80	1.7	5.0E-05	PTCHD4	0.60	1.04	0.79	1.7	8.2E-03
IQCD	65.85	37.75	-0.80	1.7	5.0E-05	G3BP2	32.55	56.13	0.79	1.7	5.0E-05
ADAMTS6	0.57	0.33	-0.80	1.7	5.0E-05	ROBO1	0.78	1.34	0.79	1.7	5.0E-05
PIPOX	0.69	0.40	-0.80	1.7	1.3E-03	PIP	1.97	3.39	0.78	1.7	3.7E-03
CMPK2	70.12	40.38	-0.80	1.7	5.0E-05	SLC13A5	2.33	4.02	0.78	1.7	5.0E-05
LRP2BP	0.82	0.47	-0.79	1.7	1.5E-03	GYG2	0.32	0.55	0.78	1.7	1.3E-03
LAP3	135.87	78.50	-0.79	1.7	5.0E-05	VWA2	1.39	2.38	0.78	1.7	5.0E-05
ETV7	9.99	5.77	-0.79	1.7	5.0E-05	MYLK4	0.27	0.46	0.78	1.7	5.0E-05
STAT1	438.81	254.24	-0.79	1.7	5.0E-05	LIX1	0.78	1.35	0.78	1.7	5.0E-05
RASGEF1B	1.93	1.12	-0.79	1.7	5.0E-05	LOC100506844	1.85	3.17	0.78	1.7	1.1E-03
TMPRSS4	4.53	2.63	-0.79	1.7	5.0E-05	ZNF876P	0.80	1.37	0.78	1.7	5.0E-05
SP140	1.98	1.15	-0.78	1.7	1.5E-03	SLC7A14	1.00	1.72	0.78	1.7	5.0E-05
CTSL1P2	1.12	0.65	-0.78	1.7	7.7E-03	MEX3A	2.95	5.06	0.78	1.7	5.0E-05
AMBP	4.84	2.83	-0.78	1.7	5.0E-05	CENPK	2.02	3.45	0.77	1.7	1.5E-04
GLIPR1L1	0.75	0.44	-0.78	1.7	9.0E-03	SLC5A5	0.46	0.78	0.77	1.7	1.5E-04
DCDC2	3.52	2.05	-0.78	1.7	1.2E-02	TCOF1	4.09	6.96	0.77	1.7	5.0E-05
CCSER1	0.54	0.32	-0.77	1.7	5.0E-04	ZNF17	1.46	2.48	0.77	1.7	5.0E-05
F12	1.80	1.06	-0.77	1.7	5.0E-05	MEX3D	4.89	8.30	0.76	1.7	5.0E-05
RPS6KB1	9.64	5.66	-0.77	1.7	5.0E-05	CYP24A1	0.66	1.13	0.76	1.7	5.0E-05
NAGS	3.07	1.80	-0.77	1.7	5.0E-05	SERPINA4	0.59	0.99	0.76	1.7	2.4E-03
KCNJ8	0.62	0.37	-0.77	1.7	2.5E-03	PLCE1	0.28	0.48	0.76	1.7	5.0E-05
WISP1	1.01	0.60	-0.77	1.7	5.0E-05	LINC00278	3.79	6.42	0.76	1.7	5.0E-05
IFIT3	210.44	123.70	-0.77	1.7	5.0E-05	CDCA5	1.92	3.26	0.76	1.7	5.0E-05
TBX18	18.11	10.67	-0.76	1.7	5.0E-05	MYBL1	0.74	1.25	0.75	1.7	5.0E-05
MAP2K6	8.88	5.25	-0.76	1.7	5.0E-05	GALNT9	3.15	5.32	0.75	1.7	5.0E-05

IL18R1	1.78	1.05	-0.76	1.7	5.0E-05	MIR100HG	1.53	2.58	0.75	1.7	5.0E-05
CDK8	8.61	5.09	-0.76	1.7	5.0E-05	SERTAD4	0.75	1.26	0.75	1.7	5.0E-05
GDF15	216.84	128.37	-0.76	1.7	5.0E-05	LOC283177	2.13	3.59	0.75	1.7	5.0E-05
SERPINB7	7.34	4.35	-0.75	1.7	5.0E-05	NOLC1	16.05	27.02	0.75	1.7	5.0E-05
LIPE	1.51	0.89	-0.75	1.7	1.1E-02	SGIP1	1.26	2.12	0.75	1.7	5.0E-05
BAI2	0.53	0.32	-0.75	1.7	4.5E-04	SLC6A16	0.34	0.58	0.75	1.7	2.0E-03
SDS	2.32	1.38	-0.75	1.7	5.0E-05	P2RY6	1.53	2.58	0.75	1.7	5.0E-05
LOC440894	0.64	0.38	-0.75	1.7	4.6E-03	CXCL14	1.15	1.92	0.75	1.7	5.0E-05
KLKB1	1.16	0.69	-0.75	1.7	5.0E-05	ATP2A1	0.44	0.74	0.75	1.7	8.5E-04
ST6GALNAC4	41.85	24.86	-0.75	1.7	5.0E-05	ZNF461	1.49	2.50	0.74	1.7	3.1E-03
PTAFR	3.10	1.84	-0.75	1.7	5.0E-05	GINS4	1.08	1.81	0.74	1.7	5.0E-05
CHRD	13.64	8.12	-0.75	1.7	5.0E-05	BCAN	1.21	2.03	0.74	1.7	5.0E-05
TRPM3	3.39	2.02	-0.75	1.7	5.0E-05	ASPM	2.26	3.77	0.74	1.7	5.0E-05
OAS2	60.77	36.21	-0.75	1.7	5.0E-05	MLF1IP	1.90	3.16	0.74	1.7	5.0E-05
IZUMO4	5.87	3.51	-0.74	1.7	5.0E-05	MLXIPL	0.54	0.90	0.74	1.7	3.5E-04
CDV3	89.04	53.23	-0.74	1.7	5.0E-05	ZNF85	1.09	1.82	0.74	1.7	5.0E-05
SLC15A1	7.55	4.53	-0.74	1.7	5.0E-05	CASC5	1.32	2.20	0.73	1.7	5.0E-05
LOC100127888	10.14	6.10	-0.73	1.7	2.9E-03	ACO1	22.71	37.74	0.73	1.7	5.0E-05
MBLAC1	1.09	0.65	-0.73	1.7	6.7E-03	CENPV	5.35	8.89	0.73	1.7	2.6E-03
ACMSD	2.30	1.38	-0.73	1.7	5.0E-05	ANLN	6.91	11.47	0.73	1.7	5.0E-05
RASGRP3	2.80	1.69	-0.73	1.7	5.0E-05	ZNF433	0.94	1.56	0.73	1.7	5.0E-05
IFIH1	41.93	25.26	-0.73	1.7	5.0E-05	COL23A1	0.77	1.28	0.73	1.7	5.0E-05
KRTAP2-3	17.74	10.69	-0.73	1.7	5.0E-05	ERV3-1,ZNF117	2.59	4.29	0.73	1.7	5.0E-05
ARTN	1.07	0.65	-0.73	1.7	5.9E-03	KIF18B	1.38	2.28	0.72	1.7	5.0E-05
TMCC3	4.81	2.90	-0.73	1.7	5.0E-05	RASSF2	0.46	0.76	0.72	1.7	5.0E-05
GSR	115.06	69.44	-0.73	1.7	5.0E-05	FOXC2	1.02	1.68	0.72	1.7	1.0E-04
PLEKHG7	0.99	0.60	-0.73	1.7	5.0E-05	PBK	4.09	6.75	0.72	1.7	5.0E-05
HEPHL1	0.78	0.48	-0.72	1.7	5.0E-05	PSMG3-AS1	1.00	1.65	0.72	1.7	5.0E-05
PRR16	3.86	2.34	-0.72	1.7	5.0E-05	TNFRSF10D	6.59	10.87	0.72	1.6	5.0E-05
HLA-B,HLA-C	1422.09	862.53	-0.72	1.6	5.0E-05	TRPM8	0.31	0.51	0.72	1.6	1.0E-04
ATP1A1	265.79	161.22	-0.72	1.6	5.0E-05	COL1A2	0.72	1.18	0.72	1.6	5.0E-05
AGT	0.59	0.36	-0.72	1.6	3.5E-03	TP53I11	1.08	1.78	0.72	1.6	1.0E-02
RDH10	30.88	18.75	-0.72	1.6	5.0E-05	RGN	1.29	2.13	0.72	1.6	5.0E-05
CCL20	429.63	261.02	-0.72	1.6	5.0E-05	LAMA4	0.42	0.69	0.72	1.6	1.0E-02
H2AFV	33.09	20.11	-0.72	1.6	5.0E-05	KIAA1211L	0.73	1.20	0.72	1.6	5.0E-05
POLR3G	4.51	2.75	-0.72	1.6	2.9E-03	DNM1P46	0.33	0.54	0.72	1.6	1.0E-03
SLC35G2	2.70	1.65	-0.72	1.6	3.5E-04	TOP2A	10.68	17.58	0.72	1.6	5.0E-05
NLR5	12.08	7.36	-0.71	1.6	5.0E-05	ADSSL1	1.58	2.60	0.72	1.6	5.0E-05

RNF19B	17.77	10.86	-0.71	1.6	5.0E-05	CENPM	2.00	3.28	0.72	1.6	5.5E-04
PIK3AP1	39.34	24.07	-0.71	1.6	5.0E-05	KIF2C	5.41	8.90	0.72	1.6	5.0E-05
MGC16121,MIR424	7.57	4.63	-0.71	1.6	6.3E-03	KIAA0226L	0.58	0.96	0.72	1.6	5.0E-05
LRRC31	0.46	0.28	-0.71	1.6	1.1E-02	RPSAP58	0.60	0.99	0.72	1.6	7.6E-03
MXD1	5.07	3.11	-0.71	1.6	5.0E-05	FAM86FP	0.61	1.00	0.71	1.6	7.5E-04
PAPPA2	0.47	0.29	-0.70	1.6	5.0E-05	CARHSP1	20.25	33.17	0.71	1.6	5.0E-05
ROR2	1.69	1.04	-0.70	1.6	5.0E-05	DLGAP5	3.42	5.61	0.71	1.6	5.0E-05
CRYM	17.38	10.71	-0.70	1.6	5.0E-05	LINC00707	0.71	1.16	0.71	1.6	5.0E-05
SLC17A1	3.31	2.04	-0.70	1.6	5.0E-05	SHH	3.59	5.87	0.71	1.6	5.0E-05
OAS1	155.86	96.22	-0.70	1.6	5.0E-05	CDKN2C	3.37	5.49	0.71	1.6	5.0E-05
SNCA	1.92	1.19	-0.69	1.6	5.0E-05	C1orf115	2.19	3.57	0.71	1.6	5.0E-05
C7orf60	8.69	5.38	-0.69	1.6	5.0E-05	LOXL4	1.49	2.43	0.71	1.6	5.0E-05
CEP192	5.56	3.45	-0.69	1.6	5.0E-05	ZDHHC18	9.85	16.05	0.70	1.6	5.0E-05
MRPL42	16.29	10.12	-0.69	1.6	5.0E-05	PLK4	1.37	2.23	0.70	1.6	5.0E-05
SLC10A3	9.98	6.22	-0.68	1.6	5.0E-05	COL4A1	143.95	234.44	0.70	1.6	5.0E-05
MAPRE3	9.18	5.73	-0.68	1.6	5.0E-05	NCAPH	1.40	2.27	0.70	1.6	5.0E-05
USP18	58.90	36.75	-0.68	1.6	5.0E-05	C21orf58	0.55	0.90	0.70	1.6	4.0E-04
PDCD1LG2	1.35	0.84	-0.68	1.6	5.0E-05	JPH2	0.65	1.05	0.70	1.6	1.0E-04
SLCO4A1	30.38	18.97	-0.68	1.6	5.0E-05	CTGF	27.66	44.93	0.70	1.6	5.0E-05
TRPM6	0.42	0.26	-0.68	1.6	5.0E-05	LMNB1	5.51	8.93	0.70	1.6	5.0E-05
EFHA2	3.25	2.03	-0.68	1.6	5.0E-05	SEMA6B	1.40	2.26	0.70	1.6	5.0E-05
PHLPP2	5.29	3.31	-0.67	1.6	5.0E-05	ZNF253	1.84	2.98	0.69	1.6	5.0E-05
CD82	38.58	24.18	-0.67	1.6	5.0E-05	LPHN3	3.14	5.08	0.69	1.6	5.0E-05
MAPKAPK2	42.96	26.94	-0.67	1.6	5.0E-05	CYP4X1	0.45	0.73	0.69	1.6	5.0E-03
SPTLC3	11.89	7.46	-0.67	1.6	5.0E-05	NR6A1	1.53	2.47	0.69	1.6	5.0E-05
C8orf31	4.61	2.90	-0.67	1.6	5.0E-05	TUFT1	9.31	15.05	0.69	1.6	5.0E-05
ANKRD36BP1	17.83	11.23	-0.67	1.6	5.0E-05	ZNF177,ZNF559,ZNF559-ZNF177	2.90	4.69	0.69	1.6	5.0E-05
IFI27	957.41	602.73	-0.67	1.6	5.0E-05	NUSAP1	8.25	13.32	0.69	1.6	5.0E-05
LHFPL3-AS2	5.84	3.68	-0.66	1.6	5.0E-05	TSC22D1	24.14	38.94	0.69	1.6	5.0E-05
LGALS9	59.64	37.66	-0.66	1.6	5.0E-05	SOCS3	6.37	10.27	0.69	1.6	5.0E-05
ATP8A2	29.23	18.47	-0.66	1.6	5.0E-05	HS6ST2	0.40	0.64	0.69	1.6	4.0E-04
KRT6A	3.28	2.07	-0.66	1.6	5.0E-05	SPON2	0.45	0.73	0.69	1.6	6.2E-03
C3orf67	2.58	1.63	-0.66	1.6	5.0E-05	ZNF43	1.89	3.04	0.69	1.6	5.0E-05
CHST1	0.53	0.33	-0.66	1.6	2.1E-03	ZNF525	0.84	1.35	0.68	1.6	5.0E-05
RENBP	4.62	2.93	-0.66	1.6	5.0E-05	ZNF101	2.03	3.26	0.68	1.6	5.0E-05
ZC4H2	3.54	2.24	-0.66	1.6	5.0E-05	ZNF681	0.49	0.78	0.68	1.6	5.0E-05
SERPINE2	19.45	12.34	-0.66	1.6	5.0E-05	SOSTDC1	2.26	3.63	0.68	1.6	5.0E-05

WSB2	33.50	21.28	-0.65	1.6	5.0E-05		C4orf21	1.29	2.07	0.68	1.6	9.5E-04
C16orf87	7.44	4.72	-0.65	1.6	5.0E-05		PRKCG	0.32	0.51	0.68	1.6	7.4E-03
ALDH8A1	0.76	0.48	-0.65	1.6	2.8E-03		CDRT1	0.56	0.90	0.68	1.6	1.5E-04
HELZ2	30.98	19.75	-0.65	1.6	5.0E-05		PER3	1.09	1.74	0.68	1.6	5.0E-05
PHF15	9.78	6.24	-0.65	1.6	5.0E-05		NCAPG2	4.70	7.50	0.68	1.6	5.0E-05
IFI35	121.53	77.51	-0.65	1.6	5.0E-05		CHI3L1	5.30	8.46	0.68	1.6	5.0E-05
HAVCR2	0.94	0.60	-0.65	1.6	1.1E-03		CXCL6	68.60	109.51	0.67	1.6	5.0E-05
APBA1	0.49	0.31	-0.65	1.6	1.0E-04		TFPI2	115.08	183.51	0.67	1.6	5.0E-05
RGS22	0.50	0.32	-0.65	1.6	1.3E-03		TBX2	4.51	7.20	0.67	1.6	5.0E-05
CATSPERB	4.12	2.63	-0.65	1.6	5.0E-05		C1QTNF6	3.82	6.10	0.67	1.6	5.0E-05
RCOR1	9.69	6.19	-0.65	1.6	5.0E-05		NALCN	3.67	5.85	0.67	1.6	5.0E-05
B2M	2273.96	1454.71	-0.64	1.6	5.0E-05		LPP	12.23	19.04	0.67	1.6	5.0E-05
LAMA3	377.53	241.75	-0.64	1.6	5.0E-05		FIGF,PIR	9.78	15.53	0.67	1.6	6.6E-03
STK24	51.91	33.26	-0.64	1.6	5.0E-05		KIF14	1.37	2.17	0.66	1.6	5.0E-05
HOXC8	4.93	3.16	-0.64	1.6	5.0E-05		CEP55	4.59	7.28	0.66	1.6	5.0E-05
CYP27A1	8.86	5.68	-0.64	1.6	5.0E-05		DEPDC7	0.94	1.49	0.66	1.6	4.5E-04
GMPR	53.30	34.23	-0.64	1.6	5.0E-05		SYT12	3.66	5.79	0.66	1.6	5.0E-05
ST3GAL4	18.14	11.67	-0.64	1.6	5.0E-05		GNB3	1.04	1.65	0.66	1.6	9.5E-04
LAMP3	35.88	23.08	-0.64	1.6	5.0E-05		ANKAR	0.37	0.58	0.66	1.6	4.0E-04
LOC653653	1.56	1.00	-0.63	1.6	6.8E-03		LOC728537	0.96	1.52	0.66	1.6	2.6E-03
FAM222B	12.98	8.36	-0.63	1.6	5.0E-05		ADAM15	38.39	60.56	0.66	1.6	5.0E-05
NR1H4	13.98	9.02	-0.63	1.5	5.0E-05		CKAP2L	2.16	3.40	0.65	1.6	5.0E-05
DGKI	0.62	0.40	-0.63	1.5	1.5E-04		DYSF	2.58	4.06	0.65	1.6	5.0E-05
LINC00630	4.85	3.14	-0.63	1.5	1.7E-03		CTSH	21.80	34.29	0.65	1.6	5.0E-05
CHAC1	18.17	11.76	-0.63	1.5	5.0E-05		DOCK11	4.23	6.65	0.65	1.6	5.0E-05
ANO8	5.68	3.68	-0.63	1.5	1.0E-03		PTK6	0.42	0.66	0.65	1.6	9.9E-03
HIATL2	0.98	0.64	-0.62	1.5	7.8E-03		RSPO3	2.75	4.33	0.65	1.6	5.0E-05
CCNA1	4.01	2.60	-0.62	1.5	5.0E-05		HS3ST2	2.23	3.51	0.65	1.6	5.0E-05
UCA1	34.07	22.11	-0.62	1.5	5.0E-05		NCAPG	1.84	2.88	0.65	1.6	5.0E-03
MYD88	25.90	16.81	-0.62	1.5	5.0E-05		HLF	2.78	4.34	0.65	1.6	5.0E-05
LIPC	3.67	2.39	-0.62	1.5	5.0E-05		WDR62	0.84	1.32	0.64	1.6	5.0E-05
PPP1R3F	0.81	0.53	-0.62	1.5	1.5E-03		C1orf233	1.65	2.57	0.64	1.6	5.0E-05
CNIH3	13.97	9.10	-0.62	1.5	5.0E-05		CDH17	0.62	0.96	0.64	1.6	1.5E-04
UBE2Z	52.14	33.99	-0.62	1.5	5.0E-05		AK8	0.86	1.35	0.64	1.6	4.7E-03
ODF3B	12.19	7.95	-0.62	1.5	5.0E-05		IFT27	13.74	21.43	0.64	1.6	5.0E-05
CFDP1	47.99	31.30	-0.62	1.5	5.0E-05		C18orf54	0.74	1.15	0.64	1.6	5.0E-05
LOC100093631	0.54	0.35	-0.61	1.5	3.9E-03		ZNF540	0.52	0.82	0.64	1.6	1.3E-03
PI4K2A	13.97	9.14	-0.61	1.5	5.0E-05		LOC100506233	5.25	8.18	0.64	1.6	5.0E-05

KCNK3	6.44	4.21	-0.61	1.5	5.0E-05		VOPP1	19.52	30.41	0.64	1.6	5.0E-05
GPR115	1.09	0.71	-0.61	1.5	5.0E-05		GXYLT1	4.37	6.81	0.64	1.6	5.0E-05
CYP2J2	3.73	2.45	-0.61	1.5	5.0E-05		FAM210B	7.44	11.57	0.64	1.6	5.0E-05
OGDHL	10.07	6.60	-0.61	1.5	5.0E-05		GTSE1	2.21	3.43	0.64	1.6	5.0E-05
CIDECF	8.22	5.39	-0.61	1.5	5.0E-05		ZNF214	0.74	1.14	0.64	1.6	2.5E-04
ST6GALNAC5	2.47	1.62	-0.61	1.5	5.0E-05		LOC730091	0.40	0.62	0.63	1.6	3.6E-03
CRMP1	29.40	19.28	-0.61	1.5	5.0E-05		ALDH5A1	0.53	0.82	0.63	1.6	5.0E-05
MRPS30	19.70	12.93	-0.61	1.5	5.0E-05		ESPL1	1.20	1.86	0.63	1.6	5.0E-05
IL19	3.74	2.45	-0.61	1.5	1.5E-03		KRBOX1	2.33	3.62	0.63	1.6	3.3E-03
C19orf52	7.06	4.64	-0.61	1.5	5.0E-05		TP53TG1	5.88	9.12	0.63	1.6	1.2E-03
NPAS2	17.70	11.64	-0.61	1.5	5.0E-05		B3GAT1	0.49	0.76	0.63	1.6	5.0E-04
PPARGC1B	1.69	1.11	-0.61	1.5	5.0E-05		INHBA	2.93	4.54	0.63	1.5	5.0E-05
EIF4EBP2	18.26	12.01	-0.61	1.5	5.0E-05		YJEFN3	1.27	1.96	0.63	1.5	1.0E-04
FRS2	8.10	5.33	-0.60	1.5	5.0E-05		RRM1	6.71	10.39	0.63	1.5	5.0E-05
BAIAP2L2	56.49	37.16	-0.60	1.5	5.0E-05		BICD2	7.96	12.32	0.63	1.5	5.0E-05
PPFIBP2	2.45	1.61	-0.60	1.5	5.0E-05		C17orf97	2.18	3.38	0.63	1.5	5.0E-05
CLIP3	2.95	1.94	-0.60	1.5	5.0E-05		PRDX4	67.12	103.91	0.63	1.5	5.0E-05
C1orf85	36.03	23.74	-0.60	1.5	5.0E-05		ZNF682	0.87	1.35	0.63	1.5	5.0E-05
SEN2	16.55	10.91	-0.60	1.5	5.0E-05		TK1	8.43	13.04	0.63	1.5	5.0E-05
LOC100288974,MBL1P	2.85	1.88	-0.60	1.5	1.5E-04		UBE2C	12.91	19.95	0.63	1.5	5.0E-05
NUP54	15.55	10.26	-0.60	1.5	5.0E-05		HJURP	3.16	4.89	0.63	1.5	5.0E-05
CTSS	14.84	9.79	-0.60	1.5	5.0E-05		CCNB1	14.38	22.20	0.63	1.5	5.0E-05
CACNA1H	2.92	1.93	-0.60	1.5	5.0E-05		TCEA3	1.42	2.18	0.63	1.5	1.0E-04
DNAJC13	19.59	12.93	-0.60	1.5	5.0E-05		MKI67	5.82	8.98	0.63	1.5	5.0E-05
LGMN	50.73	33.51	-0.60	1.5	5.0E-05		ITGBL1	0.60	0.93	0.62	1.5	9.0E-04
SSR3	120.50	79.60	-0.60	1.5	5.0E-05		SELP	0.35	0.54	0.62	1.5	3.6E-03
EGLN1	50.95	33.71	-0.60	1.5	5.0E-05		AMIGO1	0.61	0.94	0.62	1.5	1.5E-03
FOXH1	1.93	1.28	-0.59	1.5	4.5E-04		MGAT4A	9.87	15.21	0.62	1.5	5.0E-05
HOMER1	4.42	2.93	-0.59	1.5	5.0E-05		LTBP2	30.61	47.06	0.62	1.5	5.0E-05
LOC645638	5.23	3.47	-0.59	1.5	5.7E-03		CLDN2	36.51	56.13	0.62	1.5	5.0E-05
PPIL3	18.52	12.28	-0.59	1.5	5.0E-05		SEMA6C	0.39	0.60	0.62	1.5	2.2E-03
PNMA3	0.94	0.62	-0.59	1.5	4.0E-04		ZNF93	0.66	1.01	0.62	1.5	2.0E-04
PIGR	55.13	36.65	-0.59	1.5	5.0E-05		CDCA8	2.97	4.56	0.62	1.5	5.0E-05
DNER	1.03	0.69	-0.59	1.5	5.0E-04		CYP2U1	1.45	2.23	0.62	1.5	5.0E-05
TMEM178B	12.62	8.40	-0.59	1.5	5.0E-05		PLCD1	2.85	4.37	0.62	1.5	5.0E-05
WFDC5	1.95	1.30	-0.59	1.5	9.8E-03		PRR11	3.41	5.24	0.62	1.5	5.0E-05
DTX3	3.19	2.13	-0.59	1.5	5.0E-05		ZNF675	1.98	3.04	0.62	1.5	5.0E-05

TGM1	0.67	0.45	-0.59	1.5	7.3E-03		KIFC1	2.95	4.51	0.62	1.5	5.0E-05
FA2H	1.95	1.30	-0.58	1.5	5.0E-05		CSRP2	6.31	9.67	0.61	1.5	5.0E-05
DAB1	2.37	1.58	-0.58	1.5	5.0E-05		BUB1B,PAK6	3.66	5.61	0.61	1.5	5.0E-05
TNFRSF14	5.00	3.34	-0.58	1.5	1.5E-03		HAUS7	1.81	2.77	0.61	1.5	9.0E-04
EPGN	0.92	0.61	-0.58	1.5	1.7E-03		ZNF415	0.95	1.45	0.61	1.5	2.0E-04
CSF3	37.92	25.37	-0.58	1.5	5.0E-05		RECK	3.11	4.76	0.61	1.5	5.0E-05
INPP5J	1.24	0.83	-0.58	1.5	1.9E-03		S100A8	12.62	19.29	0.61	1.5	5.0E-05
SAMD9	10.94	7.33	-0.58	1.5	5.0E-05		EMP2	1.67	2.54	0.61	1.5	5.0E-05
CYP2S1	0.84	0.56	-0.58	1.5	3.7E-03		ZNF468	3.29	5.01	0.61	1.5	5.0E-05
ZNF114	2.57	1.72	-0.58	1.5	5.0E-05		ZNF844	0.62	0.94	0.61	1.5	7.0E-04
PTRH1	11.35	7.62	-0.58	1.5	1.4E-03		SCD5	10.92	16.64	0.61	1.5	5.0E-05
PMS2P5	4.51	3.03	-0.57	1.5	5.0E-05		TROAP	3.65	5.56	0.61	1.5	4.0E-04
DHX8	13.38	8.99	-0.57	1.5	5.0E-05		ALOX5AP	16.98	25.86	0.61	1.5	5.0E-05
ABCA7	5.82	3.91	-0.57	1.5	5.0E-05		FAM102B	0.60	0.92	0.61	1.5	5.0E-05
HSPA5	1417.19	952.70	-0.57	1.5	5.0E-05		EIF3F	108.66	165.34	0.61	1.5	5.0E-05
RNF213	69.99	47.12	-0.57	1.5	5.0E-05		TGFBR1	13.66	20.77	0.61	1.5	5.0E-05
GENE	26.31	17.71	-0.57	1.5	5.0E-05		C15orf57	5.42	8.24	0.60	1.5	5.0E-05
IFITM1	1976.10	1330.76	-0.57	1.5	5.0E-05		NDUFS2	37.29	56.71	0.60	1.5	5.0E-05
SH3TC2	0.41	0.27	-0.57	1.5	5.0E-05		ZNF429	1.50	2.28	0.60	1.5	5.0E-05
TIMP2	86.29	58.15	-0.57	1.5	5.0E-05		RBM24	2.07	3.15	0.60	1.5	5.0E-05
TMEM45A	2.59	1.74	-0.57	1.5	1.0E-04		CDC6	4.01	6.10	0.60	1.5	5.0E-05
DDTL	1.47	0.99	-0.57	1.5	1.0E-02		FOXP4	4.60	6.99	0.60	1.5	5.0E-05
MGC72080	10.45	7.04	-0.57	1.5	5.0E-05		PODN	0.74	1.12	0.60	1.5	1.5E-04
KCNS1	2.76	1.86	-0.57	1.5	5.0E-05		STK38	12.53	19.01	0.60	1.5	5.0E-05
IL4I1,NUP62	49.53	33.41	-0.57	1.5	5.0E-05		C1orf21	0.29	0.44	0.60	1.5	5.0E-05
KCNC4	2.15	1.45	-0.57	1.5	5.0E-05		SBSPON	11.91	18.05	0.60	1.5	5.0E-05
EGFL7	9.64	6.51	-0.57	1.5	5.0E-05		LTB	1.90	2.88	0.60	1.5	8.8E-03
RORA	9.05	6.11	-0.57	1.5	5.0E-05		FZD7	2.01	3.05	0.60	1.5	5.0E-05
RRAD	48.27	32.60	-0.57	1.5	5.0E-05		CACNA2D3	0.69	1.04	0.60	1.5	1.1E-02
LDHD	1.15	0.78	-0.57	1.5	5.3E-03		LOC100129961	1.01	1.53	0.60	1.5	2.5E-03
ABCE1	27.31	18.45	-0.57	1.5	5.0E-05		KIF4A	1.87	2.82	0.60	1.5	5.0E-05
PRSS8	84.68	57.31	-0.56	1.5	5.0E-05		ZNF596	1.27	1.93	0.60	1.5	7.3E-03
MIER2	5.25	3.55	-0.56	1.5	5.0E-05		HKR1	5.34	8.08	0.60	1.5	5.0E-05
AQP1	27.81	18.82	-0.56	1.5	5.0E-05		TRAIIP	1.01	1.53	0.60	1.5	5.5E-04
EPHA4	3.91	2.65	-0.56	1.5	5.0E-05		BLM	0.51	0.78	0.60	1.5	1.0E-04
SAMD5	20.72	14.05	-0.56	1.5	5.0E-05		IMPA2	17.17	25.98	0.60	1.5	5.0E-05
BET1	18.38	12.47	-0.56	1.5	5.0E-05		PROS1	8.96	13.55	0.60	1.5	5.0E-05
SLAIN2	11.13	7.55	-0.56	1.5	5.0E-05		ZNF595,ZNF718	2.07	3.14	0.60	1.5	5.0E-05

TCF4	0.88	0.60	-0.56	1.5	5.0E-05		RARRES1	20.58	31.12	0.60	1.5	5.0E-05
LGALS3BP	415.59	282.30	-0.56	1.5	5.0E-05		PHF7	1.65	2.50	0.60	1.5	3.0E-04
PSPC1	27.89	18.95	-0.56	1.5	2.5E-04		ASAP3	1.50	2.27	0.60	1.5	5.0E-05
KCNJ15	48.18	32.74	-0.56	1.5	5.0E-05		SNED1	0.55	0.84	0.60	1.5	8.6E-03
PSTPIP2	15.37	10.46	-0.56	1.5	5.0E-05		GABPB2	1.56	2.36	0.59	1.5	5.0E-05
GPD1	3.54	2.41	-0.56	1.5	5.0E-05		CENPE	1.52	2.30	0.59	1.5	5.0E-05
XAF1	27.27	18.55	-0.56	1.5	5.0E-05		ZNF600	2.64	3.99	0.59	1.5	5.0E-05
HLA-J	1.65	1.12	-0.56	1.5	7.9E-03		FAM101B	2.01	3.04	0.59	1.5	5.0E-05
THEMIS2	34.66	23.59	-0.55	1.5	5.0E-05		CDC20	16.41	24.71	0.59	1.5	5.0E-05
PARP8	11.50	7.83	-0.55	1.5	5.0E-05		HMMR	2.68	4.03	0.59	1.5	5.0E-05
SLC52A3	2.71	1.85	-0.55	1.5	5.0E-05		SELL	2.09	3.14	0.59	1.5	5.0E-05
SSH1	12.30	8.38	-0.55	1.5	5.0E-05		FRY	0.42	0.63	0.59	1.5	5.0E-05
PRRX2	4.34	2.96	-0.55	1.5	1.0E-03		POLR2D	6.82	10.24	0.59	1.5	5.0E-05
PIM2	9.46	6.45	-0.55	1.5	5.0E-05		CDCA2	1.57	2.35	0.59	1.5	5.0E-05
SSTR1	2.33	1.59	-0.55	1.5	5.0E-05		TMEM37	0.75	1.13	0.59	1.5	6.8E-03
ANKRD46	5.71	3.90	-0.55	1.5	5.0E-05		ZNF254	4.42	6.63	0.58	1.5	5.0E-05
TTLL7	1.90	1.30	-0.55	1.5	5.0E-05		KALRN	0.77	1.16	0.58	1.5	5.0E-05
SMCHD1	9.00	6.15	-0.55	1.5	5.0E-05		CDS2	8.20	12.28	0.58	1.5	5.0E-05
C2orf47	14.75	10.10	-0.55	1.5	5.0E-05		C11orf92	0.36	0.54	0.58	1.5	1.7E-03
RASD1	14.18	9.72	-0.55	1.5	5.0E-05		GTF3A	37.93	56.78	0.58	1.5	5.0E-05
SRSF12	2.47	1.69	-0.54	1.5	5.0E-05		KIAA1161	0.97	1.45	0.58	1.5	5.0E-05
NR3C2	1.17	0.80	-0.54	1.5	5.0E-05		RNASEH2A	6.81	10.19	0.58	1.5	5.0E-05
TDG	15.61	10.71	-0.54	1.5	5.0E-05		SKA1	1.67	2.50	0.58	1.5	5.0E-05
TAC1	3.75	2.57	-0.54	1.5	2.5E-04		SH3RF2	3.47	5.19	0.58	1.5	5.0E-05
MED21	7.81	5.36	-0.54	1.5	5.0E-05		TCF19	3.04	4.54	0.58	1.5	5.0E-05
NAT14	23.78	16.34	-0.54	1.5	5.0E-05		ZNF83	17.34	25.88	0.58	1.5	5.0E-05
NAPSB	4.76	3.27	-0.54	1.5	5.0E-05		FAM83D	4.41	6.58	0.58	1.5	5.0E-05
LYSMD2	10.20	7.01	-0.54	1.5	5.0E-05		PKMYT1	1.35	2.01	0.58	1.5	1.1E-02
CDKAL1	18.65	12.82	-0.54	1.5	5.0E-05		ZNF204P	0.90	1.34	0.58	1.5	5.0E-05
ZNF169	0.98	0.67	-0.54	1.5	1.0E-04		TACC3	8.81	13.14	0.58	1.5	5.0E-05
YOD1	8.88	6.11	-0.54	1.5	5.0E-05		ZW10	4.70	7.00	0.57	1.5	5.0E-05
TMEM62	25.20	17.36	-0.54	1.5	5.0E-05		CCNA2	5.14	7.65	0.57	1.5	5.0E-05
SLC26A11	10.08	6.95	-0.54	1.5	5.0E-05		OSBPL5	2.70	4.02	0.57	1.5	5.0E-05
RAB3IL1	1.33	0.92	-0.54	1.4	2.4E-03		LBH	6.90	10.26	0.57	1.5	5.0E-05
VWCE	4.37	3.02	-0.54	1.4	5.0E-05		ANKRD34B	10.15	15.09	0.57	1.5	5.0E-05
DICER1	17.55	12.11	-0.53	1.4	5.0E-05		NUF2	2.49	3.70	0.57	1.5	5.0E-05
ZMYND15	1.81	1.25	-0.53	1.4	5.0E-05		C22orf46	2.21	3.28	0.57	1.5	5.0E-05
DDX52	23.93	16.53	-0.53	1.4	5.0E-05		KIAA0101	4.30	6.39	0.57	1.5	5.0E-05

SLCO2B1	49.45	34.16	-0.53	1.4	5.0E-05		CTNNBIP1	5.67	8.42	0.57	1.5	5.0E-05
RPH3AL	4.62	3.19	-0.53	1.4	5.0E-05		CYP1B1	8.19	12.15	0.57	1.5	5.0E-05
CNTNAP1	0.92	0.64	-0.53	1.4	7.0E-03		RAI2	0.67	0.99	0.57	1.5	5.2E-03
ADAM1A	1.54	1.06	-0.53	1.4	2.0E-04		RACGAP1	6.20	9.19	0.57	1.5	5.0E-05
C19orf25	6.00	4.15	-0.53	1.4	8.5E-04		SOD2	848.09	1255.67	0.57	1.5	5.0E-05
NDRG1	83.00	57.40	-0.53	1.4	5.0E-05		TMEM44-AS1	1.99	2.95	0.57	1.5	5.0E-04
DDX58	65.58	45.44	-0.53	1.4	5.0E-05		BTBD11	0.92	1.36	0.57	1.5	5.0E-05
SSFA2	23.32	16.16	-0.53	1.4	5.0E-05		PRMT6	9.05	13.39	0.56	1.5	5.0E-05
HIST1H2AC	4.56	3.16	-0.53	1.4	5.0E-05		ZNF404	0.66	0.97	0.56	1.5	8.7E-03
MIR3916	13.84	9.60	-0.53	1.4	5.0E-05		ZBED2	32.87	48.55	0.56	1.5	5.0E-05
FGB	49.26	34.16	-0.53	1.4	5.0E-05		RAD23A	24.54	36.22	0.56	1.5	5.0E-05
KLK10	2.75	1.91	-0.53	1.4	5.0E-05		C1orf168	0.40	0.60	0.56	1.5	3.3E-03
GBP4	5.14	3.57	-0.53	1.4	5.0E-05		SLC6A14	12.36	18.24	0.56	1.5	5.0E-05
MXRA8	12.00	8.33	-0.53	1.4	5.0E-05		LOC100127983	3.58	5.29	0.56	1.5	1.5E-04
EFCAB2	8.27	5.74	-0.53	1.4	5.0E-05		ZNF267	2.52	3.72	0.56	1.5	5.0E-05
RRN3	9.90	6.87	-0.53	1.4	5.0E-05		ARHGEF9	2.25	3.32	0.56	1.5	5.0E-05
TGS1	11.41	7.93	-0.53	1.4	5.0E-05		NEXN	1.50	2.21	0.56	1.5	5.0E-05
WDFY1	35.05	24.36	-0.53	1.4	5.0E-05		EDN1	23.73	34.99	0.56	1.5	5.0E-05
IL1R1	67.56	46.96	-0.52	1.4	5.0E-05		ZNF813	1.01	1.48	0.56	1.5	5.0E-05
TRANK1	9.38	6.52	-0.52	1.4	5.0E-05		MARCH1	3.68	5.42	0.56	1.5	5.0E-05
MTSS1	19.21	13.37	-0.52	1.4	5.0E-05		APBA2	1.36	1.99	0.56	1.5	5.0E-05
ZFP36L2	36.92	25.72	-0.52	1.4	5.0E-05		ZNF765	1.83	2.69	0.56	1.5	5.0E-05
LOC643201	0.82	0.57	-0.52	1.4	4.5E-04		ZNF708	1.78	2.63	0.56	1.5	5.0E-05
GNPTAB	12.76	8.89	-0.52	1.4	5.0E-05		ZNF845	1.37	2.01	0.56	1.5	5.0E-05
SLC30A7	16.05	11.20	-0.52	1.4	5.0E-05		PAIP2B	0.50	0.74	0.56	1.5	5.0E-05
EXTL2	8.29	5.79	-0.52	1.4	5.0E-05		TM4SF18	8.84	13.00	0.56	1.5	5.0E-05
TLN2	8.00	5.58	-0.52	1.4	4.4E-03		AKAP6	0.31	0.46	0.56	1.5	5.0E-05
FILIP1	0.54	0.38	-0.52	1.4	2.9E-03		ZNF567	1.66	2.43	0.55	1.5	5.0E-05
MCOLN1	9.98	6.97	-0.52	1.4	5.0E-05		CTNNAL1	53.86	79.10	0.55	1.5	5.0E-05
MX1	387.53	270.76	-0.52	1.4	5.0E-05		IQGAP3	2.41	3.53	0.55	1.5	5.0E-05
KRT81	8.73	6.10	-0.52	1.4	5.0E-05		KIAA1551	10.27	15.06	0.55	1.5	5.0E-05
TSPAN18	9.85	6.89	-0.52	1.4	5.0E-05		LPCAT1	22.80	33.43	0.55	1.5	5.0E-05
AMDHD2	9.35	6.54	-0.52	1.4	5.0E-05		FOXP2	0.95	1.39	0.55	1.5	5.0E-05
MARK3	34.43	24.09	-0.52	1.4	5.0E-05		FAM86B3P	2.79	4.09	0.55	1.5	5.0E-05
FAM46A	5.33	3.73	-0.52	1.4	5.0E-05		LOC81691	1.11	1.62	0.55	1.5	2.6E-03
HACE1	2.70	1.89	-0.52	1.4	5.0E-05		ZNF585B	1.48	2.17	0.55	1.5	5.0E-05
ST3GAL2	7.86	5.50	-0.51	1.4	5.0E-05		PPDPF	93.24	136.37	0.55	1.5	5.0E-05
POMP	89.14	62.48	-0.51	1.4	5.0E-05		GLE1	7.17	10.48	0.55	1.5	5.0E-05

SCO2,TYMP	79.81	55.96	-0.51	1.4	5.0E-05		NKD2	3.36	4.91	0.55	1.5	5.0E-05
APOL3	3.69	2.59	-0.51	1.4	5.0E-05		RGS19	4.37	6.39	0.55	1.5	5.0E-05
LMBRD2	4.37	3.06	-0.51	1.4	5.0E-05		ZNF107	1.48	2.17	0.55	1.5	5.0E-05
CDKN1A	114.83	80.59	-0.51	1.4	5.0E-05		MDK	98.40	143.64	0.55	1.5	5.0E-05
ABCC10	5.67	3.98	-0.51	1.4	5.0E-05		WDR76	0.88	1.28	0.55	1.5	5.0E-05
CSGALNACT1	44.45	31.26	-0.51	1.4	5.0E-05		INCENP	3.13	4.57	0.55	1.5	5.0E-05
BTN3A3	5.75	4.05	-0.51	1.4	5.0E-05		NAV3	2.12	3.09	0.55	1.5	5.0E-05
NOD1	2.85	2.00	-0.51	1.4	5.0E-05		CDK1	8.13	11.86	0.54	1.5	5.0E-05
UBFD1	21.54	15.16	-0.51	1.4	5.0E-05		SNORD60	10.34	15.07	0.54	1.5	3.5E-04
TSLP	0.88	0.62	-0.51	1.4	6.9E-03		DEFB1	51.13	74.54	0.54	1.5	5.0E-05
NMI	40.91	28.82	-0.51	1.4	5.0E-05		BEAN1	0.93	1.36	0.54	1.5	7.1E-03
HLA-E	171.69	121.02	-0.50	1.4	5.0E-05		DCDC2	57.15	83.28	0.54	1.5	5.0E-05
HIST1H2BK	23.21	16.36	-0.50	1.4	5.0E-05		ERLIN2	20.17	29.39	0.54	1.5	5.0E-05
ATG2A	9.05	6.38	-0.50	1.4	5.0E-05		AQP9	17.88	26.04	0.54	1.5	5.0E-05
PNPLA6	18.42	12.99	-0.50	1.4	5.0E-05		TMEM194B	1.21	1.77	0.54	1.5	1.5E-04
VMAC	1.96	1.39	-0.50	1.4	2.3E-03		TMEM194A	2.92	4.24	0.54	1.5	5.0E-05
CDCA4	5.33	3.76	-0.50	1.4	5.0E-05		ASF1B	2.86	4.16	0.54	1.5	5.0E-05
HES4	11.34	8.01	-0.50	1.4	5.0E-05		LOC729013	1.96	2.86	0.54	1.5	1.6E-03
GTF2IRD1P1	6.71	4.74	-0.50	1.4	1.3E-03		APH1B	5.08	7.39	0.54	1.5	5.0E-05
TSC22D3	51.83	36.63	-0.50	1.4	5.0E-05		ASS1	44.51	64.76	0.54	1.5	5.0E-05
TMEM30B	6.84	4.84	-0.50	1.4	5.0E-05		CPM	38.17	55.52	0.54	1.5	1.0E-04
SP110	29.27	20.70	-0.50	1.4	5.0E-05		NPY1R	0.97	1.41	0.54	1.5	1.5E-04
HLA-A,LOC554223	676.01	478.20	-0.50	1.4	5.0E-05		TGFBR2	106.50	154.84	0.54	1.5	5.0E-05
TMEM14C	77.54	54.85	-0.50	1.4	5.0E-05		PTPLA	5.13	7.46	0.54	1.5	5.0E-05
FAM3B	2.55	1.80	-0.50	1.4	2.0E-03		PHYHIP	0.41	0.60	0.54	1.5	1.2E-02
LIPT2	1.84	1.30	-0.50	1.4	6.4E-03		EXTL3	12.88	18.71	0.54	1.5	5.0E-05
SRRM2	81.71	57.83	-0.50	1.4	5.0E-05		RAG1	0.48	0.70	0.54	1.5	5.0E-05
MRPL34	25.46	18.03	-0.50	1.4	5.0E-05		CCDC159	1.67	2.43	0.54	1.5	7.7E-03
C4orf33	6.47	4.59	-0.50	1.4	2.0E-03		CYR61	227.10	329.34	0.54	1.5	5.0E-05
CD274	5.73	4.06	-0.50	1.4	5.0E-05		PNMA2	0.70	1.01	0.54	1.5	5.0E-05
PER1	22.20	15.73	-0.50	1.4	5.0E-05		TOMM22	28.26	40.97	0.54	1.4	5.0E-05
SLC25A22	13.47	9.56	-0.50	1.4	5.0E-05		FKBP5	29.06	42.13	0.54	1.4	5.0E-05
BTN3A2	9.36	6.64	-0.50	1.4	5.0E-05		DAPK2	0.64	0.93	0.53	1.4	4.5E-03
RIMKLB	65.62	46.56	-0.49	1.4	1.5E-04		F2R	5.53	8.01	0.53	1.4	5.0E-05
CGNL1	5.89	4.18	-0.49	1.4	5.0E-05		HOXA3	2.09	3.02	0.53	1.4	1.5E-04
RNF130	17.90	12.72	-0.49	1.4	5.0E-05		KLF10	4.56	6.59	0.53	1.4	5.0E-05
CDYL2	3.83	2.73	-0.49	1.4	5.0E-05		TLR4	1.08	1.56	0.53	1.4	5.0E-05
PDE5A	1.06	0.76	-0.49	1.4	2.1E-03		SDPR	1.55	2.25	0.53	1.4	5.0E-05

PARP9	74.58	53.16	-0.49	1.4	3.5E-04		VANGL1	5.15	7.44	0.53	1.4	5.0E-05
CAMK2D	12.03	8.58	-0.49	1.4	5.0E-05		NDC80	2.74	3.96	0.53	1.4	5.0E-05
TCN2	32.14	22.92	-0.49	1.4	5.0E-05		CA3	0.98	1.42	0.53	1.4	3.8E-03
HES1	23.70	16.91	-0.49	1.4	5.0E-05		YBEY	8.07	11.67	0.53	1.4	5.0E-05
IL23A	4.54	3.24	-0.49	1.4	1.7E-03		MCM7	14.62	21.14	0.53	1.4	1.2E-03
SLC16A6	3.31	2.36	-0.49	1.4	5.0E-05		TGFB2	8.87	12.82	0.53	1.4	5.0E-05
SYTL1	11.31	8.07	-0.49	1.4	5.0E-05		SLFN11	0.30	0.43	0.53	1.4	4.6E-03
UGT1A1,UGT1A10, UGT1A3,UGT1A4,U GT1A5,UGT1A6,UG T1A7,UGT1A8,UGT1 A9	38.99	27.82	-0.49	1.4	5.0E-05		PDSS2	4.66	6.73	0.53	1.4	3.5E-04
MRPL18	49.32	35.22	-0.49	1.4	5.0E-05		ZNF766	3.20	4.62	0.53	1.4	5.0E-05
NDUFA10	14.45	10.32	-0.49	1.4	5.0E-05		ADAMTS10	0.77	1.10	0.53	1.4	1.0E-04
IMP3	21.26	15.18	-0.49	1.4	5.0E-05		KLF11	1.64	2.37	0.53	1.4	5.0E-05
XRN1	9.29	6.64	-0.48	1.4	5.0E-05		SLC9A7	6.84	9.87	0.53	1.4	5.0E-05
ABHD4	16.52	11.81	-0.48	1.4	5.0E-05		ORC1	1.09	1.57	0.53	1.4	5.0E-05
KIFC2	4.28	3.06	-0.48	1.4	5.0E-05		MELK	7.48	10.78	0.53	1.4	5.0E-05
ATP10D	47.77	34.15	-0.48	1.4	5.0E-05		ZNF629	7.21	10.39	0.53	1.4	5.0E-05
HCFC1R1	18.94	13.55	-0.48	1.4	5.0E-05		TRAF1	0.45	0.64	0.53	1.4	2.6E-03
STK39	36.66	26.24	-0.48	1.4	5.0E-05		CCDC150	0.76	1.09	0.53	1.4	5.0E-05
CYB5B	17.77	12.74	-0.48	1.4	5.0E-05		SCN9A	0.31	0.45	0.52	1.4	5.0E-05
PTPN6	9.81	7.03	-0.48	1.4	5.0E-05		ZNF551	1.45	2.09	0.52	1.4	5.0E-05
SIRPB1	14.09	10.10	-0.48	1.4	5.0E-05		ZNF506	4.23	6.09	0.52	1.4	1.3E-03
ABCB6	7.06	5.06	-0.48	1.4	5.0E-05		VPS25	62.37	89.65	0.52	1.4	5.0E-05
CSF2	4.00	2.87	-0.48	1.4	8.2E-03		ARHGAP11A	3.15	4.53	0.52	1.4	5.0E-05
USP38	10.66	7.65	-0.48	1.4	5.0E-05		ZNF268	3.75	5.40	0.52	1.4	5.0E-05
PAPL	0.91	0.66	-0.48	1.4	6.4E-03		MAMDC2	1.09	1.56	0.52	1.4	2.0E-04
RORC	4.41	3.16	-0.48	1.4	5.0E-05		MIR135A2	2.40	3.45	0.52	1.4	1.3E-03
ATP10A	8.43	6.05	-0.48	1.4	5.0E-05		TCF7L1	4.69	6.73	0.52	1.4	5.0E-05
EBI3	3.49	2.51	-0.48	1.4	3.4E-03		ZIK1	1.91	2.75	0.52	1.4	5.0E-05
AGPAT5	12.27	8.81	-0.48	1.4	5.0E-05		SLC30A2	1.22	1.74	0.52	1.4	4.0E-04
PLA1A	6.80	4.89	-0.48	1.4	5.0E-05		LINC00617	9.58	13.74	0.52	1.4	5.0E-05
MOV10	36.47	26.21	-0.48	1.4	1.9E-03		ARSG	1.79	2.56	0.52	1.4	5.0E-05
MID1IP1	15.89	11.42	-0.48	1.4	5.0E-05		RPL26L1	23.22	33.28	0.52	1.4	5.0E-05
LIMCH1	134.42	92.92	-0.48	1.4	5.0E-05		FOXO1	4.94	7.08	0.52	1.4	1.2E-03
MBTPS2	12.30	8.85	-0.48	1.4	5.0E-05		TUBA1C	51.88	74.30	0.52	1.4	5.0E-05
GSTM4	14.28	10.27	-0.48	1.4	5.0E-05		ZNF737	0.87	1.25	0.52	1.4	5.0E-05

NCF2	3.31	2.38	-0.47	1.4	5.0E-05		GPSM2	4.14	5.93	0.52	1.4	4.8E-03
C7orf43	11.11	7.99	-0.47	1.4	5.0E-05		KIAA1804	10.27	14.70	0.52	1.4	5.0E-05
LY6E	581.57	418.76	-0.47	1.4	5.0E-05		MMP24	13.21	18.90	0.52	1.4	5.0E-05
PRKCE	7.18	5.18	-0.47	1.4	5.0E-05		TFDP1	22.18	31.72	0.52	1.4	5.0E-05
MIER3	11.26	8.12	-0.47	1.4	5.0E-05		LINC00263	2.84	4.06	0.52	1.4	1.1E-03
ABCD1	4.85	3.50	-0.47	1.4	5.0E-05		ZCCHC24	2.71	3.88	0.52	1.4	5.0E-05
UBAP2L	50.17	36.20	-0.47	1.4	3.5E-04		TNS3	15.10	21.57	0.51	1.4	5.0E-05
GUCY1A3	2.44	1.76	-0.47	1.4	1.3E-03		MCM5	3.86	5.51	0.51	1.4	5.0E-05
DCN	360.15	259.96	-0.47	1.4	5.0E-05		PTPRB	3.44	4.90	0.51	1.4	5.0E-05
SNX25	9.36	6.76	-0.47	1.4	5.0E-05		RAMP1	2.45	3.49	0.51	1.4	7.5E-03
SEC31A	60.02	43.36	-0.47	1.4	5.0E-05		FAM20C	5.79	8.26	0.51	1.4	5.0E-05
CRABP2	10.17	7.35	-0.47	1.4	5.0E-05		FAM64A	3.25	4.63	0.51	1.4	5.0E-05
DLGAP1	6.41	4.63	-0.47	1.4	3.0E-04		LRRIQ1	0.52	0.75	0.51	1.4	2.5E-04
RAB20	12.16	8.79	-0.47	1.4	5.0E-05		CAV1	65.58	93.50	0.51	1.4	5.0E-05
SLC26A6	9.63	6.96	-0.47	1.4	5.0E-05		MCM4	4.42	6.30	0.51	1.4	5.0E-05
LOC729852	7.24	5.24	-0.47	1.4	5.0E-05		ZNF701	1.63	2.32	0.51	1.4	5.0E-05
HLA-DOB,TAP2	50.61	36.64	-0.47	1.4	5.0E-05		CBX2	0.67	0.95	0.51	1.4	7.1E-03
KSR1	13.21	9.57	-0.47	1.4	5.0E-05		ZNF221	0.92	1.31	0.51	1.4	9.5E-04
ALDOC	7.02	5.09	-0.46	1.4	5.0E-05		C2CD2	4.89	6.95	0.51	1.4	5.0E-05
HDX	1.53	1.11	-0.46	1.4	5.0E-05		CYB5RL	0.73	1.04	0.51	1.4	6.5E-04
B3GNT7	17.47	12.66	-0.46	1.4	5.0E-05		DDX39A	24.50	34.81	0.51	1.4	5.0E-05
SLC46A1	2.76	2.00	-0.46	1.4	5.0E-05		R3HCC1	10.82	15.35	0.51	1.4	5.0E-05
SLC25A34	0.97	0.70	-0.46	1.4	5.8E-03		ZSCAN29	6.49	9.21	0.51	1.4	5.0E-05
GDAP1	3.14	2.28	-0.46	1.4	5.0E-05		ITGB6	12.11	17.18	0.51	1.4	5.0E-05
ANGPTL4	3.63	2.63	-0.46	1.4	5.0E-05		FAM195A	11.50	16.32	0.50	1.4	5.0E-05
TMEM68	8.96	6.50	-0.46	1.4	1.3E-03		ERCC6L	0.51	0.73	0.50	1.4	3.9E-03
WNK4	2.44	1.77	-0.46	1.4	5.0E-05		PDE1C	1.88	2.66	0.50	1.4	5.0E-05
TMEM201	4.41	3.20	-0.46	1.4	5.0E-05		MOXD1	6.75	9.57	0.50	1.4	5.0E-05
TMEM14B	64.51	46.82	-0.46	1.4	5.0E-05		SMAD9	0.94	1.33	0.50	1.4	5.0E-05
RAC2	50.67	36.78	-0.46	1.4	5.0E-05		B4GALT1	61.62	87.31	0.50	1.4	5.0E-05
NR1D1	5.66	4.11	-0.46	1.4	1.5E-04		TTC12	5.54	7.84	0.50	1.4	5.0E-05
MYOF	141.42	102.79	-0.46	1.4	5.0E-05		CDH3	6.47	9.16	0.50	1.4	5.0E-05
CX3CL1	34.20	24.86	-0.46	1.4	5.0E-05		MMP2	15.79	22.35	0.50	1.4	5.0E-05
PLOD3	30.20	21.96	-0.46	1.4	5.0E-05		ZNF492	0.32	0.45	0.50	1.4	1.2E-02
LEPREL2	3.27	2.37	-0.46	1.4	1.5E-04		CXADR	19.45	27.52	0.50	1.4	5.0E-05
PPP2R5B	17.80	12.95	-0.46	1.4	5.0E-05		ZNF300P1	1.89	2.68	0.50	1.4	5.0E-05
ATP2C1	53.40	38.85	-0.46	1.4	5.0E-05		PHF19	3.62	5.12	0.50	1.4	3.5E-04
ARMCX1	6.69	4.87	-0.46	1.4	5.0E-05		SLC2A4	0.78	1.11	0.50	1.4	1.3E-03

ATP6V0E2	8.40	6.11	-0.46	1.4	5.0E-05	IL13RA1	15.24	21.54	0.50	1.4	5.0E-05
DCBLD2	173.65	126.46	-0.46	1.4	5.0E-05	KLF7	1.64	2.31	0.50	1.4	5.0E-05
RHPN1	6.02	4.38	-0.46	1.4	5.0E-05	TTK	2.51	3.54	0.50	1.4	5.0E-05
APOBEC3G	2.86	2.08	-0.46	1.4	3.0E-04	THY1	2.10	2.97	0.50	1.4	5.0E-05
MYO1D	25.92	18.89	-0.46	1.4	5.0E-05	KCNQ3	0.89	1.26	0.50	1.4	5.0E-05
PARP12	42.95	31.31	-0.46	1.4	5.0E-05	RNF144A	2.36	3.33	0.50	1.4	5.0E-05
SNPH	11.48	8.37	-0.46	1.4	5.0E-05	NFATC1	2.07	2.92	0.50	1.4	5.0E-05
RTEL1,TNFRSF6B	9.34	6.81	-0.46	1.4	8.9E-03	ZNF271	6.55	9.23	0.50	1.4	5.0E-05
CAPZB	103.91	75.79	-0.46	1.4	5.0E-05	TNC	88.39	124.51	0.49	1.4	5.0E-05
RABGGTB	33.00	24.08	-0.45	1.4	5.0E-05	CLIC5	1.44	2.03	0.49	1.4	5.0E-05
EML2	26.90	19.64	-0.45	1.4	5.0E-05	NCAPD2	9.11	12.83	0.49	1.4	5.0E-05
MCM9	2.22	1.62	-0.45	1.4	7.5E-03	NEK2	3.37	4.75	0.49	1.4	5.0E-05
MMAA	4.14	3.03	-0.45	1.4	5.0E-05	OBFC1	6.94	9.77	0.49	1.4	1.9E-03
IFI30	82.30	60.10	-0.45	1.4	5.0E-05	RNF182	0.69	0.97	0.49	1.4	1.6E-03
C5orf22	9.34	6.82	-0.45	1.4	5.0E-05	ZFYVE21	19.12	26.91	0.49	1.4	5.0E-05
ANKRD39	7.82	5.71	-0.45	1.4	2.0E-04	MEIS3	1.22	1.71	0.49	1.4	3.3E-03
PCGF2	19.26	14.07	-0.45	1.4	5.0E-05	MGEA5	18.37	25.85	0.49	1.4	5.0E-05
GPX8	17.62	12.87	-0.45	1.4	5.0E-05	RAB30	1.32	1.85	0.49	1.4	4.0E-03
PAPSS1	28.11	20.54	-0.45	1.4	5.0E-05	MFSD6	6.36	8.94	0.49	1.4	5.0E-05
MITD1	17.19	12.57	-0.45	1.4	5.0E-05	FAM32A	35.39	49.75	0.49	1.4	5.0E-05
NLRP1	2.39	1.75	-0.45	1.4	5.0E-05	TRAF3	13.34	18.75	0.49	1.4	5.0E-05
PPP2R1B	19.49	14.26	-0.45	1.4	2.8E-03	HYI	15.23	21.41	0.49	1.4	1.1E-02
PRKX	13.97	10.22	-0.45	1.4	5.0E-05	MCF2L	0.98	1.38	0.49	1.4	5.0E-05
GMIP	7.80	5.71	-0.45	1.4	5.0E-05	TICRR	0.59	0.83	0.49	1.4	5.0E-05
TBCC	14.28	10.45	-0.45	1.4	5.0E-05	ZNF92	2.48	3.48	0.49	1.4	5.0E-05
JHDM1D	4.82	3.53	-0.45	1.4	5.0E-05	EFHD1	1.16	1.64	0.49	1.4	8.9E-03
CEMP1	6.80	4.98	-0.45	1.4	5.0E-05	SMTN	2.73	3.83	0.49	1.4	5.0E-05
ABI2	8.35	6.12	-0.45	1.4	5.0E-05	NAALADL2	0.77	1.08	0.49	1.4	5.0E-05
UNC13D	0.61	0.45	-0.45	1.4	1.1E-02	C11orf75	3.89	5.46	0.49	1.4	6.5E-04
CCDC28B,DCDC2B, IQCC	8.81	6.46	-0.45	1.4	5.5E-03	ROR1	4.83	6.78	0.49	1.4	5.0E-05
FTO	10.18	7.46	-0.45	1.4	5.0E-05	GRHL1	0.92	1.29	0.49	1.4	1.5E-04
NTHL1	6.08	4.46	-0.45	1.4	7.0E-04	CPD	111.97	157.15	0.49	1.4	5.0E-05
LRRC16B	0.80	0.59	-0.45	1.4	2.4E-03	TRIOBP	24.93	34.94	0.49	1.4	5.0E-05
SLC6A15	1.28	0.94	-0.45	1.4	5.0E-05	GPR124	1.08	1.51	0.49	1.4	5.0E-05
DISP1	4.54	3.33	-0.45	1.4	5.0E-05	PTPRD	17.21	24.11	0.49	1.4	5.0E-05
OAS3	90.36	66.28	-0.45	1.4	5.0E-05	FAM160A1	3.82	5.34	0.48	1.4	5.0E-05
SNRPC	47.47	34.82	-0.45	1.4	5.0E-05	KIF11	3.13	4.38	0.48	1.4	5.0E-05

PAK4	13.22	9.70	-0.45	1.4	5.0E-05		ETAA1	5.86	8.20	0.48	1.4	5.0E-05
RBP1	8.21	6.03	-0.45	1.4	1.5E-04		COBL	3.84	5.36	0.48	1.4	5.0E-05
KCNE4	0.83	0.61	-0.45	1.4	1.1E-02		CCBP2	1.29	1.81	0.48	1.4	5.0E-05
ZNHIT6	28.87	21.18	-0.45	1.4	3.0E-04		MAK16	4.69	6.55	0.48	1.4	5.0E-05
EPS8L3	6.13	4.50	-0.45	1.4	5.0E-05		EMP1	101.57	141.88	0.48	1.4	5.0E-05
ARHGAP28	1.34	0.99	-0.44	1.4	5.0E-05		PSCA	2.36	3.29	0.48	1.4	5.9E-03
RPL22L1	20.48	15.05	-0.44	1.4	5.0E-05		ZNF442,ZNF443,ZNF799	2.33	3.25	0.48	1.4	5.0E-05
TMED5	69.27	50.92	-0.44	1.4	5.0E-05		TRIP13	5.01	6.99	0.48	1.4	5.0E-05
SPRY4	10.23	7.52	-0.44	1.4	5.0E-05		LOC728431	2.88	4.01	0.48	1.4	2.0E-04
CEP97	2.54	1.87	-0.44	1.4	5.0E-05		FAAH2	1.86	2.60	0.48	1.4	1.0E-04
PNPT1	29.31	21.56	-0.44	1.4	5.0E-05		FOS	2.02	2.82	0.48	1.4	5.0E-05
PAX2	13.21	9.72	-0.44	1.4	5.0E-05		ABCC3	59.78	88.89	0.48	1.4	5.0E-05
SH2B3	7.02	5.17	-0.44	1.4	5.0E-05		KRBA2	1.20	1.67	0.48	1.4	1.0E-03
SEPSECS	3.79	2.79	-0.44	1.4	5.0E-05		ALG10	0.85	1.19	0.48	1.4	1.6E-03
CPT1A	1.48	1.09	-0.44	1.4	5.0E-05		STAT3	40.02	55.68	0.48	1.4	5.0E-05
HMGCS1	41.06	30.24	-0.44	1.4	5.0E-05		ZNF285	0.71	0.99	0.48	1.4	4.2E-03
ZCCHC14	8.23	6.06	-0.44	1.4	5.0E-05		ZNF544	9.03	12.55	0.48	1.4	5.0E-05
NEK3	6.61	4.87	-0.44	1.4	5.0E-05		HDAC1	34.60	48.05	0.47	1.4	5.0E-05
LURAP1L	16.32	12.03	-0.44	1.4	5.0E-05		ZNF627	4.63	6.43	0.47	1.4	5.0E-05
TRIAP1	19.66	14.49	-0.44	1.4	5.0E-05		PLXDC2	2.78	3.86	0.47	1.4	5.0E-05
COX10	7.43	5.48	-0.44	1.4	5.0E-05		ZWINT	5.64	7.83	0.47	1.4	5.0E-05
RAP1GAP	3.27	2.41	-0.44	1.4	5.0E-05		DSEL	0.47	0.66	0.47	1.4	1.0E-04
LPAR2	13.35	9.86	-0.44	1.4	5.0E-05		TPX2	8.45	11.73	0.47	1.4	5.0E-05
ABCB9	1.28	0.94	-0.44	1.4	5.9E-03		ERI2	2.71	3.75	0.47	1.4	5.0E-05
DDRGK1	40.79	30.13	-0.44	1.4	5.0E-05		TSHZ1	4.45	6.17	0.47	1.4	5.0E-05
ZNF460	3.29	2.43	-0.44	1.4	5.0E-05		CTSL2	2.65	3.67	0.47	1.4	5.0E-05
GBP1	23.50	17.36	-0.44	1.4	5.0E-05		TCTA	9.68	13.41	0.47	1.4	5.0E-05
TCP11L2	10.46	7.73	-0.44	1.4	5.0E-05		POLE2	1.07	1.48	0.47	1.4	8.3E-03
CCDC85B	4.25	3.14	-0.44	1.4	5.0E-05		TSTD3	1.72	2.38	0.47	1.4	3.0E-04
SLC25A11	28.15	20.82	-0.44	1.4	2.2E-03		KRT10	38.51	53.32	0.47	1.4	5.0E-05
QPCTL	9.99	7.39	-0.44	1.4	5.0E-05		EPHB2	21.16	29.29	0.47	1.4	5.0E-05
PDZK1	8.01	5.92	-0.43	1.4	5.0E-05		PTPRJ	30.08	41.63	0.47	1.4	5.0E-05
RRP9	10.60	7.84	-0.43	1.4	5.0E-05		DUSP23	37.86	52.40	0.47	1.4	5.0E-05
LRRC1	20.53	15.19	-0.43	1.4	5.0E-05		WNK2	1.17	1.62	0.47	1.4	5.0E-05
JAG1	14.06	10.41	-0.43	1.4	5.0E-05		SGK223	5.36	7.41	0.47	1.4	5.0E-05
TMTC1	2.16	1.60	-0.43	1.4	4.1E-03		ZNF134,ZNF211	8.37	11.56	0.47	1.4	5.0E-05
KHSRP	41.77	30.92	-0.43	1.4	5.0E-05		HELLS	1.08	1.49	0.47	1.4	1.0E-04

MINK1	27.93	20.68	-0.43	1.4	5.0E-05		ZNF736	2.39	3.30	0.47	1.4	5.0E-05
C19orf66	37.64	27.88	-0.43	1.4	5.0E-05		IGFBP6	3.75	5.17	0.46	1.4	2.1E-03
COQ10A	5.68	4.21	-0.43	1.4	5.0E-05		LOC645212	2.93	4.04	0.46	1.4	9.0E-04
HELZ	8.80	6.52	-0.43	1.3	5.0E-05		GINS3	2.09	2.88	0.46	1.4	5.0E-05
WARS	233.74	173.21	-0.43	1.3	5.0E-05		WDR1	95.88	132.26	0.46	1.4	5.0E-05
PUS1	12.79	9.48	-0.43	1.3	5.0E-05		PAQR5	1.23	1.70	0.46	1.4	5.0E-05
ANK2	3.53	2.61	-0.43	1.3	1.0E-04		SUMF1	10.88	15.00	0.46	1.4	5.0E-05
FBXO6	19.33	14.33	-0.43	1.3	5.0E-05		DIP2C	3.27	4.51	0.46	1.4	5.0E-05
ADAMTS3	7.73	5.73	-0.43	1.3	5.0E-05		LIMK1	17.09	23.54	0.46	1.4	5.0E-05
PTHLH	20.11	14.92	-0.43	1.3	5.0E-05		NOL12	10.86	14.95	0.46	1.4	5.0E-05
ACP2	24.69	18.32	-0.43	1.3	5.0E-05		SMIM11	10.17	14.00	0.46	1.4	5.0E-05
CMAS	21.02	15.60	-0.43	1.3	5.0E-05		PTPRF	26.81	36.90	0.46	1.4	5.0E-05
SEMA3A	3.10	2.30	-0.43	1.3	5.0E-05		ZNF418	1.30	1.78	0.46	1.4	5.0E-05
CYP4F11	33.10	24.57	-0.43	1.3	5.0E-05		FSTL3	19.31	26.54	0.46	1.4	5.0E-05
PPM1K	14.81	11.00	-0.43	1.3	5.0E-05		FMNL1	2.64	3.63	0.46	1.4	5.0E-05
TTC37	31.00	23.03	-0.43	1.3	5.0E-05		COTL1	155.75	214.10	0.46	1.4	5.0E-05
DHCR7	63.43	47.12	-0.43	1.3	5.0E-05		METAP1D	2.75	3.77	0.46	1.4	3.5E-03
C10orf137	8.78	6.52	-0.43	1.3	5.0E-05		ARHGEF39	3.20	4.40	0.46	1.4	5.0E-05
AMZ2P1	1.06	0.79	-0.43	1.3	3.7E-03		ZCCHC3	6.12	8.41	0.46	1.4	5.0E-05
PTGFR	0.87	0.64	-0.43	1.3	6.5E-04		ZNF20,ZNF625	5.74	7.88	0.46	1.4	5.0E-05
MFS12	39.83	29.60	-0.43	1.3	2.0E-04		MOB3B	1.65	2.26	0.46	1.4	5.0E-05
HYOU1	202.09	150.22	-0.43	1.3	5.0E-05		UNC5CL	4.50	6.17	0.46	1.4	5.0E-05
EPS15L1	42.21	31.38	-0.43	1.3	5.0E-05		ALDH3B1	17.91	24.57	0.46	1.4	5.0E-05
METRN	11.25	8.37	-0.43	1.3	5.0E-05		FHDC1	6.81	9.33	0.46	1.4	5.0E-05
EGF	1.63	1.21	-0.43	1.3	5.0E-05		SGOL2	1.49	2.04	0.46	1.4	5.0E-05
IL12RB2	0.70	0.52	-0.43	1.3	6.8E-03		IDNK	2.83	3.88	0.46	1.4	3.8E-03
USP11	13.07	9.72	-0.43	1.3	5.0E-05		CFI	46.96	64.40	0.46	1.4	5.0E-05
ARPC5L	40.35	30.02	-0.43	1.3	5.0E-05		GNPDA1	25.19	34.54	0.46	1.4	5.0E-05
SLC45A4	5.66	4.21	-0.43	1.3	5.0E-05		ZNF480	3.80	5.22	0.46	1.4	5.0E-05
KIAA0513	6.89	5.12	-0.43	1.3	5.0E-05		ZNF71	2.85	3.91	0.46	1.4	5.0E-05
TRIM14	37.74	28.08	-0.43	1.3	5.0E-05		SEPT8	13.27	18.19	0.46	1.4	5.0E-05
CPSF2	15.51	11.55	-0.43	1.3	5.0E-05		DANCR	17.32	23.73	0.45	1.4	5.0E-05
C7orf29,LRRC61	37.73	28.09	-0.43	1.3	2.0E-04		SIDT2,TAGLN	11.20	15.35	0.45	1.4	5.0E-03
ZFYVE26	8.90	6.63	-0.43	1.3	5.0E-05		KIF1C	27.83	38.12	0.45	1.4	5.0E-05
VSIG1	1.52	1.13	-0.43	1.3	9.5E-04		GXYLT2	3.43	4.69	0.45	1.4	5.0E-05
KIF7	1.11	0.83	-0.43	1.3	2.7E-03		ANO5	0.55	0.76	0.45	1.4	4.0E-04
MTMR11	6.31	4.70	-0.42	1.3	5.0E-05		COL8A1	34.81	47.65	0.45	1.4	5.0E-05
UHMK1	26.34	19.62	-0.42	1.3	5.0E-05		COQ2	8.83	12.09	0.45	1.4	5.0E-05

ZSWIM3	1.16	0.86	-0.42	1.3	5.5E-03		PSD3	8.62	11.79	0.45	1.4	5.0E-05
NGLY1	13.83	10.30	-0.42	1.3	5.0E-05		CENPJ	1.26	1.72	0.45	1.4	5.0E-05
CCDC90A	14.18	10.57	-0.42	1.3	5.0E-05		ITGAE	6.25	8.55	0.45	1.4	1.5E-04
GGT1	14.86	11.08	-0.42	1.3	5.0E-05		ZNF160	5.89	8.04	0.45	1.4	5.0E-05
LIN52	4.47	3.33	-0.42	1.3	5.0E-05		USP2	0.71	0.97	0.45	1.4	6.9E-03
NUDT21	18.97	14.15	-0.42	1.3	5.0E-05		AUTS2	1.45	1.98	0.45	1.4	1.0E-04
LOC374443	3.51	2.61	-0.42	1.3	5.0E-05		CTSF	1.41	1.92	0.45	1.4	2.9E-03
FGFBP1	190.46	142.12	-0.42	1.3	5.0E-05		SSH3	13.64	18.61	0.45	1.4	5.0E-05
KDM1B	8.63	6.44	-0.42	1.3	5.0E-05		PHTF2	4.13	5.63	0.45	1.4	5.0E-05
CTPS1	27.02	20.17	-0.42	1.3	5.0E-05		PPP1R13L	10.79	14.70	0.45	1.4	7.5E-03
NAGLU	22.36	16.70	-0.42	1.3	5.0E-05		ZNF514	5.43	7.41	0.45	1.4	5.0E-05
CAD	8.93	6.67	-0.42	1.3	5.0E-05		C11orf82	0.56	0.76	0.45	1.4	6.7E-03
PTGES	12.91	9.65	-0.42	1.3	5.0E-05		GP1BB,SEPT5	1.17	1.59	0.45	1.4	9.4E-03
ACLY	106.22	79.38	-0.42	1.3	5.0E-05		ATP10B	0.57	0.78	0.45	1.4	1.0E-04
IGFN1	14.89	11.13	-0.42	1.3	5.0E-05		KIF20B	3.60	4.90	0.45	1.4	5.0E-05
PHLDA3	25.17	18.81	-0.42	1.3	5.0E-05		AADAT	1.42	1.93	0.45	1.4	1.3E-03
SLC31A1	23.63	17.67	-0.42	1.3	5.0E-05		ZSCAN18	5.70	7.76	0.45	1.4	5.0E-05
THRA	4.87	3.65	-0.42	1.3	5.0E-05		LYRM9	5.06	6.89	0.44	1.4	5.0E-05
RFX3	2.17	1.63	-0.42	1.3	5.0E-05		PGM2L1	7.42	10.09	0.44	1.4	5.0E-05
AMER1	2.00	1.50	-0.42	1.3	5.0E-05		ZNF578	0.63	0.86	0.44	1.4	1.5E-04
INO80C	9.37	7.02	-0.42	1.3	1.5E-04		PFKL	21.23	28.88	0.44	1.4	5.0E-05
LOC100289137	8.43	6.32	-0.42	1.3	5.0E-05		PTPRG	7.41	10.08	0.44	1.4	5.0E-05
HECTD4	9.51	7.12	-0.42	1.3	5.0E-05		GYS1	16.55	22.51	0.44	1.4	5.0E-05
TMEM144	6.17	4.63	-0.42	1.3	5.0E-05		ZNF317	7.39	10.05	0.44	1.4	5.0E-05
SLC5A9	0.98	0.74	-0.42	1.3	7.4E-03		C14orf80	1.73	2.36	0.44	1.4	5.8E-03
EDC4	13.78	10.33	-0.42	1.3	5.0E-05		STOX2	0.99	1.34	0.44	1.4	5.0E-05
ATN1	36.87	27.63	-0.42	1.3	5.0E-05		ZNF227	2.76	3.75	0.44	1.4	5.0E-05
CLDN12	29.81	22.36	-0.42	1.3	5.0E-05		ZNF23	4.84	6.57	0.44	1.4	5.0E-05
HIRA	18.71	14.03	-0.41	1.3	5.0E-05		ZFP62	3.46	4.70	0.44	1.4	5.0E-05
ARHGAP24	6.27	4.70	-0.41	1.3	5.0E-05		C19orf18,ZNF606	2.62	3.55	0.44	1.4	3.5E-04
CEACAM1	3.69	2.77	-0.41	1.3	5.0E-05		ZNF184	2.24	3.05	0.44	1.4	5.0E-05
LRAT	2.38	1.79	-0.41	1.3	5.0E-05		ZNF300	3.63	4.93	0.44	1.4	5.0E-05
SLC25A28	22.12	16.60	-0.41	1.3	5.0E-05		PTTG1	31.81	43.19	0.44	1.4	5.0E-05
ROGDI	4.32	3.25	-0.41	1.3	3.0E-04		SLC6A8	27.44	37.26	0.44	1.4	5.0E-05
LMNB2	12.39	9.30	-0.41	1.3	5.0E-05		STEAP3	18.51	25.12	0.44	1.4	5.0E-05
DOK7	3.21	2.41	-0.41	1.3	5.0E-04		WBP11	19.06	25.87	0.44	1.4	5.0E-05
MFSD7	5.28	3.96	-0.41	1.3	6.5E-04		PCNXL3	9.38	12.73	0.44	1.4	5.0E-05
KCND1	1.41	1.06	-0.41	1.3	5.0E-05		ARHGAP21	13.11	17.78	0.44	1.4	5.0E-05

BAMBI	6.37	4.78	-0.41	1.3	5.0E-05		GLTP	7.99	10.84	0.44	1.4	5.0E-05
VWA5A	16.38	12.30	-0.41	1.3	5.0E-05		CTTN	130.82	177.39	0.44	1.4	5.0E-05
FAHD2A	9.21	6.92	-0.41	1.3	5.0E-05		FRMD6	5.51	7.47	0.44	1.4	5.0E-05
IFIT5	29.74	22.35	-0.41	1.3	5.0E-05		BCAM	24.25	32.86	0.44	1.4	5.0E-05
DAPP1	9.45	7.11	-0.41	1.3	5.0E-05		KIF26B	5.33	7.23	0.44	1.4	5.0E-05
C17orf51	2.28	1.71	-0.41	1.3	5.0E-05		HTRA1	4.90	6.63	0.44	1.4	5.0E-05
MEF2A	20.47	15.40	-0.41	1.3	5.0E-05		ARRDC3	33.27	45.07	0.44	1.4	5.0E-05
FAM167A	10.25	7.72	-0.41	1.3	5.0E-05		ZNF493	1.34	1.82	0.44	1.4	5.5E-04
B3GAT3	26.70	20.10	-0.41	1.3	5.0E-05		PRKRIR	14.39	19.49	0.44	1.4	5.0E-05
PADI1	10.42	7.85	-0.41	1.3	5.0E-05		PODXL	1.07	1.44	0.44	1.4	5.0E-05
HECA	4.44	3.34	-0.41	1.3	5.0E-05		SNUPN	8.95	12.12	0.44	1.4	5.0E-05
SLC6A9	11.77	8.87	-0.41	1.3	5.0E-05		TDRKH	2.87	3.89	0.44	1.4	9.8E-03
DFNA5	26.25	19.78	-0.41	1.3	5.0E-05		ZNF287	0.83	1.12	0.44	1.4	5.5E-04
KIF3A	6.03	4.55	-0.41	1.3	5.0E-05		CCDC18,LOC10013 1564	3.26	4.41	0.44	1.4	5.0E-05
PRKD2	28.23	21.29	-0.41	1.3	5.0E-05		SAPCD2	2.40	3.25	0.44	1.4	5.0E-05
FAM83G	12.80	9.65	-0.41	1.3	5.0E-05		ZNF140	5.42	7.33	0.44	1.4	5.0E-05
BAK1	23.85	18.01	-0.41	1.3	5.0E-05		UBE2T	4.10	5.54	0.43	1.4	1.5E-03
DMRTA1	3.19	2.41	-0.41	1.3	5.0E-05		ZBTB5	4.60	6.22	0.43	1.4	5.0E-05
PLAGL2	5.70	4.31	-0.40	1.3	5.0E-05		MAD2L1	7.13	9.63	0.43	1.4	5.0E-05
INTS7	5.75	4.35	-0.40	1.3	5.0E-05		CLSPN	0.44	0.59	0.43	1.3	7.0E-04
TOE1	3.21	2.43	-0.40	1.3	3.8E-03		DPY19L1	12.78	17.25	0.43	1.3	5.0E-05
EIF2AK2	59.96	45.38	-0.40	1.3	5.0E-05		ISCA1	12.98	17.51	0.43	1.3	5.0E-05
SEC23B	50.05	37.89	-0.40	1.3	5.0E-05		TIFA	4.14	5.59	0.43	1.3	5.0E-05
C12orf52	21.97	16.63	-0.40	1.3	5.0E-05		ZNF652	4.95	6.68	0.43	1.3	5.0E-05
KIAA0586	3.67	2.78	-0.40	1.3	9.7E-03		MMS22L	0.79	1.06	0.43	1.3	5.0E-05
LRRC49	2.89	2.19	-0.40	1.3	3.0E-04		GPR68	0.86	1.16	0.43	1.3	7.7E-03
FRYL	9.57	7.26	-0.40	1.3	5.0E-05		DROSHA	6.95	9.36	0.43	1.3	5.0E-05
GUCY1B3	5.75	4.36	-0.40	1.3	5.0E-05		ARHGEF10	7.34	9.89	0.43	1.3	5.0E-05
PLSCR4	3.13	2.37	-0.40	1.3	5.0E-05		ZNF33B	4.61	6.21	0.43	1.3	5.0E-05
STARD4	26.54	20.13	-0.40	1.3	2.0E-04		SEPP1	8.31	11.19	0.43	1.3	5.0E-05
SOCS2	3.16	2.40	-0.40	1.3	5.0E-05		ZNF18	1.89	2.55	0.43	1.3	5.0E-05
IRF7	47.04	35.69	-0.40	1.3	5.0E-05		NT5DC2	19.15	25.77	0.43	1.3	5.0E-05
PSMB8,TAP1	188.32	142.92	-0.40	1.3	5.0E-05		EAPP	21.04	28.32	0.43	1.3	5.0E-05
DYRK4	14.77	11.21	-0.40	1.3	5.0E-05		ST8SIA2	4.74	6.37	0.43	1.3	5.0E-05
SLC1A1	9.19	6.98	-0.40	1.3	5.0E-05		CXCR7	1.29	1.74	0.43	1.3	5.0E-03
NAPA	115.91	88.02	-0.40	1.3	5.0E-05		NARF	11.17	15.02	0.43	1.3	5.0E-05
NAT1	4.39	3.34	-0.40	1.3	1.0E-04		TMLHE	7.01	9.43	0.43	1.3	5.0E-05

PLSCR1	199.89	151.83	-0.40	1.3	5.0E-05		CLDN11	76.15	102.40	0.43	1.3	5.0E-05
GBP5	2.54	1.93	-0.40	1.3	5.0E-05		IFFO2	3.10	4.16	0.43	1.3	5.0E-05
EPSTI1	44.54	33.85	-0.40	1.3	5.0E-05		RASA3	14.33	19.26	0.43	1.3	5.0E-05
SLC2A11	10.57	8.03	-0.40	1.3	5.0E-05		ZUFSP	5.46	7.34	0.43	1.3	5.0E-05
C9orf47,S1PR3	0.71	0.54	-0.40	1.3	1.2E-02		PHF10	21.39	28.73	0.43	1.3	5.3E-03
ARHGEF40	7.55	5.74	-0.39	1.3	2.5E-04		CYB5D2	12.38	16.63	0.43	1.3	5.0E-05
PROCR	25.53	19.42	-0.39	1.3	5.0E-05		GLS	121.67	163.41	0.43	1.3	9.1E-03
CCDC28A	8.50	6.47	-0.39	1.3	5.0E-05		LOC92249	3.40	4.56	0.43	1.3	5.0E-05
PTK2B	18.24	13.88	-0.39	1.3	5.0E-05		KDM2B	4.75	6.38	0.42	1.3	5.0E-05
SLC22A18	1.90	1.45	-0.39	1.3	4.6E-03		POC1A	2.27	3.05	0.42	1.3	4.5E-04
NEURL3	15.09	11.48	-0.39	1.3	5.0E-05		PON3	2.67	3.57	0.42	1.3	3.2E-03
TMEM129	22.46	17.10	-0.39	1.3	6.0E-04		ADARB1	4.07	5.46	0.42	1.3	5.0E-05
UBE2Q1	24.95	19.00	-0.39	1.3	5.0E-05		KLHL23,PHOSPHO2 ,PHOSPHO2- KLHL23	6.34	8.50	0.42	1.3	5.0E-05
FEM1C	19.68	14.99	-0.39	1.3	5.0E-05		ZNF568	1.80	2.41	0.42	1.3	3.0E-04
TBC1D20	23.07	17.57	-0.39	1.3	5.0E-05		CNNM2	1.48	1.98	0.42	1.3	9.5E-04
THAP7	10.93	8.33	-0.39	1.3	5.0E-05		CCNF	2.97	3.98	0.42	1.3	5.0E-05
GPR157	4.06	3.09	-0.39	1.3	2.5E-04		GRB10	11.25	15.06	0.42	1.3	5.0E-05
ALCAM	204.15	155.58	-0.39	1.3	5.0E-05		ZNF273	0.63	0.85	0.42	1.3	2.6E-03
DYRK1A	13.68	10.43	-0.39	1.3	5.0E-05		ZNF583	1.65	2.20	0.42	1.3	1.5E-04
AGPAT9	15.69	11.97	-0.39	1.3	5.0E-05		ANXA1	302.32	404.70	0.42	1.3	5.0E-05
HOOK1	41.94	31.99	-0.39	1.3	5.0E-05		LIG1	2.95	3.95	0.42	1.3	5.0E-05
LEPREL4	14.52	11.08	-0.39	1.3	5.0E-05		TYRO3	1.55	2.08	0.42	1.3	5.0E-05
VPS39	18.38	14.03	-0.39	1.3	5.0E-05		NLGN1	3.57	4.78	0.42	1.3	5.0E-05
STAC	11.88	9.07	-0.39	1.3	5.0E-05		NTN4	54.20	72.48	0.42	1.3	5.0E-05
TBC1D8B	3.21	2.45	-0.39	1.3	5.0E-05		NENF	16.90	22.59	0.42	1.3	5.0E-05
NDUFV3	20.31	15.53	-0.39	1.3	5.0E-05		ZNF761	5.96	7.96	0.42	1.3	5.0E-05
UGCG	155.28	118.76	-0.39	1.3	5.0E-05		HEMK1	2.41	3.22	0.42	1.3	5.0E-05
CCDC132	5.27	4.03	-0.39	1.3	9.0E-03		VNN1	22.11	29.55	0.42	1.3	5.0E-05
DMXL2	4.33	3.31	-0.39	1.3	5.0E-05		PM20D2	8.44	11.27	0.42	1.3	5.0E-05
CXorf38	13.54	10.38	-0.38	1.3	5.0E-05		ADAMTS9	48.57	64.90	0.42	1.3	5.0E-05
CD34	1.28	0.98	-0.38	1.3	1.1E-02		DNA2	1.61	2.16	0.42	1.3	5.0E-05
CDR2L	18.19	13.96	-0.38	1.3	5.0E-05		TMEM192	11.39	15.22	0.42	1.3	5.0E-05
NTM	5.32	4.08	-0.38	1.3	5.0E-05		CNTRL	0.71	0.95	0.42	1.3	5.0E-05
MITF	12.42	9.54	-0.38	1.3	5.0E-05		SIPA1L1	20.13	26.89	0.42	1.3	5.0E-05
SERPING1	29.78	22.87	-0.38	1.3	5.0E-05		TPM2	86.81	115.94	0.42	1.3	5.0E-05
STAT2	57.22	43.95	-0.38	1.3	5.0E-05		CA8	11.17	14.91	0.42	1.3	1.0E-04

TUBGCP6	8.31	6.38	-0.38	1.3	2.5E-03		RHOB	22.71	30.32	0.42	1.3	5.0E-05
CTDSP1	29.43	22.63	-0.38	1.3	5.0E-05		FANCD2	2.60	3.48	0.42	1.3	5.0E-05
ZNF580	19.07	14.67	-0.38	1.3	5.0E-05		IMMP2L	6.40	8.54	0.42	1.3	5.0E-05
RALGAPA1	6.36	4.89	-0.38	1.3	5.0E-05		CMTM4	13.08	17.46	0.42	1.3	5.0E-05
FAM65A	20.01	15.39	-0.38	1.3	5.0E-05		PTRF	22.31	29.77	0.42	1.3	5.0E-05
ZNRF1	3.33	2.56	-0.38	1.3	5.0E-05		FANCI	3.68	4.91	0.42	1.3	1.0E-02
SDE2	10.62	8.17	-0.38	1.3	5.0E-05		HPD	2.11	2.81	0.42	1.3	2.8E-03
H1FX	22.52	17.33	-0.38	1.3	5.0E-05		PPP3CB	14.61	19.48	0.42	1.3	5.0E-05
EFNB3	2.06	1.59	-0.38	1.3	2.5E-04		ID1	9.99	13.33	0.42	1.3	5.0E-05
LOC100128252	4.21	3.24	-0.38	1.3	3.0E-03		BLVRB	35.43	47.25	0.42	1.3	5.0E-05
PRKD3	22.38	17.24	-0.38	1.3	5.0E-05		NUDT1	11.05	14.73	0.42	1.3	5.0E-05
VILL	1.97	1.52	-0.38	1.3	2.3E-03		MKNK2	64.68	86.22	0.41	1.3	5.0E-05
PPP1R1A	2.13	1.64	-0.38	1.3	8.9E-03		PITPNM3	5.25	6.99	0.41	1.3	5.0E-05
LOC728323	7.10	5.47	-0.38	1.3	6.0E-04		MAP4K4	31.51	41.95	0.41	1.3	5.0E-05
PNMA6C,PNMA6D	2.73	2.10	-0.38	1.3	1.3E-03		LRG1	8.03	10.68	0.41	1.3	5.0E-05
JAK2	4.80	3.70	-0.38	1.3	5.0E-05		HSDL2	8.71	11.59	0.41	1.3	5.0E-05
STRN3	15.73	12.13	-0.38	1.3	5.0E-05		TCF3	13.67	18.19	0.41	1.3	5.0E-05
KLHL13	16.03	12.36	-0.38	1.3	5.0E-05		ME1	12.10	16.09	0.41	1.3	5.0E-05
NPR1	1.60	1.24	-0.37	1.3	8.0E-04		ADRB2	5.58	7.42	0.41	1.3	5.0E-05
EPG5	6.80	5.25	-0.37	1.3	5.0E-05		TUBA1A	12.45	16.55	0.41	1.3	5.0E-05
RAB42	13.22	10.21	-0.37	1.3	1.3E-03		NEDD9	31.48	42.09	0.41	1.3	5.0E-05
DDX60L	35.84	27.67	-0.37	1.3	1.0E-04		EMX2	17.41	23.13	0.41	1.3	1.1E-02
SRPK1	25.20	19.46	-0.37	1.3	5.0E-05		CDH13	9.64	12.80	0.41	1.3	5.0E-05
CHST12	4.44	3.43	-0.37	1.3	2.0E-04		ERO1L	66.47	88.22	0.41	1.3	5.0E-05
AVPI1	25.19	19.47	-0.37	1.3	5.0E-05		CDK16	30.37	40.30	0.41	1.3	5.0E-05
PLXNA2	2.12	1.64	-0.37	1.3	5.0E-05		OLFM4	0.72	0.95	0.41	1.3	1.1E-02
PRKXP1	0.95	0.73	-0.37	1.3	5.0E-05		RAB13	97.32	129.12	0.41	1.3	5.0E-05
CA5BP1	10.61	8.21	-0.37	1.3	5.0E-05		PCTP	9.92	13.16	0.41	1.3	5.0E-05
CCRN4L	4.46	3.45	-0.37	1.3	5.0E-05		CDCA7	3.36	4.45	0.41	1.3	5.0E-05
SNHG11,SNORA39	18.68	14.46	-0.37	1.3	3.7E-03		PLK1	11.04	14.64	0.41	1.3	5.0E-05
PBX1	3.46	2.68	-0.37	1.3	5.0E-05		CRNDE	9.49	12.58	0.41	1.3	1.0E-04
SPATS2L	28.22	21.85	-0.37	1.3	5.0E-05		ERVMER34-1	3.38	4.49	0.41	1.3	5.0E-05
XPO4	7.32	5.67	-0.37	1.3	5.0E-05		S100A9	87.66	116.16	0.41	1.3	5.0E-05
FAM174B	17.93	13.89	-0.37	1.3	5.0E-05		PRKAA2	3.70	4.90	0.41	1.3	5.0E-05
FZD8	2.02	1.57	-0.37	1.3	4.1E-03		SESN3	2.33	3.08	0.41	1.3	5.0E-05
KCTD17	7.69	5.96	-0.37	1.3	5.0E-05		ZNF558	4.93	6.53	0.41	1.3	5.0E-05
SIRT1	7.83	6.07	-0.37	1.3	5.0E-05		ZNF12	6.88	9.11	0.41	1.3	5.0E-05
CYP1A1	1.84	1.43	-0.37	1.3	2.7E-03		WDR72	0.82	1.09	0.40	1.3	5.0E-05

SCNM1,TNFAIP8L2, TNFAIP8L2-SCNM1	9.07	7.04	-0.37	1.3	5.0E-05	ZBTB16	1.77	2.34	0.40	1.3	3.1E-03
FLOT1	25.88	20.09	-0.37	1.3	5.0E-05	SLC26A2	49.04	64.91	0.40	1.3	5.0E-05
SOLH	10.77	8.37	-0.36	1.3	5.3E-03	ZNF229	2.25	2.98	0.40	1.3	5.0E-05
BLZF1	22.12	17.18	-0.36	1.3	1.0E-04	KIAA1211	0.62	0.82	0.40	1.3	4.0E-04
EML3,MTA2	50.13	38.94	-0.36	1.3	5.0E-05	CHST3	12.56	16.61	0.40	1.3	5.0E-05
C12orf5	3.83	2.98	-0.36	1.3	5.0E-05	BOLA1	5.42	7.17	0.40	1.3	1.7E-03
RPS6KA5	2.64	2.05	-0.36	1.3	5.0E-05	PEX11A	1.24	1.64	0.40	1.3	1.8E-03
HNF1A	3.14	2.44	-0.36	1.3	5.0E-05	PELI1	13.97	18.46	0.40	1.3	5.0E-05
PJA2	37.93	29.47	-0.36	1.3	5.0E-05	FBRSL1	6.49	8.57	0.40	1.3	5.0E-05
CLDN4	157.39	122.31	-0.36	1.3	5.0E-05	PLXNA1	13.50	17.82	0.40	1.3	5.0E-05
FARSA	45.05	35.02	-0.36	1.3	5.0E-05	SMYD5	8.83	11.65	0.40	1.3	5.0E-05
DENND5B	4.94	3.84	-0.36	1.3	5.0E-05	SUSD3	3.26	4.30	0.40	1.3	3.3E-03
HIC2	1.03	0.80	-0.36	1.3	4.0E-04	EIF4B	112.23	148.04	0.40	1.3	5.0E-05
STYK1	1.28	0.99	-0.36	1.3	8.4E-03	MOCOS	7.16	9.44	0.40	1.3	5.0E-05
KCTD3	30.41	23.66	-0.36	1.3	5.0E-05	FAM127C	3.12	4.11	0.40	1.3	5.0E-05
NFKBIZ,NXPE3	130.79	101.75	-0.36	1.3	5.0E-05	ZNF823	3.94	5.19	0.40	1.3	5.0E-05
ARAF	27.41	21.33	-0.36	1.3	8.1E-03	FAM173B	3.79	4.99	0.40	1.3	1.2E-02
CASP1	13.40	10.43	-0.36	1.3	2.0E-04	CEP152	1.23	1.62	0.40	1.3	5.0E-05
SNAI1	4.47	3.48	-0.36	1.3	3.5E-04	TSPYL5	5.26	6.92	0.40	1.3	5.0E-05
CAMKMT	4.26	3.32	-0.36	1.3	1.3E-03	ALOX12	2.58	3.40	0.40	1.3	5.0E-05
GABRE	13.69	10.66	-0.36	1.3	1.5E-04	PPL	15.17	19.97	0.40	1.3	4.0E-04
CA12	125.57	97.83	-0.36	1.3	5.0E-05	INHBB	0.93	1.22	0.40	1.3	7.1E-03
RAC3	14.00	10.91	-0.36	1.3	5.0E-05	BRIP1	0.98	1.29	0.40	1.3	5.0E-05
SLC40A1	3.30	2.57	-0.36	1.3	5.0E-05	FLNC	1.70	2.24	0.40	1.3	5.0E-05
DNAJB2	19.32	15.06	-0.36	1.3	5.0E-05	ALDH4A1	8.21	10.79	0.39	1.3	5.0E-05
CCNO	6.34	4.95	-0.36	1.3	6.5E-04	XPC	18.24	23.97	0.39	1.3	5.0E-05
POGLUT1	8.85	6.90	-0.36	1.3	5.0E-05	FPGT,FPGT- TNNI3K,TNNI3K	2.57	3.38	0.39	1.3	5.0E-05
CCNY	17.58	13.71	-0.36	1.3	1.0E-04	ZNF385A	6.98	9.17	0.39	1.3	5.0E-05
TWF2	60.31	47.05	-0.36	1.3	5.0E-05	MGC2752	6.79	8.92	0.39	1.3	5.0E-05
AGAP3	12.31	9.60	-0.36	1.3	5.0E-05	VSTM2L	15.37	20.19	0.39	1.3	5.0E-05
FNDC3A	38.08	29.72	-0.36	1.3	1.0E-04	ANXA6	32.25	42.35	0.39	1.3	5.0E-05
MED27	15.05	11.74	-0.36	1.3	5.0E-05	LOC100506990	4.91	6.45	0.39	1.3	5.0E-05
NEU1	76.41	59.67	-0.36	1.3	5.0E-05	PSMC3	44.59	58.54	0.39	1.3	5.0E-05
LIMD1-AS1	4.69	3.66	-0.36	1.3	2.9E-03	SIM1	3.99	5.23	0.39	1.3	5.0E-05
KIFC3	59.85	46.78	-0.36	1.3	2.0E-04	VIPR1	12.33	16.18	0.39	1.3	5.0E-05
UBALD2	24.09	18.83	-0.36	1.3	5.0E-05	SCIN	19.83	26.01	0.39	1.3	5.0E-05

WBP5	69.03	53.95	-0.36	1.3	1.0E-04		NEBL	4.36	5.72	0.39	1.3	5.0E-05
EMP3	96.91	75.75	-0.36	1.3	5.0E-05		ZNF808	1.98	2.59	0.39	1.3	5.0E-05
TDRD9	1.16	0.90	-0.36	1.3	2.5E-03		FAM35A	7.12	9.33	0.39	1.3	5.0E-05
TMEM38B	3.12	2.44	-0.36	1.3	5.0E-05		TBC1D10B	12.16	15.94	0.39	1.3	5.0E-05
CYB5R2	10.61	8.30	-0.36	1.3	5.0E-05		SVIL	43.74	57.30	0.39	1.3	5.0E-05
ENPP1	0.69	0.54	-0.35	1.3	2.1E-03		AURKA	7.79	10.20	0.39	1.3	5.0E-05
GJA9,MYCBP	10.00	7.82	-0.35	1.3	5.0E-05		ZADH2	4.82	6.32	0.39	1.3	5.0E-05
CSNK2A1	54.60	42.71	-0.35	1.3	1.5E-04		EVA1A	17.06	22.31	0.39	1.3	5.0E-05
FZD5	11.68	9.14	-0.35	1.3	1.0E-04		XRCC4	4.28	5.60	0.39	1.3	5.5E-04
DYRK3	3.72	2.91	-0.35	1.3	1.1E-03		CNTNAP2	0.94	1.22	0.39	1.3	5.0E-05
CEBPA	2.78	2.18	-0.35	1.3	2.5E-03		DENND5A	17.38	22.72	0.39	1.3	5.0E-05
C11orf80,RCE1	18.14	14.20	-0.35	1.3	2.0E-04		COL25A1	1.89	2.46	0.39	1.3	1.0E-04
DCLRE1C	5.01	3.93	-0.35	1.3	1.3E-03		RABL6	26.35	34.42	0.39	1.3	5.0E-05
SLC16A3	131.37	102.87	-0.35	1.3	5.0E-05		TRIM55	2.58	3.38	0.39	1.3	5.0E-05
RTKN	25.36	19.86	-0.35	1.3	1.4E-03		SMIM4	26.74	34.93	0.39	1.3	2.5E-04
MVB12A	29.26	22.91	-0.35	1.3	5.0E-05		TOP2B	27.20	35.53	0.39	1.3	5.0E-05
TSEN54	6.94	5.43	-0.35	1.3	5.0E-05		FAM3C	134.60	175.78	0.39	1.3	5.0E-05
GDA	108.42	84.93	-0.35	1.3	5.0E-05		FAM111A	10.02	13.09	0.38	1.3	5.0E-05
MON1A	2.93	2.30	-0.35	1.3	4.8E-03		MRFAP1	100.82	131.64	0.38	1.3	5.0E-05
GOLGA7	27.91	21.87	-0.35	1.3	5.0E-05		MIR600HG	0.77	1.00	0.38	1.3	2.5E-04
UBA5	19.07	14.94	-0.35	1.3	9.9E-03		TGFA	20.08	26.21	0.38	1.3	5.0E-05
FGA	26.34	20.63	-0.35	1.3	5.0E-05		ZNF91	2.77	3.62	0.38	1.3	5.0E-05
CLCN4	4.32	3.38	-0.35	1.3	5.0E-05		GALNT11	8.77	11.44	0.38	1.3	5.0E-05
USP9Y	9.12	7.15	-0.35	1.3	5.0E-05		C11orf74	6.61	8.62	0.38	1.3	1.7E-03
TBL1XR1	26.66	20.89	-0.35	1.3	1.5E-04		ACTB	1165.12	1519.29	0.38	1.3	5.0E-05
PPM1J	2.82	2.21	-0.35	1.3	7.3E-03		ZWILCH	3.39	4.42	0.38	1.3	5.0E-05
NEO1	8.41	6.59	-0.35	1.3	5.0E-05		FXR1	12.38	16.14	0.38	1.3	5.0E-05
NCKAP5L	9.37	7.35	-0.35	1.3	5.0E-05		TPTEP1	3.87	5.05	0.38	1.3	7.1E-03
PRAF2	16.45	12.90	-0.35	1.3	5.0E-05		TLCD2	2.66	3.47	0.38	1.3	5.0E-05
APOL6	26.83	21.04	-0.35	1.3	1.0E-04		ZNF354A	4.58	5.96	0.38	1.3	5.0E-05
SETDB2	4.38	3.43	-0.35	1.3	5.0E-05		ZNF542	5.06	6.60	0.38	1.3	5.0E-05
PEX11B	17.38	13.63	-0.35	1.3	5.0E-05		LETM2	4.25	5.54	0.38	1.3	5.0E-05
SERPINE1	194.71	152.80	-0.35	1.3	5.0E-05		G0S2	27.57	35.90	0.38	1.3	5.0E-05
LPHN2	14.52	11.40	-0.35	1.3	1.0E-04		KLF8	2.12	2.76	0.38	1.3	5.0E-05
GAS2L1	7.02	5.51	-0.35	1.3	5.0E-05		AFAP1L2	4.96	6.46	0.38	1.3	5.0E-05
RAB3IP	4.45	3.49	-0.35	1.3	5.0E-05		COL5A2	0.48	0.62	0.38	1.3	2.5E-03
TRIM46	3.55	2.79	-0.35	1.3	3.5E-04		SLC34A2	92.49	120.30	0.38	1.3	5.0E-05
UBE2M	45.66	35.88	-0.35	1.3	5.0E-05		MKL2	8.71	11.31	0.38	1.3	5.0E-05

TRMT61A	5.13	4.03	-0.35	1.3	5.0E-05		MEIS3P1	6.92	8.99	0.38	1.3	5.0E-05
NLGN2	11.80	9.28	-0.35	1.3	5.0E-05		CD24	593.43	770.44	0.38	1.3	5.0E-05
IL1B	24.29	19.10	-0.35	1.3	5.0E-05		BHLHE40	25.87	33.58	0.38	1.3	5.0E-05
MAP2	3.40	2.67	-0.35	1.3	5.0E-05		MIR30C2	10.34	13.42	0.38	1.3	1.5E-04
NECAB3	6.90	5.43	-0.35	1.3	3.0E-04		KITLG	2.97	3.85	0.37	1.3	5.0E-05
ZNF853	3.79	2.99	-0.35	1.3	5.0E-05		NLN	4.87	6.32	0.37	1.3	5.0E-05
RNF126	19.82	15.61	-0.35	1.3	5.0E-05		C19orf33	157.30	203.93	0.37	1.3	9.0E-04
LPPR2	8.95	7.05	-0.34	1.3	5.0E-05		GSTM1	3.53	4.58	0.37	1.3	2.4E-03
SHC3	2.08	1.64	-0.34	1.3	3.0E-04		ESCO2	0.81	1.05	0.37	1.3	7.7E-03
SLPI	659.22	519.05	-0.34	1.3	5.0E-05		ZNF202	2.85	3.69	0.37	1.3	5.0E-05
SLC10A7	5.12	4.03	-0.34	1.3	5.0E-05		RBM3	94.20	121.98	0.37	1.3	5.0E-05
NCKAP5	1.00	0.79	-0.34	1.3	5.0E-03		HMGB3	11.06	14.32	0.37	1.3	5.0E-05
TNKS	11.19	8.81	-0.34	1.3	1.0E-04		CREBL2	8.98	11.62	0.37	1.3	5.0E-05
C11orf68	11.17	8.79	-0.34	1.3	5.0E-05		TSPAN9	15.50	20.06	0.37	1.3	5.0E-05
PRKCA	18.22	14.35	-0.34	1.3	5.0E-05		PLOD2	56.65	73.31	0.37	1.3	5.0E-05
ELK1	15.82	12.46	-0.34	1.3	5.0E-05		ZMAT1	1.40	1.82	0.37	1.3	5.0E-05
MLKL	8.87	6.99	-0.34	1.3	5.0E-05		C4orf52	17.86	23.10	0.37	1.3	5.0E-05
FUT6	3.57	2.81	-0.34	1.3	6.0E-04		TMEM48	7.45	9.64	0.37	1.3	5.0E-05
MOGS	39.69	31.28	-0.34	1.3	1.1E-03		COPZ2	6.11	7.90	0.37	1.3	1.1E-03
C9orf91	8.05	6.34	-0.34	1.3	5.0E-05		CKS1B	36.05	46.62	0.37	1.3	5.0E-05
CCDC59	13.18	10.39	-0.34	1.3	5.0E-05		TCEA2	10.93	14.13	0.37	1.3	5.0E-05
SLC25A44	11.41	8.99	-0.34	1.3	5.0E-05		MTHFSD	6.34	8.20	0.37	1.3	3.2E-03
RNASSET2	201.18	158.66	-0.34	1.3	5.0E-05		XRCC2	1.12	1.44	0.37	1.3	3.1E-03
MB21D2	4.58	3.62	-0.34	1.3	5.0E-05		HIRIP3	2.46	3.18	0.37	1.3	1.0E-04
FBXL15	3.01	2.37	-0.34	1.3	4.5E-03		FARS2	3.87	5.00	0.37	1.3	1.0E-04
DAAM2	2.33	1.84	-0.34	1.3	1.4E-03		LRRC23	4.40	5.69	0.37	1.3	3.5E-04
TTC29	4.59	3.62	-0.34	1.3	3.0E-04		RPA3	5.86	7.56	0.37	1.3	1.0E-03
FGF12	0.82	0.65	-0.34	1.3	2.4E-03		ANKRD2	3.49	4.50	0.37	1.3	8.4E-03
SEMA3F	20.04	15.82	-0.34	1.3	1.0E-04		CDK6	15.70	20.27	0.37	1.3	5.0E-05
PKD1P1	19.88	15.69	-0.34	1.3	2.7E-03		CADM4	4.36	5.63	0.37	1.3	5.0E-05
LOC100294145	5.92	4.68	-0.34	1.3	5.0E-05		GPRIN2	4.60	5.94	0.37	1.3	2.5E-04
RND3	74.84	59.08	-0.34	1.3	1.0E-04		WSB1	110.21	142.21	0.37	1.3	2.5E-04
NUB1	44.60	35.22	-0.34	1.3	2.5E-04		RNF165	3.37	4.35	0.37	1.3	5.0E-05
ATP6V0B	101.08	79.85	-0.34	1.3	5.0E-05		PERP	31.11	40.13	0.37	1.3	5.0E-05
ATG16L1	18.44	14.57	-0.34	1.3	1.0E-04		TMCO3	40.12	51.72	0.37	1.3	5.0E-05
DRG1	33.17	26.20	-0.34	1.3	1.0E-04		KHNYN	15.32	19.75	0.37	1.3	2.5E-04
PARD6B	8.65	6.84	-0.34	1.3	5.0E-05		TNFRSF21	17.23	22.21	0.37	1.3	5.0E-05
CNNM3	5.55	4.39	-0.34	1.3	5.0E-05		PDE9A	7.11	9.17	0.37	1.3	5.0E-05

TRUB1	15.00	11.86	-0.34	1.3	5.0E-05	ECE1	72.01	92.79	0.37	1.3	5.0E-05
HTT	10.12	8.00	-0.34	1.3	5.0E-05	PPP1R3C	1.97	2.53	0.37	1.3	3.5E-04
ABHD3	12.19	9.64	-0.34	1.3	5.0E-05	KIF22	9.37	12.06	0.37	1.3	5.0E-05
IDO1	12.07	9.55	-0.34	1.3	5.0E-05	SPINK13	10.93	14.08	0.36	1.3	2.2E-03
WDFY3	11.46	9.07	-0.34	1.3	5.0E-05	SMC1A	6.48	8.34	0.36	1.3	5.0E-05
SELK	60.31	47.74	-0.34	1.3	8.5E-04	RCAN3	7.45	9.59	0.36	1.3	5.0E-05
DHDDS	14.80	11.72	-0.34	1.3	1.5E-04	HOMER2	11.33	14.58	0.36	1.3	5.0E-05
NCDN	8.79	6.96	-0.34	1.3	5.0E-05	ZNF347	1.78	2.29	0.36	1.3	5.0E-05
SAMD1	6.69	5.29	-0.34	1.3	3.7E-03	ATAD2	2.66	3.43	0.36	1.3	5.0E-05
DNAJC6	3.95	3.13	-0.34	1.3	5.0E-05	ZC3H6	1.98	2.55	0.36	1.3	5.0E-05
BICC1	92.92	73.60	-0.34	1.3	5.0E-05	E2F7	1.71	2.19	0.36	1.3	5.0E-05
ECE2	8.89	7.04	-0.34	1.3	1.3E-03	FGFRL1	13.67	17.56	0.36	1.3	5.0E-05
CCDC149	10.48	8.30	-0.34	1.3	5.0E-05	C9orf123	8.30	10.66	0.36	1.3	5.0E-05
ABHD8	7.47	5.92	-0.34	1.3	5.0E-05	ZNF284	1.61	2.07	0.36	1.3	1.7E-03
TBC1D19	6.95	5.51	-0.34	1.3	5.0E-05	DLGAP1,DLGAP1-AS1	3.78	4.85	0.36	1.3	8.6E-03
RNF2	7.33	5.81	-0.34	1.3	5.0E-05	AES	72.20	92.71	0.36	1.3	5.0E-05
BCL9	7.30	5.78	-0.34	1.3	5.0E-05	PREPL	9.69	12.44	0.36	1.3	5.0E-05
PROSAPIP1	12.75	10.11	-0.34	1.3	5.0E-05	TAF3	1.92	2.46	0.36	1.3	2.5E-04
ARFGEF2	23.31	18.48	-0.34	1.3	5.0E-05	ZNF28	3.39	4.35	0.36	1.3	5.0E-05
RDX	23.20	18.39	-0.33	1.3	1.5E-04	OGFR	16.22	20.81	0.36	1.3	5.0E-05
CYSTM1	145.53	115.40	-0.33	1.3	1.0E-04	ZNF528	7.29	9.35	0.36	1.3	1.6E-03
GPRC5C	133.71	106.04	-0.33	1.3	1.0E-04	CDH2	31.62	40.58	0.36	1.3	5.0E-05
C12orf57	87.04	69.04	-0.33	1.3	5.0E-05	ATRX	13.16	16.89	0.36	1.3	5.0E-05
WDR60	13.31	10.56	-0.33	1.3	5.0E-05	ZNF549	2.29	2.93	0.36	1.3	5.0E-05
PYGO1	3.94	3.12	-0.33	1.3	2.6E-03	CABLES2	2.76	3.54	0.36	1.3	5.0E-05
SLC35D1	4.97	3.94	-0.33	1.3	5.0E-05	CMTM8	3.86	4.95	0.36	1.3	4.4E-03
GADD45A	49.30	39.12	-0.33	1.3	5.0E-05	PLIN2	15.95	20.46	0.36	1.3	5.0E-05
ATAD2B	3.21	2.55	-0.33	1.3	5.0E-05	EIF3L	122.93	157.59	0.36	1.3	5.0E-05
GNRHR2	7.54	5.98	-0.33	1.3	6.5E-03	TAGLN2	221.97	284.52	0.36	1.3	5.0E-05
GNAI1	32.64	25.91	-0.33	1.3	5.0E-05	ZNF84	4.96	6.35	0.36	1.3	5.0E-05
TRO	2.15	1.71	-0.33	1.3	1.0E-02	TGFBI	149.26	191.16	0.36	1.3	5.0E-05
PIP4K2A	28.77	22.85	-0.33	1.3	5.0E-05	TAF15	46.27	59.24	0.36	1.3	5.0E-05
PIGH	11.00	8.74	-0.33	1.3	2.0E-04	LYRM1	17.20	22.01	0.36	1.3	3.2E-03
DEAF1	13.73	10.91	-0.33	1.3	7.1E-03	ACTR1B	17.44	22.32	0.36	1.3	5.0E-05
COX19	3.37	2.68	-0.33	1.3	5.0E-05	ESRG	8.00	10.23	0.36	1.3	5.0E-05
POLA1	1.89	1.50	-0.33	1.3	5.0E-05	ABCB7	9.83	12.57	0.36	1.3	5.0E-05
TAF1A	2.76	2.19	-0.33	1.3	1.0E-02	KLHDC3	19.26	24.64	0.36	1.3	5.0E-05

IRX3	5.49	4.36	-0.33	1.3	1.5E-04	DUT	11.00	14.07	0.35	1.3	5.0E-05
ASPHD2	2.75	2.18	-0.33	1.3	3.0E-04	ZNF624	1.29	1.65	0.35	1.3	1.5E-04
NPHP4	3.14	2.50	-0.33	1.3	5.0E-05	ATAD5	0.86	1.10	0.35	1.3	6.5E-04
ADAT2	3.35	2.66	-0.33	1.3	5.0E-05	AHNAK2	2.58	3.30	0.35	1.3	5.0E-05
SCLT1	3.70	2.94	-0.33	1.3	5.0E-05	SLC41A3	9.41	12.02	0.35	1.3	5.0E-05
F2RL1	49.99	39.77	-0.33	1.3	5.0E-05	PAFAH1B2	27.42	35.03	0.35	1.3	1.0E-04
MAP3K8	12.74	10.13	-0.33	1.3	5.0E-05	NUDCD3	12.19	15.57	0.35	1.3	3.5E-04
MAP4K2	4.93	3.92	-0.33	1.3	5.0E-05	IL17RD	2.03	2.59	0.35	1.3	5.0E-05
GRAMD3	21.17	16.84	-0.33	1.3	1.5E-04	ALG14	6.63	8.46	0.35	1.3	2.0E-04
FLJ43681	3.37	2.68	-0.33	1.3	8.0E-04	RBM15B	12.58	16.07	0.35	1.3	5.0E-04
PDZD2	6.34	5.04	-0.33	1.3	5.0E-05	THSD7A	2.17	2.77	0.35	1.3	5.0E-05
VWA7	2.20	1.75	-0.33	1.3	1.9E-03	ZNF256	2.25	2.87	0.35	1.3	1.3E-03
C11orf48	38.50	30.66	-0.33	1.3	3.5E-04	C7orf50	27.71	35.36	0.35	1.3	5.0E-05
RPS6KA6	0.68	0.54	-0.33	1.3	1.6E-03	WBP4	5.09	6.50	0.35	1.3	5.0E-05
ZNF81	1.92	1.53	-0.33	1.3	5.0E-05	CXCL1	417.71	532.95	0.35	1.3	5.0E-05
STXBP4	3.07	2.45	-0.33	1.3	5.0E-05	IL1R2	2.96	3.78	0.35	1.3	3.6E-03
PTAR1	11.78	9.39	-0.33	1.3	5.0E-05	ZSCAN30	3.90	4.98	0.35	1.3	9.1E-03
QSOX1	83.51	66.55	-0.33	1.3	5.0E-05	SWI5	12.39	15.81	0.35	1.3	5.0E-05
SLC16A10	8.68	6.92	-0.33	1.3	8.4E-03	NAGA	4.21	5.37	0.35	1.3	5.0E-05
PSPH	45.98	36.66	-0.33	1.3	1.5E-04	MEMO1	14.84	18.93	0.35	1.3	5.0E-05
MLX	15.07	12.02	-0.33	1.3	5.0E-05	USP22	53.82	68.63	0.35	1.3	5.0E-05
APBB2	7.22	5.76	-0.33	1.3	5.0E-05	CLIP1	26.72	34.06	0.35	1.3	5.0E-05
CSRNP1	8.32	6.64	-0.33	1.3	5.0E-05	CFTR	21.54	27.46	0.35	1.3	5.0E-05
NAPEPLD	9.94	7.93	-0.33	1.3	8.4E-03	BRI3BP	2.27	2.89	0.35	1.3	1.0E-04
PYGL	68.31	54.55	-0.32	1.3	5.0E-05	ALG10B	1.73	2.20	0.35	1.3	5.0E-05
MAP9	6.55	5.23	-0.32	1.3	1.5E-04	APITD1,APITD1-CORT,CORT	6.40	8.16	0.35	1.3	5.0E-05
U2SURP	24.01	19.18	-0.32	1.3	1.5E-03	ZNF302	6.91	8.80	0.35	1.3	5.0E-05
ZSWIM8	14.16	11.31	-0.32	1.3	1.2E-03	FAM114A2	6.34	8.08	0.35	1.3	5.0E-05
NSUN5	8.02	6.41	-0.32	1.3	5.0E-05	SLC9A8	4.23	5.38	0.35	1.3	5.0E-05
SEPT6	4.75	3.80	-0.32	1.3	5.0E-05	DOCK4	5.11	6.51	0.35	1.3	5.0E-05
HDAC5	1.34	1.07	-0.32	1.3	1.9E-03	EXO5	2.00	2.55	0.35	1.3	2.3E-03
GAS2L3	9.29	7.43	-0.32	1.3	4.0E-04	NUDT15	11.47	14.60	0.35	1.3	5.0E-05
N4BP3	1.45	1.16	-0.32	1.3	3.0E-04	UIMC1	10.90	13.87	0.35	1.3	5.0E-05
DEPDC5	3.24	2.59	-0.32	1.3	5.0E-05	CLDN1	205.76	261.90	0.35	1.3	5.0E-05
BDH2	12.59	10.06	-0.32	1.3	5.0E-05	ATP8B1	7.61	9.68	0.35	1.3	1.0E-04
PSMG3	23.51	18.80	-0.32	1.3	1.0E-04	HACL1	8.92	11.35	0.35	1.3	5.0E-05
PPAP2B	15.37	12.29	-0.32	1.3	5.0E-05	ZFP28	1.80	2.29	0.35	1.3	2.0E-04

DAGLA	2.98	2.38	-0.32	1.3	5.0E-05	EPHB1	3.33	4.23	0.35	1.3	5.0E-05
GPRC5B	13.06	10.44	-0.32	1.3	5.0E-05	SPNS2	34.18	43.44	0.35	1.3	2.0E-04
ZNFX1	43.70	34.95	-0.32	1.3	5.0E-04	DCP2	4.54	5.77	0.35	1.3	6.5E-04
PARP10	26.37	21.10	-0.32	1.3	5.0E-05	ZNF337	5.18	6.59	0.35	1.3	3.7E-03
HLA-DPB1	1.56	1.25	-0.32	1.3	3.8E-03	SMO	2.38	3.02	0.35	1.3	1.5E-04
						ANG,RNASE4	10.26	13.03	0.35	1.3	1.3E-03
						TRIM59	4.21	5.34	0.34	1.3	5.0E-05
						RBL1	0.82	1.04	0.34	1.3	3.8E-03
						DCUN1D3	5.22	6.62	0.34	1.3	1.1E-02
						CHST15	21.28	27.00	0.34	1.3	2.0E-04
						FRAT2	5.36	6.80	0.34	1.3	5.0E-05
						KIAA1522	37.89	48.04	0.34	1.3	1.1E-02
						ZNF503-AS2	2.06	2.61	0.34	1.3	1.1E-02
						SDK1	6.41	8.13	0.34	1.3	2.5E-04
						HADH	15.16	19.22	0.34	1.3	5.0E-05
						CASP6,PLA2G12A	17.63	22.34	0.34	1.3	2.0E-03
						ATF7IP2	1.34	1.70	0.34	1.3	2.1E-03
						C7orf63	4.26	5.40	0.34	1.3	1.0E-04
						FKBP14	11.28	14.29	0.34	1.3	5.0E-05
						ZSCAN23	2.64	3.35	0.34	1.3	5.0E-05
						HDGFRP2	17.13	21.71	0.34	1.3	5.0E-05
						GALNT2	39.45	49.97	0.34	1.3	5.0E-05
						GPR155	0.92	1.17	0.34	1.3	1.5E-04
						IER5	5.58	7.07	0.34	1.3	5.0E-05
						CDH5	2.29	2.90	0.34	1.3	1.0E-04
						TMEM98	13.25	16.78	0.34	1.3	5.0E-05
						ZNF274	14.72	18.64	0.34	1.3	5.0E-05
						RHOBTB1	3.66	4.63	0.34	1.3	5.0E-05
						UNC45A	18.05	22.86	0.34	1.3	2.5E-04
						ZNF14	1.28	1.63	0.34	1.3	3.9E-03
						FZD4	0.99	1.25	0.34	1.3	1.5E-04
						CRADD	4.02	5.09	0.34	1.3	4.2E-03
						FAM208A	9.00	11.39	0.34	1.3	1.0E-04
						ALDH7A1	10.50	13.29	0.34	1.3	5.0E-05
						ZNF597	1.17	1.48	0.34	1.3	1.8E-03
						NEIL2	4.70	5.94	0.34	1.3	5.0E-05
						METTL6	8.64	10.93	0.34	1.3	3.5E-03
						SF3B2	52.23	66.07	0.34	1.3	5.0E-05

							WNT3	1.48	1.87	0.34	1.3	6.0E-04
							ZYX	85.28	107.84	0.34	1.3	5.0E-05
							LYRM4	13.77	17.41	0.34	1.3	5.0E-05
							GRTP1	4.43	5.60	0.34	1.3	1.8E-03
							SPECC1	17.30	21.87	0.34	1.3	1.5E-04
							FICD	4.95	6.26	0.34	1.3	5.0E-05
							DEPDC1B	7.69	9.71	0.34	1.3	5.0E-05
							C9orf78	14.15	17.87	0.34	1.3	5.0E-05
							SETD7	16.48	20.81	0.34	1.3	5.0E-05
							GREM1	28.70	36.25	0.34	1.3	1.5E-04
							CEP112	2.84	3.59	0.34	1.3	5.0E-05
							ITPR2	2.44	3.08	0.34	1.3	5.0E-05
							MRFAP1L1	21.30	26.90	0.34	1.3	5.0E-05
							WNT7B	3.69	4.66	0.34	1.3	5.0E-05
							IGFBP4	78.19	98.72	0.34	1.3	5.0E-05
							AGBL5	17.23	21.76	0.34	1.3	4.1E-03
							PCSK9	3.95	4.99	0.34	1.3	5.0E-05
							QPCT	63.29	79.88	0.34	1.3	5.0E-05
							AMOTL1	10.04	12.67	0.34	1.3	5.0E-05
							EPB41	11.81	14.91	0.34	1.3	6.0E-04
							WBSCR16	12.09	15.25	0.34	1.3	5.0E-05
							ZFP3	1.49	1.88	0.34	1.3	1.0E-04
							MIR210HG	1.93	2.43	0.33	1.3	3.8E-03
							GNAI2	75.53	95.25	0.33	1.3	5.0E-05
							NIPAL2	5.33	6.72	0.33	1.3	2.0E-04
							HCG11	1.76	2.22	0.33	1.3	5.0E-05
							FSCN1	19.57	24.67	0.33	1.3	5.0E-05
							FAM217B	4.05	5.10	0.33	1.3	2.0E-04
							ZNF714	1.33	1.67	0.33	1.3	5.0E-05
							ZNF322	5.90	7.43	0.33	1.3	5.0E-05
							PTMS	39.35	49.58	0.33	1.3	5.0E-05
							BEAN1	7.27	9.16	0.33	1.3	5.0E-05
							STX2	8.89	11.19	0.33	1.3	5.0E-05
							HABP2	2.78	3.49	0.33	1.3	1.0E-04
							CLIC6	12.43	15.63	0.33	1.3	5.0E-05
							ZNF226	8.19	10.30	0.33	1.3	9.0E-04
							ITGB2	4.96	6.24	0.33	1.3	5.0E-05
							ACO2	31.61	39.74	0.33	1.3	3.3E-03

						PAXBP1	13.19	16.57	0.33	1.3	1.5E-03
						AARS2	3.10	3.89	0.33	1.3	5.0E-05
						PQLC3	4.28	5.38	0.33	1.3	3.0E-04
						PLD2	6.42	8.06	0.33	1.3	5.0E-05
						ATXN1	6.41	8.05	0.33	1.3	1.0E-04
						ITGAV	36.15	45.40	0.33	1.3	5.0E-05
						ZNF329	3.41	4.28	0.33	1.3	5.0E-05
						SDC4	259.04	325.32	0.33	1.3	5.0E-05
						ZNF416	2.11	2.64	0.33	1.3	1.8E-03
						VMP1	82.54	103.64	0.33	1.3	1.0E-04
						NUDT16	6.93	8.70	0.33	1.3	1.8E-03
						PEBP1	72.94	91.54	0.33	1.3	1.0E-04
						PPIP5K2	11.75	14.74	0.33	1.3	1.5E-04
						SMC4	9.26	11.61	0.33	1.3	1.0E-04
						KCTD12	2.15	2.70	0.33	1.3	5.0E-05
						TMEM170B	1.09	1.37	0.33	1.3	5.0E-05
						SNCG	7.39	9.27	0.33	1.3	3.8E-03
						MCM3	8.88	11.13	0.33	1.3	5.0E-05
						FARP1	47.79	59.90	0.33	1.3	4.0E-04
						FAM115A	5.96	7.47	0.33	1.3	5.0E-05
						TRIM45	1.12	1.41	0.33	1.3	5.6E-03
						IGF1R	5.33	6.68	0.33	1.3	1.0E-04
						TBL1X	9.82	12.30	0.33	1.3	1.5E-04
						CHN2	1.24	1.55	0.32	1.3	7.0E-03
						AMT,NICN1	5.90	7.40	0.32	1.3	5.0E-05
						PHPT1	36.87	46.17	0.32	1.3	5.0E-05
						IKBIP	12.45	15.60	0.32	1.3	5.0E-05
						ZSCAN16	4.93	6.18	0.32	1.3	1.5E-03
						CAPN5	3.79	4.75	0.32	1.3	5.0E-05
						FDPS	80.92	101.32	0.32	1.3	1.2E-03
						ANXA7	52.13	65.26	0.32	1.3	5.0E-05
						MAGI3	1.83	2.29	0.32	1.3	5.0E-05
						LOC401320	4.01	5.02	0.32	1.3	5.0E-05
						EPAS1	68.12	85.27	0.32	1.3	1.5E-04
						PEAR1	1.97	2.47	0.32	1.3	1.0E-04
						SH3D19	10.52	13.16	0.32	1.3	2.0E-04
						OSMR	62.39	78.04	0.32	1.3	5.0E-05
						ORC6	3.56	4.45	0.32	1.3	1.0E-03

							HSPA2	3.87	4.84	0.32	1.3	5.0E-05
							SERPINB6	46.11	57.67	0.32	1.3	1.0E-04
							LSM4	28.05	35.09	0.32	1.3	5.0E-05
							TRIM47	4.21	5.26	0.32	1.3	3.5E-04
							PPP1R14B	101.79	127.29	0.32	1.3	1.0E-04
							TCTN1	9.91	12.39	0.32	1.3	1.5E-04
							ERGIC2	18.62	23.28	0.32	1.3	4.4E-03
							CPNE2	9.68	12.10	0.32	1.3	5.0E-05
							IGIP	3.31	4.14	0.32	1.3	5.0E-05
							AAMDC	13.09	16.37	0.32	1.3	1.1E-02

Supplementary Table S V. Statistically over-represented processes, relevant to epididymis epithelial function from DAVID analysis of the 1006 genes repressed by at least 1.3-fold (FPKM \geq 0.3) in PAX2-knockdown versus control caput HEE cells.

	Term	PValue	Genes
1	GO:0060337~type I interferon signaling pathway	3.6E-21	IFITM1, IFITM2, OAS3, RSAD2, OAS1, OAS2, IFI35, ISG20, ISG15, XAF1, MX1, MX2, BST2, HLA-A, SAMHD1, HLA-C, HLA-B, STAT1, HLA-E, PSMB8, HLA-F, STAT2, IFIT3, IFIT2, OASL, IFIT1, IFI27, IRF7, IRF8, IFI6
2	GO:0045071~negative regulation of viral genome replication	2.2E-12	BST2, IFITM1, IFITM2, OAS3, RSAD2, APOBEC3G, OAS1, PARP10, SRPK1, ISG20, PLSCR1, OASL, IFIT1, ISG15, C19ORF66, SLPI, EIF2AK2, MX1
3	GO:0051607~defense response to virus	8.1E-12	IFITM1, IFITM2, F2RL1, OAS3, RSAD2, OAS1, APOBEC3G, IL33, OAS2, ISG20, CXCL10, NLRC5, IL23A, ISG15, C19ORF66, MX1, MX2, POLR3G, IL6, BST2, HERC5, SAMHD1, STAT1, STAT2, IFIT3, PLSCR1, IFIT2, IFIT1, OASL, UNC13D, KCNJ8, IFIT5, EIF2AK2, GBP1
4	GO:0052697~xenobiotic glucuronidation	3.5E-10	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A5, UGT1A4, UGT1A1
5	GO:0060333~interferon-gamma-mediated signaling pathway	1.3E-09	NMI, OAS3, HLA-A, IFI30, OAS1, HLA-C, OAS2, HLA-B, STAT1, HLA-E, HLA-F, B2M, OASL, IRF7, IRF8, CAMK2D, JAK2, HLA-DPB1, PTAFR, GBP1
6	GO:2001030~negative regulation of cellular glucuronidation	6.2E-09	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A4, UGT1A1
7	GO:1904224~negative regulation of glucuronosyltransferase activity	6.2E-09	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A4, UGT1A1
8	GO:0045922~negative regulation of fatty acid metabolic process	2.7E-08	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A4, UGT1A1
9	GO:0009615~response to virus	1.2E-07	IFIH1, IFITM1, BST2, CYP1A1, IFITM2, DUOX2, OAS3, RSAD2, OAS1, OAS2, PIM2, ISG20, DDX58, IFIT3, IFIT2, OASL, IFIT1, MYD88, IRF7, EIF2AK2, MX1, MX2
10	GO:0015020~glucuronosyltransferase activity	7.9E-07	CSGALNACT1, UGT1A7, UGT1A10, UGT1A6, UGT1A9, B3GAT3, UGT1A8, UGT1A3, UGT1A5, UGT1A4, UGT1A1
11	GO:0001972~retinoic acid binding	8.3E-07	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, LRAT, UGT1A3, UGT1A4, CRABP2, UGT1A1
12	GO:0042573~retinoic acid metabolic process	2.0E-06	UGT1A7, ALDH8A1, UGT1A9, UGT1A8, LRAT, UGT1A3, CRABP2, UGT1A1
13	GO:0052695~cellular glucuronidation	6.2E-06	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A4, UGT1A1

14	GO:0052696~flavonoid glucuronidation	6.9E-06	UGT1A7, UGT1A10, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A5, UGT1A4, UGT1A1
15	GO:0002474~antigen processing and presentation of peptide antigen via MHC class I	1.1E-05	ABCB9, SEC31A, TAP2, TAP1, HLA-A, HLA-C, HLA-B, HLA-E, HLA-F, B2M
16	GO:0005524~ATP binding	1.5E-05	KIFC2, RPS6KB1, PRKX, KIFC3, NLRC5, CSNK2A1, WNK4, MAP3K8, MLKL, STK39, MAP2K6, TWF2, STK24, ABCC10, PIM2, MARK3, RENBP, ATP2C1, PI4K2A, ROR2, EIF2AK2, ABCA7, IFIH1, ENPP1, PFKFB4, NEK3, GNE, TDRD9, OAS3, MAP4K2, CTPS1, UBA5, OAS1, OAS2, MAPKAPK2, UHMK1, CMPK2, MOV10, DDX60L, DYRK4, ENTPD3, DYRK3, DHX8, ABCB9, SMCHD1, KIF3A, MYO1C, MYO1D, UBE2L6, AK5, ABCB6, RIMKLB, DDX58, HYOU1, EPHA4, OASL, KCNJ8, DYRK1A, PIP4K2A, CLCN4, DDX52, ATAD2B, HELZ2, ATP10A, DICER1, HELZ, ATP10D, CAD, TTLL7, CKB, WARS, MCM9, NOD1, PAK4, ATP8B2, TRPV4, RTEL1, PRKCA, ABCE1, TRPM6, CDK8, MINK1, PRKCE, SRPK1, NLRP1, PRKD2, STYK1, UBE2M, FARSA, KSR1, PRKD3, UBE2Z, ABCD1, BRSK1, KIF7, PTK2B, TAP2, TAP1, CAMK2D, HSPA5, PAPSS1, NPR1, ACLY, ATP1A1, DGKI, UBE2Q1, RPS6KA5, RPS6KA6, PYGL, ARAF, ATP8A2, JAK2
17	GO:0006955~immune response	2.0E-05	CSF3, TNFRSF6B, CSF2, IL1R1, ENPP1, IFITM2, IL19, MAP4K2, OAS3, OAS1, CX3CL1, OAS2, CXCL11, CXCL10, B2M, CCL20, SEMA7A, IL1B, HLA-DPB1, HLA-DOB, CD7, IL18R1, SECTM1, IL6, IL1RN, HLA-A, SAMHD1, HLA-C, TNFRSF14, HLA-B, CTSS, HLA-E, TINAG, PDCD1LG2, HLA-F, CCR8, TNFSF13B, CD274, IRF8, SLPI, CTSC, IFI6, PTAFR
18	GO:0035456~response to interferon-beta	3.4E-05	PLSCR1, BST2, IFITM1, IFITM2, XAF1, STAT1
19	GO:0002480~antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-independent	3.4E-05	HLA-A, HLA-C, HLA-B, HLA-E, HLA-F, B2M
20	GO:0020037~heme binding	5.3E-05	CYP3A5, CYP3A7, CYP2J2, CYP1A1, CYP2B6, FA2H, CYP2S1, DUOX2, CYP4F11, IDO1, CYB5B, ABCB6, AMBP, NR1D1, CYP27A1, KLKB1, GUCY1A3, GUCY1B3, JAK2, CYP4F3
21	GO:0035455~response to interferon-alpha	6.6E-05	LAMP3, BST2, IFITM1, IFITM2, EIF2AK2, MX2
22	GO:0051552~flavone metabolic process	8.9E-05	UGT1A7, UGT1A10, UGT1A9, UGT1A8, UGT1A1
23	GO:0042612~MHC class I protein complex	1.0E-04	HLA-A, HLA-C, HLA-B, HLA-E, HLA-F, B2M
24	GO:0019899~enzyme binding	3.3E-04	CSF3, ABCD1, EGLN1, CAD, UGT1A7, UGT1A6, UGT1A9, BLZF1, ANK1, UGT1A8, GSTM4, UGT1A3, ANK2, UGT1A4, SCNM1, HSPA5, SCARB2, PRKCA, CYP1A1, TNFAIP8L2-SCNM1, PRKCE, STAT1,

			UGT1A1, SIRT1, LGALS9, NLRP1, UGT1A10, PLSCR1, PLSCR4, SLPI, ZNHIT6, CPSF1, GBP1
25	GO:0009813~flavonoid biosynthetic process	3.4E-04	UGT1A7, UGT1A10, UGT1A6, UGT1A3, UGT1A5, UGT1A4, UGT1A1
26	GO:0006954~inflammatory response	4.2E-04	TNFRSF6B, C3AR1, NMI, ZNF580, F2RL1, IL19, TAC1, MAPKAPK2, CXCL11, CXCL10, S1PR3, NOD1, MYD88, IL23A, CCL20, SEMA7A, IL1B, NR1H4, BLNK, SCG2, HAVCR2, NFKBIZ, IL6, GBP5, CYP4F11, TNFRSF14, PTGFR, NLRP1, LGALS9, CHST1, RPS6KA5, HDAC5, TNFAIP6, APOL3, THEMIS2, PTAFR
27	GO:0016020~membrane	4.4E-04	SLC22A18, QPCTL, SNCA, RRAD, RCE1, JAG1, ZNRF1, RNF213, B2M, DAB1, ST3GAL4, WNK4, SLC2A2, SEMA7A, FNDC3A, FRS2, GBP5, BST2, CMAS, STK24, MTA2, UGCG, LRRC1, HLA-A, HLA-C, HLA-B, MOGS, HLA-E, PNPLA6, HLA-F, CD38, UNC13D, ATP2C1, ASPHD2, PI4K2A, NEU1, BTN3A3, EIF2AK2, EMP3, XRN1, BTN3A2, ARL6IP1, IL1R1, IFITM1, ENPP4, PNPT1, CTPS1, ACP2, NAPA, OAS2, ARFGF2, CAPZB, IL12RB2, NPHP4, LGALS3BP, RAC2, PPP1R3F, HLA-DPB1, SCARB2, SLC30A7, PTPN6, MYO1C, MRC2, SLCO2B1, HYOU1, APOL3, OASL, ATP6V0E2, B3GAT3, LAMP3, PARP9, DDX52, KCNJ15, CYB5R2, SLC15A1, HELZ2, EDC4, HELZ, EPS15L1, CAD, CHPF2, SPRY4, DNAJC13, PTGES, HPSE, CHST12, PIK3AP1, DENND5B, SLC1A1, AGAP3, CEACAM1, DPP4, ABCE1, FLOT1, CYB5B, LMBRD2, TMEM38B, SLC26A6, TNFSF13B, KHSRP, CTSC, FARSA, KSR1, CPSF2, SEC23B, PTAFR, KRT6A, RAP1GAP, ABCD1, FUT6, GDAP1, BET1, CDKAL1, HECA, RAB42, TUBGCP6, DHCR7, TAP2, TAP1, CAMK2D, HSPA5, APBA1, PSTPIP2, CD7, CNNM3, NCDN, NLGN2, ATP1A1, ACLY, DRG1, CPT1A, TMPRSS4, SLC16A3, PEX11B, PLSCR1, SLC6A9, ITPRIPL1, SLC16A6, SLC17A1, JAK2, APBB2, SLC15A3
28	GO:0001730~2'-5'-oligoadenylate synthetase activity	4.8E-04	OASL, OAS3, OAS1, OAS2
29	GO:0016324~apical plasma membrane	5.4E-04	ABCA7, SLC22A18, CLDN4, DUOX2, RDX, JAG1, ENPEP, AQP1, SLC52A3, NOD1, ANK2, SLC2A2, TRPV4, STK39, SLC1A1, MUC13, CEACAM1, DPP4, KCNE4, PARD6B, TRPM6, BST2, FLOT1, ATP1A1, SLCO2B1, SLC26A6, CD34, PDZK1, SLC46A1
30	GO:0045087~innate immune response	5.7E-04	TNFAIP8L2, IFIH1, F2RL1, MAP4K2, TRIM14, TAC1, APOBEC3G, SIRPB1, B2M, NLRC5, IL23A, MYD88, NOD1, FGA, PTK2B, FGB, MX1, MX2, NR1H4, ZBP1, HAVCR2, POLR3G, F12, BST2, NCF2, HERC5, HLA-C, SERPING1, HLA-B, HLA-E, NLRP1, SRPK1, DDX58, STYK1, IRF7, IFIT5, SLPI, JAK2, EIF2AK2

31	GO:0004672~protein kinase activity	6.0E-04	NEK3, MAP4K2, RPS6KB1, CAD, BRSK1, MAPKAPK2, CSNK2A1, WNK4, PAK4, MAP3K8, DYRK4, DYRK3, STK39, MLKL, MAP2K6, PRKCA, STK24, CDK8, NPR1, MINK1, PIM2, PRKCE, SRPK1, RPS6KA5, RPS6KA6, PRKD2, EPHA4, STYK1, DYRK1A, ARAF, ROR2, JAK2, EIF2AK2, KSR1
32	GO:0032496~response to lipopolysaccharide	6.2E-04	TNFRSF6B, CYP1A1, SNCA, TAC1, TNFRSF14, RPS6KB1, IDO1, MAPKAPK2, DCN, CXCL11, PTGFR, UGT1A1, LGALS9, CXCL10, IL12RB2, PTGES, KCNJ8, SLPI, JAK2, CASP1
33	GO:0005615~extracellular space	7.2E-04	MASP1, FAM3B, SNCA, IL19, ANPEP, GGT1, FGF12, VGF, CXCL11, IL11, CXCL10, B2M, CKB, KRT81, AZGP1, METRN, WISP1, DMXL2, SERPINE2, HIST1H2BK, SEMA7A, PPP1R1A, SEMA3F, SERPINE1, IL1B, SEMA3A, TGS1, EBI3, MUC13, GHR, F12, EGFL7, ARTN, SERPING1, PIGR, CTSS, TCN2, AMBP, PTHLH, TNFAIP6, AMH, TNFSF13B, HIST2H2BE, SERPINB7, CPXM1, SLPI, CTSC, ADAMTS3, TG, CSF3, TNFRSF6B, CSF2, ENPP1, LUM, OAS3, WDR60, TAC1, RDX, CX3CL1, DCN, IL33, GPRC5B, TIMP2, PRSS8, MOV10, LGALS3BP, CCL20, FGA, FGB, RNASET2, KLKB1, AGT, MRPL18, EGF, FGFBP1, QSOX1, SCG2, ANGPTL4, SECTM1, IL6, IL1RN, PPFIBP2, NLGN2, TINAG, LGALS9, TSLP, COL14A1, EPGN, ACE2, LIPC, GDF15, SST, CHR2
34	GO:0031115~negative regulation of microtubule polymerization	1.1E-03	EML2, INPP5J, SNCA, CLIP3, CAPZB
35	GO:0015833~peptide transport	1.2E-03	ABCB9, DISP1, TAP1, SLC15A3
36	GO:0000139~Golgi membrane	1.4E-03	ABCA7, SEC31A, RAP1GAP, QPCTL, FUT6, BET1, MAP4K2, NAPA, CHPF2, ARFGEF2, B2M, ST6GALNAC5, BLZF1, ECE2, ST3GAL2, ST6GALNAC4, ST3GAL5, GNPTAB, ST3GAL4, CHST12, B3GNT7, TNKS, HLA-DPB1, FNDC3A, MBTPS2, GBP5, UGCG, HLA-A, HACE1, HLA-C, HLA-B, FZD5, HLA-E, ABCB6, CHST1, HLA-F, CSGALNACT1, PJA2, RND3, B3GAT3, CNIH3, ATP2C1, ATP8A2, CTSC, GBP4, SEC23B, GBP1
37	GO:0032729~positive regulation of interferon-gamma production	1.9E-03	HAVCR2, IL12RB2, IL18R1, IL23A, IRF8, HLA-A, IL1B, HLA-DPB1, FZD5

38	GO:0001525~angiogenesis	2.1E-03	PRKCA, FZD8, EGFL7, ANPEP, RORA, ENPEP, JAG1, FZD5, ARHGAP24, SIRT1, RNF213, PRKX, PNPLA6, WARS, PRKD2, TYMP, EPGN, PTK2B, SERPINE1, EGF, CEACAM1, ANGPTL4, SCG2
39	GO:0030670~phagocytic vesicle membrane	2.2E-03	ATP6V0E2, RAC2, HLA-A, HLA-C, HLA-B, HLA-E, RAB20, ATP6V0B, HLA-F, B2M
40	GO:0042605~peptide antigen binding	2.3E-03	TAP1, HLA-A, HLA-C, HLA-B, HLA-DPB1, HLA-E, HLA-F
41	GO:0035556~intracellular signal transduction	2.4E-03	MAP4K2, DCDC2B, BRSK1, ARFGEF2, PRKAR2B, NOD1, GMIP, STAC, RAC3, WNK4, PPP1R1A, GUCY1A3, SH2B3, STK39, SCG2, BLNK, PRKCA, PTPN6, SOCS2, MINK1, NPR1, DCDC2, DGKI, PRKCE, SRPK1, DEPDC5, RPS6KA5, PRKD2, WSB2, ARAF, JAK2, GUCY1B3, APBB2, KSR1, PRKD3
42	GO:0005515~protein binding	2.8E-03	MEF2A, MASP1, PPP2R5B, LDHD, RORC, RORA, MED21, B2M, KIFC3, ISG15, SERPINE2, INTS7, PPP1R1A, MAP3K8, SERPINE1, MED27, FAM150B, CCNA1, TMEM14C, MAP2K6, CDCA4, H1F0, DDRGK1, GBP5, NCF2, CYP1A1, PTPRH, RCOR1, DCDC2, SERPING1, MARK3, UNC13D, ROR2, ADAMTS3, ZNHIT6, EIF2AK2, TNFRSF6B, DCBLD2, IL1R1, RTP4, GNAI1, RHPN1, WDR60, UBA5, ARFGEF2, ALCAM, FOXH1, NPHP4, IL23A, PROCR, ATN1, RAC3, KLKB1, TNKS, C19ORF25, TCF4, NTHL1, DHX8, KIF3A, IL1RN, UBE2L6, C16ORF87, PARP9, MAP2, ZNF114, SYTL1, GAS2L3, TAF1A, HNF1A, U2SURP, ATP10A, ATP10D, CDR2L, SIRPB1, USP18, NOD1, TRPV4, USP11, GUCY1A3, FBXL15, CCDC28A, DPP4, CEACAM1, CCDC28B, GHR, NFKBIZ, BATF2, TTC37, MXD1, SRPK1, FAM167A, IGFN1, DOK3, GUCY1B3, KSR1, RASD1, CSF2, POLA1, ABI2, RTKN, NECAB3, NECAB2, ZNF169, DAPP1, CCL20, PTK2B, DISP1, C19ORF66, DAZL, ARMCX1, MT1H, ZBP1, KCNE4, IL6, NUB1, ACLY, DGKI, TMPRSS4, RPS6KA5, FEM1C, PLSCR1, PLSCR4, ARAF, ZNF460, RNF19B, MTSS1, XPO4, ZNF580, RRAD, RPS6KB1, JAG1, CXCL11, CXCL10, IL11, PRKAR2B, AZGP1, NLRC5, IMP3, EIF4EBP2, ANK1, CSNK2A1, DAB1, ANK2, CTDSP1, STK39, FRS2, EBI3, TWF2, BST2, CHAC1, NCALD, STK24, MTA2, HLA-A, HHEX, TNFAIP6, XRN1, SLC40A1, PTRH1, IFITM1, DCDC2B, CX3CL1, IL33, MAPKAPK2, TIMP2, RABGGTB, ECE2, AMER1, FGA, FGB, DYRK4, TMEM30B, PPIL3, EGF, ANGPTL4, ABCB9, DHDDS, MYO1C, SYT11, MRC2, ACMSD, ARID3B, HACE1, DDX58, HDAC5, CDKN1C, CDKN1A, B3GAT3, DYRK1A, TDG, DNAJB2, CYB5R2, CYP2S1, OGDHL, DICER1, EDC4, PAX2, SPRY4, RAB3IP, WARS, YOD1, CASP1, SLC1A1, RTEL1, PPP2R1B, TBL1XR1, TRPM6, RAB3IL1, CDK8, LRP2BP, STXBP4, MID1IP1, TNFSF13B, PPM1K,

			<p>ZFYVE26, MAPRE3, CPSF2, CPSF1, SEC23B, PHLPP2, NR3C2, EGLN1, RDX, DCN, GRAMD3, CDKAL1, PIPOX, PRSS8, NGLY1, RNF126, TMED5, KIF7, INPP5J, DNER, ADAT2, SH2B3, MYCBP, HSPA5, WDFY3, CEBPA, CNM3, WDFY1, NCDN, CEP192, SAMHD1, DRG1, UBE2Q1, AVPI1, IFIT3, PEX11B, IFIT2, IFIT1, AMDHD2, ACE2, JAK2, GDF15, THEMIS2, PRR16, SEC31A, SNCA, HIRA, LPAR2, GGT1, AQP1, ZNRF1, PRKX, MVB12A, HOOK1, BAK1, S1PR3, MYD88, STAC, SEMA7A, PLOD3, WNK4, F12, STRN3, PARP10, PIM2, HES1, DCLRE1C, RND3, KRT15, DEAF1, NEK3, ENPP1, ALDOC, OAS3, IFI30, OAS1, OAS2, UHMK1, IFI35, MOV10, CRMP1, FBXO6, NUP54, NR1H4, BLNK, TSEN54, HOMER1, EPHA4, NUP62, MLX, CSRNP1, RNF2, POMP, PDZK1, ANKRD36BP1, CRYM, KCNJ15, MITF, MITD1, CKB, TRIAP1, BLZF1, GOLGA7, AGPAT5, C4ORF33, DNAJC13, ATG2A, CCNY, ABCE1, FLOT1, HERC5, RPH3AL, CYB5B, AMBP, SENP2, STYK1, FARSA, TBX18, GADD45A, MON1A, THAP7, ETV7, NMI, RAP1GAP, ABCD1, BET1, NEO1, FAM46A, ZFP36L2, NR1D1, GNPTAB, TOE1, CD177, AGT, SEPSECS, APBA1, BCL9, IL18R1, FZD8, DLGAP1, ATP1A1, STAT1, FZD5, SNAI1, STAT2, SLC16A3, PYGL, SAMD9, PBX1, APBB2, THRA, PLXNA2, FGF14, CCDC85B, CRABP2, F2RL1, APOBEC3G, FGF12, TBC1D19, KRT81, GSTM4, MLKL, MX1, TGS1, RBM11, MX2, KRTAP2-3, SOCS2, TNFRSF14, SP140, PI4K2A, PYGO1, SNRPC, CLIP3, EMP3, GBP1, CEP97, ARL6IP1, TNFAIP8L2, IFIH1, IL22RA1, SSH1, GNE, PNPT1, MAP4K2, ELK1, NAPA, KCNS1, GMIP, TRIM69, CDYL2, TRO, ENTPD3, UBAP2L, NDRG1, SCARB2, MFAP3L, HAVCR2, PTPN6, PARD6B, SETDB2, HTT, PSMB8, PSMB9, SLAIN2, CD274, KCTD17, RFX3, ATG16L1, CHR1, TBC1D20, IFI6, HELZ2, TLN2, EPS15L1, PDCD4, PCGF2, TMEM171, HPSE, PAK4, CNTNAP1, SHC3, FAM83G, C11ORF68, PRKCA, MINK1, ARHGAP24, PRKCE, NLRP1, EML2, PRKD2, CD82, UBE2M, KHSRP, SLPI, CTSC, PRKD3, KRT6A, UBE2Z, ZC4H2, LUM, RSAD2, NCKAP5L, CCDC59, NPAS2, RASGRP3, TAP2, TAP1, NUDT21, TGM1, CAMK2D, SCG5, SCN11, NEFL, MYOF, FGFBP1, SCO2, SCG2, DTX3, SIRT1, ITPRIPL1, IRF7, IRF8, PSPC1, SH3BP1, LIPE, NTM</p>
43	GO:0043202~lysosomal lumen	2.9E-03	<p>NAGLU, HPSE, LUM, LGMN, RNASET2, IFI30, NEU1, ACP2, SCARB2, DCN, CTSS, TCN2</p>

44	GO:0042493~response to drug	3.2E-03	SNCA, HMGCS1, CTPS1, RPS6KB1, SMTNL1, AQP1, TIMP2, B2M, BAK1, DAB1, PTK2B, CCNO, MAP2K6, IL6, CYP1A1, RPH3AL, ATP1A1, NDUFA10, STAT1, UGT1A1, CPT1A, KCNK3, HDAC5, CD38, AMH, CDKN1A, CA9, SST
45	GO:0001916~positive regulation of T cell mediated cytotoxicity	3.2E-03	IL23A, HLA-A, HLA-B, HLA-E, B2M
46	GO:0016758~transferase activity, transferring hexosyl groups	3.3E-03	UGT1A7, UGT1A6, UGT1A9, UGT1A8, UGT1A3, UGT1A4, UGT1A1
47	GO:0042730~fibrinolysis	3.3E-03	F12, FGA, FGB, KLKB1, SERPINE1, SERPING1
48	GO:0012507~ER to Golgi transport vesicle membrane	3.6E-03	SEC31A, CNIH3, HLA-A, HLA-C, HLA-B, HLA-DPB1, HLA-E, HLA-F, B2M
49	GO:0005764~lysosome	3.8E-03	NAGLU, ABCB9, SYT11, LGMN, SNCA, IFI30, IL4I1, ACP2, CTSS, ZNRF1, PAX2, TINAG, DEPDC5, UNC13D, HPSE, CD34, RNASET2, IL1B, NEU1, CTSC, SCARB2, HLA-DOB
50	GO:0019885~antigen processing and presentation of endogenous peptide antigen via MHC class I	3.8E-03	TAP2, TAP1, HLA-A, B2M
51	GO:0002481~antigen processing and presentation of exogenous protein antigen via MHC class Ib, TAP-dependent	3.8E-03	ABCB9, TAP2, TAP1, B2M
52	GO:0030334~regulation of cell migration	3.9E-03	DDX58, PARD6B, LAMA3, SERPINE2, PLXNA2, HACE1, MINK1, JAG1, SST, CEACAM1, PRKX
53	GO:0050727~regulation of inflammatory response	4.1E-03	IL1R1, MYD88, SEMA7A, ACE2, STK39, PIK3AP1, GGT1, JAK2, CASP1, NLRP1
54	GO:0005765~lysosomal membrane	4.4E-03	ABCB9, ENPP1, GNAI1, FLOT1, ABCC10, ACP2, ANPEP, ENPEP, SLC26A11, DEPDC5, LAMP3, DNAJC13, HPSE, ZFYVE26, PI4K2A, NEU1, MCOLN1, HLA-DPB1, MFSD12, SCARB2, EGF, SLC15A3, HLA-DOB, DPP4, VPS39
55	GO:0071222~cellular response to lipopolysaccharide	4.5E-03	HAVCR2, CSF3, CSF2, IL6, CMPK2, B2M, CXCL10, HDAC5, NR1D1, CCL20, PLSCR4, SERPINE1, IRF8, NR1H4
56	GO:0070555~response to interleukin-1	5.6E-03	PRKCA, CD38, IL1R1, MYD88, SNCA, LGALS9, GHR

57	GO:0005829~cytosol	5.8E-03	ALDH8A1, GDA, SEC31A, PPP2R5B, SNCA, ZNRF1, RNF213, MVB12A, HOOK1, BAK1, MYD88, ISG15, STAC, SERPINE2, WNK4, MAP3K8, CCNA1, MUC13, MAP2K6, NCF2, MARK3, DEPDC5, EIF2AK2, RBP1, PFKFB4, RHPN1, ALDOC, OAS3, HMGCs1, OAS1, UBA5, OAS2, ARFGEF2, CAPZB, IFI35, NPHP4, MOV10, RAC2, CRMP1, RAC3, FBXO6, TNKS, BLNK, GPD1, KIF3A, UBE2L6, OASL, PARP9, POMP, ANPEP, CKB, USP18, NOD1, PIK3AP1, COX19, HERC5, GMPR, FARSA, KSR1, RAP1GAP, ABCD1, ABI2, RTKN, ZFP36L2, DAPP1, PTK2B, SEPSECS, PAPSS1, APBA1, ZBP1, POLR3G, DFNA5, BAIAP2L2, NAT1, ACLY, DGKI, STAT1, STAT2, PLSCR1, RPS6KA6, PYGL, ARAF, RNF19B, THRA, CRABP2, RPS6KB1, APOBEC3G, PRKAR2B, NLRC5, ANK1, DAB1, GSTM4, CSNK2A1, ANK2, DNAJC6, IL1B, MLKL, STK39, TGS1, MX1, FNDC3A, MX2, SOCS2, CMAS, NCALD, STK24, CHAC1, RENBP, PI4K2A, PDE5A, CLIP3, XRN1, GBP1, CEP97, ARL6IP1, IFIH1, GNE, CTPS1, NAPA, MAPKAPK2, CMPK2, AMER1, GMIP, TRIM69, NDRG1, PARD6B, PTPN6, MYO1C, HTT, MYO1D, ACMSD, AK5, PSMB8, PSMB9, DDX58, CDKN1A, CAMKMT, DNAJB2, SYNGAP1, PIP4K2A, ATG16L1, DICER1, OGDHL, EDC4, CAD, PSPH, PDCD4, RAB3IP, GSR, WARS, YOD1, CASP1, SHC3, FAM83G, PRKCA, ARHGAP28, MINK1, MID1IP1, PRKCE, ARHGAP24, NLRP1, PADI1, UBE2M, KHSRP, PHLPP2, EGLN1, NGLY1, RNF126, TSC22D3, TYMP, TUBGCP6, NPAS2, INPP5J, CAMK2D, SH2B3, BDH2, XAF1, NEFL, PSTPIP2, SCLT1, WDFY1, NCDN, CEP192, IDO1, UBE2Q1, IFIT3, IFIT2, IFIT1, AMDHD2, IRF7, IRF8, JAK2, LIPE
58	GO:2000650~negative regulation of sodium ion transmembrane transporter activity	5.9E-03	AGT, CAMK2D, STK39, PRKCE
59	GO:0055085~transmembrane transport	6.1E-03	MFSD7, ABCA7, ABCE1, ABCB9, SLC22A18, SLC16A10, ABCD1, SLC10A7, ABCC10, MFSD2A, SLC10A3, ABCB6, AZGP1, SLC16A6, SLC17A1, TAP2, SLC25A22, TAP1, SLC5A9, SLC25A44, SV2A, SLC15A3, SLC46A1
60	GO:0034341~response to interferon-gamma	6.2E-03	BST2, IFITM1, NUB1, IFITM2, C19ORF66, SNCA
61	GO:0008093~cytoskeletal adaptor activity	7.0E-03	ANK1, BAIAP2L2, ANK2, ABI2, GAS2L1
62	GO:0010613~positive regulation of cardiac muscle hypertrophy	7.2E-03	PRKCA, MEF2A, AGT, PDE5A, CAMK2D

63	GO:0016705~oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen	7.2E-03	CYP3A5, CYP2J2, CYP27A1, CYP2B6, KLKB1, CYP2S1, CYP4F11, EGLN1, CYP4F3
64	GO:0015440~peptide-transporting ATPase activity	7.3E-03	ABCB9, TAP2, TAP1
65	GO:0046977~TAP binding	7.3E-03	HLA-A, HLA-C, HLA-B
66	GO:0015197~peptide transporter activity	7.3E-03	DISP1, TAP2, TAP1
67	GO:0002486~antigen processing and presentation of endogenous peptide antigen via MHC class I via ER pathway, TAP-independent	7.4E-03	HLA-A, HLA-C, HLA-B
68	GO:0009311~oligosaccharide metabolic process	7.4E-03	ST6GALNAC5, ST6GALNAC4, ST3GAL2, ST3GAL5, ST3GAL4, MOGS
69	GO:0008395~steroid hydroxylase activity	8.5E-03	CYP2J2, CYP3A7, CYP1A1, CYP27A1, CYP2B6, CYP2S1
70	GO:0005789~endoplasmic reticulum membrane	9.0E-03	CYP3A5, SEC31A, CYB5R2, CYP2J2, CYP3A7, CYP2S1, ATP10A, RCE1, MFSD2A, ATP10D, AGPAT5, SLC35D1, PTGES, PIGH, PLOD3, ATP8B2, MX1, DDRGK1, CYP1A1, SPTLC3, FA2H, MOGS, UGT1A1, PNPLA6, PJA2, UGT1A10, LRAT, KSR1, SEC23B, ARL6IP1, HSD17B2, CYP2B6, NR3C2, BET1, ABHD4, RSAD2, CDKAL1, NECAB3, EXTL2, UGT1A7, UGT1A6, TMEM129, UGT1A9, UGT1A8, TMED5, UGT1A3, DHCR7, TAP2, UGT1A4, TAP1, HSPA5, DHDDS, CYP4F11, ABCB6, RDH10, CNIH3, CYP4F3, TBC1D20, SSR3
71	GO:0070330~aromatase activity	1.0E-02	CYP3A5, CYP2J2, CYP3A7, CYP1A1, CYP2B6, CYP2S1
72	GO:0031090~organelle membrane	1.0E-02	CYP3A5, RDH10, CYP2J2, CYP3A7, CYP1A1, CYP2B6, FA2H, CYP2S1, POMP, CYP4F11, CYP4F3
73	GO:0042102~positive regulation of T cell proliferation	1.0E-02	HAVCR2, HES1, IL6, IL23A, TNFSF13B, CD274, IL1B, HLA-DPB1, PDCD1LG2
74	GO:0015721~bile acid and bile salt transport	1.0E-02	HNF1A, SLC51B, SLCO2B1, SLC10A3, CEACAM1, NR1H4
75	GO:0017144~drug metabolic process	1.0E-02	UGT1A7, UGT1A8, CYP1A1, CYP2B6, CAD, UGT1A1
76	GO:0050830~defense response to Gram-positive bacterium	1.0E-02	HAVCR2, IL6, NOD1, MYD88, HIST1H2BK, HIST2H2BE, HLA-A, TAC1, TNFRSF14, HLA-E, B2M