

Table S2

Regulator	Expression Log Ratio	Predicted on State		Activation z-Score	-log10 B-H Corrected p-Value
Immunoglobulin		complex		-0.154	21.99
IL2		cytokine	Activated	2.488	20.96
IL4		cytokine		1.385	19.26
TNF		cytokine		0.872	19.16
Interferon alpha		group		-1.908	18.95
IL1B		cytokine		-1.07	18.06
IL21	-2.827	cytokine		-1.378	17.84
IFNG	2.033	cytokine		0.535	17.33
STAT1		transcription regulator		-1.132	16.51
IL12 (complex)		complex		0.498	16.10
TGFB1		growth factor		-1.03	15.51
STAT3		transcription regulator		-0.989	15.08
NFATC2		transcription regulator		-1.019	14.02
Ige		complex		1.65	13.98
IFNB1		cytokine		-0.182	13.28
MAPK1		kinase		1.422	13.21
STAT2		transcription regulator		-1.563	13.21
IFNAR1		transmembrane receptor		-1.011	13.21
SOCS1		other		0.958	13.19
TBK1		kinase		0.25	13.12
IL6		cytokine	Inhibited	-2.24	12.98
DNASE2		enzyme		1.432	12.98
IL12 (family)		group		-0.221	12.74
Ifnar		group		-0.491	12.52
CREBBP		transcription regulator		-1.342	11.97
IRF7	-1.544	transcription regulator	Inhibited	-2.305	11.53
MAVS		other	Inhibited	-2.072	11.52
TREX1		enzyme	Activated	2.171	11.52
TCF3		transcription regulator		0.311	10.91
STING1		other		-0.822	10.83
IL7		cytokine		1.254	10.78
TLR9		transmembrane receptor		-0.087	10.74
IFNA2		cytokine		-1.834	10.72
EP300		transcription regulator		-0.64	10.64
DUSP1		phosphatase		0.305	10.62

Tcf7		transcription regulator		0.164	10.55
ZBTB10		transcription regulator		0.453	10.36
Irgm1		other		1.261	10.30
PRDM1		transcription regulator		0.071	10.20
CD3		complex		0.888	10.14
DUSP11		phosphatase	Activated	2.975	10.07
IFN Beta		group		-1.642	9.81
ID3		transcription regulator		1.117	9.70
SMARCA5		transcription regulator		-0.232	9.70
ID2		transcription regulator		1.117	9.69
SIRT1		transcription regulator		0.417	9.59
TRIM24		transcription regulator		1.922	9.47
IRF3		transcription regulator	Inhibited	-2.406	9.37
IL15		cytokine		0.543	9.19
ACKR2		G-protein coupled receptor	Activated	2.111	9.19
Ttc39aos1		other	Activated	2.833	9.16
IRF8	1.182	transcription regulator		-0.284	9.02
KDM1A		enzyme			8.97
TICAM1		other		-0.393	8.94
IFIH1		enzyme	Inhibited	-2.032	8.92
STAT4		transcription regulator		-1.145	8.86
IRF9		transcription regulator		-1.212	8.84
IL27		cytokine		-0.036	8.84
IL18	2.095	cytokine		1.311	8.82
APP		other		-0.159	8.78
mir-142		microRNA		-1.012	8.75
MAPT		other		-0.391	8.75
STAT6		transcription regulator		0.48	8.54
FOXP3		transcription regulator		-0.27	8.54
EGR2		transcription regulator		-0.106	8.33
RNASEH2B		other	Activated	3.219	8.31
RUNX1		transcription regulator		0.684	8.30
ETV6-RUNX1		fusion gene/product		1.976	8.03
Ifn		group		-1.474	8.03
LDB1		transcription regulator		-1.606	7.99
IFN alpha/beta		group		-0.274	7.97
LMO2		transcription regulator		-1.606	7.97
CD28		transmembrane receptor		1.488	7.88

MYD88		other		0.766	7.70
IFNL1		cytokine	Inhibited	-2.099	7.70
cytokine		group		-0.114	7.68
KLF2		transcription regulator		-1.956	7.49
TCR		complex		0.61	7.44
TLR4		transmembrane receptor		1.178	7.44
SLC15A4		transporter		-1.586	7.44
ZBTB16		transcription regulator		1.398	7.34
IL27RA		transmembrane receptor		1.01	7.30
IL1		group		-1.244	7.26
IFNA1/IFNA13		cytokine		-1.196	7.26
IL33		cytokine		0.948	7.26
DDX58		enzyme		-1.736	7.18
RARA		ligand-dependent nuclear receptor		1.325	7.05
TET2		enzyme		1.474	7.01
MIF		cytokine		1.665	6.98
IL12A		cytokine		0.409	6.98
SEN3		peptidase		-1.706	6.98
RELA		transcription regulator		0.52	6.97
NFkB (complex)		complex		1.507	6.92
BCR (complex)		complex		0.728	6.85
NFKB1		transcription regulator	Activated	2.245	6.85
PARP9		enzyme		-1.937	6.81
IKZF1		transcription regulator		-0.274	6.77
EGR3		transcription regulator		-1.284	6.75
BACH2		transcription regulator		-0.566	6.70
PNPT1		enzyme	Activated	2.03	6.68
PRL		cytokine		-1.807	6.67
IRGM		enzyme	Activated	2.132	6.60
TBX21	2.475	transcription regulator	Activated	2.013	6.52
SAMSN1		other		-0.905	6.50
CD40		transmembrane receptor	Activated	2.392	6.49
CITED2		transcription regulator		1.424	6.47
TGM2		enzyme		-1.807	6.37
NFATC1		transcription regulator		0.044	6.37
RC3H1		enzyme		1.567	6.31
BTK		kinase		-1.164	6.29
G protein alpha i		group		-1.394	6.27

mir-24		microRNA		0.68	6.27
BTNL2		transmembrane receptor		0.632	6.27
IgG		complex		1.177	6.27
CGAS		enzyme	Inhibited	-2.795	6.26
TLR3		transmembrane receptor		-0.926	6.26
KRAS		enzyme		0.487	6.26
SPI1		transcription regulator		-1.397	6.25
SOCS3	-2.348	phosphatase		0.853	6.21
ELAVL1		other		-0.846	6.18
STAG2		other	Activated	2.825	6.11
EIF2AK2		kinase	Inhibited	-2.238	6.04
IL17A		cytokine		-1.297	6.03
CSF1		cytokine		-0.581	5.97
MEF2A		transcription regulator	Inhibited	-3.156	5.94
SOD1		enzyme			5.93
PTGER4		G-protein coupled receptor		1.132	5.93
TPH1		enzyme	Inhibited	-2.003	5.90
NOTCH1		transcription regulator		1.698	5.90
BHLHE40	1.094	transcription regulator	Activated	2.559	5.85
MAPK14		kinase		0.587	5.83
CG		complex		-1.551	5.82
FOXO1		transcription regulator		-0.797	5.81
STAT5B		transcription regulator		0.419	5.81
CREB1		transcription regulator		-0.254	5.66
CD38		enzyme		-0.44	5.65
SNCA		enzyme		0.093	5.64
IL23		complex		-0.319	5.63
SATB1	-1.058	transcription regulator	Activated	2.634	5.63
NR3C1		ligand-dependent nuclear receptor		0.324	5.63
USP8		peptidase	Activated	2.27	5.63
PGR		ligand-dependent nuclear receptor		0.255	5.54
DOCK8		other		-0.333	5.52
CTLA4		transmembrane receptor		-0.843	5.52
SASH1		other		-0.333	5.47
BCL6	-1.163	transcription regulator		-1.655	5.42
TNFSF13B		cytokine		0	5.35

NFKB2		transcription regulator		-0.24	5.35
REL		transcription regulator		0.31	5.32
TGFBR2		kinase		0.153	5.31
GFI1		transcription regulator		1.99	5.27
CLEC12A		other		-1.98	5.20
TAZ		enzyme		0.226	5.19
STAT5A		transcription regulator		1.778	5.17
Jnk		group		0.232	5.15
MTOR		kinase		1.49	5.15
IL5		cytokine		-0.389	5.13
GLI1		transcription regulator		1.487	5.09
SMAD3		transcription regulator	Inhibited	-2.05	5.05
CD274		enzyme		-1.872	5.02
RNASEH2A		enzyme			5.02
NONO		transcription regulator	Inhibited	-2.105	5.02
PIK3CG		kinase		-1.014	5.00
RNY3		other	Inhibited	-2.449	4.90
TERT		enzyme	Inhibited	-2.563	4.88
TRIM14		other		0.308	4.87
TNFSF10		cytokine		0.235	4.85
OSMR		transmembrane receptor			4.84
LYN		kinase		0.301	4.82
IL10		cytokine		-1.447	4.81
ITK		kinase		-0.289	4.78
ERK1/2		group		0.666	4.77
MAPKAP1		other		-1.342	4.77
IRF5		transcription regulator	Inhibited	-2.921	4.74
CD276		other		1.164	4.74
CBFB		transcription regulator		-0.378	4.71
FOXO4		transcription regulator		-0.366	4.71
FOXO3		transcription regulator		-1.47	4.68
RPTOR		other		0.045	4.66
PPP2CA		phosphatase		-0.114	4.66
TNFSF11		cytokine		0.222	4.63
ETV6-NTRK3		fusion gene/product	Inhibited	-2	4.62
ULBP1		transmembrane receptor	Activated	2	4.62
CSF2		cytokine		0.988	4.58
POLG2		enzyme			4.52
Ap1		complex		0.475	4.50

ICOS	-1.046	transmembrane receptor		-0.39	4.49
TLR7		transmembrane receptor		-0.53	4.48
IL1A		cytokine		-0.072	4.47
SMARCA4		transcription regulator		-0.176	4.44
IFNA4		cytokine		-0.568	4.44
IFN type 1		group		-0.754	4.44
P38 MAPK		group		0.464	4.39
CSF3		cytokine		-0.43	4.38
IRF4		transcription regulator		0.529	4.38
JAK1		kinase		-1.471	4.37
IPMK		kinase		-0.032	4.33
PTPN11		phosphatase		-0.005	4.31
PTEN		phosphatase		1.612	4.30
TSC22D3		transcription regulator		-0.886	4.28
Tgf beta		group		-0.384	4.24
NGLY1		enzyme	Activated	2.386	4.22
IKZF2		transcription regulator		1.3	4.15
ARNT		transcription regulator		0.555	4.15
IRF1		transcription regulator		-0.888	4.15
Vegf		group		-0.693	4.14
MYC		transcription regulator	Activated	2.935	4.14
IL10RA		transmembrane receptor		0.742	4.14
KLF6		transcription regulator		0.322	4.14
CD40LG		cytokine		1.919	4.10
EBI3	1.028	cytokine		0.734	4.10
CD14		transmembrane receptor		0.218	4.10
PARP1		enzyme	Activated	2.594	4.05
NSD2		enzyme		-1.342	4.04
Histone h3		group			4.04
TCF12		transcription regulator		0.356	4.03
ESR2		ligand-dependent nuclear receptor	Activated	2.224	4.02
IL23A		cytokine			3.99
SOX4	1.006	transcription regulator		-0.543	3.98
PRKAA1		kinase		0.24	3.93
CAMP		other		-1.372	3.93
CD80		transmembrane receptor		-0.096	3.93
KIT	-2.761	transmembrane receptor			3.90
NFKBIA		transcription regulator		0.506	3.89

EGF		growth factor		-1.426	3.88
TASL	1.13	enzyme		-0.447	3.86
Tlr		group		0.977	3.85
miR-182-5p (and other miRNAs w/seed UUGGCAA)		mature microRNA	Activated	2.621	3.85
OGA		enzyme		0.728	3.83
IL2RG		transmembrane receptor		-0.258	3.81
IL13		cytokine		-0.858	3.80
mir-96		microRNA	Inhibited	-2.433	3.77
PI3K (complex)		complex		-0.236	3.76
IFNL4		cytokine		-1.977	3.75
HTT		transcription regulator			3.75
MAF		transcription regulator		-0.399	3.69
IFNAR2		transmembrane receptor			3.67
NFAT5		transcription regulator		1.127	3.67
TP63		transcription regulator		0.849	3.66
TNFSF4		cytokine		-0.829	3.64
ACTL6A		other			3.64
RAG1		enzyme			3.62
mir-21		microRNA		-0.638	3.61
BCL11B		transcription regulator		1.115	3.59
IFNL3		cytokine		-0.665	3.57
EPOR		transmembrane receptor			3.57
DNMT3A		enzyme		0.412	3.53
SPIB		transcription regulator		-1.134	3.52
ZBTB7B		transcription regulator		0.849	3.51
KLF3		transcription regulator	Activated	2.537	3.51
F2		peptidase		-1.093	3.50
POMC		other		-1.099	3.49
Akt		group		0.352	3.47
CTNNB1		transcription regulator		-0.12	3.47
IL1RN		cytokine	Activated	2.155	3.46
VCAN		other		0.664	3.45
TNFRSF1A		transmembrane receptor		-0.447	3.45
IGF1		growth factor		0.726	3.45
USP18	-1.113	peptidase		1.387	3.45
ITGB2		transmembrane receptor		1.664	3.45
ATN1		transcription regulator			3.44

TSC2		other	Activated	2.535	3.41
IL12RB1		transmembrane receptor			3.40
mir-181		microRNA		-1.054	3.39
BAK1		other		-1.432	3.39
IL21R		transmembrane receptor		-0.314	3.39
S100A9		other		0.508	3.38
RICTOR		other		-0.736	3.35
EZH2		transcription regulator		0.228	3.34
PRKAA2		kinase		1.042	3.33
CD44		other		0.251	3.33
ANXA1		enzyme		0.186	3.33
FZD9		G-protein coupled receptor		-1.131	3.33
TNK1		kinase		-1	3.33
mir-183		microRNA	Inhibited	-2.449	3.33
PPP2R5C		other		-1	3.33
NFKBIB		transcription regulator			3.33
FAS		transmembrane receptor		0.555	3.33
CXCL8		cytokine		0.851	3.33
HAVCR1		other		-0.555	3.33
CX3CL1		cytokine		-1.242	3.30
ATG7		enzyme		0.194	3.30
RHOA		enzyme		0.311	3.30
SP110		transcription regulator		1	3.30
FCGR2A	-1.103	transmembrane receptor		-0.557	3.29
Secretase gamma		complex		0.247	3.28
mir-155		microRNA	Activated	2.25	3.25
CD70		cytokine			3.24
FABP5		transporter		-0.339	3.24
TP53		transcription regulator		-0.681	3.23
CD5		transmembrane receptor		-0.97	3.21
JUND		transcription regulator		-0.221	3.18
RGS10		enzyme			3.18
PML-RARA		fusion gene/product			3.17
Klrk1		transmembrane receptor		1.257	3.17
IL3		cytokine		1.136	3.17
IFNA14		cytokine		-0.882	3.16
IKBKB		kinase		0.252	3.15
POU2AF1	-1.257	transcription regulator		-1.944	3.13

CD4		transmembrane receptor		0.349	3.13
IL12B		cytokine		1.512	3.11
GIP		other		-1.664	3.11
FOXC1		transcription regulator		-1.238	3.10
PIM2		kinase		1.131	3.08
MGA		transcription regulator		1.633	3.08
TNFRSF8	1.015	transmembrane receptor		-1.633	3.08
SPP1		cytokine		-0.304	3.06
NOS2		enzyme		-1.287	3.06
immune complex		complex			3.04
Duxbl1		other			3.04
SPIC		transcription regulator			3.04
GAPDH		enzyme		0.447	3.04
TCF4	1.51	transcription regulator		-1.667	3.02
MAP3K8		kinase		0.757	3.01
HNRNPU		transporter		1.664	3.01
MVP		other			3.01
AGT		growth factor		-0.76	3.00
JUN	-1.163	transcription regulator		1.849	3.00
TNFSF15		cytokine	Activated	2.188	2.99
LDL		complex		0.45	2.98
HGF		growth factor	Inhibited	-2.458	2.95
TLR2		transmembrane receptor		1.645	2.95
KEAP1		transcription regulator		1.253	2.94
CREM		transcription regulator		-0.633	2.94
HIF1A		transcription regulator		-0.039	2.94
BMP10		growth factor		1.25	2.93
PDLIM2		other		1.134	2.93
HMGB1		transcription regulator		0.422	2.93
OSM		cytokine		-0.184	2.92
Tnf (family)		group		0.046	2.92
CEBPB		transcription regulator	Inhibited	-2.764	2.92
CD3E		transmembrane receptor			2.92
STAT5a/b		group		0.876	2.91
GSE1		other			2.91
DUSP16		phosphatase			2.91
CYLD		transcription regulator		-0.52	2.91
ZBED2		transcription regulator			2.91
FCGR3A/FCGR3B		transmembrane receptor			2.91

IL12RB2		transmembrane receptor			2.91
EGLN1		enzyme		1.633	2.90
DYSF		other			2.89
NADPH oxidase		complex			2.89
IFNK		cytokine		0.943	2.89
SUPT20H		other		1	2.89
STAT4 dimer		complex			2.88
ANO6		ion channel			2.88
IFIT1B	-1.581	other			2.88
Raet1a		other			2.88
GAB3		other			2.88
RNA polymerase II		complex			2.88
JAK		group	Inhibited	-2	2.88
ARHGAP21		other		1.342	2.88
NFATC3		transcription regulator			2.88
IL4R		transmembrane receptor		1.039	2.88
IL6ST		transmembrane receptor	Inhibited	-2.2	2.88
NCOA2		transcription regulator		-0.547	2.84
IGHM		transmembrane receptor			2.84
IL36B		cytokine			2.83
CD81		other			2.83
NCOR1		transcription regulator	Activated	2.621	2.83
TOX		transcription regulator		1	2.83
TSLP		cytokine		1.452	2.82
CXCL12		cytokine		-0.736	2.81
FLT3		kinase			2.80
ERK		group		0.562	2.79
Stat1-Stat2		complex			2.79
RC3H2		enzyme			2.79
NR4A1		ligand-dependent nuclear receptor		1.077	2.77
TRA		transmembrane receptor			2.77
PRKACA		kinase		0	2.76
IFNLR1		transmembrane receptor			2.76
EPAS1		transcription regulator		-0.426	2.73
ISG15		other	Activated	2.207	2.72
ZC3H12A		enzyme		-0.867	2.71
HRAS		enzyme		-1.757	2.71
FLT3LG		cytokine	Activated	2.421	2.71

CHD4		enzyme	Activated	2.236	2.71
Map3k7		kinase		0.168	2.71
MAPK9		kinase		0.459	2.70
MET		kinase		-0.378	2.70
FYN		kinase		0.555	2.69
ADAM10		peptidase	Inhibited	-2	2.68
IFN Lambda		group			2.68
TXK		kinase			2.68
MAPK3		kinase		-0.928	2.68
APOH		transporter			2.68
IKBKG		kinase		-0.989	2.67
ECSIT		transcription regulator		-1.109	2.66
TXN		enzyme	Inhibited	-2	2.66
CALCA		other		-1.633	2.66
Srgn		other		0.447	2.66
CISH	1.697	other		-1.342	2.66
EPO		cytokine		-1.367	2.66
Mapk		group		0.218	2.64
LEP		growth factor		-0.177	2.64
Pka		complex		0	2.63
NKX2-3		transcription regulator		0.681	2.63
NEIL2		enzyme			2.63
AHR	1.072	ligand-dependent nuclear receptor		-0.623	2.63
PPARGC1A		transcription regulator		0.397	2.63
JAK3		kinase		1.342	2.63
WNT3A		cytokine		-0.488	2.62
S100A8		other		0.707	2.62
GATA4		transcription regulator		0.673	2.62
LIF		cytokine		-0.72	2.61
ERBB2		kinase		0.163	2.61
LRP5		transmembrane receptor		0	2.59
STAT1/3/5 dimer		complex			2.59
CCL5		cytokine		-0.447	2.59
TCIRG1		enzyme			2.59
PRKCE		kinase		0.128	2.59
HLA-G		other			2.59
HMG20A		transcription regulator		-0.378	2.58
CCL2		cytokine		0.218	2.56

RAC2		enzyme			2.56
PRKDC		kinase			2.56
IRAK4		kinase		1.078	2.56
MAP3K7		kinase		-0.218	2.56
BATF		transcription regulator			2.56
SQSTM1		transcription regulator		-1	2.56
SPHK1		kinase		-0.803	2.53
CD86	2.676	transmembrane receptor		0.494	2.53
PPARG		ligand-dependent nuclear receptor	Inhibited	-2.597	2.51
CD69		transmembrane receptor		1	2.51
PSMD14		peptidase			2.50
IgG2a		complex			2.49
PIM3		kinase			2.49
TIGIT	-2.81	other			2.49
BAX		transporter		-1.432	2.49
PF4		cytokine		0.603	2.49
Focal adhesion kinase		group		1.964	2.47
TGFB2		growth factor		-1.026	2.47
TG	1.125	other			2.47
WAS		other			2.47
BRD4		kinase	Activated	2.2	2.44
RUNX1-RUNX1T1		fusion gene/product			2.42
HSPD1		enzyme		-0.246	2.42
ZC3H12C		other		-0.152	2.42
TRB		transmembrane receptor			2.42
THRB		ligand-dependent nuclear receptor		-0.277	2.42
miR-30c-5p (and other miRNAs w/seed GUAAACA)		mature microRNA		1.181	2.41
AIRE		transcription regulator			2.41
SCAVENGER receptor CLASS A		group			2.41
LTA	1.052	cytokine		1.474	2.40
FOS		transcription regulator	Activated	2.415	2.40
AMPK		complex		-0.342	2.39
HFE		transmembrane receptor		-0.452	2.39
TREM1		transmembrane receptor		1.154	2.38
HAVCR2		other		-1.103	2.38

CNOT7		transcription regulator			2.38
PIK3R1		kinase		0.128	2.37
FADD		other		-1.673	2.37
HNF1B		transcription regulator		1.387	2.35
TFRC		transporter		1.673	2.35
IFNL2		other			2.33
TAP1		transporter			2.33
BDNF		growth factor		-0.803	2.33
PRKCA		kinase		-1.117	2.32
ROCK2		kinase			2.32
Insulin		group	Inhibited	-2.024	2.31
UCP1		transporter		1.463	2.31
PRKCZ		kinase		0.152	2.29
MARK2		kinase		0	2.29
IKBKE		kinase		-0.655	2.29
PML		transcription regulator		-1.348	2.27
Hdac		group		1.722	2.26
TYROBP		transmembrane receptor		1.982	2.26
Stat3-Stat3		complex		-1.177	2.26
TNFSF14		cytokine		0.851	2.26
DLL1		enzyme		1.103	2.26
CDC42		enzyme			2.26
MUC13		other			2.26
NLRP12		other		-0.283	2.26
AIM2		other		1.98	2.26
Il12 receptor		complex			2.25
NLRP6		G-protein coupled receptor			2.25
RAB11FIP3		other			2.25
TPP2		peptidase			2.25
PSEN1		peptidase		-0.063	2.25
RARG	-1.375	ligand-dependent nuclear receptor		0.277	2.25
ATF2		transcription regulator			2.25
FGF1		growth factor		-0.705	2.24
NR4A2		ligand-dependent nuclear receptor		-0.487	2.23
RNASL		enzyme			2.23
PRKCQ		kinase		1.929	2.23

MSC		transcription regulator	-1.342	2.22
TAF4		transcription regulator		2.21
Integrin		complex		2.20
Foxo		group		2.20
USP1		peptidase		2.20
TNFRSF6B		transmembrane receptor		2.20
RAS		group	-0.208	2.20
NLRP3		other	0.543	2.20
POU2F2		transcription regulator	-1.633	2.20
CD200R1		transmembrane receptor	1.342	2.20
CNTF		cytokine	-1.77	2.19
CHUK		kinase	0.386	2.19
CASZ1		enzyme	1.091	2.19
SMARCB1		transcription regulator	-0.447	2.16
NMDA Receptor		complex		2.14
XRCC6		enzyme		2.14
TRAF5		transporter		2.14
RARB		ligand-dependent nuclear receptor	0.478	2.14
IRF2		transcription regulator	1.414	2.14
CDKN2A		transcription regulator	-0.421	2.13
Pdgf (complex)		complex	-1.202	2.12
F2RL1	-1.839	G-protein coupled receptor		2.12
PRKCB		kinase	0.447	2.12
ATF3		transcription regulator	0.061	2.12
C10orf99		cytokine	0	2.12
PRKCI		kinase	-0.218	2.08
Dexamethasone-GR		complex		2.08
p38 Sapk		group		2.08
CYP		group		2.08
Mucin		group		2.08
ESR1	1.451	ligand-dependent nuclear receptor	-0.66	2.08
EGOT		other		2.08
PAEP		other		2.08
ICAM5		other		2.08
LAMP1		other		2.08
IL31RA		transmembrane receptor		2.08

HLA-B		transmembrane receptor			2.08
MAPK8		kinase		0.7	2.08
USF2		transcription regulator		-0.254	2.08
ADRB		group		1.89	2.07
ETS1		transcription regulator		0.277	2.06
AGTR1		G-protein coupled receptor			2.06
CIITA		transcription regulator		-1.086	2.06
ATF1		transcription regulator			2.06
RHO		G-protein coupled receptor		0.447	2.06
JAK1/2		group		0.447	2.06
IKZF3		transcription regulator	Activated	2.219	2.06
RAG2		enzyme			2.04
TNFRSF1B		transmembrane receptor		-1.342	2.04
IFNW1		cytokine			2.03
Orai1		ion channel			2.03
ZBP1		other			2.03
KLRC4-KLRK1/KLRK1		transmembrane receptor			2.03
Klra7 (includes others)		transmembrane receptor			2.03
IFNE		cytokine		1.091	2.03
CD2		transmembrane receptor			2.03
CYP19A1		enzyme		-1.616	2.02
LCK		kinase		1.461	2.02
PRKD1		kinase		1.387	2.02
TARDBP		transcription regulator		-0.152	2.02
PAX7		transcription regulator			2.02
EPHA2		kinase		-1.091	2.00
mir-223		microRNA		-1.134	2.00
HNRNPA2B1		other			2.00
PTPRC		phosphatase			2.00
CRH		cytokine		-1.066	2.00
JAG1		growth factor		0.254	2.00
PDCD1		transmembrane receptor		-1.998	2.00
SREBF1		transcription regulator		-0.653	1.99
Stat5 dimer		complex			1.98
PER1		transcription regulator			1.98
Histone h4		group			1.95
PIEZO1		ion channel			1.95

SH2B3		other			1.95
ZNF395		transcription regulator			1.95
AATF		transcription regulator			1.95
BTG1		transcription regulator			1.95
Hbb-b2		other			1.94
DPP4		peptidase		-0.686	1.94
TNFSF9		cytokine			1.94
PLCG2		enzyme		0.492	1.94
MAP3K5		kinase			1.94
MAP2K6		kinase			1.94
MAPK8IP1		other			1.94
GNAQ		enzyme		-0.698	1.92
ZFTA-RELA		fusion gene/product	Inhibited	-2	1.92
EOMES	1.788	transcription regulator		-0.6	1.91
Creb		group		-0.555	1.91
MAP2K1/2		group		-0.555	1.90
RORC	-2.169	ligand-dependent nuclear receptor		-0.93	1.90
EHMT1		transcription regulator		0	1.90
JUNB		transcription regulator		0.099	1.90
SCGB1A1		cytokine			1.89
Tnfsf9		other			1.89
IL2RA	1.576	transmembrane receptor			1.89
OLR1		transmembrane receptor		-0.145	1.89
INSR		kinase		-0.239	1.87
AR		ligand-dependent nuclear receptor		-0.567	1.87
CAV1		transmembrane receptor		-0.412	1.87
GATA1		transcription regulator		-0.196	1.87
IL24		cytokine		1.96	1.86
SMAD2		transcription regulator		-1.751	1.85
TRIM21		enzyme			1.84
BMPER		other			1.84
LGALS9		other			1.84
SOCS2		other			1.84
FASLG	1.271	cytokine		-1	1.84
CCL18		cytokine			1.84
RAC1		enzyme		0.246	1.84
ENPP1		enzyme			1.84

SH3RF1		enzyme			1.84
PDE4D		enzyme			1.84
Calcineurin B		group			1.84
MAP3K14		kinase		0.537	1.84
miR-494-3p (miRNAs w/seed GAAACAU)		mature microRNA			1.84
NLRX1		other		0.728	1.84
LIMIT		other			1.84
SERPINA4		other			1.84
CASP4		peptidase			1.84
CTSE		peptidase			1.84
POU5F1		transcription regulator		0.486	1.84
ULBP2		transmembrane receptor			1.84
STRA6	2.099	transporter			1.84
GJA8		transporter			1.84
TGFB3	-2.259	growth factor		-1.293	1.83
ATF4		transcription regulator		-0.33	1.83
Hsp70		group			1.82
H2AB3 (includes others)		other		0	1.82
POM121/POM121C		other			1.81
TNFRSF10A		transmembrane receptor			1.81
EDN1		cytokine		-0.051	1.81
PSMB11		peptidase		0.816	1.79
POU2F1		transcription regulator			1.79
PARP2		enzyme			1.77
MAP3K3		kinase			1.77
BRD2		kinase			1.77
mir-154		microRNA			1.77
LGALS1		other		0.365	1.77
ATG5		other		0.447	1.77
IL31		other			1.77
TGIF1		transcription regulator			1.77
TAF4B		transcription regulator			1.77
FHL2		transcription regulator		-0.762	1.77
SIGIRR		transmembrane receptor			1.77
CCN1		other		0.277	1.76
MUC1		other		-1.109	1.76
BLM		enzyme			1.75
PCM1-JAK2		fusion gene/product			1.75

ADRB2		G-protein coupled receptor			1.75
VIPR2		G-protein coupled receptor			1.75
ROCK		group		1.067	1.75
CD3 group		group		1.985	1.75
mir-30		microRNA		-0.351	1.75
MIR17HG	1.162	other		-0.254	1.75
VTCN1		other			1.75
CLTC		other			1.75
Gm20703		other			1.75
SOX18		transcription regulator			1.75
TBL1X		transcription regulator			1.75
IL23R		transmembrane receptor			1.75
NFAT (complex)		complex			1.74
CHI3L1		enzyme			1.74
P2RY6		G-protein coupled receptor			1.74
JUN/JUNB/JUND		group			1.74
SLC9A3		ion channel			1.74
SBDS		other			1.74
PROCR		other			1.74
ICOSLG/LOC102723996		other			1.74
CTSS		peptidase			1.74
MTA2		transcription regulator			1.74
FN1		enzyme		1.414	1.74
MTORC1		complex		1.091	1.73
TNFAIP3		enzyme		-1.067	1.73
NOX4		enzyme		0.762	1.73
Hsp90		group		-0.147	1.73
SAFB		other		1	1.73
DCN		other		0.152	1.73
NEDD9		other		1.342	1.73
EIF2S1		translation regulator			1.73
ICAM1		transmembrane receptor		1.154	1.73
MED1		transcription regulator			1.73
SOX9		transcription regulator		-1.633	1.73
DICER1		enzyme		-0.846	1.71
CAT		enzyme		0.218	1.71

BIRC5		other			1.71
PTPRJ		phosphatase	Activated	2	1.71
CEBPE		transcription regulator			1.71
AIP		transcription regulator		0.218	1.71
CBL		transcription regulator			1.71
miR-203a-3p (and other miRNAs w/seed UGAAAUG)		mature microRNA			1.71
SFN		other			1.71
VDR		transcription regulator		-0.936	1.71
RAF1		kinase		-0.57	1.70
NKX3-1		transcription regulator			1.69
NFE2L2		transcription regulator		-0.958	1.68
XCL1		cytokine			1.68
IRS1		enzyme		-0.329	1.68
BLVRA		enzyme			1.68
UBA7		enzyme			1.68
DRD5		G-protein coupled receptor			1.68
GPR183		G-protein coupled receptor			1.68
HVCN1		ion channel			1.68
MAP3K12		kinase			1.68
PIM1		kinase		1.131	1.68
mir-338		microRNA			1.68
MEMO1		other			1.68
SHANK3		other			1.68
CTSZ		peptidase			1.68
HP		peptidase			1.68
CAPN1		peptidase			1.68
PPP3CA		phosphatase			1.68
ARID5A		transcription regulator			1.68
SMARCC2		transcription regulator			1.68
MNT		transcription regulator		0	1.68
IL22RA2		transmembrane receptor			1.68
CD160		transmembrane receptor			1.68
PDYN		transporter			1.68
Hbb-b1		transporter		-0.218	1.68
RASSF1		other		0.447	1.66

MAPKAPK2		kinase	1.103	1.65
GNAI2		enzyme		1.64
USP22		peptidase	0.762	1.63
Ifn gamma		complex	-0.497	1.61
CXCR3	1.162	G-protein coupled receptor		1.61
Ubiquitin		group		1.61
TRPV4		ion channel		1.61
SPHK2		kinase		1.61
mir-29		microRNA	0.356	1.61
VTN		other		1.61
CFLAR		other		1.61
SLC22A5		transporter		1.61
ARID1A		transcription regulator		1.60
CXCL13		cytokine		1.60
TLR2/3/4/9		group		1.60
KCNA3		ion channel		1.60
mir-217		microRNA		1.60
LRRC32		other		1.60
PHF21A		other		1.60
RANBP9		other		1.60
ATAD3A		other		1.60
IL9R		transmembrane receptor		1.60
SLC6A1		transporter		1.60
IL7R		transmembrane receptor	-1.109	1.60
BRCA1		transcription regulator	-1.423	1.59
ASPSCR1-TFE3		fusion gene/product	-0.447	1.58
collagenase		group		1.58
Fc gamma receptor		group		1.58
MAPK11		kinase		1.58
TIRAP		other		1.58
ZEB1		transcription regulator	0.152	1.58
MYCN		transcription regulator	1.795	1.57
LAMA4		enzyme	1.342	1.56
TAB1		enzyme		1.55
Fgf		group		1.55
LEF1		transcription regulator	1.342	1.55
STAR		transporter	0	1.55
SCD		enzyme	0.447	1.54

Stat1 dimer		complex			1.54
Adaptor protein 2		complex			1.54
IL25		cytokine		0.577	1.54
TNFSF18		cytokine			1.54
Ifnz (includes others)		cytokine			1.54
Fcor		enzyme			1.54
PDE3B		enzyme			1.54
ADAR		enzyme			1.54
ENTPD1		enzyme			1.54
SLC9A1		ion channel			1.54
LAMTOR1		other			1.54
Traj18		other			1.54
LNx2		other			1.54
OSTM1		other			1.54
MMP7		peptidase			1.54
TRIM28		transcription regulator			1.54
NEUROG1		transcription regulator		0	1.54
KLF7		transcription regulator			1.54
HIVEP3		transcription regulator			1.54
ELF2		transcription regulator			1.54
KLRD1		transmembrane receptor			1.54
SLC7A5		transporter			1.54
SYVN1		transporter		0.816	1.53
THPO		cytokine		-0.152	1.53
Nfat (family)		group		1	1.53
TYK2		kinase			1.53
OSCAR		other			1.53
MALT1		peptidase			1.53
NOTCH4		transcription regulator			1.53
ZBTB7A		transcription regulator			1.53
DAXX		transcription regulator			1.53
SGK1	-1.153	kinase		-1.982	1.52
CEBPA	-1.947	transcription regulator		1.446	1.52
TRAF3		enzyme		-0.2	1.52
LIPE		enzyme			1.51
IKK (complex)		complex			1.50
Notch		group		0.339	1.50
mir-126		microRNA			1.50
XBP1		transcription regulator	Inhibited	-2.176	1.50

PHB		transcription regulator			1.50
PROX1		transcription regulator			1.50
EGR1		transcription regulator		0.629	1.49
Growth hormone		group		-0.57	1.48
PDGF BB		complex		-1.018	1.48
ALOX12		enzyme			1.48
DOK1		kinase			1.48
SERPINA3		other			1.48
FYB1		other			1.48
ELN		other			1.48
MAP2K1		kinase		-0.928	1.47
TRIB3	-1.217	kinase			1.47
miR-221-3p (and other miRNAs w/seed GCUACAU)		mature microRNA			1.47
NCSTN		peptidase			1.47
RBCK1		transcription regulator			1.47
26s Proteasome		complex		0.634	1.45
GATA3		transcription regulator	Inhibited	-2.406	1.45
IL20		cytokine			1.45
RNASE2		enzyme			1.45
GNB2		enzyme			1.45
AKT1		kinase		0.966	1.45
VIP		other		-1.117	1.45
TANK		other			1.45
ZEB2		transcription regulator		0	1.45
EBF3		transcription regulator			1.45
SS18		transcription regulator			1.45
ELF4		transcription regulator			1.45
TREM2		transmembrane receptor		-1	1.45
EBF1		transcription regulator		-0.689	1.45
SP1		transcription regulator		-0.823	1.45
WNT5A		cytokine		-0.218	1.44
SPRY2		other		1.342	1.44
ISGF3		complex			1.43
DHCR24		enzyme			1.43
CRY2		enzyme			1.43
CRY1		enzyme			1.43
CYBB		enzyme			1.43

Sos		group			1.43
STAT		group			1.43
RIPK2		kinase		0.991	1.43
PIK3R2		kinase			1.43
RPS6KA4		kinase			1.43
mir-130		microRNA			1.43
ADAP1		other			1.43
DANCR		other			1.43
HLA-A	-2.549	other			1.43
CDC37		other			1.43
KPNA2		other			1.43
ATXN3		peptidase			1.43
PON1		phosphatase			1.43
PPP5C		phosphatase			1.43
DUSP14		phosphatase			1.43
SMARCA2		transcription regulator			1.43
SMAD7		transcription regulator	Activated	2.408	1.43
SOX5		transcription regulator			1.43
PA2G4		transcription regulator			1.43
HOXA1		transcription regulator			1.43
PRDM16		transcription regulator			1.43
RBP1		transporter			1.43
MTTP		transporter			1.43
VEGFA		growth factor		0.471	1.43
Smad2/3		group		-1.067	1.43
INSIG1		other	Inhibited	-2	1.42