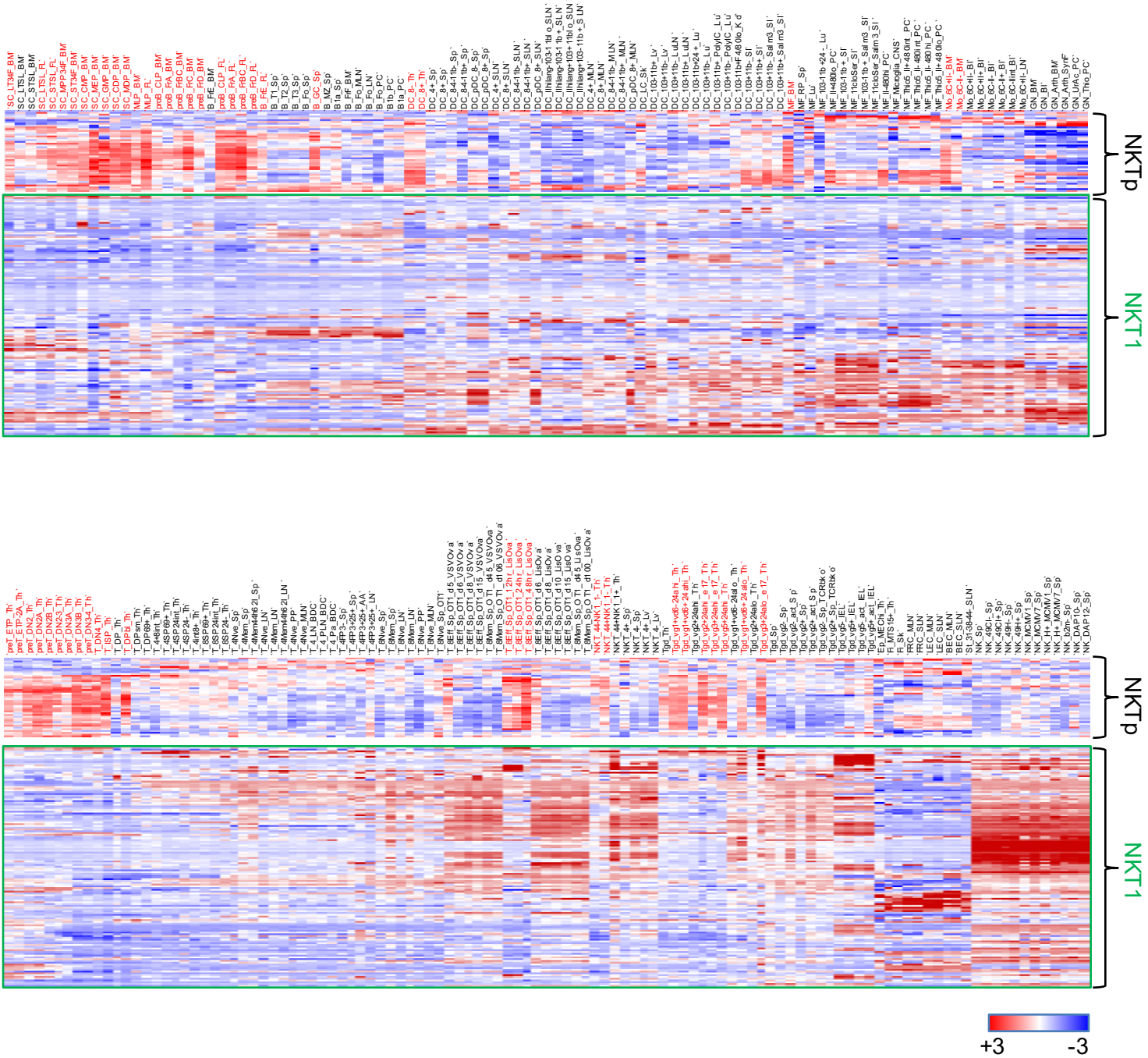
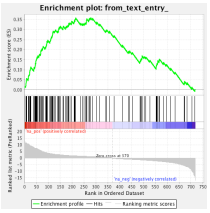
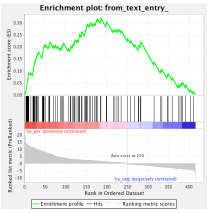
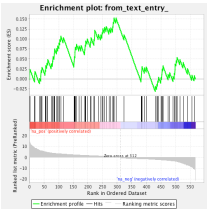
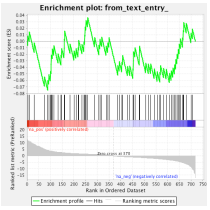
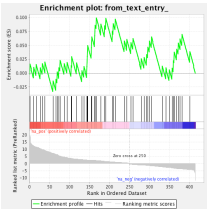
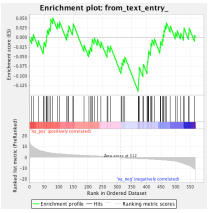
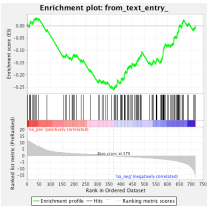
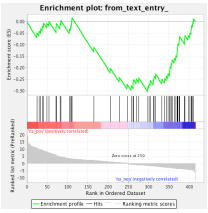
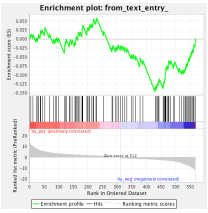
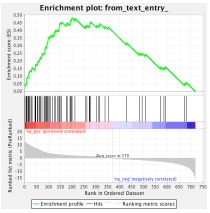
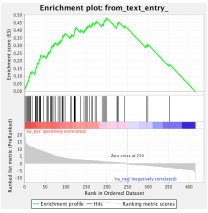
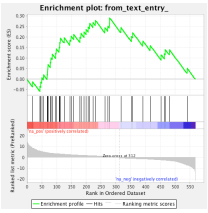
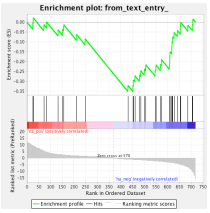
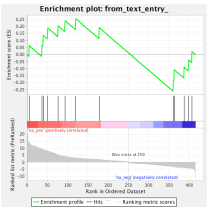
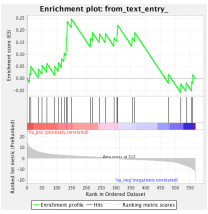
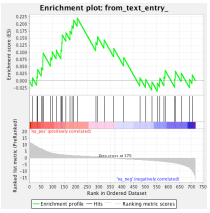
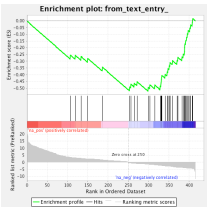
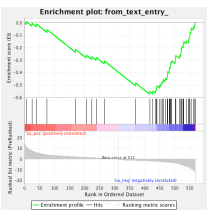
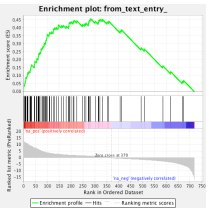
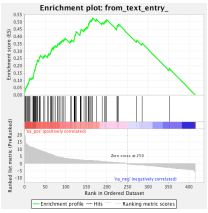
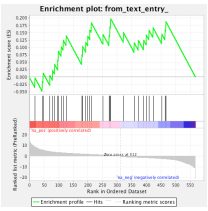


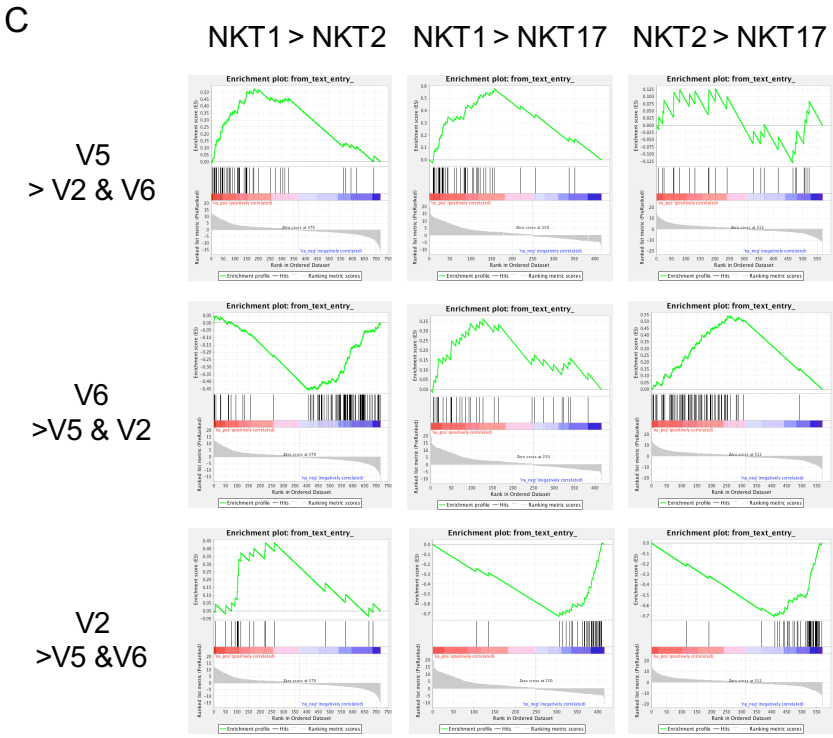
Supplemental Figure 1. NKTp unique transcripts are enriched in proliferating or differentiating hematopoietic cells. Signature genes of NKT progenitors (NKTp) and NKT1 cells were identified as shown in Fig. 3a and their expression patterns were analyzed across 214 different hematopoietic cells using ImmGen dataset. Each column was labeled as in ImmGen dataset and highlighted in red when NKTp signature genes were highly expressed.

A

Input	NKT1 > NKT2	NKT1 > NKT17	NKT2 > NKT17
Th1 >Th2 and Th17			
Th2 >Th1 and Th17			
Th17 >Th1 and Th2			

B

ILC1 >ILC2 and ILC3			
ILC2 >ILC1 and ILC3			
ILC3 >ILC1 and ILC2			
NK >ILC2 and ILC3			



Supplemental Figure 2. Gene set enrichment analysis (GSEA). Signature genes of T helper cells (a), innate lymphoid cells (ILC) (b) and γδ T cells (c) were probed on genes differentially expressed between iNKT subsets. Subset signature genes were listed is Supplementary Table 1. V2 (Vγ2+) and V6 (Vδ6+) are thymic CD24^{low} cells γδ T cells and V5 (Vγ5+) is intraepithelial γδ T cells.

Supplementary Table 1. List of subset signature genes. Gene lists were generated as depicted in Fig. 3A and 4C.

NKT1	NKT2	NKT17	NKTp
>NKTp, NKT2 & NKT17	>NKTp, NKT1 & NKT17	>NKTp, NKT1 & NKT2	>NKT1, NKT2 & NKT17
140	**62**	**81**	**45**
1700026L06RIK	2610018G03RIK	1300014I06RIK	1190005F20RIK
1700128F08RIK	3830431G21RIK	2310007L24RIK	2010107E04RIK
2700097O09RIK	4930555I21RIK	ABI3BP	ARF5
4933440M02RIK	6330406I15RIK	ACPP	ART2A-PS
6330512M04RIK	ABHD13	ADD3	CCNB1
A430084P05RIK	ACP5	ADRB2	CDC26
ANXA2	ANO7	AGPAT5	CIAO1
APOL9B	APBB2	ANKRD6	CNIH4
ARL4D	ARHGAP20	APP	CUL4B
AW112010	ARMCX1	AQP3	DAPP1
BIN1	ATP1A3	ARL5C	ECM1
BTG2	BTLA	ARNT2	EIF2B1
CCDC136	C330018D20RIK	BLK	EIF4A1
CCL1	CDCA5	CACNA1A	EPB4.9
CCL4	CMTM4	CCDC86	FKBP2
CCL5	DEPDC1A	CD72	GARS
CCR8	DLEC1	CHAD	GMNN
CD160	DNM3	CORO2B	HIST2H2AC
CD2	DYRK4	CPE	HMGN2
CD244	E2F7	CREG1	IFI27L2A
CD63	F13A1	CRMP1	IFT27
CERCAM	FABP7	CRTAM	LAGE3
CHSY1	FAM169B	D17H6S56E-3	LDHB
CLDN12	FAM55B	DOCK5	LSM3
CLIC5	FAM71F2	ELMOD1	MAK16
CPNE7	FLRT2	EMB	MKL2
CRIM1	GATA1	F2R	NDUFA13
CSDA	GM129	FAM189A1	NDUFS4
CTLA2B	GM973	FAM83A	NUDCD2
CTSW	GPR97	FRMD6	NUP50
CX3CR1	GPRASP2	FSTL4	OXSR1
CXCR3	HC	FUT7	PTTG1
DAPK2	HECW2	FXYD7	RNFT1
DENND4A	HIST2H2BE	GM10791	RPA3
DOPEY2	IL17RB	GM2A	SLC2A1
ELOVL7	KHDRBS3	GM9961	SPC25
EOMES	LIMS1	HS3ST1	SRP68
FAM26F	LRP11	IL17RE	STMN1
FAM65B	NUDT7	IL1R1	TAF9
FASL	OLFML3	IL23R	TFDP1
FCER1G	ORC1	KCNK1	THAP2
FGD5	PCSK1	LAPTM4B	TMEM199
FGL2	PDE4C	LINGO4	TXN1
FGR	PECAM1	LTA	USMG5
FILIP1L	PGAM2	LY6G5B	UXT
FOXP1	PLD1	MAF	
GAS7	PRKCA	MARK2	
GIMAP4	PRR5L	MATN2	
GIMAP8	PSTPIP2	MICAL2	
GM11435	PTPRR	MMP25	
GM156	PYROXD2	NR1D1	
GM4759	SCN8A	OLFR60	
GPR174	SESN3	PEX26	
GRAMD3	SLC29A1	PLCB4	
GVIN1	SMPDL3B	PLEKHB2	
GZMA	SP6	PLIN2	
GZMB	STARD10	PLXND1	
GZMC	TESC	PON2	
H2-AA	TIAM1	RAMP3	
HOPX	TRIM13	RARA	
HRH4	TUBA3A	RORC	
HSD11B1	ZCCHC12	SDC1	
IFITM1		SEC11C	
IFITM2		SERINC5	
IFITM3		SLC11A2	
IFNG		SLC35F2	
IL4RA		SMOX	
IRF8		SMYD1	
ITGA1		SPSB3	
ITM2A		STAB2	
KCNJ8		SUSD2	
KLRA1		TACSTD2	
KLRA3		TDRKH	
KLRA5		TICAM1	
KLRA8		TM2D3	
KLRA9		TMEM149	
KLRC1		TMEM176B	
KLRC2		TNFSF14	
KLRC3		TRPV2	
KLRD1		UCP2	
KLRG1		ZBTB7C	
KLRI1			
KLRI2			
KLRK1			
LAIR1			
LAT2			
LPAR6			
LRRC8C			
LRRK1			
LY6C1			
LY6C2			
LY6I			
MAN1C1			
MAP3K8			
MBNL1			
MCOLN2			
MS4A6C			
NCALD			
NCR1			
NEURL3			
NKG7			
NR4A2			
P2RY13			
PGLYRP1			
PIK3R5			
PLEKHM3			
PPM1J			
PRF1			

NKT1	NKT2	NKT17
>NKT2 &NKT17	>NKT1 & NKT17	>NKT2 & NKT17
191	**197**	**126**
1700026L06RIK	1700040L02RIK	1300014I06RIK
1700128F08RIK	2610018G03RIK	2310007L24RIK
2700097O09RIK	2810417H13RIK	2410066E13RIK
4933440M02RIK	3830431G21RIK	3230401D17RIK
6330512M04RIK	4930452B06RIK	6720401G13RIK
A430084P05RIK	4930555I21RIK	9130401M01RIK
AB124611	4930588N13RIK	AAGAB
AHNAK	6330403K07RIK	ABI3BP
AIM1	6330406I15RIK	ACPP
AIM1L	9030617O03RIK	ADD3
ALAD	ABHD13	ADPGK
ANXA2	ABHD4	ADRB2
APOL9B	ACP5	AGPAT5
ARL4D	ADH1	ANKRD6
AW112010	ADK	APP
B4GALT1	AGFG1	AQP3
BCL2	AHCYL1	ARL5C
BIN1	AMPD1	ARNT2
BRD2	ANLN	ATG7
BTG2	ANO7	BATF
CAR2	ANP32E	BLK
CCDC136	APBB2	CACNA1A
CCL1	ARHGAP19	CCDC86
CCL4	ARHGAP20	CD37
CCL5	ARMCX1	CD72
CCR8	ASF1B	CHAD
CD160	ATP1A3	CNR2
CD2	AURKA	CORO2B
CD244	BC021785	CPE
CD63	BIRC5	CREG1
CD74	BRCA1	CRMP1
CD86	BTF3L4	CRTAM
CD97	BTLA	D17H6S56E-3
CERCAM	C330018D20RIK	DHODH
CHSY1	CASC5	DOCK5
CLDN12	CCDC126	DPY19L3
CLIC5	CCNB1	ELMOD1
CLN3	CCNG2	EMB
COMMD8	CCR9	ENTPD7
CPNE7	CCS	ERO1L
CRIM1	CD200	F2R
CSDA	CD28	FAH
CTLA2A	CD81	FAM189A1
CTLA2B	CDC45	FAM83A
CTSW	CDC6	FCHSD2
CX3CR1	CDCA5	FRMD4A
CXCR3	CENPE	FRMD6
DAPK2	CENPM	FSTL4
DENND4A	CHAF1A	FUT7
DOPEY2	CHN1	FXYD7
DSE	CHN2	GM10791
ELOVL7	CMTM4	GM2A
EOMES	CNGA1	GM9961
FAM26F	DDC	HGSNAT
FAM65B	DDX19A	HMGCL
FASL	DENND2D	HS3ST1
FCER1G	DEPDC1A	IL17RE
FGD5	DLEC1	IL1R1
FGL2	DNAHC8	IL23R
FGR	DNM3	INTS7
FILIP1L	DUSP10	KCNK1
FKBP8	DYRK4	LAPTM4B
FOXP1	E2F7	LDHD
GAS7	ENC1	LINGO4
GIMAP4	ESCO2	LMO4
GIMAP8	EXO1	LTA
GM10640	EZH2	LY6G5B
GM11435	F13A1	MAF
GM12250	F630042J09RIK	MANF
GM14005	FABP7	MARK2
GM156	FAM169B	MATN2
GM4759	FAM55B	MICAL2
GPR174	FAM55C	MMP25
GRAMD3	FAM71F2	MTSS1
GVIN1	FLRT2	MUS81
GZMA	FOXN2	NDUFS3
GZMB	FRMD7	NR1D1
GZMC	GABRR2	NUDT14
H2-AA	GATA1	OLFR60
HIGD1A	GEN1	PAOX
HOPX	GM129	PEX26
HRH4	GM14085	PFKP
HSD11B1	GM4841	PLCB4
IFITM1	GM8096	PLEKHB2
IFITM2	GM973	PLIN2
IFITM3	GNAS	PLXND1
IFNG	GPR97	PON2
IL4RA	GPRASP2	POP1
IRF8	GSN	PSD2
ITGA1	HC	PSEN2
ITM2A	HECW2	PUSL1
KBTBD2	HEY1	RAMP3
KCNJ8	HIF1A	RARA
KLF2	HIST2H2BE	RORA
KLF3	HMGN2	RORC
KLRA1	IFI27L1	SCPEP1
KLRA3	IIGP1	SDC1
KLRA5	IL17RB	SEC11C
KLRA8	IL21	SERINC5
KLRA9	IL4	SLC11A2
KLRC1	IL6RA	SLC27A6
KLRC2	KHDRBS3	SLC35C2
KLRC3	KIF23	SLC35F2
KLRD1	KLRA6	SLC41A3
KLRG1	LCK	SMOX
KLRI1	LIMS1	SMYD1
KLRI2	LRP11	SPSB3
KLRK1	LRRC49	SSR1

ILC1	ILC2	ILC3	NK cells
>ILC2 & ILC3	>ILC1 & ILC3	>ILC1 & ILC2	>ILC2 & ILC3
433	**318**	**421**	**529**
1110038D17RIK	0610010O12RIK	MARCH7	0610007P22RIK
1110054O05RIK	1110002B05RIK	SEPT5	0610037P05RIK
1700025G04RIK	1700113H08RIK	1700009P17RIK	1110038D17RIK
2210404J11RIK	1810011H11RIK	1700012B07RIK	1110054O05RIK
2810417H13RIK	2510009E07RIK	2010002N04RIK	1600012F09RIK
4632428N05RIK	2810055G20RIK	3230401D17RIK	1600012H06RIK
4930486L24RIK	3110043O21RIK	4930503L19RIK	1700020L24RIK
6030458C11RIK	4930412O13RIK	6720401G13RIK	1700025G04RIK
6330512M04RIK	4930562F07RIK	8430410A17RIK	1700040L02RIK
A430078G23RIK	4932438H23RIK	9130011J15RIK	2010012O05RIK
A430084P05RIK	9430020K01RIK	A830080O01RIK	2810006K23RIK
A530054K11RIK	A4GALT	ABCC3	2810417H13RIK
A630001G21RIK	A930011G23RIK	ABHD4	2810422O20RIK
A630089N07RIK	ABCC8	ABI3BP	3110001D03RIK
A830007P12RIK	ACBD7	ABLIM3	3110003A17RIK
AB124611	ACER2	ACPP	4430402I18RIK
ABCA1	ACO76	ACSL1	4831426B19RIK
ACSS1	ACSBG1	ACVR2A	4930486L24RIK
ACTN1	ADAM19	ADRBK2	6330512M04RIK
ADAM4	ADCY9	AHRR	9130023H24RIK
ADAMTS10	ADM	AI848100	A430078G23RIK
ADAMTS14	AKR1C12	ALPK1	A430084P05RIK
ADAMTS8	ALDH3A1	AMICA1	A530054K11RIK
ADD3	ALOX5	AMZ2	A630001G21RIK
AFF3	ALPK3	ANXA5	A630033H20RIK
AI467606	AMPH	AP1AR	A630089N07RIK
AKR1B10	ANKS6	APOBEC1	A830007P12RIK
ALKBH4	AP1S3	APOL7E	A930038C07RIK
ANKMY2	APBB2	AQP3	AB124611
ANKRD24	AR	ARHGAP6	ABCA1
ANKRD44	AREG	ARHGAP8	ABCD1
ANXA1	ARG1	ARHGEF5	ABCG2
ANXA2	ARHGEF10L	ARPC3	ABTB2
APBB1IP	ARHGEF11	ARRB1	ACER3
ARHGAP15	ARHGEF12	ARRDC3	ACPL2
ARHGAP25	ARL5C	ARRDC4	ACSS1
ARHGEF18	ART2B	ASAH1	ACSS2
ARHGEF2	ASS1	ASPHD2	ADAMTS10
ARL2BP	ATP6V0A1	ATP1A3	ADAMTS14
ARL4C	ATP8A2	ATP8VD2	ADAP1
ARL4D	B830017H08RIK	AVIL	ADD3
ARMC7	BACE2	AW549877	AFF3
ARPC5L	BAMBI	B3GALT2	AGPAT3
ARRDC1	BCL11B	B3GALT5	AI314976
ARSB	BEX4	B4GALNT2	AI467606
ATP11B	BMP2	BC016495	AI837181
ATP1B1	BMP7	BC018473	AK3
ATP1B3	BVES	BC031181	AKR1B10
ATP6V0A2	BZW2	BCL2A1C	ALG5
ATP8B4	CACNA1D	BCL2A1D	ALKBH4
AW146020	CALCA	BMP4	ANAPC4
B3GNT5	CAR13	BTBD19	ANKRD24
B4GALT5	CCL1	BTRC	ANUBL1
BC017643	CCR4	C130039O16RIK	ANXA1
BC094916	CCR8	C4A	ANXA2
BCL9L	CD24A	C4B	AOAH
BID	CD6	CABLES1	APBB1IP
BOD1	CD81	CAP2	ARHGAP25
C030039L03RIK	CDH2	CAPG	ARHGAP30
C1GALT1	CHD7	CAV2	ARHGEF18
C630004H02RIK	CHDH	CCDC55	ARHGEF2
CAR5B	CHSY3	CCNE2	ARL4D
CASC5	CSF1	CCNG2	ARL6IP5
CASP2	CSF2	CCNI	ARPC5L
CBFA2T3	CXCL1	CCR1	ARRDC1
CCL5	CXCL2	CCR9	ARSB
CCM2	CYBB	CD164	AS3MT
CCNA2	CYP2D22	CD38	ASAP2
CCNB2	CYP2W1	CD4	ATG4D
CCNE1	CYP51	CD83	ATG5
CCNJ	CYSLTR1	CD93	ATP11B
CCR5	D330045A20RIK	CD96	ATP1B1
CD160	DACH2	CDC42EP2	ATP1B3
CD1D1	DENND5A	CDH17	ATP6V0A2
CD1D2	DGAT2	CDH20	ATP8B4
CD2	DHCR24	CDK14	AW146020
CD22	DHX40	CHAD	B3GNT5
CD247	DIP2C	CHST12	B4GALT5
CD28	DMXL2	CKB	BAIAP3
CD3D	DOCK1	CLIC4	BC017643
CD3E	DPH5	CLNK	BC094916
CD3G	DUSP10	CNKSR3	BID
CD47	EBI3	CNN3	BLOC1S3
CD48	EEF1B2	CORO2B	C030039L03RIK
CD52	EEPD1	CPA3	C1QL3
CD55	EFNB2	CPD	CALM1
CD7	ELOVL5	CRYAA	CAPN2
CD9	ENAH	CSTAD	CAR5B
CD97	EPAS1	CTLA4	CARD6
CDC14B	EPB4.1L4A	CTSA	CBFA2T3
CDC25A	EPHA2	CTSB	CCDC88A
CDC26B	ETS2	CXCL9	CCL5
CDC42SE1	F630111L10RIK	CXCR5	CCM2
CHORDC1	FAAH	CYP2J6	CCNA2
CHPT1	FAM169B	CYP2J9	CCNB2
CHSY1	FAM183B	CYP4F16	CCNE1
CLDND2	FAM194A	D16ERTD472E	CCNJ
CLEC2I	FAM55D	DBF4	CCR2
CLN3	FAM71F2	DHRS11	CCR5
CLOCK	FBXL21	DHRS4	CD1D1
CMAH	FBXO34	DKKL1	CD1D2
CNGA1	GALC	DLG5	CD2
CNR2	GALNT3	DMRTA1	CD247
COPA	GAS2L3	DNAHC6	CD28
CRIP1	GATA3	DNAJB5	CD300LF
CRTAM	GCFC1	DNAJC12	CD47
CSPRS	GFI1	DPEP2	CD48
CST7	GFPT2	DSTN	CD52

Th1	Th2	Th17
>Th2 & Th17	>Th1 & Th17	>Th1 & Th2
1000	**1000**	**1756**
SEPT6	MARCH10	SEPT5
1110037F02RIK	0610009L18RIK	SEPT8
1110059E24RIK	1110032F04RIK	SEPT11
1700001O22RIK	1110034G24RIK	0610010F05RIK
1700025G04RIK	1110056L19RIK	1600002H07RIK
1700040L02RIK	1190005I06RIK	1600014C10RIK
2510009E07RIK	1700056E22RIK	1700008J07RIK
2610020H08RIK	1810011H11RIK	1700021K19RIK
2900026A02RIK	2310035C23RIK	1700029J07RIK
4930486L24RIK	2410015M20RIK	1700048O20RIK
4933430I17RIK	2410137M14RIK	1700128F08RIK
5430417L22RIK	2610008E11RIK	1810022K09RIK
5430427O19RIK	2700046G09RIK	1810055G02RIK
5730508B09RIK	2810408M09RIK	2010015L04RIK
5830411N06RIK	4921507P07RIK	2010204K13RIK
6330403K07RIK	4930453N24RIK	2310014L17RIK
A	4932438H23RIK	2310036O22RIK
A530064D06RIK	5830415F09RIK	2310057M21RIK
AA467197	5830416P10RIK	2410089E03RIK
AAGAB	6430571L13RIK	2700097O09RIK
ABCA3	9430020K01RIK	2810403A07RIK
ABCC3	9930012K11RIK	2900005J15RIK
ABCD1	A430078G23RIK	2900011O08RIK
ABCG1	A630033H20RIK	3000002C10RIK
ABCG2	AA987161	3110007F17RIK
ABHD4	ABCB9	3110043O21RIK
ABHD8	ABCC1	4632434I11RIK
ACADL	ABHD14B	4833439L19RIK
ACSF2	ABHD6	4930452B06RIK
ACSL4	ABTB2	4930470H14RIK
ACTN1	ACAP3	4930503L19RIK
ACVRL1	ACAT2	4930519F09RIK
ADA	ACBD7	5830418K08RIK
ADORA2A	ACC5	6030468B19RIK
ADORA3	ACOT11	6430548M08RIK
AGFG1	ACOT2	6430550D23RIK
AGFG2	ACRBP	6820431F20RIK
AGPAT5	ACSS1	8430427H17RIK
AGRN	ACSS2	9030612E09RIK
AHCY	ACTN2	9430008C03RIK
AHCYL1	ACYP1	9430015G10RIK
AHDC1	ADAM8	A430093F15RIK
AIM1L	ADAMTS10	A630001G21RIK
AIPL1	ADAMTSL4	A630089N07RIK
AKT2	ADAR	A830080D01RIK
ALAD	ADC	AA398235
ALDH5A1	ADCK1	AAAS
ALDOA	ADCY6	AATF
ALDOC	ADD3	ABAT
ANXA1	ADI1	ABCA5
ANXA2	ADK	ABCB6
ANXA6	ADPRHL2	ABCC4
AP3S1	ADRBK2	ABCC5
APAF1	AFF4	ABCC8
APBB1IP	AGER	ABCD3
APH1A	AGPAT2	ABCE1
APH1B	AHNAK	ABCF2
APOL7E	AI413582	ABHD15
APOLD1	AI462493	ABI3
APP	AI467606	ABI3BP
APPL1	AI854703	ABL2
AQP9	AK2	ACAD9
ARAP2	AKAP7	ACOT10
AREG	AKAP8	ACSL1
ARF6	AKAP8L	ACSL3
ARHGAP18	AKR1C12	ACTL6A
ARHGAP19	AKR1C13	ACTR1B
ARHGAP29	AKT1S1	ACTR3B
ARHGEF5	ALDH1B1	ACVR1
ARHGEF6	ALKBH4	ADAM12
ARID5B	ALKBH7	ADAM19
ARL5A	ALOX5AP	ADAM1A
ARL8B	ALOX8	ADAM9
ARRB1	ALS2CL	ADAMTS13
ARRDC3	AMPD3	ADAMTS6
ARSB	ANGPTL6	ADARB1
ASAH2	ANK	ADARB2
ASAP1	ANKRD23	ADCY4
ASNS	AP3D1	ADCY9
ATF6	AP4S1	ADH4
ATP11B	APOL7C	ADPGK
ATP13A3	AQP11	AFAP1
ATP1A3	AR	AFF1
ATP1B2	ARHGAP4	AFF3
ATP2B1	ARHGEF1	AGAP1
ATP2B4	ARHGEF10	AGAP3
ATP6V1D	ARHGEF18	AHCTF1
ATP8A1	ARID4B	AHR
ATP8A2	ARL4A	AHRR
ATP8B4	ARL4C	AHSA1
AW112010	ARL6IP5	AIDA
AZIN1	ASB13	AIF1L
B2M	ASB2	AIFM1
B3GNT3	ASB6	AK1
B3GNT5	ASPSCR1	AK4
B430306N03RIK	ASS1	AKAP1
B4GALNT4	ATF3	AKAP12
BAG3	ATF5	AKAP13
BASP1	ATG16L1	AKAP2
BATF3	ATG4C	AKAP5
BBC3	ATN1	AKR1B8
BC022687	ATOX1	ALCAM
BC052040	ATP10D	ALDOART1
BC068157	ATP13A1	ALG3
BCL2L11	ATP1A1	ALG8
BCL7C	ATP1B3	ALMS1
BEND6	ATP2A3	AMACR
BHLHE40	ATP5E	AMOTL1

V1	V6	V2	V5
>V2 & V6	>V2 & V5	>V5 & V6	>V2 & V6
23	**387**	**194**	**408**
C1QL3	ACSL3	ACVR2A	ACSF2
CCL5	ADAMTS3	ADAM12	ADH1
CD8B1	ADAMTS6	ADAM8	ADRB1
CRTAM	ADAMTSL3	ADRB2	AHRR
DAPL1	ADK	AHCYL2	ALPI
EOMES	AKAP6	AI504432	ANXA4
GPR15	AKR1C12	AI646023	AOAH
GRIA3	AKR1C18	ANKRD35	APH1B
HMCN1	ALS2	ANKRD6	APLP1
IFT80	ALS2CL	AOP3	APLP2
ITGA4	ANP32E	ARHGAP21	APOA1
KIT	APOO	ARHGAP26	APOA4
KLRI1	APOOL	ARHGAP31	APOL10B
MIR365-1	ARHGAP11A	ARID5A	APOL9A
MS4A4C	ARHGAP24	ARNTL	APOL9B
PRR5L	ARL4D	ATF6	APPL2
RRAS2	ASAP1	ATOH8	ARAP3
SELL	ASF1B	ATP10D	ARHGEF5
THEMIS	ASPM	ATP2B1	ARID3A
TNFSF8	ATIC	B3GNT5	ARRDC3
TRIO	ATP1B1	BIK	ARRDC4
TSGA10	BC021614	BLK	ART2B
TUBA3B	BC094916	C630004H02RIK	AS3MT
	BRIP1	CAMK2D	ASB2
	BTLA	CCDC109B	ASPH
	BUB1	CCR2	ATG4C
	BUB1B	CCR6	ATP6V0A2
	BZW2	CD163L1	AUH
	C330027C09RIK	CD44	B3GALT5
	CACNA1D	CD55	B3GNT7
	CAP2	CDC14B	B4GALNT2
	CASC5	CDH10	B4GALNT4
	CASD1	CDON	BAIAP3
	CBX5	CLIP1	BC005624
	CCDC125	CLOCK	BC013712
	CCNA2	CORO2B	BC016495
	CCNB1	CPEB2	BCL2
	CCNB2	CPM	BCL2L11
	CCNE2	CRY1	BEND7
	CCR10	CRYBG3	BMF
	CCR4	CXCR6	BMP2K
	CCR8	CYP2S1	C030046I01RIK
	CD28	CYSLTR1	C1QTNF6
	CD4	DERL3	CABLES1
	CD40LG	DKKL1	CAMKK2N1
	CD5	DUSP7	CAPN3
	CD6	EDARADD	CAR2
	CD81	ELL2	CASZ1
	CD9	EMB	CCDC104
	CDC6	EMP3	CCDC134
	CDCA5	EPAS1	CCDC136
	CDCA7	ERO1L	CCDC80
	CDK1	ESYT2	CCL3
	CDKN2C	ETV6	CCL4
	CENPE	F2RL2	CCL5
	CENPH	FAM117A	CCNI
	CENPK	FAM124B	CCNO
	CEP55	FAM169B	CCRL2
	CES2D-PS	FAM65B	CD101
	CHDH	FCHO2	CD200R1
	CHEK1	FLOT1	CD200R2
	CHST15	FOSB	CD200R4
	CHST2	FSTL4	CD244
	CKS1B	GAB3	CD38
	CKS2	GABBR1	CD3E
	CMTM7	GALM	CD7
	CNTNAP1	GGT1	CD72
	CPNE7	GLIPR2	CD8A
	CSF1	GLT25D2	CD96
	CTLA2A	GM2A	CDH1
	CX3CR1	GM527	CDYL2
	CXXC5	GOLM1	CELA1
	CYCS	GPR132	CHST12
	D030056L22RIK	GPR183	CHSY1
	DEPDC1A	GPR44	CLDND2
	DFNA5	GPRIN3	CLIP2
	DLGAP5	H60B	CLNK
	DNA2	HBB-B1	CLSTN1
	DNAHC8	HBB-B2	CNIH2
	DPP4	HLF	CNNM2
	DSTN	HNRPLL	COPZ2
	DTL	IFI203	CREB3L1
	DUSP2	IFNGR1	CRTAM
	DUT	IGF1R	CTLA4
	EIF3M	IL17F	CTNNBIP1
	ENG	IL17RA	CYP2J6
	EPHA3	IL17RC	CYP2J9
	ERH	IL17RE	CYP51
	ESCO2	IL1R1	CYTH3
	ETV5	IL23R	D8ERTD82E
	EXO1	IL2RA	DAPK2
	EZH2	IL7R	DCBLD2
	F630043A04RIK	IRAK3	DDC
	FABP7	ITGA5	DDX28
	FAIM	ITGB5	DENND4A
	FAM20A	KBTBD11	DHCR24
	FAM49A	KCNA3	DHCR7
	FAM54A	KCNK1	DISP1
	FAM60A	KLF2	DOK1
	FAM81A	KLF3	DSP
	FBXO5	LAPTM4B	DTX1
	FCRL1	LINGO4	DUSP10
	FGF2	LONRF3	DUSP5
	FHL2	LPCAT2	DUSP6
	FIGNL1	LRRC25	EEF2K
	FLRT2	LRRC8B	EFCAB4B
	FOLR4	LRRN4	EFHD2
	FZD6	LTB4R1	EHD1

PTPN4
QRFP
RECK
RGS1
RGS18
RNF13
SAMD3
SEPN1
SERPINA3H
SERPINB9
SERPINB9B
SERPINI1
SIDT1
SLAMF7
SNX10
SPIN2
SRC
STYK1
SYTL2
SYTL3
TACC1
TBX21
TMEM2
TMEM37
TNFSF8
TSC22D3
TSPAN4
TXNIP
TYROBP
WIPF1
XCL1
ZCCHC18

LAIR1
LAT2
LITAF
LPAR6
LRRC8C
LRRK1
LY6C1
LYZ2
LY6I
LYZ1
LYZ2
MAGOHB
MAN1C1
MAP3K8
MBNL1
MCOLN2
MS4A6C
NCALD
NCR1
NEDD4
NEURL3
NKG7
NR4A2
OASL1
P2RY13
PANK3
PDE7A
PEA15A
PGLYRP1
PIK3R5
PITPNC1
PLEKHM3
POGK
PPM1J
PRF1
PTPN4
PTPN6
QRFP
RCBTB2
RECK
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RGS18
RNF13
SAMD3
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SERPINI1
SIDT1
SLAMF7
SLC2A3
SMAP2
SNX10
SPAG9
SPIN2
SRC
ST3GAL4
STYK1
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SYTL3
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TNFRSF18
TNFSF8
TPM1
TPM4
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TSPAN4
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TYROBP
UBLCP1
UIMC1
WHSC1L1
WIPF1
XCL1
ZCCHC18
ZFP36L2
ZYX

LXN
LYPD6B
LZTFL1
MAGED2
MAPK11
MBOAT1
MCM10
MGST2
MTX2
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NCAPH
NRP2
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NUDT7
NUP153
OLFML3
ORC1
PABPC1
PCSK1
PDE4C
PDE7B
PECAM1
PGAM2
PGCP
PGK1
PHGDH
PLAC8
PLAUR
PLD1
PPIC
PRDX2
PRG4
PRKCA
PRR5L
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PTPLAD1
PTPN5
PTPRR
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PYROXD2
RCAN3
RCBTB1
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RPRM
RRM2
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SCD1
SCD2
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SDHB
SEC63
SESN3
SETX
SGK3
SGOL1
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SLC29A1
SMC2
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SNX10
SOX4
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SPNB2
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ST8SIA6
STARD10
STMN1
TCF25
TCF7
TESC
THEMIS
TIAM1
TNFRSF4
TOP2A
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TRIM13
TRP53BP1
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TTC3
TUBA3A
TUBB5
TWSG1
TYMS
USP38
XKR8
ZCCHC12

STAB2
SUSD2
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TCEB3
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TMEM176B
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TRPV2
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ZFP459

CTSD
CYB5B
CYM
D10WSU102E
D14ABB1E
D1ERTD622E
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D4WSU53E
D8ERTD82E
D930015E06RIK
DAPL1
DDX39
DDX43
DEF6
DENND2D
DGKA
DGKZ
DIDO1
DNAHC8
DOCK11
DOCK9
DPH2
DPY19L1
DSCAM
DTX3L
EFCAB4B
EFHC2
EFHD2
EHD3
ELOVL7
ELTD1
ENPP1
ENTPD4
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EPSTI1
ESYT1
EYA1
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FAM78B
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GOLM1
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GPR137B
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GPR155
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GPR21
GPR68
GPRIN3
GRAMD3
GRAMD4
GSG2
GTDC1
GVIN1
GZMA
GZMM
H2-Q6
H2-T24
H6PD
HAAO
HERC3
HIST1H2AK
HIST1H2BN
HN1
HOPX
HS3ST3B1
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IFI47
IFIT2
IFNAR2
IKZF1
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IL16
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IL18RAP
IL20RA
IL21R
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ITGA2
ITGAM
ITGAX
ITGB1
ITGB1BP1
ITGB2
ITM2A
JAK1
KBTBD4
KCNAB2
KCNIP3
KCNJ8
KIFC3

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HBA-A2
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HDX
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HGF
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HIST1H2BE
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HIST2H2BB
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IL9R
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IRF4
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KRT80
LGALS7
LGMN
LMO4
LPCAT2
LPHN2
LRRC34
LRRC52
LY6A
LY6C1
LY6C2
MAP4K3
MBOAT1
MC5R
MED12L
MICAL3
MNS1
MRAS
MUC1
MXI1
MYO1D
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NAIP6
NAV2
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NFKB1
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NMUR1
NPNT
NUCB2
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OLFR1173
OLFR1226
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OLFR340
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OLFR706
OLFR714
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PARD3
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PDCD1
PDCD1LG2
PDE4D
PDE7B
PENK
PGCP
PKIA
PLAUR
PLCL1
PLSCR2
PLXDC1
POPDC3
POU2F2
PPARG
PPM1L

DUS2L
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EGFL6
EIF2C4
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EPS8L3
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FAM46C
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FAM98B
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FHL2
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FRYL
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GATAD1
GCNT2
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GLT25D2
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GNG2
GNG5
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GPR183
GPR34
GPR97
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GSTM5
GSTT2
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GZMC
GZMD
GZME
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IGFBP4
IGFBP7
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IL1R2
IL1RL2
IL22
IL23R
ING3
ING5
INPP4A
INTS12
IRAK3
IRF5
IRF8
ISCU
ITGB3BP
ITGB5
JMJD1C
KCNK1
KRT4
L1CAM
LANCL2
LARGE
LGALS3
LIN7C
LINGO4
LITAF
LRRC49
LRRC8B
LRRK2
LTA
LY6G5B
LY86
LYSMD2
LYSMD3
MAF
MAFF
MAPK10
MARCKSL1
MARVELD1
MBD2

CD55
CD68
CD7
CD9
CD97
CDAN1
CDC14B
CDC25B
CDC34
CDC42SE1
CDCA7L
CDH22
CDK2AP1
CDKN2C
CDKN2D
CGGBP1
CHPT1
CHRNE
CHSY1
CLDND2
CLEC2D
CLEC2I
CLEC4E
CLIP3
CLOCK
CMA1
CMAH
CMKLR1
CRIP1
CRTAM
CSDA
CSPRS
CST7
CSTF2T
CTLA2A
CTSC
CTSD
DDX39
DGKH
DGKZ
DNAHC8
DNAJC15
DOCK11
DOK2
DPH2
DPY19L1
DUSP2
DUSP22
EFCAB4B
EFHD2
EHD3
EIF5A2
ELOVL7
ELTD1
ENPP1
ENTPD1
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EPSTI1
ESD
ESYT1
EYA1
F2RL1
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FAM26F
FAM53B
FAM65B
FAM69A
FBXL2
FCGR2B
FCRL6
FLNA
FRY
GALNT6
GAS7
GEMIN7
GGCT
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GM11435
GNPNAT1
GNPTAB
GOLM1
GOLPH3L
GPC1
GPR137B
GPR160
GPR174
GPR25
GPRIN3
GPX8
GRAMD3
GRAMD4
GSG2
GSTM1
GTDC1
GVIN1
GZMA
GZMB
GZMK
GZMM
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HAAO
HERC3
HEXB

BMF
BMP2K
BNIP3
BRDT
BRE
BSPRY
BST1
BTBD1
BTG1
BTLA
C1QTNF1
C1QTNF6
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CAB39
CABLES1
CACNB3
CACNB4
CAGE1
CAPN2
CAR11
CARD11
CASP1
CASP3
CASP4
CASS4
CAV2
CBLB
CBX3
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CCDC136
CCDC92
CCL5
CCND3
CCNI
CCR5
CCRL2
CD163L1
CD164
CD200R1
CD200R4
CD28
CD38
CD8A
CD9
CD93
CDC14A
CDK14
CDK19
CDKN2A
CDKN2C
CDKN3
CDNF
CDS2
CELF2
CELSR1
CENPA
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CEP170
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CAPRIN2
CAPSL
CAR12
CAR13

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MX2
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NCAPG

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PI4K2A
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PLXND1
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SDC1
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SEMA4F
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SLC35F2
SLC9A2
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SPOCK2
SSH2
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SYNE2
SYNJ2
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THY1
TLR1
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ZNRF1

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GZMK
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IGSF5
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IL2RB
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INSIG1
INTU
IRF8
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ITGAM
ITGAX
ITIH5
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JUNB
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LPIN2
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LSS
LTA4H
LYN
MAP4K1

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KLHL4	PSMC5	MGAT4A	HIST1H1B
KLHL6	PTGIR	MICAL2	HIST1H2AF
KLRA1	PTK2	MINA	HIST1H2AK
KLRA10	PTP4A1	MMP23	HIST1H2AN
KLRA3	PTPN13	MPZL3	HIST1H2BB
KLRA5	PTPN9	MSRA	HIST1H2BC
KLRA6	RAB11FIP5	MTAP7D3	HIST1H2BL
KLRA8	RAB27B	MYO5A	HIST1H3G
KLRA9	RAB30	NCOA7	HN1
KLRB1A	RAB4A	NDRG1	HSD11B1
KLRB1C	RAD51L1	NEDD9	HYLS1
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KLRC3	REM2	NFE2L2	IFIT2
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KLRE1	RETNLB	NLRP1B	IL10RB
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KLRI2	RIPK4	NOX1	IL17RA
KLRK1	RNF128	NPAS2	IL18RAP
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LAX1	RPL19	NRGN	ITGA2
LCN4	RPL22	NT5E	ITGA6
LDLRAP1	RPL24	OASL2	ITGAD
LEF1	RPL26	OAT	ITGAM
LFNG	RPL27	OCRL	ITGAX
LGALS1	RPL27A	OGFRL1	ITGB1
LIMD2	RPL30	OLFR1342	ITGB1BP1
LIMS1	RPL31	OLFR46	ITGB2
LPAR5	RPL35	OLFR60	ITM2A
LRMP	RPL35A	OPTN	JAK1
LRRK1	RPL36	ORAI1	KBTBD4
LY6C1	RPL36A	OSGIN2	KCNAB2
LY6C2	RPL37A	P2RX7	KCNIP3
LYST	RPLP1	PARP1	KCNJ8
MFSD8	RPRL2	PARP12	KCTD1
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MS4A4C	RPS21	PDP1	KLF12
MS4A6B	RPS24	PDZD2	KLF2
MS4A6C	RPS27A	PEX13	KLHL20
MTERF	RPS28	PGM1	KLHL30
MTIF3	RPS3	PGM2L1	KLHL4
MYB	RPS8	PHYH	KLHL6
MYO1F	RPS9	PIK3C2B	KLRA1
NBEAL2	RPSA	PIK3R1	KLRA10
NCK1	RRP15	PLCB4	KLRA3
NEBL	RUNX1T1	PLCXD2	KLRA5
NOD1	RXRG	PLEKHG1	KLRA6
OAS1A	SCAMP1	PLEKHM3	KLRA8
OAS1B	SCEL	PLK3	KLRA9
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ORAI2	SERPINE1	PLTP	KLRB1C
ORMDL1	SLAIN1	POUNL1	KLRC1
OSBPL5	SLC18A2	POP4	KLRC2
OXSM	SLC6A12	PPP1R11	KLRC3
PAM	SLC7A5	PPP1R2	KLRD1
PARP11	SLC7A8	PPP1R3B	KLRE1
PDE2A	SOAT1	PRAM1	KLRI2
PDGFB	SOCS5	PRC1	KLRK1
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PHF11	SPNS3	PRR5	KTI12
PIK3R5	SPRY1	PRRG1	LACTB2
PILRB1	SSXB10	PRRG4	LAIR1
PION	ST6GALNAC5	PSAP	LASS2
PJA2	STAB2	PSD2	LAT2
PLEK	STXBP6	PTGES	LAX1
PLEKHA5	SV2B	PTMS	LDLRAP1
PLXNC1	SYNE1	PTPN3	LFNG
POGK	TANC2	PTPRA	LGALS1
POLE2	TCP11L1	PTPRM	LIMS1
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PRKCB	TMEM146	RASGRP3	LYRM2
PRKCQ	TMEM164	RASL11A	LZTS1
PRR5L	TNFRSF10B	RBBP8	MAG
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PTPN12	TPH1	RBM24	MED30
PTPN4	TSPAN13	RBPMS2	MED8
PTPRC	UBA52	RCBTB2	MEF2C
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PYHIN1	UBC	RGNEF	MOCS2
QRFP	UBE2E2	RGS9	MORC3
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RANBP10	VIPR2	RHOD	MS4A6C
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RAP2B	VMN1R6	RIPK2	MTIF3
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RASA3	ZFP92	RPN1	NBEAL2
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RELT		RSU1	NCK1
RFX3		RYBP	NHP2L1
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RHOQ		S100A1	NKG7
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RNF219		SAP30	NPC1
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RSL1		SDC1	ORAI2
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DISP1	CYP4V3	CASK
DKKL1	CYSLTR1	CASKIN2
DLG3	D630039A03RIK	CASP7
DNAJB13	DAND5	CASZ1
DNAJC15	DAPK1	CBX2
DNM1	DAPK3	CCAR1
DOCK9	DBNDD2	CCBL2
DOK1	DCAF4	CCDC112
DPY19L1	DCLK2	CCDC116
DPYSL2	DDC	CCDC122
DSE	DDIT3	CCDC132
DSG2	DDX26B	CCDC137
DYNLRB2	DEDD2	CCDC157
DYRK2	DENND1A	CCDC30
DZIP1	DENND1C	CCDC34
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ECE1	DFFB	CCDC58
EDEM1	DGKA	CCDC63
EEFSEC	DHRS11	CCDC74A
EFCAB10	DHRS3	CCDC88A
EFHD2	DHRSX	CCL3
EFNA1	DMD	CCL4
EFR3A	DNAJB9	CCNE1
EHD1	DNASE1L2	CCNE2
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ELOVL6	DTWD2	CCT6A
EMB	DTX4	CCT8
EMILIN2	DUSP1	CD101
ENPP1	DUSP10	CD109
ENPP4	DUSP2	CD200
ENPP5	DUSP23	CD209C
EPHX4	DUSP6	CD24A
EPS8	E130311K13RIK	CD300A
EPSTI1	E4F1	CD33
ERAP1	EAR2	CD3EAP
ERI2	ECM1	CD40
ERMN	EFNA5	CD5
ERMP1	EHHADH	CD5L
ERO1LB	EIF5	CD74
ERRFI1	ELF1	CDC123
ESPN	ELF2	CDC14B
ESPNL	EMG1	CDC25A
ESR1	EMILIN1	CDC42BPA
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ETV5	EML3	CDC42EP4
EXOC6	EMP3	CDC45
EZR	ENGASE	CDC6
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FADS2	ENTPD1	CDCA7
FAH	ENTPD6	CDH23
FAM102B	EOMES	CDK16
FAM107B	EPAS1	CDK2
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FAM122B	EPHA2	CDK6
FAM132A	EPHX1	CDK8
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FAM20A	ESCO1	CDKL5
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FAM49A	EYA2	CDR2
FAM63B	F2RL3	CDR2L
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FBXO28	FAM117A	CELSR2
FCER1G	FAM117B	CENPH
FCHO2	FAM120A	CENPI
FDPS	FAM129C	CENPT
FFAR2	FAM160B2	CEP110
FGGY	FAM19A3	CEP135
FGL2	FAM20B	CEP152
FGR	FAM46A	CEP170
FHL2	FAM63A	CEP250
FILIP1	FAM65C	CEP290
FKBP5	FAM83H	CEP350
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FUT8	FBXO33	CHCHD4
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FYN	FCRLS	CINP
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GALNS	FLT3L	CLGN
GALNT3	FN3K	CLSPN
GALNT7	FOXN3	CLUAP1
GAPDH	FPGT	CMKLR1
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GAS7	FRAT2	CNIH3
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GATSL2	FRY	CNNM4
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GBP2	FUT11	CNTLN
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GBP4	FZD10	COL5A1
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GCA	GABRB3	COPS5
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GFPT1	GATA1	COQ7
GGTA1	GATA3	COX6C

NCAPG2	MAPK3
NCAPH	MAPRE2
NCR1	MAX
NDUFB6	MBD2
NDUFC2	MCAM
NEIL3	MCART6
NEK2	MCOLN3
NETO2	MCTP2
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NME1	MLKL
NOP10	MLLT4
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NPM3	MRGPRA9
NPM3-PS1	MTA3
NRGN	MYO1E
NRP1	MYO6
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PDCD1LG2	NOD1
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PHGDH	NR4A2
PITPNM2	NR4A3
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PLK2	OPTN
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PSMG2	PIK3CB
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RCBTB1	PNPLA7
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RIN2	PPP1R3B
RNF2	PPP2R2C
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RNU73B	PPP3CC
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SCCPDH	PTPN22
SGK3	PTPN4
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SLC7A5	RIN3
SLC9A7	RIPPLY3
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SLFN3	RNF169
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SNORD118	SEC14L1
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SNORD15B	SELENBP2
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SNORD1C	SERPINA3F
SNORD22	SERPINB6A
SNORD35A	SFT2D2
SNORD38A	SH2D1B1

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SGK3
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SH2D3C
SH3BP2
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SIKE1
SIRT3
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SLFN2
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PARP14	PTPN7	GTF2IRD1
PARP8	PTPRCAP	GTSE1
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USP31
USP33
USP40
USP46
USP49
USP6NL
UST
UTP14A
UTP18
UTP20
UTP6
VAC14
VANGL2
VAX2
VCL
VDR
VKORC1L1
VMN1R58
VMN2R96
VWA1
WDFY4
WDHD1
WDR3
WDR35
WDR36
WDR43
WDR47
WDR60
WDR61
WDR62
WDR75
WDR92
WDYHV1
WFDC16
WHRN
WNT2B
WRB
WWC2
XKRX
XPO5
XRCC1

XRCC2
XYLB
XYLT2
YARS2
YBX2
YDJC
YEATS2
YLPM1
ZADH2
ZBTB17
ZBTB46
ZC3H12A
ZC3H12C
ZC3H12D
ZC3H8
ZCCHC14
ZCRB1
ZDHHC13
ZDHHC14
ZDHHC6
ZFC3H1
ZFHX3
ZFP101
ZFP131
ZFP28
ZFP318
ZFP382
ZFP410
ZFP428
ZFP449
ZFP451
ZFP488
ZFP518B
ZFP52
ZFP609
ZFP667
ZFP85-RS1
ZFP870
ZFP9
ZFP90
ZFYVE26
ZFYVE9
ZGPAT
ZIK1
ZMAT3
ZMYM1
ZMYND19
ZNHIT6
ZSCAN21
ZSCAN22
ZWILCH
ZZZ3

Supplementary Table 2. List of shared upstream regulators and canonical pathways in each group. Numbers indicate –logP values of an enrichment score of each upstream regulator or canonical pathways. The list shows ones highly significant to all subsets in each group (–logP>3 or P<0.001 for upstream regulators and –logP>1.3 or P<0.05 for canonical pathways). For L2 and L3 groups, canonical pathways significantly shared by three out of four subsets are shown.

Group	Upstram Regulator	NKT1	ILC1	V5	Th1	NK
L1	ITK	30.10	12.31	10.66	13.83	11.15
	IL2	18.61	9.79	13.85	14.82	11.72
	IL12 (complex)	18.16	7.51	7.83	21.00	8.73
	IL21	14.90	12.67	12.60	8.84	10.31
	IL15	14.23	8.58	12.37	12.91	8.36
	IFNG	12.96	8.35	14.35	29.79	9.73
	TCR	11.53	5.25	9.68	17.82	6.68
	IL4	11.16	11.71	11.25	15.19	6.69
	IL10	10.34	4.90	6.25	10.44	6.69
	TGFB1	9.29	11.09	10.18	23.16	12.61
	TNF	9.24	6.64	12.47	20.31	7.01
	CSF2	8.74	5.16	5.73	7.30	4.99
	CD28	8.70	3.47	6.57	9.39	3.14
	FAS	8.17	5.23	5.95	10.38	4.15
	CD3	7.99	5.29	10.75	7.65	5.24
	IL5	7.79	6.92	7.85	15.14	8.45
	STAT3	7.50	3.77	7.73	20.16	3.65
	IL1B	7.40	4.07	4.69	9.28	4.57
	ESR1	7.33	5.60	8.50	12.79	3.74
	TLR4	7.24	4.35	9.20	9.16	3.46
	CREBBP	7.08	6.83	9.60	11.52	7.29
	ID2	7.04	4.45	8.90	11.03	5.80
	Interferon alpha	6.73	6.23	4.58	20.54	4.50
	IFN alpha/beta	6.30	3.04	3.68	6.68	3.39
	SATB1	6.13	8.71	5.78	4.84	6.76
	ID3	5.85	4.29	9.51	10.59	5.60
	ERBB2	5.78	6.80	3.42	15.57	5.67
	ETS1	5.32	5.05	6.08	5.45	5.51
	IgG	5.15	4.62	3.62	5.44	3.89
	IRF3	5.13	4.60	3.54	12.98	3.24
	IFNA2	5.10	5.46	3.80	24.48	3.36
	CD40LG	4.69	3.41	7.58	13.93	3.96
	IRF7	4.21	7.03	3.67	17.35	4.59
	CSF3	4.18	4.60	6.57	4.84	6.76
	FOXO1	3.69	4.00	3.61	5.85	3.63
	PI3K (complex)	3.53	6.96	5.15	3.45	7.79
	CD38	3.43	5.60	3.82	12.86	5.52
	CCL5	3.04	4.18	3.97	3.52	4.55
	EP300	3.04	9.57	3.64	8.79	6.66
		NKT2	ILC2	V6	Th2	
L2	TP53	12.31	6.72	23.02	7.46	
	CSF2	11.46	8.29	25.52	5.93	
	ID2	7.60	12.20	13.82	5.95	
	ID3	7.42	12.96	14.51	5.66	
	RRP1B	6.39	7.88	8.03	4.17	
	TGFB1	5.84	6.31	15.00	6.31	
	ESR1	5.77	5.35	6.73	3.83	
	CD3	5.15	9.98	11.15	4.43	
	ERBB2	4.51	6.17	13.15	3.77	
	TCR	3.72	6.73	12.59	5.88	
	MYC	3.27	3.85	10.69	3.13	
		NKT17	ILC3	V2	Th17	
L3	ID3	5.76	6.11	7.11	4.75	
	ID2	4.84	7.12	7.28	3.78	
	BCL6	3.35	3.51	4.16	4.90	
	EP300	3.19	6.25	16.43	5.53	
	IL4	3.06	4.92	6.00	7.43	

Group	Canonical Pathway	NKT1	ILC1	V5	Th1	NK
L1	Natural Killer Cell Signaling	10.86	8.52	6.27	5.43	9.39
	Pathogenesis of Multiple Sclerosis	4.65	2.10	3.44	2.34	1.95
	Crosstalk between Dendritic Cells and Natural Killer Cells	3.50	2.56	1.75	4.19	2.18
	Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	2.84	1.58	4.12	4.16	1.64
	Integrin Signaling	2.60	7.54	6.31	6.47	9.46
	Germ Cell-Sertoli Cell Junction Signaling	2.35	2.99	4.00	3.96	1.95
	Type I Diabetes Mellitus Signaling	2.21	3.47	1.41	5.00	1.76
	PKCθ Signaling in T Lymphocytes	2.07	3.20	4.39	3.38	1.58
	Erythropoietin Signaling	1.96	1.63	2.95	3.31	1.39
	Leukocyte Extravasation Signaling	1.95	2.87	2.62	1.72	2.81
	CCR5 Signaling in Macrophages	1.89	4.72	5.40	3.12	2.60
	Chemokine Signaling	1.88	1.54	3.58	3.07	1.89
	TREM1 Signaling	1.86	3.76	3.55	3.64	3.28
	Reelin Signaling in Neurons	1.82	3.65	3.44	2.89	2.46
	Ceramide Signaling	1.75	2.71	4.94	2.17	3.02
	Cytotoxic T Lymphocyte-mediated Apoptosis of Target Cells	1.73	5.07	3.75	3.62	2.56
	Virus Entry via Endocytic Pathways	1.61	4.78	2.28	4.56	5.82
	NF-κB Signaling	1.57	1.75	2.60	1.64	1.38
	Paxillin Signaling	1.54	5.42	5.11	4.26	5.56
	Pancreatic Adenocarcinoma Signaling	1.47	2.17	1.45	1.51	1.30
	Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	1.31	2.47	2.29	3.79	1.54
	p70S6K Signaling	1.31	1.88	5.07	3.79	2.63
		NKT2	ILC2	V6	Th2	
L2	cAMP-mediated signaling	2.24	3.46	0.00	1.86	
	Protein Kinase A Signaling	2.07	2.09	0.66	3.35	
	G-Protein Coupled Receptor Signaling	1.90	3.48	0.00	1.53	
	T Helper Cell Differentiation	1.81	3.68	2.42	0.51	
	Altered T Cell and B Cell Signaling in Rheumatoid Arthritis	1.58	3.20	2.77	0.35	
	Airway Inflammation in Asthma	1.45	4.79	2.70	0.75	
		NKT17	ILC3	V2	Th17	
L3	Inhibition of Matrix Metalloproteases	1.77	1.53	3.57	1.18	
	Type I Diabetes Mellitus Signaling	1.75	1.95	1.25	1.85	