

A list of immune-related genes.

IRGs					
AZGP1	IGH	CNTF	CRLF1	FCER1G	TNFAIP3
B2M	IGHV1-18	CORT	CRLF2	CD247	TFR2
CALR	IGHV1-2	CRH	CRLF3	ZAP70	FCN2
CANX	IGHV1-24	CSF1	CSF1R	SYK	MUC4
CD1A	IGHV1-3	CSF2	CSF2RA	LCP2	F2R
CD1B	IGHV1-45	CSF3	CSF2RB	LAT	ELN
CD1C	IGHV1-46	CSH1	CSF3R	PLCG1	IL27
CD1D	IGHV1-58	CSH2	CX3CR1	PLCG2	MAPT
CD1E	IGHV1-69	CSHL1	CXCR3	SH3BP2	LYZ
CD4	IGHV1-8	CSPG5	CXCR4	PIK3CA	CCL5
CD8A	IGHV1-38-4	CTF1	CXCR5	PIK3CB	LEP
CD8B	IGHV1-69-2	CCN2	CXCR6	PIK3CD	CYLD
CD74	IGHV2-26	CTSG	ACKR3	PIK3CG	KLKB1
CREB1	IGHV2-5	CX3CL1	CYSLTR1	PIK3R5	CST4
CTSB	IGHV2-70	CXCL1	CYSLTR2	PIK3R1	CSRP1
CTSE	IGHV3-11	CXCL10	ACKR1	PIK3R2	MAPK14
CTSL	IGHV3-13	CXCL11	EDNRA	PIK3R3	JUN
CTSS	IGHV3-15	CXCL12	EDNRB	FYN	ITGAV
FCER1G	IGHV3-16	CXCL13	EGFR	SHC2	IRF5
FCGRT	IGHV3-20	CXCL14	ENG	SHC4	CCR6
PDIA3	IGHV3-21	CXCL16	EPOR	SHC3	IL12B
HFE	IGHV3-23	CXCL17	ESR1	SHC1	TLR8
HLA-A	IGHV3-30	CXCL2	ESR2	GRB2	GPLY
HLA-B	IGHV3-30-3	CXCL3	ESRRA	SOS1	CD81
HLA-C	IGHV3-30-5	CXCL5	ESRRB	SOS2	EIF2AK2
HLA-DMA	IGHV3-33	CXCL6	ESRRG	HRAS	APOM
HLA-DMB	IGHV3-35	CXCL9	FGFR1	KRAS	CACYBP
HLA-DOA	IGHV3-38	CCN1	FGFR2	NRAS	NOD1
HLA-DOB	IGHV3-43	DEFA1	FGFR3	ARAF	MAPK8
HLA-DPA1	IGHV3-48	DEFA3	FGFR4	BRAF	MAPK3
HLA-DPB1	IGHV3-49	DEFA5	FGFRL1	RAF1	BST2
HLA-DQA1	IGHV3-53	DEFB1	FLT1	MICA	BPHL
HLA-DQA2	IGHV3-64	DEFB103B	FLT3	MICB	PLA2G2A
HLA-DQB1	IGHV3-66	DEFB104A	FLT4	ULBP3	GRN
HLA-DRA	IGHV3-7	DEFB4A	FPR1	ULBP2	NEWENTRY
HLA-DRB1	IGHV3-72	DDK1	FPR2	ULBP1	PDGFRA
HLA-DRB3	IGHV3-73	EBI3	FPR2	KLRK1	GNAI1
HLA-DRB4	IGHV3-74	EDN1	FSHR	HCST	WNT5A
HLA-DRB5	IGHV3-9	EDN2	GALR2	CD48	FURIN
HLA-E	IGHV3-38-3	EDN3	GALR3	CD244	ADAR
HLA-F	IGHV3-69-1	EGF	GCGR	PPP3CA	TYK2

HLA-G	IGHV4-28	EPGN	GHR	PPP3CB	NOS2
HLA-H	IGHV4-30-1	EPO	GHRHR	PPP3CC	TRAF3
MR1	IGHV4-30-2	EREG	GHSR	CHP1	TPT1
HSPA1A	IGHV4-30-4	ESM1	GIPR	PPP3R1	TPM2
HSPA1B	IGHV4-31	FAM3B	GLP1R	PPP3R2	NEO1
HSPA1L	IGHV4-34	FAM3C	GLP2R	CHP2	AHNAK
HSPA2	IGHV4-39	FAM3D	GNRHR	NFAT5	TLR1
HSPA4	IGHV4-4	FASLG	GP1R	NFATC1	TK2
HSPA5	IGHV4-59	FGF1	GPR17	NFATC2	PRDX2
HSPA6	IGHV4-61	FGF10	GPR32	NFATC3	MX2
HSPA8	IGHV4-38-2	FGF11	GPR33	NFATC4	FGF2
HSP90AA1	IGHV5-51	FGF12	PTGDR2	PRKCA	FGA
HSP90AB1	IGHV5-10-1	FGF13	C5AR2	PRKCB	TCF7L2
ICAM1	IGHV6-1	FGF14	HNF4A	PRKCG	F2RL1
IFNA1	IGHV7-4-1	FGF16	HNF4G	SH2D1B	TKFC
IFNA2	IGHV7-81	FGF17	HTR3A	SH2D1A	MSR1
IFNA4	IGK	FGF18	HTR3B	IFNGR1	NFKBIZ
IFNA5	IGKC	FGF19	HTR3C	IFNGR2	LMBR1
IFNA6	IGKDEL	FGF2	HTR3D	IFNA1	EPPIN
IFNA7	IGKJ	FGF20	HTR3E	IFNA2	SRC
IFNA8	IGKJ1	FGF21	IFNAR1	IFNA4	MPO
IFNA10	IGKJ2	FGF22	IFNAR2	IFNA5	ELAVL1
IFNA13	IGKJ3	FGF23	IFNGR1	IFNA6	ROBO3
IFNA14	IGKJ4	FGF3	IFNGR2	IFNA7	SP1
IFNA16	IGKJ5	FGF4	IGF1R	IFNA8	SOD1
IFNA17	IGKV@	FGF5	IGF2R	IFNA10	PDF
IFNA21	IGKV1-12	FGF6	IL10RA	IFNA13	DLL4
IFNG	IGKV1-13	FGF7	IL10RB	IFNA14	ECD
KIR2DL1	IGKV1-16	FGF8	IL11RA	IFNA16	SLC11A1
KIR2DL2	IGKV1-17	FGF9	IL12RB1	IFNA17	DMBT1
KIR2DL3	IGKV1-27	VEGFD	IL12RB2	IFNA21	STING1
KIR2DL4	IGKV1-33	FIGNL2	IL13RA1	IFNB1	SKIV2L
KIR2DS1	IGKV1-37	FLT3LG	IL13RA2	IFNAR1	SEMG2
KIR2DS3	IGKV1-39	FSHB	IL15RA	IFNAR2	LTA
KIR2DS4	IGKV1-5	GAL	IL2RB	TNFSF10	DES
KIR2DS5	IGKV1-6	GALP	IL17RA	TNFRSF10D	DCK
KIR3DL1	IGKV1-8	GAST	IL17RB	TNFRSF10C	DAXX
KIR3DL2	IGKV1-9	GCG	IL17RC	TNFRSF10B	TNFRSF10A
KLRC1	IGKV1D-12	GDF1	IL17RD	TNFRSF10A	TNFRSF10B
KLRC2	IGKV1D-13	GDF10	IL17RE	FASLG	EED
KLRC3	IGKV1D-16	GDF11	IL18R1	FAS	CCL4
KLRD1	IGKV1D-17	GDF15	IL18RAP	GZMB	LIMS1
LTA	IGKV1D-33	GDF2	IL1R1	PRF1	LALBA

CIITA	IGKV1D-37	GDF3	IL1R2	CASP3	APOBEC3H
MICA	IGKV1D-39	GDF5	IL1RAP	BID	TMPRSS6
MICB	IGKV1D-42	GDF6	IL1RL1	CD3D	SPINK5
NFYA	IGKV1D-43	GDF7	IL1RL2	CD3E	MARCO
NFYB	IGKV1D-8	GDF9	IL20RA	CD3G	BECN1
NFYC	IGKV2-24	GDNF	IL20RB	CD247	TNFSF11
LGMN	IGKV2-28	GH1	IL21R	CD4	KNG1
PSMB8	IGKV2-30	GH2	IL22RA1	CD8A	CSK
PSMC1	IGKV2-40	GHRH	IL22RA2	CD8B	KLRK1
PSMC2	IGKV2D-24	GHRL	IL23R	PTPRC	KCNH2
PSMC3	IGKV2D-28	GIP	IL27RA	LCK	JUND
PSMC4	IGKV2D-29	GKN1	IFNLR1	FYN	JAK1
PSMC5	IGKV2D-30	GMFB	IL2RA	ZAP70	CREB1
PSMC6	IGKV2D-40	GMFG	IL2RB	LCP2	CLDN4
PSMD1	IGKV3-11	GNRH1	IL2RG	LAT	CCL28
PSMD2	IGKV3-15	GNRH2	IL31RA	ITK	RNASE3
PSMD3	IGKV3-20	GPHA2	IL3RA	TEC	RN7SL1
PSMD4	IGKV3-7	GPHB5	IL4R	NCK1	IRF7
PSMD5	IGKV3D-11	GPI	IL5RA	NCK2	IREB2
PSMD7	IGKV3D-15	GREM1	IL6R	VAV3	ILK
PSMD8	IGKV3D-20	GREM2	IL7R	VAV1	IL18
PSMD10	IGKV3D-7	GRN	CXCR1	VAV2	IL17A
PSMD11	IGKV4-1	GRP	CXCR2	GRAP2	LTB4R
PSMD13	IGKV5-2	GUCA2A	IL9R	GRB2	APOBEC3A
PSME1	IGKV6-21	HAMP	INSR	PAK1	MASP2
PSME1	IGKV6D-21	HBEGF	KDR	PAK2	TRIM27
PSME2	IGKV6D-41	HDGF	LEPR	PAK3	RELA
PSME2	IGL	HDGFL3	LGR4	PAK4	IL7R
RELB	IGLC1	HGF	LGR5	PAK6	IL1A
RFX5	IGLC2	HTN3	LGR6	PAK5	PTX3
RFXAP	IGLC3	IAPP	LHCGR	RHOA	IFNAR2
SLC10A2	IGLC6	IFNA1	LIFR	CDC42	IFN1@
TAP1	IGLC7	IFNA10	LTB4R	PPP3CA	SYTL1
TAP2	IGLJ	IFNA13	LTB4R2	PPP3CB	APOBEC3C
TAPBP	IGLJ1	IFNA14	LTBR	PPP3CC	DDX17
THBS1	IGLJ2	IFNA16	MC1R	CHP1	PTGS2
SEM1	IGLJ3	IFNA17	MC2R	PPP3R1	HTR1A
KLRC4	IGLJ4	IFNA2	MC3R	PPP3R2	SEPTIN7
AP3B1	IGLJ5	IFNA21	MC4R	CHP2	CD40LG
RFXANK	IGLJ6	IFNA4	MCHR1	NFAT5	CD14
PSMD6	IGLJ7	IFNA5	MCHR2	NFATC1	CD8A
PSME3	IGLV@	IFNA6	MET	NFATC2	CD4
PSMD14	IGLV1-36	IFNA7	MLNR	NFATC3	MASP1

CLEC4M	IGLV1-40	IFNA8	MPL	NFATC4	PROC
IFI30	IGLV1-44	IFNB1	MTNR1A	SOS1	MAP2K2
PROCR	IGLV1-47	IFNE	MTNR1B	SOS2	MAP2K1
ADRM1	IGLV1-50	IFNG	NGFR	HRAS	HRG
ECPAS	IGLV1-51	IFNK	NMBR	KRAS	NDRG1
TRPC4AP	IGLV10-54	IFNW1	NPR1	NRAS	IRF9
CD209	IGLV11-55	IGF1	NPR3	FOS	TRIM22
UBXN1	IGLV2-11	IGF2	NR0B1	JUN	LANCL1
ERAP1	IGLV2-14	IL10	NR0B2	CARD11	PPP4C
TAPBPL	IGLV2-18	IL11	NR1D1	BCL10	HMOX1
KIR2DL5A	IGLV2-23	IL12A	NR1D2	MALT1	HMGB1
ERAP2	IGLV2-33	IL12B	NR1H2	CHUK	HLA-B
ULBP3	IGLV2-8	IL13	NR1H3	IKBKB	RNASE7
ULBP2	IGLV3-1	IL15	NR1H4	IKBKG	ABCC4
ULBP1	IGLV3-10	IL16	NR1I2	NFKB1	HGF
KIR3DL3	IGLV3-12	IL17A	NR1I3	RELA	HDAC1
RAET1E	IGLV3-16	IL17B	NR2C1	NFKBIA	IFNLR1
RAET1L	IGLV3-19	IL17C	NR2C2	NFKBIB	PLSCR1
UBR1	IGLV3-21	IL17D	NR2E1	NFKBIE	B2M
RAET1G	IGLV3-22	IL17F	NR2E3	CD28	BACH2
PDIA2	IGLV3-25	IL18	NR2F1	ICOS	TANK
HAMP	IGLV3-27	IL19	NR2F2	CD40LG	PIK3CG
PI3	IGLV3-32	IL1A	NR2F6	PIK3R5	ARRB1
CAMP	IGLV3-9	IL1B	NR3C1	PIK3R1	RSAD2
DEFB4A	IGLV4-3	IL1F10	NR3C2	PIK3R2	STAB2
PPBP	IGLV4-60	IL36RN	NR4A1	PIK3R3	TBK1
REG3G	IGLV4-69	IL36A	NR4A2	PIK3CA	PDYN
CXCL14	IGLV5-37	IL37	NR4A3	PIK3CB	PDGFRB
CXCL16	IGLV5-39	IL36B	NR5A1	PIK3CD	PDCD1
SLPI	IGLV5-45	IL36G	NR5A2	PIK3CG	PCSK2
CXCL8	IGLV5-48	IL1RN	NR6A1	AKT3	PCSK1
CXCL10	IGLV5-52	IL2	NRP1	AKT1	ARG2
CXCL9	IGLV6-57	IL20	NRP2	AKT2	AQP9
CXCL5	IGLV7-43	IL21	OGFR	MAP3K8	FASLG
CXCL11	IGLV7-46	IL22	OPRD1	MAP3K14	APOH
CXCL6	IGLV8-61	IL23A	OPRK1	PDCD1	BIRC5
CXCL1	IGLV9-49	IL24	OPRL1	CTLA4	ANXA6
CXCL12	C3	IL25	OPRM1	PTPN6	IL22
CXCL13	C5	IL26	OSMR	CBLC	VTN
CXCL2	CAMP	IL27	OXTR	CBL	VIM
PF4	CCL1	IFNL2	PGR	CBLB	VCAM1
XCL1	CCL11	IFNL3	PGRMC2	IL2	PRDX1
CXCL3	CCL13	IFNL1	PLAUR	IL4	GFAP

DEFB103B	CCL14	IL3	PLXNA1	IL5	GBP2
CCL13	CCL15-CCL14	IL31	PLXNA2	IL10	ALB
CCL1	CCL15	IL32	PLXNA3	IFNG	SLC29A3
DEFB1	CCL16	IL33	PLXNA4	CSF2	OAS1
CCL8	CCL17	IL34	PLXNB1	TNF	AGER
ELANE	CCL18	IL4	PLXNB2	CDK4	UNC93B1
DEFB103A	CCL19	IL5	PLXNB3	RASGRP1	TNFSF4
DEFA3	CCL2	IL6	PLXNC1	PDK1	NOS1
DEFA1	CCL20	IL6ST	PLXND1	PLCG1	ACTG1
TMSB10	CCL21	IL7	PPARA	PRKCQ	ACTA1
DEFA6	CCL22	CXCL8	PPARD	TRAC	ACO1
DEFA5	CCL23	IL9	PPARG	TRAJ1	SERPINA3
DEFA4	CCL24	INHA	PRLHR	TRAJ2	CXCR1
LCN2	CCL25	INHBA	PRLR	TRAJ3	CCL15
LCN1	CCL26	INHBB	PTAFR	TRAJ4	CCL14
COLEC10	CCL27	INHBC	PTGDR	TRAJ5	CCL4
BPI	CCL28	INHBE	PTGDS	TRAJ6	CCL16
S100A9	CCL3	INS	PTGER1	TRAJ7	CCL19
S100A8	CCL3L1	INS-IGF2	PTGER2	TRAJ8	CCL13
DCD	CCL3P1	INSL3	PTGER3	TRAJ9	CCL18
LCN6	CCL3L3	INSL4	PTGER4	TRAJ10	CCL17
S100A12	CCL4	INSL5	PTGFR	TRAJ11	CCL26
HTN3	CCL4L2	INSL6	PTH1R	TRAJ12	CCL22
LCN8	CCL4L1	JAG1	PTH2R	TRAJ13	CCR3
DEFA1B	CCL5	JAG2	RARA	TRAJ14	CCL28
CCR10	CCL7	FGF7P6	RARB	TRAJ15	CCL4L1
CELA1	CCL8	FGF7P3	RARG	TRAJ16	ACKR2
DEFB106A	CKLF	KITLG	ROBO1	TRAJ17	CCR7
PENK	CMA1	KL	ROBO2	TRAJ18	CCL27
BPIFC	CTSG	LACRT	ROBO3	TRAJ19	CCR8
MMP12	CX3CL1	LECT2	RORA	TRAJ20	ACKR4
BPIFB6	CXCL1	LEFTY1	RORB	TRAJ21	CCR10
LEAP2	CXCL10	LEFTY2	RORC	TRAJ22	CCL2
SFTPD	CXCL11	LEP	RXFP1	TRAJ23	CCL21
LCN9	CXCL12	LHB	RXFP2	TRAJ24	CCL7
BPIFB2	CXCL13	LIF	RXFP3	TRAJ25	CCL5
PTGDS	CXCL14	LRSAM1	RXRA	TRAJ26	CCL3
TMSB4X	CXCL16	LTA	RXRB	TRAJ27	CCL20
PGLYRP1	CXCL17	LTB	RXRG	TRAJ28	CCL11
ZC3HAV1	CXCL2	LTBP1	S1PR1	TRAJ29	CCR5
TMSB15A	CXCL3	LTBP2	S1PR2	TRAJ30	CCL23
S100B	CXCL5	LTBP3	SCTR	TRAJ31	CCL25
S100A13	CXCL6	LTBP4	SDC1	TRAJ32	CCL1

S100A6	CXCL9	MDK	SDC2	TRAJ33	CCL3L3
DEFB119	CCN1	MIA	SDC3	TRAJ34	CCL4L2
DEFB107A	DEFA1	MIF	SDC4	TRAJ35	CXCL12
DEFB105A	DEFA3	MLN	SORT1	TRAJ36	XCL1
SERPIND1	DEFA5	MSTN	SSTR1	TRAJ37	CCL8
DEFB129	DEFB1	NAMPT	SSTR2	TRAJ38	CCL3L1
DEFB127	DEFB103B	NDP	SSTR5	TRAJ39	CCR1
S100P	DEFB104A	NENF	ST2	TRAJ40	CCL24
S100A7	DEFB4A	NGF	TACR1	TRAJ41	XCL2
DEFB104A	EDN1	NMB	TEK	TRAJ42	CXCL1
DEFB126	EDN2	NODAL	TGFBR1	TRAJ43	CXCL10
DEFB106B	EDN3	CCN3	TGFBR2	TRAJ44	CXCR4
DEFB104B	FGF10	NPFF	TGFBR3	TRAJ45	CXCL2
DEFB107B	FGF2	NPPA	THRA	TRAJ46	CXCR6
PGLYRP3	HTN3	NPPB	THRB	TRAJ47	CCR4
PGLYRP2	CXCL8	NPPC	TIE1	TRAJ48	CXCL11
S100A10	LECT2	NPY	TNFRSF10A	TRAJ49	TAFA5
S100A2	PF4	NRG1	TNFRSF10B	TRAJ50	TAFA3
DEFB125	PF4V1	NRG2	TNFRSF10C	TRAJ52	TAFA4
DEFB123	PLAU	NRG3	TNFRSF10D	TRAJ53	TAFA1
DEFB105B	PPBP	NRG4	TNFRSF11A	TRAJ54	TAFA2
DEFB132	PPBPP1	NRTN	TNFRSF12A	TRAJ56	CCL15-CCL14
BPIFB3	PROK2	NTF3	TNFRSF13B	TRAJ57	IL6
LCN12	RNASE2	NTF4	TNFRSF13C	TRAJ58	TNF
PGLYRP4	SAA1	NTS	TNFRSF14	TRAJ59	IL1B
S100A11	SAA2	NUDT6	TNFRSF17	TRAJ61	IL18
S100A5	SBDS	OGN	TNFRSF18	TRAV1-1	PTK2B
S100A3	SEMA3A	OSGIN1	TNFRSF19	TRAV1-2	VEGFA
S100A1	SEMA3B	OSM	TNFRSF1A	TRAV2	IL4
DEFB128	SEMA3C	OSTN	TNFRSF1B	TRAV3	CDH1
DEFB108B	SEMA3D	OXT	TNFRSF21	TRAV4	CD40
HTN1	SEMA3E	ENDOU	TNFRSF25	TRAV5	DEFB103B
LMBR1L	SEMA3F	PDGFA	TNFRSF4	TRAV7	F2RL1
S100A7A	SEMA3G	PDGFB	TNFRSF6B	TRAV8-1	MMP9
DEFB118	SEMA4A	PDGFC	TNFRSF8	TRAV8-2	LTBP1
COLEC12	SEMA4B	PDGFD	TNFRSF9	TRAV8-3	DEFB4A
TMSB4Y	SEMA4C	PDGFRA	TRHR	TRAV8-4	TNFSF10
DEFB131A	SEMA4D	PDGFRB	TSHR	TRAV8-6	IL13
DEFB134	SEMA4F	PDGFRL	TUBB3	TRAV8-7	IL10
DEFB130A	SEMA4G	PDYN	VDR	TRAV9-1	IL2
DEFB124	SEMA5A	PENK	VIPR1	TRAV9-2	PPARG
DEFB121	SEMA5B	PF4	VIPR2	TRAV10	FGR
DEFB116	SEMA6A	PF4V1	XCR1	TRAV12-1	MIF

DEFB115	SEMA6B	PGF	IFNA10	TRAV12-2	CRP
DEFB114	SEMA6C	PLAU	IFNA13	TRAV12-3	JAK2
DEFB113	SEMA6D	PMCH	IFNA14	TRAV13-1	IL1A
DEFB112	SEMA7A	PNOC	IFNA16	TRAV13-2	PTK2
DEFB110	SLIT1	POMC	IFNA17	TRAV14DV4	PTGDR
TMSB15B	SLIT2	PPBP	IFNA2	TRAV16	CD86
DEFB133	TNC	PPBPP1	IFNA21	TRAV17	HCK
S100Z	TYMP	PPBPP2	IFNA4	TRAV18	ARRB1
MAVS	XCL1	PPY	IFNA5	TRAV19	GNAI1
TMSB4XP8	XCL2	PRL	IFNA6	TRAV20	VDR
S100A14	C5AR1	PRLH	IFNA7	TRAV21	OLR1
LCN10	ACKR2	PROK1	IFNA8	TRAV22	GRK2
S100A16	CCR1	PROK2	IFNB1	TRAV23DV6	TXK
DEFB136	CCR10	PSPN	IFNE	TRAV24	RNASE2
DEFB135	CCR3	PTH	IFNG	TRAV25	CD79A
DEFB117	CCR4	PTH2	IFNK	TRAV26-1	CD79B
DEFB110	CCR5	PTHLH	IFNW1	TRAV26-2	LYN
ZC3HAV1L	CCR6	PTN	IFNAR2	TRAV27	SYK
S100A7L2	CCR7	PYY	IFNGR1	TRAV29DV5	BTK
MBL3P	CCR8	QRFP	IFNGR2	TRAV30	BLNK
DEFB4B	CCR9	RABEP1	IL11	TRAV34	VAV3
BPIFB4	ACKR4	RABEP2	IL12A	TRAV35	VAV1
IFNAR1	CCRL2	REG1A	IL12B	TRAV36DV7	VAV2
AZU1	CMKLR1	RETN	IL13	TRAV38-1	RAC1
DEFB131B	CX3CR1	RETNLB	IL15	TRAV38-2DV8	RAC2
DEFA1A3	CXCR3	RLN1	IL16	TRAV39	RAC3
LCN1P1	CXCR4	RLN2	IL17A	TRAV40	PPP3CA
S100G	CXCR5	RLN3	IL17B	TRAV41	PPP3CB
DEFA7P	CXCR6	RNASE2	IL17C	TRBC1	PPP3CC
DEFB130B	ACKR3	S100A6	IL17D	TRBC2	CHP1
DEFB108F	CYSLTR1	SAA1	IL17F	TRBD1	PPP3R1
DEFB131C	CYSLTR2	SAA2	IL18	TRBD2	PPP3R2
TCHHL1	ACKR1	SBDS	IL19	TRBJ1-1	CHP2
TINAGL1	EDNRA	SCG2	IL1A	TRBJ1-2	NFAT5
IFNGR1	EDNRB	SCGB3A1	IL1B	TRBJ1-3	NFATC1
SLC22A17	FPR1	SCT	IL1F10	TRBJ1-4	NFATC2
WFIKKN1	FPR2	AIMP1	IL36RN	TRBJ1-5	NFATC3
WFDC2	FPR2	SECTM1	IL36A	TRBJ1-6	NFATC4
IL6	GPR17	SEMA3A	IL37	TRBJ2-1	HRAS
UMODL1	GPR32	SEMA3B	IL36B	TRBJ2-2	KRAS
TGFB1	GPR33	SEMA3C	IL36G	TRBJ2-3	NRAS
PF4V1	PTGDR2	SEMA3D	IL1RN	TRBJ2-4	FOS
MMP9	C5AR2	SEMA3E	IL2	TRBJ2-5	JUN

ANOS1	CXCR1	SEMA3F	IL20	TRBJ2-6	CARD11
TLR4	CXCR2	SEMA3G	IL21	TRBJ2-7	BCL10
IFNG	LTB4R	SEMA4A	IL22	TRBV2	MALT1
SPAG11B	LTB4R2	SEMA4B	IL23A	TRBV3-1	CHUK
A2M	PLAUR	SEMA4C	IL24	TRBV4-1	IKBKB
CTSL	PLXNA1	SEMA4D	IL25	TRBV4-2	IKBKG
NFKB1	PLXNA2	SEMA4F	IL26	TRBV4-3	NFKB1
APOBEC3G	PLXNA3	SEMA4G	IL27	TRBV5-1	RELA
FABP6	PLXNA4	SEMA5A	IFNL2	TRBV5-4	NFKBIA
NOD2	PLXNB1	SEMA5B	IFNL3	TRBV5-5	NFKBIB
MBL2	PLXNB2	SEMA6A	IFNL1	TRBV5-6	NFKBIE
SFTPA1	PLXNB3	SEMA6B	IL3	TRBV5-7	CD81
RBP1	PLXNC1	SEMA6C	IL31	TRBV5-8	CD19
TLR2	PLXND1	SEMA6D	IL32	TRBV6-1	CR2
SLC40A1	PTAFR	SEMA7A	IL33	TRBV6-2	PIK3R5
PLAU	ROBO1	SLIT1	IL34	TRBV6-3	PIK3R1
IL1B	ROBO2	SLIT2	IL4	TRBV6-4	PIK3R2
PAEP	ROBO3	SLURP1	IL5	TRBV6-5	PIK3R3
HJV	RXFP3	SPP1	IL6	TRBV6-6	PIK3CA
MUC5AC	XCR1	SST	IL6ST	TRBV6-7	PIK3CB
CTSS	ADIPOQ	STC1	IL7	TRBV6-8	PIK3CD
OBP2A	ADM	STC2	CXCL8	TRBV6-9	PIK3CG
PLTP	ADM2	TAC1	IL9	TRBV7-2	AKT3
MX1	AGRP	TDGF1	TXLNA	TRBV7-3	AKT1
DDX58	AGT	TDGF1P3	IL10RA	TRBV7-4	AKT2
IFNL1	AMBN	TG	IL10RB	TRBV7-6	GSK3B
IRF3	AMELX	TGFA	IL11RA	TRBV7-7	INPP5D
SFTPA2	AMH	TGFB1	IL12RB1	TRBV7-8	CD22
LPA	ANGPTL5	TGFB2	IL12RB2	TRBV7-9	CD72
LBP	ANGPTL7	TGFB3	IL13RA1	TRBV9	PTPN6
RBP4	APLN	THPO	IL13RA2	TRBV10-1	LILRB3
SFTPA1	AREG	TNC	IL15RA	TRBV10-2	FCGR2B
NOX4	MANF	TNF	IL2RB	TRBV10-3	RASGRP3
LTF	CDNF	TNFRSF11B	IL17RA	TRBV11-1	PLCG2
IFNB1	ARTN	TNFSF10	IL17RB	TRBV11-2	PRKCB
RBP5	AVP	TNFSF11	IL17RC	TRBV11-3	IFITM1
FABP7	AZU1	TNFSF12	IL17RD	TRBV12-3	IGH
FABP5	BDNF	TNFSF13	IL17RE	TRBV12-4	IGHA1
FABP3	BMP1	TNFSF13B	IL18R1	TRBV12-5	IGHA2
FABP2	BMP10	TNFSF14	IL18RAP	TRBV13	IGHD
FABP4	BMP15	TNFSF15	IL1R1	TRBV14	IGHD1-1
R3HDML	BMP2	TNFSF18	IL1R2	TRBV15	IGHD1-14
BPIFA3	BMP3	TNFSF4	IL1RAP	TRBV16	IGHD1-20

BPIFB1	BMP4	TNFSF8	IL1RL1	TRBV17	IGHD1-26
OASL	BMP5	TNFSF9	IL1RL2	TRBV18	IGHD1-7
CRABP2	BMP6	TOR2A	IL20RA	TRBV19	IGHD2-15
CRABP1	BMP7	TRH	IL20RB	TRBV20-1	IGHD2-2
RBP7	BMP8A	TSHB	IL21R	TRBV24-1	IGHD2-21
DUOX1	BMP8B	TSLP	IL22RA1	TRBV25-1	IGHD2-8
OBP2B	BTC	TXLNA	IL22RA2	TRBV27	IGHD3-10
RBP2	MYDGF	TYMP	IL23R	TRBV28	IGHD3-16
LCN15	C3	UCN	IL27RA	TRBV29-1	IGHD3-22
CETP	C5	UCN2	IFNLR1	TRBV30	IGHD3-3
FABP12	CALCA	UCN3	IL2RA	TRDC	IGHD3-9
FABP9	CALCB	UTS2	IL2RB	TRDD1	IGHD4-11
BPIFA1	CAMP	UTS2B	IL2RG	TRDD2	IGHD4-17
LCNL1	CAT	VEGFA	IL31RA	TRDD3	IGHD4-23
C8G	CCK	VEGFB	IL3RA	TRDJ1	IGHD4-4
SPAG11A	CCL1	VEGFC	IL4R	TRDJ2	IGHD5-12
PI15	CCL11	VEGF	IL5RA	TRDJ3	IGHD5-18
NOX1	CCL13	VIP	IL6R	TRDJ4	IGHD5-24
PMP2	CCL14	XCL1	IL7R	TRDV1	IGHD5-5
APOD	CCL15-CCL14	XCL2	CXCR1	TRDV2	IGHD6-13
ORM2	CCL15	ACVR1B	CXCR2	TRDV3	IGHD6-19
ORM1	CCL16	ACVR1C	IL9R	TRGV9	IGHD6-25
TNF	CCL17	ACVR2A	ST2	TRGV8	IGHD6-6
CTSG	CCL18	ACVR2B	HLA-A	TRGV5	IGHD7-27
PRTN3	CCL19	ACVRL1	HLA-B	TRGV4	IGHE
MAPK1	CCL2	ADCYAP1R1	HLA-C	TRGV3	IGHG1
PML	CCL20	ADIPOR1	HLA-E	TRGV2	IGHG2
AEN	CCL21	ADIPOR2	HLA-G	TRGJP2	IGHG3
CYBB	CCL22	ADRB1	KIR3DL1	TRGJP1	IGHG4
BPIFA2	CCL23	ADRB2	KIR3DL2	TRGJP	IGHJ1
ISG20	CCL24	AGTR1	KIR2DL1	TRGJ2	IGHJ2
BCL3	CCL25	AGTR2	KIR2DL2	TRGJ1	IGHJ3
ISG20L2	CCL26	AMHR2	KIR2DL3	TRGC2	IGHJ4
NOX5	CCL27	ANGPT1	KIR2DL4	TRGC1	IGHJ5
NOX3	CCL28	ANGPT4	KIR2DL5A	TRAV6	IGHJ6
DUOX2	CCL3	ANGPTL1	KLRC1	BMP1	IGHM
TLR3	CCL3L1	ANGPTL2	KLRC2	BMP10	ACVR2B
TFRC	CCL3P1	ANGPTL3	KLRC3	BMP15	ACVRL1
IFIH1	CCL3L3	ANGPTL4	KLRD1	BMP2	AMHR2
LRP1	CCL4	ANGPTL6	PTPN6	BMP3	BMPR1A
TRIM5	CCL4L2	APLNR	PTPN11	BMP4	BMPR1B
IDO1	CCL4L1	AR	ICAM1	BMP5	BMPR2
GDF15	CCL5	AVPR1A	ICAM2	BMP6	TGFBR1

NEDD4	CCL7	AVPR1B	ITGAL	BMP7	TGFBR2
ADIPOQ	CCL8	AVPR2	ITGB2	BMP8A	TGFBR3
STAT3	CD320	BMPR1A	PTK2B	BMP8B	TNFRSF11B
STAT1	CD40LG	BMPR1B	VAV3	GDF1	TNFSF10
IFNL2	CD70	BMPR2	VAV1	GDF10	TNFSF11
SOCS3	ADA2	BRD8	VAV2	GDF11	TNFSF12
SEMG1	CER1	C3AR1	RAC1	GDF15	TNFSF13
TNFSF10	CGA	C5AR1	RAC2	GDF2	TNFSF13B
CCL20	CGB3	CALCR	RAC3	GDF3	TNFSF14
SOCS1	CGB1	CALCRL	PAK1	GDF5	TNFSF15
RNASEL	CGB2	ACKR2	MAP2K1	GDF6	TNFSF18
IRF1	CGB5	CCR1	MAP2K2	GDF7	TNFSF4
IL15	CGB7	CCR10	MAPK1	GDF9	TNFSF8
APOBEC3F	CGB8	CCR3	MAPK3	GDNF	TNFSF9
PLAAT4	CHGA	CCR4	TNF	INHA	TNFRSF10B
CHIT1	CHGB	CCR5	CSF2	INHBA	TNFRSF10C
IFNA1	CKLF	CCR6	IFNG	INHBB	TNFRSF10D
CD40	CLCF1	CCR7	KIR2DS1	INHBC	TNFRSF11A
TLR7	CLEC11A	CCR8	KIR2DS3	INHBE	TNFRSF12A
PPIA	CMA1	CCR9	KIR2DS4	LEFTY1	TNFRSF13B
HFE	CMTM1	ACKR4	KIR2DS5	LEFTY2	TNFRSF13C
ZYX	CMTM2	CCRL2	NCR2	NODAL	TNFRSF14
NLRX1	CMTM3	CD40	TYROBP	TGFB1	TNFRSF17
PGC	CMTM4	CMKLR1	LCK	TGFB2	TNFRSF18
VEGFA	CMTM5	CNTFR	FCGR3A	TGFB3	TNFRSF19
IKBKE	CMTM6	CRHR1	FCGR3B	ACVR1B	TNFRSF1A
ISG15	CMTM7	CRHR2	NCR1	ACVR1C	TNFRSF1B
DHX58	CMTM8	CRIM1	NCR3	ACVR2A	TNFRSF21
TNFRSF25	TNFRSF4	TNFRSF6B	TNFRSF8	TNFRSF9	

IRGs, immune-related genes.