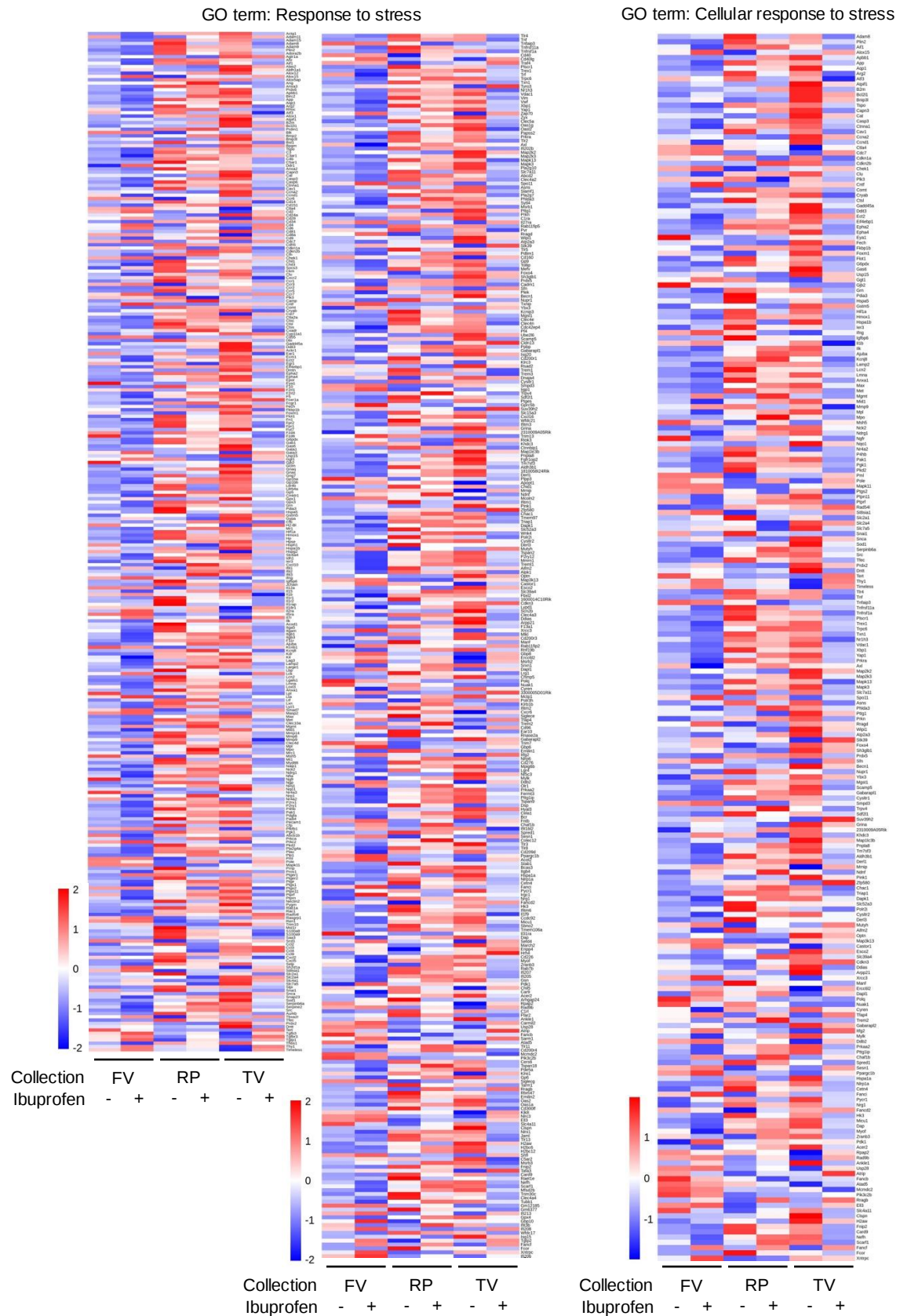
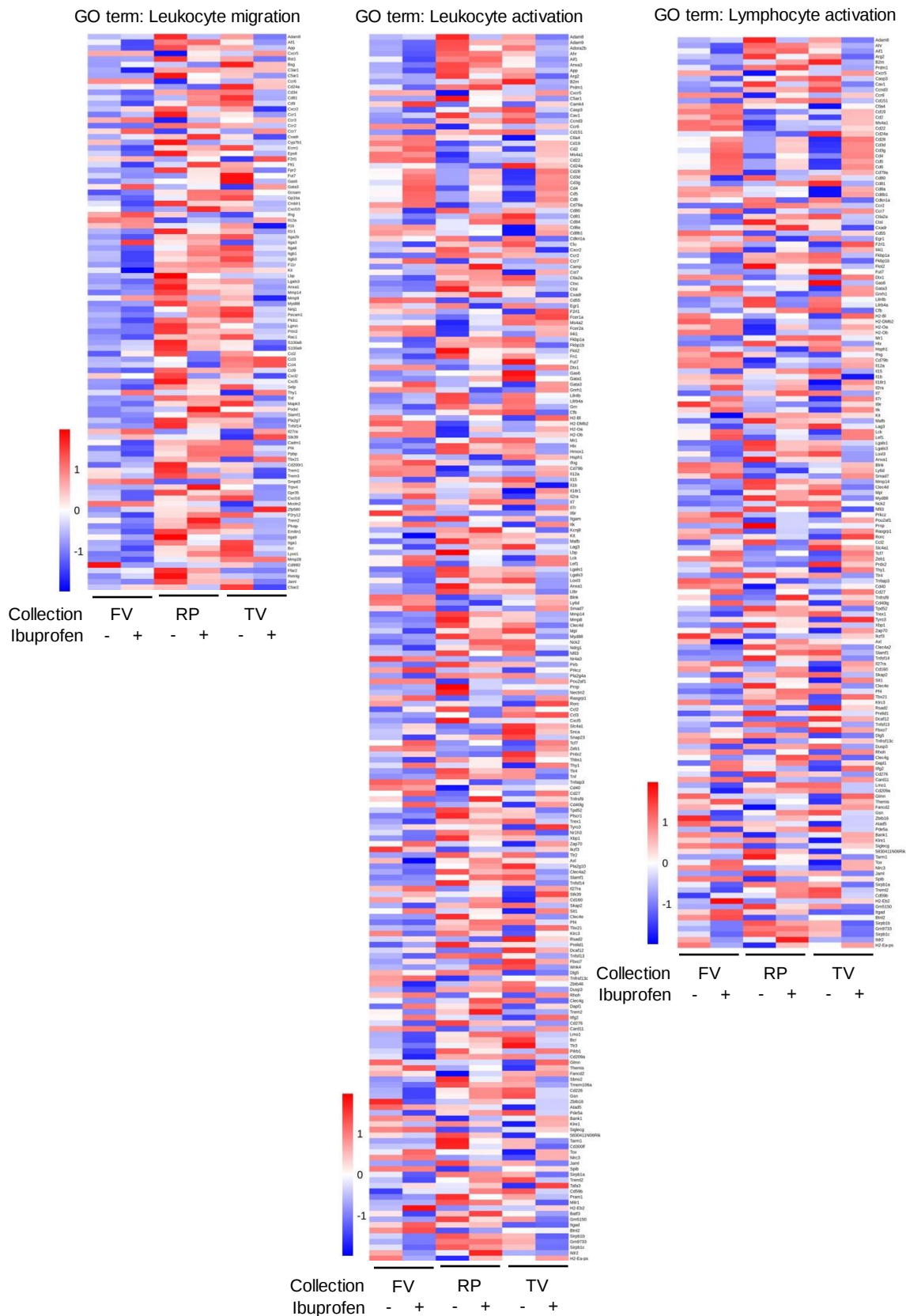




Supplementary Figure 1. Heat maps of relative expression levels of all differentially expressed genes associated with ‘Response to stress (GO: 0006950)’ and ‘Cellular response to stress (GO:0033554)’ in PBMCs



Supplementary Figure 2. Heat maps of relative expression levels of all differentially expressed genes associated with 'Leukocyte migration (GO:0050900)', 'Leukocyte activation (GO:0045321)', and Lymphocyte activation (GO:0046649) in PBMCs

Supplementary Table 1. Upregulated genes of ‘response to stress (GO: 0006950)’ in all RP groups with ibuprofen non-administrated TV group

Actg1	Cxcl10	Trpc6	Srxn1	Ctsc	Pla2g4a	Gprc5b	Acer2
Adam11	Ifit1	Txn1	Dapl1	Ctsl	Plau	Suv39h2	Arhgap24
Adam15	Ifit2	Tyro3	Lrg1	Ctss	Pip1	Slc15a3	Rpap2
Adam8	Ifit3	Nr1h3	Chmp5	Cxadr	Pml	Chchd6	Oas1e
Adam9	Ifng	Vdac1	Myh10	Cyp11a1	Pole	Cxcl16	Rad9b
Plin2	Igfbp6	Vegfc	Polq	Cd55	Prkg1	Wfdc21	C1r1
Adora2b	Jchain	Vim	Nuak1	Dbi	Mapk11	Ifitm3	Ffar2
Agtr1a	Il12a	Vwf	Cyren	Gadd45a	Prnp	Grina	Ankle1
Ahr	Il15	Xbp1	3300005D01Rik	Ddit3	Pros1	2310009A05Rik	Carmil2
Aif1	Il1b	Yap1	Mctp1	Ackr1	Ptger1	Trim13	Usp28
Alas2	Il1r1	Zap70	Polr3h	Dnase1i3	Ptger2	RioK3	Atrip
Aldh1a1	Il1r2	Zyx	Klrb1b	Ear1	Ptgir	Khdc3	Fancb
Alox12	Il1rap	Clec5a	Ifitm2	Ecm1	Ptgs1	Ctnnbip1	Lrp11
Alox15	Il18r1	Oas1g	Cxcr6	Ect2	Ptgs2	Map1lc3b	Sarm1
Alox5ap	Il2ra	Oasl2	Siglece	Egr1	Ptpn11	Pnpla8	Atad5
Ang	Il5ra	Papss2	Tfap4	Eif4ebp1	Ptprf	Fgfr1op2	Tlr11
Anxa3	Il7r	Prkra	Trem2	Dmtn	Ptprn	Slc39a8	Cd200r4
Prdx6	Ilk	Tlr2	Cd96	Epha2	Nectin2	Tm7sf3	Gm4951
Apbb1	Acod1	Axl	Ear10	Epha4	Pygm	Aldh3b1	Mcmdc2
Birc2	Iitga5	Ifi202b	Rnase2a	Epor	Rab1a	1810058I24Rik	Pik3c2b
App	Itgam	Map2k2	Gabarapl2	Evpl	Rac1	Der1	Cers6
Aqp1	Itgb1	Map2k3	Imp2l1	Eya1	Rad54l	Cdca5	Tspan18
Arg2	Itgb3	Mapk13	Trim7	F10	Rag1	Pipp3	Pde5a
Rhoc	F11r	Mapk3	Susd4	F2r11	Rasgrp1	Apopt1	Klre1
Arnt2	Ajuba	Plod2	Gbp6	F2r12	Ren1	Pclaf	Gp6
Atf3	Kcnb1	Pla2g10	Emilin1	F5	Ret	Chid1	Siglecg
Atox1	Kcnj8	Slc7a11	Itfg2	Fcer1a	Trim10	Mrnip	Tarm1
Atp1f1	Kdr	Abcd2	Nlrp6	Fcgr1	Mst1r	Ndnf	Rragb
B2m	Kit	Clec4a2	Cd276	Fech	S100a8	Mcoln2	Rbm47
Bcl2l1	Lag3	Spo11	Mpig6b	Fkbp1b	S100a9	Ifitm1	Emilin2
Prdm1	Lamp2	Asns	Lgr4	Foxm1	Saa3	Pink1	Oas2
Blk	Large1	Slamf1	Nt5c3	Flot1	Scd1	Zfp580	Oas1a
Bmp2	Lbp	Chaf1a	Myk	Fn1	Ccl2	Chac1	Cd300lf
Bmp4	Lck	Pla2g7	Ddb2	Fpr2	Ccl3	Tmem97	Klk8
Bnip3l	Lcn2	Clnk	Olr1	Fpr1	Ccl4	Triap1	Nlrc3
Bst1	Lgals1	Phlda3	Prkaa2	Fut7	Ccl9	Dapk1	Eli3
Bpgm	Lmna	Sytl4	Fermt3	Fzd4	Cxcl2	Slc52a3	Slc4a11
Tspo	Loxl3	Msrb1	Pttg1ip	Fzd6	Cxcl5	Wnk4	Cispn
C3	Anxa1	Pttg1	Tspan9	G6pdx	Selp	Polr2i	NlrX1
C3ar1	Lpl	Prkn	Dsp	Gab1	Sh2d1a	Cysltr2	Jaml
C4b	Lta	C1ra	Hyal3	Gas6	St8sia1	Dpf3	Tlr13
C5ar1	Ltf	Il27ra	Cela1	Gata1	Slc2a1	Der13	H2aw
Ddr1	Lxn	Rab11fip5	Bcr	Gata3	Slc2a4	Mutyh	H2bc6
Anxa2	Lyz1	Pvr	Fntb	Usp15	Slc4a1	Tspan2	H2bc12
Capn3	Smad7	Rragd	Chaf1b	Ggt1	Slc7a5	P2ry12	Shfl
Cat	Masp2	Wip1	Ifit1bl2	Gjb2	Slpi	Mmrn1	C5ar2
Casp3	Matn2	Atp2a3	Spre1	Gclm	Snai1	Trem1	Smo
Casp6	Max	Stk39	Sesn1	Gnaq	Snca	Aifm2	Msrb3
Cttna1	Mdk	Tlr5	Colec12	Gnas	Snap23	Alpk1	Fnip2
Cav1	Met	Pdlim1	Tlr3	Gng7	Sod1	Optn	Tafa3
Ccna2	Clec10a	Cd160	Tlr8	Gp1ba	Serpib6a	Map3k13	Card9
Ccnd1	Mgmt	Gp9	Cd209d	Gp1bb	Serpine2	Wfdc3	Raet1e
Ccr6	Mid1	Chst2	Ppargc1b	Lilr4b	Src	Castor1	Nefh
Cd14	Bhlha15	Tollip	Acot2	Lilr4a	Stc2	Esco2	Scarf1
Cd151	Mmp14	Mefv	Stab1	Gp5	Aurkb	Slc39a4	Tnlp3
Ctla4	Mmp8	Foxo4	Bcas3	Cmklr1	Tbxa2r	Fbxl2	Mfsd2b
Cd2	Mmp9	Sh3glb1	Itgb4	Gpx1	Tfec	1600014C10Rik	Trim30c
Cd24a	Clec4d	Prdx5	Hspa1a	Gpx3	Prdx2	Cdkn3	Clec4a4
Cd28	Mpl	Cadm1	Nlrp1a	Grn	Dntt	Lypd1	Tubb1
Cd34	Mpo	Sfn	Cetn4	Pdia3	Tert	Scn2b	Gm12185
Cd4	Mrc1	Plek	Zfp976	Hspa5	Tgfb3	MacroD2	Gm6377
Cd6	Msh5	Becn1	Fanci	Gstm5	Tgfb3	Clec4a3	Ifi213
Cd81	Mt1	Nupr1	Pycr1	Gypa	Tgtp1	Dcbld2	Gpx4
Cd8a	Myd88	Txnip	Irgc1	Cfb	Thbs1	Ddias	Gbp10
Cd9	Naip1	Ybx3	Nrg1	H2-BI	Thy1	Arpp21	Ifit3b
Cdc7	Nck2	Kcnp3	Fancd2	Mr1	Timeless	F13a1	Mir451a
Cdh5	Ndrp1	Mgst1	Hk3	Hic1	Tlr4	Xrcc3	Ifi208
Cdkn1a	Nfia	Clec4e	Ifitm6	Hif1a	Tnf	Batf2	Wfdc17
Cdkn2b	Ngfr	Clec4n	Il1f9	Hmox1	Tnfaip3	Mkl1	Isg15
Cfh	Ngp	Cdc42ep4	Ccdc92	Hp	Tnfrsf10b	Cd200r3	Tgtp2
Chek1	Ninj1	Pf4	Micu1	Hpse	Tnfrsf11a	4930432K21Rik	Fancf
Chil1	Nqo1	Ube2l6	Stox1	Hsph1	Tnfrsf1a	Manf	Fcor
Chil3	Nr4a3	Scamp5	Sbno2	Hspa1b	Cd40	Rab11fip2	Xntrpc
Socs3	Nrp1	Cldn13	Tmem106a	Hspg2	Cd40lg	Rnf19b	Ifi206
Ckm	Nr4a2	Ppbb	Pde8b	Slc6a4	Traf4	Gbp8	Myof
Cldn1	P2rx1	Gabarapl1	Il31ra	Idh1	Plscr1	Erc6l2	Zranb3
Clu	P2ry1	Isg20	Dap	Ier3	Trex1	Msrb2	Rab7b
Cxcr2	P4hb	Cd200r1	Rmi2	Plk3	Trf	Cysltr1	Ifi207
Ccr1	Pak1	Kirc3	Setd4	Camp	Pfkfb1	Smpd3	Ifi205
Ccr3	Pdgfa	Rsad2	March2	Cntf	Pgk1	Ackr2	
Ccr2	Padi4	Trem1	Enpp4	Comt	Abcb1b	Ilgp1	
Ccr5	Pecam1	Trem3	Hrh4	Cryab	Prkca	Pdk1	
Ccr7	Cfp	Dnaja4	Cd226	Gsn	Prkcz	Chil5	
Cst7	Pkd2	Sdf2l1	Ctla2a	Trpv4	Ptges	Car9	

Supplementary Table 2. Upregulated genes of ‘immune system process (GO: 0002736)’ in all RP groups with ibuprofen non-administrated TV group

Actg1	Ear1	Itgb1	Slpi	Litaf	Trim7	H2bc6
Adam15	Ecm1	Itgb3	Snca	Pf4	Prg4	H2bc12
Adam8	Egr1	Itk	Snap23	Ube2l6	Smad1	Shfl
Adam9	Epb42	F11r	Sod1	Ppbb	Ifi44	Pianp
Adora2b	Dmtn	Kcnj8	Sox6	Isg20	Gbp6	C5ar2
Angpt1	Eps8	Kcnn4	Src	Tbx21	Emilin1	Ttll1
Ahr	F2r1	Kit	Ro60	Cd200r1	Itfg2	Sirpb1a
Aif1	Fcer1a	Klf1	Aurkb	Klrc3	Prkd2	Trem12
Alas1	Ms4a2	Mafb	Tal1	Rsd2	Nlrp6	Fcrl5
Alas2	Fcer2a	Lag3	Tcf7	Trem1	Cd276	Tafa3
Alox15	Fcgr1	Lamp2	Zeb1	Trem3	Itga9	Card9
Ang	Fech	Lbp	Prdx2	Cysl1r1	Mpig6b	Cd59b
Ank1	Il4i1	Lck	Tsc22d1	Smpd3	Lgr4	Pram1
Anxa3	Fkbp1a	Lcn2	Tgfb3	l1gp1	Olr1	Raet1e
App	Fkbp1b	Lef1	Tgfb3	Trpv4	Card11	Milr1
Arg2	Flot1	Lgals1	Tgtp1	Gpr35	Tspan9	Olfm4
Atpi1f1	Flot2	Lgals3	Thbs1	Gprc5b	Lmo1	H2-Eb2
B2m	Flt1	Gzmm	Thy1	Slc15a3	Itgax	Batf3
Bach2	Fn1	Loxl3	Tlr4	Tmem176b	Hba-a2	Gm5150
Prdm1	Fpr2	Anxa1	Tnf	Tmem176a	Bcr	Itgad
Blk	Fpr1	Lta	Tnfaip3	Cxcl16	Lyve1	Trim30c
Cxcr5	Fth1	Ltb	Tnfrsf11a	Wfdc21	Mmp28	Clec4a4
Bmx	Fut7	Ltbr	Cd40	Ifitm3	Colec12	Btl2
Bst1	Dtx1	Ltf	Cd27	Pithd1	Tlr3	Gm6377
Bpgm	G6pdx	Blnk	Tnfrsf9	Prelid1	Pilrb1	Ifi213
Bsg	Gas6	Ly6d	Tnfrsf12	Trim13	Tlr8	Gbp10
C3	Gata1	Smad7	Cd40lg	Rlok3	Cd209c	Ifit3b
C3ar1	Gata3	Masp2	Tpd52	Fam210b	Cd209d	Sirpb1b
C4b	Usp15	Meis1	Traf4	Ctnnbip1	Cd209a	Gm9733
C5ar1	Gcsam	Mitf	Plscr1	1810058124Rik	Glmn	Ifi208
Cacnb3	Gfi1b	Mmp14	Trex1	Rab32	Ppargc1b	Wfdc17
Camk4	Ggt1	Mmp8	Trf	Chid1	Cd9912	Isg15
Casp3	Gnas	Mmp9	Tyro3	Mturn	Hspa1a	
Casp6	Gnrh1	Clec4d	Nr1h3	Mcoln2	Nlrp1a	
Cav1	Gp1ba	Mpl	Vim	Ifitm1	Btla	
Ccnd3	Lilr4b	Mpo	Vpreb3	Dcaf12	Themis	
Ccr6	Lilr4a	Mrc1	Xbp1	Zfp580	Fancd2	
Cd14	Cmk1r1	Myd88	Zap70	Fcmr	Trib1	
Cd151	Gpld1	Mylpf	Ikzf3	Ptms	Ifitm6	
Ctla4	Gpx1	Nck2	Zyx	Tnfrsf13	4930486L24Rik	
Cd19	Grn	Ndrgr1	Clec5a	Dapk1	Il1f9	
Cd2	Pdia3	Nfil3	Sh2b2	Fbxo7	Ccdc92	
Ms4a1	Cfb	Ninj1	Oas1g	Wnk4	Sbno2	
Cd22	H2-BI	Nqo1	Oas12	Tspo2	Evi2b	
Cd24a	H2-Eb1	Nr4a3	Tlr2	Prx12a	Tmem106a	
Cd28	H2-DMB2	Pdcd1	Axl	P2ry12	Il31ra	
Cd34	H2-Oa	Padi4	Ceacam2	Dlg5	March2	
Cd3e	H2-Ob	Pecam1	Ifi202b	Alpk1	Cd226	
Cd3g	H2-T24	Cfp	Map2k2	Optn	Rab7b	
Cd4	Mr1	Pira2	Mapk3	Tnfrsf13c	Ifi207	
Cd5	Hba-a1	Pirb	Pla2g10	2610044015Rik8	Ifi205	
Cd6	Hif1a	Prkcz	Slc7a11	Zbtb46	Gsn	
Cd79a	Hlx	Pla2g4a	Clec4a2	Fbxl2	Otud7b	
Cd80	Hmox1	Plcb1	Ermap	Dusp3	C1rl	
Cd81	Hp	Pml	Podxl	Clec4a3	Ffar2	
Cd84	Hsph1	Pou2af1	Slamf1	P4htm	Zbtb16	
Cd8a	Hspa1b	Endou	Pla2g7	Ocstamp	Btl2	
Cd8b1	Cxcl10	Prnp	Msrb1	Rhoh	Sarm1	
Cd9	Ifit1	Lgmn	C1ra	Rab11fip2	Atad5	
Cdkn1a	Ifit2	Prtm3	Tnfrsf14	Rnf19b	Gpr68	
Cdkn2b	Ifit3	Nectin2	Il27ra	Clec4g	Tlr11	
Cfh	Ifng	Rab4a	Rab11fip5	Gbp8	Lamp3	
Clu	Cd79b	Rac1	Pvr	Dapl1	Ypel4	
Cxcr2	Jchain	Rasgrp1	Stx7	Chmp5	Pde5a	
Ccr1	Il12a	Rhag	Chst3	Polq	Bank1	
Ccr3	Il15	Trim10	Stk39	Cyren	Klre1	
Ccr2	Il1b	Mst1r	Tlr5	Skap1	Siglecg	
Ccr5	Il1r1	Rorc	Slc40a1	Gas211	5830411N06Rik	
Ccr7	Il1rap	S100a8	Cd160	Polr3h	Tarm1	
Camp	Il18r1	S100a9	Skap2	Klrb1b	Retnlg	
Csf2rb	Il2ra	Scin	Sit1	Ifitm2	Rbm47	
Csf2rb2	Il5ra	Ccl2	Tollip	Hcar2	Oas2	
Cst7	Il7	Ccl3	Mefv	Cxcr6	Oas1a	
Ctla2a	Il7r	Ccl4	Gsdme	Trem2	Cd300lf	
Ctsc	Il9r	Ccl9	Cadm1	Fstl3	Tox	
Ctsl	Acod1	Cxcl2	Diaph3	Plvap	Nlrc3	
Ctss	Itga2b	Cxcl5	Zbtb20	Cd96	Nlrp1	
Cxadr	Itga3	Selp	Clec4e	Rbfox2	Jaml	
Cyp7b1	Itga6	Sh2d1a	Clec4n	Ear10	Spib	
Cd55	Itgam	Slc4a1	Cdc42ep4	Rnase2a	Tlr13	