

Table S3. 12 functions assigned to the inflammatory response and genes that belong to particular function categories

Diseases or functions annotation	Molecules	Number of molecules
Inflammation of joints	<i>ABCB10, ABCC2, ABCG2, ABL1, ACSL1, ADAM15, ADIPOQ, AIF1, AK2, ALDOA, ALOX5, ANXA1, ASIC1, ATP4A, BCL3, BRMS1, C1QA, CA2, CALR, CASP3, CCDC59, CCR9, CCSER2, CD1D, CD200, CD40LG, CD44, CD68, CD69, CD81, CDK2AP2, CEBPB, CELF2, CELF4, CEP43, CH25H, CHI3L1, CLIC2, CLK2, CSK, CTSC, CTSG, CXCL2, CXCL2, CYR1, DCUN1D1, DDR1, DEF6, DNASE2, DPP4, DUSP1, EPHX2, FABP4, FBXL7, FDFT1, FOXO3, GABRB3, GALNT1, GHR, GTF3C1, HBB, HDAC2, HIF1A, HPRT1, HSPB8, HSPD1, HYAL2, ICAM3, IGF1BP5, IL11RA, IL18, IL7, ITGA7, JMJD1C, LAP3, LDLR, LEO1, LGALS1, LRIG3, LTB, LTB4R, LTBR, MAFB, MAML3, MAPRE1, MDK, METTL9, MMP17, MMP9, MRPS15, NCF4, NEIL1, NELL1, NR3C1, NRM, NTRK1, NUDCD2, NUP62, PDE4D, PGLYRP1, PHB2, POU4F1, PPP3CB, PRDMI, PRDX1, PRKCZ, PTMA, PXN, R3HDM2, RASGRP4, REN, RIPK2, RORC, RSBNI, SCN9A, SEC24B, SEC61A1, SELENBP1, SERINC2, SH2D1A, SIL1, SKIV2L, SLC1A3, SLC22A1, SORL1, SOX4, STAT3, SYNE1, TAC1, TCF4, TNC, TP53BP1, TRIM28, TXNRD1, TYROBP, USP11, VASH1, VCAMI, WIPF1, WNT5A, ZBTB9, ZNF143, ZNF281</i>	143
Inflammatory response	<i>ACER3, ADIPOQ, AIF1, ALDH2, ALOX5, ANXA1, CALR, CASP3, CCND1, CCR9, CD1D, CD200, CD40LG, CD44, CD69, CDK5R1, CEBPB, CH25H, CHGA, CLCA1, CRTC2, CTSA, CTSG, CXCL12, CXCL2, DICER1, DNASE1L3, DOCK2, DPP4, DUSP1, EGRI, EPHX2, ESRI, FABP4, FOXF1, FOXO3, GADD45A, GGT5, GIT2, GJAI, GNAI3, HNRNPA0, HSPD1, HYAL2, IL18, ITGB3, KMT2E, LDLR, LGALS1, LPCAT3, LPL, LTB4R, MARCO, MDK, MFN2, MMP9, MST1, MUS81, MYO18A, NDUFS4, NFX1, NR1D1, NR3C1, NRP2, NUP85, ODC1, P2RY6, PENK, PGLYRP1, PIGR, PLPP6, PRDMI, PRDX6, PRKCG, PSEN1, PTK2, RASGRP4, RIPK2, SCN9A, SERPINB1, SERPING1, SOCS5, SOD1, STAT3, STK4, TAC1, TNC, TNIP1, TRAF3, TRNT1, TRPV2, TSCI, TYROBP, UBE2N, UPF2, VAV1, VAV3, VCAMI, VPS35, WAS, WIPF1, WNT5A, ZBTB16</i>	103
Activation of leukocytes	<i>ABL1, ADIPOQ, ALOX5, ANXA1, BANK1, BCL3, CALR, CARD9, CD1B, CD1D, CD200, CD40LG, CD44, CD81, CDK5R1, CEBPB, CFTR, CHGA, CSK, CTSG, CTSH, DEF6, DLL1, DOCK2, DPP4, DUSP1, ERAP1, FOXO3, GAD2, GADD45A, GBA, GJAI, HDAC6, HPRT1, HSPB8, HSPD1, HYAL2, IL18, IL7, KMT2E, LCK, LDLR, LGALS1, LGALS4, LTB, LTB4R, LTBR, MALTI, MET, MFN2, MFNG, MMP9, MPZ, MYO18A, NFIL3, ODC1, P2RY6, PHB, PHB2, PLPP6, PMEL, PPP3CB, PRDMI, PRDX1, PRDX6, PSEN1, RAB3B, REN, RIPK2, SCN9A, SERPING1, SH2D1A, SH3KBP1, SMARCA4, SOD1, SPRY1, STAT3, TAC1, TG, TNC, TRAF3, TYROBP, UBE2N, UPF2, VAV1, VAV3, WAS, WNT5A</i>	88
Inflammation of respiratory system component	<i>ABL1, ACO2, ADH5, ADIPOQ, ALDH2, ALDOA, ALOX5, AMY2B, ANXA1, ATP4A, CARD9, CASP3, CD1D, CD200, CD44, CD68, CD69, CEBPB, CFTR, CH25H, CHI3L1, CLCA1, CSK, CXCL12, DADI, DDR1, DPP4, DUSP1, EGRI, FOXO3, GABRB3, GAD2, GIT2, GRIN1, HDAC2, HIF1A, HNRNPAB, ICAM3, IGF1R, IL11RA, ITGB3, KCNN3, LDLR, LGALS1, LTB4R, LTBR, MARK2, MEN1, MMP9, MUS81, NR3C1, PDE3B, PDE4D, PPP3CB, PRDX1, PRDX6, RASGRP4, RORC, SCN9A, SELENBP1, SERINC2, SERPINB1, SERPING1, STAT3, TAC1, TFPI, TNFRSF25, TRAF3, TRAF4, TRIM3, USP21, VAV1, VAV3, VCAMI, WIPF1, WNT5A</i>	76
Inflammation of body cavity	<i>ABCC2, ABCG2, ABL1, ACO2, ADH4, ADIPOQ, AFP, ALDH2, ALDOA, ALOX5, AMY2B, ANXA1, APOB, APRT, ARHGDI, ATF4, ATP4A, BANK1, BBC3, C1QA, CALR, CARD9, CASP3, CCR9, CD1D, CD200, CD40LG, CD44, CD69, CD81, CDC42EP3, CEBPB, CELA3B, CFTR, CH25H, CLCA1, CLEC14A, COL4A1, CRBN, CREB1, CSK, CTRC, CXCL12, CXCL2, CYP1A1, DDR1, DPP4, DUSP1, EGRI, ESRI, FABP1, FABP4, FAH, FOXO3, G3BP1, GABRB3, GAD2, GADD45A, GHR, GIT2, GLG1, GRIN1, HIF1A, HNRNPAB, HPRT1, ID2, IGF1R, IGF2BP1, IL11RA, IL18, IL7, ITGB3, KCNN3, LATS2, LDLR, LGALS1, LGALS4, LPL, LTB, LTB4R, LTBR, MARK2, MDK, MFN2, MMP9, MST1, MUS81, NCF4, NFIL3, NR3C1, ODC1, PDE3B, PDE4D, PDLIM1, PGA5 (includes others), PHB, PI4KA, PIGR, PKNI, PLS1, PPP2CA, PPP3CB, PRDMI, PRDX1, PRDX6, PSEN1, PSMD1, RASGRP4, REN, RIPK2, RORC, SCG5,</i>	139

	SCN9A, SCP2, SEC61A1, SELENBP1, SERINC2, SERPINB1, SETDB1, SGCA, SLC7A9, SOD1, STAMBPL1, STAT3, TAC1, TCF4, TFPI, TNFRSF25, TNIP1, TRAF3, TRAF4, TRIM3, TYROBP, VAV1, VAV3, VCAMI, WAS, WIPF1, WNT5A	
Rheumatoid arthritis	ABCB10, ACSL1, ADAM15, ADIPOQ, AIF1, AK2, ALDOA, ALOX5, ANXA1, ASIC1, ATP4A, BRMS1, CIQA, CA2, CALR, CASP3, CCDC59, CCR9, CCSER2, CD40LG, CD44, CD68, CD69, CEBPB, CELF2, CELF4, CEP43, CHI3L1, CLIC2, CTSC, CTSG, CXCL12, CXCL2, CYR1, DCUN1D1, DDR1, DEF6, DNASE2, DPP4, DUSP1, EPHX2, FABP4, FBXL7, FOXO3, GABRB3, GALNT1, GHR, GTF3C1, HDAC2, HIF1A, HPRT1, HSPB8, HSPD1, ICAM3, IGFBP5, IL18, IL7, JMJD1C, LAP3, LGALS1, LTB, MAFB, MAML3, MAPRE1, MDK, MMP9, MRPS15, NCF4, NELL1, NR3C1, NRM, NTRK1, NUDCD2, PDE4D, PGLYRP1, PPP3CB, PRDM1, PRDX1, PTMA, PYN, R3HDM2, RASGRP4, RORC, RSNB1, SEC24B, SERINC2, SIL1, SKIV2L, SORL1, STAT3, SYNE1, TAC1, TCF4, TNC, TRIM28, TXNRD1, VASH1, VCAMI, WNT5A, ZBTB9, ZNF143, ZNF281	102
Inflammation of lungs	ABLI, ACO2, ADIPOQ, ALDH2, ALDOA, ALOX5, ANXA1, CARD9, CASP3, CD1D, CD200, CD44, CFTR, CH25H, CLCA1, CSK, CXCL12, DDR1, DPP4, DUSP1, EGRI, FOXO3, GABRB3, GIT2, HIF1A, HNRNPAB, IL11RA, ITGB3, KCNN3, LDLR, LGALS1, LTB4R, LTBR, MARK2, MMP9, MUS81, NR3C1, PPP3CB, PRDX1, PRDX6, RORC, SELENBP1, SERPINB1, STAT3, TAC1, TFPI, TNFRSF25, TRAF3, TRAF4, TRIM3, VAV1, VAV3, WIPF1, WNT5A	54
Allergic pulmonary eosinophilia	ACO2, ADIPOQ, ALDH2, ALDOA, HNRNPAB, NR3C1, PRDX1, PRDX6, RORC, SELENBP1, VAV1, VAV3	12
Inflammation of organ	ABCC2, ABCG2, ABLI, ACADVL, ACO2, ADH4, ADIPOQ, AFP, AIF1, ALDH2, ALDOA, ALOX5, AMY2B, ANXA1, APOB, APRT, ARHGDI, ATF4, ATP4A, BANK1, BBC3, BCL3, CIQA, CA14, CA2, CA9, CALR, CARD9, CASP3, CCR9, CD1D, CD200, CD40LG, CD44, CD69, CD81, CDC42EP3, CDK5R1, CEBPB, CELA3B, CFTR, CH25H, CLCA1, CLEC14A, COL4A1, CRBN, CREB1, CSK, CTRC, CXCL12, CXCL2, CYP1A1, DDR1, DDX41, DEF6, DLL1, DPP4, DPYSL2, DUSP1, EGRI, ENTPD7, ERAP2, ESRI, FABP1, FABP4, FAH, FCGBP, FKBP8, FOXO3, G3BP1, GABRB3, GAD2, GADD45A, GBA, GHR, GIT2, GLG1, GRB7, GRIA3, GRIN1, GRSF1, HBB, HDAC2, HDAC3, HDAC6, HIF1A, HNRNPAB, HPRT1, HSPB2, HSPD1, ID2, IGF1R, IGF2BP1, IL11RA, IL18, IL7, ITGB3, KCNN3, KDM6A, KEL, LATS2, LDLR, LGALS1, LGALS4, LPL, LTB, LTB4R, LTBR, MALT1, MARK2, MDK, MFN2, MLH3, MMP9, MST1, MUS81, MXI1, MYL9, NAV3, NCF4, NCSTN, NFIL3, NR3C1, ODC1, P2RY6, P4HA2, PDE3B, PDE4D, PDLIM1, PGA5 (includes others), PGLYRP1, PHB, PHLDB2, PI4KA, PIGR, PKN1, PLS1, PPP2CA, PPP3CB, PRDM1, PRDX1, PRDX6, PSEN1, PSMD1, PTCRA, RASGRP4, REN, RIPK2, RORC, SI00A11, SCG5, SCN9A, SCP2, SEC61A1, SELENBP1, SERINC2, SERPINB1, SERPING1, SETDB1, SGCA, SHC3, SLC39A4, SLC7A9, SMOX, SOD1, STAMBPL1, STAT3, TAC1, TCF4, TFPI, TNFRSF25, TNIP1, TOB1, TRAF3, TRAF4, TRIM28, TRIM3, TSCI, TYROBP, VAV1, VAV3, VCAMI, VCP, VPS13B, WAS, WIPF1, WNT5A	187
Inflammation of absolute anatomical region	ABCC2, ABCG2, ABLI, ACO2, ADH4, ADIPOQ, AFP, AIF1, ALDH2, ALDOA, ALOX5, AMY2B, ANXA1, APOB, APRT, ARHGDI, ATF4, ATP4A, BANK1, BBC3, BCL3, CIQA, CA14, CA2, CA9, CALR, CARD9, CASP3, CCR9, CD1D, CD200, CD40LG, CD44, CD69, CD81, CDC42EP3, CEBPB, CELA3B, CFTR, CH25H, CLCA1, CLEC14A, COL4A1, CRBN, CREB1, CSK, CTRC, CXCL12, CXCL2, CYP1A1, DDR1, DEF6, DLL1, DPP4, DUSP1, EGRI, ENTPD7, ESRI, FABP1, FABP4, FAH, FOXO3, G3BP1, GABRB3, GAD2, GADD45A, GHR, GIT2, GLG1, GRIN1, HIF1A, HNRNPAB, HPRT1, HSPD1, ID2, IGF1R, IGF2BP1, IL11RA, IL18, IL7, ITGB3, KCNN3, LATS2, LDLR, LGALS1, LGALS4, LPL, LTB, LTB4R, LTBR, MALT1, MARK2, MDK, MFN2, MMP9, MST1, MUS81, NCF4, NFIL3, NR3C1, ODC1, P2RY6, PDE3B, PDE4D, PDLIM1, PGA5 (includes others), PHB, PI4KA, PIGR, PKN1, PLS1, PPP2CA, PPP3CB, PRDM1, PRDX1, PRDX6, PSEN1, PSMD1, RASGRP4, REN, RIPK2, RORC, SCG5, SCN9A, SCP2, SEC61A1, SELENBP1, SERINC2, SERPINB1, SETDB1, SGCA, SLC7A9, SOD1, STAMBPL1, STAT3, TAC1,	153

	<i>TCF4,</i> <i>TFPI, TNFRSF25, TNIP1, TOB1, TRAF3, TRAF4, TRIM28, TRIM3, TYROBP, VAV1, VAV3, VCAMI,</i> <i>VPS13B, WAS, WIPF1, WNT5A</i>	
Immune response of tumour cell lines	<i>ANXA1, AQP4, CD44, Cdc42, CLTC, COX4I1, CSK, DEF6, DET1, DOCK2, ELOVL1, KAT6A, LCK, LETMD1, MARCO, MET, NR3C1, PTK2, RHOG, RRAS2, SH3KBP1, SMARCA4, STAT3, TRAF3, TYROBP, UXS1, WAS, WNT5A, ZNF217</i>	29
Dermatitis	<i>ABL1, ACADVL, ADIPOQ, ANXA1, ARHGDI1, BCL3, CALR, CD1D, CD44, CDK5R1, CSK, DDX41, DPP4, DPYSL2, DUSP1, ERAP2, FABP4, FCGBP, FKBP8, FOXO3, GADD45A, GBA, GRB7, GRIA3, GRSF1, HBB, HDAC2, HDAC3, HDAC6, HPRT1, HSPB2, IGF1R, IL18, ITGB3, KDM6A, KEL, LDLR, LGALS1, LPL, LTB, LTB4R, MALT1, MLH3, MMP9, MXII, MYL9, NAV3, NCSTN, NR3C1, ODC1, P4HA2, PDE4D, PGLYRP1, PPP3CB, PRDM1, PSEN1, PSMD1, PTCRA, RORC, S100A11, SERPING1, SHC3, SLC39A4, SMOX, TAC1, TNIP1, TSCI, VCP</i>	68