

1 Table S1. Genes containing Tcf-1 and HEB motifs that are enriched in functional pathways
 2 depicted in Figure 6C.

Pathway	Genes	log10 p-value
T cell activation	Ada, Adora2a, Bcl3, Bcl6, Blm, Zfp3611, Zfp3612, Ccnd3, Cd2, Cd28, Cd3d, Cd3e, Cd4, Cd44, Cd5, Cd6, Cd83, Cd8a, Socs1, Coro1a, Cxcr4, Ccr9, Ccr7, Csk, Dpp4, Fas, Fkbp1a, Dtx1, Gata3, Gpam, H2-DMa, Hfe, Ifng, Il2ra, Il4ra, Il6st, Irf4, Itgal, Itgam, Cd47, Itk, Mafk, Lat, Lck, Lef1, Lfng, Lgals1, Lgals9, Mad111, Smad3, Myb, Myh9, Nck2, Prkcq, Prkcz, Psen2, Ptpn22, Ptprc, Rac2, Rag1, Rag2, Rara, Rasgrp1, Rora, Rorc, Satb1, Sox4, Sp3, Stat5a, Stat5b, Syk, Tcf7, Tgfbr2, Thy1, Cd27, Tnfsf11, Txk, Scgb1a1, Vav1, Xbp1, Zap70, Ikzf1, Azi2, Slamf1, Slamf6, Slc46a2, Tnfsf14, Sit1, Apbb1ip, Patz1, Pdcd1lg2, Bcl11b, Cd274, Dusp10, Pycard, Sash3, Stx11, Rhoh, Sla2, Ccdc88b, Dock2, Pag1, Dusp22, Wwp1, Jmjd6, Foxp1, Card11, Lmo1, Havcr2, Themis, Fancd2, Il20rb, Fam49b, Gsn, Tmem131l, Carmil2, Zbtb1, Zfp608, Prex1, Lig4, Itpkb, Chd7, Zmiz1, Trem12, Itga, Lrrc32, Mir326, Ass1, Bmp7, Itga4, Itgb7, Nr4a3, Pecam1, Rock1, Sell, Selplg, Sema4d, Stk10, Ets1, Nt5e, Podxl2, Alox12, Ccr5, Mbp, Cited2, Myo10, Pik3r1, Prkca, Spint2, Src, Tnfaip3, Mapk7, Rgcc, Ubash3b, Piezo1, Zfp703, Atm, Camk4, Runx1, Cbfa2t3, Csf3, Sh3pxd2a, Hcls1, Id2, Itgb3, Lyl1, Mfng, Nme1, Ptk2b, Ccl3, Zfpm1, Ikzf3, Polm, Hdac7, Tesc, Clec2d, Dock10, Trib1, Rassf2, Plcl2, Dclre1c, Inpp4b, Dcaf1, Siglec15, Bst1, Dnm2, S1pr1, Efna1, Fbln1, Adgrg1, Kdr, Pten, Ptprj, St6gal1, Utrn, Iqgap1, Smoc1, Plxnd1, Serpini2, Rreb1, Unc13d, Plet1, Nuak1, Prkd2, Col26a1, Rasa1, Arvcf, Cdh5, Icam2, Lgals7, Ptprf, Slc7a11, Pvr, Cd164, P2ry12, Cnn3, Cyfip2, Amigo2, Cd226, Ubash3a, Fat4, Cdh26, Adora3, Capn3, Fgr, Lyst, Msh6, Nfatc2, Pdpk1, Ptpre, Stap1, Gper1, Abr, Zfp335, Myo18a, Hmgb1, Hspa9, Nfkbia, Klf13, Foxo3, Rcor1, Setd1a, Impdh1	-38.37
Adaptive immune response	Ap1m1, Cd28, Cd3d, Cd3e, Cd3g, Cd247, Cd4, Cd8a, Cd8b1, Socs3, Socs1, Csk, Dnm2, Grb2, Trip12, H2-Eb1, H2-DMa, H2-DMb2, H2-Q1, H2-Q2, Icam2, Itga4, Itgb7, Itk, Itpr1, Itpr2, Itpr3, Kif11, Kif3b, Kif5b, Lat, Lck, Lcp2, Psmb8, Grap2, Nfatc2, Nfkbia, Pdpk1, Pik3cd, Pik3r1, Pja1, Prkcb, Prkcq, Ppp2ca, Npepps, Psmb7, Pten, Ptpn22, Ptprj, Rasgrp2, Rasgrp1, Sec22b, Sec23a, Sell, Siah2, Src, Syk, Tap2, Psmd2, Psmd3, Tubb2a, Tubb3, Vav1, Xdh, Ywhaz, Zap70, Fyb, Map3k8, Psma1, Psma6, Ppp2r5c, Fbxw4, Fbxl12, Slamf6, Rnf19a, Fbxw7, Keap1, Pvr, Anapc4, Tuba8, Fzr1, Rbx1, Ube2d2a, Pdcd1lg2, Anapc5, Dctn5, Cd274, Asb1, Asb4, Psmd6, Ube2v1, Tab2, Sec31a, Cdc16, Kctd6, Tubb2b, Spsb1, Det1, Trim39, Nedd4l, Clec2d, Trim11, Pag1, Anapc2, Fbxl14, Wwp1, Card11, Ube4a, Znf1, Btl10, Klhl25, Cdc34, Klhl11, Rapgef3, Fbxo11, Cd226, Ppp2r5b, Ppp2r5a, Kif18a, Psmf1, Klrb1f, Klhl42, Klc3, Herc1, Mex3c, Dcaf1, Trem12, Hecw2, Rap1gap2, Znf2, Cbfa2t3, Hfe, Hsp90ab1, Psen2, Ptk2b, Tbl1x, Tnfaip3, Ubc, Ube2h, Wfs1, Xbp1, Usp18, Usp2, Trpc4ap, Herpud1, Rpl11, Bfar, Zfand4, Ubxn11, Rnf125, Der11, Pdcl3, Kctd2, 1700016K19Rik, Rnf145, Rnf121, Ube2s, 1500015O10Rik, Cblc, Ubqln4, Rnf44, Rnf187, Edem1, Trib1, Os9, Arrb2, Trib2, Usp1, Zmpste24, Usp7, Efna1, Enc1, H13, Yme1l1, Dnajb12, Ngly1, Chmp4b, Bach1, Bach2, Fkbp1a, Gbp4, Rag1, Sox4, Tgfbr1, Traf2, Ube2e1, Trim59, Nsmce1, Bcor, Klhl35, Kbtbd11, Jade2, Trim33, Zfp91, Neurl3, Klhl31, Cdk8, Rnf152, Tmem189, Capn3, Cbx4, Hmg20a, Hdac4, E2f, Tank, Cops6, Otud1, Stambpl1, Otub1	-24.05
Th17 cell differentiation	Runx1, Cd3d, Cd3e, Cd3g, Cd247, Cd4, Gata3, H2-Eb1, H2-DMa, H2-DMb2, Hsp90ab1, Ifng, Ifngr1, Ifngr2, Il2ra, Il4ra, Il6st, Irf4, Jak1, Lat, Lck, Smad3, Nfatc2, Nfkbia, Prkcq, Rara, Rora, Rorc, Stat5a, Stat5b, Tgfbr1, Tgfbr2, Zap70, Tyk2, Il21r, Maf, Notch3, Ccnd3, Cd28, Cdk2, Eif2ak3, Fas, FasL, Pik3cd, Pik3r1, Tnfaip3, Tnfsf10, Slamf1, Tab2, Cflar, Gnai2, Gnaq, Ppp2ca, Ccl3, Actb, Atf2, Socs3, Prkca, Prkcb, Prss2, Vdac1, Pycard, Dnajb1, Tmprss4, Tmprss13, Bcl2l1, Socs1, Ccr5, Lamc2, Pdpk1, Tab1, Lamc1, Pik3r5, Itga4, Itgam, Gtf2i, H2-Q1, H2-Q2, Tap2, Traf1, Traf2, Traf5, Tnfsf14, Hcfc2, Cdc34, Usp7	-14.94
TCR signaling	Cd3d, Cd3e, Cd3g, Cd247, Cd4, Csk, H2-Eb1, Itk, Lat, Lck, Lcp2, Psmb8, Grap2, Nfkbia, Pdpk1, Pik3r1, Prkcq, Psmb7, Pten, Ptpn22, Ptprj, Psmd2, Psmd3, Zap70, Fyb, Psma1, Psma6, Ube2d2a, Psmd6, Ube2v1, Tab2, Pag1, Card11, Cdc34, Psmf1, Grb2, Nfatc2, Syk, Txk, Vav1, Vav2, Map3k1, Tab1, Actb, Camk2a, Ccnd3, Dusp2, Gfra1, Gfra2, Grin2c, Il2ra, Il6st, Itgb3, Jak1, Ncoa3, Ppp2ca, Rasgrp1, Src, Map3k11, Ppp2r5c, Iqgap1, Apbb1ip, Tyk2, Rbx1, Foxo3, Ranbp9, Dusp10, Dusp6, Dnajb1, Rasa2, Arrb2, Rasa1, Ppp2r5b, Ppp2r5a, Rasgrp4, Dusp5, Frs2, Nrg2, Nfkb2, Pycard, Itpr1, Itpr2, Itpr3, Pik3cd, Prkcb, Ctbp1, Lef1, Tcf7, Tcf7l2, Icam2, Ube2e1, Anapc4, Fzr1, Anapc5, Cdc16, Anapc2, Smad3, Kat2b, Hdac4, Cdk2, Ltb, Cd27, Tnfrsf8, Tnfrsf9, Tnfsf11, Traf2, Tnfsf14, Edaradd, Mad111, Tubb2a, Tubb3, Tuba8, Sgo1, Tubb2b, Cenpf, Wapl, Kif18a, Adcy6, Camk4, Cbx4, Cd28, Nr4a1, Mbd3, Prkca, Rheb, Rragd, Usp7, Lmna, Epas1, Cited2, Egl1, Gata3, Foxk1, Polb, Siah2, Tgfbr1, Tnfaip3, Vdac1, Usp18, Keap1, Usp2, Tomm20, Stambpl1, Otub1, Mbd5, Kdm1b, Hmgb1, Map3k8, Hsp90ab1, Enc1, Klhl25, Cdc7, Pola2, Rpa1, E2f2, Abca2, Abcg1, Abcb4, Abca3, Abcc5, Der11, Os9, Smarca4, Sox4, Tert, Ywhaz, Bcl9l, Hist2h3c2, Hist1h3e, Hist1h3i, Hist2h3b, Ifng, Ptch1, Dzip1, Atm, Gngt2, Rac2, Pard6a, Azin1, Zfp3611, Xrn1	-14.79