

Supp Table 1. Top 20 features of classified CD45+ subsets

	B cell	T cell	NK	TAM	MDSC	Other Myeloid
1	Cd79a	Bcl11b	Gzma	C1qc	Retnlg	Ramp2
2	Fcmmr	Cd3e	Cma1	C1qa	S100a9	Egfl7
3	Ebf1	Cd3d	Klra9	C1qb	S100a8	Cldn5
4	Cd79b	Cd3g	Klra8	Mgl2	Mmp9	Plvap
5	Ms4a1	Nsg2	Serpnb9b	Chil3	Cxcr2	Foxf1
6	Vpreb3	Cd8b1	Ncr1	Trem2	Stfa211	Tmem100
7	Ighd	Trbc2	Klra4	Aif1	Asprv1	Adgrf5
8	Pax5	Cd5	Klrb1a	Mrc1	Cstdc4	Tspan7
9	Fcer2a	Cd28	Phactr3	Clec10a	G0s2	Gpihbp1
10	Bank1	Themis	Prf1	Msr1	Hdc	Sema3c
11	Tnfrsf13c	Lef1	Klrb1c	Slamf8	Trem1	Clec14a
12	Gm42870	Trac	Klri2	Gatm	Il1f9	Cav1
13	Gm30211	Tcf7	Khdc1a	Fn1	Nlrp12	Cdh5
14	Cd19	Il7r	Klra3	Mafb	Csf3r	Cyp4b1
15	Gm31243	Lat	Klra13-ps	Ms4a6c	Mrgpra2b	Aqp1
16	Iglc3	Cxcr6	Adamts14	Fcgr1	H2-Q10	Lyve1
17	Pou2af1	Klk8	Klre1	Cxcl16	Mirt2	Epas1
18	Cr2	Cd6	Styk1	Ppfia4	Cxcl2	Ptprb
19	Srpk3	Tnfsf8	Gm14125	Tifab	Slc40a1	Fmo1
20	Fcrla	Icos	Klrb1f	Axl	Arg2	Cyrr1

Supp Table 2. Top 20 features of classified T cell subsets

	Cluster1	Cluster2	Cluster3	Cluster4	Cluster5	Cluster6	Cluster7	Cluster8	Cluster9
1	Igfbp4	mt-Rnr2	Tmem176b	Klrb1c	Lag3	Ly6c2	Cd8b1	Foxp3	Pclaf
2	Pdlim4	Klra4	Tmem176a	Klrc2	Rgs16	Cd8a	Cd8a	Ctla4	Birc5
3	Ly6c1	CT010467.1	Serpnb1a	Klrk1	Pdcd1	Plac8	Dapl1	Tnfrsf4	Cdk1
4	Lef1	Srrm2	Ramp3	Ccl5	Igfbp7	Ms4a4c	Ccr7	Tnfrsf9	Ccna2
5	Ccr7	Gzma	Rora	Ly6c2	Rbpj	Cd8b1	Fam241a	Glrx	Spc24
6	Satb1	Gm13340	Pxdc1	Fcer1g	Nrgn	Ctsw	Gm43698	Ikzf2	Cks1b
7	C230085N15Rik	mt-Rnr1	Mmp25	Cd7	Bcl2a1d	Gm19705	Ccr9	Il2ra	Hist1h1b
8	Klf2	Wdr26	Il17re	Klra7	Gpm6b	Jaml	Lef1	Capg	Rrm2
9	St8sia6	Arglu1	S100a4	Klrd1	Mir155hg	Fam241a	Klf2	Maf	Cdca3
10	Als2cl	Tnrc6b	S100a6	Klre1	Eea1	Klrd1	Igfbp4	Arl5a	Stmn1
11	Rps24	Arhgap30	Nebi	Samd3	Ptprs	Dnajc15	Actn1	Lamc1	Aurkb
12	Tcf7	Klrk1	Nav2	Klrc1	Bhlhe40	Hspe1	Trnp1	Klrg1	Nusap1
13	Rps27rt	Ttc14	Cxcr3	Klra6	Trps1	1700025G04Rik	Sell	Neb	Cdca8
14	Trib2	Son	Ly6a	Ctsw	Bcl2a1b	Snhg1	Tsc22d3	Gm28112	Cit
15	Gm4332	Birc6	S100a11	Tcrg-C4	Nrp1	Gpr18	Tdrp	Rapsn	Mki67
16	Rps16-ps2	Fam107b	P2rx7	Spry2	Gldc	Atp8b4	Sh3bp5	Sdcbp2	Hist1h2an
17	Rflnb	Tmem30a	S100a10	Klra1	Phactr2	Hspe1-rs1	Tmem108	Izumo1r	Ccnb2
18	Crif3	Klra8	Ltb4r1	Il2rb	Havcr2	Gramd3	Auts2	Icos	Kif11
19	Gm15793	Pnn	Il1r1	Tcrg-C2	lfng	Gm6477	Lcn4	Ncmap	Cispn
20	Actn1	Sept9	Itgb1	Nkg7	Tnfrsf4	Nhp2	Cmah	Itgav	Ube2c

Supp Table 3. Primers used in the experiment.

Gene	Primer sequence
Scgb1a1-for	GGTTATGTGGCATCCCTGAA
Scgb1a1-rev	AGTGACAAGGCTTTAGCAGTAG
Cyp2f2-for	AGAAGGTTCTCTGTCCAAATCC
Cyp2f2-rev	CCAAGGGCTGCTCATAATCT
Scgb3a2-for	CCTGTACCTTTGGACGACATTA
Scgb3a2-rev	CCAGAGTGAGCAAATCCTTCT
Hp-for	GTGGTGGATATCGGGCTAATC
Hp-rev	CTTCTCGGGCACTGTACTATTC
Scgb1c1-for	TGACTAGAGCAGAGGATGACA
Scgb1c1-rev	TGTCGCTCATGGAAGTCAAG
Il1b-for	GGTACATCAGCACCTCACAA
Il1b-rev	TTAGAAACAGTCCAGCCCATAC
Ptgs2-for	CATTGACCAGAGCAGAGAGATG
Ptgs2-rev	GGCTTCCAGTATTGAGGAGAAC
Tnf-for	CTACCTTGTTGCCTCCTCTTT
Tnf-rev	GAGCAGAGGTTTCAGTGATGTAG
CD274-for	CTCCTACACATGCACACACATA
CD274-rev	GAGGATAGGCTGAGGGAATAGA
Arg1-for	CAGAGGTCCAGAAGAATGGAAG
Arg1-rev	TCCACCCAAATGACACATAGG
Arg2-for	GAAGAAGCTAGGAGTGGGAATATGG
Arg2-rev	CACCTGACACAGCTCTACTAAC
Nos2-for	AGGAGGAGAGAGATCCGATTTAG
Nos2-rev	TCCAAGGTGCTTGCCTTATAC
Il6-for	CTTCACAAGTCGGAGGCTTAAT
Il6-rev	ACTCCAGGTAGCTATGGTACTC

Supp Table 4. Antibodies used in the experiment.

Species	Antigen	Clone, Company	Dilution	Application
Mouse	anti-CD3	17A2, Biolegend	1:100	Flow Cytometry
Mouse	anti-CD4	RM4-5, Biolegend	1:100	Flow Cytometry
Mouse	anti-CD8a	53-6.7, Biolegend	1:100	Flow Cytometry
Mouse	anti-CD44	IM7, Biolegend	1:100	Flow Cytometry
Mouse	anti-CD45	30-F11, Biolegend	1:100	Flow Cytometry
Mouse	anti-CD62L	MEL-14, Biolegend	1:100	Flow Cytometry
Mouse	anti-Ki67	11F6, Biolegend	1:100	Flow Cytometry
Mouse	anti-PD-1	29F.1A12, Biolegend	1:100	Flow Cytometry
Mouse	anti-TNFA	MP6-XT22, Biolegend	1:100	Flow Cytometry
Mouse	anti-IFNg	XMG1.2, Biolegend	1:100	Flow Cytometry
Mouse	Anti-CC10	E-11, Santa Cruz	1:50	Flow Cytometry
Mouse	anti-EpCAM	G8.8 Biolegend	1:100	Flow Cytometry
Mouse	anti-GzmB	GB11 Biolegend	1:100	Flow Cytometry
Mouse	anti-PD-1	RMP1-14 BioXCell	250ug/dose	In vivo neutralization
Mouse	IgG2a	2A3 BioXCell	250ug/dose	In vivo neutralization
Mouse	anti-E-Cadherin	DECMA1 Biolegend	1:40	Immunofluorescence
Mouse	anti-CD45	30-F11 Biolegend	1:25	Immunofluorescence
Mouse	anti-PD-1	RMP1-30 eBioscience	1:25	Immunofluorescence
Mouse	anti-PD-L1	10F.9G2 Biolegend	1:25	Immunofluorescence
Mouse	anti-CD8	53-6.7 Biolegend	1:25	Immunofluorescence
Mouse	Anti-CC10	E-11, Santa Cruz	1:25	Immunofluorescence
N/A	Anti-Flag	Enzo lifescience	1:1000	Western Blot
Mouse	Anti-JAK/Stat kit	Cell signaling	1:1000	Western Blot