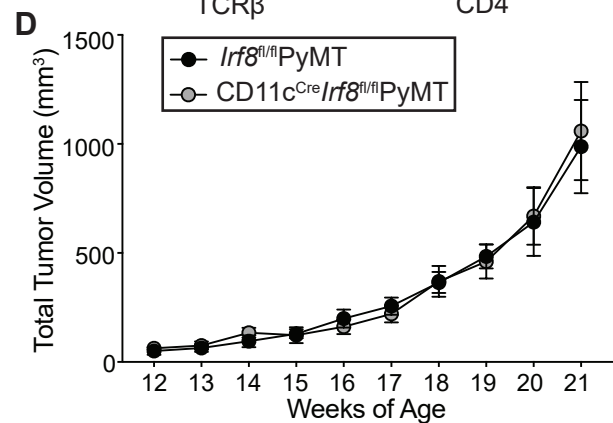
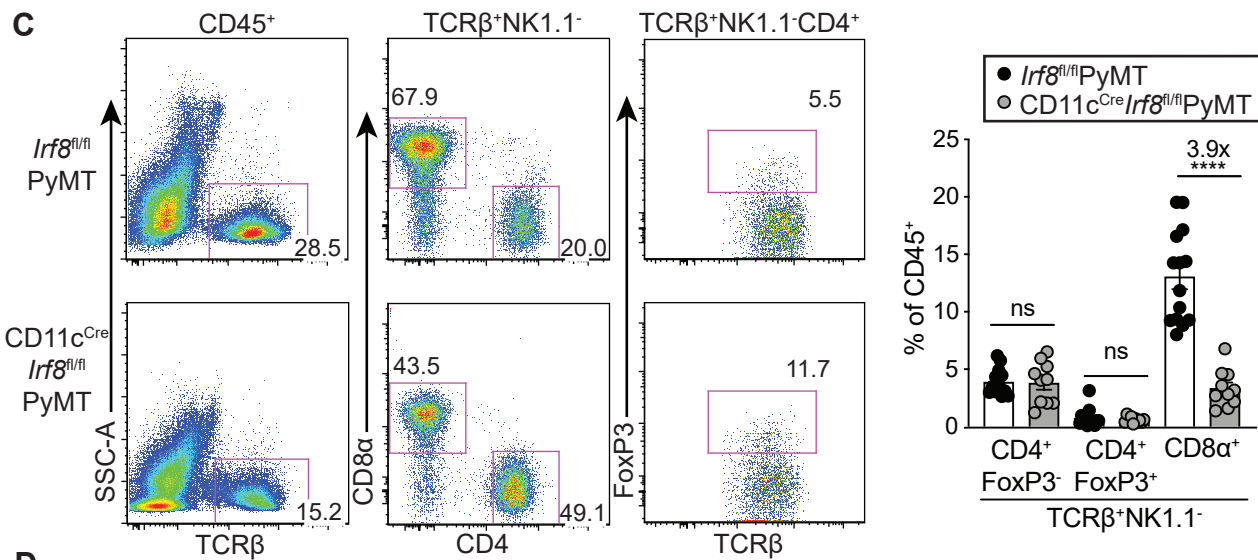
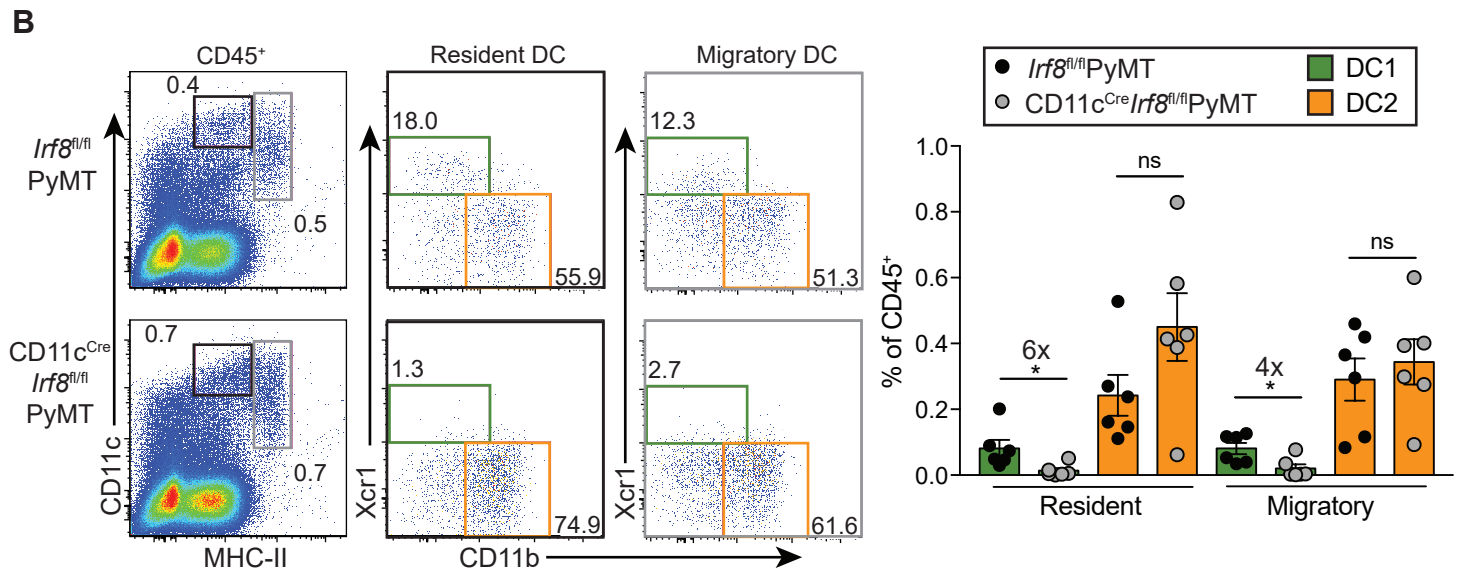
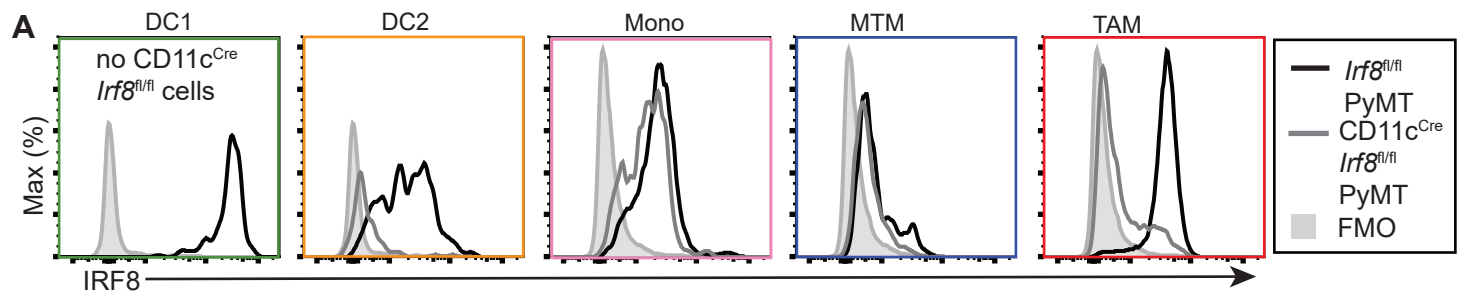


**Figure S1. Mononuclear phagocytic cells of the mammary gland, tumor and their draining lymph nodes, related to Figure 1.**

(A) Flow cytometric gating strategy for mononuclear phagocytes in mammary gland and PyMT tumor: DC1s (green, CD45<sup>+</sup>Lin<sup>-</sup>F4/80<sup>-</sup>Ly6C<sup>-</sup>CD11c<sup>+</sup>MHC-II<sup>+</sup>Xcr1<sup>+</sup>), DC2s (orange, CD45<sup>+</sup>Lin<sup>-</sup>F4/80<sup>-</sup>Ly6C<sup>-</sup>CD11c<sup>+</sup>MHC-II<sup>+</sup>CD11b<sup>+</sup>), monocytes (pink, CD45<sup>+</sup>Lin<sup>-</sup>F4/80<sup>+</sup>Ly6C<sup>+</sup>CD11b<sup>+</sup>), MTMs (blue, CD45<sup>+</sup>Lin<sup>-</sup>F4/80<sup>+</sup>Ly6C<sup>-</sup>Mrc1<sup>+</sup>) and TAMs (red, CD45<sup>+</sup>Lin<sup>-</sup>F4/80<sup>+</sup>Ly6C<sup>-</sup>Mrc1<sup>-</sup>) (Lin = Ly6G, B220, SiglecF, dead cells). Expression of Vcam1 and MHC-II on TAMs is also displayed.

(B) CD103 expression on Xcr1<sup>+</sup> DC1s from mammary gland (dashed line) and tumor (solid line).

(C) Representative flow cytometric plots for resident (black, CD11c<sup>high</sup>MHCII<sup>int</sup>) and migratory (gray, CD11c<sup>+</sup>MHC-II<sup>high</sup>) DC1s (XCR1<sup>+</sup>) and DC2s (CD11b<sup>+</sup>) in mammary gland- or tumor-draining lymph node. Expression of CD103 in lymph node DC populations is shown for non-tumor bearing and tumor bearing mice. Data is representative of at least 3 independent experiments.



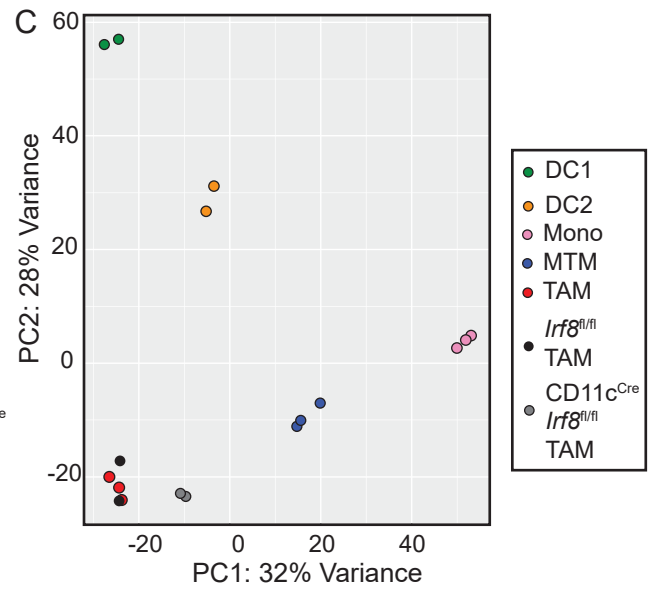
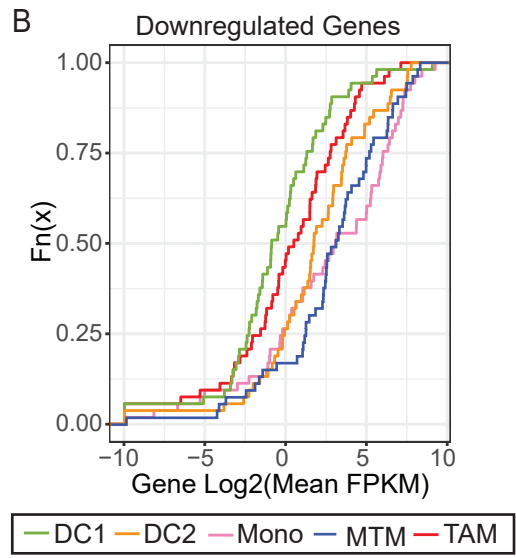
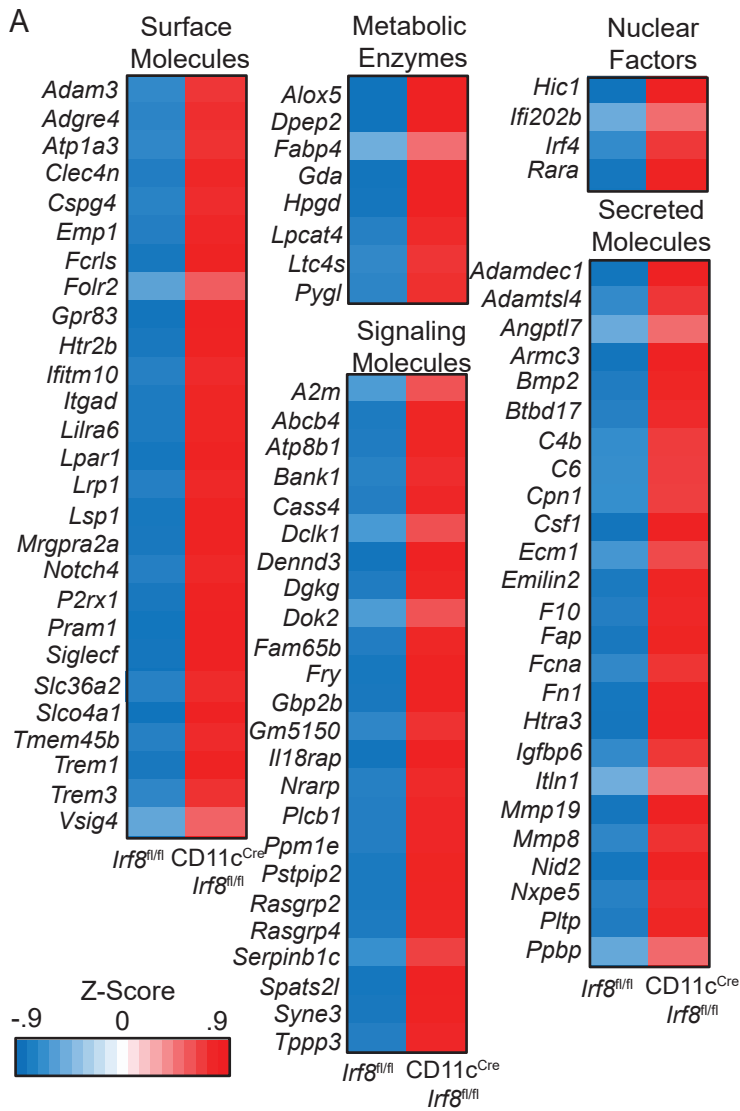
**Figure S2. Leukocyte populations in tumor and tumor-draining lymph nodes of CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice, related to Figure 2.**

(A) IRF8 protein expression as determined by flow cytometric analysis in DC1s, DC2s, monocytes, MTMs and TAMs from tumors in *Irf8*<sup>fl/fl</sup>PyMT (black line) and CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT (gray line) mice. No CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup> DC1 cells were detected; fluorescence minus one (FMO) sample unstained for IRF8 in shaded gray.

(B) Representative flow cytometric gating and quantification of tumor-draining lymph nodes in *Irf8*<sup>fl/fl</sup>PyMT (black circles) and CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT (gray circles) mice (n=6 per group), resident DC (black box), migratory DC (gray box), DC1 (green bar) and DC2 (orange bar).

(C) Representative flow plots and quantification of tumor-infiltrating T lymphocyte populations in *Irf8*<sup>fl/fl</sup>PyMT and CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice. Each circle represents one mouse, data displayed as mean +/- SEM, fold change value of DCs from *Irf8*<sup>fl/fl</sup>PyMT versus CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice are displayed above significant comparisons (unpaired student's t test, two-tailed, \* = p<0.05, \*\*\*\* = p<0.0001).

(D) Tumor growth curves from CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT (n=11) and littermate and cagemate *Irf8*<sup>fl/fl</sup>PyMT controls (n=8) (2-way ANOVA, not significant).

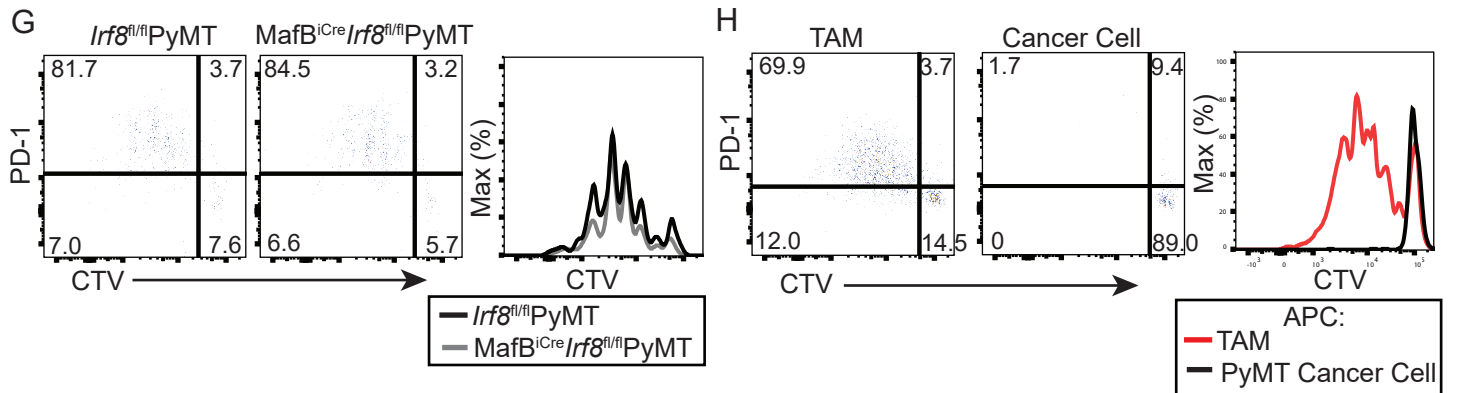
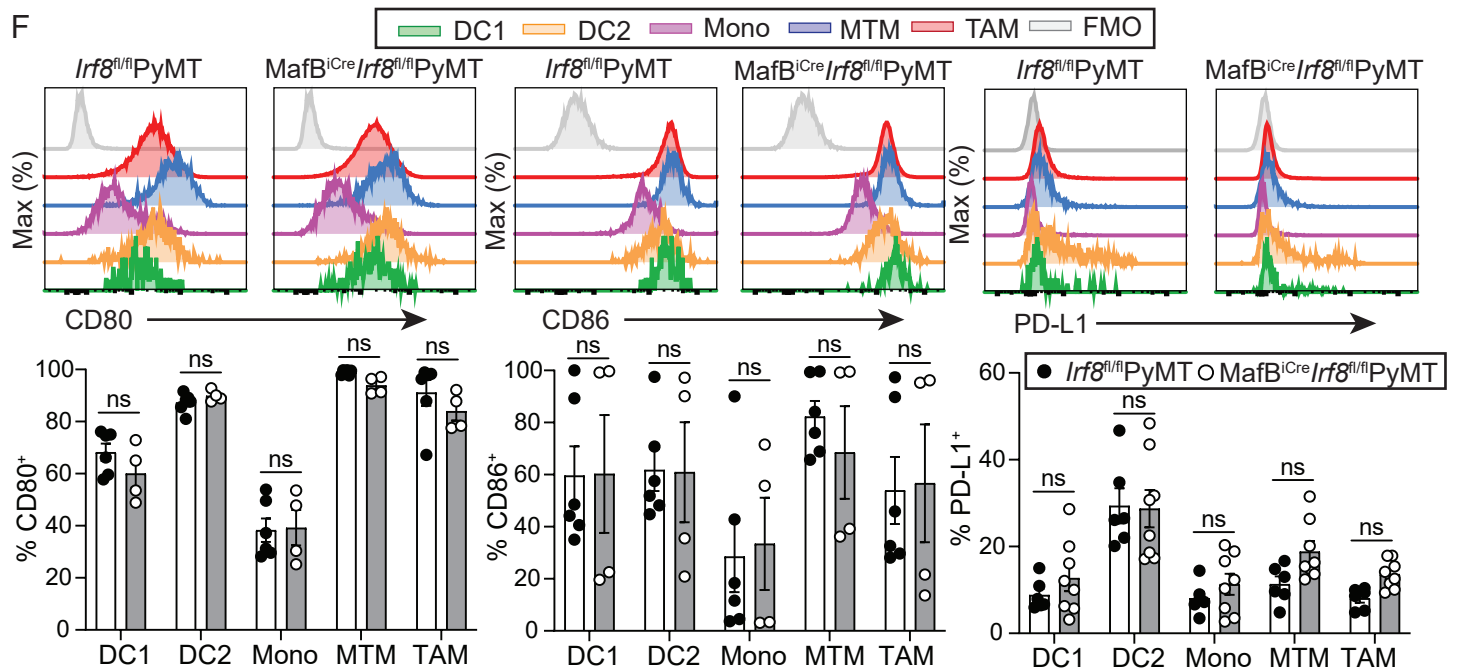
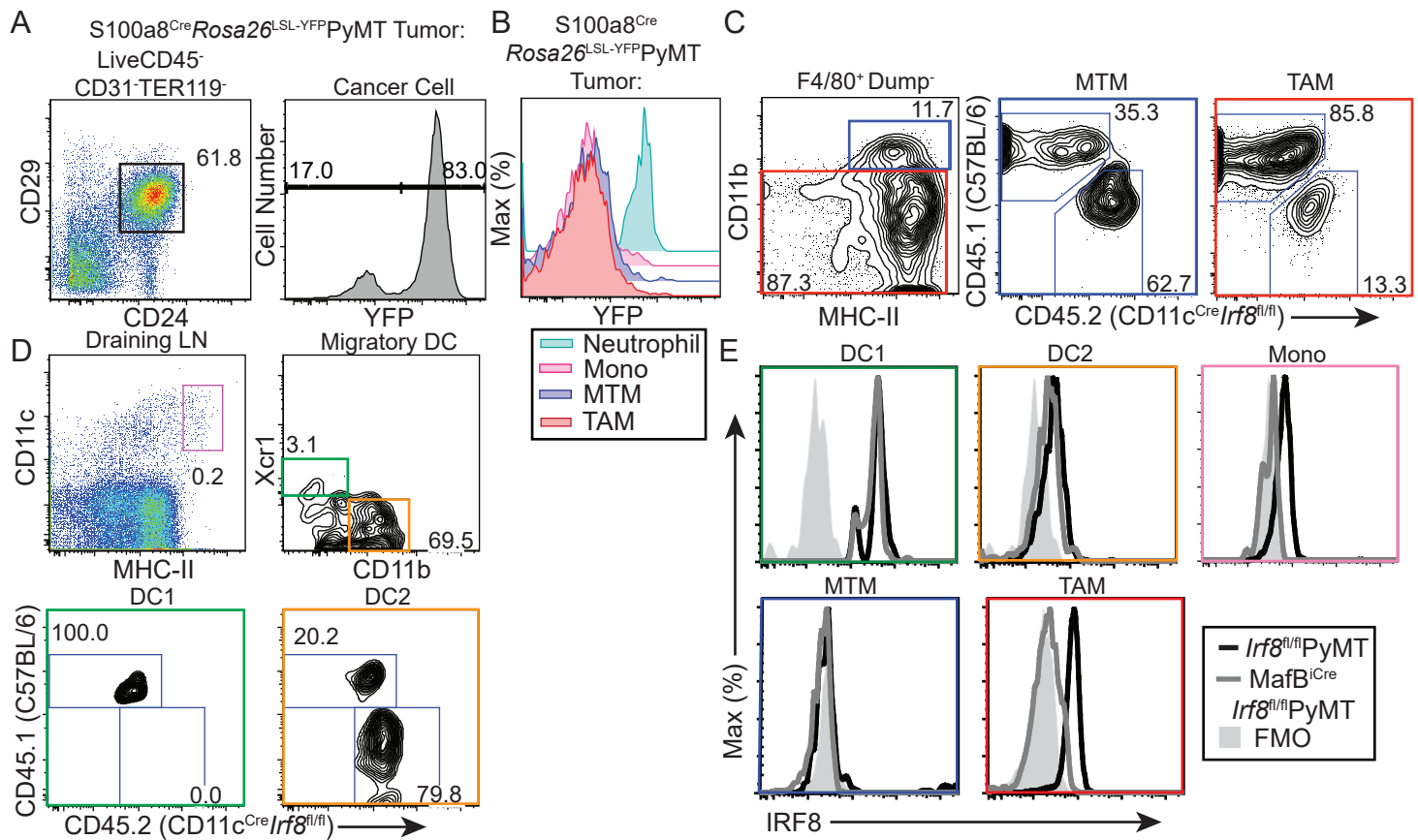


**Figure S3. IRF8-dependent gene expression in TAMs, related to Figure 3.**

(A) Average z-score of genes significantly upregulated in TAMs sorted from tumors of *Irf8<sup>fl/fl</sup>*PyMT and CD11c<sup>Cre</sup>*Irf8<sup>fl/fl</sup>*PyMT mice. RNA was extracted and sequenced. Genes were grouped based on cell localization and function, excluding genes with unknown functions, pseudogenes and noncoding RNAs (*Art2a-ps*, *Nhs12*, *Tmem181c-ps*, and *4933400F21Rik*) (base mean > 50, FDR < 0.05, log<sub>2</sub> fold change > 2).

(B) CDF plot displaying enrichment of IRF8-repressed gene signatures in PyMT tumor DC1 (green), DC2 (orange), monocyte (pink), MTM (blue), and TAM (red) RNAseq datasets from Figure 1.

(C) Principal component analysis performed in Figure 1B, now displaying two *Irf8<sup>fl/fl</sup>* and CD11c<sup>Cre</sup>*Irf8<sup>fl/fl</sup>* TAM pairs along with 5 groups of mononuclear phagocytes from PyMT tumors.



**Figure S4. Exploring the role of IRF8 in mixed bone marrow chimeras and upon deletion via macrophage-specific MafB<sup>iCre</sup> mice, related to Figures 4 to 5**

(A) Reporter for Cre activity (YFP expression) in PyMT cancer cells (CD45<sup>+</sup>CD31<sup>-</sup>TER119<sup>-</sup>CD24<sup>+</sup>CD29<sup>+</sup>) of S100a8<sup>Cre</sup>Rosa26<sup>LSL-YFP</sup>PyMT mice.

(B) Reporter for Cre activity (YFP expression) in tumor-infiltrating immune cells, including TAMs (red), MTMs (dark blue), monocytes (pink) and neutrophils (light blue, CD45<sup>+</sup>Ly6G<sup>+</sup>Ly6C<sup>+</sup>) of S100a8<sup>Cre</sup>Rosa26<sup>LSL-YFP</sup>PyMT mice.

(C) Representative flow cytometric gating of tumor immune infiltrate in chimeric mice, related to Figure 3. Representative of nine independent experiments.

(D) Representative flow cytometric gating of tumor-draining lymph node migratory DC1s from chimeric mice, related to Figure 4.

(E) IRF8 protein expression as determined by flow cytometric analysis in DC1s, DC2s, monocytes, MTMs and TAMs from tumors in *Irf8*<sup>fl/fl</sup>PyMT (black) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (gray) mice, and a fluorescence minus one (FMO) sample unstained for IRF8 in shaded gray.

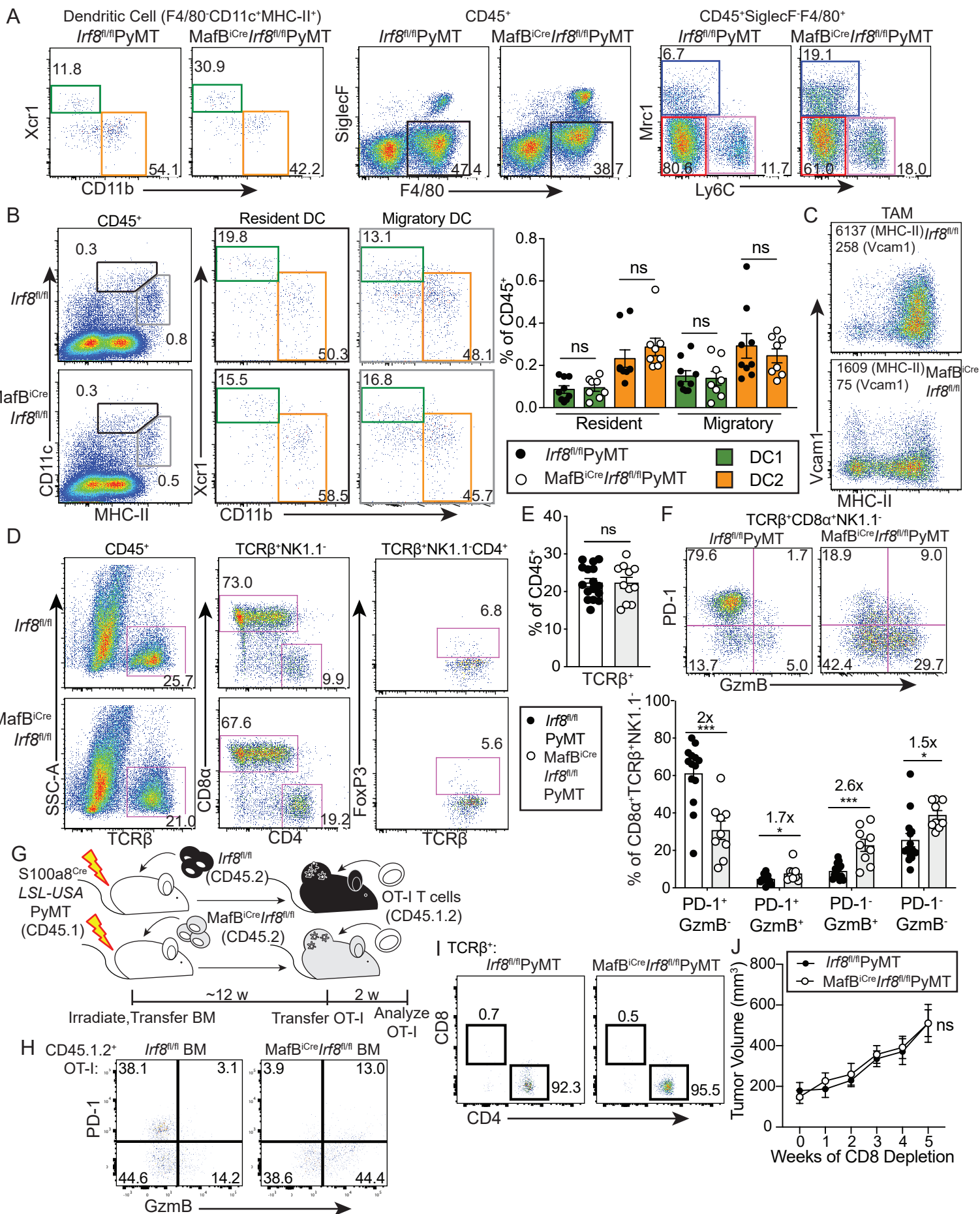
(F) Representative histograms and quantification of expression of CD80, CD86 and PD-L1 in DC1s, DC2s, monocytes, MTMs and TAMs in tumors of *Irf8*<sup>fl/fl</sup>PyMT (n=5) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (n=4) mice.

(G) Expression of PD-1 and CTV of OT-I T cells after 72 h coculture with TAMs sorted from tumors of *Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice. TAMs were pulsed with the SIINFEKL peptide for 1 h and then peptide was washed away before coculture.

(H) Expression of PD-1 and CTV of OT-I T cells after 72 h coculture with TAMs or cancer cells sorted from PyMT tumors. TAMs and cancer cells were pulsed with the SIINFEKL peptide for 1 h and then peptide was washed away before coculture.

Each circle represents one mouse, data displayed as mean +/- SEM, unpaired student's t-test, ns = not significant.





**Figure S5. MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice display TAM defects while maintaining normal DC and T cell abundances with enhanced effector CTL responses supporting cancer surveillance, related to Figure 5.**

(A) Representative flow cytometric gating of DC1s, DC2s, F4/80<sup>+</sup>SiglecF<sup>-</sup> cells, monocytes, MTMs and TAMs from *Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice corresponding to quantification displayed in Figure 5A-B.

(B) Representative flow cytometric gating and quantification of resident (black) and migratory (gray) DC1s and DC2s in tumor-draining lymph nodes of *Irf8*<sup>fl/fl</sup>PyMT (black circles, n=9) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (white circles, n=8) mice.

(C) Representative flow cytometric plot of MHC-II and Vcam1 expression in *Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT TAMs corresponding to quantification displayed in Figure 5C, MFI indicated on representative plot.

(D) Representative flow quantification of tumor-infiltrating lymphocytes in *Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice, corresponding to quantification displayed in Figure 5D.

(E) Quantification of total TCRβ<sup>+</sup> cells in tumors of *Irf8*<sup>fl/fl</sup>PyMT (black circle, n=16) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (white circle, n=11) mice.

(F) Representative flow cytometric analysis (top) and quantification (bottom) of PD-1 and granzyme B (GzmB) expression among TCRβ<sup>+</sup>CD8α<sup>+</sup>NK1.1<sup>-</sup> cells of *Irf8*<sup>fl/fl</sup>PyMT (n=14) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (n=9) mouse tumors.

(G) Schematic depicting experimental design for assessment of TAM function in a tumor antigen-specific model. CD45.1 S100a8<sup>Cre</sup>LSL-USAPyMT mice were irradiated and received either CD45.2 *Irf8*<sup>fl/fl</sup> or MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup> bone marrow. Chimeric mice were aged, allowing tumors to grow, and upon moderate tumor burden, 1x10<sup>6</sup> naïve CD45.1.2 OT-I T cells were transferred and analyzed by flow cytometry two weeks later, related to Figure 5K.

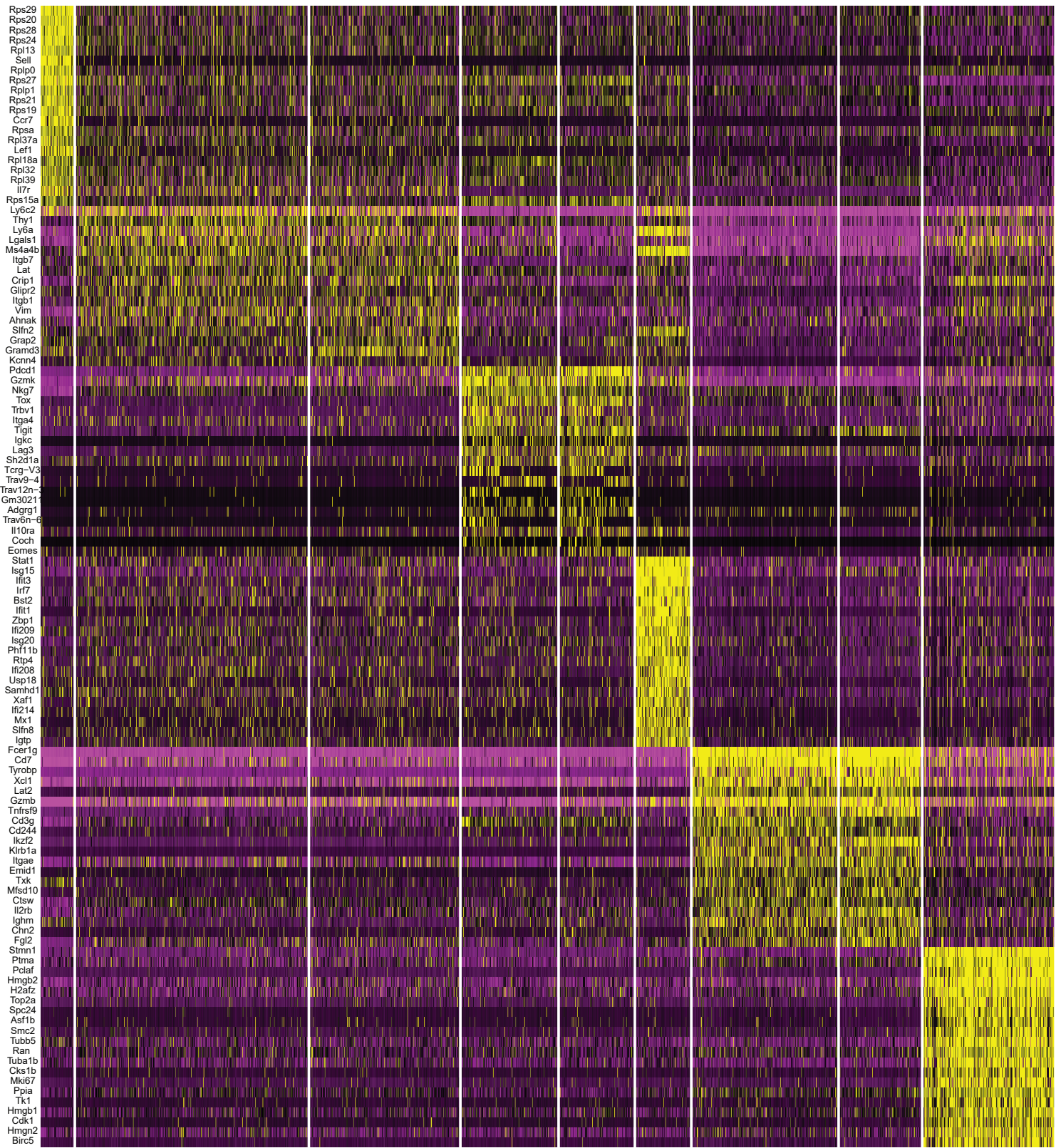
(H) Representative flow cytometric analysis of PD-1 and GzmB expression in CD45.1.2 OT-I T cells two weeks after transfer in chimeric mice, related to Figure 5K.

(I) Expression of CD4 and CD8 among TCR $\beta$ <sup>+</sup> cells in blood from *Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice receiving a CD8 depletion antibody.

(J) Weekly tumor measurements from *Irf8*<sup>fl/fl</sup>PyMT (n=6) and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT (n=7) mice treated with a CD8 depletion antibody every 3-4 days, beginning around 14 weeks of age for 5 weeks.

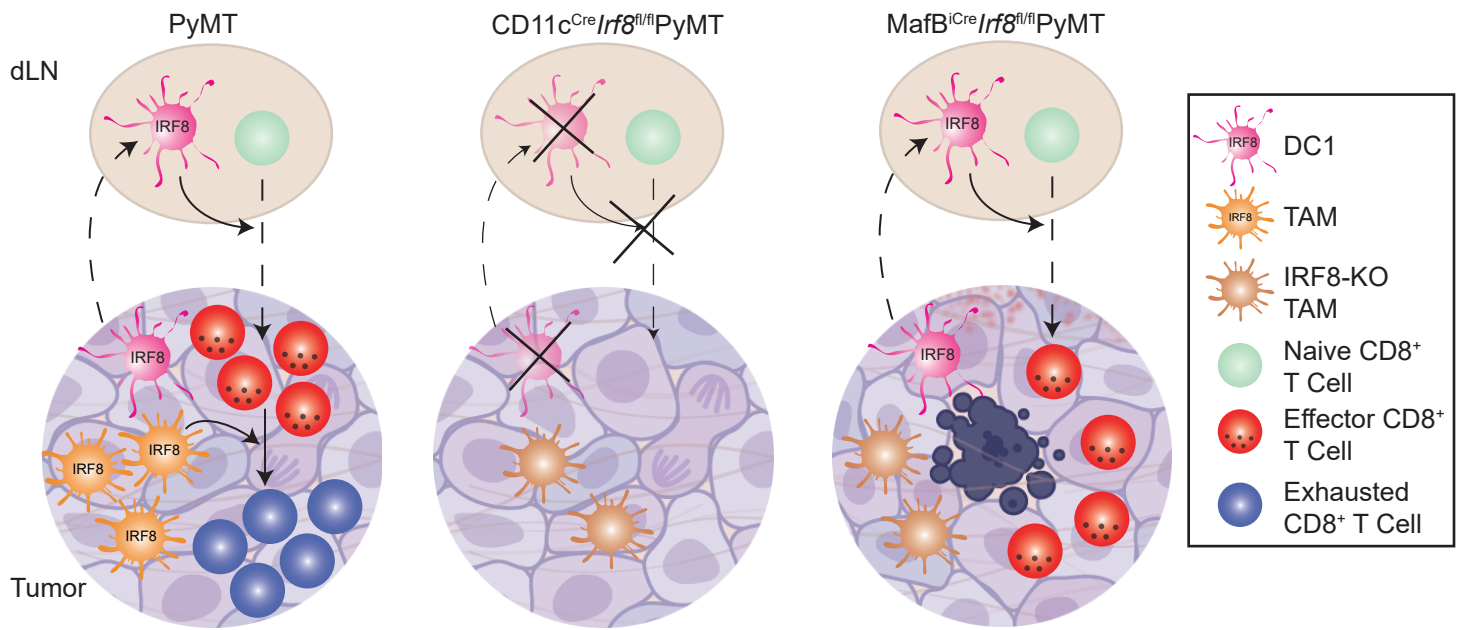
Data are displayed as mean +/- SEM, fold change value of *Irf8*<sup>fl/fl</sup>PyMT versus MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT means are displayed above significant comparisons (E, F: unpaired student's t test, two-tailed, \* = p < 0.05, \*\*\* = p < 0.001, H: two-way ANOVA, ns = not significant).

C1 C2a C2b C3a C3b C4 C5a C5b C6



**Figure S6. Differentially expressed transcripts among scRNAseq clusters, related to Figure 5.**

Expression of genes in all cells in all 9 clusters. Top twenty differentially expressed genes (DEGs) among each cluster relative to all the others are shown. For clusters with “a” and “b”, DEGs were determined by shared DEGs among “a” cluster versus all other clusters minus “b”, and “b” cluster versus all other clusters minus “a”.



**Figure S7. IRF8 governs TAM control of T cell exhaustion, related to Figures 1 to 7.** Model summarizing findings, showing DC1, TAM and CD8<sup>+</sup> T cell fates in tumor-draining lymph nodes (dLN) and tumor of PyMT, CD11c<sup>Cre</sup>*Irf8*<sup>fl/fl</sup>PyMT and MafB<sup>iCre</sup>*Irf8*<sup>fl/fl</sup>PyMT mice.

## Supplemental Tables

**Table S1. Differentially expressed transcription factor genes among monocytes, MTMs, and TAMs, related to Figure 1.**

**Table S2. Differentially expressed genes between *Irf8<sup>fl/fl</sup>* and CD11c<sup>Cre</sup>*Irf8<sup>fl/fl</sup>* TAMs, related to Figures 3 and S3.**

**Table S3. Ingenuity Pathway Analysis for *Irf8<sup>fl/fl</sup>* versus CD11c<sup>Cre</sup>*Irf8<sup>fl/fl</sup>* TAMs, related to Figure 3.**

**Table S4. Ingenuity Pathway Analysis for TAMs versus DC1s, related to Figure 4.**

**Table S5. Differentially expressed genes between “a” and “b” clusters in scRNAseq, related to Figures 5 and S6.**



**Table S1 Differentially expressed transcription factor genes among monocytes (Mono), MTMs and TAMs, related to Figure 1**

		Mean Expression			Adj P Value (FDR)			Log2 Fold Change		
EntrezID	Gene	Mono vs MTM	TAM vs MTM	TAM vs Mono	Mono vs MTM	TAM vs MTM	TAM vs Mono	Mono vs MTM	TAM vs MTM	TAM vs Mono
11622	Ahr	3718	1199	2935	0.0000	0.5871	0.0000	2.12	-0.36	-2.47
11632	Aip	5310	4433	5527	0.0220	0.4034	0.1413	0.82	0.34	-0.48
100182	Akna	12934	7846	10744	0.0017	0.3322	0.0000	0.90	-0.33	-1.23
11792	Apex1	2148	2897	2438	0.0044	0.7435	0.0001	-0.84	0.13	0.98
13496	Arid3a	1431	753	1217	0.0001	0.7420	0.0000	1.34	-0.16	-1.50
56380	Arid3b	784	1121	1120	0.9894	0.0792	0.0486	0.01	0.78	0.77
214855	Arid5a	9332	4378	7483	0.0478	0.6512	0.0011	1.39	-0.39	-1.78
11863	Arnt	2451	1888	2177	0.1130	0.5566	0.0026	0.47	-0.19	-0.66
12013	Bach1	2945	1525	2227	0.0328	0.1309	0.0000	0.96	-0.68	-1.64
53314	Batf	1912	1100	1666	0.0424	0.9167	0.0060	1.22	-0.10	-1.31
381319	Batf3	884	1530	1439	0.4935	0.0268	0.0001	-0.40	0.90	1.30
14025	Bcl11a	503	72	376	0.0000	0.4044	0.0000	3.22	-0.75	-3.97
12053	Bcl6	1978	1389	1801	0.0374	0.9464	0.0065	0.83	-0.04	-0.87
17341	Bhlha15	185	226	333	0.0059	0.0023	0.9779	2.97	3.03	0.06
20893	Bhlhe40	19133	9958	10440	0.9181	0.0006	0.0001	0.12	-1.91	-2.03
79362	Bhlhe41	633	994	751	0.0984	0.9452	0.0247	-1.61	0.10	1.72
237911	Brip1	291	269	116	0.0000	0.0000	0.1029	-2.50	-1.86	0.64
74007	Btbd11	97	307	284	0.5506	0.1525	0.0054	-0.95	1.71	2.66
228662	Btbd3	175	252	226	0.2486	0.3637	0.0036	-0.58	0.42	1.00
12227	Btg2	52254	32927	45386	0.0592	0.8150	0.0048	0.96	-0.16	-1.12
12606	Cebpa	3900	7465	6061	0.0002	0.2035	0.0000	-1.50	0.58	2.08
12608	Cebpb	76206	25581	50393	0.0039	0.0004	0.0000	1.35	-1.49	-2.85
12609	Cebpd	6519	4456	7290	0.0000	0.0168	0.0244	1.92	1.03	-0.88
110794	Cebpe	162	63	70	0.9239	0.0000	0.0000	0.18	-3.97	-4.15
106143	Cggbp1	5306	4171	4783	0.1382	0.6681	0.0079	0.46	-0.15	-0.61
232791	Cnot3	1796	1294	1555	0.2170	0.6220	0.0138	0.58	-0.24	-0.82
12913	Creb3	3238	3623	4094	0.0607	0.0057	0.6490	0.57	0.72	0.15
231991	Creb5	843	1109	644	0.0074	0.5888	0.0219	-2.70	-0.69	2.01
12914	Crebbp	1447	1039	1252	0.1782	0.6022	0.0085	0.59	-0.24	-0.83
13047	Cux1	7069	4373	4412	0.9464	0.0000	0.0000	0.03	-1.31	-1.34
13134	Dach1	142	234	149	0.0722	0.9452	0.0365	-3.14	-0.19	2.95
13170	Dbp	57	148	135	0.0867	0.0011	0.0000	-0.93	1.38	2.31
13198	Ddit3	674	1096	960	0.1644	0.3041	0.0008	-0.79	0.56	1.35
102442	Dennd4a	2998	1506	1953	0.5365	0.0650	0.0010	0.60	-1.29	-1.89
13555	E2f1	1928	2440	1743	0.0033	0.5859	0.0104	-1.51	-0.36	1.15
242705	E2f2	3918	1575	3169	0.0000	0.5500	0.0000	1.76	-0.29	-2.05
13559	E2f5	373	458	342	0.0122	0.6076	0.0319	-1.27	-0.32	0.95
52679	E2f7	172	158	38	0.0000	0.0082	0.0208	-4.82	-2.61	2.21
108961	E2f8	545	521	245	0.0000	0.0001	0.1162	-2.35	-1.65	0.70
13560	E4f1	1538	1090	1282	0.2835	0.3827	0.0056	0.49	-0.37	-0.86
13654	Egr2	5577	4551	2352	0.0063	0.0003	0.7218	-1.67	-1.94	-0.27
13655	Egr3	202	278	176	0.0269	0.7426	0.0360	-2.33	-0.45	1.88
13661	Ehf	647	1027	1228	0.1967	0.0155	0.4717	1.29	1.93	0.65
69257	Elf2	1137	1460	1611	0.3602	0.0298	0.3638	0.53	0.94	0.42
56501	Elf4	5831	3641	4804	0.0540	0.4078	0.0002	0.80	-0.37	-1.17
13711	Elf5	74	204	221	0.4735	0.0029	0.0496	0.92	2.56	1.64
13713	Elk3	2616	1785	1973	0.6179	0.0887	0.0033	0.29	-0.70	-0.98
13714	Elk4	864	542	655	0.1171	0.0177	0.0000	0.52	-0.67	-1.19
13982	Esr1	379	212	295	0.2994	0.5094	0.0144	0.89	-0.55	-1.44
26379	Esrra	1316	1758	1734	0.8986	0.0206	0.0034	-0.06	0.60	0.66
104156	Etv5	2687	4336	3170	0.0050	0.9505	0.0004	-1.89	0.07	1.96
14011	Etv6	6339	4050	5412	0.0013	0.4729	0.0000	0.86	-0.24	-1.10
14030	Ewsr1	18438	13004	13262	0.8715	0.0000	0.0000	0.07	-0.84	-0.90
14281	Fos	143211	96088	108581	0.5853	0.1464	0.0064	0.34	-0.68	-1.02
14283	Fosl1	181	28	124	0.1705	0.2806	0.0007	2.58	-1.96	-4.54
14284	Fosl2	5720	2234	3520	0.3295	0.0116	0.0000	0.91	-1.75	-2.66
17425	Foxk1	705	354	562	0.0074	0.4160	0.0000	1.22	-0.44	-1.66
14235	Foxm1	685	658	208	0.0000	0.0003	0.0026	-3.89	-2.17	1.73
14236	Foxn2	2099	983	1561	0.0057	0.0692	0.0000	1.12	-0.75	-1.87
71375	Foxn3	3790	2195	3333	0.0000	0.9042	0.0000	1.24	-0.06	-1.30
56458	Foxo1	2266	1275	1781	0.0163	0.1809	0.0000	0.90	-0.53	-1.43
108655	Foxp1	3071	1188	2001	0.0139	0.0001	0.0000	1.08	-1.46	-2.54
51886	Fubp1	2736	3276	2663	0.0033	0.6691	0.0062	-0.88	-0.17	0.71

14582	Gfi1b	148	96	19	0.1385	0.0000	0.0026	-2.48	-6.36	-3.88
74533	Gzf1	934	648	860	0.0008	0.9831	0.0001	0.91	0.01	-0.90
73389	Hbp1	4657	3746	4691	0.0000	0.2954	0.0009	0.81	0.24	-0.57
15161	Hcfc1	3698	2473	2962	0.2275	0.2050	0.0006	0.53	-0.49	-1.02
15184	Hdac5	6237	3754	5380	0.0064	0.7612	0.0001	1.06	-0.16	-1.22
15205	Hes1	2423	2196	3069	0.0412	0.1120	0.6653	1.52	1.16	-0.36
55927	Hes6	1701	1927	2156	0.1147	0.0111	0.5875	0.53	0.71	0.18
15248	Hic1	480	786	638	0.1689	0.7426	0.0173	-1.25	0.35	1.60
15251	Hif1a	10515	5659	7520	0.1164	0.0184	0.0000	0.71	-0.90	-1.61
110521	Hivep1	599	368	418	0.6181	0.0383	0.0008	0.34	-0.96	-1.30
15273	Hivep2	945	1080	775	0.0141	0.3736	0.1136	-1.31	-0.54	0.77
15361	Hmga1	1669	1090	1117	0.9464	0.0820	0.0311	0.08	-1.07	-1.15
15384	Hnrnpab	14412	13681	10960	0.0215	0.0226	0.9121	-0.73	-0.68	0.05
15460	Hr	427	368	115	0.0032	0.0125	0.6579	-3.07	-2.51	0.56
15903	Id3	4454	1365	3343	0.0000	0.1494	0.0000	1.98	-0.70	-2.68
22778	Ikzf1	4372	2687	3864	0.0001	0.8681	0.0000	1.09	-0.08	-1.17
67143	Ikzf5	596	401	483	0.2703	0.3169	0.0029	0.55	-0.46	-1.00
16362	Irf1	10070	7515	10030	0.0173	0.5929	0.0484	1.01	0.28	-0.73
16363	Irf2	4356	2495	3669	0.0000	0.3257	0.0000	1.09	-0.24	-1.34
54131	Irf3	2107	2696	2656	0.9053	0.1242	0.0412	-0.07	0.51	0.58
16364	Irf4	464	211	157	0.8520	0.0000	0.0000	-0.44	-5.08	-4.64
15900	Irf8	22282	32911	32229	0.8428	0.0209	0.0022	-0.11	0.77	0.88
16391	Irf9	6664	6352	7671	0.0015	0.0179	0.4607	0.79	0.58	-0.20
16468	Jarid2	6613	1891	4446	0.0000	0.0000	0.0000	1.65	-1.52	-3.18
16549	Khsrp	4188	3564	3257	0.4792	0.0232	0.2079	-0.27	-0.62	-0.35
21847	Klf10	8095	3812	5821	0.0295	0.0393	0.0000	1.01	-0.90	-1.90
194655	Klf11	958	573	713	0.4264	0.2192	0.0044	0.58	-0.74	-1.32
50794	Klf13	12302	5227	9324	0.0000	0.0268	0.0000	1.39	-0.66	-2.05
16598	Klf2	29156	12052	22012	0.1089	0.4736	0.0013	1.42	-0.68	-2.10
16599	Klf3	7696	3463	6561	0.0000	0.9545	0.0000	1.74	-0.05	-1.79
16600	Klf4	3542	1649	2049	0.6618	0.0046	0.0001	0.45	-1.82	-2.27
16601	Klf9	534	234	400	0.0596	0.3209	0.0001	1.29	-0.72	-2.01
16978	Lrrfip1	12483	7414	9172	0.2588	0.0494	0.0000	0.56	-0.79	-1.35
16658	Mafb	34968	34503	28372	0.3098	0.3805	0.8478	-0.67	-0.53	0.14
17135	Mafk	6468	3656	4731	0.3896	0.2108	0.0030	0.67	-0.80	-1.47
17187	Max	1435	2472	2584	0.6924	0.0067	0.0265	0.31	1.33	1.02
17188	Maz	2607	2813	2142	0.0184	0.2690	0.2227	-1.03	-0.52	0.50
19014	Med1	2235	1640	1792	0.5602	0.1468	0.0054	0.27	-0.51	-0.78
17268	Meis1	150	70	128	0.0085	0.9805	0.0012	1.66	-0.03	-1.69
17537	Meis3	522	2347	2041	0.0000	0.0000	0.0000	-3.01	1.81	4.81
17342	Mitf	353	492	393	0.0328	0.9542	0.0058	-1.13	0.05	1.18
21428	Mlx	2597	2200	2640	0.0044	0.4194	0.0355	0.67	0.23	-0.44
208104	Mlxip	2665	2053	2439	0.1107	0.8659	0.0175	0.58	-0.08	-0.66
17764	Mtf1	1114	889	974	0.3291	0.3584	0.0069	0.31	-0.26	-0.57
17119	Mxd1	16563	5041	9617	0.0291	0.0000	0.0000	1.13	-2.52	-3.66
17121	Mxd3	142	172	83	0.0008	0.3596	0.0112	-3.47	-1.11	2.35
17122	Mxd4	466	763	770	0.9190	0.0019	0.0015	0.07	1.08	1.01
17859	Mxi1	5157	3009	3493	0.6365	0.0439	0.0012	0.37	-1.08	-1.45
17865	Mybl2	381	391	150	0.0000	0.0222	0.0095	-3.54	-1.76	1.79
17869	Myc	2575	3117	2104	0.0000	0.1412	0.0001	-1.67	-0.55	1.11
16918	Mycl	158	540	478	0.0473	0.0301	0.0000	-1.63	1.62	3.25
67991	Nacc2	801	1167	955	0.0116	0.7367	0.0002	-1.05	0.19	1.24
18019	Nfatc2	1361	1623	1315	0.0066	0.6664	0.0125	-0.89	-0.18	0.71
18022	Nfe2	3278	108	2390	0.0000	0.0001	0.0000	4.75	-2.85	-7.60
18030	Nfil3	12428	3971	8091	0.1822	0.0625	0.0000	1.38	-1.64	-3.03
18033	Nfkb1	5306	2003	4126	0.0000	0.1762	0.0000	1.72	-0.51	-2.23
18034	Nfkb2	11086	5225	8140	0.0785	0.1739	0.0000	1.07	-0.81	-1.88
100978	Nfxl1	1242	2107	1917	0.2863	0.1056	0.0002	-0.59	0.75	1.34
18046	Nfyc	1481	1167	1329	0.1171	0.5806	0.0033	0.43	-0.17	-0.60
22259	Nr1h3	1616	905	1084	0.6795	0.1338	0.0108	0.44	-1.13	-1.56
22026	Nr2c2	883	546	769	0.0126	0.8108	0.0004	1.03	-0.14	-1.17
15370	Nr4a1	68431	27561	52415	0.0278	0.4582	0.0001	1.54	-0.59	-2.13
18227	Nr4a2	2259	1093	1327	0.7947	0.1049	0.0153	0.42	-1.72	-2.14
211323	Nrg1	611	30	447	0.0000	0.0781	0.0000	4.42	-1.88	-6.31
11545	Parp1	6795	6616	4924	0.0000	0.0002	0.4446	-0.99	-0.79	0.20
18514	Pbx1	494	74	392	0.0000	0.8843	0.0000	3.74	0.17	-3.56
71041	Pcgf6	214	303	262	0.1731	0.6214	0.0093	-0.74	0.29	1.03

18673	Phb	1346	1765	1623	0.3418	0.3749	0.0087	-0.40	0.34	0.74
72057	Phf10	1717	1200	1387	0.2828	0.1659	0.0006	0.43	-0.48	-0.91
54711	Plagl2	1673	1064	1318	0.3270	0.3140	0.0048	0.60	-0.55	-1.15
22038	Plscr1	2267	1568	1252	0.3298	0.0000	0.0041	-0.53	-1.56	-1.03
18987	Pou2f2	1579	1174	1694	0.0253	0.3548	0.1904	1.37	0.63	-0.75
110593	Prdm2	1343	930	1165	0.1917	0.7206	0.0189	0.70	-0.22	-0.92
50907	Preb	5541	4550	5409	0.0045	0.7332	0.0057	0.62	0.10	-0.51
19401	Rara	6451	1227	4239	0.0000	0.0000	0.0000	2.11	-2.25	-4.36
19411	Rarg	1636	534	1179	0.0016	0.0917	0.0000	1.70	-0.96	-2.66
19664	Rbpj	2661	2370	1877	0.0836	0.0168	0.7681	-0.72	-0.86	-0.14
19696	Rel	3643	1951	2481	0.5701	0.1637	0.0072	0.59	-1.09	-1.67
19697	Rela	13983	8797	12152	0.0966	0.8398	0.0121	0.97	-0.16	-1.13
19712	Rest	3506	2201	2713	0.2720	0.1897	0.0008	0.58	-0.61	-1.19
19725	Rfx2	497	71	319	0.0010	0.0000	0.0000	2.32	-3.51	-5.83
19726	Rfx3	143	67	114	0.0162	0.5397	0.0001	1.37	-0.43	-1.80
67150	Rnf141	390	306	256	0.3469	0.0052	0.1425	-0.49	-1.06	-0.57
19885	Rorc	79	147	175	0.3069	0.0347	0.4618	1.45	2.33	0.89
12394	Runx1	6076	3864	4642	0.2703	0.0927	0.0001	0.51	-0.65	-1.16
12393	Runx2	775	374	495	0.3856	0.0066	0.0000	0.62	-1.40	-2.02
66118	Sarnp	1783	1246	1473	0.2427	0.3076	0.0020	0.50	-0.40	-0.90
20230	Satb1	110	36	88	0.0124	0.8422	0.0006	2.16	-0.26	-2.41
17127	Smad3	1467	1085	1439	0.0123	0.6555	0.0248	0.98	0.22	-0.75
17128	Smad4	4589	3182	3862	0.0365	0.2682	0.0000	0.59	-0.33	-0.92
20665	Sox10	433	908	1080	0.1615	0.0048	0.3372	1.71	2.74	1.03
109032	Sp110	2682	1658	2251	0.0000	0.2612	0.0000	0.88	-0.29	-1.17
78912	Sp2	2401	1543	1839	0.1993	0.0418	0.0000	0.49	-0.64	-1.13
20687	Sp3	3293	2383	2852	0.3351	0.6798	0.0468	0.56	-0.25	-0.81
30051	Spdef	56	123	133	0.6395	0.0474	0.1785	0.71	2.04	1.33
20375	Spi1	34580	29061	34728	0.0359	0.6081	0.0889	0.65	0.19	-0.46
20728	Spic	219	304	397	0.0113	0.0007	0.7002	1.86	2.20	0.34
20788	Srebf2	7242	4204	5269	0.2875	0.0671	0.0001	0.59	-0.82	-1.41
20843	Stag2	1993	1469	1960	0.0113	0.6417	0.0247	0.99	0.23	-0.76
20847	Stat2	6565	4132	5575	0.0291	0.6037	0.0003	0.88	-0.25	-1.13
20848	Stat3	27528	13577	21046	0.0003	0.0526	0.0000	1.11	-0.63	-1.73
20849	Stat4	430	202	248	0.6937	0.0102	0.0002	0.44	-1.82	-2.25
20850	Stat5a	2513	1500	2086	0.0896	0.6209	0.0026	0.94	-0.32	-1.25
20851	Stat5b	6105	3093	5117	0.0000	0.5122	0.0000	1.38	-0.20	-1.59
20852	Stat6	19498	14097	18237	0.0114	0.9386	0.0039	0.85	0.04	-0.81
20872	Stk16	1394	1089	1407	0.0005	0.3653	0.0074	0.92	0.29	-0.63
20024	Sub1	10525	6461	9320	0.0076	0.9219	0.0006	1.10	-0.07	-1.16
237336	Tbp1	2107	1945	2262	0.0032	0.1074	0.2079	0.59	0.34	-0.25
21781	Tfdp1	3032	3064	2337	0.0000	0.0007	0.1578	-0.95	-0.65	0.29
21426	Tfec	443	282	424	0.0370	0.7664	0.0452	1.32	0.25	-1.07
59016	Thap11	2012	1640	2135	0.0055	0.2606	0.1037	0.98	0.45	-0.54
21833	Thra	154	124	163	0.0306	0.4030	0.1823	1.03	0.45	-0.58
21807	Tsc22d1	2034	1011	1829	0.0579	0.8870	0.0399	1.75	0.19	-1.56
68842	Tulp4	473	680	582	0.1453	0.6395	0.0074	-0.81	0.29	1.10
22278	Usf1	3170	2810	3711	0.0002	0.0130	0.2502	1.15	0.78	-0.37
22344	Vezf1	1299	1021	1292	0.0011	0.5034	0.0060	0.83	0.22	-0.62
22433	Xbp1	24367	21017	28799	0.0000	0.0008	0.1045	1.32	0.88	-0.44
56449	Ybx3	8247	5682	5151	0.6737	0.0003	0.0018	-0.24	-1.25	-1.00
58206	Zbtb32	607	169	347	0.4531	0.0101	0.0000	1.21	-2.90	-4.11
75580	Zbtb4	159	313	259	0.0176	0.2758	0.0000	-1.37	0.67	2.04
382639	Zbtb42	498	309	359	0.5696	0.1097	0.0034	0.40	-0.84	-1.24
16969	Zbtb7a	5638	4535	5402	0.0037	0.8790	0.0016	0.61	0.05	-0.56
24136	Zeb2	7645	5113	6252	0.2078	0.3455	0.0019	0.59	-0.42	-1.01
21769	Zfand3	648	716	772	0.2206	0.0258	0.5358	0.35	0.51	0.16
11906	Zfhx3	851	1509	1169	0.0006	0.5968	0.0000	-1.70	0.35	2.05
22640	Zfp1	227	292	268	0.3299	0.4477	0.0129	-0.41	0.29	0.70
63872	Zfp296	184	75	151	0.0892	0.8879	0.0144	1.77	-0.21	-1.98
22695	Zfp36	138207	77852	88657	0.6789	0.0076	0.0001	0.31	-1.27	-1.59
22751	Zfp90	457	894	782	0.0386	0.0601	0.0000	-0.98	0.84	1.81
626848	Zfp971	554	86	402	0.0000	0.0229	0.0000	2.89	-1.18	-4.07
22761	Zfpm1	355	490	382	0.0105	0.9862	0.0023	-1.22	-0.02	1.20
22697	Zscan21	718	907	867	0.6720	0.2937	0.0433	-0.20	0.38	0.58

Table S2 Differentially expressed genes between *Irf8<sup>fl/fl</sup>* and CD11c<sup>Cre</sup>*Irf8<sup>fl/fl</sup>* TAMs, related to Figures 3 and S3

Entrez ID	Gene	Base Mean	Log2 Fold Change	Padj (FDR)	Passed FPKM?	Group
12945	Dmbt1	170.28	10.84	2.17E-09	NO	IRF8_WT_Up
100504594	A630012P03Rik	56.74	7.78	1.18E-04	NO	IRF8_WT_Up
102634431	Gm32014	54.50	6.85	6.25E-05	NO	IRF8_WT_Up
13214	Defb1	81.51	5.22	2.86E-03	YES	IRF8_WT_Up
320840	Negr1	183.13	5.13	9.60E-10	NO	IRF8_WT_Up
11607	Agtr1a	237.17	4.98	2.62E-11	YES	IRF8_WT_Up
14397	Gabra4	83.28	4.95	9.41E-05	NO	IRF8_WT_Up
20309	Cxcl15	114.52	4.89	4.39E-08	NO	IRF8_WT_Up
76507	Aoc1	88.59	4.72	3.94E-04	NO	IRF8_WT_Up
11670	Aldh3a1	68.27	4.61	9.45E-03	NO	IRF8_WT_Up
114479	Slc5a5	213.72	4.59	1.46E-13	NO	IRF8_WT_Up
13179	Dcn	756.63	4.56	4.64E-29	YES	IRF8_WT_Up
69627	Fam89a	54.20	4.49	1.16E-02	NO	IRF8_WT_Up
94180	Acsbg1	106.05	4.43	7.20E-03	NO	IRF8_WT_Up
18667	Pgr	141.20	4.35	4.39E-08	NO	IRF8_WT_Up
278304	Zfp385c	130.13	4.26	8.30E-07	NO	IRF8_WT_Up
16682	Krt4	149.23	4.23	7.90E-08	NO	IRF8_WT_Up
13086	Cyp2a4	55.57	4.22	3.72E-04	NO	IRF8_WT_Up
228852	Ppp1r16b	122.28	4.21	2.31E-06	NO	IRF8_WT_Up
232414	Clec9a	506.32	4.20	6.90E-22	YES	IRF8_WT_Up
73713	Rbm20	87.26	4.19	4.40E-06	NO	IRF8_WT_Up
12292	Cacna1s	85.54	3.91	2.18E-04	NO	IRF8_WT_Up
23832	Xcr1	346.66	3.85	1.15E-12	NO	IRF8_WT_Up
240047	Mmp25	67.50	3.78	7.23E-04	NO	IRF8_WT_Up
72386	2610035D17Rik	152.95	3.74	7.23E-03	NO	IRF8_WT_Up
16425	Itih2	57.81	3.69	2.98E-03	NO	IRF8_WT_Up
27007	Klrk1	175.99	3.66	1.30E-08	NO	IRF8_WT_Up
16182	Il18r1	197.47	3.60	2.51E-09	NO	IRF8_WT_Up
170733	Klra17	3407.29	3.59	1.84E-19	YES	IRF8_WT_Up
77996	Cutal	186.18	3.55	1.17E-06	NO	IRF8_WT_Up
140795	P2ry14	336.44	3.47	9.09E-07	YES	IRF8_WT_Up
20856	Stc2	453.51	3.44	5.89E-06	YES	IRF8_WT_Up
170725	Capn8	178.43	3.36	1.48E-05	NO	IRF8_WT_Up
22329	Vcam1	33053.12	3.35	8.44E-22	YES	IRF8_WT_Up
208659	Fam20a	447.60	3.33	1.34E-15	YES	IRF8_WT_Up
20307	Ccl8	184.28	3.31	1.03E-05	YES	IRF8_WT_Up
320463	F630111L10Rik	695.66	3.26	7.11E-21	NO	IRF8_WT_Up
17063	Muc13	61.30	3.24	4.26E-02	NO	IRF8_WT_Up
17174	Masp1	106.55	3.24	4.01E-05	NO	IRF8_WT_Up
20512	Slc1a3	130.85	3.15	4.20E-03	NO	IRF8_WT_Up
67859	Cysrt1	94.28	3.14	3.28E-02	YES	IRF8_WT_Up
17329	Cxcl9	873.59	3.11	1.45E-08	YES	IRF8_WT_Up
228677	Sptlc3	96.86	3.08	1.47E-03	NO	IRF8_WT_Up
622127	Cyp3a57	131.32	3.07	1.72E-03	NO	IRF8_WT_Up
13421	Dnase1l3	2373.02	3.07	4.70E-25	YES	IRF8_WT_Up
50722	Dkk1	421.54	3.05	6.63E-08	YES	IRF8_WT_Up
224794	Enpp4	3834.86	3.04	1.70E-28	YES	IRF8_WT_Up
12583	Cdo1	635.18	3.04	2.10E-07	YES	IRF8_WT_Up
11936	Fxyd2	275.76	2.96	2.43E-05	YES	IRF8_WT_Up
246278	Cd207	2640.84	2.93	2.16E-07	YES	IRF8_WT_Up
229672	Bcl2l15	128.90	2.92	1.31E-03	NO	IRF8_WT_Up
19417	Rasgrf1	120.28	2.91	7.74E-04	NO	IRF8_WT_Up
16197	Il7r	1616.13	2.91	1.31E-11	YES	IRF8_WT_Up
232406	BC035044	326.52	2.88	1.88E-07	YES	IRF8_WT_Up
13034	Ctse	1989.68	2.85	5.51E-09	YES	IRF8_WT_Up
54120	Gipc2	438.02	2.81	3.90E-05	YES	IRF8_WT_Up
12903	Crabp1	83.95	2.79	1.12E-02	YES	IRF8_WT_Up
80782	Klrb1b	4938.78	2.79	3.30E-06	YES	IRF8_WT_Up
15375	Foxa1	381.47	2.79	2.57E-07	YES	IRF8_WT_Up
13482	Dpp4	1222.46	2.76	9.61E-16	YES	IRF8_WT_Up
232983	Cxcl17	373.70	2.74	2.58E-04	YES	IRF8_WT_Up
58187	Cldn10	133.45	2.73	1.67E-03	NO	IRF8_WT_Up
18566	Pdcd1	1134.11	2.72	4.71E-14	YES	IRF8_WT_Up
17390	Mmp2	3902.35	2.71	1.19E-29	YES	IRF8_WT_Up
76453	Prss23	219.69	2.71	3.76E-05	NO	IRF8_WT_Up
227485	Cdh19	155.65	2.71	3.34E-04	NO	IRF8_WT_Up
239081	Tlr11	113.38	2.67	2.62E-03	NO	IRF8_WT_Up
327766	Tmem26	239.70	2.67	8.59E-04	NO	IRF8_WT_Up
436440	Gpr31b	672.72	2.66	6.58E-15	YES	IRF8_WT_Up
13805	Eng	238.84	2.66	1.46E-05	NO	IRF8_WT_Up

73712	Dmkn	142.10	2.65	6.42E-03	NO	IRF8_WT_Up
329693	Fcrl5	394.39	2.63	3.30E-05	YES	IRF8_WT_Up
107221	Ffar4	322.65	2.60	5.88E-03	YES	IRF8_WT_Up
75345	Slamf7	10812.11	2.60	6.01E-23	YES	IRF8_WT_Up
22417	Wnt4	146.15	2.59	0.04982696	NO	IRF8_WT_Up
277203	Tm4sf19	215.78	2.53	5.56E-05	YES	IRF8_WT_Up
20304	Ccl5	2044.03	2.49	9.54E-08	YES	IRF8_WT_Up
99571	Fgg	1253.00	2.43	4.00E-07	YES	IRF8_WT_Up
16160	Il12b	1433.41	2.42	4.02E-04	YES	IRF8_WT_Up
269346	Slc28a2	110.72	2.39	5.19E-03	NO	IRF8_WT_Up
231293	Cwh43	189.81	2.39	1.43E-02	NO	IRF8_WT_Up
100043899	R3hdml	565.66	2.37	5.65E-04	YES	IRF8_WT_Up
17068	Ly6d	2508.65	2.37	8.73E-06	YES	IRF8_WT_Up
81879	Tfcp2l1	250.15	2.37	7.46E-03	NO	IRF8_WT_Up
17702	Msx2	123.97	2.37	3.60E-03	NO	IRF8_WT_Up
110135	Fgb	1693.86	2.36	3.79E-04	YES	IRF8_WT_Up
72778	Dnajc22	76.49	2.33	0.04896159	NO	IRF8_WT_Up
101320	Dyrk4	333.81	2.32	1.59E-02	YES	IRF8_WT_Up
14066	F3	3697.14	2.30	1.25E-08	YES	IRF8_WT_Up
83560	Tex14	134.88	2.29	1.79E-02	NO	IRF8_WT_Up
67596	Tespa1	570.00	2.29	0.04773816	YES	IRF8_WT_Up
12389	Cav1	309.18	2.28	9.30E-06	NO	IRF8_WT_Up
22068	Trpc6	108.17	2.27	2.83E-02	NO	IRF8_WT_Up
17067	Ly6c1	260.35	2.27	0.04801061	YES	IRF8_WT_Up
53311	Mybph	140.97	2.27	3.48E-03	NO	IRF8_WT_Up
30925	Slamf6	2255.38	2.25	1.35E-05	YES	IRF8_WT_Up
246747	Adig	124.97	2.23	1.48E-02	YES	IRF8_WT_Up
242122	Vtcn1	542.99	2.22	3.51E-08	YES	IRF8_WT_Up
233529	Kctd14	1035.89	2.21	8.18E-08	YES	IRF8_WT_Up
19418	Rasgrf2	189.26	2.21	1.06E-02	NO	IRF8_WT_Up
110454	Ly6a	5863.84	2.20	5.78E-04	YES	IRF8_WT_Up
227618	Lrrc26	249.06	2.20	2.09E-04	YES	IRF8_WT_Up
102502	Pls1	207.39	2.18	7.27E-04	NO	IRF8_WT_Up
17470	Cd200	913.77	2.17	5.61E-07	YES	IRF8_WT_Up
69638	Enho	606.03	2.14	3.19E-06	YES	IRF8_WT_Up
333605	Frmpr4	128.11	2.14	8.54E-03	NO	IRF8_WT_Up
50528	Tmprss2	1156.85	2.13	1.32E-10	YES	IRF8_WT_Up
408064	BC064078	339.19	2.13	7.74E-03	YES	IRF8_WT_Up
17863	Myb	173.78	2.12	1.09E-02	NO	IRF8_WT_Up
66857	Pib1	26441.43	2.10	1.36E-06	YES	IRF8_WT_Up
14183	Fgfr2	207.53	2.08	4.33E-04	NO	IRF8_WT_Up
109676	Ank2	164.31	2.08	1.51E-02	NO	IRF8_WT_Up
99887	Tmem56	974.38	2.07	1.19E-07	YES	IRF8_WT_Up
242894	Actr3b	190.77	2.05	9.30E-03	NO	IRF8_WT_Up
320051	Exph5	128.34	2.05	2.63E-02	NO	IRF8_WT_Up
101202	Hepacam2	1748.85	2.05	3.21E-04	YES	IRF8_WT_Up
16918	Mycl	445.71	2.04	6.50E-05	NO	IRF8_WT_Up
20496	Slc12a2	5282.71	2.02	1.09E-08	YES	IRF8_WT_Up
13175	Dclk1	232.05	-2.00	0.04694339	NO	IRF8_KO_Up
67122	Nrarp	192.85	-2.02	4.11E-03	NO	IRF8_KO_Up
15559	Htr2b	387.93	-2.02	1.21E-02	YES	IRF8_KO_Up
320664	Cass4	194.32	-2.02	3.82E-03	NO	IRF8_KO_Up
233046	Rasgrp4	776.03	-2.03	2.80E-07	NO	IRF8_KO_Up
67971	Tppp3	670.77	-2.05	1.90E-05	YES	IRF8_KO_Up
54670	Atp8b1	262.50	-2.09	9.30E-03	NO	IRF8_KO_Up
99010	Lpcat4	4026.73	-2.10	4.49E-06	YES	IRF8_KO_Up
11497	Adam3	130.98	-2.13	2.47E-02	NO	IRF8_KO_Up
18436	P2rx1	135.94	-2.15	5.75E-03	NO	IRF8_KO_Up
229595	Adamts14	1691.84	-2.15	4.00E-05	YES	IRF8_KO_Up
320365	Fry	441.91	-2.26	5.41E-07	NO	IRF8_KO_Up
16985	Lsp1	17815.50	-2.26	6.58E-09	YES	IRF8_KO_Up
14276	Folr2	316.66	-2.27	2.40E-02	YES	IRF8_KO_Up
380839	Serp1b1c	114.80	-2.28	0.04447185	NO	IRF8_KO_Up
14089	Fap	513.77	-2.28	2.59E-05	NO	IRF8_KO_Up
19401	Rara	1076.66	-2.29	3.11E-12	YES	IRF8_KO_Up
18726	Lilra6	137.42	-2.29	1.14E-02	NO	IRF8_KO_Up
18074	Nid2	456.23	-2.37	1.18E-04	NO	IRF8_KO_Up
56620	Clec4n	37382.99	-2.38	2.50E-12	YES	IRF8_KO_Up
108115	Slco4a1	729.21	-2.42	1.34E-12	YES	IRF8_KO_Up
15446	Hpgd	14020.70	-2.43	4.10E-16	YES	IRF8_KO_Up
67198	Spats2l	458.77	-2.44	1.29E-04	NO	IRF8_KO_Up
381484	Gm5150	443.50	-2.48	1.04E-05	YES	IRF8_KO_Up

15248	Hic1	990.90	-2.51	6.06E-16	YES	IRF8_KO_Up
233186	Siglecf	1046.83	-2.53	5.23E-15	YES	IRF8_KO_Up
100042480	Nhsl2	107.39	-2.54	1.73E-02	NO	IRF8_KO_Up
18830	Pltp	3762.93	-2.55	4.74E-16	YES	IRF8_KO_Up
16971	Lrp1	12992.98	-2.59	7.93E-08	YES	IRF8_KO_Up
246049	Slc36a2	291.04	-2.60	6.51E-05	NO	IRF8_KO_Up
232975	Atp1a3	2882.45	-2.61	3.51E-08	YES	IRF8_KO_Up
246707	Emilin2	3437.51	-2.61	2.52E-13	YES	IRF8_KO_Up
18670	Abcb4	308.73	-2.63	1.18E-06	NO	IRF8_KO_Up
19201	Pstpip2	715.77	-2.67	5.55E-11	YES	IRF8_KO_Up
18795	Plcb1	742.41	-2.68	1.13E-10	NO	IRF8_KO_Up
11871	Art2a-ps	1084.44	-2.68	3.76E-15	YES	IRF8_KO_Up
58860	Adamdec1	10281.63	-2.71	2.42E-12	YES	IRF8_KO_Up
110095	Pygl	2017.06	-2.72	4.18E-11	YES	IRF8_KO_Up
18132	Notch4	459.52	-2.74	1.43E-08	NO	IRF8_KO_Up
80891	Fcrls	36353.13	-2.74	3.23E-10	YES	IRF8_KO_Up
17001	Ltc4s	3147.58	-2.74	2.13E-09	YES	IRF8_KO_Up
235135	Tmem45b	135.03	-2.76	1.60E-02	NO	IRF8_KO_Up
319446	Dpep2	5496.37	-2.80	1.25E-30	YES	IRF8_KO_Up
14544	Gda	755.83	-2.84	1.56E-14	YES	IRF8_KO_Up
12268	C4b	1794.00	-2.86	5.09E-05	YES	IRF8_KO_Up
93721	Cpn1	75.02	-2.87	3.45E-02	NO	IRF8_KO_Up
193385	Fam65b	383.33	-2.95	6.69E-09	NO	IRF8_KO_Up
13449	Dok2	646.69	-2.96	7.19E-05	YES	IRF8_KO_Up
378460	Pram1	1352.05	-2.97	2.34E-11	YES	IRF8_KO_Up
16364	Irf4	450.71	-2.97	3.05E-06	YES	IRF8_KO_Up
105841	Dennd3	190.00	-3.00	2.39E-06	NO	IRF8_KO_Up
58223	Mmp19	199.59	-3.00	6.17E-07	NO	IRF8_KO_Up
70882	Armc3	73.20	-3.10	1.55E-03	NO	IRF8_KO_Up
58217	Trem1	3055.13	-3.10	1.17E-23	YES	IRF8_KO_Up
14058	F10	125.49	-3.14	1.12E-02	NO	IRF8_KO_Up
320472	Ppm1e	57.99	-3.14	9.92E-03	NO	IRF8_KO_Up
57349	Pbbp	104.15	-3.21	4.00E-02	YES	IRF8_KO_Up
72014	Btbd17	51.76	-3.25	1.63E-02	NO	IRF8_KO_Up
14745	Lpar1	370.79	-3.28	8.69E-05	YES	IRF8_KO_Up
100040525	Tmem181c-ps	162.40	-3.33	1.56E-07	NO	IRF8_KO_Up
12156	Bmp2	191.02	-3.40	7.93E-07	NO	IRF8_KO_Up
58218	Trem3	259.86	-3.45	1.19E-07	YES	IRF8_KO_Up
13601	Ecm1	3756.70	-3.55	1.32E-09	YES	IRF8_KO_Up
74403	4933400F21Rik	55.26	-3.57	1.04E-02	NO	IRF8_KO_Up
320802	Ifitm10	491.03	-3.62	4.87E-14	YES	IRF8_KO_Up
13730	Emp1	9987.15	-3.66	6.17E-24	YES	IRF8_KO_Up
16012	Igfbp6	54.58	-3.72	4.69E-03	NO	IRF8_KO_Up
52614	Adgre4	2015.90	-3.75	3.33E-20	YES	IRF8_KO_Up
12977	Csf1	3822.52	-3.95	6.48E-44	YES	IRF8_KO_Up
17394	Mmp8	240.43	-3.99	1.30E-08	YES	IRF8_KO_Up
11770	Fabp4	200.02	-4.06	8.75E-03	YES	IRF8_KO_Up
110197	Dgkg	88.73	-4.06	6.03E-06	NO	IRF8_KO_Up
19395	Rasgrp2	76.63	-4.26	3.42E-04	NO	IRF8_KO_Up
14608	Gpr83	54.41	-4.30	2.53E-02	NO	IRF8_KO_Up
16174	Il18rap	206.76	-4.31	1.02E-13	NO	IRF8_KO_Up
212073	Syne3	107.26	-4.34	4.89E-06	NO	IRF8_KO_Up
11689	Alox5	475.90	-4.36	3.27E-26	YES	IRF8_KO_Up
14468	Gbp2b	856.91	-4.57	2.73E-21	YES	IRF8_KO_Up
78558	Htra3	5130.67	-4.73	4.87E-44	YES	IRF8_KO_Up
232345	A2m	86.69	-4.86	7.78E-03	NO	IRF8_KO_Up
381680	Nxpe5	1027.38	-5.00	1.42E-25	YES	IRF8_KO_Up
14133	Fcna	342.85	-5.31	1.32E-16	YES	IRF8_KO_Up
12274	C6	418.48	-5.47	3.90E-16	YES	IRF8_KO_Up
121021	Cspg4	251.91	-5.71	1.08E-16	NO	IRF8_KO_Up
654812	Angptl7	1530.27	-5.86	2.29E-02	YES	IRF8_KO_Up
242248	Bank1	1180.18	-5.94	2.15E-24	YES	IRF8_KO_Up
14268	Fn1	7502.83	-6.42	3.54E-61	YES	IRF8_KO_Up
26388	Ifi202b	600.97	-6.43	2.51E-02	YES	IRF8_KO_Up
381924	Itgad	750.84	-6.51	3.16E-44	YES	IRF8_KO_Up
278180	Vsig4	56.69	-7.84	1.78E-03	NO	IRF8_KO_Up
668727	Mrgpra2a	216.31	-8.23	1.62E-14	YES	IRF8_KO_Up
16429	Itln1	219.86	-24.62	2.31E-05	YES	IRF8_KO_Up
72147	Zbtb46	88.67	-1.21	0.83	Not differentially expressed	Neither

Table S3. Ingenuity Pathway Analysis (IPA) for <i>Irf8<sup>f/f</sup></i> versus <i>CD11c<sup>Cre</sup>Irf8<sup>f/f</sup></i> TAMs, related to Figure 3				
Ingenuity Canonical Pathways	-log(p-value)	zScore	Ratio	Molecules
Th1 Pathway	1.05E+01	2.414	.252	IRF1,FGFR2,NFATC2,HLA-DQA1,PIK3R5,CD40,IFNAR1,CD274,IL10RA,CCR5,IFNGR1,STAT3,PIK3CD,STAT1,HLA-DRB5,HLA-DMB,CD4,IL12B,NFIL3,CD86,IL18R1,APH1B,NFKB1,HLA-DOA,NOTCH1,HLA-DQB1,ICOSLG/LOC102723996,HLA-DOB,NOTCH4,NFATC1,CXCR3,HLA-A,DLL1,PSEN2
Neuro-inflammation Signaling Pathway	8.53E+00	2.429	.167	CX3CR1,NFATC2,TNFRSF1A,HLA-DQA1,TLR1,PIK3R5,TLR4,IFNGR1,GABRA4,PIK3CD,Tlr12,HLA-DRB5,IL12B,TLR2,CD86,APH1B,TLR7,CCL5,HLA-DQB1,HLA-DOB,CD200R1,TGFBR2,GABBR2,CREB3L4,CYBB,CD200,IKBKE,JUN,FGFR2,MYD88,CD40,TREM2,IRAK3,VCAM1,IRF7,STAT1,HLA-DMB,CREBBP,SLC1A3,MAPK3,TGFB3,NFKB1,HLA-DOA,PPP3CA,NFATC1,HMOX1,HLA-A,TLR3,PSEN2,CCL2,Tlr11,GLS
Dendritic Cell Maturation	7.78E+00	0.507	.191	FGFR2,IL15,MYD88,TNFRSF1A,HLA-DQA1,PIK3R5,CD40,TREM2,NFKBIA,IFNAR1,NFKBID,TLR4,IL23A,CD83,IRF8,PIK3CD,STAT1,HLA-DRB5,HLA-DMB,CREBBP,IL12B,TLR2,CD86,LTB,MAPK3,PLCB1,NFKB1,HLA-DOA,HLA-DQB1,PLCB4,HLA-DOB,HLA-A,CREB3L4,TLR3,COL11A2,FCGR3A/FCGR3B,IKBKE
TREM1 Signaling	7.64E+00	1.091	.280	NFKB1,TLR7,MYD88,TLR1,NLRC3,NLRC5,CD40,TLR4,CD83,STAT3,TLR3,Tlr12,CCL2,TREM1,CXCL3,TLR2,CD86,ITGA5,Tlr11,CIITA,MAPK3
PPAR $\alpha$ /RXR $\alpha$ Activation	6.59E+00	0.365	.183	JUN,ACADL,PRKAR2B,FASN,BCL3,IL1R2,MAP2K1,NFKBIA,NFKBID,NCOA3,ADCY3,PRKCB,RXRA,ADIPOR2,CREBBP,HSP90AA1,MAPK3,PLCB1,TGFB3,MAP4K4,NFKB1,PLCB4,INSR,ACAA1,HELZ2,TGFBR2,PRKCA,IL18RAP,LPL,PRKAG1,HSP90AB1,ADCY9,IKBKE
Activation of IRF by Cytosolic Pattern Recognition Receptors	5.36E+00	1.5	.254	JUN,TANK,NFKB1,DDX58,IFIT2,CD40,FADD,NFKBIA,IFNAR1,NFKBID,IRF7,STAT1,IFIH1,CREBBP,ZBP1,IKBKE

<b>Table S4. Ingenuity Pathway Analysis (IPA) for TAMs versus DC1, related to Figure 4</b>				
Ingenuity Canonical Pathways	-log(p-value)	zScore	Ratio	Molecules
STAT3 Pathway	5.35E+00	1.5	.163	FGFR1,FGFR3,HGF,IGF1R,IGF2R,IL10RB,IL12RB1,IL12RB2,IL1A,IL1RL2,IL21R,IL27RA,IL2RA,IL4R,IL7R,JAK2,PDGFB,SOCS3, SRC, TGFB1, TGFB2, VEGFA
cAMP-Mediated Signaling	4.63E+00	1.3	.127	ADCY3,ADCY6,ADORA2A,ADRB1,ADRB2,CAMK1,CREB3L3,CREB5,CREM,DUSP4,DUSP6,DUSP9,GABBR1,GABBR2,GDPD1,HCAR2,HTR7,LTB4R,P2RY12,P2RY13,PDE1B,PDE7B,PRKAR1B,PRKAR2B,PTGER2,RGS18,S1PR1, SRC, VIPR1
T Cell Exhaustion Signaling Pathway	4.47E+00	0.65	.137	AKT3,BTLA,CTLA4,FCER1G,HLA-DMB,HLA-DOA,HLA-DOB,IL10,IL10RB,IL12B,IL12RB1,IL12RB2,IL6,IRF4,JAK2,LAG3, MGAT5,PDCD1LG2,PPM1J,PRDM1, STAT4, TGFB1, TGFB2, VEGFA
Th1	5.58E+00	-3.0	.174	CCR5,CD4,CD8A,CXCR3,H2-Eb2,HLA-DMB,HLA-DOA,HLA-DOB,IL10,IL10RB,IL12B,IL12RB1,IL12RB2,IL27RA,IL6,JAK2,KLRD1,NOTCH2,NOTCH4,SOCS3,STAT4
Th17 Activation Pathway	2.86E+00	-0.8	.143	AHR,FCER1G,IL10,IL12B,IL12RB1,IL12RB2,IL21R,IL6,IRF4,JAK2,PTGER2,SOCS3,STAT4
IL-23 Signaling Pathway	2.02E+00	-2.4	.159	AKT3,IL12B,IL12RB1,IL12RB2,JAK2,SOCS3,STAT4



**Table S5. Differentially expressed genes between “a” and “b” clusters in scRNAseq, related to Figures 5 and S6**

<b>2a vs 2b: Gene</b>	<b>P_val</b>	<b>Avg_diff</b>	<b>Pct. 1</b>	<b>Pct. 2</b>	<b>P_val_adj</b>
Vps37b	4.09E-75	-5.23	0.37	0.91	1.23E-71
Nr4a1	8.79E-75	-5.36	0.14	0.86	2.64E-71
Junb	1.01E-73	-15.86	0.77	1.00	3.03E-70
Pnrc1	1.14E-67	-3.20	0.62	0.98	3.42E-64
Dnaja1	2.75E-64	-6.33	0.85	0.98	8.25E-61
Tnfaip3	4.73E-59	-2.76	0.27	0.86	1.42E-55
Ier2	2.09E-57	-3.69	0.54	0.92	6.26E-54
Hspa8	1.24E-52	-17.01	1.00	1.00	3.73E-49
Btg2	9.70E-49	-4.70	0.70	0.95	2.91E-45
Btg1	1.10E-47	-5.47	0.91	0.99	3.30E-44
Ifrd1	6.14E-47	-2.24	0.24	0.75	1.84E-43
Ubc	1.39E-44	-6.19	0.84	0.99	4.17E-41
Hsp90aa1	7.18E-40	-5.72	0.82	0.97	2.16E-36
Nr4a3	7.14E-39	-1.43	0.02	0.55	2.14E-35
Klf6	1.07E-35	-3.49	0.59	0.88	3.20E-32
Dusp1	1.35E-34	-2.95	0.29	0.75	4.04E-31
Icos	2.68E-33	-2.24	0.25	0.64	8.03E-30
Tgif1	9.83E-33	-1.16	0.07	0.54	2.95E-29
Fosl2	7.28E-32	-1.38	0.09	0.56	2.19E-28
Ifngr1	1.72E-31	-3.62	0.90	0.97	5.17E-28
Rgs1	1.09E-30	-8.29	0.79	0.97	3.27E-27
Srgn	1.87E-30	-5.02	0.99	0.99	5.60E-27
Hsp90ab1	1.76E-29	-8.67	1.00	1.00	5.29E-26
Slc3a2	3.04E-29	-1.30	0.42	0.78	9.12E-26
Coq10b	5.86E-29	-0.97	0.19	0.62	1.76E-25
Clk1	6.58E-29	-1.03	0.32	0.70	1.97E-25
Cd28	9.69E-29	-1.64	0.38	0.74	2.91E-25
Rgs2	1.03E-28	-1.35	0.24	0.64	3.08E-25
Ubald2	1.06E-28	-1.31	0.31	0.70	3.18E-25
Rgcc	4.48E-28	-2.74	0.28	0.66	1.35E-24
Dennd4a	9.42E-28	-1.32	0.52	0.83	2.83E-24
Csrnp1	1.23E-27	-0.95	0.09	0.54	3.68E-24
Neurl3	1.46E-26	-1.46	0.31	0.65	4.37E-23
Zfp36l2	2.49E-26	-1.56	0.34	0.69	7.47E-23
Crem	4.78E-26	-1.11	0.14	0.53	1.43E-22
Arf4	6.81E-25	-1.11	0.54	0.81	2.04E-21
Dnajb1	3.80E-24	-4.34	0.59	0.86	1.14E-20
Gramd3	1.02E-23	-1.30	0.41	0.71	3.07E-20
Jund	1.89E-23	-0.91	0.24	0.62	5.67E-20
H3f3b	1.35E-22	-4.73	0.99	1.00	4.05E-19
<b>3a vs 3b: Gene</b>	<b>P_val</b>	<b>Avg_diff</b>	<b>Pct. 1</b>	<b>Pct. 2</b>	<b>P_val_adj</b>
Hspa8	1.11E-39	-29.83	1.00	1.00	3.32E-36
Hsp90ab1	2.79E-34	-20.02	1.00	1.00	8.38E-31
Hsp90aa1	5.11E-34	-16.09	0.89	1.00	1.53E-30
Dnajb1	2.17E-32	-16.92	0.64	0.94	6.51E-29
Vps37b	1.06E-29	-5.38	0.50	0.89	3.17E-26
Hspe1	2.27E-28	-7.85	0.91	0.96	6.81E-25
Dnaja1	2.94E-27	-7.77	0.87	0.98	8.82E-24
Hsph1	5.96E-27	-7.48	0.64	0.89	1.79E-23
Hspd1	2.79E-26	-4.27	0.55	0.92	8.36E-23
Tnfaip3	1.58E-25	-2.23	0.30	0.79	4.73E-22
Ubc	2.64E-25	-9.91	0.91	0.98	7.92E-22
Nr4a2	7.54E-25	-5.03	0.32	0.81	2.26E-21
Junb	9.68E-25	-11.69	0.79	0.96	2.90E-21
Hspa1b	4.26E-23	-10.09	0.63	0.89	1.28E-19

Cd52	7.92E-22	10.39	1.00	1.00	2.38E-18
Coq10b	8.90E-22	-1.44	0.16	0.71	2.67E-18
Klf6	2.58E-20	-4.02	0.49	0.87	7.74E-17
Hspa1a	4.45E-19	-23.70	0.68	0.87	1.34E-15
Pnrc1	1.04E-17	-2.43	0.64	0.90	3.13E-14
Clk1	1.46E-15	-1.08	0.31	0.70	4.37E-12
Nr4a1	2.31E-15	-2.59	0.17	0.60	6.94E-12
Ubb	1.43E-14	-23.45	1.00	1.00	4.28E-11
Dusp1	6.70E-14	-4.14	0.39	0.72	2.01E-10
Ier2	9.12E-14	-1.53	0.51	0.83	2.74E-10
Ifrd1	1.03E-13	-1.63	0.24	0.59	3.09E-10
Btg2	3.29E-13	-3.37	0.73	0.90	9.86E-10
Ifngr1	4.94E-13	-2.73	0.74	0.91	1.48E-09
Cacybp	1.48E-12	-1.42	0.51	0.76	4.44E-09
Rgs2	3.19E-12	-1.21	0.14	0.54	9.56E-09
Btg1	4.59E-12	-3.68	0.96	0.97	1.38E-08
Slc3a2	4.97E-12	-1.95	0.47	0.72	1.49E-08
Jund	7.44E-12	-1.39	0.23	0.61	2.23E-08
Nr4a3	9.51E-12	-1.20	0.03	0.45	2.85E-08
Ppp1r15a	1.06E-11	-1.00	0.25	0.63	3.19E-08
Gm26825	1.57E-11	-1.79	0.39	0.66	4.71E-08
Gpr132	1.60E-11	-0.79	0.20	0.57	4.81E-08
Ctla4	1.61E-11	-1.31	0.19	0.54	4.82E-08
Litaf	2.98E-11	-2.11	0.67	0.79	8.95E-08
Actb	5.04E-11	16.55	1.00	1.00	1.51E-07
Dennd4a	5.64E-11	-1.22	0.45	0.72	1.69E-07
<b>5a vs 5b:</b>	<b>P_val</b>	<b>Avg_diff</b>	<b>Pct. 1</b>	<b>Pct. 2</b>	<b>P_val_adj</b>
<b>Gene</b>					
Vps37b	2.41E-53	-8.05	0.67	0.99	7.22E-50
Fosl2	1.86E-47	-2.81	0.21	0.92	5.58E-44
Junb	3.54E-42	-18.99	0.81	0.99	1.06E-38
Ifrd1	3.75E-34	-2.91	0.46	0.88	1.13E-30
P2ry10	6.48E-33	-2.37	0.26	0.86	1.95E-29
Nr4a2	9.05E-33	-3.61	0.51	0.92	2.71E-29
Neur13	6.12E-32	-2.27	0.59	0.93	1.84E-28
Ifngr1	8.34E-31	-3.93	0.81	0.98	2.50E-27
Crem	2.33E-27	-2.50	0.28	0.80	6.99E-24
Litaf	6.89E-27	-3.04	0.93	0.99	2.07E-23
Ier2	1.07E-25	-2.33	0.63	0.93	3.21E-22
Nr4a3	1.13E-24	-1.36	0.12	0.65	3.38E-21
Tnfaip3	6.09E-23	-1.94	0.48	0.84	1.83E-19
Stat3	7.63E-21	-1.64	0.70	0.88	2.29E-17
Nr4a1	9.07E-20	-1.51	0.37	0.75	2.72E-16
Hilpda	8.06E-19	-2.15	0.10	0.61	2.42E-15
Ubal2	1.07E-18	-1.12	0.44	0.73	3.22E-15
D16Ert472e	5.03E-18	-1.08	0.32	0.75	1.51E-14
Coq10b	6.56E-18	-1.00	0.29	0.77	1.97E-14
Errfi1	9.04E-18	-2.05	0.22	0.67	2.71E-14
Arf4	9.19E-18	-1.98	0.77	0.92	2.76E-14
Fth1	4.41E-17	-7.05	1.00	1.00	1.32E-13
Ppp1r3b	4.48E-17	-0.80	0.12	0.63	1.34E-13
Tnfrsf1b	5.49E-17	-1.24	0.26	0.71	1.65E-13
Dennd4a	7.62E-17	-1.71	0.74	0.91	2.28E-13
Spin2c	9.15E-17	0.28	0.24	0.06	2.74E-13
Vgll4	1.71E-16	-1.15	0.45	0.78	5.14E-13
Dnaja1	2.49E-16	-3.51	0.84	0.98	7.48E-13
Bcl2l11	3.62E-16	-1.41	0.46	0.82	1.09E-12
Dgat1	4.05E-16	-1.05	0.09	0.57	1.21E-12
Ltb	1.04E-15	1.88	0.89	0.60	3.12E-12
Rgs2	5.06E-15	-1.55	0.56	0.87	1.52E-11

Serpib6b	7.94E-15	-2.80	0.39	0.71	2.38E-11
Gimap7	9.44E-15	1.04	0.80	0.44	2.83E-11
Ldlrad4	1.70E-14	-1.27	0.30	0.68	5.09E-11
Cytip	3.03E-14	-1.47	0.81	0.92	9.08E-11
Isy1	4.81E-14	-1.00	0.28	0.71	1.44E-10
Gimap6	6.39E-14	1.13	0.92	0.68	1.92E-10
Sqstm1	1.13E-13	-1.65	0.81	0.94	3.40E-10
Tpm4	1.49E-13	-0.98	0.45	0.70	4.46E-10