

FIG S1. Comparison of intranasal and intravenous routes of IAV infection of lymphocyte-deficient mice. (A) Weight change (*left*) and survival (*right*) of *Rag1*^{-/-} mice following intranasal (i.n.) or intravenous (i.v.) infection with PR8. Data are from 5-6 mice per group. (B) Levels of PR8 *matrix* mRNA in the indicated organs from intravenously-infected *Rag1*^{-/-} mice, measured 15 days following PR8 infection. Each symbol represents an individual mouse and bars denote the mean level in each organ.

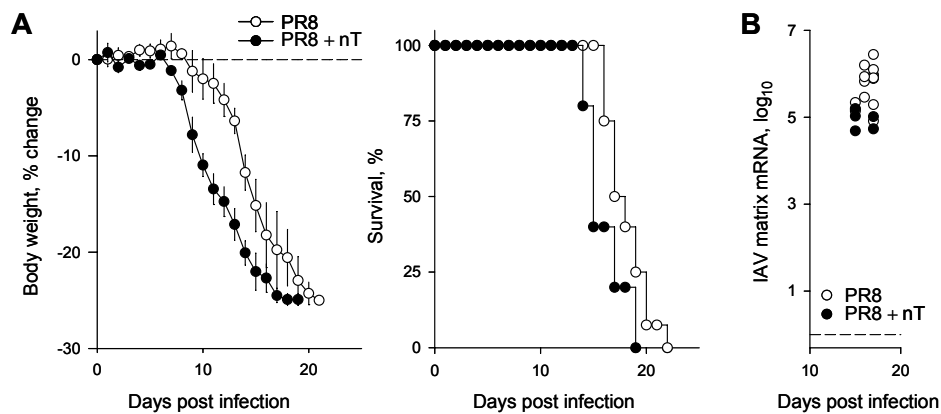


FIG S2. Effect of naïve T cell transfer on the course of IAV infection of lymphocyte-deficient mice. (A) Weight change (*left*) and survival (*right*) of PR8-infected *Rag1*^{-/-} mice in the presence (PR8 + nT) or absence (PR8) of adoptively transferred Treg cell-depleted naïve CD25⁻CD44^{low} CD4⁺ T cells. Data are from 5-8 mice per group. Median survival times were PR8 = 17.9 days and PR8 + nT = 15.8 days, $p= 0.021$. (B) Levels of PR8 *matrix* mRNA in the lungs of PR8-infected *Rag1*^{-/-} mice, with (PR8 + nT) or without (PR8) adoptively transferred naïve CD4⁺ T cells. Each symbol represents an individual mouse. $p= 0.050$.

TABLE S1. IAV-induced transcriptional changes in the lungs of lymphocyte-deficient mice. Genes with >4-fold induced transcription in the lungs of PR8-infected *Rag1*^{-/-} mice, in comparison with uninfected *Rag1*^{-/-} control mice.

Gene symbol	Fold change	Sequence reference
<i>Saa3</i>	34.437	NM_011315
<i>Arg1</i>	29.103	NM_007482
<i>Sprr2a</i>	26.011	NM_011468
<i>Slfn4</i>	22.557	NM_011410
<i>Ms4a4a</i>	20.202	XM_986941
<i>Ccl8</i>	19.965	NM_021443
<i>Chi3l4</i>	18.697	NM_145126
<i>Cxcl10</i>	16.216	NM_021274
<i>C3ar1</i>	15.445	NM_009779
<i>Ccl24</i>	14.686	NM_019577
<i>Mmp12</i>	13.324	NM_008605
<i>Gatm</i>	13.258	NM_025961
<i>Irf7</i>	12.577	NM_016850
<i>Irg1</i>	12.238	NM_008392
<i>Ms4a4c</i>	12.145	NM_029499
<i>Cxcl13</i>	11.681	NM_018866
<i>Ear11</i>	10.314	NM_053113
<i>Ifi44</i>	10.134	NM_133871
<i>Pdcd1lg2</i>	9.590	NM_021396
<i>Tdo2</i>	9.589	NM_019911
<i>Pyhin1</i>	9.368	NM_175026
<i>Timp1</i>	9.281	NM_001044384 NM_011593
<i>Ms4a6d</i>	8.841	NM_026835
<i>Pla2g7</i>	8.600	NM_013737
<i>Ifi204 Mnda Ifi205</i>	8.557	NM_008329 NM_001033450
<i>Ddx60</i>	8.479	NM_001081215
<i>Zbp1</i>	8.274	NM_021394
<i>Ifit1</i>	8.232	NM_008331
<i>Oas1g Oas1a</i>	8.157	NM_011852 NM_145211
<i>Cxcl9</i>	8.030	NM_008599
<i>Rsad2</i>	7.816	NM_021384
<i>Ms4a6b</i>	7.801	NM_027209
<i>Slfn1</i>	7.757	NM_011407
<i>Fcgr1</i>	7.413	NM_010186
<i>Spp1</i>	7.300	NM_009263
<i>Oas3 Oit3</i>	7.291	NM_145226
<i>Ccr5</i>	7.289	NM_009917
<i>Alox15</i>	7.102	NM_009660
<i>Ifi205</i>	7.000	NM_172648
<i>9930022N03Rik</i>	6.927	NM_177363
<i>Mmp13</i>	6.911	NM_008607
<i>Ly6i</i>	6.904	NM_020498
<i>Ifit2</i>	6.826	NM_008332
<i>Msr1</i>	6.818	NM_031195 NM_001113326
<i>EG240327</i>	6.803	NM_001033767
<i>Gpnmb</i>	6.730	NM_053110
<i>Slc7a11</i>	6.284	NM_011990
<i>Gp49a Lilrb4</i>	6.237	NM_008147
<i>Gpr65</i>	6.175	NM_008152
<i>Oasl1</i>	6.127	NM_145209
<i>Plac8</i>	6.123	NM_139198
<i>Mx1</i>	6.060	NM_010846 NR_003520
<i>Ccl9</i>	6.056	NM_011338
<i>Oas2</i>	5.933	NM_145227
<i>Serpina3g Serpina3f</i>	5.850	NM_009251 NM_001033335
<i>Rnu3a</i>	5.809	NR_002842
<i>C1qb</i>	5.724	NM_009777
<i>Ms4a6c</i>	5.721	NM_028595
<i>EG240921</i>	5.673	XM_136331 XR_034468
<i>Isg15</i>	5.648	NM_015783

Gene symbol	Fold change	Sequence reference
<i>Oasl2</i>	5.577	NM_011854
<i>Ms4a7</i>	5.548	NM_027836 NM_001025610
<i>ligp1</i>	5.438	NM_021792
<i>Slc26a4</i>	5.366	NM_011867
<i>Ccl7</i>	5.300	NM_013654
<i>Slc7a8</i>	5.297	NM_016972
<i>Trim30</i>	5.276	NM_009099
<i>Apobec1</i>	5.203	NM_031159
<i>Fcgr2b</i>	5.120	NM_001077189 NM_010187
<i>Gvin1</i>	5.116	NM_029000
<i>Tlr13</i>	5.094	NM_205820
<i>Clec5a</i>	5.080	NM_001038604 NM_021364
<i>Sfn8</i>	5.069	NM_181545
<i>EG432555</i>	5.062	NM_001024230
<i>Usp18</i>	5.038	NM_011909
<i>Dhx58</i>	4.977	NM_030150
<i>Fcgr4</i>	4.964	NM_144559
<i>EG625046</i>	4.894	XM_889589
<i>Itgam</i>	4.892	NM_001082960 NM_008401
<i>Ifit3</i>	4.857	NM_010501
<i>Cyp4f18</i>	4.851	NM_024444
<i>Irgm</i>	4.813	NM_008326
<i>Tgtp</i>	4.780	NM_011579
<i>Il1rn</i>	4.767	NM_031167 NM_001039701
<i>Tnip3</i>	4.752	NM_001001495
<i>Oas1a</i>	4.709	NM_145211
<i>Ifi203</i>	4.688	NM_001045481 NM_008328
<i>AI451617</i>	4.650	NM_199146
<i>C1qc</i>	4.623	NM_007574
<i>Cd84</i>	4.605	NM_013489
<i>Ccr1</i>	4.600	NM_009912
<i>LOC667370</i>	4.567	NM_001005858
<i>Prg4</i>	4.563	NM_021400 NM_001110146
<i>Il7r</i>	4.559	NM_008372
<i>Sfn9</i>	4.513	NM_172796
<i>Apol9b Apol9a</i>	4.503	NM_173743
<i>EG449630</i>	4.501	NR_002172
<i>Lilrb4</i>	4.432	NM_013532
<i>Tgtp</i>	4.422	NM_011579
<i>Clec4a1</i>	4.391	NM_199311
<i>Gbp5</i>	4.385	NM_153564
<i>Ccl2</i>	4.362	NM_011333
<i>Serpnb2</i>	4.322	NM_011111
<i>Cxcl2</i>	4.247	NM_009140
<i>Mafb</i>	4.244	NM_010658
<i>Ch25h</i>	4.156	NM_009890
<i>Gsdmc2</i>	4.134	NM_177912
<i>Pglyrp1</i>	4.117	NM_009402
<i>Cd180</i>	4.094	NM_008533
<i>Csprs</i>	4.083	NM_033616
<i>Cd300lf</i>	4.075	NM_145634
<i>C1qa</i>	4.074	NM_007572
<i>EG668139</i>	4.053	XR_035350
<i>Ccl12</i>	4.045	NM_011331
<i>Fcgr3</i>	4.038	NM_010188
<i>Clec7a</i>	4.033	NM_020008
<i>Gdf3</i>	4.020	NM_008108
<i>Rtp4</i>	4.010	NM_023386

TABLE S2. Effect of Treg cell transfer on gene transcription during IAV infection of lymphocyte-deficient mice. List of genes with altered expression in the lungs from PR8-infected *Rag1*^{-/-} Treg cell recipients, in comparison with those from PR8-infected *Rag1*^{-/-} control mice.

Gene symbol	Fold change	Sequence reference
Down-regulated		
<i>Chi3l4</i>	5.092	NM_145126
<i>Tdo2</i>	3.690	NM_019911
<i>Angptl7</i>	3.228	NM_001039554
<i>Sprr2a</i>	2.953	NM_011468
<i>Gsdmc2</i>	2.871	NM_177912
<i>Ccl8</i>	2.856	NM_021443
<i>EG449630</i>	2.762	NR_002172
<i>Krt5</i>	2.705	NM_027011
<i>Mmp13</i>	2.700	NM_008607
<i>Gpnmb</i>	2.685	NM_053110
<i>Rnu3a</i>	2.645	NR_002842
<i>Ctca2</i>	2.564	NM_030601
<i>Alox15</i>	2.544	NM_009660
<i>Cxcl13</i>	2.473	NM_018866
<i>Chd7</i>	2.473	NM_001081417
<i>Alox12e</i>	2.396	NM_145684
<i>Abca1</i>	2.335	NM_013454
<i>Rnu15-b</i>	2.299	NR_002173
<i>Chd7</i>	2.279	NM_001081417
<i>Fkbp5</i>	2.267	NM_010220
<i>Pla2g7</i>	2.251	NM_013737
<i>Chd7</i>	2.246	NM_001081417
<i>Gpr65</i>	2.187	NM_008152
<i>Chd7</i>	2.156	NM_001081417
<i>ND6</i>	2.153	NC_005089
<i>Sfn3</i>	2.136	NR_004414
<i>Spp1</i>	2.130	NM_009263
<i>Npl</i>	2.087	NM_028749
<i>Serpina3m</i>	2.054	NM_009253
<i>Pglyrp1</i>	2.050	NM_009402
<i>Itgb8</i>	2.041	NM_177290
<i>Chd7</i>	2.028	NM_001081417
<i>Prg4</i>	2.026	NM_021400 NM_001110146
<i>Ptgds2</i>	2.024	NM_019455
<i>Chd7</i>	2.020	NM_001081417
<i>Slc7a11</i>	2.019	NM_011990
Up-regulated		
<i>Cyp1a1</i>	4.241	NM_009992
<i>Myl7</i>	3.849	NM_022879
<i>Tppp3</i>	3.557	NM_026481
<i>Acox1</i>	3.153	NM_028765
<i>Lyz1</i>	2.966	NM_013590
<i>Myl4</i>	2.638	NM_010858
<i>Tmem100</i>	2.520	NM_026433
<i>Hc</i>	2.513	NM_010406
<i>Rtkn2</i>	2.487	NM_001081346
<i>Hspa1b Hspa1a</i>	2.451	NM_010478
<i>Adh1</i>	2.429	NM_007409
<i>Actc1</i>	2.425	NM_009608
<i>Fbp1</i>	2.383	NM_019395
<i>Stmn2</i>	2.357	NM_025285
<i>Scgb3a2</i>	2.354	NM_054038
<i>Spon2</i>	2.338	NM_133903
<i>Cldn5</i>	2.246	NM_013805
<i>Tinag</i>	2.217	NM_012033
<i>Pcp4l1</i>	2.180	NM_025557

Gene symbol	Fold change	Sequence reference
<i>Tcf21</i>	2.178	NM_011545
<i>Nppa</i>	2.177	NM_008725
<i>Cyp2f2</i>	2.164	NM_007817
<i>Cd209a</i>	2.148	NM_133238
<i>Tspan12</i>	2.142	NM_173007
<i>Maob</i>	2.116	NM_172778
<i>Thbs3</i>	2.078	NM_013691
<i>Lgi3</i>	2.077	NM_145219
<i>Itih4</i>	2.074	NM_018746
<i>Pcolce2</i>	2.064	NM_029620
<i>Akap5</i>	2.054	NM_001101471
<i>Gimap4</i>	2.051	NM_174990 NM_175048
<i>Hsph1</i>	2.046	NM_013559
<i>Car8</i>	2.044	NM_007592
<i>Hspa1a</i>	2.042	NM_010479
<i>Ctla2a</i>	2.033	NM_007796
<i>Scgb1c1</i>	2.029	NM_001099742
<i>Pon1</i>	2.020	NM_011134
<i>Tmem204</i>	2.012	NM_001001183
<i>Ptprm</i>	2.004	NM_008984
<i>Cyp1a1</i>	4.241	NM_009992
<i>Myl7</i>	3.849	NM_022879
<i>Tppp3</i>	3.557	NM_026481
<i>Acox1</i>	3.153	NM_028765
<i>Lyz1</i>	2.966	NM_013590
<i>Myl4</i>	2.638	NM_010858
<i>Tmem100</i>	2.520	NM_026433
<i>Hc</i>	2.513	NM_010406
<i>Rtkn2</i>	2.487	NM_001081346
<i>Hspa1b Hspa1a</i>	2.451	NM_010478
<i>Adh1</i>	2.429	NM_007409