

Supplemental Table 1- Statistical evaluation of Chip-seq datasets: Comparison of Chip-seq datasets against Affymetrix gene expression (relative significance; $-(\log_{10}(\text{adjusted p-value}))$).

Naïve STAT1 Chip-seq vs Affimetrix

Gene Name	ChIP-seq p-val	Affymetrix p-val	ENSEMBL
<i>1700012I11Rik</i>	4.7		ENSMUSG00000102069
<i>1700041G16Rik</i>	6.64	0.006789	ENSMUSG00000054822
<i>1700047K16Rik</i>	6.95	0.010971	ENSMUSG00000087347
<i>2310034G01Rik</i>	5.66	0.043999	ENSMUSG00000099655
<i>2310057J18Rik</i>	7.87	0.001508	ENSMUSG00000015519
<i>2900076A07Rik</i>	5.66	0.518923	ENSMUSG00000097277
<i>4922502D21Rik</i>	4.59		ENSMUSG00000047720
<i>4930441J16Rik</i>	5.41	0.034997	ENSMUSG00000085405
<i>4930449I04Rik</i>	5.66		ENSMUSG00000105459
<i>4930528D03Rik</i>	4.9	0.000818	ENSMUSG00000097502
<i>4933431K14Rik</i>	4.59		ENSMUSG00000103715
<i>5830468F06Rik</i>	5.78		ENSMUSG00000098322
<i>9030624J02Rik</i>	8.86	0.36822	ENSMUSG00000030982
<i>9330118I20Rik</i>	7.29		ENSMUSG00000108242
<i>9330175E14Rik</i>	11.84	0.904999	ENSMUSG00000097194
<i>9930014A18Rik</i>	4.59		ENSMUSG00000097493
<i>A930002H24Rik</i>	4.03	0.053945	ENSMUSG00000045506
<i>A930004D18Rik</i>	5.66	0.060846	ENSMUSG00000054057
<i>AC099934.1</i>	4.59		ENSMUSG00000105788
<i>AC099934.2</i>	4.59		ENSMUSG00000106279
<i>Actn2</i>	4.03	2.612822	ENSMUSG00000052374
<i>Adar</i>	11.84	1.145666	ENSMUSG00000027951
<i>Adck4</i>	4.03	0.230364	ENSMUSG00000003762
<i>Adtrp</i>	6.95	0.009183	ENSMUSG00000058022
<i>Akt2</i>	8.86	7.02101	ENSMUSG00000004056
<i>Aldh7a1</i>	4.7	0.000138	ENSMUSG00000053644

<i>Api5</i>	10.92	0.117821	ENSMUSG00000027193
<i>Apobr</i>	6.06	0.001528	ENSMUSG00000042759
<i>Arap2</i>	4.7	0.000138	ENSMUSG00000037999
<i>Arfgef1</i>	4.9	0.012322	ENSMUSG00000067851
<i>Arid5a</i>	4.7	8.702858	ENSMUSG00000037447
<i>Arl6ip1</i>	6.06	0.013833	ENSMUSG00000030654
<i>Armc4</i>	4.03	0.044523	ENSMUSG00000061802
<i>Arnt</i>	6.95	0.184616	ENSMUSG00000015522
<i>Art3</i>	6.9	0.006789	ENSMUSG00000034842
<i>Aspa</i>	13.67	0.018571	ENSMUSG00000020774
<i>Astn1</i>	4.7	0.000786	ENSMUSG00000026587
<i>B2m</i>	14.85	0.008185	ENSMUSG00000060802
<i>BC029722</i>	4.7		ENSMUSG00000074649
<i>BC051226</i>	8.92	2.877587	ENSMUSG00000092564
<i>Bpifc</i>	6.46	0.000138	ENSMUSG00000050108
<i>Bst2</i>	16.82	0.01543	ENSMUSG00000046718
<i>Car5a</i>	6.95	0.004091	ENSMUSG00000025317
<i>Ccdc126</i>	6.46	0.171841	ENSMUSG00000050786
<i>Ccdc175</i>	4.7	0.040234	ENSMUSG00000021086
<i>Ccng2</i>	4.59	0.36896	ENSMUSG00000029385
<i>Cd274</i>	19.72	0.569487	ENSMUSG00000016496
<i>Cd6</i>	4.9	8.414268	ENSMUSG00000024670
<i>Cdc25b</i>	6.46	4.580325	ENSMUSG00000027330
<i>Cdc42ep2</i>	9.95	0.003727	ENSMUSG00000045664
<i>Cdk5rap2</i>	4.9	0.01543	ENSMUSG00000039298
<i>Cdk5rap3</i>	6.95	0.022797	ENSMUSG00000018669
<i>Cep164</i>	5.41	0.100256	ENSMUSG00000043987
<i>Cflar</i>	6.14	0.009684	ENSMUSG00000026031
<i>Cldn1</i>	6.46	0.092124	ENSMUSG00000022512
<i>Clmp</i>	4.9	0.021495	ENSMUSG00000032024

<i>Cln3</i>	6.06	0.892325	ENSMUSG00000030720
<i>Cltc</i>	6.14	0.118952	ENSMUSG00000047126
<i>Cmpk2</i>	13.67	0.059122	ENSMUSG00000020638
<i>Cmtr1</i>	22.65	0.007619	ENSMUSG00000024019
<i>Cnnm2</i>	5.66	0.116884	ENSMUSG00000064105
<i>Cnot3</i>	5.66	0.039865	ENSMUSG00000035632
<i>Cnot4</i>	6.06	0.008276	ENSMUSG00000038784
<i>Cox4i2</i>	4.03	0.006115	ENSMUSG00000009876
<i>Crabp2</i>	4.7	0.068034	ENSMUSG00000004885
<i>Crebrf</i>	6.64	0.001887	ENSMUSG00000048249
<i>Ctsa</i>	4.7	7.72896	ENSMUSG00000017760
<i>Cttnbp2</i>	4.7	0.000138	ENSMUSG00000000416
<i>Cuta</i>	5.41	0.605567	ENSMUSG00000024194
<i>D030028A08Rik</i>	6.95	2.414076	ENSMUSG00000078700
<i>D930028M14Rik</i>	12.28	0.023803	ENSMUSG00000074274
<i>Daxx</i>	8.92	0.046596	ENSMUSG00000002307
<i>Dcaf6</i>	8.15	0.01543	ENSMUSG00000026571
<i>Ddr1</i>	6.95	0.001887	ENSMUSG00000003534
<i>Ddx18</i>	4.7	0.012743	ENSMUSG00000001674
<i>Ddx24</i>	7.79	0.656436	ENSMUSG00000041645
<i>Ddx51</i>	9.81	0.006679	ENSMUSG00000029504
<i>Dis3</i>	4.03	0.007855	ENSMUSG00000033166
<i>Dlc1</i>	5.66	0.071223	ENSMUSG00000031523
<i>Dolk</i>	4.7	0.007209	ENSMUSG00000075419
<i>Dot1l</i>	5.66	0.001449	ENSMUSG00000061589
<i>Dtx3l</i>	20	2.217093	ENSMUSG00000049502
<i>Eef2</i>	4.59	0.007855	ENSMUSG00000034994
<i>Eif1a</i>	7.87	1.32387	ENSMUSG00000057561
<i>Eif2s2</i>	5.66	0.004091	ENSMUSG00000074656
<i>Elmo2</i>	19.73	6.533649	ENSMUSG00000017670

<i>Emc1</i>	4.7	0.069976	ENSMUSG00000078517
<i>Epc1</i>	4.7	0.413248	ENSMUSG00000024240
<i>Epha7</i>	5.66	0.006215	ENSMUSG00000028289
<i>Esp38</i>	4.03	0.238263	ENSMUSG00000095886
<i>Ezr</i>	10.92	0.002099	ENSMUSG00000052397
<i>Fam159b</i>	6.77	0.044886	ENSMUSG00000042655
<i>Fam84b</i>	4.59	0.006115	ENSMUSG00000072568
<i>Fgf12</i>	5.66	0.004091	ENSMUSG00000022523
<i>Frs2</i>	4.9	0.01857	ENSMUSG00000020170
<i>Fto</i>	5.66	0.024374	ENSMUSG00000055932
<i>Gbas</i>	6.06	0.016497	ENSMUSG00000029432
<i>Gbp6</i>	25.12	0.191536	ENSMUSG00000104713
<i>Gbp7</i>	10.22	1.675614	ENSMUSG00000040253
<i>Gdap10</i>	18.87	0.035035	ENSMUSG00000096954
<i>Ggnbp1</i>	8.51	0.000604	ENSMUSG00000048731
<i>Ghitm</i>	4.9	0.001887	ENSMUSG00000041028
<i>Gm10125</i>	5.41	0.002804	ENSMUSG00000063087
<i>Gm10715</i>	5.93		ENSMUSG00000096201
<i>Gm11346</i>	10.22	0.012801	ENSMUSG00000085603
<i>Gm11696</i>	6.14	0.01079	ENSMUSG00000056687
<i>Gm12185</i>	13.16	0.731536	ENSMUSG00000048852
<i>Gm12252</i>	5.93		ENSMUSG00000082181
<i>Gm12715</i>	4.03	0.013833	ENSMUSG00000059195
<i>Gm13453</i>	5.66	0.132667	ENSMUSG00000083240
<i>Gm13466</i>	4.03		ENSMUSG00000083807
<i>Gm15643</i>	8.86	0.012472	ENSMUSG00000085970
<i>Gm15927</i>	5.66	0.000604	ENSMUSG00000085039
<i>Gm16000</i>	4.03		ENSMUSG00000085106
<i>Gm16174</i>	9.35	7.632426	ENSMUSG00000087593
<i>Gm19412</i>	5.13	0.498243	ENSMUSG00000101438

<i>Gm20743</i>	6.95	0.00254	ENSMUSG00000104117
<i>Gm21542</i>	4.9		ENSMUSG00000098010
<i>Gm22371</i>	5.66		ENSMUSG00000077776
<i>Gm22383</i>	4.03		ENSMUSG00000088813
<i>Gm22456</i>	8.86		ENSMUSG00000064512
<i>Gm22845</i>	4.9		ENSMUSG00000088337
<i>Gm23318</i>	4.59		ENSMUSG00000088625
<i>Gm24044</i>	4.7		ENSMUSG00000065041
<i>Gm24737</i>	4.03		ENSMUSG00000089486
<i>Gm24794</i>	4.59		ENSMUSG00000077476
<i>Gm25053</i>	6.95		ENSMUSG00000099002
<i>Gm25053</i>	6.95		ENSMUSG00000106585
<i>Gm25264</i>	6.46		ENSMUSG00000089144
<i>Gm25602</i>	6.14		ENSMUSG00000088987
<i>Gm25857</i>	5.78		ENSMUSG00000064722
<i>Gm26448</i>	4.7		ENSMUSG00000064380
<i>Gm26603</i>	5.66		ENSMUSG00000097857
<i>Gm27005</i>	5.66		ENSMUSG00000098103
<i>Gm28388</i>	12.24		ENSMUSG00000099882
<i>Gm28529</i>	4.7		ENSMUSG00000101320
<i>Gm28982</i>	6.64		ENSMUSG00000101832
<i>Gm29053</i>	6.95		ENSMUSG00000100156
<i>Gm29170</i>	15.1		ENSMUSG00000100455
<i>Gm29609</i>	7.79		ENSMUSG00000101678
<i>Gm29856</i>	6.95		ENSMUSG00000102432
<i>Gm33994</i>	4.9		ENSMUSG00000104509
<i>Gm36951</i>	6.14		ENSMUSG00000104130
<i>Gm37042</i>	6.45		ENSMUSG00000103457
<i>Gm37123</i>	4.59		ENSMUSG00000103039
<i>Gm38180</i>	6.95		ENSMUSG00000103684

<i>Gm38318</i>	6.06		ENSMUSG00000102989
<i>Gm43262</i>	4.9		ENSMUSG00000107305
<i>Gm43302</i>	25.12		ENSMUSG00000079362
<i>Gm43808</i>	8.83		ENSMUSG00000107086
<i>Gm43869</i>	4.9		ENSMUSG00000108008
<i>Gm43886</i>	5.66		ENSMUSG00000107515
<i>Gm44437</i>	4.9		ENSMUSG00000108102
<i>Gm44615</i>	6.46		ENSMUSG00000108363
<i>Gm45139</i>	6.14		ENSMUSG00000108495
<i>Gm5185</i>	6.14		ENSMUSG00000058933
<i>Gm5310</i>	4.03		ENSMUSG00000105248
<i>Gm7656</i>	4.7		ENSMUSG00000097991
<i>Gm7858</i>	4.9		ENSMUSG00000101726
<i>Gm8000</i>	6.45		ENSMUSG00000101132
<i>Gm8099</i>	6.95		ENSMUSG00000105787
<i>Gm9274</i>	7.79		ENSMUSG00000098095
<i>Gm9939</i>	8.86		ENSMUSG00000054247
<i>Gna13</i>	6.14	0.026634	ENSMUSG00000020611
<i>Gpnmb</i>	4.7	0.184266	ENSMUSG00000029816
<i>Grid2</i>	7.29	0.150619	ENSMUSG00000071424
<i>Gsap</i>	5.41	0.848207	ENSMUSG00000039934
<i>Gtf2a2</i>	6.46	0.101279	ENSMUSG00000033543
<i>Gtf2h1</i>	11.08	0.01137	ENSMUSG00000006599
<i>Gtf3c2</i>	7.79	0.305108	ENSMUSG00000106864
<i>Gtpbp10</i>	5.66	0.008584	ENSMUSG00000040464
<i>H2-K1</i>	4.03	0.057192	ENSMUSG00000061232
<i>H2-T24</i>	26.52	0.208997	ENSMUSG00000053835
<i>Helz2</i>	12.82	0.170472	ENSMUSG00000027580
<i>Hnrnp1</i>	5.66	0.060846	ENSMUSG00000015165
<i>Hps5</i>	11.08	0.006769	ENSMUSG00000014418

<i>Hsh2d</i>	12.28	0.18011	ENSMUSG00000062007
<i>Ibtk</i>	4.59	0.936737	ENSMUSG00000035941
<i>Icam1</i>	5.13	12.96573	ENSMUSG00000037405
<i>Id3</i>	4.7	5.079505	ENSMUSG00000007872
<i>Ifi27</i>	25.82	0.03005	ENSMUSG00000064215
<i>Ifit1</i>	6.14	0.053945	ENSMUSG00000034459
<i>Ifit1bl2</i>	6.14		ENSMUSG00000067297
<i>Ift122</i>	4.9	0.732022	ENSMUSG00000030323
<i>Igf1</i>	12.28	0.00717	ENSMUSG00000020053
<i>Igkv1-132</i>	4.7		ENSMUSG00000096580
<i>Igtp</i>	11.06	2.001568	ENSMUSG00000078853
<i>Incenp</i>	4.9	0.012472	ENSMUSG00000024660
<i>Iqca</i>	7.87	0.020437	ENSMUSG00000026301
<i>Irf1</i>	5.93	8.225396	ENSMUSG00000018899
<i>Irf7</i>	9.59	0.630249	ENSMUSG00000025498
<i>Irf8</i>	6.9	5.648034	ENSMUSG00000041515
<i>Irf9</i>	32.13	8.155709	ENSMUSG00000002325
<i>Irgm1</i>	39.75	0.058998	ENSMUSG00000046879
<i>Irgm2</i>	11.06	0.182716	ENSMUSG00000069874
<i>Isg15</i>	7.69	0.075538	ENSMUSG00000035692
<i>Itpka</i>	5.78	0.01543	ENSMUSG00000027296
<i>Itpril1</i>	6.46	0.01605	ENSMUSG00000074825
<i>Jmjd4</i>	6.46	0.026418	ENSMUSG00000036819
<i>Kdm3a</i>	8.86	0.026711	ENSMUSG00000053470
<i>Klf9</i>	5.66	0.127614	ENSMUSG00000033863
<i>Klhl3</i>	6.9	4.208569	ENSMUSG00000014164
<i>Kmt2d</i>	4.59	0.02068	ENSMUSG00000048154
<i>Lama2</i>	6.64	0.032147	ENSMUSG00000019899
<i>Lcorl</i>	5.66	0.020239	ENSMUSG00000015882
<i>Lct</i>	4.03	0.002804	ENSMUSG00000026354

<i>Lrit1</i>	4.59	0.05765	ENSMUSG00000041044
<i>Lrrc51</i>	5.78	0.068646	ENSMUSG00000064307
<i>Macf1</i>	4.59	0.832788	ENSMUSG00000028649
<i>Map2</i>	8.86	0.010529	ENSMUSG00000015222
<i>Med7</i>	15.11	0.189547	ENSMUSG00000020397
<i>Mef2c</i>	6.95	0.013833	ENSMUSG00000005583
<i>Mettl21a</i>	6.64	0.001887	ENSMUSG00000025956
<i>Mgat4b</i>	4.59	0.022797	ENSMUSG00000036620
<i>Mif4gd</i>	5.24	0.070754	ENSMUSG00000020743
<i>Mir1893</i>	4.7		ENSMUSG00000084514
<i>Mir7671</i>	23.14		ENSMUSG00000099153
<i>Mitd1</i>	12.94	0.000207	ENSMUSG00000026088
<i>Mpc2</i>	8.15	0.044865	ENSMUSG00000026568
<i>Mrpl13</i>	5.41	0.000604	ENSMUSG00000022370
<i>Mrpl30</i>	12.94	0.020125	ENSMUSG00000026087
<i>Mrpl39</i>	8.83	0.438611	ENSMUSG00000022889
<i>Mrto4</i>	4.7	0.020437	ENSMUSG00000028741
<i>Mtbp</i>	5.41	0.687249	ENSMUSG00000022369
<i>Myo18b</i>	4.59	0.001125	ENSMUSG00000072720
<i>Naa25</i>	6.46	0.006793	ENSMUSG00000042719
<i>Nampt</i>	18.87	0.00585	ENSMUSG00000020572
<i>Ndel1</i>	5.41	0.030766	ENSMUSG00000018736
<i>Neurl2</i>	4.7	0.01543	ENSMUSG00000039873
<i>Nfrkb</i>	5.66	0.032928	ENSMUSG00000042185
<i>Nisch</i>	6.06	0.039405	ENSMUSG00000021910
<i>Noc4l</i>	9.81	0.107295	ENSMUSG00000033294
<i>Npm1</i>	8.86	0.022797	ENSMUSG00000057113
<i>Nsfl1c</i>	12.24	0.01543	ENSMUSG00000027455
<i>Nsmce1</i>	5.41	0.802504	ENSMUSG00000030750
<i>Nup188</i>	4.7	0.01328	ENSMUSG00000052533

<i>Oas1b</i>	15.92	0.015958	ENSMUSG00000029605
<i>Oas1c</i>	15.92	1.071369	ENSMUSG00000001166
<i>Oas2</i>	14.63	2.486726	ENSMUSG00000032690
<i>Oasl2</i>	29.1	0.460778	ENSMUSG00000029561
<i>Ocel1</i>	9.95	0.340699	ENSMUSG00000002396
<i>Olf1427</i>	4.7	0.018537	ENSMUSG00000067525
<i>Olf1333-ps1</i>	4.59		ENSMUSG00000081287
<i>Olf1429</i>	4.9	0.005027	ENSMUSG00000049528
<i>Olf1524</i>	5.66	0.005328	ENSMUSG00000050366
<i>Olf1647-ps1</i>	6.06		ENSMUSG00000083513
<i>Oprm1</i>	6.46	0.033752	ENSMUSG00000000766
<i>Orai2</i>	5.66	0.653784	ENSMUSG00000039747
<i>Pafah2</i>	6.06	0.010669	ENSMUSG00000037366
<i>Parp10</i>	9.95	0.361352	ENSMUSG00000063268
<i>Parp11</i>	7.87	0.067573	ENSMUSG00000037997
<i>Parp9</i>	20	7.866322	ENSMUSG00000022906
<i>Pcf11</i>	6.14	0.090339	ENSMUSG00000041328
<i>Pemt</i>	6.95	0.000138	ENSMUSG00000000301
<i>Pex1</i>	6.95	0.017718	ENSMUSG00000005907
<i>Phax</i>	4.7	0.00254	ENSMUSG00000008301
<i>Phkg1</i>	4.7	0.030026	ENSMUSG00000025537
<i>Pibf1</i>	4.03	0.049683	ENSMUSG00000022064
<i>Pigo</i>	4.9	0.003221	ENSMUSG00000028454
<i>Pitpnc1</i>	5.41	0.030736	ENSMUSG00000040430
<i>Plce1</i>	5.66	0.00585	ENSMUSG00000024998
<i>Plgrkt</i>	19.72	0.833406	ENSMUSG00000016495
<i>Plscr1</i>	7.87	0.019318	ENSMUSG00000032369
<i>Pml</i>	7.39	0.005435	ENSMUSG00000036986
<i>Pnpt1</i>	15.89	0.004732	ENSMUSG00000020464
<i>Poln</i>	7.87	0.04442	ENSMUSG00000045102

<i>Pou6f1</i>	4.7	0.010969	ENSMUSG00000009739
<i>Ppa1</i>	6.64	2.964296	ENSMUSG00000020089
<i>Prmt7</i>	9.95	0.017826	ENSMUSG00000060098
<i>Prr5</i>	12.28	0.026979	ENSMUSG00000036106
<i>Psd4</i>	5.66	1.507153	ENSMUSG00000026979
<i>Psemb9</i>	32.46	0.015011	ENSMUSG00000096727
<i>Rad54l2</i>	4.9	0.02644	ENSMUSG00000040661
<i>Ralgapb</i>	4.03	0.042203	ENSMUSG00000027652
<i>Ralgds</i>	4.9	0.004091	ENSMUSG00000026821
<i>Rbm39</i>	4.7	0.01543	ENSMUSG00000027620
<i>Rbm48</i>	6.95	0.381136	ENSMUSG00000040302
<i>Retsat</i>	6.46	1.340869	ENSMUSG00000056666
<i>Ripk1</i>	15.11	2.172353	ENSMUSG00000021408
<i>Rn7s1</i>	4.59		ENSMUSG00000099021
<i>Rnf157</i>	6.95	2.678391	ENSMUSG00000052949
<i>Rnf213</i>	12.94	0.700089	ENSMUSG00000070327
<i>Rnu6</i>	4.03		ENSMUSG00000095132
<i>Rpe</i>	5.66	0.001887	ENSMUSG00000026005
<i>Rpgrip1l</i>	5.66	1.055708	ENSMUSG00000033282
<i>Rps15a</i>	8.86	0.012472	ENSMUSG00000008683
<i>Rps29</i>	4.59	0.01543	ENSMUSG00000034892
<i>Rps7</i>	8.83	0.034945	ENSMUSG00000061477
<i>Rtf1</i>	6.46	0.035529	ENSMUSG00000027304
<i>Rtn2</i>	17.38	0.026979	ENSMUSG00000030401
<i>Rtp4</i>	27.77	0.980416	ENSMUSG00000033355
<i>Sema3g</i>	6.06	0.016881	ENSMUSG00000021904
<i>Serpinb6a</i>	15.11	0.007209	ENSMUSG00000060147
<i>Sesn3</i>	5.41	2.954629	ENSMUSG00000032009
<i>Sgk2</i>	8.86	0.001887	ENSMUSG00000017868
<i>Shisa5</i>	12.28	0.342305	ENSMUSG00000025647

<i>Sigirr</i>	7.29	0.376418	ENSMUSG00000025494
<i>Slc12a3</i>	5.66	0.006769	ENSMUSG00000031766
<i>Slc25a12</i>	9.95	1.0085	ENSMUSG00000027010
<i>Slc35e2</i>	6.14	0.007855	ENSMUSG00000042202
<i>Slc4a10</i>	5.41	0.006793	ENSMUSG00000026904
<i>Slc7a6os</i>	9.95	0.005856	ENSMUSG00000033106
<i>Slco3a1</i>	4.7	11.80115	ENSMUSG00000025790
<i>Slfn8</i>	10.09	0.027093	ENSMUSG00000035208
<i>Slfn9</i>	5.68	0.009664	ENSMUSG00000069793
<i>Snap47</i>	6.46	0.181311	ENSMUSG00000009894
<i>Snora62</i>	4.7	0.039746	ENSMUSG00000064925
<i>Socs3</i>	6.14	25.95131	ENSMUSG00000053113
<i>Spag1</i>	4.03	0.00254	ENSMUSG00000037617
<i>Spata22</i>	13.67	0.001616	ENSMUSG00000069825
<i>Spef1</i>	6.46	0.006789	ENSMUSG00000027329
<i>Spock3</i>	4.03	0.009183	ENSMUSG00000054162
<i>Sqstm1</i>	4.59	0.494311	ENSMUSG00000015837
<i>Srrm3</i>	5.41	0.010971	ENSMUSG00000039860
<i>Stat2</i>	21.81	0.11997	ENSMUSG00000040033
<i>Stat3</i>	9.03	16.79848	ENSMUSG0000004040
<i>Stat5b</i>	6.46	0.00901	ENSMUSG00000020919
<i>Stra6</i>	6.95	0.180051	ENSMUSG00000032327
<i>Surf1</i>	5.24	0.020437	ENSMUSG00000015790
<i>Surf2</i>	5.24	0.028101	ENSMUSG00000014873
<i>Taar6</i>	4.03	0.036911	ENSMUSG00000045111
<i>Tab3</i>	4.9	0.159112	ENSMUSG00000035476
<i>Tac1</i>	10.92	0.043067	ENSMUSG00000061762
<i>Taco1</i>	4.59	0.000604	ENSMUSG00000001983
<i>Taco1os</i>	4.59	0.049683	ENSMUSG00000085255
<i>Tap1</i>	32.46	0.106276	ENSMUSG00000037321

<i>Tapbp</i>	5.13	1.513914	ENSMUSG00000024308
<i>Tcof1</i>	6.14	0.059027	ENSMUSG00000024613
<i>Tgtp1</i>	13.16	2.621252	ENSMUSG00000078922
<i>Tmed7</i>	7.87	0.755301	ENSMUSG00000033184
<i>Tmem214</i>	8.83	0.049683	ENSMUSG00000038828
<i>Tnfrsf9</i>	6.95	0.723753	ENSMUSG00000028965
<i>Tnik</i>	4.59	0.757064	ENSMUSG00000027692
<i>Tnks</i>	8.86	0.0169	ENSMUSG00000031529
<i>Tob1</i>	5.41	0.031434	ENSMUSG00000037573
<i>Trim21</i>	17.84	0.108533	ENSMUSG00000030966
<i>Trim25</i>	8.61	5.818	ENSMUSG00000000275
<i>Trove2</i>	15.1	0.040343	ENSMUSG00000018199
<i>Tsta3</i>	4.7	0.01543	ENSMUSG00000022570
<i>Ttyh2</i>	6.95	0.059237	ENSMUSG00000034714
<i>Ublcp1</i>	4.9	0.055069	ENSMUSG00000041231
<i>Ubr4</i>	4.7	0.003221	ENSMUSG00000066036
<i>Uchl5</i>	15.1	0.067287	ENSMUSG00000018189
<i>Ugt2b35</i>	4.7	0.000138	ENSMUSG00000035811
<i>Unc80</i>	4.9	0.012801	ENSMUSG00000055567
<i>Usp18</i>	20.94	0.233909	ENSMUSG00000030107
<i>Utp3</i>	6.95	0.151617	ENSMUSG00000070697
<i>Vmn1r85</i>	6.14	0.538599	ENSMUSG00000070817
<i>Vps18</i>	5.66	0.034335	ENSMUSG00000034216
<i>Vps45</i>	5.66	0.044106	ENSMUSG00000015747
<i>Vwa3b</i>	6.95	0.020779	ENSMUSG00000050122
<i>Wdr73</i>	9.95	0.03979	ENSMUSG00000025722
<i>Xpo6</i>	12.28	3.53079	ENSMUSG00000000131
<i>Xrcc2</i>	6.95	0.003967	ENSMUSG00000028933
<i>Zbp1</i>	15.11	6.973636	ENSMUSG00000027514
<i>Zbtb9</i>	8.51	0.224328	ENSMUSG00000079605

<i>Zcchc7</i>	4.9	0.006789	ENSMUSG00000035649
<i>Zfp560</i>	4.59	0.257711	ENSMUSG00000045519
<i>Zfp58</i>	9.95	0.093811	ENSMUSG00000071291
<i>Zfp672</i>	6.95	0.010971	ENSMUSG00000049755
<i>Zfp770</i>	4.03	0.003727	ENSMUSG00000040321

Naïve STAT3 Chip-seq vs Affimetrix

Gene Name	ChIP-seq p-val	Affymetrix p-val	ENSEMBL
<i>1600002H07Rik</i>	8.07	0.002804	ENSMUSG00000024118
<i>1700084F23Rik</i>	5.03	0.020437	ENSMUSG00000099639
<i>4732416N19Rik</i>	19.36	0.000138	ENSMUSG00000107402
<i>4930539J05Rik</i>	19.36	0.004091	ENSMUSG00000097032
<i>4933430L12Rik</i>	5.79		ENSMUSG00000108523
<i>5830468F06Rik</i>	12.67		ENSMUSG00000098322
<i>9330175E14Rik</i>	24.88	0.904999	ENSMUSG00000097194
<i>9930004E17Rik</i>	14.99		ENSMUSG00000096052
<i>A230056P14Rik</i>	11.75	0.021815	ENSMUSG00000087178
<i>AC156953.1</i>	5.79		ENSMUSG00000104690
<i>Acaa1a</i>	16.73	0.189547	ENSMUSG00000036138
<i>Akt2</i>	9.72	7.02101	ENSMUSG00000004056
<i>Aldh16a1</i>	19.36	0.358982	
<i>Amacr</i>	15.44	0.324149	ENSMUSG00000022244
<i>Ankhd1</i>	8.07	0.020437	ENSMUSG00000024483
<i>Apobec1</i>	11.67	0.000604	ENSMUSG00000040613
<i>Arhgap26</i>	5.09	0.153812	ENSMUSG00000036452
<i>Arih1</i>	8.07	0.011676	ENSMUSG00000025234
<i>Atp5f1</i>	19.36	0.15975	ENSMUSG00000000563
<i>B3gnt1</i>	7.5	0.024552	ENSMUSG00000046605
<i>Bard1</i>	5.79	0.322549	ENSMUSG00000026196

<i>Batf</i>	11.45	10.70574	ENSMUSG00000034266
<i>Baz1a</i>	11.75	0.108293	ENSMUSG00000035021
<i>Bcl3</i>	8.88	24.63781	ENSMUSG00000053175
<i>Bet1</i>	8.79	0.052027	ENSMUSG00000032757
<i>Bin3</i>	9.98	1.3576	ENSMUSG00000022089
<i>Birc3</i>	9.72	1.198029	ENSMUSG00000032000
<i>C87436</i>	11.58	0.107295	ENSMUSG00000046679
<i>Cep128</i>	8.88	0.402142	ENSMUSG00000061533
<i>Cep95</i>	6.52	0.0134	ENSMUSG00000018372
<i>Chmp4b</i>	43	2.752581	ENSMUSG00000038467
<i>Cmah</i>	14.18	0.004091	ENSMUSG00000016756
<i>Cmtm6</i>	19.36	0.999271	ENSMUSG00000032434
<i>Coq10b</i>	8.46	0.000786	ENSMUSG00000025981
<i>Cox7a2</i>	6.27	0.39032	ENSMUSG00000032330
<i>Crtc3</i>	26.25	1.739788	ENSMUSG00000030527
<i>Cuta</i>	6.33	0.605567	ENSMUSG00000024194
<i>Cytip</i>	4.41	2.323201	ENSMUSG00000026832
<i>Ddx5</i>	6.52	0.001839	ENSMUSG00000020719
<i>Dedd2</i>	5.79	0.029655	ENSMUSG00000054499
<i>Dennd4a</i>	7.88	0.079864	ENSMUSG00000053641
<i>Desi1</i>	9.43	0.329335	ENSMUSG00000022472
<i>Dusp1</i>	20.36	0.213696	ENSMUSG00000024190
<i>E330011M16Rik</i>	8.46	0.000786	ENSMUSG00000103030
<i>Eif5a</i>	7.02	0.19421	ENSMUSG00000078812
<i>Emc2</i>	5.79	0.226682	ENSMUSG00000022337
<i>Enah</i>	5.79	0.001508	ENSMUSG00000022995
<i>Eny2</i>	7.88	0.184224	ENSMUSG00000022338
<i>Ergic2</i>	19.36	0.088338	ENSMUSG00000030304
<i>Etohd2</i>	7.88	0.006115	ENSMUSG00000089875
<i>Etv6</i>	14.12	23.23103	ENSMUSG00000030199

<i>Fas</i>	18.03	11.76135	ENSMUSG00000024778
<i>Fastk</i>	18.8	0.02707	ENSMUSG00000028959
<i>Fbxl12</i>	12.68	0.005856	ENSMUSG00000066892
<i>Fos</i>	32.18	1.258826	ENSMUSG00000021250
<i>Gabpb1</i>	11.75	0.680285	ENSMUSG00000027361
<i>Galns</i>	27.75	4.39816	ENSMUSG00000015027
<i>Gatad2a</i>	25.18	0.052653	ENSMUSG00000036180
<i>Gbp6</i>	14.18	0.191536	ENSMUSG00000104713
<i>Gcc1</i>	23.55	0.18187	ENSMUSG00000029708
<i>Gen1</i>	20.71	0.046166	ENSMUSG00000051235
<i>Gins1</i>	5.03	2.339759	ENSMUSG00000027454
<i>Gm10373</i>	5.79	0.049683	ENSMUSG00000072592
<i>Gm11345</i>	14.18		ENSMUSG00000086344
<i>Gm11346</i>	7.56	0.012801	ENSMUSG00000085603
<i>Gm11439</i>	5.03		ENSMUSG00000083876
<i>Gm11725</i>	9.21	4.26619	ENSMUSG00000085434
<i>Gm11849</i>	5.79		ENSMUSG00000083572
<i>Gm12279</i>	18.8	0.086963	ENSMUSG00000087120
<i>Gm12356</i>	31.27	0.102705	ENSMUSG00000085955
<i>Gm16056</i>	5.09		ENSMUSG00000080941
<i>Gm16174</i>	17.1	7.632426	ENSMUSG00000087593
<i>Gm16230</i>	8.07	0.118781	ENSMUSG00000087163
<i>Gm17705</i>	8.79	0.163998	ENSMUSG00000090936
<i>Gm20036</i>	14.76	0.010137	ENSMUSG00000093579
<i>Gm22094</i>	7.88		ENSMUSG00000089601
<i>Gm23885</i>	7.88		ENSMUSG00000084631
<i>Gm25296</i>	12.95		ENSMUSG00000064500
<i>Gm26876</i>	20.3		ENSMUSG00000097372
<i>Gm27003</i>	11.75		ENSMUSG00000098024
<i>Gm27486</i>	10.68		ENSMUSG00000099144

<i>Gm28513</i>	5.66		ENSMUSG00000099568
<i>Gm28982</i>	15.44		ENSMUSG00000101832
<i>Gm29243</i>	10.77		ENSMUSG00000100605
<i>Gm33370</i>	7.28		ENSMUSG00000105283
<i>Gm37063</i>	11.75		ENSMUSG00000103805
<i>Gm37415</i>	10.68		ENSMUSG00000103864
<i>Gm42890</i>	19.36		ENSMUSG00000105852
<i>Gm43302</i>	14.18		ENSMUSG00000079362
<i>Gm44077</i>	35.88		ENSMUSG00000108244
<i>Gm44465</i>	10.57		ENSMUSG00000105821
<i>Gm4845</i>	15.44	0.008584	ENSMUSG00000095238
<i>Gm8013</i>	7.28		ENSMUSG00000106357
<i>Gsk3a</i>	5.03	0.034335	ENSMUSG00000057177
<i>Gtf2a2</i>	42.51	0.101279	ENSMUSG00000033543
<i>H2-T24</i>	7	0.208997	ENSMUSG00000053835
<i>Hdac4</i>	16.11	0.050627	ENSMUSG00000026313
<i>Helb</i>	7.88	0.449333	ENSMUSG00000020228
<i>Hivep2</i>	44.33	2.754141	ENSMUSG00000015501
<i>Htt</i>	14.12	2.243151	ENSMUSG00000029104
<i>Icam1</i>	20.71	12.96573	ENSMUSG00000037405
<i>Ifnar2</i>	8.88	0.001949	ENSMUSG00000022971
<i>Ikzf4</i>	20.3	2.901884	ENSMUSG00000002578
<i>Il27ra</i>	11.45	0.011801	ENSMUSG00000005465
<i>Il6st</i>	15.44	0.077279	ENSMUSG00000021756
<i>Ino80c</i>	18.8	1.481992	ENSMUSG00000047989
<i>Irak4</i>	19.36	9.016244	ENSMUSG00000059883
<i>Isca1</i>	7.88	0.019318	ENSMUSG00000044792
<i>Jak3</i>	25.5	25.86994	ENSMUSG00000031805
<i>Junb</i>	14.56	12.20226	ENSMUSG00000052837
<i>Kif22</i>	11.75	0.000222	ENSMUSG00000030677

<i>Kri1</i>	13.71	6.321984	ENSMUSG00000035047
<i>Lat</i>	15.44	0.021815	ENSMUSG00000030742
<i>Lmna</i>	18.03	0.007209	ENSMUSG00000028063
<i>Lsm4</i>	19.41	0.320315	ENSMUSG00000031848
<i>Map3k8</i>	15.15	21.43359	ENSMUSG00000024235
<i>Mcl1</i>	17.26	7.457215	ENSMUSG00000038612
<i>Me3</i>	6.16	0.161516	ENSMUSG00000030621
<i>Mettl21a</i>	15.44	0.001887	ENSMUSG00000025956
<i>Mir7671</i>	23.55		ENSMUSG00000099153
<i>Mir7672</i>	14.99		ENSMUSG00000098751
<i>Mitd1</i>	15.15	0.000207	ENSMUSG00000026088
<i>Mpnd</i>	9.72	0.01543	ENSMUSG00000003199
<i>Mrpl17</i>	7.88	0.01328	ENSMUSG00000030879
<i>Mrpl30</i>	15.15	0.020125	ENSMUSG00000026087
<i>Mrpl51</i>	13.71	0.020779	ENSMUSG00000030335
<i>Mul1</i>	25.03	0.872553	ENSMUSG00000041241
<i>Mvp</i>	18.03	1.088916	ENSMUSG00000030681
<i>Myd88</i>	16.73	7.422867	ENSMUSG00000032508
<i>Ncapd2</i>	13.71	1.050324	ENSMUSG00000038252
<i>Nepn</i>	11.75	0.10285	ENSMUSG00000038624
<i>Nfkb2</i>	13.71	1.813599	ENSMUSG00000025225
<i>Nhp2l1</i>	8.79	0.107149	ENSMUSG00000063480
<i>Nipa2</i>	11.75	0.375902	ENSMUSG00000030452
<i>Nme2</i>	12.95	0.225628	ENSMUSG00000020857
<i>Nsmce1</i>	35.2	0.802504	ENSMUSG00000030750
<i>Nsun4</i>	11.67	0.395053	ENSMUSG00000028706
<i>Nudcd1</i>	7.88	0.058424	ENSMUSG00000038736
<i>Nup153</i>	13.71	2.454328	ENSMUSG00000021374
<i>Nup88</i>	16.92	0.025563	ENSMUSG00000040667
<i>Nup98</i>	8.79	2.404484	ENSMUSG00000063550

<i>Oas2</i>	8.46	2.486726	ENSMUSG00000032690
<i>Olfr1262</i>	5.09	0.020239	ENSMUSG00000051313
<i>Olfr508</i>	5.79	0.010793	ENSMUSG00000063764
<i>Olfr606</i>	5.03	0.019563	ENSMUSG00000073949
<i>Pde12</i>	14.99	6.432692	ENSMUSG00000043702
<i>Pgap2</i>	8.79	0.298369	ENSMUSG00000030990
<i>Pih1d1</i>	19.36	2.227244	ENSMUSG00000003423
<i>Pik3cd</i>	16.73	1.323772	ENSMUSG00000039936
<i>Ppa1</i>	8.79	2.964296	ENSMUSG00000020089
<i>Prg4</i>	5.09	1.654114	ENSMUSG00000006014
<i>Prrc2a</i>	8.79	0.032057	ENSMUSG00000024393
<i>Psmc3</i>	31.27	0.364372	ENSMUSG00000017221
<i>Pus7l</i>	19.36	0.006215	ENSMUSG00000033356
<i>Rab18</i>	22.64	3.304198	ENSMUSG00000073639
<i>Rab27a</i>	5.79	1.305552	ENSMUSG00000032202
<i>Rab4b</i>	20.36	0.388055	ENSMUSG00000053291
<i>Rack1</i>	12.95	0.002288	ENSMUSG00000020372
<i>Rapgef6</i>	7.02	3.284645	ENSMUSG00000037533
<i>Relb</i>	10.57	0.189547	ENSMUSG00000002983
<i>Ribc1</i>	36.74	0.243827	ENSMUSG00000025257
<i>Ripk1</i>	9.72	2.172353	ENSMUSG00000021408
<i>Rn7s6</i>	5.79		ENSMUSG00000092746
<i>Rnasel</i>	5.66	4.905635	ENSMUSG00000066800
<i>Rpain</i>	16.92	5.265866	ENSMUSG00000018449
<i>Rpl22</i>	24.97	0.003967	ENSMUSG00000028936
<i>Rps25</i>	8.88	0.000604	ENSMUSG00000009927
<i>Rtn4</i>	26.83	0.01543	ENSMUSG00000020458
<i>Sbno1</i>	10.68	0.04807	ENSMUSG00000038095
<i>Scp2</i>	10.68	2.353184	ENSMUSG00000028603
<i>Sde2</i>	7	0.763776	ENSMUSG00000038806

<i>Selplg</i>	8.79	0.172663	ENSMUSG00000048163
<i>Sema4d</i>	7.73	9.088714	ENSMUSG00000021451
<i>Serinc5</i>	15.44	0.008584	ENSMUSG00000021703
<i>Serpinb6a</i>	9.72	0.007209	ENSMUSG00000060147
<i>Sigirr</i>	11.45	0.376418	ENSMUSG00000025494
<i>Skap2</i>	35.88	15.32593	ENSMUSG00000059182
<i>Slc41a1</i>	18.8	5.230954	ENSMUSG00000013275
<i>Smc1a</i>	36.74	2.957105	ENSMUSG00000041133
<i>Smc6</i>	20.71	2.252154	ENSMUSG00000020608
<i>Socs3</i>	22.08	25.95131	ENSMUSG00000053113
<i>Spg11</i>	11.75	0.007855	ENSMUSG00000033396
<i>Spsb1</i>	11.45	0.004091	ENSMUSG00000039911
<i>Sreb1</i>	16.79	0.004091	ENSMUSG00000020538
<i>Ssmem1</i>	11.75	0.107026	ENSMUSG00000029784
<i>Stat3</i>	78.66	16.79848	ENSMUSG00000004040
<i>Stat5b</i>	13.26	0.00901	ENSMUSG00000020919
<i>Suco</i>	26.83	0.003221	ENSMUSG00000040297
<i>Susd3</i>	8.79	4.984352	ENSMUSG00000021384
<i>Taf5</i>	14.76	1.604665	ENSMUSG00000025049
<i>Tbc1d15</i>	14.76	9.451383	ENSMUSG00000020130
<i>Tha1</i>	9.21	10.02412	ENSMUSG00000017713
<i>Tmem194</i>	8.07	2.199787	ENSMUSG00000040195
<i>Tmem209</i>	11.75	0.115569	ENSMUSG00000029782
<i>Tnfaip8</i>	12.68	0.006769	ENSMUSG00000062210
<i>Tonsl</i>	34.05	0.097991	ENSMUSG00000059323
<i>Topors</i>	14.18	0.00254	ENSMUSG00000036822
<i>Toporsos</i>	14.18	0.750736	ENSMUSG00000028407
<i>Trappc2l</i>	27.75	1.057909	ENSMUSG00000015013
<i>Trappc4</i>	8.88	0.052717	ENSMUSG00000032112
<i>Trip11</i>	14.76	0.010137	ENSMUSG00000021188

<i>Tspan13</i>	15.44	2.542421	ENSMUSG00000020577
<i>Tut1</i>	20.3	0.015445	ENSMUSG00000071645
<i>Txn2</i>	12.95	0.030736	ENSMUSG00000005354
<i>Ubb</i>	18.8	0.281243	ENSMUSG00000019505
<i>Ube2d3</i>	19.36	0.401097	ENSMUSG00000078578
<i>Ubl5</i>	12.68	0.070387	ENSMUSG00000084786
<i>Utp23</i>	5.09	0.209831	ENSMUSG00000022313
<i>VeZF1</i>	10.57	0.000312	ENSMUSG00000018377
<i>Vmn1r29</i>	5.79	0.004418	ENSMUSG00000091734
<i>Wdr77</i>	19.36	0.269183	ENSMUSG00000000561
<i>Whsc1l1</i>	9.72	0.073015	ENSMUSG00000054823
<i>Xrcc6</i>	9.43	0.003412	ENSMUSG00000022471
<i>Zbp1</i>	5.66	6.973636	ENSMUSG00000027514
<i>Zc3hav1</i>	7	0.01543	ENSMUSG00000029826
<i>Zcchc11</i>	7	0.080774	ENSMUSG00000034610
<i>Zfp58</i>	21.46	0.093811	ENSMUSG00000071291
<i>Zfp94</i>	11.75	0.039746	ENSMUSG00000074282

Effector memory (T_{EM}) STAT1 Chip-seq vs Affimetrix

Gene Name	ChIP-seq p-val	Affymetrix p-val	ENSEMBL
<i>1700016D06Rik</i>	7.57	0.136743	ENSMUSG00000031509
<i>AC156953.1</i>	7.57		ENSMUSG000000104690
<i>Ankrd16</i>	4.95	0.525976	ENSMUSG00000047909
<i>Cd209e</i>	8.48	0.123911	ENSMUSG00000040197
<i>Cdc27</i>	47.71	0.782657	ENSMUSG00000020687
<i>Cdh26</i>	12.85	0.049483	ENSMUSG00000039155
<i>Csgalnact2</i>	6.53	0.351106	ENSMUSG00000042042
<i>Dock7</i>	4.95	0.219263	ENSMUSG00000028556
<i>Foxp2</i>	7.57	0.068807	ENSMUSG00000029563

<i>Gm12603</i>	9.69	0.011047	ENSMUSG00000085183
<i>Gm14119</i>	7.57		ENSMUSG00000082911
<i>Gm18326</i>	10.04		ENSMUSG00000108002
<i>Gm23379</i>	4.5		ENSMUSG00000096848
<i>Gm24674</i>	4.95		ENSMUSG00000095780
<i>Gm25147</i>	4.5		ENSMUSG00000064964
<i>Gm25505</i>	6.62		ENSMUSG00000087845
<i>Gm25870</i>	5.73		ENSMUSG00000094609
<i>Gm28055</i>	4.5		ENSMUSG00000101741
<i>Gm43255</i>	5.73		ENSMUSG00000104568
<i>Gm43831</i>	14.39		ENSMUSG00000105653
<i>Gm43928</i>	9.69		ENSMUSG00000108018
<i>Gm43971</i>	6.62		ENSMUSG00000107773
<i>Gm44144</i>	8.23		ENSMUSG00000107884
<i>Gm44209</i>	10.93		ENSMUSG00000107809
<i>Gm5550</i>	12.85		ENSMUSG00000106419
<i>Ighv1-8</i>	12.85		ENSMUSG00000103667
<i>Kat6a</i>	27.99	0.167486	ENSMUSG00000031540
<i>Kmt2a</i>	6.62	1.86877	ENSMUSG00000002028
<i>Lce1l</i>	5.73	0.165796	ENSMUSG00000046676
<i>Mef2c</i>	16.22	0.039017	ENSMUSG00000005583
<i>Mllt4</i>	5.73	0.030805	ENSMUSG00000068036
<i>Myl4</i>	47.71	0.043308	ENSMUSG00000061086
<i>Nfat5</i>	6.64	0.084576	ENSMUSG00000003847
<i>Nrap</i>	4.22	0.115457	ENSMUSG00000049134
<i>Nrxn1</i>	4.5	0.039911	ENSMUSG00000024109
<i>Olfr1431</i>	9.69	0.209733	ENSMUSG00000094133
<i>Ppp1r42</i>	4.95	0.122659	ENSMUSG00000025916
<i>Prss46</i>	4.5	0.121836	ENSMUSG00000049719
<i>Rasal2</i>	9.69	0.110415	ENSMUSG00000070565

<i>Rn7s6</i>	7.57		ENSMUSG00000092746
<i>Rps15a-ps3</i>	5.73		ENSMUSG00000084314
<i>Sin3a</i>	4.5	0.04784	ENSMUSG00000042557
<i>Sorbs2</i>	6.62	0.128568	ENSMUSG00000031626
<i>Stat3</i>	7.41	5.747516	ENSMUSG00000004040
<i>Txnrd2</i>	5.18	0.075543	ENSMUSG00000075704
<i>Ybx3</i>	15.02	1.728917	ENSMUSG00000030189

Effector memory (T_{EM}) STAT3 Chip-seq vs Affimetrix

Gene Name	ChIP-seq p-val	Affymetrix p-val	ENSEMBL
<i>2310001H17Rik</i>	4.33	0.249233	ENSMUSG00000097354
<i>2310030A07Rik</i>	6.95	0.021133	ENSMUSG00000099447
<i>2310035C23Rik</i>	5.08	0.205254	ENSMUSG00000026319
<i>2310057N15Rik</i>	8	0.550917	ENSMUSG00000048830
<i>2900060B14Rik</i>	5.08	0.024663	ENSMUSG000000107722
<i>4930535I16Rik</i>	6.95	0.357104	ENSMUSG00000096969
<i>9930004E17Rik</i>	4.15		ENSMUSG00000096052
<i>Anks1b</i>	5.08	0.083975	ENSMUSG00000058589
<i>Arih1</i>	6.68	0.033877	ENSMUSG00000025234
<i>BC055308</i>	11.13		ENSMUSG000000103973
<i>Ccdc169</i>	4.33	0.467724	ENSMUSG00000048655
<i>Ccr6</i>	8	0.065383	ENSMUSG00000040899
<i>Cd274</i>	6.95	0.79357	ENSMUSG00000016496
<i>Cdc27</i>	21.16	0.782657	ENSMUSG00000020687
<i>Ceacam11</i>	10.2	0.021744	ENSMUSG00000030368
<i>Chmp4b</i>	8.41	2.743994	ENSMUSG00000038467
<i>Clasp1</i>	5.08	0.248911	ENSMUSG00000064302
<i>Cltc</i>	4.79	0.548543	ENSMUSG00000047126
<i>Cmtm6</i>	5.31	0.741924	ENSMUSG00000032434

<i>Cstf2t</i>	4.15	0.164071	ENSMUSG00000053536
<i>D830050J10Rik</i>	5.08		ENSMUSG000000107994
<i>Eef2kmt</i>	4.79	0.555198	ENSMUSG00000022544
<i>Eif1a</i>	5.87	0.744138	ENSMUSG00000057561
<i>Elmo2</i>	10.2	1.139456	ENSMUSG00000017670
<i>Etv6</i>	6.95	14.02858	ENSMUSG00000030199
<i>Fgf1</i>	6.95	0.02661	ENSMUSG00000036585
<i>Fsbp</i>	6.95	0.074639	ENSMUSG00000094595
<i>Galns</i>	10.25	0.584352	ENSMUSG00000015027
<i>Gm12145</i>	4.15	0.079762	ENSMUSG00000085951
<i>Gm12169</i>	4.33	0.016156	ENSMUSG00000078924
<i>Gm12856</i>	5.47	0.685544	ENSMUSG00000084133
<i>Gm15809</i>	5.08	0.559192	ENSMUSG00000090135
<i>Gm18326</i>	26.25		ENSMUSG000000108002
<i>Gm22068</i>	5.08		ENSMUSG00000096205
<i>Gm22710</i>	5.08		ENSMUSG00000080542
<i>Gm23886</i>	5.08		ENSMUSG00000084633
<i>Gm24512</i>	6.95		ENSMUSG00000092704
<i>Gm28271</i>	5.08		ENSMUSG00000099468
<i>Gm28872</i>	5.87		ENSMUSG00000099937
<i>Gm28982</i>	5.08		ENSMUSG000000101832
<i>Gm33050</i>	10.2		ENSMUSG000000106263
<i>Gm3307</i>	9.79		ENSMUSG00000093751
<i>Gm42866</i>	5.95		ENSMUSG000000105179
<i>Gm6634</i>	6.95	0.365465	ENSMUSG00000097252
<i>Gm8357</i>	8.23		ENSMUSG00000097883
<i>Gtf2a2</i>	11.21	0.382967	ENSMUSG00000033543
<i>Insc</i>	5.87	0.042538	ENSMUSG00000048782
<i>Jak3</i>	8.41	18.60812	ENSMUSG00000031805
<i>Kars</i>	12.52	0.04894	ENSMUSG00000031948

<i>Kri1</i>	6.68	1.72795	ENSMUSG00000035047
<i>March8</i>	11.13	0.007154	ENSMUSG00000025702
<i>Mettl21a</i>	5.08	0.032664	ENSMUSG00000025956
<i>Mir101a</i>	4.33	0.295675	ENSMUSG00000065451
<i>Mir6413</i>	5.87		ENSMUSG00000098887
<i>Mir6481</i>	5.08		ENSMUSG00000098918
<i>Mir7672</i>	4.15		ENSMUSG00000098751
<i>Murc</i>	4.79	0.011132	ENSMUSG00000028348
<i>Myl4</i>	21.16	0.043308	ENSMUSG00000061086
<i>Olf1502</i>	8	0.123911	ENSMUSG00000056858
<i>Olf497</i>	6.95	0.014726	ENSMUSG00000095239
<i>Pde12</i>	4.15	4.197534	ENSMUSG00000043702
<i>Plcb1</i>	5.08	0.004276	ENSMUSG00000051177
<i>Plekha4</i>	4.15	0.006753	ENSMUSG00000040428
<i>Plgrkt</i>	6.95	1.163779	ENSMUSG00000016495
<i>Poldip3</i>	4.33	0.041833	ENSMUSG00000041815
<i>Ppp1r15a</i>	4.15	2.310854	ENSMUSG00000040435
<i>Raf1</i>	5.08	0.346666	ENSMUSG00000000441
<i>Rnu11</i>	5.87	0.011218	ENSMUSG00000077323
<i>Rragc</i>	6.95	0.126735	ENSMUSG00000028646
<i>Scn3b</i>	4.33	0.059969	ENSMUSG00000049281
<i>Scp2</i>	6.68	0.057818	ENSMUSG00000028603
<i>Sla</i>	8	1.035363	ENSMUSG00000022372
<i>Slc17a6</i>	4.15	0.068697	ENSMUSG00000030500
<i>Stat3</i>	15.97	5.747516	ENSMUSG00000004040
<i>Tcf4</i>	9.08	0.138273	ENSMUSG00000053477
<i>Terf2ip</i>	12.52	0.017476	ENSMUSG00000033430
<i>Tex14</i>	5.08	0.417798	ENSMUSG00000010342
<i>Tmed7</i>	5.87	0.346305	ENSMUSG00000033184
<i>Tnc</i>	4.33	0.320623	ENSMUSG00000028364

<i>Tonsl</i>	12.62	0.075095	ENSMUSG00000059323
<i>Tpm3</i>	4.33	0.329342	ENSMUSG00000027940
<i>Trappc2l</i>	10.25	0.01195	ENSMUSG00000015013
<i>Ube2d2b</i>	8	0.008745	ENSMUSG00000063447
<i>Vmp1</i>	11.13	5.080109	ENSMUSG00000018171

Supplemental Table 2- Primers for ChIP-seq validation: ChIP-qPCR

	Forward	Probe	Reverse
<i>Irf1 Promotor</i>	CCTTCGCCGCTTAGCTCTAC	ACAGCCTGATTCC	CCCACTCGGCCTCATCATT
<i>Socs3 Promotor</i>	CTCCGCGCACAGCCTTT	TGCAGAGTAGTACTAAA	CCGGCCGGTCTTCTTGT
<i>Non binding site</i>	GCCTTGCGTGACTCTTGAC	ATCTATTAGAAACGCCACCTAA	ACATGACCAAACACCATTAGCA

Stat3, *IL27ra*, *Cd274*, *Il4ra* and *Junb* primers were designed using “Custom Plus Taqman Assay design tool”

Supplemental Table 3- Statistical evaluation of transcriptomics datasets: Common and distinct canonical pathways between naïve and effector memory CD4⁺ T cells after IL-6 stimulation

COMMON CANONICAL PATHWAYS	Naïve + IL-6	Effector memory + IL-6
	-log₁₀(p-value)	-log₁₀(p-value)
T Helper Cell Differentiation	7.5	8.32
IL-9 Signaling	6.04	6.6
Type I Diabetes Mellitus Signaling	3.96	5.57
JAK/Stat Signaling	4.11	4.64
STAT3 Pathway	6.23	4.61
Hepatic Fibrosis / Hepatic Stellate Cell Activation	3.1	3.73
IL-10 Signaling	1.53	3.69
iNOS Signaling	3.04	3.4
Autoimmune Thyroid Disease Signaling	1.91	3.22
IL-12 Signaling and Production in Macrophages	1.96	3.14
Role of JAK1 and JAK3 in γ c Cytokine Signaling	5.55	2.8
Cell Cycle: G1/S Checkpoint Regulation	2.44	2.78
Interferon Signaling	3.47	2.61
Role of JAK2 in Hormone-like Cytokine Signaling	2.31	2.58
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	2.02	2.58
Prolactin Signaling	2.23	2.57
NF- κ B Activation by Viruses	1.45	2.57
Acute Myeloid Leukemia Signaling	2.15	2.48
Glucocorticoid Receptor Signaling	3.38	2.19
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	2.86	2.16
Molecular Mechanisms of Cancer	2.47	2.06
GADD45 Signaling	1.83	2.01
ErbB2-ErbB3 Signaling	1.73	1.98

iCOS-iCOSL Signaling in T Helper Cells	1.66	1.97
Myc Mediated Apoptosis Signaling	1.71	1.96
Colorectal Cancer Metastasis Signaling	1.53	1.94
NF- κ B Signaling	2.78	1.91
Polyamine Regulation in Colon Cancer	1.71	1.89
ERK5 Signaling	1.62	1.86
Activation of IRF by Cytosolic Pattern Recognition Receptors	1.6	1.84
IL-17A Signaling in Airway Cells	1.6	1.84
Pyridoxal 5'-phosphate Salvage Pathway	1.6	1.84
CD40 Signaling	2.41	1.83
Role of JAK1, JAK2 and TYK2 in Interferon Signaling	1.64	1.81
Role of JAK family kinases in IL-6-type Cytokine Signaling	2.73	1.78
Growth Hormone Signaling	1.51	1.76
PDGF Signaling	2.15	1.63
Cyclins and Cell Cycle Regulation	1.38	1.62
Crosstalk between Dendritic Cells and Natural Killer Cells	1.94	1.47
3-phosphoinositide Biosynthesis	1.72	1.45
Death Receptor Signaling	4.46	1.43
Tec Kinase Signaling	1.69	1.43
p53 Signaling	2.55	1.37
B Cell Receptor Signaling	1.02	1.29
NGF Signaling	1.05	1.27
Sertoli Cell-Sertoli Cell Junction Signaling	1	1.27
PPAR α /RXR α Activation	1	1.27
G-Protein Coupled Receptor Signaling	0.96	1.27
Sphingosine-1-phosphate Signaling	0	1.25
Clathrin-mediated Endocytosis Signaling	0	1.22
Hematopoiesis from Pluripotent Stem Cells	0	1.21
CD27 Signaling in Lymphocytes	1.03	1.19
Xenobiotic Metabolism Signaling	0.56	1.19

IL-2 Signaling	1.02	1.18
Calcium Transport I	1.07	1.16
HMGB1 Signaling	0	1.15
Leukocyte Extravasation Signaling	0.51	1.14
Nur77 Signaling in T Lymphocytes	0.37	1.12
Regulation of Cellular Mechanics by Calpain Protease	0.37	1.12
ATM Signaling	0.94	1.1
Calcium-induced T Lymphocyte Apoptosis	0	1.04
Mineralocorticoid Biosynthesis	0	1.04
Non-Small Cell Lung Cancer Signaling	0	1.03
Role of PI3K/AKT Signaling in the Pathogenesis of Influenza	0.49	1.02
Angiopoietin Signaling	0	1.02
Choline Biosynthesis III	0.92	1.01
Glucocorticoid Biosynthesis	0	1.01
Erythropoietin Signaling	0.31	1
Macropinocytosis Signaling	0.31	0.99
Remodeling of Epithelial Adherens Junctions	0	0.99
DNA Double-Strand Break Repair by Homologous Recombination	0	0.98
DNA Double-Strand Break Repair by Non-Homologous End Joining	0	0.98
Gaq Signaling	0	0.95
LPS-stimulated MAPK Signaling	0.29	0.94
Oxidative Ethanol Degradation III	0	0.92
Role of BRCA1 in DNA Damage Response	0.75	0.9
Reelin Signaling in Neurons	0.27	0.89
Regulation of IL-2 Expression in Activated and Anergic T Lymphocytes	0	0.89
Role of Wnt/GSK-3 β Signaling in the Pathogenesis of Influenza	0	0.89
Differential Regulation of Cytokine Production in Macrophages and T Helper Cells	0	0.88
Hepatic Cholestasis	1.12	0.86
DNA damage-induced 14-3-3 σ Signaling	0	0.85

Ethanol Degradation IV	0	0.85
Protein Ubiquitination Pathway	0	0.84
TR/RXR Activation	0.25	0.84
FAK Signaling	0.24	0.82
OX40 Signaling Pathway	0.66	0.8
Communication between Innate and Adaptive Immune Cells	0.65	0.79
Factors Promoting Cardiogenesis in Vertebrates	0.22	0.78
Granulocyte Adhesion and Diapedesis	1.01	0.78
Fcγ Receptor-mediated Phagocytosis in Macrophages and Monocytes	0.22	0.77
PPAR Signaling	0.22	0.77
Regulation of the Epithelial-Mesenchymal Transition Pathway	0.27	0.75
Role of Lipids/Lipid Rafts in the Pathogenesis of Influenza	0	0.74
Antioxidant Action of Vitamin C	0.21	0.74
CDK5 Signaling	0.2	0.73
Cell Cycle Control of Chromosomal Replication	0.63	0.71
HIF1a Signaling	0.48	0.71
TNFR2 Signaling	0	0.69
Role of p14/p19ARF in Tumor Suppression	0	0.67
Gas Signaling	0	0.67
Role of Tissue Factor in Cancer	0	0.66
4-1BB Signaling in T Lymphocytes	0.58	0.66
Role of NANOG in Mammalian Embryonic Stem Cell Pluripotency	0.53	0.66
Ethanol Degradation II	0	0.64
Ga12/13 Signaling	0.5	0.63
TWEAK Signaling	0	0.63
IL-17A Signaling in Fibroblasts	0.53	0.61
Stearate Biosynthesis I (Animals)	0.53	0.61
P2Y Purigenic Receptor Signaling Pathway	0.49	0.61
Actin Cytoskeleton Signaling	0.44	0.61
LXR/RXR Activation	0	0.6

LPS/IL-1 Mediated Inhibition of RXR Function	0.77	0.6
Complement System	0	0.59
Cardiac Hypertrophy Signaling	0.42	0.59
April Mediated Signaling	0	0.58
Docosahexaenoic Acid (DHA) Signaling	0.49	0.57
PI3K Signaling in B Lymphocytes	0	0.57
B Cell Activating Factor Signaling	0	0.56
Neuroprotective Role of THOP1 in Alzheimer's Disease	0	0.56
Ovarian Cancer Signaling	0	0.56
FcγRIIB Signaling in B Lymphocytes	0	0.56
Mechanisms of Viral Exit from Host Cells	0	0.56
Signaling by Rho Family GTPases	0	0.55
Melanoma Signaling	0.47	0.55
Human Embryonic Stem Cell Pluripotency	0	0.54
Role of Hypercytokinemia/hyperchemokineemia in the Pathogenesis of Influenza	0	0.52
Role of RIG1-like Receptors in Antiviral Innate Immunity	0	0.52
Chondroitin Sulfate Biosynthesis (Late Stages)	1.12	0.51
Ephrin A Signaling	0	0.5
TNFR1 Signaling	0	0.49
Heparan Sulfate Biosynthesis (Late Stages)	1.06	0.48
CNTF Signaling	1.03	0.47
Aldosterone Signaling in Epithelial Cells	0.35	0.47
UVB-Induced MAPK Signaling	0	0.46
Gap Junction Signaling	0	0.46
Role of IL-17A in Arthritis	0.38	0.46
Role of CHK Proteins in Cell Cycle Checkpoint Control	0.38	0.45
EGF Signaling	0.98	0.44
Protein Kinase A Signaling	0.74	0.44
Glioma Invasiveness Signaling	0	0.44
Phospholipases	0.36	0.43

ErbB4 Signaling	0	0.42
Cdc42 Signaling	0.31	0.42
Tight Junction Signaling	0	0.42
Estrogen-Dependent Breast Cancer Signaling	0	0.41
Antiproliferative Role of Somatostatin Receptor 2	0.33	0.4
RhoGDI Signaling	0	0.4
Hypoxia Signaling in the Cardiovascular System	0	0.39
Calcium Signaling	0.59	0.38
GABA Receptor Signaling	0.31	0.38
Neurotrophin/TRK Signaling	0.31	0.38
Role of NFAT in Cardiac Hypertrophy	0.59	0.38
GDNF Family Ligand-Receptor Interactions	0	0.38
Role of MAPK Signaling in the Pathogenesis of Influenza	0.83	0.37
CCR5 Signaling in Macrophages	0.31	0.37
IL-3 Signaling	0.81	0.36
GPCR-Mediated Integration of Enteroendocrine Signaling Exemplified by an L Cell	0.3	0.36
IL-17 Signaling	0.29	0.36
Basal Cell Carcinoma Signaling	0	0.36
mTOR Signaling	0	0.36
FLT3 Signaling in Hematopoietic Progenitor Cells	0.78	0.35
Breast Cancer Regulation by Stathmin1	0.54	0.35
VEGF Family Ligand-Receptor Interactions	0	0.34
Ceramide Signaling	0.26	0.33
Melanocyte Development and Pigmentation Signaling	0.7	0.31
FGF Signaling	0.69	0.31
ErbB Signaling	0	0.3
HIPPO signaling	0	0.3
Bladder Cancer Signaling	0.68	0.3
CTLA4 Signaling in Cytotoxic T Lymphocytes	0.67	0.3
Neuregulin Signaling	0.67	0.3

PAK Signaling	0.23	0.29
IL-1 Signaling	1.22	0.29
cAMP-mediated signaling	0.77	0.28
SAPK/JNK Signaling	0.63	0.28
Neuropathic Pain Signaling In Dorsal Horn Neurons	0	0.26
Nitric Oxide Signaling in the Cardiovascular System	0	0.26
Rac Signaling	0.56	0.25
fMLP Signaling in Neutrophils	0	0.24
Renin-Angiotensin Signaling	1.03	0.24
Fc Epsilon RI Signaling	0	0.24
Natural Killer Cell Signaling	0	0.23
phagosome formation	0.53	0.23
14-3-3-mediated Signaling	0	0.22
CCR3 Signaling in Eosinophils	0	0.22
p70S6K Signaling	0	0.21
Gai Signaling	0.48	0.21
RhoA Signaling	0	0.21
TGF β Signaling	1.26	0
Glycoaminoglycan-protein Linkage Region Biosynthesis	1.17	0
Ephrin Receptor Signaling	1.03	0
Unfolded protein response	1	0
Role of IL-17A in Psoriasis	0.92	0
GNRH Signaling	0.87	0
Chondroitin Sulfate Degradation (Metazoa)	0.86	0
γ -glutamyl Cycle	0.86	0
Leukotriene Biosynthesis	0.86	0
Cardiac β -adrenergic Signaling	0.84	0
Granzyme B Signaling	0.83	0
Relaxin Signaling	0.83	0
Mitochondrial L-carnitine Shuttle Pathway	0.81	0

Glutathione Redox Reactions I	0.77	0
Granzyme A Signaling	0.75	0
Endoplasmic Reticulum Stress Pathway	0.73	0
Triacylglycerol Degradation	0.68	0
IL-17A Signaling in Gastric Cells	0.66	0
Mitochondrial Dysfunction	0.62	0
RAR Activation	0.54	0
Androgen Signaling	0.53	0
Transcriptional Regulatory Network in Embryonic Stem Cells	0.49	0
Role of IL-17F in Allergic Inflammatory Airway Diseases	0.45	0
Serotonin Receptor Signaling	0.45	0
eNOS Signaling	0.39	0
Semaphorin Signaling in Neurons	0.39	0
Axonal Guidance Signaling	0.37	0
Actin Nucleation by ARP-WASP Complex	0.37	0
AMPK Signaling	0.37	0
CXCR4 Signaling	0.35	0
PCP pathway	0.33	0
Mitotic Roles of Polo-Like Kinase	0.32	0
PXR/RXR Activation	0.31	0
Chemokine Signaling	0.3	0
Ephrin B Signaling	0.29	0
Dopamine Receptor Signaling	0.27	0
GPCR-Mediated Nutrient Sensing in Enteroendocrine Cells	0.25	0
α -Adrenergic Signaling	0.24	0
Regulation of Actin-based Motility by Rho	0.23	0

DISTINC CANONICAL PATHWAYS	Naïve + IL-6	Effector memory + IL-6
	-log₁₀(p-value)	-log₁₀(p-value)
Pathway		
Pancreatic Adenocarcinoma Signaling	3.2	1.28
p38 MAPK Signaling	2.97	1.18
PI3K/AKT Signaling	2.86	1.13
Atherosclerosis Signaling	2.84	0.59
IL-22 Signaling	2.79	0.76
Tumoricidal Function of Hepatic Natural Killer Cells	2.79	0.76
Dermatan Sulfate Biosynthesis	2.62	0.44
Induction of Apoptosis by HIV1	2.54	1.09
GM-CSF Signaling	2.49	1.06
HGF Signaling	2.42	0.69
Cytotoxic T Lymphocyte-mediated Apoptosis of Target Cells	2.42	0.65
Oncostatin M Signaling	2.35	0.63
Toll-like Receptor Signaling	2.21	0.35
TREM1 Signaling	2.19	0.92
Gustation Pathway	2.16	0
D-myo-inositol (1,4,5,6)-Tetrakisphosphate Biosynthesis	2.06	1.09
D-myo-inositol (3,4,5,6)-tetrakisphosphate Biosynthesis	2.06	1.09
Dermatan Sulfate Biosynthesis (Late Stages)	2.03	0.53
IL-8 Signaling	2.01	0.75
Sorbitol Degradation I	2.01	0
UVA-Induced MAPK Signaling	1.95	0.3
Apoptosis Signaling	1.94	0.8
D-myo-inositol-5-phosphate Metabolism	1.85	0.97
Primary Immunodeficiency Signaling	1.84	1.19
3-phosphoinositide Degradation	1.84	0.97
Chondroitin Sulfate Biosynthesis	1.79	0.46

Telomerase Signaling	1.78	0.73
Thrombopoietin Signaling	1.77	1.15
Heparan Sulfate Biosynthesis	1.73	0.44
Anandamide Degradation	1.71	0
Estrogen-mediated S-phase Entry	1.64	0.76
Retinoic acid Mediated Apoptosis Signaling	1.6	0.4
IL-15 Signaling	1.56	1.02
IL-15 Production	1.54	0.71
PTEN Signaling	1.53	1.17
Glutathione Redox Reactions II	1.53	0
NRF2-mediated Oxidative Stress Response	1.48	0.77
Leptin Signaling in Obesity	1.44	0.93
ERK/MAPK Signaling	1.42	0.36
Agranulocyte Adhesion and Diapedesis	1.41	0.72
Superpathway of Inositol Phosphate Compounds	1.37	1.17
Prostate Cancer Signaling	1.33	0.86
Triacylglycerol Biosynthesis	1.33	0.61
tRNA Splicing	1.33	0
autophagy	1.31	0
Caveolar-mediated Endocytosis Signaling	0.81	4.68
Altered T Cell and B Cell Signaling in Rheumatoid Arthritis	1.25	4.15
IL-4 Signaling	0.76	3.46
PKCq Signaling in T Lymphocytes	0.49	3.45
Graft-versus-Host Disease Signaling	1.09	3.25
Dendritic Cell Maturation	1	3.24
Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	0.99	3.23
Allograft Rejection Signaling	1.28	3.22
Virus Entry via Endocytic Pathways	0.23	3.15
Paxillin Signaling	0.2	2.9
Agrin Interactions at Neuromuscular Junction	0.31	2.66

IL-6 Signaling	0.97	2.63
Small Cell Lung Cancer Signaling	0.81	2.61
B Cell Development	0	2.61
CD28 Signaling in T Helper Cells	0	2.6
Antigen Presentation Pathway	0	2.51
ILK Signaling	0	2.43
Aryl Hydrocarbon Receptor Signaling	0.8	2.28
Integrin Signaling	0	2.27
MSP-RON Signaling Pathway	0	2.24
nNOS Signaling in Skeletal Muscle Cells	0.86	2.21
Chronic Myeloid Leukemia Signaling	1.19	2.19
Mouse Embryonic Stem Cell Pluripotency	1.17	2.16
IGF-1 Signaling	1.15	2.13
Endometrial Cancer Signaling	0.4	2.09
Role of Osteoblasts, Osteoclasts and Chondrocytes in Rheumatoid Arthritis	0	2.09
Germ Cell-Sertoli Cell Junction Signaling	0.33	2.05
Lymphotoxin β Receptor Signaling	0	2.05
Role of Cytokines in Mediating Communication between Immune Cells	0	2
Acute Phase Response Signaling	1.07	1.95
Role of NFAT in Regulation of the Immune Response	0	1.93
Endothelin-1 Signaling	0.62	1.92
Type II Diabetes Mellitus Signaling	0.5	1.85
Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by	1.85	
Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	0.45	1.73
PEDF Signaling	0.81	1.72
Renal Cell Carcinoma Signaling	1.72	
Hereditary Breast Cancer Signaling	0.87	1.71
Insulin Receptor Signaling	0.42	1.66

HER-2 Signaling in Breast Cancer	0.76	1.65
VDR/RXR Activation	0.75	1.62
Glioblastoma Multiforme Signaling	0.38	1.54
Epithelial Adherens Junction Signaling	0	1.54
Systemic Lupus Erythematosus Signaling	0	1.51
Heme Degradation	0	1.5
RANK Signaling in Osteoclasts	0.67	1.48
Huntington's Disease Signaling	0	1.44
VEGF Signaling	0.22	1.43
Salvage Pathways of Pyrimidine Ribonucleotides	1.19	1.42
Acetate Conversion to Acetyl-CoA	0	1.41
Glioma Signaling	0.62	1.4
Thyroid Cancer Signaling	0.49	1.4
Role of PKR in Interferon Induction and Antiviral Response	0	1.4
T Cell Receptor Signaling	0	1.38
Amyotrophic Lateral Sclerosis Signaling	0.6	1.37
Wnt/ β -catenin Signaling	0.3	1.34

Supplemental Table 4- Statistical comparison of ChIP-seq datasets: associations between Stat1 and/or STAT3 binding to p300 regions and expression data

	p-value		effect size		power of test	
	Test 1	Test 2	Test 1 D-stat	Test 2 Cohen's U_3	Test 1	Test 2
Naïve Set-A vs Naïve Set-B	0.0021	0.0013	0.1868	0.6405 CI95: 0.56-0.75	88%	95%
Effector memory Set-A vs Effector memory Set-B	0.0128	0.0051	0.1605	0.6177 CI95: 0.54-0.71	80%	84%

Statistical associations between Stat1 and/or STAT3 binding to p300 regions in effector memory (T_{EM}) was determined. For this, the 8 distinct patterns identified in Fig 7B were separated into two sets: Set-A (groups 4 to 8) contained genes where Stat1 and/or Stat3 positively bind p300 regions. Set-B (groups 1 to 3) comprised genes where Stat1 and/or Stat3 binding is lost (see Supplemental Figure 4). Mapping of the transcriptomic data (log₂-fold) identified 135 genes in Set-A and 422 genes in Set-B. *Statistical hypotheses testing* revealed that the genes in Set-A and Set-B for naïve (T_N) and T_{EM} populations were not similarly distributed. Statistical significance was determined through two non-parametric tests: Test 1 (*Two-sample Kolmogorov-Smirnov*) and Test 2 (*Wilcoxon rank sum test*). The results of statistical tests were complemented by *effect size measures* and *power of tests* (Table 1). The effect size measure for Test 1 was the test statistic (as defined in Peacock *et al.* 1983 Monthly Notices Royal Astronomy Society 202:615) with $D_{crit}=0.1344$ and for Test 2 the effect size was Cohen's U_3 using the "Measures of Effect Size Toolbox" (as outlined in Hentschke *et al.* 2011 Eur. J. Neurosc. 34:1887). The power of the test was quantified using bootstrap resampling and p-values are deemed significant if $p<0.05$.

The within-group comparison of Set-A between T_N (1.0811 ± 0.4558) and T_{EM} (1.0313 ± 0.1891) indicates that the data are similarly distributed (Test 1 and Test 2). This is also true for Set-B genes (T_N 1.2721 ± 0.8854 ; T_{EM} 1.1385 ± 0.3747). Interestingly, the Pearson correlation coefficient for the Set-A is weak ($r=0.33$), while a strong positive correlation ($r=0.8$) is seen for Set-B. The coefficient of variation (CV), which measures the spread of variability relative to the mean for Set-A and Set-B shows significant differences. CV for Set-B in T_N is 2.3719 compared to 5.4537 for T_{EM} . CV for Set-A in T_N is 1.4368 compared to 3.0384 for T_{EM} .

References:

- [1] J. A. Peacock, Two-dimensional goodness-of-fit testing in astronomy, Monthly Notices Royal Astronomy Society 202, 615-627, 1983.
- [2] H. Hentschke, M. C. Stüttgen, Computation of measures of effect size for neuroscience data sets, Eur. J. Neurosc. 34, 1887-1894, 2011.

Supplemental Table 5- Differentially regulated genes by IL-6: Heat map list of the genes regulated by IL-6. Statistical significance in Z-score (Fold-Change)

Gene	Naïve	Naïve + IL-6	T _{EM}	T _{EM} + IL-6
<i>Abhd17c</i>	-0.89	-0.79	0.55	1.13
<i>Ablim1</i>	-0.03	0.72	0.72	-1.40
<i>Acot7</i>	-0.95	-0.72	0.52	1.15
<i>Acvr1b</i>	0.11	0.66	0.67	-1.45
<i>Adam19</i>	-0.92	-0.43	-0.06	1.40
<i>Ahr</i>	-0.74	-0.75	0.12	1.37
<i>Als2cl</i>	0.77	0.43	0.27	-1.47
<i>Amz2</i>	-0.67	-0.97	0.44	1.20
<i>Arhgef10</i>	-1.01	-0.31	-0.04	1.37
<i>Atp2b4</i>	-0.93	-0.60	0.20	1.32
<i>Atxn1</i>	-0.75	-0.95	0.63	1.07
<i>Atxn7l1</i>	-0.85	-0.79	0.43	1.21
<i>Bach2</i>	-0.51	0.34	1.23	-1.05
<i>Batf</i>	-1.20	0.17	-0.20	1.22
<i>Bbs12</i>	-0.11	0.50	-1.35	0.96
<i>Bcl2l1</i>	-0.50	-0.45	-0.55	1.50
<i>Bcl3</i>	-0.81	0.54	1.14	-0.87
<i>Bcl6</i>	-1.39	0.34	0.08	0.97
<i>Camk2d</i>	-0.54	-0.40	-0.56	1.50
<i>Ccr2</i>	-0.92	-0.73	0.47	1.18
<i>Cd200</i>	-1.40	0.36	0.09	0.95
<i>Cd274</i>	-0.53	-0.55	-0.42	1.50
<i>Cd52</i>	0.69	0.92	-0.37	-1.24
<i>Cd69</i>	-0.50	-0.65	-0.33	1.49
<i>Cdk6</i>	-0.82	-0.73	0.22	1.32
<i>Ceacam16</i>	-0.68	-0.80	0.10	1.37
<i>Ceacam19</i>	-0.81	0.87	-0.92	0.86
<i>Cetn4</i>	-1.37	0.96	-0.05	0.45
<i>Cish</i>	-0.91	-0.63	0.24	1.31
<i>Clec16a</i>	-0.53	0.05	1.38	-0.90
<i>Cmtm6</i>	0.14	0.87	0.42	-1.43
<i>Cmtm7</i>	1.45	-0.11	-0.59	-0.74
<i>Cmtm8</i>	-0.72	1.27	-0.87	0.33
<i>Csrnp1</i>	-1.02	-0.43	0.13	1.32
<i>Ctla4</i>	-0.85	-0.80	0.45	1.20
<i>Cxcr5</i>	-0.79	-0.62	0.01	1.41
<i>Cytip</i>	-0.02	0.63	0.80	-1.40
<i>Dad1</i>	-0.52	-0.08	-0.83	1.43
<i>Dpm3</i>	1.21	0.21	-1.20	-0.22

<i>Dst</i>	-0.96	-0.65	0.39	1.22
<i>Dusp10</i>	1.00	0.16	0.23	-1.39
<i>Dusp5</i>	-0.95	-0.74	0.60	1.09
<i>Efna1</i>	-0.03	-0.43	-0.93	1.39
<i>Efna3</i>	-0.68	-0.79	0.10	1.38
<i>Egln3</i>	-0.79	-0.76	0.22	1.32
<i>Egr2</i>	-0.65	-0.86	0.18	1.34
<i>Ell</i>	-0.86	-0.54	1.41	-0.01
<i>Esm1</i>	-0.68	-0.65	-0.12	1.45
<i>Etv6</i>	-1.16	-0.04	-0.08	1.28
<i>Fam107b</i>	-0.16	-1.17	0.07	1.26
<i>Fam189b</i>	0.14	0.61	0.70	-1.45
<i>Fam20a</i>	-0.77	-0.07	-0.59	1.43
<i>Fasl</i>	-0.77	-0.93	0.62	1.08
<i>Fgf2</i>	-0.07	1.44	-0.72	-0.64
<i>Fgf2os</i>	-0.56	-0.19	1.46	-0.71
<i>Fkbp8</i>	-0.41	0.63	0.99	-1.21
<i>Fnbp1</i>	-0.25	-0.65	-0.58	1.48
<i>Fosl2</i>	-0.90	-0.82	0.69	1.02
<i>Frmd4b</i>	-0.44	-0.74	-0.29	1.47
<i>Gabarapl1</i>	-0.74	-0.90	0.43	1.21
<i>Gba</i>	-1.34	-0.04	0.33	1.04
<i>Gdf15</i>	-0.75	1.37	-0.75	0.13
<i>Gimap1</i>	0.21	0.30	0.92	-1.42
<i>Gimap4</i>	0.43	0.48	0.59	-1.50
<i>Gimap5</i>	-1.24	-0.33	0.54	1.03
<i>Gimap6</i>	0.25	0.43	0.79	-1.46
<i>Gimap7</i>	0.06	0.25	1.05	-1.36
<i>Gimap8</i>	0.34	0.49	0.66	-1.49
<i>Gimap9</i>	0.23	0.52	0.71	-1.47
<i>Gna13</i>	-0.83	-0.75	0.29	1.29
<i>Gpm6b</i>	-0.83	-0.86	0.56	1.12
<i>Gpr107</i>	-0.32	0.79	-1.28	0.80
<i>Gpr65</i>	-0.76	-0.89	0.45	1.20
<i>Grasp</i>	-0.50	-0.53	-0.47	1.50
<i>Grb2</i>	-0.87	-0.74	0.36	1.25
<i>Grb7</i>	1.50	-0.48	-0.50	-0.52
<i>Gzmk</i>	-0.84	-0.84	0.54	1.14
<i>Hdac7</i>	-0.62	-0.21	-0.64	1.47
<i>Hemk1</i>	1.27	0.33	-0.72	-0.87
<i>Hif1a</i>	-0.94	-0.61	0.26	1.29
<i>Hipk2</i>	-1.14	-0.17	0.02	1.29
<i>Hook2</i>	-1.14	0.23	1.24	-0.33

<i>Ifng</i>	-0.83	-0.81	0.42	1.22
<i>Ikzf1</i>	-0.84	-0.14	-0.45	1.44
<i>Ikzf3</i>	0.99	-1.20	-0.42	0.64
<i>Il10</i>	-0.74	-0.77	0.14	1.36
<i>Il17a</i>	0.67	0.87	-0.23	-1.32
<i>Il17ra</i>	-0.34	0.70	0.90	-1.26
<i>Il1r1</i>	-0.75	-0.47	-0.25	1.47
<i>Il21</i>	-0.77	-0.09	-0.58	1.44
<i>Il21r</i>	-1.26	-0.27	0.49	1.04
<i>Il2ra</i>	-0.97	-0.72	0.58	1.11
<i>Il2rb</i>	-0.87	-0.85	0.68	1.03
<i>Il4</i>	-0.88	-0.83	0.69	1.02
<i>Il4ra</i>	-1.39	0.74	-0.07	0.72
<i>Irf4</i>	-1.01	-0.50	0.21	1.30
<i>Irf8</i>	-0.93	-0.63	0.26	1.30
<i>Isyna1</i>	-0.47	-0.54	-0.49	1.50
<i>Itpk1</i>	-0.94	-0.55	0.15	1.34
<i>Jak2</i>	-0.92	-0.77	0.60	1.10
<i>Junb</i>	-1.28	-0.04	0.18	1.15
<i>Kdm5a</i>	0.26	0.53	0.69	-1.48
<i>Kdm6b</i>	-0.84	-0.85	0.57	1.12
<i>Khdrbs1</i>	-0.80	-0.64	0.05	1.39
<i>Krtcap2</i>	-0.36	0.80	-1.25	0.81
<i>Ksr1</i>	-0.84	-0.72	0.25	1.31
<i>Kxd1</i>	0.28	0.43	0.76	-1.47
<i>Lamc1</i>	-0.78	-0.83	0.35	1.26
<i>Leo1</i>	-0.89	0.14	-0.60	1.35
<i>Lif</i>	-0.29	-1.01	-0.07	1.37
<i>Lmna</i>	-1.20	0.50	1.08	-0.38
<i>Lmnb1</i>	-0.96	-0.57	0.22	1.31
<i>Lpp</i>	-1.29	0.52	-0.24	1.01
<i>Lrig1</i>	-0.76	-0.84	0.33	1.27
<i>Lrrc25</i>	0.36	0.80	-1.46	0.30
<i>Lrrc75a</i>	0.15	-0.80	1.35	-0.71
<i>Ly6a</i>	-1.36	0.79	-0.14	0.71
<i>Malt1</i>	-1.04	-0.09	-0.24	1.36
<i>Mapk6</i>	-0.89	-0.70	0.32	1.27
<i>Mapkapk2</i>	-1.00	-0.42	0.08	1.34
<i>Mapkapk3</i>	-0.68	-0.98	0.52	1.14
<i>Mdfic</i>	-0.84	-0.82	0.49	1.18
<i>Med29</i>	-0.50	-0.40	-0.60	1.50
<i>Mfsd2a</i>	-0.69	-0.20	-0.58	1.47
<i>Mien1</i>	0.47	0.40	-1.49	0.62

<i>Mif4gd</i>	-0.83	-0.65	0.11	1.37
<i>Mir92b</i>	-0.89	-0.56	1.37	0.08
<i>Mpzl2</i>	-0.83	-0.50	-0.10	1.43
<i>Mt2</i>	-0.57	-0.87	0.06	1.38
<i>Mtx1</i>	-0.75	-0.31	-0.42	1.47
<i>Muc1</i>	-0.81	0.39	1.23	-0.82
<i>Myo3b</i>	-0.81	-0.75	0.25	1.31
<i>Neu3</i>	0.03	-0.41	1.36	-0.99
<i>Nfil3</i>	-0.81	-0.76	0.27	1.30
<i>Nmrk1</i>	-0.79	-0.87	0.48	1.18
<i>Notch1</i>	-1.44	0.40	0.17	0.87
<i>Nr4a1</i>	-0.76	-0.91	0.54	1.14
<i>Paf1</i>	-1.16	0.55	1.07	-0.46
<i>Pdcd1lg2</i>	-0.52	-0.37	-0.60	1.49
<i>Pgs1</i>	-1.24	0.04	-0.02	1.21
<i>Pim1</i>	-1.29	-0.21	0.44	1.06
<i>Platr22</i>	-0.84	-0.17	1.44	-0.43
<i>Plekhg2</i>	-0.11	0.04	1.26	-1.19
<i>Plgrkt</i>	-0.33	-0.94	-0.14	1.41
<i>Pmepa1</i>	-1.37	0.32	0.03	1.01
<i>Pnpo</i>	-1.36	0.66	-0.14	0.84
<i>Prdx2</i>	0.08	1.32	-1.07	-0.33
<i>Prkar1a</i>	-0.92	-0.52	0.06	1.37
<i>Prss16</i>	-0.52	-0.71	1.47	-0.24
<i>Prss41</i>	0.42	-0.45	-1.13	1.16
<i>Prss45</i>	-1.49	0.68	0.46	0.35
<i>Prss50</i>	1.02	-1.30	-0.19	0.47
<i>Ptpn1</i>	-0.67	-0.18	-0.62	1.46
<i>Rbpj</i>	-0.69	-0.69	-0.04	1.43
<i>Rgs1</i>	-0.85	-0.86	0.64	1.06
<i>Rnaseh2a</i>	0.09	0.27	1.01	-1.38
<i>Rnf149</i>	-0.97	0.06	-0.46	1.36
<i>Rnf157</i>	-0.91	-0.81	0.71	1.01
<i>Rnf43</i>	-0.82	-0.87	0.59	1.10
<i>S100a6</i>	-0.86	-0.81	0.51	1.16
<i>Scamp3</i>	-1.39	0.22	0.18	0.99
<i>Sema4a</i>	-0.68	0.32	1.27	-0.90
<i>Sh3bgrl3</i>	0.89	0.67	-0.25	-1.30
<i>Sla</i>	-0.74	-0.97	0.67	1.03
<i>Slamf1</i>	-0.98	-0.65	0.44	1.19
<i>Slc24a3</i>	-0.69	-0.71	-0.02	1.42
<i>Slc25a19</i>	-0.65	-0.62	-0.19	1.47
<i>Slc50a1</i>	0.66	0.59	0.23	-1.47

<i>Smad3</i>	0.34	-0.86	-0.74	1.26
<i>Smndc1</i>	-0.95	-0.66	0.39	1.23
<i>Snord49a</i>	-0.18	-0.75	-0.53	1.46
<i>Snord49b</i>	1.46	-0.21	-0.51	-0.75
<i>Snord65</i>	-0.25	-0.41	-0.80	1.46
<i>Socs1</i>	-1.05	-0.11	-0.20	1.36
<i>Socs3</i>	-0.83	0.83	0.90	-0.90
<i>Sox5</i>	0.52	-1.15	1.09	-0.46
<i>Spcs2</i>	-1.28	0.36	-0.18	1.10
<i>Spty2d1</i>	-0.89	-0.74	0.39	1.23
<i>Ssbp4</i>	-1.39	0.04	0.41	0.95
<i>Stat3</i>	-1.32	0.02	0.20	1.10
<i>Stk10</i>	1.09	0.13	0.12	-1.34
<i>Stk17b</i>	-0.75	-0.39	-0.33	1.47
<i>Stx11</i>	-0.93	-0.76	0.60	1.09
<i>Tg</i>	-0.89	0.88	-0.84	0.85
<i>Tgfb3</i>	-0.77	-0.79	0.25	1.31
<i>Thbs3</i>	-0.63	1.24	-0.97	0.36
<i>Tmem65</i>	-0.65	-0.81	0.07	1.39
<i>Tmie</i>	0.78	-0.12	0.72	-1.37
<i>Tnf</i>	-0.67	-0.99	0.51	1.15
<i>Tnfaip8</i>	-0.81	-0.84	0.45	1.20
<i>Tnfrsf9</i>	-0.83	-0.85	0.56	1.13
<i>Tnfsf8</i>	-1.19	-0.39	0.49	1.09
<i>Tnip3</i>	-0.75	-0.69	0.04	1.40
<i>Top2a</i>	-0.93	-0.62	0.27	1.29
<i>Trem12</i>	-0.53	0.95	0.72	-1.14
<i>Trem14</i>	1.00	0.36	-1.37	0.01
<i>Trerf1</i>	-0.61	-0.99	0.36	1.24
<i>Trim46</i>	-0.39	0.18	1.29	-1.07
<i>Trpv2</i>	1.31	0.10	-0.31	-1.09
<i>Tspan14</i>	0.80	0.45	0.20	-1.45
<i>Tspan2</i>	0.84	-0.70	-1.02	0.88
<i>Tspan2os</i>	-0.85	0.15	1.35	-0.65
<i>Tspan5</i>	-0.83	-0.05	-0.55	1.42
<i>Ttc39b</i>	-1.23	-0.08	0.11	1.21
<i>Twf1</i>	-1.41	0.07	0.42	0.91
<i>Uba52</i>	0.69	0.70	0.04	-1.43
<i>Ubal2</i>	-1.01	-0.54	0.27	1.27
<i>Ubb</i>	-0.45	0.76	0.88	-1.20
<i>Ubc</i>	-0.37	-0.64	-0.48	1.49
<i>Ubxn11</i>	-0.51	0.20	-1.00	1.31
<i>Uvrag</i>	-0.25	1.33	0.01	-1.09

<i>Vmp1</i>	-1.28	0.08	0.05	1.16
<i>Vps54</i>	-0.81	-0.64	0.06	1.39
<i>Xrra1</i>	-0.44	0.89	-1.20	0.75
<i>Zfp36</i>	-1.14	0.96	0.71	-0.53

Supplemental Table 6- Molecular pathways comparison of the distinct pattern datasets: Heat map list of the canonical pathways from Ingenuity Pathways analysis. Statistical significance in $-\text{Log}(p\text{-value})$ as obtained through a Comparative Core-Analysis

Canonical Pathway	Pattern	Pattern	Pattern	Pattern	Pattern
	1	2	3	4	5
Neuroprotective Role of THOP1 in Alzheimer's Disease	6.73	0	0	0	0
Huntington's Disease Signaling	0	0	1.47	0	0
Apoptosis Signaling	0	0	2.26	0	0
Myo-inositol Biosynthesis	0	0	0	2.46	0
Actin Nucleation by ARP-WASP Complex	0	0	0	1.37	0
Semaphorin Signaling in Neurons	0	0	0	1.44	0
Autoimmune Thyroid Disease Signaling	0	0	0	1.48	0
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	0	1.45	0	0	1.04
Osteoarthritis Pathway	0	0.74	0	0	1.36
Regulation of the Epithelial-Mesenchymal Transition Pathway	0	0.78	0	0	1.42
PPAR α /RXR α Activation	0	0.79	0	0	1.46
TGF- β Signaling	0	0	0	0	2.02
Ephrin A Signaling	0	0	0	0	2.39
Hepatic Fibrosis / Hepatic Stellate Cell Activation	0	0	0	0	1.45
Ephrin Receptor Signaling	0	0	0	0	1.49
IL-17A Signaling in Gastric Cells	0	0	0	0	1.41
Antiproliferative Role of TOB in T Cell Signaling	0	0	0	0	1.39
Role of IL-17A in Psoriasis	0	0	0	0	1.69
Human Embryonic Stem Cell Pluripotency	0	0	0	0	1.67
Dolichyl-diphosphooligosaccharide Biosynthesis	0	0	0	0	1.76
Adipogenesis pathway	0	0	0	0	1.72

Th1 and Th2 Activation Pathway	0	4.64	0	0.91	1.46
Th1 Pathway	0	3.60	0	1.04	0.71
Th2 Pathway	0	3.46	0	0	1.6
STAT3 Pathway	0	3.94	0	0	1.9
IL-9 Signaling	0	5.03	0	0	0
JAK/Stat Signaling	0	4.13	1.00	0	0
Role of JAK2 in Hormone-like Cytokine Signaling	0	3.34	0	0	0
Role of JAK family kinases in IL-6-type Cytokine Signaling	0	3.61	0	0	0
Role of JAK1 and JAK3 in γ c Cytokine Signaling	0	2.64	0	0	0.94
Notch Signaling	0	1.46	0	0	0
Interferon Signaling	0	1.48	0	0	0
Phosphatidylglycerol Biosynthesis II (Non-plastidic)	0	1.62	0	0	0
Role of JAK1, JAK2 and TYK2 in Interferon Signaling	0	1.65	0	0	0
IL-22 Signaling	0	1.65	0	0	0
Cardiolipin Biosynthesis II	0	2.73	0	0	0
Growth Hormone Signaling	0	2.55	0	0	0
Prolactin Signaling	0	2.51	0	0	0
Erythropoietin Signaling	0	2.53	0	0	0
Type II Diabetes Mellitus Signaling	0	2.05	0	0	0
Acute Phase Response Signaling	0	1.94	0	0	0
IL-6 Signaling	0	2.17	0	0	0
Type I Diabetes Mellitus Signaling	0	2.33	0	0	0
IGF-1 Signaling	0	2.32	0	0	0