

Lu et al., <http://www.jem.org/cgi/content/full/jem.20140338/DC1>

Table S1. Differentially expressed gene list

Gene	PU.1 Peak <sup>a</sup>	Overlapping <sup>b</sup>	Target <sup>c</sup>	PU.1-WT Ratio <sup>d</sup>	155-WT Ratio <sup>e</sup>
Abca5				1.546	2.796
Acpl2				1.074	3.090
Adc				0.966	2.488
Adcy6			6(2)	1.000	6.870
Adm				1.556	3.470
Adora3 <sup>f</sup>	Yes	Yes		1.599	15.462
Agrn				1.461	2.525
Aicda			8(1) C	1.134	2.268
Aire				1.141	5.923
Ak4			7(1) 6(2) C	1.930	0.162
Alcam <sup>f</sup>	Yes	Yes		1.216	2.293
Aldh1l2				1.802	10.169
Aldoc				1.509	0.591
Angptl6				1.399	5.021
Ankrd33b			8(1) 7(2) 6(2) 6(2) C	1.281	3.202
Ankrd37				2.006	0.305
Anpep				3.076	38.524
Anxa2				3.463	3.238
Aqp9	Yes	Yes		7.147	95.943
Arg2			7(2)	1.946	31.271
Arhgap18	Yes	Yes	8(1)	1.339	3.739
Arhgap8				2.071	1.593
Arid5a	Yes	Yes	7(2)	1.597	1.361
Arl4c	Yes	Yes		1.644	3.912
Asns				1.625	3.378
Ass1	Yes	No	8(1)	0.975	2.288
Atf5				1.401	4.059
Atp11a			7(2)	1.198	2.820
Atp2b4				1.394	3.872
Axl			7(2)	2.343	2.754
Bach1			8(1) 7(2) C	0.823	2.298
Basp1				2.514	3.138
BC016495				1.119	2.942
Bcl2a1a				14.815	25.761
Bcl2a1b				1.993	2.395
Bcl2a1d				1.846	2.147
Bend4			8(1) 6(2)	1.202	4.191
Bmp1				1.465	2.760
Bnip3				1.628	0.547
Bnip3l				1.348	0.576
Bzrap1				1.068	5.900
Cabp4	Yes	Yes		2.618	0.945
Car2	Yes	Yes		3.217	4.610
Card11 <sup>f</sup>	Yes	Yes	7(1) C	1.598	2.840
Ccl22				5.022	8.634
Ccl5				2.762	6.408
Ccnd2				1.629	2.100
Ccr4				1.279	2.719
Ccr7 <sup>f</sup>	Yes	Yes		1.829	3.274
Ccr12				2.138	1.953
Cd300lf <sup>f</sup>	Yes	Yes		3.323	7.618
Cd36	Yes	Yes		1.860	1.148
Cd63				1.615	10.494
Cd80 <sup>f</sup>	Yes	No		2.258	3.492
Cd96			7(2)	0.368	0.601
Cdkn1a				1.388	2.688
Cdkn2a				2.763	5.053

Cflar				1.594	1.634
Cfp	Yes	Yes		2.521	2.184
Chac1				1.425	3.083
Chd3				1.065	2.242
Cldn13				1.328	4.119
Cmpk2				1.432	0.374
Cox6a2				2.541	11.136
Crhbp	Yes	Yes		2.416	6.830
Csf1			6(2)	0.926	0.375
Csf2rb				1.729	2.647
Csf2rb2	Yes	Yes		3.235	4.883
Csf3r				2.152	12.710
Cst7				0.857	2.976
Cth				1.702	5.699
Cxcr4 <sup>1</sup>	Yes	Yes		1.438	2.670
Cyb5r1			7(2)	1.257	2.752
D14Ert668e				2.061	0.645
Dact3				2.304	4.496
Dapk2				2.030	1.764
Dbn1			7(2) C	1.060	8.954
Ddit3				1.446	3.517
Ddx58				1.364	0.669
Ddx60	Yes	No		2.096	1.466
Dennd5a	Yes	No		1.610	1.401
Dgat2				1.658	3.009
Dhx57				1.665	1.864
Dlk1				0.988	4.125
Dnaja4				0.887	3.211
Dusp6	Yes	Yes		0.743	0.337
E030011O05Rik	Yes	Yes		2.461	1.965
Egfl7				0.420	0.316
Egln3				1.259	0.371
Ehd1			7(1) C	1.365	2.285
Ehd3				0.798	0.264
Eif5a2			7(2) C	0.907	0.296
Eno1				1.001	0.365
Entpd1				1.941	1.209
Epb4.1l3				1.555	12.380
Epha2				1.918	8.660
Epsti1				1.600	0.985
Erg	Yes	Yes		0.198	0.034
Etnk2			7(1) C	2.237	8.225
Etv5	Yes	Yes	7(2)	1.915	1.279
Dact4				1.310	3.071
Dapk3				1.301	3.090
Dbn2			7(2) C	1.291	3.108
Ddit4				1.281	3.126
Ddx62				1.272	3.144
Ddx64	Yes	No		1.262	3.163
Dennd5a	Yes	No		1.253	3.181
Dgat3				1.243	3.199
Dhx58				1.234	3.217
Dlk2				1.224	3.236
Dnaja5				1.214	3.254
Dusp7	Yes	Yes		1.205	3.272
E030011O05Rik	Yes	Yes		1.195	3.291
Egfl8				1.186	3.309
Egln4				1.176	3.327
Dact4				1.166	3.345
Dapk3				1.157	3.364

Dbn2			7(2) C	1.147	3.382
Ddit4				1.138	3.400
Ddx62				1.128	3.418
Ddx64	Yes	No		1.119	3.437
Dennd5a	Yes	No		1.109	3.455
Dgat3				1.099	3.473
Dhx58				1.090	3.491
Dlk2				1.080	3.510
Dnaja5				1.071	3.528
Dusp7	Yes	Yes		1.061	3.546
E030011O05Rik	Yes	Yes		1.052	3.564
Egfl8				1.042	3.583
Egln4				1.032	3.601
Ehd5			7(1) C	1.023	3.619
Ehd7				1.013	3.637
Eif5a3			7(2) C	1.004	3.656
Eno2				0.994	3.674
Entpd2				0.985	3.692
Epb4.114				0.975	3.711
Epha3				0.965	3.729
Epsti2				0.956	3.747
Dact4				0.946	3.765
Dapk3				0.937	3.784
Dbn2			7(2) C	0.927	3.802
Ddit4				0.917	3.820
Ddx62				0.908	3.838
Ddx64	Yes	No		0.898	3.857
Dennd5a	Yes	No		0.889	3.875
Dgat3				0.879	3.893
Dhx58				0.870	3.911
Dlk2				0.860	3.930
Dnaja5				0.850	3.948
Iah1				1.328	2.412
Ica1	Yes	Yes		0.886	5.502
Icosl <sup>f</sup>	Yes	Yes	7(2) C	1.419	6.268
Ido1				2.297	1.109
Ido2				2.388	2.525
Ifi27l2a				1.001	0.361
Ifi27l2b				0.975	0.355
Ifi47				1.069	0.415
Ifih1			6(2)	1.566	1.219
Ifit1			6(2)	2.265	1.348
Ifit2			7(1) 7(1) C	2.018	0.967
Ifitm2				1.439	5.138
Ifitm3				1.801	0.467
Igfbp4				2.755	17.389
Ighg2c				1.617	6.815
Igj			6(2)	0.460	0.531
Il10ra				1.691	1.312
Il1r1 <sup>f</sup>	Yes	Yes		1.754	5.503
Il2rb				0.574	0.182
Il6 <sup>f</sup>	Yes	Yes		2.180	4.592
Inpp4b	Yes	Yes	7(1) C	1.560	3.757
Irf2bp2	Yes	Yes		1.081	2.332
Irf7				1.733	0.512
Irg1	Yes	Yes		3.475	21.461
Irgm1				1.239	0.532
Isg15				1.646	0.979
Itga5				1.467	4.769
Itga6	Yes	Yes		0.931	3.071

Iah2				1.648	4.946
Ica2	Yes	Yes		1.651	5.036
Icosl <sup>f</sup>	Yes	Yes	7(2) C	1.655	5.127
Ido3				1.659	5.217
Ido4				1.663	5.307
Ifi27l2a				1.666	5.398
Ifi27l2b				1.670	5.488
Ifi48				1.674	5.578
Ifih2			6(2)	1.678	5.669
Ifit3			6(2)	1.681	5.759
Ifit4			7(1) 7(1) C	1.685	5.849
Ifitm4				1.689	5.940
Ifitm5				1.692	6.030
Igfbp5				1.696	6.120
Ighg2c				1.700	6.210
Igj			6(2)	1.704	6.301
Il10ra				1.707	6.391
Il1r1 <sup>f</sup>	Yes	Yes		1.711	6.481
Il2rb				1.715	6.572
Iah2				1.719	6.662
Ica2	Yes	Yes		1.722	6.752
Icosl <sup>f</sup>	Yes	Yes	7(2) C	1.726	6.843
Ido3				1.730	6.933
Ido4				1.734	7.023
Ifi27l2a				1.737	7.114
Ifi27l2b				1.741	7.204
Ifi48				1.745	7.294
Ifih2			6(2)	1.749	7.385
Ifit3			6(2)	1.752	7.475
Ifit4			7(1) 7(1) C	1.756	7.565
Ifitm4				1.760	7.655
Ifitm5				1.764	7.746
Igfbp5				1.767	7.836
Ighg2c				1.771	7.926
Igj			6(2)	1.775	8.017
Mthfr				1.687	1.351
Mthfs				1.975	2.362
Mx1				1.346	0.252
Mx2				1.476	0.349
Mycl1			7(2)	2.370	4.122
Myl12b				1.682	1.777
Mylk			6(2)	0.487	0.917
Naip2	Yes	Yes		1.624	0.700
Ndrg2				1.594	4.551
Neat1				1.088	3.195
Necab3				2.712	1.382
Nek1	Yes	Yes		0.995	2.389
Neurl3	Yes	Yes		2.320	1.184
Nfam1 <sup>f</sup>	Yes	No		2.547	1.586
Nfe2l2			8(1) C	1.075	3.058
Nid1	Yes	No	6(2)	2.432	5.526
Nlgn2				1.663	1.475
Nlrc3				0.451	0.386
Nqo1				0.758	6.149
Nr1d2			6(2) 6(2)	0.984	2.997
Nrp2	Yes	Yes		1.645	1.194
Nupr1				2.231	12.053
Oas1a				1.583	0.731
Oas1g				2.581	0.985
Oas2				2.135	0.587

Oas3				1.839	0.519
Oasl1				1.883	2.003
Oasl2				2.070	0.987
P2rx3				0.375	1.977
Pak6			6(2)	1.785	4.394
Papss2				2.004	2.493
Paqr3				1.539	4.259
Parp12			6(2)	2.211	0.609
Pck2				1.492	3.073
Pdcd1lg2 <sup>†</sup>	Yes	Yes		0.640	0.349
Pde2a				0.530	0.263
Pdk1			7(2)	1.389	0.669
Pear1				0.954	0.340
Pfkl				1.286	0.377
Pgam1				1.121	0.441
Pgk1				1.073	0.415
Pgm2				1.374	0.540
Pgm2l1			7(2)	1.680	2.066
Phyhd1				1.450	5.576
Pik3c2b				1.176	0.549
Pkib	Yes	Yes	7(2)	1.781	1.595
Pkm2				1.147	0.508
Pla1a	Yes	Yes		3.955	6.023
Plbd1	Yes	No		1.810	2.515
Plcd3	Yes	No		1.861	1.783
Plekha6				2.191	1.886
Plscr1				2.024	1.701
Plxdc1			6(2)	0.879	5.132
Plxna1				1.394	2.722
Plxnd1 <sup>†</sup>	Yes	Yes		1.587	2.183
Pmaip1	Yes	Yes	8(1) 8(1) C	2.075	6.979
Pole2				0.808	0.393
Ppard				1.801	1.459
Ppfibp2	Yes	Yes		1.597	5.825
Ppm1l	Yes	Yes		1.163	2.390
Ppp1r15a				0.981	0.438
Ppp1r16b	Yes	Yes	8(1) C	1.929	1.101
Procr				1.789	5.359
Pros1				0.559	0.833
Prox2				1.839	2.237
Prr5l	Yes	Yes		3.288	6.494
Psd3	Yes	No	7(2) 7(2) 7(1) 6(2) C	1.157	3.085
Ptgir				1.193	3.166
Ptgs1				0.576	0.252
Ptov1				1.100	2.747
Ptprj	Yes	Yes	7(1) C	0.790	2.158
Ptprs				1.247	2.840
Pvrl1 <sup>†</sup>	Yes	Yes		2.597	4.276
Pydc3			6(2)	1.543	0.250
Pydc4				1.774	0.346
Pyhin1	Yes	Yes	7(1)	1.134	0.470
Rab34			7(1) C	1.481	4.742
Rab39b			7(1) 6(2)	1.056	0.186
Rab4a				24.323	60.736
Ralgapa2	Yes	Yes		1.647	1.584
Rap1gap2			6(2) 6(2)	1.235	3.901
Rasa4				2.058	1.716
Rasgrf1	Yes	Yes		1.608	5.351
Rasgrp3 <sup>†</sup>	Yes	Yes		1.629	1.360

Rassf4	Yes	Yes		2.283	3.355
Rell1			8(1) 7(1) 6(2) C	0.516	1.073
Rnf183				1.121	0.246
Rnf213	Yes	Yes	6(2)	1.207	0.406
Rragb				1.246	0.199
Rsad2				2.945	1.051
Rtp4				1.637	0.395
Rxra				1.275	6.667
Ryr2				0.426	0.702
S100a11	Yes	Yes		1.581	1.904
S1pr1 <sup>f</sup>	Yes	Yes	7(2) C	0.846	2.776
Sbf2	Yes	Yes		1.510	2.632
Sema4a <sup>f</sup>				4.198	2.257
Sema4b <sup>f</sup>	Yes	Yes		0.648	0.438
Sema6d	Yes	Yes	6(2)	0.727	2.130
Sema7a <sup>f</sup>	Yes	Yes		2.149	2.574
Sepp1	Yes	Yes		0.516	0.624
Sept3				2.114	2.716
Serpinc6b	Yes	Yes		2.068	1.199
Serpinc9			8(1)	1.826	1.142
Sfn				0.666	0.328
Sfpi1			8(1) C	1.932	1.418
Sh3rf1	Yes	Yes		3.015	5.946
Sipa1l1	Yes	Yes		1.580	2.054
Sirpa <sup>f</sup>	Yes	Yes		2.887	8.803
Sit1				0.939	0.208
Sla				1.135	2.684
Sla2				0.393	0.692
Slamf1 <sup>f</sup>	Yes	Yes		2.470	4.149
Slc12a9	Yes	Yes		1.850	1.352
Slc16a3				1.714	0.212
Slc1a4				1.442	2.503
Slc23a2	Yes	Yes		0.739	0.418
Slc2a1	Yes	Yes		1.333	0.541
Slc30a4				1.657	1.440
Slc31a2	Yes	Yes		1.574	1.179
Slc44a1				0.928	2.183
Slc5a3				1.500	2.630
Slc6a9				1.570	4.725
Slc7a3				1.615	3.335
Slnf5	Yes	Yes		1.340	0.365
Slnf8	Yes	Yes		1.117	0.151
Smpd3				4.614	5.866
Snhg12				1.543	0.528
Snx10				1.594	1.646
Soat2				1.952	6.094
Socs3	Yes	Yes		2.307	2.240
Sp140	Yes	Yes		1.613	1.718
Src				0.634	2.199
Srl			7(1)	1.930	2.096
Srxn1				0.589	13.084
St14				1.819	1.259
St3gal6	Yes	Yes		1.166	0.499
Ston1				1.834	3.644
Sulf2				0.747	3.795
Syt11				1.272	0.446
Sytl1				1.346	4.892
Tacc2				0.521	0.525
Tbc1d30			7(1) C	0.473	0.708
Tbxas1	Yes	Yes		1.320	3.251

Tcf7			8(1)	0.979	3.481
Tet1			6(2)	2.255	3.740
Tfrc			7(1)	0.790	0.358
Tgtp2				1.891	0.377
Tmcc3	Yes	Yes		1.872	2.142
Tmem108				0.786	0.364
Tmem2	Yes	Yes		0.990	4.163
Tmem98				2.019	11.662
Tnf				0.647	0.186
Tnfsf4 <sup>†</sup>	Yes	Yes		0.669	3.648
Tnfsf8				0.984	3.150
Tnfsf9				2.014	3.602
Tnip3			8(1) 8(1) 6(2)	2.852	9.395
Tor3a				1.328	0.582
Tpi1				1.254	0.393
Trib3				1.688	5.594
Trim25	Yes	Yes		1.252	0.543
Trim30b			7(2)	1.697	0.479
Trim30d				1.284	0.542
Trim6				1.838	3.886
Tspan33				5.957	10.063
Ttc39c				1.464	4.964
Tubb2b	Yes	Yes		2.039	5.119
Tubb6				2.208	0.968
Txlnb	Yes	Yes		1.319	4.110
Txnip				1.263	0.565
Tyrobp (Dap12) <sup>†</sup>	Yes	Yes		2.254	7.882
Ube2l6				1.705	0.652
Ugt1a1				3.482	34.312
Ugt1a10	Yes	No	6(2)	4.080	40.318
Ugt1a2				4.080	40.451
Ugt1a5				4.208	41.619
Ugt1a6b				4.375	41.470
Ugt1a7c				4.786	40.852
Ugt1a8				4.080	40.201
Ugt1a9				4.080	40.201
Unc119	Yes	Yes		1.622	1.244
Usp18	Yes	Yes		1.823	0.324
Vash1				3.155	4.507
Vegfa				1.773	3.028
Vldlr			6(2)	2.165	13.255
Wdfy1				3.446	2.065
Wdr67				1.447	3.031
Xaf1				1.453	0.489
Xkrx				3.516	1.518
Zbp1				1.518	0.622
Zbtb38	Yes	Yes		2.109	1.574
Zfp516			6(2)	1.371	2.802
Zfp629				1.826	4.583
Zfp652			8(1) 7(2) C	1.185	2.902
Zfp811				2.948	5.742
Zfp831	Yes	Yes	7(1) C	0.488	0.288
1110032F04Rik				1.923	0.361
1110034A24Rik				0.969	0.446
1500012F01Rik				1.412	0.676
2810407C02Rik	Yes	Yes	7(2) 7(2) 7(1) C	0.817	2.093
4930583H14Rik				1.525	0.119
5830405N20Rik	Yes	Yes		1.296	0.265
6430571L13Rik			8(1) 7(2)	1.348	5.213
8430427H17Rik	Yes	No		0.204	2.373



A4galt	Yes	No		1.520	2.939
A530032D15Rik				1.845	1.967
A630033H20Rik			8(2)	1.906	2.129
A630091E08Rik	Yes	Yes		0.447	0.023
AA467197			6(2)	1.689	5.050

<sup>a</sup>Presence of PU.1 ChIP peak.

<sup>b</sup>Overlap between peaks in PU.1 and the 155 sample.

<sup>c</sup>Target seed of miR-155 present. C means that the seed site is conserved.

<sup>d</sup>Expression ratio between PU.1 and the WT sample (average of expression value calculated).

<sup>e</sup>Expression ratio between 155 and WT sample (average of expression value calculated).

<sup>f</sup>Genes with Known links to humoral immune response.

Table S2. Primers and FACS antibodies

Gene	Forward	Reverse
AID	AAGACTTTGAGGGAGTCAAGAAAGT	AGATGTAGCGTAGGAACAACAATTC
$\beta$ -Actin	CACTTATCACCAGCCTCATTAGCTT	CAATTGCCTTTCTGACTAGGTGTTT
Blimp1	ACACAGGAGAGAAGCCACATGA	GGTGGGTCTTGAGATTGCTTGT
Card11	GCTCTTGTGTATAGAGTGCCAA	CCACGTTATCCCATAGGGCCT
Ccr7	AAAACGTGCTGGTGGTG	TGACCTCATCTTGGCAGAAG
Cd300lf	GCATGTTTCCAACGCTGACTAGCT	CTCACCATCTCCAAGCAAAGAGC
Cxcr4	TCAACCTCTACAGCAGCGTTCTCTT	TGTTGGTGGCGTGACAAT
Dap12	CGTACAGGCCAGAGTGAC	CACCAAGTCACCCAGAACAA
Fcrl5	GAGCATGCACGTGAACGTAGAGT	TTCTATGCCTTTCTTTGCGTAGC
HPRT	TGGACAGGACTGAAAGACTTG	CCAGCAGGTCAGCAAAGAACTTA
PU.1	TACCAACGTCCAATGCATGACTAC	GAGTATCGAGGACGTGCATCTGTT
Pax5	TTTAGAGAAAAATTACCCGACTCCT	CTGTCTCATAATACCTGCCAAGAA
Pax5 (ChIP)	TGTAAGGGGATCCTGGTTGA	AACTGGGAGGAACTGAAACCTAACC
Sema4b	AACAGCAACCTCAGCTTCTTGC	GGCCTCATCTTGGGCTAAAGTA
Sirpa	TCGTGGGATTGCTAACCTGTCT	ATCCTCGGGGTAGAACCTCTCA
Slamf1	TAATCTTCATCCTGGTTTTACGGC	TTGGGCATAAATAGTAAGGC

Epitope	Clone	Conjugate
B220	RA3-6B2;	FITC; PerCP-Cy5.5; PE; PE-Cy7; APC; APCe780; PB
CD3	145-2C11	FITC
CD4	GK1.5	PE-Cy7
CD5	53-7.3	APC
CD8	53-6.7	APC; PerCP-Cy5.5
CD19	6D5	Pacific Blue; BV421
CD21	7G6	FITC
CD23	B3B4	PB; Biotin
CD25	PC61	APC-Cy7
CD43	S7	FITC
CD93	AA4.1	APC
CD138	281-2	Biotin; PE
cKit	ACK45	PE
IgG1	X56	APC
IgM	R6-60.2	PerCP-Cy5.5; APCe780
Mac-1	M1/70	PerCP-Cy5.5; PE; Biotin
Gr-1	RB6.8CS	APC
Pax5	1H9	PE