Supplemental Table 11. Gene Expression Fold Change in Melanocytes of WT vs. RNLS KO tumors

gene_name	p_val	avg_log2FC	pct.1	pct.2	p_val_adj	cluster	gene	pct.diff
Hbb-bs	5.90868E-45	7.55888773	0.995	0.312	1.83482E-40	WT	Hbb-bs	0.683
Hbb-bt	1.79777E-37	9.99750509	0.883	0.025	5.5826E-33	WT	Hbb-bt	0.858
Hba-a1	1.18215E-35	7.41549996	0.891	0.062	3.67092E-31	WT	Hba-a1	0.829
Hba-a2	1.24415E-31	6.13210159	0.854	0.062	3.86346E-27	WT	Hba-a2	0.792
mt-Atp8	3.32913E-19	1.98277777	0.978	0.625	1.03379E-14	WT	mt-Atp8	0.353
mt-Atp6	3.74206E-19	1.67161669	1	0.95	1.16202E-14	WT	mt-Atp6	0.05
Gm26917	2.47068E-12	2.92931077	0.715	0.288	7.67221E-08	WT	Gm26917	0.427
mt-Co2	2.2188E-11	1.00097743	1	0.887	6.89005E-07	WT	mt-Co2	0.113
H2afj	2.92159E-11	1.38663162	0.777	0.575	9.07241E-07	WT	H2afj	0.202
Fabp4	6.59809E-11	7.26817854	0.376	0	2.0489E-06	WT	Fabp4	0.376
mt-Cytb	7.99196E-11	0.85376492	0.998	0.875	2.48174E-06	WT	mt-Cytb	0.123
mt-Co3	1.15821E-10	1.00254045	1	0.838	3.59659E-06	WT	mt-Co3	0.162
Ier3	1.00209E-09	2.71228494	0.525	0.188	3.11178E-05	WT	Ier3	0.337
S100a8	1.04543E-07	6.02537644	0.293	0.013	0.003246388	WT	S100a8	0.28
Tmsb4x	1.83824E-07	1.02032892	0.886	0.675	0.005708283	WT	Tmsb4x	0.211
Malat1	3.02932E-07	0.73743491	0.832	0.65	0.009406947	WT	Malat1	0.182
S100a9	3.45719E-07	6.71385549	0.257	0	0.010735625	WT	S100a9	0.257
Ctla2a	8.86598E-07	4.58456228	0.281	0.025	0.027531533	WT	Ctla2a	0.256
Lgals1	1.42675E-06	0.80225642	0.956	0.825	0.044304813	WT	Lgals1	0.131
Apoe	3.43787E-06	0.94681171	0.861	0.738	0.106756157	WT	Apoe	0.123
Ldhb	4.13468E-06	1.58678672	0.55	0.362	0.128394068	WT	Ldhb	0.188
Igfbp7	4.23287E-06	6.33927068	0.217	0	0.131443358	WT	Igfbp7	0.217
Clcn3	7.60372E-06	1.92054633	0.431	0.162	0.236118312	WT	Clcn3	0.269
Alas2	8.30444E-06	6.84207601	0.206	0	0.257877858	WT	Alas2	0.206
Hilpda	1.16517E-05	1.82154672	0.403	0.162	0.361820715	WT	Hilpda	0.241
Nat6	1.59074E-05	2.66744616	0.334	0.1	0.493971038	WT	Nat6	0.234
S100a6	2.10485E-05	1.02691501	0.506	0.225	0.65362009	WT	S100a6	0.281
Phlda3	2.97768E-05	1.69602094	0.363	0.138	0.924657914	WT	Phlda3	0.225
Cdkn1a	3.23779E-05	1.68469394	0.42	0.2	1	WT	Cdkn1a	0.22
Ptp4a3	6.72617E-05	3.95773525	0.209	0.025	1	WT	Ptp4a3	0.184
Gsta4	7.087E-05	0.73238221	0.353	0.112	1	WT	Gsta4	0.241
Nktr	7.31987E-05	1.16315354	0.561	0.338	1	WT	Nktr	0.223
Ecscr	7.60058E-05	3.06029569	0.271	0.075	1	WT	Ecscr	0.196
Tigd2	9.7492E-05	1.91563651	0.285	0.075	1	WT	Tigd2	0.21
C1qb	0.00010057	2.42790186	0.261	0.062	1	WT	C1qb	0.199
Neat1	0.000110805	0.84521173	0.615	0.425	1	WT	Neat1	0.19
Bmt2	0.000114144	2.44006872	0.276	0.075	1	WT	Bmt2	0.201
Gm47283	0.000116157	1.83784014	0.477	0.262	1	WT	Gm47283	0.215
Bhlhe40	0.000137139	1.18580107	0.488	0.275	1	WT	Bhlhe40	0.213
Ugdh	0.000175565	1.20769214	0.326	0.112	1	WT	Ugdh	0.214
Rlf	0.000184424	1.48280912	0.406	0.188	1	WT	Rlf	0.218
Pcyt2	0.000185784	1.69283278	0.341	0.125	1	WT	Pcyt2	0.216
Acta2	0.000187777	5.51768724	0.152	0	1	WT	Acta2	0.152
Prdx5	0.000193822	1.72659451	0.41	0.212	1	WT	Prdx5	0.198
March2	0.000266051	2.66968332	0.23	0.05	1	WT	March2	0.18
Cort	0.000298756	1.28391048	0.333	0.125	1	WT	Cort	0.208
Blvrb	0.000302416	1.09860429	0.349	0.138	1	WT	Blvrb	0.211
Cav2	0.00030375	1.06395119	0.29	0.088	1	WT	Cav2	0.202
Fuca1	0.000305059	1.52133476	0.415	0.225	1	WT	Fuca1	0.19
Flywch2	0.000319747	2.24597285	0.208	0.038	1	WT	Flywch2	0.17

Ttc19	0.000344338	1.93567042	0.26	0.075	1 WT	Ttc19	0.185
Avl9	0.000399219	2.10301365	0.241	0.062	1 WT	Avl9	0.179
Iscu	0.000412772	1.01614992	0.328	0.138	1 WT	Iscu	0.19
Hist1h1c	0.000423996	1.40096328	0.347	0.15	1 WT	Hist1h1c	0.197
Egfl7	0.000455276	3.3283549	0.16	0.013	1 WT	Egfl7	0.147
Fam212a	0.000513228	1.4596122	0.222	0.05	1 WT	Fam212a	0.172
Ech1	0.000628685	1.42456139	0.338	0.15	1 WT	Ech1	0.188
Azgp1	0.000690856	3.89880281	0.128	0	1 WT	Azgp1	0.128
Nradd	0.000722668	3.57043659	0.151	0.013	1 WT	Nradd	0.138
Gm15417	0.000797961	1.37809575	0.228	0.062	1 WT	Gm15417	0.166
Lama4	0.000835659	1.68067915	0.227	0.062	1 WT	Lama4	0.165
Sh3bgrl3	0.000874438	1.32622744	0.469	0.288	1 WT	Sh3bgrl3	0.181
Dcxr	0.000901384	1.71987412	0.241	0.075	1 WT	Dcxr	0.166
Cope	0.000955292	0.9241385	0.536	0.375	1 WT	Cope	0.161
Bgn	0.000971413	5.21768072	0.122	0	1 WT	Bgn	0.122
Emilin1	0.001059759	1.45432517	0.211	0.05	1 WT	Emilin1	0.161
1700003F12R	0.001067797	1.17771201	0.45	0.288	1 WT	1700003F12R	0.162
Hist1h1d	0.001118382	4.15097035	0.162	0.025	1 WT	Hist1h1d	0.137
Gbe1	0.001153749	1.08662089	0.349	0.162	1 WT	Gbe1	0.187
Mrps31	0.001187649	1.80745435	0.187	0.038	1 WT	Mrps31	0.149
Hist2h2aa1	0.001284629	3.49980141	0.139	0.013	1 WT	Hist2h2aa1	0.126
Zfp560	0.001299649	1.55523177	0.257	0.088	1 WT	Zfp560	0.169
Lpcat2	0.001308176	1.53497518	0.334	0.162	1 WT	Lpcat2	0.172
Fam46c	0.001348444	4.14530563	0.138	0.013	1 WT	Fam46c	0.125
Tmem60	0.001351745	0.84317146	0.287	0.112	1 WT	Tmem60	0.175
Cd81	0.00150676	1.13621656	0.509	0.4	1 WT	Cd81	0.109
BC005561	0.001511308	1.14505715	0.307	0.125	1 WT	BC005561	0.182
Cmtm5	0.001566724	2.07972167	0.138	0.013	1 WT	Cmtm5	0.125
Ecm1	0.001599684	1.18461901	0.268	0.1	1 WT	Ecm1	0.168
AC149090.1	0.001626797	0.8983175	0.591	0.4	1 WT	AC149090.1	0.191
H3f3b	0.00165902	0.783975	0.837	0.812	1 WT	H3f3b	0.025
Camta1	0.001686492	1.84745167	0.223	0.075	1 WT	Camta1	0.148
Ifitm2	0.001758923	0.81658681	0.544	0.425	1 WT	Ifitm2	0.119
Tuba4a	0.001837405	1.45217887	0.306	0.138	1 WT	Tuba4a	0.168
Selenom	0.001932858	1.03082448	0.496	0.362	1 WT	Selenom	0.134
Hist1h1e	0.001958014	1.85036485	0.228	0.075	1 WT	Hist1h1e	0.153
1600020E01R	0.001974098	2.0729288	0.195	0.05	1 WT	1600020E01R	0.145
Snhg9	0.002022317	1.73243093	0.246	0.088	1 WT	Snhg9	0.158
Ddit3	0.002098342	0.94764849	0.471	0.312	1 WT	Ddit3	0.159
Pla2g12a	0.002122752	1.31572324	0.279	0.112	1 WT	Pla2g12a	0.167
Ift22	0.002144446	2.01603597	0.204	0.062	1 WT	Ift22	0.142
Mrps34	0.002191279	1.34982118	0.38	0.212	1 WT	Mrps34	0.168
Bfsp2	0.002299784	1.55323917	0.3	0.138	1 WT	Bfsp2	0.162
Eri3	0.00235324	2.52429406	0.168	0.038	1 WT	Eri3	0.13
Wfdc17	0.002378011	3.74415415	0.147	0.025	1 WT	Wfdc17	0.122
Col4a1	0.002447167	2.34408124	0.166	0.038	1 WT	Col4a1	0.128
Gabarap	0.002488033	0.83481254	0.564	0.475	1 WT	Gabarap	0.089
Nudt22	0.002543145	1.83329347	0.151	0.025	1 WT	Nudt22	0.126
Mpv17l2	0.002577179	1.0914224	0.333	0.162	1 WT	Mpv17l2	0.171
Ethe1	0.002632799	1.74306802	0.209	0.062	1 WT	Ethe1	0.147
Timp1	0.002643198	1.76583898	0.222	0.075	1 WT	Timp1	0.147
Myo1c	0.002861172	2.3096767	0.203	0.062	1 WT	Myo1c	0.141

Prdx2	0.002886317	0.73388655	0.669	0.637	1 WT	Prdx2	0.032
F11r	0.002891997	3.27441918	0.101	0	1 WT	F11r	0.101
Mief1	0.002909069	1.67189583	0.17	0.038	1 WT	Mief1	0.132
Fech	0.002949851	1.70274041	0.266	0.112	1 WT	Fech	0.154
Ppdpf	0.002972881	1.23355218	0.428	0.288	1 WT	Ppdpf	0.14
Wsb1	0.003018902	0.69511405	0.395	0.2	1 WT	Wsb1	0.195
Hmga2	0.003025914	1.25523618	0.238	0.088	1 WT	Hmga2	0.15
Pnkd	0.003088988	0.89123818	0.439	0.3	1 WT	Pnkd	0.139
Pear1	0.003142161	4.45710008	0.1	0	1 WT	Pear1	0.1
Mettl22	0.003142161	2.89619689	0.1	0	1 WT	Mettl22	0.1
Alg3	0.003175307	2.82176545	0.146	0.025	1 WT	Alg3	0.121
Htatip2	0.003212645	1.30469541	0.311	0.15	1 WT	Htatip2	0.161
Grhpr	0.003218596	1.24133763	0.345	0.188	1 WT	Grhpr	0.157
Cr1l	0.003218866	2.31337157	0.184	0.05	1 WT	Cr1l	0.134
Apold1	0.003227003	1.17540656	0.442	0.275	1 WT	Apold1	0.167
Ing1	0.003238188	1.45075394	0.233	0.088	1 WT	Ing1	0.145
Orai1	0.003288072	1.73022562	0.146	0.025	1 WT	Orai1	0.121
Sugp2	0.003413545	4.24269195	0.098	0	1 WT	Sugp2	0.098
Tsr3	0.003425045	0.96851451	0.208	0.062	1 WT	Tsr3	0.146
Glt8d1	0.003430714	2.9167941	0.122	0.013	1 WT	Glt8d1	0.109
Proser2	0.003452287	3.77176547	0.12	0.013	1 WT	Proser2	0.107
Vamp5	0.00346685	1.21939457	0.452	0.312	1 WT	Vamp5	0.14
Fam8a1	0.003470074	0.87758105	0.2	0.062	1 WT	Fam8a1	0.138
Ucp2	0.003506556	1.63226921	0.163	0.038	1 WT	Ucp2	0.125
Ypel5	0.003509124	2.11390745	0.181	0.05	1 WT	Ypel5	0.131
Hmox2	0.003620756	0.79915444	0.242	0.088	1 WT	Hmox2	0.154
Rnf139	0.003665573	1.03924277	0.165	0.038	1 WT	Rnf139	0.127
Ebpl	0.003675845	1.91871237	0.217	0.075	1 WT	Ebpl	0.142
Cd24a	0.003707926	5.02138638	0.097	0	1 WT	Cd24a	0.097
Gtf2b	0.003905224	1.16684744	0.281	0.125	1 WT	Gtf2b	0.156
Qrsl1	0.004296884	1.82514061	0.141	0.025	1 WT	Qrsl1	0.116
Syn1	0.004359252	4.78026253	0.114	0.013	1 WT	Syn1	0.101
Tcirg1	0.004370741	1.40480263	0.423	0.262	1 WT	Tcirg1	0.161
Glmn	0.004373536	3.10539384	0.094	0	1 WT	Glmn	0.094
Tubb2a	0.004447546	1.407757	0.162	0.038	1 WT	Tubb2a	0.124
Enkd1	0.004571414	2.86343089	0.136	0.025	1 WT	Enkd1	0.111
Rhoc	0.004670937	1.08815231	0.447	0.312	1 WT	Rhoc	0.135
Zfp292	0.004673247	0.77606843	0.376	0.212	1 WT	Zfp292	0.164
Casp6	0.004725246	1.86090675	0.157	0.038	1 WT	Casp6	0.119
Yif1b	0.004726288	1.2414664	0.311	0.15	1 WT	Yif1b	0.161
Tns2	0.004855852	2.06457996	0.135	0.025	1 WT	Tns2	0.11
Coq10a	0.004951408	1.62826475	0.197	0.062	1 WT	Coq10a	0.135
Nfxl1	0.004982813	2.99375579	0.114	0.013	1 WT	Nfxl1	0.101
Fbxw9	0.005092682	2.62854895	0.133	0.025	1 WT	Fbxw9	0.108
Plpp5	0.005108806	2.75116475	0.133	0.025	1 WT	Plpp5	0.108
Plpp2	0.005124614	1.10902911	0.307	0.15	1 WT	Plpp2	0.157
Myo1b	0.005368168	2.30912032	0.203	0.075	1 WT	Myo1b	0.128
1700025G04R	0.005407045	2.98121286	0.133	0.025	1 WT	1700025G04R	0.108
Atraid	0.005445825	1.33693207	0.338	0.188	1 WT	Atraid	0.15
Rnf19a	0.005565146	1.94906688	0.247	0.112	1 WT	Rnf19a	0.135
Hist1h4h	0.005598013	4.11211947	0.089	0	1 WT	Hist1h4h	0.089
Gfer	0.005610217	1.57494973	0.3	0.15	1 WT	Gfer	0.15

Lcorl	0.005623882	1.84865373	0.192	0.062	1 WT	Lcorl	0.13
Gm10639	0.005652558	2.86583767	0.132	0.025	1 WT	Gm10639	0.107
Tmem87b	0.005695813	0.86941379	0.284	0.138	1 WT	Tmem87b	0.146
Gadd45b	0.005706133	2.97254625	0.132	0.025	1 WT	Gadd45b	0.107
Vegfa	0.005728837	1.35122536	0.352	0.2	1 WT	Vegfa	0.152
Fcer1g	0.005733853	2.49355286	0.217	0.088	1 WT	Fcer1g	0.129
Col18a1	0.005755377	4.23031881	0.109	0.013	1 WT	Col18a1	0.096
Cirbp	0.005824369	1.18833716	0.382	0.238	1 WT	Cirbp	0.144
Spata7	0.006061527	2.74558995	0.111	0.013	1 WT	Spata7	0.098
Pxmp4	0.006061527	2.68200427	0.111	0.013	1 WT	Pxmp4	0.098
Nt5dc2	0.006143827	1.62824886	0.17	0.05	1 WT	Nt5dc2	0.12
Med31	0.006149151	1.41084123	0.239	0.1	1 WT	Med31	0.139
Zfp281	0.006227083	0.90689963	0.241	0.1	1 WT	Zfp281	0.141
Tradd	0.006340832	1.46884101	0.154	0.038	1 WT	Tradd	0.116
Cd68	0.006373064	3.66381215	0.128	0.025	1 WT	Cd68	0.103
Nif3l1	0.006386073	0.84583899	0.192	0.062	1 WT	Nif3l1	0.13
Mgst3	0.006429665	1.15591069	0.193	0.062	1 WT	Mgst3	0.131
Knl1	0.006552069	2.21924095	0.13	0.025	1 WT	Knl1	0.105
S100a11	0.006581496	1.05983992	0.448	0.3	1 WT	S100a11	0.148
Babam1	0.006590879	1.28229956	0.282	0.138	1 WT	Babam1	0.144
Hist1h2bb	0.006596097	4.19688141	0.086	0	1 WT	Hist1h2bb	0.086
Slc19a2	0.006596097	3.66288162	0.086	0	1 WT	Slc19a2	0.086
Car6	0.006705903	1.01709723	0.479	0.362	1 WT	Car6	0.117
Tmem203	0.006958098	1.99333403	0.17	0.05	1 WT	Tmem203	0.12
Borcs6	0.006982278	1.64482584	0.203	0.075	1 WT	Borcs6	0.128
Tspan12	0.007115809	1.31067887	0.204	0.075	1 WT	Tspan12	0.129
Gm5914	0.007159039	3.10665439	0.084	0	1 WT	Gm5914	0.084
Itga4	0.007414835	3.22207954	0.106	0.013	1 WT	Itga4	0.093
1110059G10R	0.007647475	1.60351583	0.184	0.062	1 WT	1110059G10R	0.122
Retnlg	0.007769368	4.42285325	0.082	0	1 WT	Retnlg	0.082
Cacfd1	0.007778386	1.41590275	0.165	0.05	1 WT	Cacfd1	0.115
Cdhr4	0.007799488	2.5599178	0.106	0.013	1 WT	Cdhr4	0.093
Eid1	0.007858138	0.79478439	0.501	0.362	1 WT	Eid1	0.139
Col1a1	0.007868065	3.16185653	0.143	0.038	1 WT	Col1a1	0.105
Bpgm	0.007901318	1.79529097	0.295	0.15	1 WT	Bpgm	0.145
Intu	0.007932826	1.8602133	0.146	0.038	1 WT	Intu	0.108
Trappc5	0.008008092	1.29723694	0.288	0.15	1 WT	Trappc5	0.138
Cpeb2	0.008036401	3.01987005	0.105	0.013	1 WT	Cpeb2	0.092
Zfp518b	0.008311751	2.66924446	0.105	0.013	1 WT	Zfp518b	0.092
Agpat2	0.008314762	0.76656802	0.149	0.038	1 WT	Agpat2	0.111
Rab33b	0.008512065	2.44375815	0.143	0.038	1 WT	Rab33b	0.105
C1qa	0.00853699	2.84134801	0.174	0.062	1 WT	C1qa	0.112
Atl1	0.008560092	2.76926101	0.122	0.025	1 WT	Atl1	0.097
Trim2	0.008568618	1.25919375	0.185	0.062	1 WT	Trim2	0.123
Stk3	0.008635338	1.37176468	0.185	0.062	1 WT	Stk3	0.123
Ggh	0.0086369	0.86788189	0.252	0.112	1 WT	Ggh	0.14
Adm	0.008688994	2.50873911	0.141	0.038	1 WT	Adm	0.103
Etfrf1	0.008754117	1.26393807	0.249	0.112	1 WT	Etfrf1	0.137
Dnajc30	0.008827166	1.20385747	0.149	0.038	1 WT	Dnajc30	0.111
Isyna1	0.008960484	2.11399953	0.162	0.05	1 WT	Isyna1	0.112
S100a1	0.008989867	0.99325053	0.463	0.338	1 WT	S100a1	0.125
Ddit4	0.009036865	1.17912775	0.201	0.075	1 WT	Ddit4	0.126

Gene	p_val	avg_logFC	pct.1	pct.2	p_val_adj	group	Gene	value
Txndc12	0.00903903	1.56982088	0.26	0.125	1	WT	Txndc12	0.135
0610012G03R	0.009144148	0.98397288	0.466	0.388	1	WT	0610012G03R	0.078
1500009L16R	0.00914842	3.57978042	0.079	0	1	WT	1500009L16R	0.079
Spata24	0.00914842	3.03121998	0.079	0	1	WT	Spata24	0.079
C1qc	0.009439273	2.08656767	0.103	0.013	1	WT	C1qc	0.09
Inafm2	0.009452199	1.90297181	0.122	0.025	1	WT	Inafm2	0.097
Clip2	0.009477056	2.07451191	0.177	0.062	1	WT	Clip2	0.115
Crip1	0.009804752	0.71245529	0.374	0.225	1	WT	Crip1	0.149
Pnpo	0.009926129	4.18540165	0.078	0	1	WT	Pnpo	0.078
Igfbp3	0.009953327	3.91254359	0.1	0.013	1	WT	Igfbp3	0.087
Polr2d	0.009963764	1.16943321	0.249	0.112	1	WT	Polr2d	0.137
Gbp2	7.76182E-21	3.18887001	0.438	0.087	2.41028E-16	KO	Gbp2	0.351
Cd74	1.64215E-20	2.60421644	0.675	0.239	5.09936E-16	KO	Cd74	0.436
Pabpc1	2.81946E-20	1.56836882	0.9	0.645	8.75527E-16	KO	Pabpc1	0.255
H2-Aa	6.58433E-19	2.84823506	0.488	0.122	2.04463E-14	KO	H2-Aa	0.366
Gbp4	3.58157E-18	4.53038633	0.262	0.03	1.11218E-13	KO	Gbp4	0.232
Retnla	2.42125E-17	5.81027874	0.112	0	7.5187E-13	KO	Retnla	0.112
Psmb9	1.07747E-16	2.37057354	0.613	0.25	3.34586E-12	KO	Psmb9	0.363
Carmil2	4.17498E-16	2.91302531	0.3	0.048	1.29646E-11	KO	Carmil2	0.252
Rps26	1.174E-15	1.14317015	0.938	0.9	3.64563E-11	KO	Rps26	0.038
Igtp	2.12691E-14	2.87049505	0.375	0.092	6.6047E-10	KO	Igtp	0.283
H2-DMa	2.69291E-14	3.22353137	0.275	0.046	8.36231E-10	KO	H2-DMa	0.229
Stat1	3.07568E-14	2.60823416	0.525	0.2	9.55092E-10	KO	Stat1	0.325
Hsp90aa1	5.30396E-14	1.31015679	0.887	0.773	1.64704E-09	KO	Hsp90aa1	0.114
Hnrnpa2b1	2.03117E-13	1.47202331	0.812	0.582	6.3074E-09	KO	Hnrnpa2b1	0.23
Apol9b	2.37904E-13	3.1525029	0.225	0.032	7.38764E-09	KO	Apol9b	0.193
Rplp2	1.42806E-12	0.94361083	0.938	0.842	4.43455E-08	KO	Rplp2	0.096
H2-Eb1	1.47195E-12	2.56506062	0.35	0.089	4.57084E-08	KO	H2-Eb1	0.261
Hsp90ab1	1.77661E-12	0.98029498	0.95	0.791	5.51691E-08	KO	Hsp90ab1	0.159
Iigp1	2.55099E-12	3.10688624	0.312	0.073	7.92159E-08	KO	Iigp1	0.239
Sem1	2.623E-12	1.05222928	0.85	0.742	8.14522E-08	KO	Sem1	0.108
Oxct1	4.23179E-12	1.27702155	0.838	0.547	1.3141E-07	KO	Oxct1	0.291
Zbp1	7.18884E-12	2.51851299	0.275	0.059	2.23235E-07	KO	Zbp1	0.216
Gbp7	9.43961E-12	3.12424584	0.338	0.094	2.93128E-07	KO	Gbp7	0.244
Irgm1	1.0172E-11	2.50242625	0.412	0.139	3.15872E-07	KO	Irgm1	0.273
Eef1a1	2.42629E-11	0.70935181	1	0.956	7.53435E-07	KO	Eef1a1	0.044
H2-Ab1	2.50889E-11	2.13676023	0.4	0.124	7.79087E-07	KO	H2-Ab1	0.276
Rps21	2.71097E-11	0.76375814	0.887	0.883	8.41836E-07	KO	Rps21	0.004
Rpl23a	1.34155E-10	1.19482098	0.812	0.631	4.16593E-06	KO	Rpl23a	0.181
Nap1l1	2.39316E-10	1.48269624	0.75	0.49	7.43147E-06	KO	Nap1l1	0.26
Il1rl1	3.0612E-10	5.16139639	0.062	0	9.50595E-06	KO	Il1rl1	0.062
Trpm1	5.0062E-10	1.4274982	0.75	0.441	1.55458E-05	KO	Trpm1	0.309
Cbx3	7.19435E-10	1.42432696	0.738	0.523	2.23406E-05	KO	Cbx3	0.215
Irgm2	9.18633E-10	3.44505079	0.2	0.038	2.85263E-05	KO	Irgm2	0.162
Eif4h	1.36251E-09	1.52548578	0.65	0.415	4.23099E-05	KO	Eif4h	0.235
Hspa8	1.86258E-09	0.94331136	0.863	0.746	5.78386E-05	KO	Hspa8	0.117
Tap2	2.20721E-09	2.57622826	0.325	0.105	6.85404E-05	KO	Tap2	0.22
Gpr132	3.17842E-09	3.97666184	0.088	0.005	9.86994E-05	KO	Gpr132	0.083
Cycs	3.40127E-09	1.03177427	0.85	0.645	0.00010562	KO	Cycs	0.205
B2m	4.28308E-09	1.28144332	0.875	0.753	0.000133003	KO	B2m	0.122
Npm1	8.92488E-09	0.989579	0.925	0.761	0.000277144	KO	Npm1	0.164
Snd1	1.0492E-08	1.80998172	0.55	0.301	0.000325808	KO	Snd1	0.249

Serbp1	1.11105E-08	0.90296028	0.838	0.685	0.000345014	KO	Serbp1	0.153
Hspd1	1.17612E-08	1.0078618	0.812	0.58	0.000365219	KO	Hspd1	0.232
Eprs	1.28026E-08	1.34645799	0.688	0.437	0.000397558	KO	Eprs	0.251
Nr4a3	1.50479E-08	2.24834098	0.35	0.13	0.000467284	KO	Nr4a3	0.22
Dcn	1.83812E-08	2.86972193	0.05	0	0.000570792	KO	Dcn	0.05
Rps12	1.9141E-08	0.74655592	0.938	0.862	0.000594387	KO	Rps12	0.076
Hsp90b1	1.91695E-08	1.14452398	0.838	0.635	0.00059527	KO	Hsp90b1	0.203
Hnrnpm	2.49236E-08	1.35903965	0.65	0.412	0.000773953	KO	Hnrnpm	0.238
Pmel	3.03327E-08	1.32334728	0.887	0.864	0.000941922	KO	Pmel	0.023
Irf1	3.08255E-08	1.88727615	0.225	0.055	0.000957225	KO	Irf1	0.17
Psmb10	3.41709E-08	1.86758381	0.562	0.328	0.001061109	KO	Psmb10	0.234
Snhg6	3.87842E-08	2.07567678	0.5	0.274	0.001204366	KO	Snhg6	0.226
Dct	4.00866E-08	0.95165684	0.975	0.975	0.00124481	KO	Dct	0
Rps17	4.50535E-08	0.75566083	0.925	0.805	0.001399045	KO	Rps17	0.12
Rpl5	5.3828E-08	0.76940045	0.838	0.758	0.001671522	KO	Rpl5	0.08
Psmb8	5.64576E-08	1.22429258	0.6	0.361	0.001753177	KO	Psmb8	0.239
Set	5.79806E-08	1.1000317	0.75	0.561	0.001800472	KO	Set	0.189
Actg1	6.87325E-08	0.8356176	0.988	0.895	0.002134349	KO	Actg1	0.093
Eif3c	6.9675E-08	1.55673852	0.65	0.466	0.002163616	KO	Eif3c	0.184
Eif3j1	1.27117E-07	1.78875885	0.525	0.307	0.003947354	KO	Eif3j1	0.218
Ywhaz	1.30401E-07	1.27342346	0.713	0.456	0.004049335	KO	Ywhaz	0.257
Eif4g2	1.51012E-07	1.05746609	0.762	0.574	0.004689369	KO	Eif4g2	0.188
Psme1	1.53287E-07	1.69650499	0.6	0.428	0.004760023	KO	Psme1	0.172
Rpl27	1.6179E-07	1.24211836	0.725	0.599	0.00502407	KO	Rpl27	0.126
Psme2	1.84594E-07	1.4693058	0.6	0.39	0.005732192	KO	Psme2	0.21
Rcc2	1.90326E-07	1.46969753	0.675	0.472	0.005910193	KO	Rcc2	0.203
Prph	2.10297E-07	3.40845047	0.15	0.029	0.006530361	KO	Prph	0.121
Actb	2.60126E-07	0.80922152	0.95	0.943	0.008077678	KO	Actb	0.007
Snrpf	2.61922E-07	1.11629063	0.675	0.482	0.008133456	KO	Snrpf	0.193
Atp1a1	2.74222E-07	1.04987039	0.775	0.683	0.008515419	KO	Atp1a1	0.092
Cs	2.74873E-07	1.36347741	0.55	0.325	0.008535616	KO	Cs	0.225
Rab27a	3.23964E-07	2.07609652	0.438	0.22	0.010060048	KO	Rab27a	0.218
Eif3a	3.45514E-07	1.4691851	0.688	0.477	0.010729257	KO	Eif3a	0.211
Lima1	3.5375E-07	2.04718082	0.537	0.328	0.010985007	KO	Lima1	0.209
Trim28	5.63872E-07	1.76023342	0.5	0.293	0.017509931	KO	Trim28	0.207
Ppfibp2	6.16256E-07	2.25791338	0.25	0.082	0.019136584	KO	Ppfibp2	0.168
Metrn	6.58991E-07	1.19018246	0.675	0.452	0.020463639	KO	Metrn	0.223
Hspe1	1.01841E-06	0.73958212	0.85	0.681	0.031624747	KO	Hspe1	0.169
Txn1	1.02139E-06	0.70762478	0.863	0.737	0.031717082	KO	Txn1	0.126
Ciita	1.05858E-06	3.42741469	0.05	0.002	0.032872091	KO	Ciita	0.048
Rnf213	1.09975E-06	2.04085991	0.338	0.149	0.034150482	KO	Rnf213	0.189
Gm12185	1.1234E-06	3.79782318	0.038	0	0.034884883	KO	Gm12185	0.038
Wdr31	1.12478E-06	2.62604227	0.05	0.002	0.034927922	KO	Wdr31	0.048
Usmg5	1.13253E-06	0.9216134	0.775	0.575	0.03516839	KO	Usmg5	0.2
Rab38	1.38139E-06	1.18619817	0.625	0.406	0.042896173	KO	Rab38	0.219
Ifi203	1.45564E-06	2.00340872	0.225	0.068	0.045202076	KO	Ifi203	0.157
Calm1	1.47357E-06	0.86658381	0.775	0.615	0.045758778	KO	Calm1	0.16
Tapbp	1.47466E-06	2.03926522	0.425	0.219	0.045792713	KO	Tapbp	0.206
Hnrnpa0	1.48167E-06	1.29605597	0.625	0.439	0.046010441	KO	Hnrnpa0	0.186
Gbp3	1.77492E-06	2.24116982	0.188	0.051	0.055116745	KO	Gbp3	0.137
Tmsb10	1.82702E-06	0.97783696	0.95	0.975	0.056734426	KO	Tmsb10	-0.025
Tsen34	2.14341E-06	1.13270756	0.575	0.345	0.066559381	KO	Tsen34	0.23

Vcp	2.28832E-06	0.99669888	0.725	0.55	0.07105908	KO	Vcp	0.175
Rpl13a	2.36636E-06	1.13498392	0.637	0.456	0.073482626	KO	Rpl13a	0.181
Fosb	2.48251E-06	2.24965758	0.275	0.1	0.0770895	KO	Fosb	0.175
Rangap1	2.49907E-06	1.65694857	0.55	0.35	0.07760359	KO	Rangap1	0.2
Anp32b	2.502E-06	1.04611013	0.75	0.537	0.07769464	KO	Anp32b	0.213
Eif3b	2.72602E-06	1.23317142	0.662	0.488	0.084651161	KO	Eif3b	0.174
Cfl1	2.75887E-06	0.73573511	0.863	0.716	0.085671048	KO	Cfl1	0.147
Ncl	2.80123E-06	1.10469594	0.762	0.62	0.086986618	KO	Ncl	0.142
Hnrnpa1	2.8225E-06	1.0134775	0.75	0.578	0.087647002	KO	Hnrnpa1	0.172
Prrc2a	2.88583E-06	1.25521817	0.588	0.399	0.08961383	KO	Prrc2a	0.189
Rpn1	2.9437E-06	1.17147789	0.713	0.536	0.091410644	KO	Rpn1	0.177
Got2	3.5E-06	1.04866211	0.637	0.425	0.108685375	KO	Got2	0.212
Cadm1	3.73706E-06	1.4158892	0.6	0.407	0.116047011	KO	Cadm1	0.193
Sept9	4.06088E-06	1.42328034	0.637	0.452	0.126102441	KO	Sept9	0.185
Abcf2	4.31149E-06	1.86684719	0.412	0.231	0.133884744	KO	Abcf2	0.181
Tcea1	4.35931E-06	1.6934787	0.475	0.296	0.135369749	KO	Tcea1	0.179
Tmbim6	4.64118E-06	0.88061182	0.7	0.529	0.144122555	KO	Tmbim6	0.171
H2-D1	4.64225E-06	1.17648209	0.762	0.62	0.144155883	KO	H2-D1	0.142
Snrpg	5.38738E-06	1.20680436	0.625	0.469	0.16729421	KO	Snrpg	0.156
Cnn2	5.41232E-06	1.15256175	0.362	0.162	0.168068695	KO	Cnn2	0.2
Mitf	5.45278E-06	1.78048677	0.525	0.36	0.169325192	KO	Mitf	0.165
Sdha	5.73594E-06	1.02262312	0.613	0.39	0.178118236	KO	Sdha	0.223
Hdgf	5.96708E-06	1.11928454	0.675	0.482	0.185295658	KO	Hdgf	0.193
Parp9	6.88852E-06	1.75201957	0.238	0.084	0.213909145	KO	Parp9	0.154
Mndal	6.99978E-06	2.04604233	0.262	0.101	0.217364293	KO	Mndal	0.161
Tpm1	7.14165E-06	1.11327774	0.65	0.482	0.221769606	KO	Tpm1	0.168
Slc39a1	7.69057E-06	2.06518726	0.438	0.257	0.238815177	KO	Slc39a1	0.181
Eif2s2	7.69671E-06	1.13174649	0.738	0.575	0.239005851	KO	Eif2s2	0.163
Fus	7.92862E-06	1.38445402	0.675	0.51	0.246207521	KO	Fus	0.165
Cox17	8.42651E-06	1.22491673	0.575	0.42	0.261668289	KO	Cox17	0.155
Larp1	9.20325E-06	1.78162302	0.537	0.36	0.285788456	KO	Larp1	0.177
Sqstm1	9.37714E-06	0.96562766	0.625	0.46	0.291188417	KO	Sqstm1	0.165
Cltc	9.74536E-06	0.87340463	0.7	0.515	0.302622531	KO	Cltc	0.185
Rfc1	9.87224E-06	1.83610086	0.438	0.26	0.306562688	KO	Rfc1	0.178
Tap1	1.0312E-05	1.84836617	0.375	0.193	0.320218401	KO	Tap1	0.182
Marcks	1.11553E-05	1.28384954	0.688	0.468	0.346404451	KO	Marcks	0.22
Ybx3	1.15838E-05	0.95205037	0.675	0.51	0.359712337	KO	Ybx3	0.165
Sec61b	1.22655E-05	0.85950589	0.75	0.569	0.380879562	KO	Sec61b	0.181
Tma7	1.38411E-05	0.86836765	0.725	0.499	0.429808163	KO	Tma7	0.226
Bag3	1.38861E-05	2.31630286	0.325	0.157	0.431204308	KO	Bag3	0.168
Hnrnpab	1.51465E-05	1.06617978	0.713	0.539	0.470342889	KO	Hnrnpab	0.174
9330159F19R	1.56201E-05	3.36327738	0.05	0.003	0.485051133	KO	9330159F19R	0.047
Cxcl14	1.58803E-05	4.68053889	0.05	0.003	0.493130166	KO	Cxcl14	0.047
Hspa4	1.61961E-05	1.29302232	0.6	0.41	0.502936685	KO	Hspa4	0.19
Mta1	1.65284E-05	2.11291813	0.412	0.249	0.513255397	KO	Mta1	0.163
H2-K1	1.66878E-05	1.30838687	0.75	0.683	0.518206999	KO	H2-K1	0.067
H2-T23	1.83566E-05	1.55307107	0.288	0.125	0.570028049	KO	H2-T23	0.163
Rpl36al	1.9E-05	1.06679514	0.688	0.536	0.590007491	KO	Rpl36al	0.152
Ywhae	1.95562E-05	0.78723134	0.825	0.653	0.607278783	KO	Ywhae	0.172
Sox9	1.98536E-05	1.60585912	0.075	0.01	0.616514185	KO	Sox9	0.065
Aacs	2.34873E-05	2.21627798	0.238	0.095	0.729349607	KO	Aacs	0.143
Grb2	2.54925E-05	1.59776364	0.45	0.281	0.79161768	KO	Grb2	0.169

Ahsa1	2.66122E-05	1.50015027	0.462	0.306	0.826388823 KO	Ahsa1	0.156
Rpl35	2.72287E-05	0.71004883	0.838	0.829	0.845531635 KO	Rpl35	0.009
Wdr1	3.15071E-05	1.35994154	0.575	0.425	0.97839011 KO	Wdr1	0.15
Gstp1	3.18365E-05	1.09759975	0.65	0.507	0.98861849 KO	Gstp1	0.143
Sod1	3.34144E-05	0.82695895	0.637	0.475	1 KO	Sod1	0.162
Top1	3.84453E-05	1.38802476	0.537	0.39	1 KO	Top1	0.147
Apol9a	3.87308E-05	2.62237432	0.125	0.03	1 KO	Apol9a	0.095
Atp6v1b2	4.05526E-05	1.43546098	0.6	0.415	1 KO	Atp6v1b2	0.185
Abce1	4.33642E-05	1.43562227	0.45	0.282	1 KO	Abce1	0.168
Ccdc90b	4.38049E-05	2.2925363	0.238	0.1	1 KO	Ccdc90b	0.138
Psmd11	4.50111E-05	1.07240178	0.525	0.366	1 KO	Psmd11	0.159
Klf4	4.59039E-05	3.3944086	0.2	0.073	1 KO	Klf4	0.127
Nampt	4.98798E-05	1.37737414	0.562	0.403	1 KO	Nampt	0.159
Dctn1	5.27993E-05	1.76615939	0.488	0.334	1 KO	Dctn1	0.154
Morf4l1	5.39277E-05	0.73680723	0.7	0.488	1 KO	Morf4l1	0.212
Tspan10	5.42404E-05	1.83929417	0.512	0.339	1 KO	Tspan10	0.173
Gm17477	5.47696E-05	1.75547548	0.038	0.002	1 KO	Gm17477	0.036
Erh	5.52604E-05	1.16841629	0.6	0.404	1 KO	Erh	0.196
Rbm28	5.66932E-05	1.62069294	0.5	0.339	1 KO	Rbm28	0.161
Gm15564	5.7008E-05	2.89452069	0.075	0.011	1 KO	Gm15564	0.064
Eif5b	6.00883E-05	1.04621257	0.588	0.395	1 KO	Eif5b	0.193
Pcbp2	6.19675E-05	0.87539336	0.738	0.544	1 KO	Pcbp2	0.194
Raf1	6.22278E-05	1.03968765	0.438	0.261	1 KO	Raf1	0.177
Sf3b2	6.68299E-05	1.50845585	0.562	0.403	1 KO	Sf3b2	0.159
Nucks1	6.73901E-05	0.95740871	0.675	0.488	1 KO	Nucks1	0.187
Bst2	6.91937E-05	1.1457195	0.675	0.518	1 KO	Bst2	0.157
Il6	7.14449E-05	4.89378944	0.025	0	1 KO	Il6	0.025
Eef1a2	7.14449E-05	4.18122862	0.025	0	1 KO	Eef1a2	0.025
Ccl24	7.14449E-05	4.0379403	0.025	0	1 KO	Ccl24	0.025
Stard10	7.14449E-05	3.51073526	0.025	0	1 KO	Stard10	0.025
Satb1	7.14449E-05	2.5024738	0.025	0	1 KO	Satb1	0.025
Tomt	7.14449E-05	2.30099144	0.025	0	1 KO	Tomt	0.025
2510002D24R	7.14449E-05	2.17510784	0.025	0	1 KO	2510002D24R	0.025
Gpr18	7.14449E-05	1.59625939	0.025	0	1 KO	Gpr18	0.025
Gm47015	7.14449E-05	1.55714072	0.025	0	1 KO	Gm47015	0.025
Alx3	7.14449E-05	1.21476824	0.025	0	1 KO	Alx3	0.025
Hnrnpa3	7.19911E-05	0.78416647	0.725	0.545	1 KO	Hnrnpa3	0.18
Ost4	7.32821E-05	0.94471715	0.637	0.458	1 KO	Ost4	0.179
Actr3	8.10287E-05	1.1417835	0.6	0.428	1 KO	Actr3	0.172
Hnrnpf	8.25974E-05	0.84280488	0.725	0.563	1 KO	Hnrnpf	0.162
Serpinh1	8.83398E-05	1.25435421	0.575	0.436	1 KO	Serpinh1	0.139
Socs3	8.88245E-05	2.50757683	0.188	0.067	1 KO	Socs3	0.121
Canx	9.35188E-05	0.94386784	0.738	0.615	1 KO	Canx	0.123
Mtap	9.38366E-05	1.7273891	0.462	0.301	1 KO	Mtap	0.161
Hmgb1	9.52412E-05	1.0424861	0.713	0.531	1 KO	Hmgb1	0.182
Khsrp	0.000100849	1.36728679	0.462	0.301	1 KO	Khsrp	0.161
Gdf11	0.000104672	2.29310477	0.125	0.033	1 KO	Gdf11	0.092
Ktn1	0.000105205	1.30876252	0.55	0.387	1 KO	Ktn1	0.163
Rexo2	0.000107524	0.83935698	0.625	0.461	1 KO	Rexo2	0.164
Cox16	0.000111415	1.19068403	0.275	0.124	1 KO	Cox16	0.151
Bace2	0.000127815	1.18712331	0.537	0.38	1 KO	Bace2	0.157
Dedd	0.000128753	1.93341275	0.188	0.07	1 KO	Dedd	0.118

Mex3a	0.000136205	2.72087166	0.25	0.114	1 KO	Mex3a	0.136
Axin2	0.000136271	2.93761115	0.088	0.017	1 KO	Axin2	0.071
Hspa1b	0.000139375	2.16524069	0.238	0.101	1 KO	Hspa1b	0.137
Lap3	0.000143847	1.48135588	0.45	0.282	1 KO	Lap3	0.168
Myadm	0.000148304	1.85586479	0.375	0.228	1 KO	Myadm	0.147
U2af2	0.000149788	1.09796891	0.462	0.306	1 KO	U2af2	0.156
Ncaph2	0.000149841	1.37628969	0.45	0.295	1 KO	Ncaph2	0.155
Nckap5l	0.000157618	1.5570839	0.475	0.36	1 KO	Nckap5l	0.115
Mcm2	0.000162679	1.43118178	0.475	0.296	1 KO	Mcm2	0.179
Ifi47	0.000169851	2.42615114	0.262	0.125	1 KO	Ifi47	0.137
Gtf3c1	0.000182375	2.08084407	0.312	0.168	1 KO	Gtf3c1	0.144
Pcna	0.000191045	1.36925201	0.425	0.263	1 KO	Pcna	0.162
Mrpl23	0.000196332	0.80049936	0.588	0.415	1 KO	Mrpl23	0.173
Tmf1	0.000199057	1.4339287	0.488	0.349	1 KO	Tmf1	0.139
Tardbp	0.000220703	1.28031721	0.55	0.41	1 KO	Tardbp	0.14
Sf3b4	0.000238721	1.53828965	0.425	0.284	1 KO	Sf3b4	0.141
Nedd4	0.00025241	0.91554562	0.662	0.532	1 KO	Nedd4	0.13
Il17rc	0.000252964	1.14343529	0.338	0.182	1 KO	Il17rc	0.156
Akap2	0.000279867	2.45292371	0.225	0.101	1 KO	Akap2	0.124
Smarca5	0.000286692	0.96127608	0.512	0.36	1 KO	Smarca5	0.152
Ust	0.000289359	2.31387847	0.062	0.01	1 KO	Ust	0.052
Xlr3a	0.000300382	2.53389807	0.138	0.043	1 KO	Xlr3a	0.095
Eps8	0.000304354	0.96945289	0.625	0.445	1 KO	Eps8	0.18
Glud1	0.000308771	1.70219747	0.388	0.249	1 KO	Glud1	0.139
Gspt1	0.000311448	1.23163607	0.488	0.349	1 KO	Gspt1	0.139
Dbnl	0.000311919	0.81858986	0.537	0.369	1 KO	Dbnl	0.168
Hspa1a	0.000319605	1.80024875	0.088	0.019	1 KO	Hspa1a	0.069
Csnk2b	0.000324046	0.79726444	0.575	0.431	1 KO	Csnk2b	0.144
Adamts14	0.000327278	2.06908654	0.125	0.036	1 KO	Adamts14	0.089
Nol7	0.000333485	1.18957744	0.55	0.404	1 KO	Nol7	0.146
Nars	0.000336358	1.29668626	0.45	0.314	1 KO	Nars	0.136
Mms19	0.000347613	1.43918659	0.288	0.149	1 KO	Mms19	0.139
Csnk2a1	0.000375011	2.04995126	0.375	0.233	1 KO	Csnk2a1	0.142
Cops7a	0.000382942	1.12566138	0.488	0.353	1 KO	Cops7a	0.135
Arpc4	0.000395936	1.27025806	0.462	0.33	1 KO	Arpc4	0.132
Akt1	0.000397015	0.77906901	0.65	0.499	1 KO	Akt1	0.151
Actn4	0.000415702	1.3323163	0.512	0.404	1 KO	Actn4	0.108
Ets1	0.000429875	0.88584109	0.625	0.49	1 KO	Ets1	0.135
Kpnb1	0.000444239	1.2252085	0.537	0.385	1 KO	Kpnb1	0.152
Rgs1	0.000446085	1.65321909	0.15	0.049	1 KO	Rgs1	0.101
C2	0.000446494	1.33111597	0.45	0.304	1 KO	C2	0.146
Gm38037	0.000449636	2.88792578	0.05	0.006	1 KO	Gm38037	0.044
Unc5b	0.000449636	2.11809583	0.05	0.006	1 KO	Unc5b	0.044
St13	0.000455075	1.09621633	0.6	0.482	1 KO	St13	0.118
Ctr9	0.000458251	2.71555352	0.288	0.157	1 KO	Ctr9	0.131
Baz1b	0.000459858	2.11430859	0.375	0.236	1 KO	Baz1b	0.139
Llph	0.000461652	0.90927073	0.562	0.396	1 KO	Llph	0.166
Irx5	0.000476995	2.59807796	0.15	0.052	1 KO	Irx5	0.098
Psma5	0.000477123	0.9890334	0.512	0.369	1 KO	Psma5	0.143
Eif2s3x	0.000478102	1.49601063	0.45	0.309	1 KO	Eif2s3x	0.141
Rbm45	0.00047958	1.62066481	0.112	0.032	1 KO	Rbm45	0.08
Ssrp1	0.000483701	1.05263557	0.512	0.345	1 KO	Ssrp1	0.167

Gene	Col2	Col3	Col4	Col5	Col6	Col7	Gene	Value
Siva1	0.000488973	0.97169656	0.562	0.391	1	KO	Siva1	0.171
Oas2	0.000494363	1.3674118	0.05	0.006	1	KO	Oas2	0.044
Hsph1	0.000521153	2.31614266	0.275	0.147	1	KO	Hsph1	0.128
Gm4841	0.000522024	4.78678914	0.038	0.003	1	KO	Gm4841	0.035
C3	0.000537756	3.01985712	0.038	0.003	1	KO	C3	0.035
Sez6l2	0.000545786	1.897079	0.038	0.003	1	KO	Sez6l2	0.035
Pi16	0.000553928	1.80906674	0.038	0.003	1	KO	Pi16	0.035
Kiz	0.000554213	3.59718563	0.112	0.033	1	KO	Kiz	0.079
Myo5a	0.000559173	1.06401517	0.6	0.46	1	KO	Myo5a	0.14
Gatad2a	0.000617664	1.43937801	0.388	0.25	1	KO	Gatad2a	0.138
Hnrnpu	0.000639172	0.9202039	0.662	0.548	1	KO	Hnrnpu	0.114
Tbl3	0.000659435	1.1201361	0.275	0.141	1	KO	Tbl3	0.134
Nr4a1	0.000680359	2.43414069	0.3	0.177	1	KO	Nr4a1	0.123
Tob2	0.000711658	1.79128154	0.35	0.214	1	KO	Tob2	0.136
Pxk	0.000722611	2.15276977	0.062	0.011	1	KO	Pxk	0.051
Cmpk2	0.000726758	1.99088508	0.075	0.016	1	KO	Cmpk2	0.059
Ndufs1	0.000732143	1.53077289	0.462	0.338	1	KO	Ndufs1	0.124
Cish	0.000736351	2.8567449	0.062	0.011	1	KO	Cish	0.051
Ptprc	0.000739607	2.12060622	0.1	0.027	1	KO	Ptprc	0.073
Csde1	0.000747818	0.83487668	0.625	0.475	1	KO	Csde1	0.15
Ubfd1	0.000759465	2.05780892	0.288	0.155	1	KO	Ubfd1	0.133
Cd83	0.000764563	2.78380567	0.062	0.011	1	KO	Cd83	0.051
Psmd1	0.000766934	1.1901592	0.475	0.349	1	KO	Psmd1	0.126
Tnpo3	0.000770648	1.48238697	0.462	0.345	1	KO	Tnpo3	0.117
Mitd1	0.000786223	2.09568814	0.238	0.124	1	KO	Mitd1	0.114
Chordc1	0.00079487	1.66920553	0.275	0.151	1	KO	Chordc1	0.124
Blmh	0.000796843	1.53596817	0.388	0.252	1	KO	Blmh	0.136
Kmt5a	0.000826241	1.70436321	0.375	0.249	1	KO	Kmt5a	0.126
Smpdl3b	0.000869827	2.95511678	0.088	0.022	1	KO	Smpdl3b	0.066
Ttc3	0.00087357	0.88950345	0.613	0.466	1	KO	Ttc3	0.147
Casp12	0.000875099	2.11590922	0.15	0.055	1	KO	Casp12	0.095
Abcf1	0.000879953	0.80832225	0.512	0.355	1	KO	Abcf1	0.157
Sept11	0.000910647	1.76595962	0.4	0.268	1	KO	Sept11	0.132
Nmi	0.000927577	1.69499311	0.275	0.151	1	KO	Nmi	0.124
Crebrf	0.000927922	0.8827008	0.225	0.105	1	KO	Crebrf	0.12
H2-DMb1	0.000944485	1.72807469	0.238	0.119	1	KO	H2-DMb1	0.119
Sec61a1	0.000990559	1.22326262	0.562	0.468	1	KO	Sec61a1	0.094
Ptms	0.000995936	0.85453148	0.6	0.477	1	KO	Ptms	0.123
Ccnk	0.000996664	1.29566984	0.338	0.209	1	KO	Ccnk	0.129
Zcchc14	0.001006836	1.71131633	0.212	0.1	1	KO	Zcchc14	0.112
Dcun1d2	0.001016731	2.27026881	0.112	0.035	1	KO	Dcun1d2	0.077
Mbtps1	0.001024784	1.62219423	0.338	0.203	1	KO	Mbtps1	0.135
Nudt3	0.001030908	1.05859766	0.488	0.363	1	KO	Nudt3	0.125
Foxp4	0.00107282	2.09752591	0.125	0.041	1	KO	Foxp4	0.084
Gm16286	0.001084303	1.71486554	0.438	0.304	1	KO	Gm16286	0.134
Fos	0.001128268	2.04957418	0.412	0.273	1	KO	Fos	0.139
Nfkbia	0.001136991	2.23066825	0.288	0.163	1	KO	Nfkbia	0.125
Senp6	0.001143924	1.28239119	0.462	0.336	1	KO	Senp6	0.126
Mrfap1	0.00115357	0.74347814	0.738	0.555	1	KO	Mrfap1	0.183
Esr1	0.001157734	1.17757501	0.1	0.029	1	KO	Esr1	0.071
Ndufs2	0.001164288	0.6998775	0.625	0.482	1	KO	Ndufs2	0.143
Mtmr2	0.001164982	1.19596649	0.475	0.374	1	KO	Mtmr2	0.101

Gene						Label	Gene	Value
Tuba1b	0.001188703	0.96066757	0.713	0.607	1	KO	Tuba1b	0.106
Vat1	0.001198377	0.79365419	0.662	0.526	1	KO	Vat1	0.136
Mrpl52	0.001226468	0.78194618	0.65	0.526	1	KO	Mrpl52	0.124
Ndufa3	0.001228085	0.94346554	0.625	0.531	1	KO	Ndufa3	0.094
Akr1b3	0.00124538	0.99287484	0.537	0.407	1	KO	Akr1b3	0.13
Gtf2h1	0.001270464	1.32365245	0.475	0.347	1	KO	Gtf2h1	0.128
Cdk4	0.001273563	0.76641806	0.662	0.482	1	KO	Cdk4	0.18
Glg1	0.001276179	1.7606273	0.4	0.285	1	KO	Glg1	0.115
Mybbp1a	0.001282289	1.48822682	0.4	0.271	1	KO	Mybbp1a	0.129
Usp15	0.001393739	1.28373628	0.325	0.201	1	KO	Usp15	0.124
Ddx59	0.001395995	1.83083015	0.125	0.043	1	KO	Ddx59	0.082
Nlrc5	0.001436158	1.44866836	0.225	0.111	1	KO	Nlrc5	0.114
Pdcd6ip	0.001440006	1.37566954	0.425	0.317	1	KO	Pdcd6ip	0.108
Fam120a	0.001479656	1.25982353	0.512	0.398	1	KO	Fam120a	0.114
Eif3g	0.001485352	1.11204868	0.512	0.38	1	KO	Eif3g	0.132
Ipo7	0.001509461	1.28066531	0.375	0.254	1	KO	Ipo7	0.121
Dtx3l	0.001565546	2.40940976	0.138	0.052	1	KO	Dtx3l	0.086
Uba52	0.001566193	0.96706744	0.55	0.468	1	KO	Uba52	0.082
Nolc1	0.001586296	1.52896724	0.375	0.244	1	KO	Nolc1	0.131
Scpep1	0.001636049	1.29627477	0.462	0.336	1	KO	Scpep1	0.126
Suclg2	0.001649253	1.25725371	0.45	0.331	1	KO	Suclg2	0.119
Gars	0.001664224	0.81209424	0.6	0.444	1	KO	Gars	0.156
Rasa3	0.001676914	2.08848452	0.288	0.17	1	KO	Rasa3	0.118
Pomgnt2	0.001720073	0.88841879	0.062	0.013	1	KO	Pomgnt2	0.049
Ap2m1	0.001734089	0.99545096	0.537	0.396	1	KO	Ap2m1	0.141
Calu	0.001751402	1.05426195	0.613	0.461	1	KO	Calu	0.152
Kpna4	0.001818738	1.11031222	0.362	0.236	1	KO	Kpna4	0.126
Serp1	0.001844763	1.12179484	0.525	0.388	1	KO	Serp1	0.137
Psip1	0.001865615	2.23801564	0.375	0.261	1	KO	Psip1	0.114
Mrpl19	0.001868022	1.28399035	0.388	0.268	1	KO	Mrpl19	0.12
Ccser2	0.001913269	2.1476068	0.3	0.19	1	KO	Ccser2	0.11
Ssb	0.001914648	0.82847912	0.588	0.447	1	KO	Ssb	0.141
Dnaja1	0.001951317	0.88355508	0.575	0.447	1	KO	Dnaja1	0.128
Bpnt1	0.002004022	1.32493715	0.425	0.296	1	KO	Bpnt1	0.129
Tyr	0.002072677	1.13299392	0.613	0.45	1	KO	Tyr	0.163
Ptges3	0.00208422	0.87659696	0.575	0.441	1	KO	Ptges3	0.134
Zc3h7b	0.002107665	2.03456747	0.262	0.151	1	KO	Zc3h7b	0.111
Ddx3x	0.002119313	1.01156362	0.537	0.412	1	KO	Ddx3x	0.125
Azin1	0.002154582	1.39304459	0.388	0.266	1	KO	Azin1	0.122
Pdia3	0.002170192	0.96072117	0.562	0.434	1	KO	Pdia3	0.128
Prpf40a	0.002189612	0.92965983	0.525	0.395	1	KO	Prpf40a	0.13
Eif4g1	0.00222924	0.8035974	0.6	0.477	1	KO	Eif4g1	0.123
Tfrc	0.002300649	0.78538232	0.525	0.376	1	KO	Tfrc	0.149
P2ry10	0.002332855	4.96563308	0.025	0.002	1	KO	P2ry10	0.023
Xlr4c	0.002332855	4.28259359	0.025	0.002	1	KO	Xlr4c	0.023
Ccr7	0.002332855	2.94373834	0.025	0.002	1	KO	Ccr7	0.023
Rspo3	0.002332855	2.20331726	0.025	0.002	1	KO	Rspo3	0.023
Muc1	0.002332855	1.96122138	0.025	0.002	1	KO	Muc1	0.023
Lrp4	0.002332855	1.54544566	0.025	0.002	1	KO	Lrp4	0.023
Cgn	0.002332855	1.35674401	0.025	0.002	1	KO	Cgn	0.023
Dnph1	0.002363894	1.06227021	0.425	0.285	1	KO	Dnph1	0.14
Dapl1	0.002373081	3.37851306	0.025	0.002	1	KO	Dapl1	0.023

Gene							Gene	
Mpp4	0.002373081	0.91286472	0.025	0.002	1	KO	Mpp4	0.023
Ak2	0.002404755	1.08171109	0.488	0.357	1	KO	Ak2	0.131
Metap2	0.002411707	0.89517894	0.537	0.41	1	KO	Metap2	0.127
Olfr1167	0.002413941	1.13863175	0.025	0.002	1	KO	Olfr1167	0.023
Igsf8	0.002452655	1.33916159	0.462	0.352	1	KO	Igsf8	0.11
Entpd2	0.002455651	1.79765769	0.038	0.005	1	KO	Entpd2	0.033
Plekhj1	0.002468074	0.88723454	0.438	0.307	1	KO	Plekhj1	0.131
Clec10a	0.002485457	2.84168259	0.038	0.005	1	KO	Clec10a	0.033
Polr1c	0.002541003	1.08162563	0.388	0.266	1	KO	Polr1c	0.122
Brca1	0.002563877	1.60743877	0.275	0.163	1	KO	Brca1	0.112
Adck2	0.002574739	1.61605364	0.125	0.046	1	KO	Adck2	0.079
Gimap1	0.002576871	1.47166173	0.038	0.005	1	KO	Gimap1	0.033
Plekhm1	0.002579065	1.47891062	0.175	0.079	1	KO	Plekhm1	0.096
Rhpn1	0.002608018	1.72119877	0.038	0.005	1	KO	Rhpn1	0.033
Hells	0.002706971	1.83520485	0.262	0.147	1	KO	Hells	0.115
Hoxd13	0.002721966	2.36657366	0.088	0.025	1	KO	Hoxd13	0.063
Rdx	0.002729114	1.09237623	0.475	0.349	1	KO	Rdx	0.126
Bloc1s1	0.002759311	1.61728453	0.2	0.098	1	KO	Bloc1s1	0.102
Ubl3	0.00276444	1.17723971	0.5	0.415	1	KO	Ubl3	0.085
Ccl4	0.002783544	1.94953067	0.138	0.052	1	KO	Ccl4	0.086
Rtcb	0.002791528	1.52228596	0.388	0.276	1	KO	Rtcb	0.112
Smc3	0.002796563	1.62206274	0.375	0.257	1	KO	Smc3	0.118
Usp25	0.002956359	1.82898617	0.312	0.204	1	KO	Usp25	0.108
Ptpn11	0.003004949	1.93918631	0.362	0.244	1	KO	Ptpn11	0.118
Aldh18a1	0.003055255	1.58457229	0.188	0.089	1	KO	Aldh18a1	0.099
Hnrnpk	0.00312644	0.74152423	0.7	0.591	1	KO	Hnrnpk	0.109
Nfia	0.003141594	1.37224506	0.362	0.246	1	KO	Nfia	0.116
Lig1	0.003156515	1.52715368	0.325	0.204	1	KO	Lig1	0.121
Mrps33	0.003234357	0.71323846	0.688	0.517	1	KO	Mrps33	0.171
Scrib	0.003248247	1.62982508	0.288	0.171	1	KO	Scrib	0.117
Gphn	0.003299226	1.13046273	0.2	0.1	1	KO	Gphn	0.1
Appbp2	0.003468325	1.41893129	0.388	0.269	1	KO	Appbp2	0.119
Ppp4r2	0.003528256	1.29659267	0.475	0.349	1	KO	Ppp4r2	0.126
Pa2g4	0.00354219	0.76043832	0.575	0.445	1	KO	Pa2g4	0.13
Kdm1a	0.003549386	1.4368378	0.35	0.239	1	KO	Kdm1a	0.111
Psmd3	0.003599692	0.78206123	0.488	0.353	1	KO	Psmd3	0.135
Rps12-ps3	0.003685846	1.05270849	0.15	0.063	1	KO	Rps12-ps3	0.087
4930432K21R	0.00370467	2.15151496	0.05	0.01	1	KO	4930432K21R	0.04
Smarcc1	0.003709189	1.01029298	0.475	0.36	1	KO	Smarcc1	0.115
Tax1bp1	0.003710189	0.78971406	0.575	0.45	1	KO	Tax1bp1	0.125
Cdt1	0.00374161	1.77639895	0.275	0.165	1	KO	Cdt1	0.11
Cnn3	0.003750378	1.0029063	0.45	0.328	1	KO	Cnn3	0.122
Atic	0.003791445	1.2212201	0.362	0.258	1	KO	Atic	0.104
Ppp2ca	0.003817526	0.81299089	0.625	0.452	1	KO	Ppp2ca	0.173
Nav2	0.003837418	1.56162804	0.3	0.187	1	KO	Nav2	0.113
St3gal6	0.003860969	1.15783216	0.488	0.38	1	KO	St3gal6	0.108
Clic4	0.003960876	1.56978066	0.4	0.285	1	KO	Clic4	0.115
Ddx1	0.003998985	1.17289823	0.462	0.349	1	KO	Ddx1	0.113
Csnk1d	0.004059748	1.4872641	0.388	0.276	1	KO	Csnk1d	0.112
Dlst	0.004104298	1.36385739	0.488	0.387	1	KO	Dlst	0.101
Lypla2	0.00414447	1.31222479	0.25	0.139	1	KO	Lypla2	0.111
Pnn	0.004197194	0.85196923	0.462	0.334	1	KO	Pnn	0.128

Gene							Gene	
Epn2	0.004207079	2.06163248	0.275	0.17	1	KO	Epn2	0.105
Oat	0.004228749	1.00322817	0.512	0.371	1	KO	Oat	0.141
Fkbp4	0.004237594	0.85589375	0.6	0.493	1	KO	Fkbp4	0.107
Exosc2	0.004282846	1.32540409	0.212	0.111	1	KO	Exosc2	0.101
Dmwd	0.004296595	1.91963465	0.238	0.132	1	KO	Dmwd	0.106
Msh6	0.004319629	1.8390545	0.188	0.094	1	KO	Msh6	0.094
Kif5b	0.004336344	0.90998631	0.512	0.393	1	KO	Kif5b	0.119
Ogdh	0.004462483	0.92566624	0.55	0.418	1	KO	Ogdh	0.132
Phb	0.004470509	1.01927528	0.45	0.347	1	KO	Phb	0.103
Gtpbp2	0.004510119	1.2962029	0.288	0.173	1	KO	Gtpbp2	0.115
Cacybp	0.004528588	1.03645886	0.462	0.357	1	KO	Cacybp	0.105
Rpl27-ps3	0.004834387	1.19005036	0.3	0.198	1	KO	Rpl27-ps3	0.102
Hnrnph1	0.004892943	1.40646837	0.55	0.452	1	KO	Hnrnph1	0.098
Bola2	0.005010173	0.7673126	0.637	0.542	1	KO	Bola2	0.095
N4bp1	0.005039997	1.91054316	0.212	0.113	1	KO	N4bp1	0.099
Myh10	0.005047001	4.49992863	0.013	0	1	KO	Myh10	0.013
Myb	0.005047001	4.40335569	0.013	0	1	KO	Myb	0.013
Fam84a	0.005047001	3.83915682	0.013	0	1	KO	Fam84a	0.013
Ren1	0.005047001	3.83630194	0.013	0	1	KO	Ren1	0.013
Zfp182	0.005047001	3.83630194	0.013	0	1	KO	Zfp182	0.013
Eln	0.005047001	3.82494701	0.013	0	1	KO	Eln	0.013
Egfl6	0.005047001	3.5668997	0.013	0	1	KO	Egfl6	0.013
Mybpc1	0.005047001	3.5668997	0.013	0	1	KO	Mybpc1	0.013
6030419C18R	0.005047001	3.5668997	0.013	0	1	KO	6030419C18R	0.013
Jrk	0.005047001	3.5668997	0.013	0	1	KO	Jrk	0.013
Strip2	0.005047001	3.55605484	0.013	0	1	KO	Strip2	0.013
Myrf	0.005047001	3.50214962	0.013	0	1	KO	Myrf	0.013
Cabp7	0.005047001	3.46153192	0.013	0	1	KO	Cabp7	0.013
Dio2	0.005047001	3.23969528	0.013	0	1	KO	Dio2	0.013
Ly6g6e	0.005047001	3.08720828	0.013	0	1	KO	Ly6g6e	0.013
Serpinf2	0.005047001	2.92794558	0.013	0	1	KO	Serpinf2	0.013
Spib	0.005047001	2.86609509	0.013	0	1	KO	Spib	0.013
Kcnc3	0.005047001	2.86609509	0.013	0	1	KO	Kcnc3	0.013
Rhbdl3	0.005047001	2.86609509	0.013	0	1	KO	Rhbdl3	0.013
Has1	0.005047001	2.86609509	0.013	0	1	KO	Has1	0.013
Pdgfrl	0.005047001	2.75483834	0.013	0	1	KO	Pdgfrl	0.013
Ntng1	0.005047001	2.6737764	0.013	0	1	KO	Ntng1	0.013
Erich3	0.005047001	2.6737764	0.013	0	1	KO	Erich3	0.013
Dpysl5	0.005047001	2.6737764	0.013	0	1	KO	Dpysl5	0.013
Sbk3	0.005047001	2.6737764	0.013	0	1	KO	Sbk3	0.013
Fam161b	0.005047001	2.6737764	0.013	0	1	KO	Fam161b	0.013
Gdnf	0.005047001	2.6737764	0.013	0	1	KO	Gdnf	0.013
Sema5a	0.005047001	2.6737764	0.013	0	1	KO	Sema5a	0.013
Rorb	0.005047001	2.6737764	0.013	0	1	KO	Rorb	0.013
Ccdc160	0.005047001	2.63219078	0.013	0	1	KO	Ccdc160	0.013
Gm11915	0.005047001	2.63219078	0.013	0	1	KO	Gm11915	0.013
Gm48898	0.005047001	2.63219078	0.013	0	1	KO	Gm48898	0.013
BC051077	0.005047001	2.61620779	0.013	0	1	KO	BC051077	0.013
Grik4	0.005047001	2.50809194	0.013	0	1	KO	Grik4	0.013
Zfp711	0.005047001	2.4728119	0.013	0	1	KO	Zfp711	0.013
2010308F09R	0.005047001	2.43873155	0.013	0	1	KO	2010308F09R	0.013
Meiob	0.005047001	2.01194082	0.013	0	1	KO	Meiob	0.013

Gene	col2	col3	col4	col5	col6	Gene2	col8
Gm16755	0.005047001	1.99421972	0.013	0	1 KO	Gm16755	0.013
Gm40932	0.005047001	1.99421972	0.013	0	1 KO	Gm40932	0.013
1810041L15R	0.005047001	1.99421972	0.013	0	1 KO	1810041L15R	0.013
Gm41231	0.005047001	1.98907598	0.013	0	1 KO	Gm41231	0.013
Itln1	0.005047001	1.95637197	0.013	0	1 KO	Itln1	0.013
Klre1	0.005047001	1.95637197	0.013	0	1 KO	Klre1	0.013
Gm32926	0.005047001	1.95637197	0.013	0	1 KO	Gm32926	0.013
Gm47414	0.005047001	1.95637197	0.013	0	1 KO	Gm47414	0.013
Dusp13	0.005047001	1.93492503	0.013	0	1 KO	Dusp13	0.013
Gm38431	0.005047001	1.93492503	0.013	0	1 KO	Gm38431	0.013
Tnxb	0.005047001	1.92368942	0.013	0	1 KO	Tnxb	0.013
Aqp8	0.005047001	1.74209926	0.013	0	1 KO	Aqp8	0.013
Cfap70	0.005047001	1.74209926	0.013	0	1 KO	Cfap70	0.013
Fdx1l	0.005047001	1.73812446	0.013	0	1 KO	Fdx1l	0.013
Tmem121b	0.005047001	1.71176955	0.013	0	1 KO	Tmem121b	0.013
Gm26873	0.005047001	1.71176955	0.013	0	1 KO	Gm26873	0.013
A230077H06R	0.005047001	1.70000038	0.013	0	1 KO	A230077H06R	0.013
Gm48362	0.005047001	1.70000038	0.013	0	1 KO	Gm48362	0.013
Gm47270	0.005047001	1.70000038	0.013	0	1 KO	Gm47270	0.013
Adora2b	0.005047001	1.70000038	0.013	0	1 KO	Adora2b	0.013
Cpne5	0.005047001	1.70000038	0.013	0	1 KO	Cpne5	0.013
Tmem151b	0.005047001	1.70000038	0.013	0	1 KO	Tmem151b	0.013
Tnfrsf14	0.005047001	1.65196429	0.013	0	1 KO	Tnfrsf14	0.013
Dlx3	0.005047001	1.65196429	0.013	0	1 KO	Dlx3	0.013
1110032F04R	0.005047001	1.64424871	0.013	0	1 KO	1110032F04R	0.013
Gm46440	0.005047001	1.58373245	0.013	0	1 KO	Gm46440	0.013
Majin	0.005047001	1.58373245	0.013	0	1 KO	Majin	0.013
Gm15298	0.005047001	1.5011574	0.013	0	1 KO	Gm15298	0.013
1500035N22R	0.005047001	1.5011574	0.013	0	1 KO	1500035N22R	0.013
Tex52	0.005047001	1.5011574	0.013	0	1 KO	Tex52	0.013
Slc17a6	0.005047001	1.5011574	0.013	0	1 KO	Slc17a6	0.013
Cidec	0.005047001	1.49938325	0.013	0	1 KO	Cidec	0.013
Kcnt1	0.005047001	1.4780473	0.013	0	1 KO	Kcnt1	0.013
Gm11551	0.005047001	1.4780473	0.013	0	1 KO	Gm11551	0.013
Abi3bp	0.005047001	1.4780473	0.013	0	1 KO	Abi3bp	0.013
Runx2os1	0.005047001	1.44378767	0.013	0	1 KO	Runx2os1	0.013
Plcd4	0.005047001	1.41024608	0.013	0	1 KO	Plcd4	0.013
2700068H02R	0.005047001	1.41024608	0.013	0	1 KO	2700068H02R	0.013
Htr7	0.005047001	1.41024608	0.013	0	1 KO	Htr7	0.013
Slc6a20a	0.005047001	1.3740385	0.013	0	1 KO	Slc6a20a	0.013
Fam19a3	0.005047001	1.32938246	0.013	0	1 KO	Fam19a3	0.013
Gm15859	0.005047001	1.26559155	0.013	0	1 KO	Gm15859	0.013
Slc9a4	0.005047001	1.24025193	0.013	0	1 KO	Slc9a4	0.013
Car3	0.005047001	1.24025193	0.013	0	1 KO	Car3	0.013
Xlr4b	0.005047001	1.23654577	0.013	0	1 KO	Xlr4b	0.013
Adra1b	0.005047001	1.23654577	0.013	0	1 KO	Adra1b	0.013
Gm11707	0.005047001	1.23654577	0.013	0	1 KO	Gm11707	0.013
Gprc5c	0.005047001	1.23654577	0.013	0	1 KO	Gprc5c	0.013
Rslcan18	0.005047001	1.23654577	0.013	0	1 KO	Rslcan18	0.013
Gm13874	0.005047001	1.21722743	0.013	0	1 KO	Gm13874	0.013
Tceal1	0.005047001	1.21722743	0.013	0	1 KO	Tceal1	0.013
Ccdc142	0.005047001	1.21722743	0.013	0	1 KO	Ccdc142	0.013

Gm26888	0.005047001	1.21722743	0.013	0	1 KO	Gm26888	0.013
D430001F17R	0.005047001	1.21722743	0.013	0	1 KO	D430001F17R	0.013
Pcdhgb6	0.005047001	1.21722743	0.013	0	1 KO	Pcdhgb6	0.013
Prg2	0.005047001	1.16386687	0.013	0	1 KO	Prg2	0.013
Platr15	0.005047001	1.16386687	0.013	0	1 KO	Platr15	0.013
Shh	0.005047001	1.16386687	0.013	0	1 KO	Shh	0.013
Wnt5a	0.005047001	1.16386687	0.013	0	1 KO	Wnt5a	0.013
Gm10721	0.005047001	1.16386687	0.013	0	1 KO	Gm10721	0.013
Il5	0.005047001	1.16386687	0.013	0	1 KO	Il5	0.013
Kcnj16	0.005047001	1.16386687	0.013	0	1 KO	Kcnj16	0.013
Gm15718	0.005047001	1.08753922	0.013	0	1 KO	Gm15718	0.013
Podnl1	0.005047001	1.08753922	0.013	0	1 KO	Podnl1	0.013
Grb7	0.005047001	1.08753922	0.013	0	1 KO	Grb7	0.013
Slc23a3	0.005047001	0.99896238	0.013	0	1 KO	Slc23a3	0.013
Sertad4	0.005047001	0.99896238	0.013	0	1 KO	Sertad4	0.013
Zfp14	0.005047001	0.99896238	0.013	0	1 KO	Zfp14	0.013
Igflr1	0.005047001	0.99896238	0.013	0	1 KO	Igflr1	0.013
Lgr5	0.005047001	0.99896238	0.013	0	1 KO	Lgr5	0.013
Spata31d1a	0.005047001	0.99896238	0.013	0	1 KO	Spata31d1a	0.013
Gm2093	0.005047001	0.99896238	0.013	0	1 KO	Gm2093	0.013
Peli3	0.005047001	0.99896238	0.013	0	1 KO	Peli3	0.013
Gm13030	0.005047001	0.97117033	0.013	0	1 KO	Gm13030	0.013
Klrb1c	0.005047001	0.97117033	0.013	0	1 KO	Klrb1c	0.013
Barx2	0.005047001	0.97117033	0.013	0	1 KO	Barx2	0.013
Gm32184	0.005047001	0.97117033	0.013	0	1 KO	Gm32184	0.013
AC158554.1	0.005047001	0.97117033	0.013	0	1 KO	AC158554.1	0.013
Gm44170	0.005047001	0.95589227	0.013	0	1 KO	Gm44170	0.013
Gm14302	0.005047001	0.94663243	0.013	0	1 KO	Gm14302	0.013
4930519L02R	0.005047001	0.94663243	0.013	0	1 KO	4930519L02R	0.013
Acot11	0.005047001	0.94663243	0.013	0	1 KO	Acot11	0.013
Plekhg4	0.005047001	0.94663243	0.013	0	1 KO	Plekhg4	0.013
Dlk1	0.005047001	0.94663243	0.013	0	1 KO	Dlk1	0.013
D830024N08R	0.005047001	0.93549141	0.013	0	1 KO	D830024N08R	0.013
Gm36757	0.005047001	0.93549141	0.013	0	1 KO	Gm36757	0.013
Olfr129	0.005047001	0.93549141	0.013	0	1 KO	Olfr129	0.013
Fyb2	0.005047001	0.93029517	0.013	0	1 KO	Fyb2	0.013
Fut1	0.005047001	0.91688656	0.013	0	1 KO	Fut1	0.013
Kiss1r	0.005047001	0.91688656	0.013	0	1 KO	Kiss1r	0.013
Gm48657	0.005047001	0.91688656	0.013	0	1 KO	Gm48657	0.013
Gm11992	0.005047001	0.91688656	0.013	0	1 KO	Gm11992	0.013
Gh	0.005047001	0.91688656	0.013	0	1 KO	Gh	0.013
Npw	0.005047001	0.91688656	0.013	0	1 KO	Npw	0.013
Gm26580	0.005047001	0.83431623	0.013	0	1 KO	Gm26580	0.013
Cks1brt	0.005047001	0.83431623	0.013	0	1 KO	Cks1brt	0.013
Gm26822	0.005047001	0.83431623	0.013	0	1 KO	Gm26822	0.013
Gm15638	0.005047001	0.83431623	0.013	0	1 KO	Gm15638	0.013
Gm38335	0.005047001	0.82828921	0.013	0	1 KO	Gm38335	0.013
Krt28	0.005047001	0.79582802	0.013	0	1 KO	Krt28	0.013
Abcb1a	0.005047001	0.76734026	0.013	0	1 KO	Abcb1a	0.013
Gm45345	0.005047001	0.76734026	0.013	0	1 KO	Gm45345	0.013
Cdh15	0.005047001	0.76734026	0.013	0	1 KO	Cdh15	0.013
Mefv	0.005047001	0.76734026	0.013	0	1 KO	Mefv	0.013

Pde6a	0.005047001	0.76734026	0.013	0	1	KO	Pde6a	0.013
Tmem151a	0.005047001	0.76734026	0.013	0	1	KO	Tmem151a	0.013
Gm16092	0.005047001	0.75099073	0.013	0	1	KO	Gm16092	0.013
Gm13056	0.005047001	0.75099073	0.013	0	1	KO	Gm13056	0.013
4930438A08R	0.005047001	0.75099073	0.013	0	1	KO	4930438A08R	0.013
Pkhd1l1	0.005047001	0.75099073	0.013	0	1	KO	Pkhd1l1	0.013
AC110166.1	0.005047001	0.75099073	0.013	0	1	KO	AC110166.1	0.013
Nr5a1	0.005047001	0.742236	0.013	0	1	KO	Nr5a1	0.013
1700028J19Ri	0.005047001	0.742236	0.013	0	1	KO	1700028J19Ri	0.013
Foxj1	0.005047001	0.742236	0.013	0	1	KO	Foxj1	0.013
Lyar	0.005162913	1.11605509	0.362	0.249	1	KO	Lyar	0.113
Ubr4	0.005238523	1.09957637	0.362	0.247	1	KO	Ubr4	0.115
Bhlhe41	0.005354524	0.95685765	0.512	0.387	1	KO	Bhlhe41	0.125
Rrm1	0.005588034	1.37237698	0.388	0.285	1	KO	Rrm1	0.103
Pdia6	0.005732774	0.8588829	0.575	0.445	1	KO	Pdia6	0.13
Supt16	0.005776407	1.50457663	0.362	0.266	1	KO	Supt16	0.096
Zmiz2	0.005778326	1.49514728	0.3	0.197	1	KO	Zmiz2	0.103
Sfr1	0.00577845	1.04863197	0.438	0.342	1	KO	Sfr1	0.096
Pdap1	0.005875342	0.92173297	0.512	0.434	1	KO	Pdap1	0.078
Zmynd11	0.0060386	1.62937083	0.362	0.265	1	KO	Zmynd11	0.097
Serpinb9	0.006174204	1.03493471	0.112	0.043	1	KO	Serpinb9	0.069
Homez	0.006182214	1.60457614	0.088	0.029	1	KO	Homez	0.059
Trim21	0.006182214	1.49251956	0.088	0.029	1	KO	Trim21	0.059
Ldb1	0.006230142	1.12605686	0.35	0.231	1	KO	Ldb1	0.119
Bap1	0.006273668	2.03814615	0.2	0.106	1	KO	Bap1	0.094
Grcc10	0.006306381	0.99269989	0.362	0.255	1	KO	Grcc10	0.107
Josd1	0.006313727	1.25089427	0.225	0.124	1	KO	Josd1	0.101
Eefsec	0.006329233	1.43035743	0.388	0.281	1	KO	Eefsec	0.107
Dnajc7	0.006426005	0.96960006	0.462	0.347	1	KO	Dnajc7	0.115
Wdr77	0.006548533	2.05162641	0.325	0.233	1	KO	Wdr77	0.092
Sae1	0.00664079	0.9205274	0.425	0.303	1	KO	Sae1	0.122
Noc2l	0.006645048	1.21691886	0.35	0.247	1	KO	Noc2l	0.103
Snw1	0.006748602	1.24978549	0.412	0.312	1	KO	Snw1	0.1
Cxcl10	0.006750153	2.16180131	0.25	0.151	1	KO	Cxcl10	0.099
Fam98b	0.007020384	1.80161216	0.262	0.162	1	KO	Fam98b	0.1
Stat3	0.00723148	0.99727744	0.425	0.322	1	KO	Stat3	0.103
Parp11	0.007243627	1.61539562	0.188	0.098	1	KO	Parp11	0.09
Cse1l	0.007318697	0.98004271	0.325	0.209	1	KO	Cse1l	0.116
Acsl3	0.007326426	1.56474182	0.362	0.276	1	KO	Acsl3	0.086
Txnrd1	0.007347223	1.33115852	0.412	0.315	1	KO	Txnrd1	0.097
Eif3m	0.007453314	0.72615677	0.625	0.477	1	KO	Eif3m	0.148
BC055324	0.007569083	2.31579317	0.15	0.071	1	KO	BC055324	0.079
G3bp1	0.007600066	0.98827371	0.562	0.439	1	KO	G3bp1	0.123
Krt5	0.007602773	3.99223588	0.038	0.006	1	KO	Krt5	0.032
Stpg1	0.007604236	1.40049765	0.05	0.011	1	KO	Stpg1	0.039
Ammecr1l	0.007689265	1.34500162	0.2	0.111	1	KO	Ammecr1l	0.089
Gbp6	0.007727518	1.83310769	0.05	0.011	1	KO	Gbp6	0.039
Sh2d2a	0.007789828	2.20473839	0.05	0.011	1	KO	Sh2d2a	0.039
Nek9	0.007795344	1.49641901	0.35	0.246	1	KO	Nek9	0.104
Itgal	0.007835359	2.0221099	0.038	0.006	1	KO	Itgal	0.032
Mgat4b	0.007916504	0.96670459	0.613	0.501	1	KO	Mgat4b	0.112
Zfp503	0.007993938	1.65931118	0.038	0.006	1	KO	Zfp503	0.032

Tnk2	0.008284234	0.85733326	0.275	0.173	1 KO	Tnk2	0.102
Eloc	0.008604659	0.72517699	0.613	0.463	1 KO	Eloc	0.15
Phf14	0.008683971	1.20491645	0.45	0.363	1 KO	Phf14	0.087
Ier3ip1	0.008743852	1.06177797	0.45	0.353	1 KO	Ier3ip1	0.097
Zfp809	0.008745606	1.4284429	0.088	0.03	1 KO	Zfp809	0.058
Mknk1	0.008763558	1.88347176	0.1	0.038	1 KO	Mknk1	0.062
Arhgef10l	0.008773934	3.21243176	0.138	0.063	1 KO	Arhgef10l	0.075
Ppt2	0.008856403	1.33428593	0.462	0.371	1 KO	Ppt2	0.091
Stag2	0.008916508	1.24013493	0.325	0.225	1 KO	Stag2	0.1
Rgs2	0.008972508	2.07259615	0.1	0.038	1 KO	Rgs2	0.062
Tram1	0.009049709	1.01833411	0.475	0.379	1 KO	Tram1	0.096
Car14	0.009085339	0.89649998	0.512	0.418	1 KO	Car14	0.094
Cox20	0.009116347	1.01239817	0.35	0.254	1 KO	Cox20	0.096
Hikeshi	0.009162919	1.10049493	0.288	0.187	1 KO	Hikeshi	0.101
Mcm6	0.009207212	0.91753724	0.35	0.227	1 KO	Mcm6	0.123
Puf60	0.009255464	1.16353718	0.462	0.352	1 KO	Puf60	0.11
Clasp2	0.009385129	1.60994817	0.225	0.133	1 KO	Clasp2	0.092
Onecut2	0.009415373	1.83503259	0.062	0.017	1 KO	Onecut2	0.045
H2-T22	0.009453103	1.07008081	0.275	0.177	1 KO	H2-T22	0.098
Etf1	0.009478321	0.97793936	0.438	0.33	1 KO	Etf1	0.108
Srek1ip1	0.009547891	1.72002283	0.25	0.16	1 KO	Srek1ip1	0.09
Dhx37	0.00961337	2.32003694	0.125	0.054	1 KO	Dhx37	0.071
Ftsj3	0.009664521	1.83888762	0.312	0.216	1 KO	Ftsj3	0.096
Psmd2	0.009821575	0.99143385	0.512	0.401	1 KO	Psmd2	0.111
Ezr	0.009839375	1.55613938	0.388	0.285	1 KO	Ezr	0.103
Hnrnpl	0.00991575	0.77185154	0.525	0.436	1 KO	Hnrnpl	0.089
Shc4	0.009997108	0.8862234	0.462	0.342	1 KO	Shc4	0.12