

Table S5. List of differentially expressed genes in the livers of AEG-1KO versus WT mouse.

Gene	KO liver	Gene	WT liver	KO/WT fold change	Log2 fold change
Ccnb1ip1	0.308	Ccnb1ip1	0.013	23.69230769	4.566346823
Aim1l	1.106	Aim1l	0.05	22.12	4.46727948
Sult1e1	18.982	Sult1e1	0.859	22.09778813	4.465830065
A4gnt	1.076	A4gnt	0.05	21.52	4.427606173
Lrrtm3	0.107	Lrrtm3	5.11E-03	20.94753328	4.388708461
Mup10	477.968	Mup10	28.656	16.67950865	4.060004885
Mup9	15108.91	Mup9	913.894	16.53245234	4.047228838
Gm11425	0.57	Gm11425	0.04	14.25	3.832890014
4933430H1	0.136	4933430H1	9.87E-03	13.78192136	3.784705126
Lrrc14b	0.085	Lrrc14b	7.17E-03	11.86322401	3.568424232
Cd226	0.093	Cd226	7.91E-03	11.75429727	3.555116385
Gm14680	0.399	Gm14680	0.037	10.78378378	3.430791571
Ano5	0.027	Ano5	2.53E-03	10.68460625	3.417461838
Niacr1	0.106	Niacr1	0.01	10.6	3.40599236
Omd	2.49	Omd	0.236	10.55084746	3.399286978
Kcnj5	0.046	Kcnj5	4.38E-03	10.511883	3.393949218
Sh2d1b1	0.144	Sh2d1b1	0.014	10.28571429	3.362570079
Xlr4a	0.628	Xlr4a	0.066	9.515151515	3.25022663
Gm8842	0.205	Gm8842	0.022	9.318181818	3.220048481
Gpr63	0.076	Gpr63	8.30E-03	9.154420622	3.194468582
Fbxw10	0.055	Fbxw10	6.02E-03	9.131661962	3.190877455
Ear11	2.464	Ear11	0.285	8.645614035	3.111968432
Klra17	0.285	Klra17	0.033	8.636363636	3.11042399
Cyp2b10	43.249	Cyp2b10	5.255	8.230066603	3.040904106
Hao2	0.543	Hao2	0.067	8.104477612	3.018719197
A530064D(	0.081	A530064D(	0.01	8.1	3.017921908
Cdkn3	0.2	Cdkn3	0.025	8	3
Amac1	0.103	Amac1	0.013	7.923076923	2.986060809
Cyp3a41a	0.075	Cyp3a41a	9.55E-03	7.852580882	2.973166898
Depdc1b	0.061	Depdc1b	7.78E-03	7.843641507	2.971523599
LOC10003(	0.028	LOC10003(	3.57E-03	7.834359261	2.969815288
Slc5a3	0.014	Slc5a3	1.80E-03	7.764836384	2.956955525
Slc13a2	0.966	Slc13a2	0.126	7.666666667	2.938599455
Gimap7	0.122	Gimap7	0.016	7.625	2.930737338
Wnt11	0.102	Wnt11	0.014	7.285714286	2.86507042
Lilra6	0.351	Lilra6	0.049	7.163265306	2.840617376
Ccr3	0.126	Ccr3	0.018	7	2.807354922
Serpinb7	0.068	Serpinb7	0.01	6.8	2.765534746
Usp29	0.018	Usp29	2.69E-03	6.696428571	2.743391863
Lmod2	0.735	Lmod2	0.11	6.681818182	2.740240726
Hist2h2ac	0.331	Hist2h2ac	0.05	6.62	2.726831217
Sstr3	0.099	Sstr3	0.015	6.6	2.722466024
Fcrl5	0.112	Fcrl5	0.017	6.588235294	2.719892081
Cyp2d12	5.084	Cyp2d12	0.775	6.56	2.713695815

Fbxl13	0.049	Fbxl13	7.48E-03	6.54992648	2.711478713
Syt2	0.038	Syt2	5.81E-03	6.539321976	2.709141059
Ccdc154	0.053	Ccdc154	8.14E-03	6.510256725	2.702714436
Frem3	0.019	Frem3	2.97E-03	6.397306397	2.677464582
Lgi2	0.121	Lgi2	0.02	6.05	2.596935142
LOC100503	0.137	LOC100503	0.023	5.956521739	2.574470127
Fam55d	0.252	Fam55d	0.043	5.860465116	2.551015169
Fam110c	0.618	Fam110c	0.111	5.567567568	2.477047162
Ccr1l1	0.071	Ccr1l1	0.013	5.461538462	2.449307401
Slc7a15	0.485	Slc7a15	0.089	5.449438202	2.446107506
Ntrk2	4.058	Ntrk2	0.751	5.403462051	2.433884052
Sh3rf2	0.022	Sh3rf2	4.11E-03	5.348893752	2.419240547
Trpv1	0.123	Trpv1	0.023	5.347826087	2.418952549
Nhs	0.018	Nhs	3.38E-03	5.333333333	2.415037499
Arhgef33	0.032	Arhgef33	6.03E-03	5.303281405	2.406885304
Klhl38	0.047	Klhl38	8.90E-03	5.283867341	2.401594246
Hs6st3	0.058	Hs6st3	0.011	5.272727273	2.398549376
Srd5a2	0.725	Srd5a2	0.138	5.253623188	2.393312728
Ubash3a	0.035	Ubash3a	6.66E-03	5.252889089	2.393111123
Pgr	0.015	Pgr	2.86E-03	5.25210084	2.392894616
Dcc	1.00E-02	Dcc	1.91E-03	5.243966422	2.390658448
Scgb3a1	0.173	Scgb3a1	0.033	5.242424242	2.390234108
Rhd	0.068	Rhd	0.013	5.230769231	2.387023123
Gm7030	0.115	Gm7030	0.022	5.227272727	2.386058432
Adam2	0.162	Adam2	0.031	5.225806452	2.385653692
Xlr4b	0.24	Xlr4b	0.046	5.217391304	2.38332864
Slc24a4	0.049	Slc24a4	9.41E-03	5.209994684	2.3812819
Klk8	0.156	Klk8	0.03	5.2	2.378511623
Gm6710	0.027	Gm6710	5.19E-03	5.198305737	2.378041488
Cntnap4	0.021	Cntnap4	4.06E-03	5.1762386	2.37190412
Scrt2	0.03	Scrt2	5.80E-03	5.175983437	2.371833001
Ms4a14	0.028	Ms4a14	5.43E-03	5.157487567	2.366668438
Rpp25	0.077	Rpp25	0.015	5.133333333	2.359895945
Pcdhb18	0.02	Pcdhb18	3.91E-03	5.121638924	2.356605547
Gm4477	2.031	Gm4477	0.402	5.052238806	2.336922833
Tchh	0.771	Tchh	0.155	4.974193548	2.314462645
H2-Eb2	0.084	H2-Eb2	0.017	4.941176471	2.304854582
Them5	0.309	Them5	0.063	4.904761905	2.294183104
Itgad	0.098	Itgad	0.02	4.9	2.292781749
LOC100862	0.16	LOC100862	0.033	4.848484848	2.277533976
Sertad4	0.531	Sertad4	0.11	4.827272727	2.271208337
Rec8	1.017	Rec8	0.211	4.819905213	2.269004775
1700019BC	0.112	1700019BC	0.024	4.666666667	2.222392421
Cd40lg	0.144	Cd40lg	0.031	4.64516129	2.215728691
Ptprv	0.03	Ptprv	6.46E-03	4.64180721	2.214686604
2610028H2	0.102	2610028H2	0.022	4.636363636	2.212993723
Grip1	0.05	Grip1	0.011	4.545454545	2.184424571

Kcnk10	2.22	Kcnk10	0.489	4.539877301	2.182653306
Etv4	0.077	Etv4	0.017	4.529411765	2.179323699
Lpar3	0.176	Lpar3	0.039	4.512820513	2.1740294
Tnfaip8l3	0.278	Tnfaip8l3	0.062	4.483870968	2.164744762
Gm8210	1.635	Gm8210	0.365	4.479452055	2.163322267
Gm8909	0.513	Gm8909	0.116	4.422413793	2.14483402
Lcn12	0.36	Lcn12	0.082	4.390243902	2.134301092
Kcng2	0.092	Kcng2	0.021	4.380952381	2.131244533
Mamstr	0.118	Mamstr	0.027	4.37037037	2.127755547
Gstm3	55.25	Gstm3	12.768	4.327224311	2.113441908
Lrrc8b	1.135	Lrrc8b	0.263	4.315589354	2.109557593
Tmeff2	0.201	Tmeff2	0.047	4.276595745	2.09646284
Chrna4	0.512	Chrna4	0.12	4.266666667	2.093109404
Trim40	0.153	Trim40	0.036	4.25	2.087462841
Rgs16	34.883	Rgs16	8.216	4.245740019	2.086016033
D330028D:	0.16	D330028D:	0.038	4.210526316	2.074000581
Ctsw	0.398	Ctsw	0.096	4.145833333	2.05166212
Cyp2a4	86.533	Cyp2a4	21.248	4.072524473	2.025923368
Gpr31c	0.081	Gpr31c	0.02	4.05	2.017921908
Catsperg2	0.02	Catsperg2	4.97E-03	4.022526146	2.008101798
Ysk4	0.02	Ysk4	5.00E-03	4.00080016	2.000288568
4933402D2	0.088	4933402D2	0.022	4	2
Atp1a4	0.044	Atp1a4	0.011	4	2
Ereg	0.056	Ereg	0.014	4	2
Gng8	0.084	Gng8	0.021	4	2
Gsg2	0.028	Gsg2	7.00E-03	4	2
Akr1c21	0.064	Akr1c21	0.016	4	2
Nptxr	0.224	Nptxr	0.056	4	2
Melk	0.027	Melk	6.75E-03	3.998815166	1.999572598
Myo18b	0.019	Myo18b	4.75E-03	3.997475279	1.999089112
Cyp3a41b	0.038	Cyp3a41b	9.53E-03	3.986153362	1.994997217
Nnmt	82.865	Nnmt	20.79	3.985810486	1.994873116
9930021D1	0.155	9930021D1	0.039	3.974358974	1.990722186
2810408A1	0.139	2810408A1	0.035	3.971428571	1.989658056
Slc29a4	0.028	Slc29a4	7.06E-03	3.968816442	1.988708839
Tnfsf8	0.035	Tnfsf8	8.83E-03	3.963311063	1.986706203
Cryba4	0.103	Cryba4	0.026	3.961538462	1.986060809
Tspyl5	0.74	Tspyl5	0.187	3.957219251	1.984487001
Tmprss5	0.038	Tmprss5	9.60E-03	3.957096741	1.984442336
1500015O1	0.087	1500015O1	0.022	3.954545455	1.983511877
Il4i1	0.038	Il4i1	9.61E-03	3.953391594	1.983090865
Kcnq3	0.027	Kcnq3	6.84E-03	3.949100483	1.981524077
Tspan10	0.075	Tspan10	0.019	3.947368421	1.980891177
Efcab4b	0.071	Efcab4b	0.018	3.944444444	1.979822118
Mlf1	0.067	Mlf1	0.017	3.941176471	1.978626349
Grrp1	0.063	Grrp1	0.016	3.9375	1.977279923
Prtg	8.83E-03	Prtg	2.25E-03	3.934075724	1.976024727

Unc5d	8.40E-03	Unc5d	2.13E-03	3.933926898	1.975970149
Dnahc3	6.29E-03	Dnahc3	1.60E-03	3.933667084	1.975874864
Chrna7	0.037	Chrna7	9.41E-03	3.931987248	1.975258643
Gm3787	0.573	Gm3787	0.146	3.924657534	1.97256677
Gm5077	0.029	Gm5077	7.39E-03	3.923690976	1.972211421
Gng4	0.026	Gng4	6.63E-03	3.922160205	1.971648465
Il9r	0.025	Il9r	6.38E-03	3.920953576	1.97120456
Nova1	0.022	Nova1	5.62E-03	3.91319815	1.968348165
Dlx4	0.043	Dlx4	0.011	3.909090909	1.966833136
Hist3h2ba	0.125	Hist3h2ba	0.032	3.90625	1.965784285
Rspo2	0.023	Rspo2	5.89E-03	3.904260737	1.965049403
1110017F1	0.238	1110017F1	0.061	3.901639344	1.964080426
Vmn2r1	0.028	Vmn2r1	7.18E-03	3.897550111	1.962567572
Pla2g4c	0.022	Pla2g4c	5.65E-03	3.896563939	1.96220249
Galnt13	0.011	Galnt13	2.83E-03	3.89380531	1.961180751
Dzip1l	0.486	Dzip1l	0.125	3.888	1.959028219
H2-M2	0.101	H2-M2	0.026	3.884615385	1.957771765
Epb4.2	0.022	Epb4.2	5.67E-03	3.882124581	1.956846416
Scd3	0.022	Scd3	5.67E-03	3.880070547	1.956082883
Ky	0.014	Ky	3.61E-03	3.877042371	1.954956502
Psg29	0.014	Psg29	3.62E-03	3.871681416	1.952960244
Rrm2	3.74	Rrm2	0.966	3.871635611	1.952943176
Col28a1	0.018	Col28a1	4.65E-03	3.869303525	1.952073905
Hyal6	0.022	Hyal6	5.70E-03	3.859649123	1.948469699
Tlx2	0.054	Tlx2	0.014	3.857142857	1.94753258
Stox1	0.05	Stox1	0.013	3.846153846	1.943416472
Gapdhs	0.627	Gapdhs	0.164	3.823170732	1.934769628
Aqp4	1.878	Aqp4	0.503	3.73359841	1.900566758
Lrtm1	1.766	Lrtm1	0.479	3.686847599	1.882387782
Zmynd10	0.206	Zmynd10	0.056	3.678571429	1.879145605
Gm4723	0.495	Gm4723	0.135	3.666666667	1.874469118
Aph1c	0.154	Aph1c	0.042	3.666666667	1.874469118
Lmod3	0.161	Lmod3	0.044	3.659090909	1.871485259
Zfp185	0.08	Zfp185	0.022	3.636363636	1.862496476
Cndp1	0.228	Cndp1	0.063	3.619047619	1.855610091
Prss29	0.481	Prss29	0.133	3.616541353	1.854610648
Havcr2	0.104	Havcr2	0.029	3.586206897	1.842458723
Msx1	0.147	Msx1	0.041	3.585365854	1.84212034
Upp2	284.694	Upp2	79.466	3.58258878	1.841002456
Ubxn10	0.071	Ubxn10	0.02	3.55	1.827819025
Ahrr	0.06	Ahrr	0.017	3.529411765	1.819427754
Gm3448	0.525	Gm3448	0.15	3.5	1.807354922
Clec3b	0.416	Clec3b	0.119	3.495798319	1.805621955
Gm3934	0.573	Gm3934	0.164	3.493902439	1.804839324
1700112E0	0.227	1700112E0	0.065	3.492307692	1.804180674
Slc26a4	0.31	Slc26a4	0.089	3.483146067	1.800390974
Cd3g	0.202	Cd3g	0.058	3.482758621	1.800230488

Xlr3b	0.383	Xlr3b	0.11	3.481818182	1.799840868
E330034G1	0.138	E330034G1	0.04	3.45	1.786596362
Erbp4	0.303	Erbp4	0.088	3.443181818	1.783742365
Mas1	0.219	Mas1	0.064	3.421875	1.77478706
Vpreb3	0.557	Vpreb3	0.163	3.417177914	1.772805363
Tmigd1	0.246	Tmigd1	0.072	3.416666667	1.772589504
Slc43a1	5.347	Slc43a1	1.568	3.410076531	1.769804117
H1fx	0.316	H1fx	0.093	3.397849462	1.764621937
Tnfsf13	0.277	Tnfsf13	0.082	3.37804878	1.756190161
Slpi	1.208	Slpi	0.359	3.364902507	1.750564706
Rgs9bp	0.02	Rgs9bp	5.97E-03	3.349522693	1.743955526
Col17a1	0.133	Col17a1	0.04	3.325	1.733354341
Hamp2	5.077	Hamp2	1.531	3.316133246	1.729501977
Tmppe	0.019	Tmppe	5.74E-03	3.31010453	1.726876777
Gsto2	0.185	Gsto2	0.056	3.303571429	1.724026538
Syt4	0.099	Syt4	0.03	3.3	1.722466024
Eif4ebp3	35.238	Eif4ebp3	10.701	3.292963274	1.719386422
P2ry13	0.357	P2ry13	0.109	3.275229358	1.711595939
Gm5741	0.393	Gm5741	0.12	3.275	1.711494907
Tnni3	0.157	Tnni3	0.048	3.270833333	1.709658248
Spin4	0.062	Spin4	0.019	3.263157895	1.706268797
Mxd3	0.199	Mxd3	0.061	3.262295082	1.705887283
Hpgds	0.422	Hpgds	0.131	3.221374046	1.687676187
Nup210l	0.045	Nup210l	0.014	3.214285714	1.684498174
Zfp459	0.077	Zfp459	0.024	3.208333333	1.68182404
Trim36	0.064	Trim36	0.02	3.2	1.678071905
Accn5	35.018	Accn5	11.067	3.164181802	1.661832494
Prdm8	0.041	Prdm8	0.013	3.153846154	1.657112286
Sirpb1a	0.251	Sirpb1a	0.08	3.1375	1.649615459
Gm14025	0.116	Gm14025	0.037	3.135135135	1.648527629
Adamts3	0.047	Adamts3	0.015	3.133333333	1.647698256
Hey1	0.503	Hey1	0.161	3.124223602	1.643497712
Catsperg1	0.137	Catsperg1	0.044	3.113636364	1.638600464
Kcnmb2	0.062	Kcnmb2	0.02	3.1	1.632268215
Apitd1	0.194	Apitd1	0.063	3.079365079	1.622632919
Greb1	0.022	Greb1	7.15E-03	3.078645396	1.622295705
Gvin1	1.493	Gvin1	0.485	3.078350515	1.622157513
Bex1	0.209	Bex1	0.068	3.073529412	1.619896291
Gm129	11.374	Gm129	3.71	3.065768194	1.616248617
Nrg4	2.904	Nrg4	0.949	3.060063224	1.613561461
Gm6834	0.792	Gm6834	0.259	3.057915058	1.612548332
Hoxb6	0.137	Hoxb6	0.045	3.044444444	1.606178987
Rgs9	0.215	Rgs9	0.071	3.028169014	1.59844573
Tm7sf4	0.505	Tm7sf4	0.168	3.005952381	1.587822155
Cpne9	0.084	Cpne9	0.028	3	1.584962501
Slc39a12	0.087	Slc39a12	0.029	3	1.584962501
Fam78b	0.036	Fam78b	0.012	3	1.584962501

Gm11710	0.485	Gm11710	0.162	2.99382716	1.581990934
Fbxo2	0.335	Fbxo2	0.112	2.991071429	1.580662363
Serpina5	0.406	Serpina5	0.137	2.96350365	1.567303834
Fkbp1b	0.237	Fkbp1b	0.08	2.9625	1.566815154
Gm10349	0.502	Gm10349	0.17	2.952941176	1.562152618
Spn	0.297	Spn	0.101	2.940594059	1.556107638
Mns1	0.129	Mns1	0.044	2.931818182	1.551795637
Fkbp5	27.52	Fkbp5	9.424	2.920203735	1.546069026
Gm1966	0.229	Gm1966	0.079	2.898734177	1.53542304
Dkk4	0.647	Dkk4	0.224	2.888392857	1.53026698
Rdh19	0.178	Rdh19	0.062	2.870967742	1.521537121
Cyp2c55	3.917	Cyp2c55	1.365	2.86959707	1.520848177
Ntf3	0.217	Ntf3	0.076	2.855263158	1.513623719
H2-T3	0.154	H2-T3	0.054	2.851851852	1.511899039
Rnf39	10.866	Rnf39	3.837	2.831899922	1.501770282
Gap43	0.138	Gap43	0.391	0.352941176	-1.502500341
Prx	0.025	Prx	0.071	0.352112676	-1.50589093
Gprin1	0.025	Gprin1	0.071	0.352112676	-1.50589093
Slc14a1	0.045	Slc14a1	0.128	0.3515625	-1.508146904
Gm14217	0.464	Gm14217	1.326	0.349924585	-1.514884065
Nlrp10	0.029	Nlrp10	0.083	0.34939759	-1.517058436
Phospho1	2.202	Phospho1	6.305	0.34924663	-1.517681902
Hapln4	0.57	Hapln4	1.64	0.347560976	-1.52466199
Ces4a	0.732	Ces4a	2.111	0.346755092	-1.528011025
Necab2	0.052	Necab2	0.15	0.346666667	-1.528378972
Adam32	0.011	Adam32	0.032	0.34375	-1.540568381
Prok1	0.686	Prok1	1.996	0.343687375	-1.540831239
Trpm1	3.77E-03	Trpm1	0.011	0.342545455	-1.545632654
Gpr160	0.07	Gpr160	0.205	0.341463415	-1.550197083
Cyp2s1	0.128	Cyp2s1	0.375	0.341333333	-1.550746785
Pole2	0.091	Pole2	0.267	0.34082397	-1.552901291
Atp10b	3.74E-03	Atp10b	0.011	0.339545455	-1.558323376
Pcdhgb1	0.04	Pcdhgb1	0.118	0.338983051	-1.560714954
Lif	6.39E-03	Lif	0.019	0.336105263	-1.573014961
Ryr1	3.36E-03	Ryr1	0.01	0.3359	-1.573896299
Myocd	5.03E-03	Myocd	0.015	0.335466667	-1.575758673
Psat1	0.114	Psat1	0.34	0.335294118	-1.576500922
Gata3	8.03E-03	Gata3	0.024	0.334375	-1.580461108
Htr2a	8.68E-03	Htr2a	0.026	0.334	-1.582079992
Grm4	8.67E-03	Grm4	0.026	0.333461538	-1.584407725
Fam54a	0.034	Fam54a	0.102	0.333333333	-1.584962501
Pou3f3	0.017	Pou3f3	0.051	0.333333333	-1.584962501
Rlbp1	0.012	Rlbp1	0.036	0.333333333	-1.584962501
Mgl2	0.017	Mgl2	0.051	0.333333333	-1.584962501
Actc1	0.019	Actc1	0.057	0.333333333	-1.584962501
Gprc5d	0.019	Gprc5d	0.057	0.333333333	-1.584962501
Diras1	0.027	Diras1	0.081	0.333333333	-1.584962501

2310007BC	0.011	2310007BC	0.033	0.333333333	-1.584962501
Arl14	0.022	Arl14	0.066	0.333333333	-1.584962501
Gm128	0.018	Gm128	0.054	0.333333333	-1.584962501
Bhlha15	0.015	Bhlha15	0.045	0.333333333	-1.584962501
Cacng8	0.019	Cacng8	0.057	0.333333333	-1.584962501
Glb1l2	7.00E-03	Glb1l2	0.021	0.333333333	-1.584962501
Cdh6	0.02	Cdh6	0.06	0.333333333	-1.584962501
Prph	0.028	Prph	0.084	0.333333333	-1.584962501
1700055NC	0.013	1700055NC	0.039	0.333333333	-1.584962501
4932425I2	9.33E-03	4932425I2	0.028	0.33325	-1.58532322
Crybb3	0.53	Crybb3	1.592	0.332914573	-1.586776071
Hspb7	9.32E-03	Hspb7	0.028	0.332892857	-1.58687018
Capn8	1.414	Capn8	4.249	0.332784185	-1.587341224
En2	7.29E-03	En2	0.022	0.331545455	-1.592721419
Prdm6	9.92E-03	Prdm6	0.03	0.330633333	-1.596695915
Pmfbbp1	7.59E-03	Pmfbbp1	0.023	0.330130435	-1.598891948
Zfp296	0.034	Zfp296	0.103	0.330097087	-1.599037686
Gm15583	6.60E-03	Gm15583	0.02	0.32995	-1.599680677
1700019L0	0.031	1700019L0	0.094	0.329787234	-1.600392541
Klri1	0.031	Klri1	0.094	0.329787234	-1.600392541
Klri2	6.59E-03	Klri2	0.02	0.3297	-1.600774208
Gm13304	0.03	Gm13304	0.091	0.32967033	-1.600904045
BC049762	0.088	BC049762	0.267	0.329588015	-1.601264313
Dusp9	9.56E-03	Dusp9	0.029	0.329517241	-1.601574141
Edaradd	9.55E-03	Edaradd	0.029	0.32937931	-1.602178159
Ush1c	8.23E-03	Ush1c	0.025	0.3292	-1.602963759
Tas2r138	0.052	Tas2r138	0.158	0.329113924	-1.60334103
4732415M	0.05	4732415M	0.152	0.328947368	-1.604071324
Sox10	9.51E-03	Sox10	0.029	0.327931034	-1.608535654
Mettl21d	1.181	Mettl21d	3.602	0.327873404	-1.608789217
Scn5a	3.02E-03	Scn5a	9.21E-03	0.327867072	-1.608817077
Fbn2	2.46E-03	Fbn2	7.51E-03	0.327829561	-1.608982146
Ptchd2	2.97E-03	Ptchd2	9.06E-03	0.327776551	-1.609215446
Pvalb	0.057	Pvalb	0.174	0.327586207	-1.610053482
Gm5150	0.113	Gm5150	0.345	0.327536232	-1.610273589
Slc26a8	8.52E-03	Slc26a8	0.026	0.3275	-1.610433188
Tmem45b	0.131	Tmem45b	0.4	0.3275	-1.610433188
Ltb4r1	0.111	Ltb4r1	0.339	0.327433628	-1.610725597
Lin7b	0.036	Lin7b	0.11	0.327272727	-1.611434712
Mctp1	0.018	Mctp1	0.055	0.327272727	-1.611434712
Fam150b	0.017	Fam150b	0.052	0.326923077	-1.612976877
BC048609	0.048	BC048609	0.147	0.326530612	-1.614709844
Foxc2	9.47E-03	Foxc2	0.029	0.326482759	-1.614921289
Slc5a5	8.81E-03	Slc5a5	0.027	0.32637037	-1.615418007
Sidt1	0.03	Sidt1	0.092	0.326086957	-1.61667136
Scn4a	7.82E-03	Scn4a	0.024	0.325875	-1.617609417
Zdhhc15	0.014	Zdhhc15	0.043	0.325581395	-1.618909833

Fam181b	0.014	Fam181b	0.043	0.325581395	-1.618909833
Cyp4a31	1.923	Cyp4a31	5.913	0.325215627	-1.620531514
Tubb2b	0.04	Tubb2b	0.123	0.325203252	-1.62058641
Scel	8.45E-03	Scel	0.026	0.325038462	-1.621317654
Pcdhb3	6.81E-03	Pcdhb3	0.021	0.324428571	-1.624027216
Prom2	0.012	Prom2	0.037	0.324324324	-1.624490865
Slc25a31	0.012	Slc25a31	0.037	0.324324324	-1.624490865
Doc2b	0.012	Doc2b	0.037	0.324324324	-1.624490865
Pcdhb6	0.011	Pcdhb6	0.034	0.323529412	-1.628031223
Mtus2	0.055	Mtus2	0.17	0.323529412	-1.628031223
Tmem145	0.022	Tmem145	0.068	0.323529412	-1.628031223
Gm9631	8.41E-03	Gm9631	0.026	0.323346154	-1.628848645
Klk1b22	0.032	Klk1b22	0.099	0.323232323	-1.62935662
Lrrc26	0.021	Lrrc26	0.065	0.323076923	-1.63005039
Wdr38	0.021	Wdr38	0.065	0.323076923	-1.63005039
Kdm4d	9.69E-03	Kdm4d	0.03	0.323066667	-1.630096191
Slc41a2	1.347	Slc41a2	4.172	0.322866731	-1.630989307
Ccdc108	4.51E-03	Ccdc108	0.014	0.322285714	-1.633587854
Tmem91	0.029	Tmem91	0.09	0.322222222	-1.633872101
Gzma	0.029	Gzma	0.09	0.322222222	-1.633872101
Utp14b	0.019	Utp14b	0.059	0.322033898	-1.634715536
Maneal	0.028	Maneal	0.087	0.32183908	-1.635588574
Serpina10-	7.39E-03	Serpina10-	0.023	0.321434783	-1.637402043
Rsph4a	7.07E-03	Rsph4a	0.022	0.321318182	-1.637925477
Dpysl5	5.14E-03	Dpysl5	0.016	0.3211875	-1.638512348
Galnt9	0.017	Galnt9	0.053	0.320754717	-1.640457613
Sp6	0.015	Sp6	0.047	0.319148936	-1.647698256
Cacna2d4	4.45E-03	Cacna2d4	0.014	0.317571429	-1.654846974
Gal3st1	0.152	Gal3st1	0.482	0.315352697	-1.664961823
Acta2	1.218	Acta2	3.891	0.313030069	-1.675626847
Serpina7	4.615	Serpina7	14.755	0.31277533	-1.676801368
Slc35f1	0.01	Slc35f1	0.032	0.3125	-1.678071905
Umod	0.01	Umod	0.032	0.3125	-1.678071905
Mup20	2420.714	Mup20	7782.698	0.311037895	-1.684837736
Cfd	0.112	Cfd	0.362	0.309392265	-1.692490965
Dlgap5	0.017	Dlgap5	0.055	0.309090909	-1.693896872
Cldn7	0.142	Cldn7	0.46	0.308695652	-1.695742931
Fhdc1	0.025	Fhdc1	0.081	0.308641975	-1.695993813
Cyp2c65	0.053	Cyp2c65	0.172	0.308139535	-1.6983443
Barhl1	0.028	Barhl1	0.091	0.307692308	-1.700439718
Mboat1	0.063	Mboat1	0.205	0.307317073	-1.702200176
Slc1a1	0.083	Slc1a1	0.271	0.306273063	-1.70710961
Hist1h2ac	0.041	Hist1h2ac	0.134	0.305970149	-1.708537186
Ckmt1	0.26	Ckmt1	0.854	0.304449649	-1.715724447
Mt1	105.059	Mt1	345.745	0.303862673	-1.718508631
Camk2n2	0.121	Camk2n2	0.399	0.303258145	-1.721381699
Oscp1	0.036	Oscp1	0.119	0.302521008	-1.724892762

Gm12693	0.117	Gm12693	0.387	0.302325581	-1.725825037
Ptger4	0.026	Ptger4	0.086	0.302325581	-1.725825037
Unc13b	0.597	Unc13b	1.98	0.301515152	-1.729697594
Kif26b	0.056	Kif26b	0.186	0.301075269	-1.731803889
2610305D1	0.208	2610305D1	0.694	0.299711816	-1.738352134
Pcdhgb6	0.044	Pcdhgb6	0.147	0.299319728	-1.740240726
Grm2	0.023	Grm2	0.077	0.298701299	-1.743224585
Tmsb15b1	0.294	Tmsb15b1	0.986	0.298174442	-1.745771492
Adra1d	0.022	Adra1d	0.074	0.297297297	-1.750021747
Tagln3	0.155	Tagln3	0.524	0.295801527	-1.757298596
Ccdc160	0.034	Ccdc160	0.115	0.295652174	-1.75802721
Shd	0.034	Shd	0.115	0.295652174	-1.75802721
Chi3l1	0.031	Chi3l1	0.105	0.295238095	-1.760049207
Cdcp1	0.315	Cdcp1	1.068	0.29494382	-1.761487913
Folh1	0.017	Folh1	0.058	0.293103448	-1.770518154
Elovl4	0.017	Elovl4	0.058	0.293103448	-1.770518154
Wnt7b	0.018	Wnt7b	0.062	0.290322581	-1.784271309
Rab3b	0.031	Rab3b	0.107	0.289719626	-1.787270676
Fxyd6	0.288	Fxyd6	1.01	0.285148515	-1.810214576
Gm10294	2.788	Gm10294	9.823	0.283823679	-1.816933138
Cyp2c40	0.817	Cyp2c40	2.917	0.280082276	-1.836077403
Micalcl	0.172	Micalcl	0.616	0.279220779	-1.840521786
Clic6	0.041	Clic6	0.147	0.278911565	-1.84212034
Fam69b	0.064	Fam69b	0.23	0.27826087	-1.845490051
Klf5	0.06	Klf5	0.216	0.277777778	-1.847996907
Akap6	0.033	Akap6	0.119	0.277310924	-1.850423644
Grin2c	0.021	Grin2c	0.076	0.276315789	-1.855610091
Pou2af1	0.09	Pou2af1	0.33	0.272727273	-1.874469118
Cdh15	0.045	Cdh15	0.166	0.271084337	-1.883186335
Sync	0.013	Sync	0.048	0.270833333	-1.884522783
Sorl1	0.428	Sorl1	1.597	0.268002505	-1.899681611
BC016579	0.012	BC016579	0.045	0.266666667	-1.906890596
Cd96	0.012	Cd96	0.045	0.266666667	-1.906890596
Spata17	0.016	Spata17	0.06	0.266666667	-1.906890596
Ccdc109b	0.02	Ccdc109b	0.075	0.266666667	-1.906890596
Slc7a11	5.59E-03	Slc7a11	0.021	0.266285714	-1.908953062
Gdf9	0.029	Gdf9	0.109	0.266055046	-1.91020333
Ism1	8.76E-03	Ism1	0.033	0.265575758	-1.912804635
Patl2	0.032	Patl2	0.121	0.26446281	-1.918863237
4931440L1	0.019	4931440L1	0.072	0.263888889	-1.921997488
Hist1h4b	0.083	Hist1h4b	0.315	0.263492063	-1.924168587
Eps8l3	0.114	Eps8l3	0.433	0.263279446	-1.925333201
Adarb2	4.73E-03	Adarb2	0.018	0.262722222	-1.92838986
Gm22	2.05E-03	Gm22	7.82E-03	0.2622154	-1.931175675
Scube3	8.65E-03	Scube3	0.033	0.262181818	-1.931360454
Ng23	0.027	Ng23	0.103	0.262135922	-1.931613025
Myoz3	7.60E-03	Myoz3	0.029	0.261896552	-1.93293103

Hist1h2ao	0.05	Hist1h2ao	0.191	0.261780105	-1.933572638
Pomc	0.051	Pomc	0.195	0.261538462	-1.934904972
Zfp575	9.41E-03	Zfp575	0.036	0.261472222	-1.935270407
Cpne8	0.375	Cpne8	1.435	0.261324042	-1.936088236
1700003F1	0.035	1700003F1	0.134	0.26119403	-1.936806174
1700088E0	0.082	1700088E0	0.314	0.261146497	-1.937068744
Ifitm6	0.095	Ifitm6	0.364	0.260989011	-1.937939032
Ccl11	0.024	Ccl11	0.092	0.260869565	-1.938599455
Sh3gl3	0.018	Sh3gl3	0.069	0.260869565	-1.938599455
Mmp13	9.65E-03	Mmp13	0.037	0.260675676	-1.939672127
Gm10651	0.042	Gm10651	0.162	0.259259259	-1.94753258
Apoa4	529.159	Apoa4	2048.509	0.258314218	-1.952801042
Cd209a	0.017	Cd209a	0.066	0.257575758	-1.956931278
Tm4sf5	0.026	Tm4sf5	0.101	0.257425743	-1.957771765
Gpr55	0.01	Gpr55	0.039	0.256410256	-1.963474124
Pitx3	0.168	Pitx3	0.656	0.256097561	-1.965234582
Cdr1	0.011	Cdr1	0.043	0.255813953	-1.966833136
BC055004	0.011	BC055004	0.043	0.255813953	-1.966833136
Evi2a	0.011	Evi2a	0.043	0.255813953	-1.966833136
Slc34a2	0.056	Slc34a2	0.222	0.252252252	-1.987060944
Dok7	0.01	Dok7	0.04	0.25	-2
Cyp4a10	39.01	Cyp4a10	156.285	0.249608088	-2.002263414
Flnc	8.44E-03	Flnc	0.034	0.248352941	-2.009536263
Sarm1	0.03	Sarm1	0.122	0.245901639	-2.023846742
2010015L0	0.028	2010015L0	0.114	0.245614035	-2.025535092
9930023K0	0.022	9930023K0	0.091	0.241758242	-2.048363022
Arntl	0.435	Arntl	1.8	0.241666667	-2.0489096
Car12	0.014	Car12	0.058	0.24137931	-2.050626073
Col8a2	0.012	Col8a2	0.05	0.24	-2.058893689
Lgals2	0.174	Lgals2	0.731	0.238030096	-2.0707841
Hrh3	0.021	Hrh3	0.089	0.235955056	-2.083416008
Treh	1.087	Treh	4.644	0.234065461	-2.095016032
Muc13	0.017	Muc13	0.073	0.232876712	-2.102361718
Crhr2	0.019	Crhr2	0.082	0.231707317	-2.109624491
Trim34b	0.101	Trim34b	0.436	0.231651376	-2.109972842
Rab25	0.073	Rab25	0.316	0.231012658	-2.113956189
Cd24a	0.426	Cd24a	1.853	0.229897464	-2.120937546
Efs	0.014	Efs	0.061	0.229508197	-2.123382416
Vnn1	6.642	Vnn1	29.465	0.22541999	-2.149312638
Hoxa5	0.014	Hoxa5	0.063	0.222222222	-2.169925001
Me3	0.012	Me3	0.054	0.222222222	-2.169925001
Xylt1	8.40E-03	Xylt1	0.038	0.221157895	-2.176851351
1700020L2	0.028	1700020L2	0.127	0.220472441	-2.181329765
Sprr2a2	7.27E-03	Sprr2a2	0.033	0.220424242	-2.181645194
Slc22a26	0.026	Slc22a26	0.118	0.220338983	-2.182203331
4933408B1	0.011	4933408B1	0.05	0.22	-2.184424571
Creb5	8.98E-03	Creb5	0.041	0.21902439	-2.19083656

Meig1	0.073	Meig1	0.334	0.218562874	-2.193879734
Lcn13	5.175	Lcn13	23.705	0.218308374	-2.195560625
Timp1	0.029	Timp1	0.133	0.218045113	-2.19730144
1810041L1	8.72E-03	1810041L1	0.04	0.218025	-2.197434523
Zmynd12	0.017	Zmynd12	0.078	0.217948718	-2.197939378
Xrra1	9.81E-03	Xrra1	0.045	0.217911111	-2.198188335
BC060267	0.01	BC060267	0.046	0.217391304	-2.201633861
Capn12	9.12E-03	Capn12	0.042	0.217214286	-2.202809106
Kndc1	0.011	Kndc1	0.051	0.215686275	-2.212993723
Gm14085	6.90E-03	Gm14085	0.032	0.21559375	-2.213612739
Cnn1	0.104	Cnn1	0.485	0.21443299	-2.221401219
Gli2	3.85E-03	Gli2	0.018	0.213666667	-2.226566239
Sla2	0.01	Sla2	0.047	0.212765957	-2.232660757
4930452BC	0.216	4930452BC	1.016	0.212598425	-2.233797185
F630043AC	0.011	F630043AC	0.052	0.211538462	-2.2410081
Saa3	2.575	Saa3	12.191	0.211221393	-2.243172134
Prr11	0.013	Prr11	0.062	0.209677419	-2.253756592
Derl3	1.101	Derl3	5.258	0.209395207	-2.255699673
Tmem163	0.031	Tmem163	0.149	0.208053691	-2.26497221
Cadm2	0.011	Cadm2	0.053	0.20754717	-2.268488836
1810062G1	0.085	1810062G1	0.41	0.207317073	-2.270089163
Moxd1	1.598	Moxd1	7.901	0.202252879	-2.305767853
Lgals1	2.258	Lgals1	11.338	0.19915329	-2.328048783
Kdelr3	0.036	Kdelr3	0.181	0.198895028	-2.329920886
Cd300lh	0.28	Cd300lh	1.413	0.198159943	-2.335262733
B4galnt2	0.057	B4galnt2	0.289	0.197231834	-2.342035668
Cdh22	0.014	Cdh22	0.071	0.197183099	-2.342392197
Pcdhga5	0.011	Pcdhga5	0.056	0.196428571	-2.347923303
Fut9	6.46E-03	Fut9	0.033	0.195636364	-2.353753541
Mmd2	0.397	Mmd2	2.053	0.193375548	-2.370522715
Rims1 (NC_	0.014	Rims1 (NC_	0.073	0.191780822	-2.382469637
Dscam	3.45E-03	Dscam	0.018	0.191611111	-2.383746873
Mt2	34.339	Mt2	179.525	0.191276981	-2.386264831
Krt19	0.432	Krt19	2.261	0.1910659	-2.387857775
A2m	5.52E-03	A2m	0.029	0.190482759	-2.392267676
Fam83e	0.027	Fam83e	0.142	0.190140845	-2.394859617
Grik4	7.40E-03	Grik4	0.039	0.189666667	-2.398461943
4930415O2	0.046	4930415O2	0.243	0.189300412	-2.401250548
Pnck	0.031	Pnck	0.164	0.18902439	-2.403355694
Pcdhb12	8.50E-03	Pcdhb12	0.045	0.188977778	-2.403711499
St6galnac5	0.013	St6galnac5	0.069	0.188405797	-2.408084739
A330021E2	0.016	A330021E2	0.085	0.188235294	-2.409390936
BC048546	0.181	BC048546	0.963	0.187954309	-2.411546101
Nell1	9.18E-03	Nell1	0.049	0.187244898	-2.417001686
Fxyd7	0.038	Fxyd7	0.203	0.187192118	-2.417408404
Zbtb8b	7.85E-03	Zbtb8b	0.042	0.186833333	-2.420176223
Entpd3	7.47E-03	Entpd3	0.04	0.1868	-2.42043364

Fzd6	0.28	Fzd6	1.502	0.186418109	-2.423386081
Zbtb7c	0.113	Zbtb7c	0.607	0.18616145	-2.425373744
Abcc8	5.21E-03	Abcc8	0.028	0.186071429	-2.42607155
Spata3	0.016	Spata3	0.086	0.186046512	-2.426264755
Ret	3.52E-03	Ret	0.019	0.185	-2.434402824
Fgf21	1.362	Fgf21	7.376	0.184652928	-2.437111952
Sdcbp2	0.056	Sdcbp2	0.313	0.178913738	-2.482663925
A630081J0	0.013	A630081J0	0.076	0.171052632	-2.547487795
Vmn2r29	0.03	Vmn2r29	0.177	0.169491525	-2.560714954
Wscd2 (NC	0.013	Wscd2 (NC	0.077	0.168831169	-2.566346823
Frmd5	6.14E-03	Frmd5	0.037	0.166027027	-2.590509982
Rasef	4.98E-03	Rasef	0.03	0.165933333	-2.591324365
Zcchc18	7.76E-03	Zcchc18	0.047	0.165	-2.59946207
Ccdc112	9.21E-03	Ccdc112	0.056	0.164482143	-2.60399713
Rasl11a	0.023	Rasl11a	0.14	0.164285714	-2.605721061
Gm3837	0.05	Gm3837	0.305	0.163934426	-2.608809243
Fam132b	9.17E-03	Fam132b	0.056	0.163660714	-2.611220041
Accn1	6.81E-03	Accn1	0.042	0.162119048	-2.62487449
Ap1m2	0.03	Ap1m2	0.192	0.15625	-2.678071905
Rpl30	18.909	Rpl30	122.154	0.154796405	-2.691556133
Prtn3	0.053	Prtn3	0.344	0.154069767	-2.6983443
Ugt1a7c	0.039	Ugt1a7c	0.257	0.151750973	-2.72022233
Actl6b	0.017	Actl6b	0.114	0.149122807	-2.745427173
Gm10681	0.015	Gm10681	0.101	0.148514851	-2.751320887
Ly6d	0.672	Ly6d	4.556	0.147497805	-2.761234609
Fam19a1	7.93E-03	Fam19a1	0.054	0.146925926	-2.766839105
Mme	0.572	Mme	3.94	0.145177665	-2.784108578
A1bg	0.014	A1bg	0.097	0.144329897	-2.79255792
Ccdc64b	0.013	Ccdc64b	0.092	0.141304348	-2.823122238
Slc26a3	0.039	Slc26a3	0.277	0.140794224	-2.828339947
Fut2	0.018	Fut2	0.13	0.138461538	-2.852442812
Mug2	14.53	Mug2	109.538	0.132648031	-2.914324836
Orm2	6.033	Orm2	46.241	0.130468632	-2.93822511
Kcnj15	4.96E-03	Kcnj15	0.038	0.130421053	-2.938751326
Gng3	0.015	Gng3	0.116	0.129310345	-2.9510904
Muc1	0.208	Muc1	1.637	0.127061698	-2.976398888
Cyp2c69	0.102	Cyp2c69	0.823	0.123936817	-3.012323278
Vtcn1	0.128	Vtcn1	1.058	0.120982987	-3.047123912
Kl	5.04E-03	Kl	0.042	0.12002381	-3.058607468
Rhox13	0.021	Rhox13	0.188	0.111702128	-3.162271429
Bcat1	3.18E-03	Bcat1	0.029	0.109793103	-3.187140659
Fgl1	44.736	Fgl1	425.089	0.105239138	-3.248256756
Abcc12	0.011	Abcc12	0.105	0.104761905	-3.254813899
Apod	0.014	Apod	0.137	0.102189781	-3.290677161
Cyp4a14	6.329	Cyp4a14	62.048	0.102001676	-3.293335236
Cdh18	0.075	Cdh18	0.746	0.100536193	-3.31421313
Tff2	0.045	Tff2	0.448	0.100446429	-3.315501826

Cxcl5	0.047	Cxcl5	0.476	0.098739496	-3.340228912
Gdpd3	0.362	Gdpd3	3.685	0.098236092	-3.347603017
Selenbp2	66.655	Selenbp2	686.987	0.097025126	-3.365497793
Rpl3	9.839	Rpl3	104.755	0.093923918	-3.412363603
LOC100861	0.029	LOC100861	0.315	0.092063492	-3.441227023
Gucy2c	0.02	Gucy2c	0.22	0.090909091	-3.459431619
Gm4450	0.028	Gm4450	0.319	0.087774295	-3.510057692
Rad51l1	0.118	Rad51l1	1.463	0.080656186	-3.632071005
Gm7068	0.018	Gm7068	0.233	0.077253219	-3.694261143
Alox15	0.011	Alox15	0.147	0.074829932	-3.740240726
B3gat2	0.03	B3gat2	0.401	0.074812968	-3.740567831
Inpp5j	7.43E-03	Inpp5j	0.102	0.072833333	-3.779257316
Mmp7	0.059	Mmp7	0.896	0.065848214	-3.924711873
Gm5093	0.043	Gm5093	0.659	0.065250379	-3.9378699
Myo1a	7.70E-03	Myo1a	0.123	0.062560976	-3.998593179
Tmem54	0.022	Tmem54	0.354	0.062146893	-4.008173931
Parm1	0.012	Parm1	0.197	0.060913706	-4.037089319
Gabrp	0.016	Gabrp	0.264	0.060606061	-4.044394119
Car9	0.04	Car9	0.673	0.059435364	-4.0725346
Rps3a	10.369	Rps3a	180.631	0.057404322	-4.12269684
S100g	0.054	S100g	0.984	0.054878049	-4.187627003
Lcn2	2.269	Lcn2	42.812	0.052999159	-4.23788672
Gm9241	0.077	Gm9241	1.483	0.05192178	-4.267516342
Actg2	0.039	Actg2	0.988	0.039473684	-4.662965013
Myo7b	3.92E-03	Myo7b	0.116	0.03375	-4.888968688
Ren1	0.036	Ren1	1.079	0.033364226	-4.905554148
Nlrp12	0.113	Nlrp12	3.959	0.028542561	-5.13074139
Ltf	9.41E-03	Ltf	0.387	0.024312661	-5.362148356
Saa1	32.219	Saa1	1673.883	0.01924806	-5.699143164
Serpina3c	0.214	Serpina3c	11.608	0.018435562	-5.761364818
Clec2h	0.024	Clec2h	1.412	0.016997167	-5.878561873
Tpo	7.86E-03	Tpo	0.522	0.015059387	-6.053193147
Saa2	10.532	Saa2	1049.826	0.010032139	-6.639226996
Ctse	0.024	Ctse	5.55	0.004324324	-7.853309555
Mtdh	0.021	Mtdh	12.672	0.001657197	-9.237039197
Dmbt1	0.017	Dmbt1	14.249	0.001193066	-9.711110212