

**Supplementary Table 2.** Significant differentially expressed genes and pathways in SPC-Cre KPG and KP cell lines. SPC-Cre KPG-KP: List of genes differentially expressed in SPC-KPG cells compared to SPC-KP cells (*P*-adjusted < 0.05 and |log2 fold change| > 1; n = 1254 genes).

genes	GeneVer	GeneID	GeneType	GeneName	SPC-KPG_mean	SPC-KP_mean	log2FoldChange	lfcSE	stat	pvalue	padj
ENSMUSG0000001555.10	ENSMUSG0000001555.10	ENSMUSG0000001555	protein coding	Fkbp10	40.96588091	9.773265436	2.08519595	0.4969764	4.1956909	2.72E-05	0.002606
ENSMUSG0000003941.16	ENSMUSG0000003941.16	ENSMUSG0000003941	protein coding	Nov2	14.57232272	40.06567917	-1.462806538	0.4016254	-3.642216	0.002703	0.002009
ENSMUSG0000007895.14	ENSMUSG0000007895.14	ENSMUSG0000007895	protein coding	Left1	174.661979	27.0033123	2.669379311	0.2624569	10.273098	9.23E-25	6.25E-23
ENSMUSG0000004311.0	ENSMUSG0000004311.0	ENSMUSG0000004311	protein coding	Lrrn4	10.02149336	30.04458855	-1.689033037	0.564802	-2.864716	0.0041739	0.0323877
ENSMUSG00000094635.2	ENSMUSG00000094635.2	ENSMUSG00000094635	processed_pseudogene	Gm7104	4.915419154	0	4.66379365	1.7555932	6.2608383	0.008292	0.038332
ENSMUSG00000020940.13	ENSMUSG00000020940.13	ENSMUSG00000020940	protein coding	170023706Rik	9.81011276	0	5.61908277	1.4910554	3.7685111	0.001842	0.0012902
ENSMUSG00000087201.1	ENSMUSG00000087201.1	ENSMUSG00000087201	antisense_RNA	Gm15261	5.48621522	0	4.813712691	1.7363305	2.772481	0.005653	0.0273801
ENSMUSG00000018479.12	ENSMUSG00000018479.12	ENSMUSG00000018479	protein coding	1700125H20Rik	21.22438347	42.82420637	-1.017043844	0.3893913	-2.611881	0.009046	0.0404068
ENSMUSG00000059336.14	ENSMUSG00000059336.14	ENSMUSG00000059336	protein coding	Slc14a1	6.275188198	501.1138929	-6.261417746	0.3785676	-16.53976	1.898E-61	3.95E-59
ENSMUSG00000039347.7	ENSMUSG00000039347.7	ENSMUSG00000039347	protein coding	Atp9a2	48.0269008	97.68737058	-1.02477019	0.2939411	-4.28166	1.855E-05	0.001849
ENSMUSG00000029727.7	ENSMUSG00000029727.7	ENSMUSG00000029727	protein coding	Cytp3a13	458.4565718	145.6274498	1.654622968	0.1560979	12.201523	3.05E-34	3.132E-32
ENSMUSG00000112716.12	ENSMUSG00000112716.12	ENSMUSG00000112716	lincRNA	AC134528.2	33.63900654	10.76240278	1.653724637	0.5230968	3.1614726	0.0015697	0.0029996
ENSMUSG00000079484.12	ENSMUSG00000079484.12	ENSMUSG00000079484	protein coding	Phyhd1	150.1557341	61.12797013	1.298935402	0.3039976	4.2728471	1.93E-05	0.0001914
ENSMUSG00000092981.1	ENSMUSG00000092981.1	ENSMUSG00000092981	miRNA	Mir1525	4.57749357	49.83226357	-3.43020303	0.5169813	-6.635062	3.244E-11	7.866E-10
ENSMUSG00000046352.7	ENSMUSG00000046352.7	ENSMUSG00000046352	protein coding	Gjb2	52.93022105	18.74958963	1.497610934	0.345292	4.3372298	1.443E-05	0.001467
ENSMUSG00000031596.15	ENSMUSG00000031596.15	ENSMUSG00000031596	protein coding	Slc7a2	36.30914772	1.4923903	4.66467777	0.9020105	5.1817634	2.19E-07	3.139E-06
ENSMUSG00000042312.9	ENSMUSG00000042312.9	ENSMUSG00000042312	protein coding	S100a13	357.8503372	101.1053227	1.825832809	0.1534974	11.894876	1.258E-32	1.217E-30
ENSMUSG0000004267.16	ENSMUSG0000004267.16	ENSMUSG0000004267	protein coding	Eno2	16.72728904	34.03519528	-1.024339999	0.391023	-2.619626	0.008026	0.0397204
ENSMUSG00000030693.10	ENSMUSG00000030693.10	ENSMUSG00000030693	protein coding	Klk10	263.0487939	632.5140748	-1.26729094	0.1202346	-10.38468	2.91E-25	2.022E-23
ENSMUSG00000031303.8	ENSMUSG00000031303.8	ENSMUSG00000031303	protein coding	Map3k15	28.66689509	79.00830072	-1.467414306	0.3132769	-4.684081	2.81E-06	3.308E-05
ENSMUSG00000044349.15	ENSMUSG00000044349.15	ENSMUSG00000044349	protein coding	Snhg11	33.10617089	14.99227834	1.145228682	0.4382547	2.631577	0.008971	0.0403422
ENSMUSG00000013584.5	ENSMUSG00000013584.5	ENSMUSG00000013584	protein coding	Alidn1a2	352.0912724	9.798163813	5.155242865	0.3186683	16.177475	7.27E-59	1.892E-56
ENSMUSG00000085183.1	ENSMUSG00000085183.1	ENSMUSG00000085183	lincRNA	Gm12603	405.1782258	869.3325249	-1.011992852	0.1041375	-10.58209	3.608E-26	2.615E-24
ENSMUSG00000106933.1	ENSMUSG00000106933.1	ENSMUSG00000106933	TEC	Gm43621	20.025509	4.950811423	2.012772884	0.6533465	3.8007123	0.0020651	0.0117795
ENSMUSG00000091055.2	ENSMUSG00000091055.2	ENSMUSG00000091055	protein coding	Siglec15	6.339056879	68.50176397	-3.357006997	0.7733161	-4.341054	1.418E-05	0.001444
ENSMUSG0000001397.7	ENSMUSG0000001397.7	ENSMUSG0000001397	protein coding	Klf7r9	38.91711303	0	6.736787548	1.2587068	6.0878773	1.236E-09	2.572E-08
ENSMUSG00000041658.12	ENSMUSG00000041658.12	ENSMUSG00000041658	protein coding	Ragab	28.51436868	0	7.190440417	1.2929859	5.534478	3.127E-08	5.163E-07
ENSMUSG00000087660.1	ENSMUSG00000087660.1	ENSMUSG00000087660	antisense_RNA	B230398E01Rik	5.09001700	0	4.67705676	1.7820222	6.643796	0.0079454	0.0363935
ENSMUSG00000017446.14	ENSMUSG00000017446.14	ENSMUSG00000017446	protein coding	C1qln1f	17.09882368	1.29659816	3.644080737	1.0667267	3.326894	0.008915	0.056889
ENSMUSG00000042797.9	ENSMUSG00000042797.9	ENSMUSG00000042797	protein coding	Aqp11	44.0224729	20.92830323	1.087060139	0.3816928	2.7956007	0.0051803	0.025282
ENSMUSG00000041390.18	ENSMUSG00000041390.18	ENSMUSG00000041390	protein coding	Mdfic	619.1043254	159.1940451	1.959157774	0.1692263	11.574686	5.337E-31	5.106E-29
ENSMUSG0000002076.11	ENSMUSG0000002076.11	ENSMUSG0000002076	protein coding	Hsf2bp	26.6163534	10.87963433	1.285591895	0.4877793	2.6356014	0.003988	0.028156
ENSMUSG00000059742.10	ENSMUSG00000059742.10	ENSMUSG00000059742	protein coding	Kcnh7	84.11918228	195.7493951	-1.223103581	0.2244384	-5.496818	5.048E-08	7.993E-07
ENSMUSG00000030268.17	ENSMUSG00000030268.17	ENSMUSG00000030268	protein coding	Bcat1	121.9579201	378.3618871	-1.631783064	0.1488187	-10.96491	5.636E-28	4.394E-26
ENSMUSG00000103292.1	ENSMUSG00000103292.1	ENSMUSG00000103292	TEC	Gm35048	5.22972675	43.79621677	-3.05897419	0.541447	-6.549486	1.609E-08	2.764E-07
ENSMUSG00000020566.19	ENSMUSG00000020566.19	ENSMUSG00000020566	protein coding	Atp6v1c2	25.04387534	1.6207477	3.868517542	0.958912	4.0342778	5.477E-05	0.0004854
ENSMUSG00000035356.16	ENSMUSG00000035356.16	ENSMUSG00000035356	protein coding	Nfkibz	965.0742692	2321.302572	-1.267262735	0.09227	-13.7343	6.327E-43	9.505E-41
ENSMUSG00000079173.11	ENSMUSG00000079173.11	ENSMUSG00000079173	protein coding	Nr1	54.47910935	156.5026394	-1.519266394	0.213684	-7.109885	1.161E-12	3.37E-11
ENSMUSG00000036181.2	ENSMUSG00000036181.2	ENSMUSG00000036181	protein coding	Hist1hc	639.3563691	298.1781812	1.099810977	0.1245786	8.2825414	1.063E-18	5.038E-17
ENSMUSG00000025810.9	ENSMUSG00000025810.9	ENSMUSG00000025810	protein coding	Nrp1	203.1340478	705.247252	-1.794641222	0.1240773	-14.4639	2.049E-47	3.863E-45
ENSMUSG00000049511.5	ENSMUSG00000049511.5	ENSMUSG00000049511	protein coding	Htr1b	48.29441752	7.297300671	2.747750351	0.5763097	4.7673661	1.862E-06	2.267E-05
ENSMUSG00000112468.1	ENSMUSG00000112468.1	ENSMUSG00000112468	TEC	AC154734.2	12.4173564	0	5.988504216	1.4246148	4.2039565	2.627E-05	0.002523
ENSMUSG00000059246.4	ENSMUSG00000059246.4	ENSMUSG00000059246	protein coding	Foxb1	14.38662317	0	6.199354604	1.4080375	4.4028334	1.068E-05	0.000112
ENSMUSG000000110631.1	ENSMUSG000000110631.1	ENSMUSG000000110631	lincRNA	Gm42047	770.0843117	1637.354511	-1.089062622	0.1182212	-9.212079	3.199E-20	1.642E-18
ENSMUSG00000037108.13	ENSMUSG00000037108.13	ENSMUSG00000037108	protein coding	Zcwpv1	65.0716589	21.57460231	1.58201564	0.3782072	4.1829333	2.878E-05	0.0002734
ENSMUSG00000038146.7	ENSMUSG00000038146.7	ENSMUSG00000038146	protein coding	Notch3	14.17653394	54.32449406	-1.940259324	0.4866189	-3.987225	6.685E-05	0.0005799
ENSMUSG00000041642.18	ENSMUSG00000041642.18	ENSMUSG00000041642	antisense_RNA	Klf21b	102.4654308	36.78276548	1.471832737	0.3536631	4.1932325	3.192E-05	0.0002899
ENSMUSG00000087623.1	ENSMUSG00000087623.1	ENSMUSG00000087623	antisense_RNA	Gm15726	5.102581299	21.2142858	-2.076438393	0.6698004	-3.100085	0.0019346	0.0111124
ENSMUSG00000036528.15	ENSMUSG00000036528.15	ENSMUSG00000036528	protein coding	Ppp1b2	66.0564911	24.64059033	1.422154455	0.3281059	4.3344377	1.461E-05	0.0001484
ENSMUSG00000045083.14	ENSMUSG00000045083.14	ENSMUSG00000045083	protein coding	Line2	23.73932071	3.793696429	2.29367161	0.8575263	3.900665	6.589E-05	0.0008721
ENSMUSG00000018965.8	ENSMUSG00000018965.8	ENSMUSG00000018965	protein coding	Sulf4k1a	38.68604754	342.4072318	-1.621440614	0.2071183	-15.53914	1.895E-54	4.09E-62
ENSMUSG00000021281.15	ENSMUSG00000021281.15	ENSMUSG00000021281	protein coding	Tfnafp2	940.8550298	1883.848705	-1.001361862	0.2557172	-3.915896	9.007E-05	0.0007596
ENSMUSG0000001804.9	ENSMUSG0000001804.9	ENSMUSG0000001804	protein coding	Dsg4	7.234420171	21.29007303	-1.567614032	0.5620447	-2.789127	0.005285	0.0262378
ENSMUSG0000002123.8	ENSMUSG0000002123.8	ENSMUSG0000002123	protein coding	Scel	523.8917093	1745.569547	-1.37750642	0.1077018	-16.13265	1.506E-58	3.866E-56
ENSMUSG00000032285.15	ENSMUSG00000032285.15	ENSMUSG00000032285	protein coding	Dnajd4	316.6256568	129.2545691	1.289674049	0.1667214	7.7355056	1.03E-14	3.524E-13
ENSMUSG0000001793.12	ENSMUSG0000001793.12	ENSMUSG0000001793	transcribed_unprocessed_pseudogene	2610005L07Rik	4.99630991	46.93804579	-3.218495771	1.1531276	-2.79101	0.0052529	0.0292203
ENSMUSG0000004196.15	ENSMUSG0000004196.15	ENSMUSG0000004196	protein coding	Nkx2-1	535.4774088	8.10177166	6.04246478	0.3354542	18.012787	1.546E-72	6.126E-70
ENSMUSG00000015243.4	ENSMUSG00000015243.4	ENSMUSG00000015243	protein coding	Abca1	22.07313291	1.49239033	3.938440952	1.0322665	3.8152627	0.001266	0.010924
ENSMUSG00000026787.3	ENSMUSG00000026787.3	ENSMUSG00000026787	protein coding	Gad2	89.1964905	20.64177395	2.126188517	0.3502295	6.0691099	1.286E-09	2.556E-08
ENSMUSG0000002617.14	ENSMUSG0000002617.14	ENSMUSG0000002617	protein coding	Zfp40	77.09113572	259.8509923	-1.753136639	0.1800837	-9.735123	2.136E-22	1.241E-20
ENSMUSG00000082051.1	ENSMUSG0000008										





ENSMUSG0000025347.4	ENSMUSG0000025347.4	ENSMUSG0000025347.4	protein coding	Mettl7b	141.7434891	16.77799598	3.082821663	0.3350741	9.2167134	3.06320	1.581E-18
ENSMUSG0000000693.10	ENSMUSG0000000693.10	ENSMUSG0000000693.10	protein coding	Lox3	54.38499291	15.46291106	1.812185184	0.3771801	4.8045624	1.551E-06	1.914E-05
ENSMUSG0000050052.12	ENSMUSG0000050052.12	ENSMUSG0000050052.12	protein coding	Tdrp	89.43750313	362.8497863	-0.202685386	0.1505743	-13.42079	4.568E-41	6.949E-39
ENSMUSG0000059901.12	ENSMUSG0000059901.12	ENSMUSG0000059901.12	protein coding	Adamts14	40.29385621	4.681172813	3.117398561	0.6518489	4.7823501	1.733E-06	2.126E-05
ENSMUSG0000074604.9	ENSMUSG0000074604.9	ENSMUSG0000074604.9	protein coding	Mgsl2	136.176439	7.6363049	4.137545837	0.4024504	10.280884	8.594E-25	5.817E-23
ENSMUSG0000020770.14	ENSMUSG0000020770.14	ENSMUSG0000020770.14	protein coding	Lrp2	16.34199289	3017.521397	-7.52457161	0.2441152	-29.61087	1.08E-192	2.22E-18
ENSMUSG0000038253.6	ENSMUSG0000038253.6	ENSMUSG0000038253.6	protein coding	Hoxa5	6.772062124	0	5.116969456	1.6112426	3.1757827	0.0104943	0.0088957
ENSMUSG0000005580.11	ENSMUSG0000005580.11	ENSMUSG0000005580.11	protein coding	Adcy9	12.03313134	30.75407962	-1.352053723	0.4532215	-2.983207	0.0248254	0.0155159
ENSMUSG0000060738.4	ENSMUSG0000060738.4	ENSMUSG0000060738.4	protein coding	Pfif7c1	0	9.765904494	-8.838010198	1.5136331	-3.856952	0.0001148	0.0009399
ENSMUSG0000006386.15	ENSMUSG0000006386.15	ENSMUSG0000006386.15	protein coding	Tek	0	49.68653757	-8.182665409	1.2453596	-6.570952	5.01E-11	1.182E-09
ENSMUSG0000027230.9	ENSMUSG0000027230.9	ENSMUSG0000027230.9	protein coding	Creb3l1	14.36316018	10.97244862	3.793111909	1.1497596	3.2990479	0.0009701	0.0061035
ENSMUSG0000039529.8	ENSMUSG0000039529.8	ENSMUSG0000039529.8	protein coding	Atp3b1	1428.09097	468.0200685	1.60760544	0.1213184	13.251128	4.4445E-40	6.939E-38
ENSMUSG0000048482.14	ENSMUSG0000048482.14	ENSMUSG0000048482.14	protein coding	Bdnf	615.447401	1274.68578	-1.05138402	0.1123702	9.366469	8.245E-21	4.378E-19
ENSMUSG0000031758.10	ENSMUSG0000031758.10	ENSMUSG0000031758.10	protein coding	Cydv2	112.8003025	33.52749751	1.750824433	0.3245256	3.95024	6.851E-08	1.058E-06
ENSMUSG0000034353.14	ENSMUSG0000034353.14	ENSMUSG0000034353.14	protein coding	Ramp1	16.675119	38.86894393	1.807588448	0.3412303	5.2972677	1.175E-07	1.749E-06
ENSMUSG000004927.6	ENSMUSG000004927.6	ENSMUSG000004927.6	protein coding	H1fx	171.501397	0	9.77655226	1.1983472	8.1583409	3.937E-16	1.347E-14
ENSMUSG0000020160.18	ENSMUSG0000020160.18	ENSMUSG0000020160.18	protein coding	Meis1	8.06097764	72.21981594	-3.165534992	0.4603194	-6.876283	6.12E-12	1.618E-10
ENSMUSG0000097754.1	ENSMUSG0000097754.1	ENSMUSG0000097754.1	lincRNA	Ptgs2os1	786.7917487	216.4051833	1.863478499	0.1259012	14.80122	1.441E-49	2.893E-47
ENSMUSG0000027797.15	ENSMUSG0000027797.15	ENSMUSG0000027797.15	protein coding	Dclk1	262.5097892	102.1316023	1.36256052	0.1679278	8.1102562	5.051E-16	1.961E-14
ENSMUSG0000026249.10	ENSMUSG0000026249.10	ENSMUSG0000026249.10	protein coding	Serpine2	497.1669477	1704.017283	-1.776081	0.0944131	-18.818	6.045E-79	2.376E-76
ENSMUSG0000070280.13	ENSMUSG0000070280.13	ENSMUSG0000070280.13	protein coding	Slc22a14	5.998121192	0	4.944517021	1.8055041	2.7385797	0.061705	0.0298011
ENSMUSG0000031750.15	ENSMUSG0000031750.15	ENSMUSG0000031750.15	protein coding	Ij34	431.038764	105.2647558	0.234096122	0.156631	12.966553	1.458E-38	1.821E-36
ENSMUSG0000097165.1	ENSMUSG0000097165.1	ENSMUSG0000097165.1	lincRNA	Z210008F06Rik	84.40219107	37.4391054	1.165333801	0.2872995	4.056164	4.998E-05	0.0044698
ENSMUSG0000047253.4	ENSMUSG0000047253.4	ENSMUSG0000047253.4	protein coding	Krtap1-5	21.2463843	6.388690783	1.738635406	0.5666857	3.080754	0.021544	0.012219
ENSMUSG0000093908.2	ENSMUSG0000093908.2	ENSMUSG0000093908.2	lincRNA	Gm5784	21.15280323	0.735069349	4.896021656	1.1927117	4.1049498	4.044E-05	0.0003708
ENSMUSG0000024593.15	ENSMUSG0000024593.15	ENSMUSG0000024593.15	protein coding	Megf10	236.4365797	20.99750291	3.484610441	0.2761376	12.61911	1.657E-36	1.913E-34
ENSMUSG0000113348.1	ENSMUSG0000113348.1	ENSMUSG0000113348.1	unprocessed_pseudogene	AC097644.5	0	15.05378929	-6.456530566	1.4125656	-4.570786	4.859E-06	5.451E-05
ENSMUSG0000057143.15	ENSMUSG0000057143.15	ENSMUSG0000057143.15	protein coding	Trim12c	78.07597213	26.0996322	1.580162396	0.3243222	4.8722018	1.104E-06	1.406E-05
ENSMUSG0000030030.10	ENSMUSG0000030030.10	ENSMUSG0000030030.10	protein coding	Add2	41.06989883	126.0248794	-1.612004498	0.2520468	-6.395658	1.599E-10	3.521E-09
ENSMUSG0000090125.3	ENSMUSG0000090125.3	ENSMUSG0000090125.3	protein coding	Pou3f1	2.79679915	43.91208852	-3.980725098	0.6512783	-6.112173	9.828E-10	1.978E-08
ENSMUSG0000025790.14	ENSMUSG0000025790.14	ENSMUSG0000025790.14	protein coding	Slic3oa1	658.7929384	204.9368173	1.687098641	0.2657499	6.348444	2.175E-10	4.734E-09
ENSMUSG0000024600.8	ENSMUSG0000024600.8	ENSMUSG0000024600.8	protein coding	Slc27a6	32.264534	13.21611591	1.2960638	0.4770101	2.7170572	0.0065885	0.0313271
ENSMUSG0000105366.1	ENSMUSG0000105366.1	ENSMUSG0000105366.1	TEC	Gm43719	47.63305981	22.55997478	1.074502085	0.377802	2.8440893	0.0044539	0.0226219
ENSMUSG0000012017.3	ENSMUSG0000012017.3	ENSMUSG0000012017.3	protein coding	Scaf2	267.2947945	540.9026894	-1.018960043	0.1213867	-8.38347	5.843E-17	2.444E-15
ENSMUSG0000055416.7	ENSMUSG0000055416.7	ENSMUSG0000055416.7	protein coding	Alp19b	10.78742351	317.010245	-4.873167167	0.3042813	-16.01634	9.937E-58	2.494E-55
ENSMUSG0000104781.1	ENSMUSG0000104781.1	ENSMUSG0000104781.1	lincRNA	Gm43303	28.6592237	26.8502237	-2.8248265	1.197232	5.518189	3.425E-08	5.618E-07
ENSMUSG000010662.1	ENSMUSG000010662.1	ENSMUSG000010662.1	TEC	Gm43034	6.316272309	9.863800579	1.678960864	0.4648072	3.6121661	0.0003036	0.0222026
ENSMUSG0000050357.9	ENSMUSG0000050357.9	ENSMUSG0000050357.9	protein coding	Carmil2	6.82599657	18.84192281	-1.464539992	0.5642633	-2.595508	0.0094451	0.0203985
ENSMUSG0000019102.10	ENSMUSG0000019102.10	ENSMUSG0000019102.10	protein coding	Aldh3a1	23.72788519	54.19596788	-1.180250393	0.3696023	-3.193299	0.014066	0.00465
ENSMUSG0000030559.8	ENSMUSG0000030559.8	ENSMUSG0000030559.8	protein coding	Rab38	338.6141524	76.67249905	2.142835664	0.1730322	12.384027	3.199E-35	3.948E-33
ENSMUSG0000043924.16	ENSMUSG0000043924.16	ENSMUSG0000043924.16	protein coding	Ncmap	210.3656791	96.45281312	1.123572488	0.183363	6.127577	8.923E-10	1.816E-08
ENSMUSG0000000409.14	ENSMUSG0000000409.14	ENSMUSG0000000409.14	protein coding	Lck	23.7167844	5.195551616	2.2191157	0.8647609	2.5578302	0.0105328	0.0040706
ENSMUSG0000016494.9	ENSMUSG0000016494.9	ENSMUSG0000016494.9	protein coding	Cd34	191.6904408	74.24771858	1.367185908	0.1976535	6.9170851	4.61E-12	1.24E-10
ENSMUSG0000042256.4	ENSMUSG0000042256.4	ENSMUSG0000042256.4	protein coding	Pltcd4	8.445929462	148.3668104	-4.147829599	0.3595441	-11.53636	8.651E-31	7.76E-29
ENSMUSG0000040612.13	ENSMUSG0000040612.13	ENSMUSG0000040612.13	protein coding	Idr2	0	17.00869421	-6.63513824	1.3960884	-4.752646	2.008E-06	2.431E-05
ENSMUSG0000035799.6	ENSMUSG0000035799.6	ENSMUSG0000035799.6	protein coding	Twist1	176.5825131	68.14603501	1.374623679	0.2041746	6.7325906	1.67E-11	4.22E-10
ENSMUSG0000108905.1	ENSMUSG0000108905.1	ENSMUSG0000108905.1	lincRNA	Gm44618	0	6.08306116	-5.159759311	1.8840586	-2.736517	0.002693	0.299606
ENSMUSG0000024529.13	ENSMUSG0000024529.13	ENSMUSG0000024529.13	protein coding	Lox	552.168472	47.8893317	3.5173253	0.1866078	18.84875	3.008E-79	1.208E-76
ENSMUSG0000024766.14	ENSMUSG0000024766.14	ENSMUSG0000024766.14	protein coding	Lipo3	67.5384988	42.735531	1.039209278	0.2607572	3.9853518	6.738E-05	0.005835
ENSMUSG0000053414.7	ENSMUSG0000053414.7	ENSMUSG0000053414.7	protein coding	Hunk	189.8525216	37.08449458	2.363000824	0.2433384	10.08374	6.519E-24	4.287E-22
ENSMUSG0000048572.4	ENSMUSG0000048572.4	ENSMUSG0000048572.4	protein coding	Tmem252	97.3002007	0	8.958970535	1.2114088	7.3954975	1.409E-13	4.331E-12
ENSMUSG0000024885.8	ENSMUSG0000024885.8	ENSMUSG0000024885.8	protein coding	Aldh3b1	92.19305515	42.92474921	1.103249491	0.2903939	3.7991487	0.001452	0.0015589
ENSMUSG0000041515.9	ENSMUSG0000041515.9	ENSMUSG0000041515.9	protein coding	Irf8	14.0824175	3.507369116	2.02434407	0.7916906	2.5293313	0.0114286	0.0492665
ENSMUSG0000022759.13	ENSMUSG0000022759.13	ENSMUSG0000022759.13	protein coding	Lrrc74b	5.288616393	0	4.756638392	1.7195353	7.762348	0.0056708	0.0277869
ENSMUSG0000036585.15	ENSMUSG0000036585.15	ENSMUSG0000036585.15	protein coding	Fgf1	255.8472914	57.57206346	2.151116135	0.1850313	11.62659	3.051E-31	2.805E-29
ENSMUSG0000047735.14	ENSMUSG0000047735.14	ENSMUSG0000047735.14	protein coding	Samd9l	174.9135839	349.0316728	-1.072231548	0.110384	9.6742092	3.881E-22	2.213E-20
ENSMUSG0000022332.7	ENSMUSG0000022332.7	ENSMUSG0000022332.7	protein coding	Kndrb3	8.211441694	129.9117577	-3.967378642	0.3825305	-10.37141	3.346E-25	2.307E-23
ENSMUSG0000097159.1	ENSMUSG0000097159.1	ENSMUSG0000097159.1	lincRNA	Gm26517	48.4363955	12.82431517	1.903142536	0.4471692	4.2599789	2.081E-05	0.0002049
ENSMUSG0000026899.4	ENSMUSG0000026899.4	ENSMUSG0000026899.4	protein coding	Ijbr3	531.0376582	118.6239509	2.166939597	1.1405961	15.418959	1.279E-53	3.177E-51
ENSMUSG0000033705.16	ENSMUSG0000033705.16	ENSMUSG0000033705.16	protein coding	Slard9	96.1156464	249.1605689	-1.17873936	0.2105504	6.6155622	7.23E-11	1.873E-09
ENSMUSG0000107134.1	ENSMUSG0000107134.1	ENSMUSG0000107134.1	TEC	Gm42528	13.18521537	29.29951152	-1.146573454	0.4401371	-2.805037	0.0091864	0.0014108
ENSMUSG0000026535.9	ENSMUSG0000026535.9	ENSMUSG0000026535.9	protein coding	Irf202b	4.413905688	147.4172933	-5.00782552	0.49674	-10.08138	6.878E-24	4.356E-22
ENSMUSG0000055421.8	ENSMUSG0000055421.8	ENSMUSG0000055421.8	protein coding	Pcdh9	114.0041081	508.5646308	-2.15698233	0.2106057	-10.24123	2.96E-24	8.707E-23
ENSMUSG0000029659.16	ENSMUSG0000029659.16	ENSMUSG0000029659.16	protein coding	Medag	125.1681351	48.83311854	1.36805837	0.2548861	5.3394438	9.323E-08	1.417E-06
ENSMUSG0000024810.16	ENSMUSG0000024810.16	ENSMUSG0000024810.16	protein coding	Ij33	160.4677123	80.05775361	1.00665564	0.2447432	4.1131102	3.904E-05	0.0003587
ENSMUSG0000092060.4	ENSMUSG0000092060.4	ENSMUSG0000092060.4	protein coding	Bend4	153.1463995	918.4954565	-2.580389884	0.1516842	-17.01158	6.739E-65	2.111E-62
ENSMUSG0000051279.2	ENSMUSG0000051279.2	ENSMUSG0000051279.2	protein coding	Gdf6	15.05929005	0	6.17075721	1.4267842	4.3249409	1.526E-05	



ENSMUSG0000002792.11	ENSMUSG0000002792.11	ENSMUSG0000002792.11	protein coding	Bche	0	7.56249448	-5.462713274	1.6553785	-3.299978	0.009699	0.0060785
ENSMUSG00000060445.11	ENSMUSG00000060445.11	ENSMUSG00000060445.11	protein coding	Sypc2	0	4.907426268	-4.844187437	1.7690703	-2.738267	0.0061764	0.0298216
ENSMUSG00000024039.14	ENSMUSG00000024039.14	ENSMUSG00000024039.14	protein coding	Cbs	30.38971922	144.6906149	-2.245153667	0.2570577	-8.734048	2.457E-18	1.127E-16
ENSMUSG00000026872.17	ENSMUSG00000026872.17	ENSMUSG00000026872.17	protein coding	Zeb2	282.77132168	68.81366956	-2.036605959	2.3265431	8.609875	7.314E-18	3.257E-16
ENSMUSG00000026664.7	ENSMUSG00000026664.7	ENSMUSG00000026664.7	protein coding	Phyh	152.4564629	62.28926047	1.287791716	0.2076212	6.2026099	5.554E-10	1.153E-08
ENSMUSG00000031621.9	ENSMUSG00000031621.9	ENSMUSG00000031621.9	protein coding	Isx	7.11016603	5.25116603	5.20899513	1.8029616	2.8890772	0.0038637	0.0020264
ENSMUSG00000029561.17	ENSMUSG00000029561.17	ENSMUSG00000029561.17	protein coding	Oasl2	34.39690842	8.756533647	1.969034587	0.4873454	4.0403267	5.338E-05	0.0040737
ENSMUSG00000054752.16	ENSMUSG00000054752.16	ENSMUSG00000054752.16	protein coding	Fsd11	98.33982893	382.3943503	-1.963539143	0.176691	-11.11284	1.086E-28	8.729E-27
ENSMUSG00000034422.14	ENSMUSG00000034422.14	ENSMUSG00000034422.14	protein coding	Parp14	157.310566	32.0673665	2.29190422	0.2609418	8.7831931	1.589E-18	7.336E-17
ENSMUSG00000045106.12	ENSMUSG00000045106.12	ENSMUSG00000045106.12	protein coding	Ccdc73	42.9116849	91.75633913	-1.09426144	0.286409	-3.821898	0.001324	0.0010682
ENSMUSG00000086813.1	ENSMUSG00000086813.1	ENSMUSG00000086813.1	processed_transcript	Gm13857	8.013307318	27.43958951	-1.77434571	0.555401	-3.194871	0.0013989	0.0084173
ENSMUSG00000024442.14	ENSMUSG00000024442.14	ENSMUSG00000024442.14	protein coding	Nfasc	196.5203715	68.16443368	1.574810448	0.2323041	7.0545778	4.877E-11	4.877E-11
ENSMUSG0000007989.7	ENSMUSG0000007989.7	ENSMUSG0000007989.7	protein coding	Fzd3	100.5293752	287.8286876	-1.51938215	-0.1936991	-8.47705	2.439E-17	1.053E-15
ENSMUSG0000071324.11	ENSMUSG0000071324.11	ENSMUSG0000071324.11	protein coding	Armc2	9.738920374	29.0547713	-1.59022116	0.5072532	-3.134968	0.0017187	0.0010598
ENSMUSG0000097861.1	ENSMUSG0000097861.1	ENSMUSG0000097861.1	lincRNA	Gm26858	48.4904524	0	9.765000064	1.2493537	6.3672925	1.924E-10	4.192E-09
ENSMUSG0000027339.15	ENSMUSG0000027339.15	ENSMUSG0000027339.15	protein coding	Rassf2	204.1451138	39.28166178	2.3703577	0.2407489	9.856936	6.394E-23	3.887E-21
ENSMUSG0000033579.16	ENSMUSG0000033579.16	ENSMUSG0000033579.16	protein coding	Fa2h	8.305022576	31.18168815	-1.903210634	0.4884576	-3.896368	9.765E-05	0.008142
ENSMUSG0000028949.13	ENSMUSG0000028949.13	ENSMUSG0000028949.13	protein coding	Smarcd3	122.2358883	270.4375732	-1.144446537	0.2409133	-4.75045	0.203E-10	2.454E-05
ENSMUSG0000045648.15	ENSMUSG0000045648.15	ENSMUSG0000045648.15	protein coding	Vmwc2	0	4.950811403	-4.854948527	1.7601131	-2.758316	0.058E-02	0.0028319
ENSMUSG000005364.11	ENSMUSG000005364.11	ENSMUSG000005364.11	protein coding	Ilfra	629.6250077	106.0879552	1.114840656	0.2455286	4.5405726	5.61E-06	6.241E-05
ENSMUSG0000021403.3	ENSMUSG0000021403.3	ENSMUSG0000021403.3	protein coding	Serpinc9b	236.693386	3598.558859	-2.49854696	0.072694	-2.33552	2.22E-22	6.822E-05
ENSMUSG0000038286.11	ENSMUSG0000038286.11	ENSMUSG0000038286.11	protein coding	Bph1	170.5623748	78.66369758	1.1882558	0.204996	5.457917	4.821E-08	7.666E-07
ENSMUSG0000011343.1	ENSMUSG0000011343.1	ENSMUSG0000011343.1	TEC	AC159819.3	14.51396855	4.215742054	1.779177026	0.6878793	2.586437	0.0096974	0.0429738
ENSMUSG0000045518.18	ENSMUSG0000045518.18	ENSMUSG0000045518.18	protein coding	Oncu2	3.72753232	162.7807796	-5.453418436	0.4714005	-11.57739	5.366E-31	4.848E-29
ENSMUSG0000058427.10	ENSMUSG0000058427.10	ENSMUSG0000058427.10	protein coding	Cxcl12	46.69291872	12.62052975	1.882628571	0.471304	9.938627	6.501E-05	0.005648
ENSMUSG0000010297.1	ENSMUSG0000010297.1	ENSMUSG0000010297.1	TEC	Gm17244	4.100770099	27.82397872	-2.779745612	0.8093815	-3.434407	0.005939	0.0039643
ENSMUSG0000032281.11	ENSMUSG0000032281.11	ENSMUSG0000032281.11	protein coding	Acsbg1	2171.71999	1047.3538	1.052647834	1.008844	10.434195	1.731E-25	1.225E-23
ENSMUSG00000330615.15	ENSMUSG00000330615.15	ENSMUSG00000330615.15	protein coding	Gas7	259.5831595	75.50161151	1.784017341	0.1722856	10.354997	3.972E-25	2.718E-23
ENSMUSG000001506.10	ENSMUSG000001506.10	ENSMUSG000001506.10	protein coding	Col1a1	431.8896732	35.39939705	3.59632379	0.2566949	14.010112	1.352E-44	2.25E-42
ENSMUSG0000032854.12	ENSMUSG0000032854.12	ENSMUSG0000032854.12	protein coding	Utg8a	3.716004995	18.7921758	-2.334779491	0.7982876	-9.294735	0.0034475	0.0181283
ENSMUSG0000034793.15	ENSMUSG0000034793.15	ENSMUSG0000034793.15	protein coding	G6pc3	290.363106	104.3256846	1.476832292	1.5171254	9.3990667	5.505E-21	2.948E-19
ENSMUSG0000043811.5	ENSMUSG0000043811.5	ENSMUSG0000043811.5	protein coding	Rtm4r	83.94079529	40.81811715	1.042085669	0.27428	3.7993487	0.001451	0.0015885
ENSMUSG0000043782.8	ENSMUSG0000043782.8	ENSMUSG0000043782.8	protein coding	Bicoid2	37.97147548	80.49401001	-1.07866328	0.2870034	-3.758366	0.001771	0.0013385
ENSMUSG000007892.13	ENSMUSG000007892.13	ENSMUSG000007892.13	protein coding	Pcdh18	284.1953538	51.28974794	2.471918041	0.5132625	7.8442087	4.387E-15	1.503E-13
ENSMUSG0000044095.13	ENSMUSG0000044095.13	ENSMUSG0000044095.13	protein coding	Gcl2	88.52243714	207.3240519	-1.281392828	0.1848183	-8.474389	9.52E-11	2.168E-09
ENSMUSG0000044162.12	ENSMUSG0000044162.12	ENSMUSG0000044162.12	protein coding	Trip3	110.7664497	32.2136925	1.781833331	0.2572803	6.6256879	4.342E-12	1.173E-10
ENSMUSG0000039934.12	ENSMUSG0000039934.12	ENSMUSG0000039934.12	protein coding	Gasp	64.70436814	12.67714462	2.309977973	0.487611	4.9395669	7.814E-07	1.022E-05
ENSMUSG0000110710.11	ENSMUSG0000110710.11	ENSMUSG0000110710.11	lincRNA	C78859	13.5116218	32.92146544	-1.729024113	0.419612	-3.048105	0.0032029	0.0112616
ENSMUSG0000039114.16	ENSMUSG0000039114.16	ENSMUSG0000039114.16	protein coding	Nm1	417.0098591	1333.162351	-1.677823155	0.1130753	-14.8381	8.307E-50	1.687E-47
ENSMUSG0000026620.11	ENSMUSG0000026620.11	ENSMUSG0000026620.11	protein coding	Mark1	0	5.182627766	-4.92570947	1.788932	-2.753436	0.0059873	0.0286917
ENSMUSG0000010686.1	ENSMUSG0000010686.1	ENSMUSG0000010686.1	antisense_RNA	Gm43352	1.86378661	10.93414528	-2.557060148	0.8945852	-2.858375	0.0032662	0.0217959
ENSMUSG0000002997.15	ENSMUSG0000002997.15	ENSMUSG0000002997.15	protein coding	Pkrar2b	596.9887052	264.5131673	1.174271282	0.1869173	6.2823053	3.458E-10	7.093E-09
ENSMUSG0000020159.8	ENSMUSG0000020159.8	ENSMUSG0000020159.8	protein coding	Gapr	96.95479182	12.98874433	2.914313797	0.4622256	6.3045789	2.89E-10	6.202E-09
ENSMUSG0000041482.16	ENSMUSG0000041482.16	ENSMUSG0000041482.16	protein coding	Piez2	282.5803708	118.169646	1.260386627	0.6173134	7.5330853	4.966E-14	1.612E-12
ENSMUSG000002157.8	ENSMUSG000002157.8	ENSMUSG000002157.8	protein coding	Mcp8b	18.7826255	80.7876927	2.410410531	0.1597752	15.086266	1.994E-51	4.285E-49
ENSMUSG0000011589.8	ENSMUSG0000011589.8	ENSMUSG0000011589.8	protein coding	Fsd1	4.816460617	34.49950791	-4.22766529	0.9513705	-4.443763	8.44E-06	9.42E-05
ENSMUSG0000025232.8	ENSMUSG0000025232.8	ENSMUSG0000025232.8	protein coding	Hexa	340.3716121	79.67328852	2.093941908	0.1797185	11.651233	2.62E-31	2.1E-29
ENSMUSG0000024225.15	ENSMUSG0000024225.15	ENSMUSG0000024225.15	protein coding	Enpp2	72.08817678	5.814238122	3.301534498	0.6325248	5.7078462	1.144E-08	2.006E-07
ENSMUSG0000030748.9	ENSMUSG0000030748.9	ENSMUSG0000030748.9	protein coding	Ilfra	1863.750488	892.1363843	1.062354146	0.2146991	4.9481067	7.494E-07	9.835E-06
ENSMUSG0000051710.6	ENSMUSG0000051710.6	ENSMUSG0000051710.6	protein coding	Prf3d1	1.747078268	19.40901453	-3.431630683	1.0907932	-3.145996	0.0016552	0.0079467
ENSMUSG0000044367.7	ENSMUSG0000044367.7	ENSMUSG0000044367.7	protein coding	Slc16a13	15.11209038	41.91627639	1.850976445	0.2658788	6.9617313	3.61E-12	1.988E-11
ENSMUSG0000051022.7	ENSMUSG0000051022.7	ENSMUSG0000051022.7	protein coding	Hs3st1	89.06543294	278.2697514	-1.64505812	0.1688293	-9.743917	1.959E-22	1.142E-20
ENSMUSG0000050545.16	ENSMUSG0000050545.16	ENSMUSG0000050545.16	protein coding	Chd5	21.45667346	52.77186106	-1.303588114	0.3403996	-3.829683	0.001283	0.001038
ENSMUSG0000057967.12	ENSMUSG0000057967.12	ENSMUSG0000057967.12	protein coding	Cfd1	7.31471751	25.37009678	-1.784121607	0.5312311	-3.358446	0.0007838	0.0005605
ENSMUSG0000028451.12	ENSMUSG0000028451.12	ENSMUSG0000028451.12	protein coding	1700222111Rik	3.104601813	13.88885209	-2.174896541	0.8046783	-2.707289	0.0067835	0.030278
ENSMUSG0000104718.1	ENSMUSG0000104718.1	ENSMUSG0000104718.1	lincRNA	Gm31752	17.31077516	63.46862708	-1.886386162	0.3744294	-0.038029	4.704E-07	8.642E-06
ENSMUSG0000105053.1	ENSMUSG0000105053.1	ENSMUSG0000105053.1	protein coding	Gm43084	1.571757819	346.8292848	-1.012947165	0.1884182	-5.376057	7.613E-08	1.169E-06
ENSMUSG0000043422.7	ENSMUSG0000043422.7	ENSMUSG0000043422.7	protein coding	Chchd10	439.5275466	209.820274	1.086984795	0.1382937	7.7153523	1.206E-14	4.113E-13
ENSMUSG0000091007.1	ENSMUSG0000091007.1	ENSMUSG0000091007.1	protein coding	D3E036H23Rik	4.259127188	4.83700750	1.8356219	2.528124	0.0115329	0.0486748	0.0097678
ENSMUSG0000032702.16	ENSMUSG0000032702.16	ENSMUSG0000032702.16	protein coding	Kank1	349.8209201	766.3893323	-1.132156279	0.107094	-10.57162	4.035E-26	2.912E-24
ENSMUSG0000063767.4	ENSMUSG0000063767.4	ENSMUSG0000063767.4	protein coding	S100a7a	1508.333044	281.0833411	2.530123115	0.1074157	23.554497	1.13E-12	3.5E-119
ENSMUSG0000034855.13	ENSMUSG0000034855.13	ENSMUSG0000034855.13	protein coding	Cxcl10	47.86340202	110.5128515	-1.203504191	0.2553368	-4.713366	2.437E-06	2.892E-05
ENSMUSG0000062345.10	ENSMUSG0000062345.10	ENSMUSG0000062345.10	protein coding	Serpinc2	593.0598702	1526.833327	-1.365305597	0.143359	-9.52368	1.672E-21	1.938E-20
ENSMUSG0000039601.15	ENSMUSG0000039601.15	ENSMUSG0000039601.15	protein coding	Rcan2	3.750700669	50.94154863	-3.77408276	0.5584281	-6.758412	1.395E-11	3.556E-10
ENSMUSG0000051596.13	ENSMUSG0000051596.13	ENSMUSG0000051596.13	protein coding	Enpp2	14.40828839	0	6.205750322	1.4042806	4.192297	9.905E-06	0.001042
ENSMUSG0000025921.7	ENSMUSG0000025921.7	ENSMUSG0000025921.7	protein coding	Rhd10	1914.760142	5779.959738	-1.59332635	0.8817448	-19.49148	1.297E-84	6.144E-82
ENSMUSG0000034159.12	ENSMUSG0000034159.12	ENSMUSG0000034159.12	protein coding</								

ENSMUSG00000110633.1	ENSMUSG00000110633.1	ENSMUSG00000110633.1	lincRNA	Gm32122	40.9495124	19.22502808	1.093749449	0.4123016	2.6527899	0.007983	0.0366664
ENSMUSG00000052396.7	ENSMUSG00000052396.7	ENSMUSG00000052396.7	protein coding	Mogat2	16.96597903	46.86618632	-1.461123427	0.3808746	-3.836232	0.0001249	0.0010143
ENSMUSG00000108801.1	ENSMUSG00000108801.1	ENSMUSG00000108801.1	lincRNA	Gm39090	7	0.730698963	-5.263365139	1.6064708	-3.336801	0.000842	0.0005405
ENSMUSG00000030484.5	ENSMUSG00000030484.5	ENSMUSG00000030484.5	protein coding	Lypd5	60.85262808	26.33878052	-1.11376359	0.3162088	8.3039680	0.001277	0.0010337
ENSMUSG00000035283.4	ENSMUSG00000035283.4	ENSMUSG00000035283.4	protein coding	Adrb1	1.888914059	23.8231955	-3.675485273	0.8512327	-4.31784	1.576E-05	0.000159
ENSMUSG00000096764.1	ENSMUSG00000096764.1	ENSMUSG00000096764.1	protein coding	Gm21985	0	73.85640365	-8.753313862	1.250654	-6.998898	2.578E-12	7.142E-11
ENSMUSG00000086806.1	ENSMUSG00000086806.1	ENSMUSG00000086806.1	antisense RNA	Gm13054	0	6.010030292	-5.134738532	1.6893669	-3.039445	0.0023701	0.0133024
ENSMUSG00000097373.1	ENSMUSG00000097373.1	ENSMUSG00000097373.1	antisense RNA	Gm26877	32.64875906	7.394516849	2.141657027	0.8133039	2.63328	0.0084655	0.0384305
ENSMUSG00000024164.15	ENSMUSG00000024164.15	ENSMUSG00000024164.15	protein coding	Cc3	511.969101	212.561179	1.268334203	0.1324052	9.5791854	9.781E-22	5.432E-20
ENSMUSG00000113959.1	ENSMUSG00000113959.1	ENSMUSG00000113959.1	TEC	AC124739.5	16.63370815	0.64829908	4.577335641	0.1240995	3.7366172	0.0001865	0.0001445
ENSMUSG0000001510.8	ENSMUSG0000001510.8	ENSMUSG0000001510.8	protein coding	Dir3	43.22706294	21.55526984	1.004423998	0.3758998	2.671223	0.0075373	0.0350186
ENSMUSG00000039384.8	ENSMUSG00000039384.8	ENSMUSG00000039384.8	protein coding	Dusp10	369.6770001	773.7514338	-1.067051954	0.157702	-6.763265	1.322E-11	3.382E-10
ENSMUSG00000050737.13	ENSMUSG00000050737.13	ENSMUSG00000050737.13	protein coding	Ptges	847.9070936	345.8457334	1.29349233	0.159771	9.059788	6.685E-16	2.198E-14
ENSMUSG00000086196.4	ENSMUSG00000086196.4	ENSMUSG00000086196.4	protein coding	Col8a1	12315.49213	5195.207192	1.245091433	0.0678316	18.355639	2.976E-75	1.1E-72
ENSMUSG0000007786.16	ENSMUSG0000007786.16	ENSMUSG0000007786.16	protein coding	Nkxar2	55.24000621	215.6115687	-1.961155522	0.4493908	-3.36848	1.251E-05	0.0001289
ENSMUSG00000078503.9	ENSMUSG00000078503.9	ENSMUSG00000078503.9	protein coding	Zfp990	50.92938757	0	8.023464793	1.2520534	6.4082448	1.472E-10	3.265E-09
ENSMUSG00000044216.6	ENSMUSG00000044216.6	ENSMUSG00000044216.6	protein coding	Kcnj4	9.016189163	26.93745165	-1.584937362	0.5541798	-2.860035	0.0042359	0.0216999
ENSMUSG00000035395.11	ENSMUSG00000035395.11	ENSMUSG00000035395.11	protein coding	Pet2	0	5.767088114	-5.072007884	1.8369484	-2.76105	0.0057616	0.0281349
ENSMUSG00000022514.14	ENSMUSG00000022514.14	ENSMUSG00000022514.14	protein coding	Il1rap	349.6397998	117.1749457	-1.580325241	0.1573804	1.0041361	1.003E-23	6.434E-22
ENSMUSG00000079051.5	ENSMUSG00000079051.5	ENSMUSG00000079051.5	protein coding	Gm14025	35.09651173	4.637787679	2.929911479	0.5795234	5.056478	4.289E-07	5.884E-06
ENSMUSG00000085289.1	ENSMUSG00000085289.1	ENSMUSG00000085289.1	antisense RNA	Gm15337	32.40656758	3.518494931	3.196420166	0.6280204	5.0896758	3.587E-07	4.976E-06
ENSMUSG00000073413.9	ENSMUSG00000073413.9	ENSMUSG00000073413.9	protein coding	Ly6g6d	7.699535704	0	5.500936544	1.5658947	3.3850995	0.0007116	0.004641
ENSMUSG0000010782.1	ENSMUSG0000010782.1	ENSMUSG0000010782.1	lincRNA	Gm28231	9.68056203	0	6.528078351	1.5090198	3.7296251	0.0001918	0.0014814
ENSMUSG00000049929.7	ENSMUSG00000049929.7	ENSMUSG00000049929.7	protein coding	Lpar4	10.07522829	0	6.590415164	1.5018356	3.7899734	0.0001513	0.0012027
ENSMUSG00000043430.5	ENSMUSG00000043430.5	ENSMUSG00000043430.5	protein coding	Psap1	402.1629137	69.49534609	2.532577602	0.2141468	11.826359	2.852E-32	2.703E-30
ENSMUSG00000024087.3	ENSMUSG00000024087.3	ENSMUSG00000024087.3	protein coding	Cyp1b1	796.4437305	143.0144798	2.480315609	0.1778113	13.949148	3.184E-44	5.072E-42
ENSMUSG00000047414.6	ENSMUSG00000047414.6	ENSMUSG00000047414.6	protein coding	Fir2	582.897306	189.2116794	1.62284861	0.4114807	3.9439241	8.016E-05	0.0068845
ENSMUSG00000031734.13	ENSMUSG00000031734.13	ENSMUSG00000031734.13	protein coding	lrx3	560.8003243	261.0110235	1.102519344	0.2507104	4.3975817	1.095E-05	0.0001145
ENSMUSG00000048764.16	ENSMUSG00000048764.16	ENSMUSG00000048764.16	protein coding	Tmprss11f	54.08444726	6.939093778	2.945136	0.4775974	6.1665569	6.979E-10	1.434E-08
ENSMUSG00000029007.8	ENSMUSG00000029007.8	ENSMUSG00000029007.8	protein coding	Agtrap	177.1323628	364.7681559	-1.041292947	0.1517694	-8.861019	6.837E-12	1.795E-10
ENSMUSG00000073591.4	ENSMUSG00000073591.4	ENSMUSG00000073591.4	protein coding	Pcdbh22	22.22506798	5.648058526	-1.594964667	0.5755595	-3.4331194	0.0005967	0.0039789
ENSMUSG00000020316.6	ENSMUSG00000020316.6	ENSMUSG00000020316.6	protein coding	Dkk2	10.21595963	38.93705864	-1.130275427	0.4258627	-4.532624	5.826E-06	6.457E-05
ENSMUSG0000002006.12	ENSMUSG0000002006.12	ENSMUSG0000002006.12	protein coding	Pzd4	82.35448247	180.5910287	-1.934133088	0.1797666	-6.308922	2.81E-10	6.051E-09
ENSMUSG00000006989.12	ENSMUSG00000006989.12	ENSMUSG00000006989.12	protein coding	Gaint13	8.730573625	0.746195165	3.602848511	1.3747054	2.620815	0.008772	0.0399344
ENSMUSG00000009817.18	ENSMUSG00000009817.18	ENSMUSG00000009817.18	protein coding	Pleg1	893.3203394	173.4704264	-1.010141082	0.2368989	-4.214367	2.605E-05	0.002426
ENSMUSG00000017688.14	ENSMUSG00000017688.14	ENSMUSG00000017688.14	protein coding	Hnf1g	1.619397345	13.41659348	-3.092067217	0.9570722	-3.17116	0.0115185	0.0092882
ENSMUSG00000029086.15	ENSMUSG00000029086.15	ENSMUSG00000029086.15	protein coding	Prom1	1.014768427	456.9576665	-2.10776601	0.2070257	-10.48899	9.035E-27	7.073E-24
ENSMUSG00000048078.16	ENSMUSG00000048078.16	ENSMUSG00000048078.16	protein coding	Tenm4	193.0829625	53.24088789	1.865937037	0.223077	8.3645407	6.035E-17	2.523E-15
ENSMUSG00000020607.7	ENSMUSG00000020607.7	ENSMUSG00000020607.7	protein coding	Fam84a	536.2150834	248.1484003	1.112846752	0.1240385	8.9717884	2.917E-19	1.419E-17
ENSMUSG00000019990.15	ENSMUSG00000019990.15	ENSMUSG00000019990.15	protein coding	Hnf1b	9.62221032	0.746195165	7.343840861	1.3692357	2.7339928	0.0026571	0.0030936
ENSMUSG00000041801.5	ENSMUSG00000041801.5	ENSMUSG00000041801.5	protein coding	Mtdra3	53.95237077	110.380898	-1.026797883	0.254856	-4.028933	5.603E-05	0.0004951
ENSMUSG00000032584.12	ENSMUSG00000032584.12	ENSMUSG00000032584.12	protein coding	Plist1	1.164718845	34.13865427	-4.803368412	0.9188128	-5.227819	1.715E-07	2.484E-06
ENSMUSG00000024388.10	ENSMUSG00000024388.10	ENSMUSG00000024388.10	protein coding	Myo7b	5.368435776	78.97868815	-3.851368463	0.5908496	-6.518356	7.108E-11	1.646E-09
ENSMUSG00000062309.8	ENSMUSG00000062309.8	ENSMUSG00000062309.8	protein coding	Rpp25	34.62203026	104.9016659	-1.603767459	0.3097997	-5.176788	2.257E-07	3.211E-06
ENSMUSG00000085022.2	ENSMUSG00000085022.2	ENSMUSG00000085022.2	lincRNA	Gm5860	8.072732583	76.01419228	-3.29872477	0.395628	-8.146623	3.742E-16	1.471E-14
ENSMUSG00000063851.12	ENSMUSG00000063851.12	ENSMUSG00000063851.12	protein coding	Rnf183	102.1350667	38.13258765	1.425526286	0.2695862	5.3999638	8.324E-08	1.274E-06
ENSMUSG00000014773.13	ENSMUSG00000014773.13	ENSMUSG00000014773.13	protein coding	Dil1	102.9854227	245.9685288	-1.256425193	0.1699867	-7.391317	1.454E-13	4.46E-12
ENSMUSG0000002578.17	ENSMUSG0000002578.17	ENSMUSG0000002578.17	protein coding	Ikzf4	24.29855268	116.0253605	-2.251677445	0.2802065	-8.035778	2.999E-16	3.565E-14
ENSMUSG00000035868.8	ENSMUSG00000035868.8	ENSMUSG00000035868.8	protein coding	Zfp983	67.37373615	15.14988734	2.15044519	0.3533815	6.0853349	1.162E-09	2.32E-08
ENSMUSG00000022340.14	ENSMUSG00000022340.14	ENSMUSG00000022340.14	protein coding	Sybu	19.9870134	45.60471579	-1.189038116	0.4083525	-2.91194	0.0035936	0.0012310
ENSMUSG00000041180.13	ENSMUSG00000041180.13	ENSMUSG00000041180.13	protein coding	Hectd2	25.20571189	64.78798797	-1.355640807	0.414003	-3.274471	0.001586	0.0066062
ENSMUSG00000021216.7	ENSMUSG00000021216.7	ENSMUSG00000021216.7	protein coding	Tubaal3	0	16.32257291	-6.57332365	1.3894001	-4.732526	2.217E-06	2.657E-05
ENSMUSG00000043969.4	ENSMUSG00000043969.4	ENSMUSG00000043969.4	protein coding	Emc2	50.76642433	24.81233284	1.024103906	0.3624372	2.8260309	0.004192	0.0237993
ENSMUSG00000045991.18	ENSMUSG00000045991.18	ENSMUSG00000045991.18	protein coding	Oneuc2	270.3234577	122.8443066	1.135348326	0.135348326	1.7263442	3.774E-13	1.119E-11
ENSMUSG00000038508.7	ENSMUSG00000038508.7	ENSMUSG00000038508.7	protein coding	Gdf15	45.71839278	5.653621433	3.01560393	0.5200918	5.7982151	6.702E-09	1.215E-07
ENSMUSG00000025889.13	ENSMUSG00000025889.13	ENSMUSG00000025889.13	protein coding	Snra	19.5934224	53.81995414	-1.463250581	0.3491387	-4.191029	2.777E-05	0.002662
ENSMUSG0000001457.7	ENSMUSG0000001457.7	ENSMUSG0000001457.7	protein coding	Spr	78.53338396	29.23498828	1.422435668	0.312157	4.5567956	5.194E-06	5.806E-05
ENSMUSG00000027955.16	ENSMUSG00000027955.16	ENSMUSG00000027955.16	protein coding	Fam198b	202.7253014	677.020761	1.581132509	0.103726	14.456389	2.895E-47	4.264E-45
ENSMUSG00000067377.12	ENSMUSG00000067377.12	ENSMUSG00000067377.12	protein coding	Tspan6	76.44720884	11.76307004	7.705694061	0.385581	1.023018	0.217E-12	6.651E-11
ENSMUSG00000047907.11	ENSMUSG00000047907.11	ENSMUSG00000047907.11	protein coding	Fgf7	97.0094067	13.06567572	2.882077146	0.8901432	3.2377679	0.012004	0.007386
ENSMUSG00000081375.1	ENSMUSG00000081375.1	ENSMUSG00000081375.1	transcribed processed pseudogene	Gm14886	12.35733969	2.453713134	6.22331886	0.9437485	2.523374	0.0116247	0.0499769
ENSMUSG00000027296.7	ENSMUSG00000027296.7	ENSMUSG00000027296.7	protein coding	ltkpa	5.194499548	0	4.734410316	1.7943202	2.6385537	0.003261	0.033459
ENSMUSG00000032086.12	ENSMUSG00000032086.12	ENSMUSG00000032086.12	protein coding	Bace1	2672.102151	1248.053996	1.098632297	0.0760067	14.454411	2.351E-47	4.345E-45
ENSMUSG00000039145.16	ENSMUSG00000039145.16	ENSMUSG00000039145.16	protein coding	Camk1d	10.22719994	905.2864321	-2.913420954	0.1239966	-23.49547	4.54E-122	4.93E-119
ENSMUSG00000000296.8	ENSMUSG00000000296.8	ENSMUSG00000000296.8	protein coding	Tpds12	1575.5273909	726.4978689	1.115701601	0.1053004	10.595972	3.111E-26	2.263E-24
ENSMUSG00000067199.4	ENSMUSG00000067199.4	ENSMUSG00000067199.4	protein coding	Frata							





ENSMUSG0000057933.10	ENSMUSG0000057933.10	ENSMUSG0000057933.10	protein coding	Gsta2	0	6.296357605	-5.204186073	1.6604919	-3.134123	0.0017237	0.0100284
ENSMUSG0000035615.12	ENSMUSG0000035615.12	ENSMUSG0000035615.12	protein coding	Fmpd1	7.419919718	19.72203825	-1.411338042	0.5441038	-2.593876	0.0094901	0.0420239
ENSMUSG0000022816.11	ENSMUSG0000022816.11	ENSMUSG0000022816.11	protein coding	Fst11	23.88155768	3.908281237	2.601529176	0.8098189	3.2124827	0.0013159	0.0019724
ENSMUSG0000032766.9	ENSMUSG0000032766.9	ENSMUSG0000032766.9	protein coding	Gng11	6.150591802	0	4.976736634	1.7027901	2.9226953	0.0034702	0.0182139
ENSMUSG0000097479.1	ENSMUSG0000097479.1	ENSMUSG0000097479.1	lincRNA	Gm26582	22.4600913	45.49484518	-1.020801234	0.4035016	-2.529856	0.0114109	0.0492747
ENSMUSG0000070704.10	ENSMUSG0000070704.10	ENSMUSG0000070704.10	protein coding	Ugt2b36	1.013910473	99.84672029	-6.735899769	0.9051582	-7.441678	9.941E-14	3.124E-12
ENSMUSG0000025912.16	ENSMUSG0000025912.16	ENSMUSG0000025912.16	protein coding	Mybl1	242.3093289	502.9024123	-1.054824726	0.1533676	-8.877753	6.08E-12	1.81E-10
ENSMUSG0000040212.12	ENSMUSG0000040212.12	ENSMUSG0000040212.12	protein coding	Emp3	153.9417814	58.83528418	1.386990455	0.2336225	5.9368885	2.905E-09	5.522E-08
ENSMUSG0000020053.18	ENSMUSG0000020053.18	ENSMUSG0000020053.18	protein coding	Igf1	21.504535	4.210179146	2.343901351	0.6609898	3.5460477	0.0003911	0.0027643
ENSMUSG0000086531.2	ENSMUSG0000086531.2	ENSMUSG0000086531.2	lincRNA	Gm11351	0	2.05256687	-10.2287864	1.1954376	-8.556504	1.163E-17	1.515E-16
ENSMUSG0000096856.7	ENSMUSG0000096856.7	ENSMUSG0000096856.7	protein coding	Gm10778	0	6.707351273	-5.304295222	1.8406471	-3.233052	0.0012248	0.0074789
ENSMUSG0000026932.14	ENSMUSG0000026932.14	ENSMUSG0000026932.14	processed pseudogene	Nac22	1101.140129	534.1575411	1.044500254	1.1796154	5.8125031	6.056E-09	1.107E-07
ENSMUSG0000113011.1	ENSMUSG0000113011.1	ENSMUSG0000113011.1	processed pseudogene	AC211878.2	34.92150482	0.64829808	5.637144179	1.1240742	5.0149195	1.638E-07	7.214E-06
ENSMUSG0000001763.18	ENSMUSG0000001763.18	ENSMUSG0000001763.18	protein coding	Tspan33	64.26927242	39.7451257	-2.165943098	0.5236856	-4.995255	8.878E-07	7.826E-06
ENSMUSG0000022899.8	ENSMUSG0000022899.8	ENSMUSG0000022899.8	protein coding	Slc15a2	30.41158	0	7.281071409	1.2983522	6.607891	2.048E-08	3.469E-07
ENSMUSG0000020427.11	ENSMUSG0000020427.11	ENSMUSG0000020427.11	protein coding	Igf2bp3	3620.125987	11134.47349	-1.6211174	0.0794295	-20.40951	1.377E-92	7.949E-90
ENSMUSG0000042190.12	ENSMUSG0000042190.12	ENSMUSG0000042190.12	protein coding	Cmk1r1	4.962209961	0	4.665444187	1.7470104	2.6705303	0.0075732	0.0351954
ENSMUSG0000055538.7	ENSMUSG0000055538.7	ENSMUSG0000055538.7	protein coding	Zcchc24	54.46701008	5.263835127	3.365083509	0.523196	6.4317832	1.261E-10	2.835E-09
ENSMUSG0000050241.8	ENSMUSG0000050241.8	ENSMUSG0000050241.8	protein coding	Klre1	3.751236216	14.94853226	-2.007548671	0.2532396	-2.661382	0.0077821	0.0359223
ENSMUSG0000060403.13	ENSMUSG0000060403.13	ENSMUSG0000060403.13	processed transcript	Trrf1	20.00192735	156.0505707	-4.47409549	0.2583133	-9.579102	9.789E-22	5.432E-20
ENSMUSG000002103.9	ENSMUSG000002103.9	ENSMUSG000002103.9	protein coding	Gfra2	8.28357365	0	5.20036655	1.6344495	3.2859583	0.0101664	0.0063619
ENSMUSG0000112758.1	ENSMUSG0000112758.1	ENSMUSG0000112758.1	bidirectional promoter lincRNA	AC159502.1	4.926983239	0	4.656709478	1.7647579	2.6387242	0.003219	0.0379401
ENSMUSG0000050822.11	ENSMUSG0000050822.11	ENSMUSG0000050822.11	protein coding	Sic29a4	66.98287849	160.8745533	-1.267880095	2.7376315	-5.335488	8.529E-08	1.446E-06
ENSMUSG0000049939.6	ENSMUSG0000049939.6	ENSMUSG0000049939.6	protein coding	Lrrc4	16.70362605	3.880466698	2.104082157	0.6983319	3.0130115	0.0025867	0.0134305
ENSMUSG0000047045.17	ENSMUSG0000047045.17	ENSMUSG0000047045.17	protein coding	Tmem164	269.0542296	861.2247074	-1.678156027	0.598137	-2.805638	0.0050217	0.0251603
ENSMUSG0000024238.14	ENSMUSG0000024238.14	ENSMUSG0000024238.14	protein coding	Zeb3	227.9284524	60.0509439	1.927338977	1.213672	9.0200835	1.879E-19	9.311E-18
ENSMUSG0000090958.2	ENSMUSG0000090958.2	ENSMUSG0000090958.2	protein coding	Lrrc1	43.03005527	8.619915336	2.300650721	0.5255642	4.3774877	1.201E-05	0.000124
ENSMUSG0000103749.1	ENSMUSG0000103749.1	ENSMUSG0000103749.1	protein coding	Pcdhgb5	94.06835263	11.68953036	3.007632218	0.5911331	5.0879107	3.62E-07	5.015E-06
ENSMUSG0000026764.15	ENSMUSG0000026764.15	ENSMUSG0000026764.15	protein coding	Klf5c	83.07881988	184.7253946	-1.152979136	0.1950909	-6.052166	1.429E-09	2.815E-08
ENSMUSG0000023913.17	ENSMUSG0000023913.17	ENSMUSG0000023913.17	protein coding	Plag2g7	26.5845244	153.1487954	-2.523903758	0.3141382	-8.063023	7.443E-16	2.847E-14
ENSMUSG0000033788.15	ENSMUSG0000033788.15	ENSMUSG0000033788.15	protein coding	Dyf8	242.8872928	25.53183159	3.241217257	0.2622856	12.386529	3.481E-35	4.679E-33
ENSMUSG0000054545.17	ENSMUSG0000054545.17	ENSMUSG0000054545.17	protein coding	Ugt18a1	25.54035757	3.946103464	2.706701693	0.865497	3.1273379	0.001764	0.010262
ENSMUSG000003032.15	ENSMUSG000003032.15	ENSMUSG000003032.15	protein coding	Alap111	10.03953736	9.446199734	2.866520584	0.722679	3.9941949	6.849E-05	0.0005645
ENSMUSG0000027843.13	ENSMUSG0000027843.13	ENSMUSG0000027843.13	protein coding	Ptpr23	1907.574775	828.2942898	1.202606976	0.0810437	14.8389953	3.189E-50	1.683E-47
ENSMUSG0000022901.3	ENSMUSG0000022901.3	ENSMUSG0000022901.3	protein coding	Ctse	84.38005004	23.55732178	1.829871049	0.3564984	5.1330096	2.85E-07	4.014E-06
ENSMUSG0000043639.14	ENSMUSG0000043639.14	ENSMUSG0000043639.14	protein coding	Rbm20	2.807779186	22.71126369	-3.022318337	0.8005369	-3.775364	0.0001599	0.0012595
ENSMUSG0000043773.5	ENSMUSG0000043773.5	ENSMUSG0000043773.5	lincRNA	1700048020Rik	13.3965757	1.29659816	3.294133159	1.1590136	2.8421667	0.0044805	0.027448
ENSMUSG0000085992.1	ENSMUSG0000085992.1	ENSMUSG0000085992.1	lincRNA	Gm11515	5.742168202	0	4.880858782	1.7536191	7.7833216	0.0038805	0.0266175
ENSMUSG0000078713.8	ENSMUSG0000078713.8	ENSMUSG0000078713.8	protein coding	Tomms5	154.9406533	349.3889255	-1.117298347	0.2245836	-5.218984	1.799E-07	2.539E-06
ENSMUSG0000020681.14	ENSMUSG0000020681.14	ENSMUSG0000020681.14	protein coding	Ace	39.88478587	14.00834296	1.503382132	0.4309195	3.4887776	0.004852	0.0308311
ENSMUSG000006777.7	ENSMUSG000006777.7	ENSMUSG000006777.7	protein coding	Kr23	0	96.12798367	-9.15718697	1.2203314	7.486339	7.082E-14	2.268E-12
ENSMUSG0000027849.18	ENSMUSG0000027849.18	ENSMUSG0000027849.18	protein coding	Syt6	11.40344593	1.481264514	2.989788995	0.1030316	2.8941891	0.0038014	0.0197365
ENSMUSG0000033510.14	ENSMUSG0000033510.14	ENSMUSG0000033510.14	protein coding	Outd7a	5.894103265	0	4.913673787	1.6682993	2.9453191	0.003262	0.0172096
ENSMUSG0000022641.15	ENSMUSG0000022641.15	ENSMUSG0000022641.15	protein coding	Bbx	1542.685099	576.9393394	1.420003973	0.1123223	12.642223	1.235E-36	1.435E-34
ENSMUSG0000025884.17	ENSMUSG0000025884.17	ENSMUSG0000025884.17	protein coding	Pde8a	46.88412712	21.71211866	1.117267711	0.3907115	2.8959723	0.0042421	0.021692
ENSMUSG0000037025.11	ENSMUSG0000037025.11	ENSMUSG0000037025.11	protein coding	Foxa2	217.7282765	78.74310691	1.465493696	0.1944496	7.534825	4.888E-14	1.593E-12
ENSMUSG0000043222.7	ENSMUSG0000043222.7	ENSMUSG0000043222.7	protein coding	Dsc1	0	8.474869242	-5.63078074	1.5393418	-3.657915	0.002543	0.001899
ENSMUSG0000034612.7	ENSMUSG0000034612.7	ENSMUSG0000034612.7	protein coding	Chst11	99.80723561	19.15050175	2.383027459	0.3382273	7.0456244	1.846E-12	5.185E-11
ENSMUSG0000047712.8	ENSMUSG0000047712.8	ENSMUSG0000047712.8	protein coding	Ust	56.48718292	11.7292849	2.268485058	0.4518603	5.0203255	5.158E-07	7.024E-06
ENSMUSG0000050578.10	ENSMUSG0000050578.10	ENSMUSG0000050578.10	protein coding	Mmp13	315.9249124	116.6046962	1.43801394	0.2172212	6.2004338	3.591E-11	8.651E-10
ENSMUSG0000108926.1	ENSMUSG0000108926.1	ENSMUSG0000108926.1	processed pseudogene	Gm10988	0	5.059833304	-4.882314394	1.8538514	-2.633066	0.0048483	0.0304831
ENSMUSG0000033377.14	ENSMUSG0000033377.14	ENSMUSG0000033377.14	protein coding	Palmd	81.06090042	34.55710383	1.224330231	0.3154926	3.8806935	0.001042	0.0038317
ENSMUSG0000075391.6	ENSMUSG0000075391.6	ENSMUSG0000075391.6	processed pseudogene	Gm13443	107.3641446	0.735069349	7.244780335	1.0605749	6.8309933	8.433E-12	2.185E-10
ENSMUSG0000044258.10	ENSMUSG0000044258.10	ENSMUSG0000044258.10	protein coding	Ctla2a	116.7234435	1204.657461	-3.366977719	0.2101668	-16.2026	9.191E-58	2.326E-55
ENSMUSG0000026470.14	ENSMUSG0000026470.14	ENSMUSG0000026470.14	protein coding	Rpl21	226.2563179	501.9896134	-1.148756243	0.3184673	-3.607141	0.003096	0.0022593
ENSMUSG0000096269.3	ENSMUSG0000096269.3	ENSMUSG0000096269.3	processed pseudogene	Rp31-ps21	24.25342447	1.481264514	4.083313814	0.9160779	4.576789	8.285E-06	8.885E-05
ENSMUSG0000014846.12	ENSMUSG0000014846.12	ENSMUSG0000014846.12	protein coding	Tpp33	31.99623933	242.4427458	-2.917173028	0.2611456	-11.17067	5.675E-29	4.84E-27
ENSMUSG0000049646.7	ENSMUSG0000049646.7	ENSMUSG0000049646.7	protein coding	BC030500	12.66121012	1.49232033	3.12552665	1.2039143	2.5981372	0.004278	0.041988
ENSMUSG0000036192.15	ENSMUSG0000036192.15	ENSMUSG0000036192.15	protein coding	Rarb	9.342596346	23.46302178	-1.53094267	5.0948251	2.617439	0.0085952	0.0392821
ENSMUSG0000059656.12	ENSMUSG0000059656.12	ENSMUSG0000059656.12	protein coding	Samd12	1.115693021	190.0432296	-1.116089991	0.2194039	-6.454258	1.088E-12	4.575E-09
ENSMUSG0000021998.16	ENSMUSG0000021998.16	ENSMUSG0000021998.16	protein coding	Lcp1	699.8522596	10.64781797	6.034440961	0.3158958	19.13132	1.39E-81	5.838E-79
ENSMUSG0000058260.2	ENSMUSG0000058260.2	ENSMUSG0000058260.2	protein coding	Serpina9	11.93847938	1.29659816	3.335837255	1.2192827	5.219127	0.0101138	0.0448655
ENSMUSG0000033871.14	ENSMUSG0000033871.14	ENSMUSG0000033871.14	protein coding	Pparg1b	219.1831039	99.69834281	1.133091754	0.2022674	5.6069335	2.06E-08	3.486E-07
ENSMUSG0000027199.14	ENSMUSG0000027199.14	ENSMUSG0000027199.14	protein coding	Gatm	353.4077369	3924.652631	-1.947192599	0.0824265	-42.12469	0	0
ENSMUSG0000030710.7	ENSMUSG0000030710.7	ENSMUSG0000030710.7	protein coding	Apln	845.835209	218.1453988	1.935977436	0.1090278	17.930994	6.756E-72	2.27E-69
ENSMUSG0000029816.10	ENSMUSG0000029816.10	ENSMUSG0000029816.10	protein coding	Gpmnb	5.21816295	30.73294612	-2.551603875	0.5753143	-4.435148	9.201E-06	9.76E-05
ENSMUSG0000022114.4	ENSMUSG0000022114.4	ENSMUSG0000022114.4									

ENSMUSG0000049593.8	ENSMUSG0000049593.8	ENSMUSG0000049593.8	protein coding	Lce1h	68.73001235	32.26204055	1.089579239	0.3171528	3.4355028	0.0005915	0.0039497
ENSMUSG00000102748.1	ENSMUSG00000102748.1	ENSMUSG00000102748.1	protein coding	Pcdhgb2	36.76092609	116.7707474	-1.66506033	0.6355662	-2.619764	0.0087991	0.0037139
ENSMUSG00000304121.12	ENSMUSG00000304121.12	ENSMUSG00000304121.12	protein coding	Mks1	97.63850778	45.24830667	1.014256625	0.2581103	4.2782686	1.884e-05	0.0001876
ENSMUSG00000606487.7	ENSMUSG00000606487.7	ENSMUSG00000606487.7	protein coding	Samd5	611.357274	4511.471977	-2.884275202	0.072203	-39.94676	0	0
ENSMUSG0000037636.6	ENSMUSG0000037636.6	ENSMUSG0000037636.6	protein coding	Sic25a43	52.21851846	25.26843582	1.051920585	0.3398651	3.095119	0.0019674	0.0112794
ENSMUSG0000042812.5	ENSMUSG0000042812.5	ENSMUSG0000042812.5	protein coding	Foxf1	233.3509023	7.556931573	4.970660399	0.3664718	13.563557	6.586e-42	9.583e-40
ENSMUSG0000023827.8	ENSMUSG0000023827.8	ENSMUSG0000023827.8	protein coding	Aggta2	181.74460003	397.7186269	-2.277861997	0.1713668	-13.29232	2.565e-40	3.537e-38
ENSMUSG0000073158.4	ENSMUSG0000073158.4	ENSMUSG0000073158.4	protein coding	9030624G23Rik	12.73718582	0	6.023049539	2.3356856	2.5787073	0.0099171	0.0437973
ENSMUSG0000048231.14	ENSMUSG0000048231.14	ENSMUSG0000048231.14	protein coding	H2-M10.4	0	11.25273192	-6.04074507	1.4583338	-4.142224	3.44e-05	0.0003197
ENSMUSG0000073821.11	ENSMUSG0000073821.11	ENSMUSG0000073821.11	processed transcript	8030451A03Rik	153.9066659	30.1658944	2.354250185	0.2722873	8.6461983	5.324e-18	2.394e-16
ENSMUSG0000039936.18	ENSMUSG0000039936.18	ENSMUSG0000039936.18	protein coding	Plk3cd	18.79827803	77.2618424	-2.206222616	0.3505315	-6.293936	3.095e-10	6.619e-09
ENSMUSG0000021678.9	ENSMUSG0000021678.9	ENSMUSG0000021678.9	protein coding	Ilgag2	417.8694999	52.6025965	2.927939991	0.2140883	14.00291	1.496e-44	2.468e-42
ENSMUSG0000021751.13	ENSMUSG0000021751.13	ENSMUSG0000021751.13	protein coding	Rims3	198.2657009	93.21063781	1.087138878	0.1979808	5.7836608	7.301e-09	1.132e-07
ENSMUSG0000032890.17	ENSMUSG0000032890.17	ENSMUSG0000032890.17	protein coding	Rims3	8.095860033	45.65742871	-2.504412545	0.4821713	-5.194031	2.058e-07	2.943e-06
ENSMUSG0000039395.8	ENSMUSG0000039395.8	ENSMUSG0000039395.8	protein coding	Mreg	3.271857561	87.26136129	-1.874195963	0.286741	-6.536197	6.31e-11	1.467e-09
ENSMUSG0000035390.16	ENSMUSG0000035390.16	ENSMUSG0000035390.16	protein coding	Brsk1	108.5267232	270.7975504	1.31928792	0.1605562	-8.208519	2.239e-16	9.043e-15
ENSMUSG0000075302.10	ENSMUSG0000075302.10	ENSMUSG0000075302.10	protein coding	Erich2	88.20511977	32.05512256	-1.455876272	0.2982098	4.8820543	1.05e-06	1.345e-05
ENSMUSG0000004105.8	ENSMUSG0000004105.8	ENSMUSG0000004105.8	protein coding	Angpt2	384.3862421	66.8158147	2.502738576	0.1766994	14.265668	3.581e-46	6.242e-44
ENSMUSG0000091962.2	ENSMUSG0000091962.2	ENSMUSG0000091962.2	protein coding	Vmn2r78	0	4.864041134	-4.83313746	1.8035293	-2.67982	0.0073662	0.0344666
ENSMUSG0000070509.15	ENSMUSG0000070509.15	ENSMUSG0000070509.15	protein coding	Rgma	34.77509202	95.76180881	-1.469708575	0.3657994	-4.017799	5.874e-05	0.0005171
ENSMUSG0000031327.10	ENSMUSG0000031327.10	ENSMUSG0000031327.10	protein coding	Chic1	61.11746419	14.14962418	1.21120041	0.3821501	5.266347	3.264e-08	5.371e-07
ENSMUSG0000026483.13	ENSMUSG0000026483.13	ENSMUSG0000026483.13	protein coding	Fam129a	2697.171113	364.4683255	2.887216439	0.0931107	31.008427	4.15e-211	1.24e-207
ENSMUSG0000029019.8	ENSMUSG0000029019.8	ENSMUSG0000029019.8	protein coding	Nppb	27.59516599	118.2786679	-2.098058078	0.2695983	-7.789804	6.711e-15	2.30e-13
ENSMUSG000001362.1	ENSMUSG000001362.1	ENSMUSG000001362.1	unprocessed pseudogene	Mrgprbp-9s	301.7415088	196.6275437	-2.679724103	0.2373292	-11.29117	1.451e-29	1.224e-27
ENSMUSG000009954.14	ENSMUSG000009954.14	ENSMUSG000009954.14	protein coding	Kcnq1	193.197473	44.04404195	2.12135249	0.2169448	9.8238589	8.87e-23	5.31e-21
ENSMUSG0000043165.7	ENSMUSG0000043165.7	ENSMUSG0000043165.7	protein coding	L13r	23.66886176	49.1895274	-1.050871572	0.373505	-3.11348	0.0018489	0.0106763
ENSMUSG0000037169.15	ENSMUSG0000037169.15	ENSMUSG0000037169.15	protein coding	Mycn	34.5851423	81.81662468	-1.243306259	0.3073891	-4.044809	5.237e-05	0.0004661
ENSMUSG0000030074.9	ENSMUSG0000030074.9	ENSMUSG0000030074.9	protein coding	Gyxl2	62.7577356	25.80883112	1.284992895	0.3574754	3.5946331	0.0003248	0.0023549
ENSMUSG0000054453.11	ENSMUSG0000054453.11	ENSMUSG0000054453.11	protein coding	Sytl5	5.39325464	98.16324725	-4.260351165	0.5601717	-7.509039	5.956e-14	1.921e-12
ENSMUSG0000061601.15	ENSMUSG0000061601.15	ENSMUSG0000061601.15	protein coding	Pc1o	8.65092006	11.3128777	-3.682772915	0.3872984	-9.508878	1.927e-21	1.047e-19
ENSMUSG0000050425.2	ENSMUSG0000050425.2	ENSMUSG0000050425.2	protein coding	Mrgprb2	20.1618476	276.7920101	-3.767351265	0.2612988	-14.41846	3.961e-47	7.176e-45
ENSMUSG0000039376.13	ENSMUSG0000039376.13	ENSMUSG0000039376.13	protein coding	Sympo2l	60.78222736	28.76288108	1.501409836	0.331105	3.249269	0.001789	0.0072446
ENSMUSG000007899.6	ENSMUSG000007899.6	ENSMUSG000007899.6	protein coding	Adgrt2	2.527627653	14.17187581	-2.501290203	0.9157131	-2.731522	0.0063043	0.0032088
ENSMUSG0000022575.4	ENSMUSG0000022575.4	ENSMUSG0000022575.4	protein coding	Gsdmd	137.5578736	15.14612224	3.199225079	0.362154	8.833891	1.011e-18	4.803e-17
ENSMUSG000001348.15	ENSMUSG000001348.15	ENSMUSG000001348.15	protein coding	Aeg5	28.94122644	0	7.108913031	1.310264	5.4254419	5.778e-08	9.076e-07
ENSMUSG0000020467.15	ENSMUSG0000020467.15	ENSMUSG0000020467.15	protein coding	Efemp1	77.110066	2652.162166	-1.7770752	0.110856	-16.0022	1.737e-57	3.17e-65
ENSMUSG0000068720.6	ENSMUSG0000068720.6	ENSMUSG0000068720.6	protein coding	Clcn9	427.4907057	134.3399807	1.68748517	0.1480634	11.26198	2.022e-29	1.683e-27
ENSMUSG0000020233.13	ENSMUSG0000020233.13	ENSMUSG0000020233.13	protein coding	Chnr2	681.2585658	1493.502264	-1.123396349	0.102225	-11.07749	1.813e-28	1.279e-26
ENSMUSG0000021364.16	ENSMUSG0000021364.16	ENSMUSG0000021364.16	protein coding	Elovl2	0	4.259127188	-4.63700759	1.8358219	-2.526124	0.0115329	0.0496748
ENSMUSG0000074457.10	ENSMUSG0000074457.10	ENSMUSG0000074457.10	protein coding	S100a16	975.4825881	458.3463561	1.08871004	0.1574565	6.9143558	4.71e-12	1.26e-10
ENSMUSG0000024059.9	ENSMUSG0000024059.9	ENSMUSG0000024059.9	protein coding	Clp4	293.0200212	861.9183073	-1.556160704	0.1100531	-14.14009	2.15e-45	3.654e-43
ENSMUSG0000072964.14	ENSMUSG0000072964.14	ENSMUSG0000072964.14	protein coding	Bhhb9	30.33136504	11.30167996	1.427085767	0.4704651	6.0334092	0.0024181	0.0013453
ENSMUSG0000028527.18	ENSMUSG0000028527.18	ENSMUSG0000028527.18	protein coding	Ak4	162.9275087	754.1000725	-2.210512917	0.6632326	-3.332398	0.0008593	0.0054925
ENSMUSG0000028525.16	ENSMUSG0000028525.16	ENSMUSG0000028525.16	protein coding	Pde4b	13.10373375	67.43209917	-2.350552272	0.3817473	-6.157351	7.397e-10	1.512e-08
ENSMUSG0000097867.1	ENSMUSG0000097867.1	ENSMUSG0000097867.1	lincRNA	Lppos	111.9059449	51.82790689	1.112332816	0.2415492	4.6049952	4.125e-06	4.696e-05
ENSMUSG0000085068.1	ENSMUSG0000085068.1	ENSMUSG0000085068.1	antisense RNA	M15895	24.4262892	5.966645158	2.027618197	0.56525	3.8711176	0.0003004	0.0024105
ENSMUSG0000050730.17	ENSMUSG0000050730.17	ENSMUSG0000050730.17	protein coding	Arhgap42	1089.853362	377.8072358	1.528406503	0.1143135	13.370307	9.017e-41	1.253e-38
ENSMUSG0000036019.8	ENSMUSG0000036019.8	ENSMUSG0000036019.8	protein coding	Tmc12	47.30138111	134.1838087	-1.498410839	0.271937	-5.509395	3.601e-08	5.838e-07
ENSMUSG00000109508.1	ENSMUSG00000109508.1	ENSMUSG00000109508.1	lincRNA	Gk44956	55.37361148	25.07648052	1.13668417	0.3754218	3.027752	0.0024638	0.0137666
ENSMUSG0000007888.15	ENSMUSG0000007888.15	ENSMUSG0000007888.15	protein coding	Crf1	179.939153	84.42830776	1.090891159	0.2107123	5.1771597	2.253e-07	3.207e-06
ENSMUSG0000024987.5	ENSMUSG0000024987.5	ENSMUSG0000024987.5	protein coding	Cyp26a1	9.527560045	0	5.608447707	1.534317	3.6553383	0.002568	0.0019173
ENSMUSG0000067212.8	ENSMUSG0000067212.8	ENSMUSG0000067212.8	protein coding	H2-T23	80.81612341	34.0339725	1.242606005	0.3129482	3.9706448	1.768e-05	0.0006166
ENSMUSG0000028402.18	ENSMUSG0000028402.18	ENSMUSG0000028402.18	protein coding	Mpdz	732.1849584	1641.331824	-1.164369053	0.077492	-15.02566	4.986e-51	1.059e-48
ENSMUSG0000064443.1	ENSMUSG0000064443.1	ENSMUSG0000064443.1	snRNA	Gm26226	10.75116881	2.08617846	2.353041948	0.9015482	6.2100001	0.0090542	0.0406373
ENSMUSG0000038910.6	ENSMUSG0000038910.6	ENSMUSG0000038910.6	protein coding	Plic2	10.18827364	65.12275222	-2.676607467	0.4188362	-6.390584	1.653e-10	3.635e-09
ENSMUSG0000060594.6	ENSMUSG0000060594.6	ENSMUSG0000060594.6	protein coding	Layn	38.94132884	157.0611799	-1.0213795994	0.313761	-6.418247	1.379e-10	3.073e-09
ENSMUSG0000061341.5	ENSMUSG0000061341.5	ENSMUSG0000061341.5	protein coding	Zfp52	332.6202044	1236.114373	-1.892789623	0.1046115	-18.09352	3.585e-73	1.25e-70
ENSMUSG0000039828.14	ENSMUSG0000039828.14	ENSMUSG0000039828.14	protein coding	Tex15	31.78181328	104.3446096	-1.723198245	0.429179	4.019599	5.642e-05	0.0002228
ENSMUSG0000061527.6	ENSMUSG0000061527.6	ENSMUSG0000061527.6	protein coding	Kfs	16.6795293	0	5.77402267	2.149775	2.6858632	0.0075243	0.0339362
ENSMUSG000009097.9	ENSMUSG000009097.9	ENSMUSG000009097.9	protein coding	Tbx1	50.09925881	0	8.002966341	1.257045	6.396874	1.586e-10	3.05e-09
ENSMUSG0000035273.14	ENSMUSG0000035273.14	ENSMUSG0000035273.14	protein coding	Hpse	59.91692748	272.5829213	1.851819724	0.2056713	-10.66116	1.547e-26	1.143e-24
ENSMUSG0000024678.6	ENSMUSG0000024678.6	ENSMUSG0000024678.6	protein coding	Msa44d	2.072949153	30.13247695	-3.814361722	0.7445417	-5.1231	3.006e-07	4.214e-06
ENSMUSG0000085956.1	ENSMUSG0000085956.1	ENSMUSG0000085956.1	processed transcript	4930481B07Rik	5.235460109	21.9272463	1.334130643	0.3402519	9.3200818	8.818e-05	0.000745
ENSMUSG0000074280.6	ENSMUSG0000074280.6	ENSMUSG0000074280.6	processed pseudogene	Gm166	1024.105297	2.404765092	8.693985379	0.5639514	15.416038	1.277e-53	2.917e-51
ENSMUSG0000073197.9	ENSMUSG0000073197.9	ENSMUSG0000073197.9	processed transcript	5730507C01Rik	43.55020049	10.59886993	1.460546754	0.4605466	4.431304	9.366e-06	9.924e-05
ENSMUSG0000014291.1	ENSMUSG0000014291.1	ENSMUSG0000014291.1	antisense RNA	AC139750.1	7.74632615	0	5.30812458	1.5602766	3.4020408	0.0006688	0.0043966
ENSMUSG0000029371.7	ENSMUSG0000029371.7	ENSMUSG0000029371.7	protein coding								

ENSMUSG0000007805.4	ENSMUSG0000007805.4	ENSMUSG0000007805.4	protein coding	Twist2	12.4983802	1.38368429	3.15204337	1.0466883	3.0114443	0.0026001	0.0144061
ENSMUSG0000019890.4	ENSMUSG0000019890.4	ENSMUSG0000019890.4	protein coding	Nts	0	62.30218432	-8.508242337	1.2306213	-6.913778	4.719E-12	1.264E-10
ENSMUSG0000023094.14	ENSMUSG0000023094.14	ENSMUSG0000023094.14	protein coding	Msr2b	17.75578448	12.1817954	2.544010653	0.3861214	6.5886293	4.439E-11	1.053E-09
ENSMUSG0000003153.10	ENSMUSG0000003153.10	ENSMUSG0000003153.10	protein coding	Sic2a3	5.68494722	28.66874987	-2.35160425	0.6721624	-3.498567	0.0004497	0.0032623
ENSMUSG00000039062.15	ENSMUSG00000039062.15	ENSMUSG00000039062.15	protein coding	Anpep	12.87909821	2.453713134	2.36695998	0.82605	2.8891713	0.0038626	0.0020261
ENSMUSG00000083282.2	ENSMUSG00000083282.2	ENSMUSG00000083282.2	protein coding	Cisf	6.371318071	0	5.032037102	1.6923157	9.273987	0.0029548	0.0015987
ENSMUSG0000099568.1	ENSMUSG0000099568.1	ENSMUSG0000099568.1	antisense RNA	Gm2813	8.371121848	0.735069349	3.539833351	1.3969974	2.5338869	0.0112805	0.0487924
ENSMUSG0000104231.1	ENSMUSG0000104231.1	ENSMUSG0000104231.1	antisense RNA	Gm37592	8.351813023	0	5.417110725	1.5357055	3.5274412	0.0004196	0.0029275
ENSMUSG0000104350.1	ENSMUSG0000104350.1	ENSMUSG0000104350.1	TEC	Gm38244	35.94628017	17.86655034	1.141252081	0.3900095	2.9262161	0.0034311	0.0180576
ENSMUSG00000027314.6	ENSMUSG00000027314.6	ENSMUSG00000027314.6	protein coding	Dil4	18.86849385	65.06071152	-1.77425208	3.818907	-4.64643	3.377622	3.9177E-05
ENSMUSG00000097451.10	ENSMUSG00000097451.10	ENSMUSG00000097451.10	processed transcript	Rian	29.8205021	5.615739206	2.402012495	0.5919833	4.0575677	4.959E-05	0.0004488
ENSMUSG0000020385.0	ENSMUSG0000020385.0	ENSMUSG0000020385.0	protein coding	Apa1	198.7547584	81.36676451	1.284167193	0.2067389	6.211541	5.237E-10	1.095E-08
ENSMUSG0000020732.13	ENSMUSG0000020732.13	ENSMUSG0000020732.13	protein coding	Rab37	14.00259812	2.46483895	2.502189385	0.9553831	2.6190371	0.0068178	0.0397698
ENSMUSG0000052430.15	ENSMUSG0000052430.15	ENSMUSG0000052430.15	protein coding	Bmpr1b	22.03903288	4.432667727	2.373124593	0.8497412	1.7503958	0.0095253	0.0287566
ENSMUSG0000022636.13	ENSMUSG0000022636.13	ENSMUSG0000022636.13	protein coding	Alcam	2172.487303	872.7868111	1.315054379	0.0919447	14.302673	2.106E-46	3.705E-44
ENSMUSG0000030041.9	ENSMUSG0000030041.9	ENSMUSG0000030041.9	protein coding	M1ap	23.12007232	6.794047684	1.778951292	0.627765	2.8332243	0.0046081	0.0233156
ENSMUSG0000083856.1	ENSMUSG0000083856.1	ENSMUSG0000083856.1	processed_pseudogene	Gm13886	19.44095179	6.712840323	1.534697052	0.5656144	1.7133273	0.0066611	0.0318087
ENSMUSG0000021301.9	ENSMUSG0000021301.9	ENSMUSG0000021301.9	protein coding	Hecw1	52.99237964	16.64227767	1.670024631	0.4197831	3.9783035	6.941E-05	0.000599
ENSMUSG0000041548.4	ENSMUSG0000041548.4	ENSMUSG0000041548.4	protein coding	Hspb8	206.794972	95.93466944	1.106389936	0.172338	6.4198837	1.364E-10	3.047E-09
ENSMUSG0000054640.14	ENSMUSG0000054640.14	ENSMUSG0000054640.14	protein coding	Sic8a1	12.3474385	34.53844827	-1.479670281	0.4314919	-3.429196	0.006054	0.0040296
ENSMUSG0000040584.8	ENSMUSG0000040584.8	ENSMUSG0000040584.8	protein coding	Abcb1a	748.1426543	285.503921	1.392232841	1.0303372	10.681705	1.24E-26	9.237E-25
ENSMUSG0000020396.8	ENSMUSG0000020396.8	ENSMUSG0000020396.8	protein coding	Nefh	8.363912294	28.94378256	-1.788755325	0.5391393	-3.317654	0.009071	0.0057541
ENSMUSG0000020183.11	ENSMUSG0000020183.11	ENSMUSG0000020183.11	protein coding	Cpm	17.7171922	72.7887057	1.238534003	0.2189728	6.5661078	1.548E-08	2.669E-07
ENSMUSG0000035473.10	ENSMUSG0000035473.10	ENSMUSG0000035473.10	protein coding	Galm	17.05149769	49.54037335	1.529369848	0.4180919	-3.657973	0.002542	0.0018999
ENSMUSG0000031342.17	ENSMUSG0000031342.17	ENSMUSG0000031342.17	protein coding	Gpm6b	647.4342102	272.0644273	-1.252479372	0.2789041	4.4907164	7.098E-06	7.72E-05
ENSMUSG0000041020.14	ENSMUSG0000041020.14	ENSMUSG0000041020.14	protein coding	Map7d2	11.31152727	65.34300455	-2.542187627	0.4189935	-0.607368	1.3E-09	2.578E-08
ENSMUSG0000055675.6	ENSMUSG0000055675.6	ENSMUSG0000055675.6	protein coding	Kbtbd11	64.88923595	25.14384332	1.36926211	0.3072339	4.4567412	8.321E-06	8.919E-05
ENSMUSG0000038347.14	ENSMUSG0000038347.14	ENSMUSG0000038347.14	protein coding	Tctc2	144.5215638	387.8929908	-1.422213205	0.1748267	-8.134989	4.12E-16	1.612E-14
ENSMUSG0000042429.8	ENSMUSG0000042429.8	ENSMUSG0000042429.8	protein coding	Adora1	0	6.241846655	-5.193153502	1.7152896	-3.027602	0.002465	0.0137693
ENSMUSG0000027996.13	ENSMUSG0000027996.13	ENSMUSG0000027996.13	protein coding	Sfrp2	0.90823008	142.6468723	-7.266161356	0.8746402	-8.3076	9.766E-17	4.046E-15
ENSMUSG000002565.16	ENSMUSG000002565.16	ENSMUSG000002565.16	protein coding	Scin	495.8932405	145.0534354	1.770985907	0.1348862	13.12948	2.232E-39	2.967E-37
ENSMUSG0000032735.14	ENSMUSG0000032735.14	ENSMUSG0000032735.14	protein coding	Abim3	40.59069395	4.215742054	3.26128235	0.5278177	5.6935655	1.244E-08	2.176E-07
ENSMUSG0000110635.1	ENSMUSG0000110635.1	ENSMUSG0000110635.1	TEC	Gm49853	11.31527237	33.13394633	-1.557709168	0.4838908	-3.219134	0.0012858	0.0078179
ENSMUSG0000029167.13	ENSMUSG0000029167.13	ENSMUSG0000029167.13	protein coding	Pparg1a	42.95934623	13.47839359	1.65820197	0.4505515	3.6804994	0.002328	0.0017607
ENSMUSG0000032070.15	ENSMUSG0000032070.15	ENSMUSG0000032070.15	protein coding	Cnll1	118.7970767	14.24105739	3.069371422	0.3449482	8.843503	8.822E-19	4.23E-17
ENSMUSG0000024846.5	ENSMUSG0000024846.5	ENSMUSG0000024846.5	protein coding	Cst8	44.27459434	10.57753042	2.013122393	0.4341573	4.6368501	5.358E-06	4.077E-05
ENSMUSG0000032186.15	ENSMUSG0000032186.15	ENSMUSG0000032186.15	protein coding	Tmod2	28.79623825	59.19837407	-1.047265309	0.3291491	-3.181735	0.001464	0.00876
ENSMUSG0000062393.13	ENSMUSG0000062393.13	ENSMUSG0000062393.13	protein coding	Dgkik	2115.473555	4772.412812	1.171761107	0.0849678	13.8189	1.96E-43	2.994E-41
ENSMUSG0000097791.1	ENSMUSG0000097791.1	ENSMUSG0000097791.1	lincRNA	Gm17315	8.584638563	29.62990387	-1.778628812	0.539554	-3.296479	0.000979	0.0015533
ENSMUSG0000056457.6	ENSMUSG0000056457.6	ENSMUSG0000056457.6	protein coding	Prifc2	8.855719761	52.61304241	-2.55075991	0.785692	-3.331312	0.000844	0.0006209
ENSMUSG0000046186.8	ENSMUSG0000046186.8	ENSMUSG0000046186.8	protein coding	Cd109	52.9716046	6.854121542	2.997054758	0.48327	6.2016155	5.89E-10	1.159E-08
ENSMUSG0000061013.5	ENSMUSG0000061013.5	ENSMUSG0000061013.5	protein coding	Mox1	2.760453193	40.41635632	-3.859715412	0.7006477	-5.80871	3.613E-08	5.898E-07
ENSMUSG0000022323.11	ENSMUSG0000022323.11	ENSMUSG0000022323.11	protein coding	Rida	881.2944642	380.7946355	1.210086402	1.1018368	11.8826	1.458E-32	1.403E-30
ENSMUSG0000014813.9	ENSMUSG0000014813.9	ENSMUSG0000014813.9	protein coding	Stc1	161.5796549	57.46039482	1.492958664	0.2164111	6.8988861	5.241E-12	1.402E-10
ENSMUSG0000040219.4	ENSMUSG0000040219.4	ENSMUSG0000040219.4	protein coding	Tlcl2	28.58862325	7.848821793	1.866906702	0.6653494	2.8059044	0.0050176	0.0251253
ENSMUSG0000015222.17	ENSMUSG0000015222.17	ENSMUSG0000015222.17	protein coding	Map2	203.5509494	3175.70954	-3.965880091	0.2167117	-18.30026	8.236E-75	2.984E-72
ENSMUSG0000038304.14	ENSMUSG0000038304.14	ENSMUSG0000038304.14	protein coding	Cd160	5.602923554	0	4.839892711	1.6992971	2.848173	0.0043971	0.0223828
ENSMUSG000004558.14	ENSMUSG000004558.14	ENSMUSG000004558.14	protein coding	Ndrp2	343.2432121	102.5947969	1.743185294	1.1545041	11.282456	1.602E-29	1.346E-27
ENSMUSG0000025496.5	ENSMUSG0000025496.5	ENSMUSG0000025496.5	protein coding	Drd4	5.241825947	0	4.745707547	1.7246025	2.7517689	0.0059274	0.0288002
ENSMUSG0000040111.16	ENSMUSG0000040111.16	ENSMUSG0000040111.16	protein coding	Gram1b	62.45059659	17.2571993	1.856899915	0.490975	3.7820664	0.001555	0.0012333
ENSMUSG0000039997.16	ENSMUSG0000039997.16	ENSMUSG0000039997.16	protein coding	Ifi203	34.66549623	7.81920922	2.127706318	0.6272532	3.3921009	0.006936	0.045383
ENSMUSG0000039375.16	ENSMUSG0000039375.16	ENSMUSG0000039375.16	protein coding	Wdr17	1.816460215	15.28891693	-1.82684705	1.1628407	-2.584138	0.0097623	0.0432065
ENSMUSG0000028076.12	ENSMUSG0000028076.12	ENSMUSG0000028076.12	protein coding	Cd1d1	11.99903131	0.97244862	3.540356818	1.2443653	2.8451173	0.004395	0.0225734
ENSMUSG0000029304.14	ENSMUSG0000029304.14	ENSMUSG0000029304.14	protein coding	Spp1	25371.75669	9326.680836	1.443766688	0.1003741	14.389861	6.534E-47	1.167E-46
ENSMUSG0000028217.11	ENSMUSG0000028217.11	ENSMUSG0000028217.11	protein coding	Cdh17	112.0044405	23.45009791	2.251119516	0.3373001	6.6739651	2.49E-11	6.169E-10
ENSMUSG0000039217.13	ENSMUSG0000039217.13	ENSMUSG0000039217.13	protein coding	lil18	0	4.626661863	-4.725846994	1.7992582	-2.643227	0.008212	0.0375598
ENSMUSG0000097287.2	ENSMUSG0000097287.2	ENSMUSG0000097287.2	lincRNA	D130017N08Rik	14.10554495	62.0730147	-2.1317442	0.380889	-5.596881	2.185E-08	3.67E-07
ENSMUSG0000033616.9	ENSMUSG0000033616.9	ENSMUSG0000033616.9	protein coding	Mocos	174.3250371	85.2680284	1.028746084	0.2419485	4.2519047	1.12E-05	0.0002083
ENSMUSG0000048989.8	ENSMUSG0000048989.8	ENSMUSG0000048989.8	protein coding	Rim8	2.364278865	15.47403888	-2.87656008	0.8856045	-3.02127	0.002172	0.014102
ENSMUSG0000002688.7	ENSMUSG0000002688.7	ENSMUSG0000002688.7	protein coding	Dendc1	4.083132263	17.3975381	-1.513548764	0.3179018	-4.761057	1.926E-06	2.338E-05
ENSMUSG0000103313.1	ENSMUSG0000103313.1	ENSMUSG0000103313.1	TEC	Gm38357	40.87230002	139.6179584	-1.76723069	0.300146	-5.890482	3.851E-09	7.202E-08
ENSMUSG0000048485.12	ENSMUSG0000048485.12	ENSMUSG0000048485.12	protein coding	Zbtb8b	15.88997663	60.37217777	-1.931846459	0.3483054	-5.546415	2.916E-08	8.454E-07
ENSMUSG0000039742.15	ENSMUSG0000039742.15	ENSMUSG0000039742.15	protein coding	Fam711f	117.6739739	238.8343228	1.102344510	1.1604468	-6.378719	1.786E-10	3.9E-09
ENSMUSG0000020774.9	ENSMUSG0000020774.9	ENSMUSG0000020774.9	protein coding	Alp3	14.536560545	65.69985163	-2.177567486	0.3756539	-5.796763	6.761E-09	1.222E-07
ENSMUSG0000051177.16	ENSMUSG0000051177.16	ENSMUSG0000051177.16	protein coding	Pscb1	23.00615291	2.723351724	3.043550115	1.7800196	3.90189	9.544E-05	0.0007977
ENSMUSG0000003354.5	ENSMUSG0000003354.5	ENSMUSG0000003354.5	protein coding	Ccdc65	65.52537329	28.72617698	1.18237611	0.342948	3.4476836	0.005654	0.0037988
ENSMUSG0000079363.7	ENSMUSG0000079363.7	ENSMUSG0000079363.7									

ENSMUSG00000079293.11	ENSMUSG00000079293.11	ENSMUSG00000079293	polymorphic_pseudogene	Clec7a	0	5.789339745	-5.076206512	1.7522724	-2.896928	0.0037684	0.019587
ENSMUSG00000029409.7	ENSMUSG00000029409.7	ENSMUSG00000029409	protein_coding	U90926	148.7957898	5.431132852	4.733193185	0.4803759	9.8531036	6.646E-23	4.026E-21
ENSMUSG00000102676.1	ENSMUSG00000102676.1	ENSMUSG00000102676	TEC	Gm37435	0	10.78173825	-5.981259725	1.496826	-3.995962	6.443E-05	0.0005616
ENSMUSG00000022836.10	ENSMUSG00000022836.10	ENSMUSG00000022836	protein_coding	Myk	217.2863832	46.58452536	2.220635052	0.2081594	10.667956	1.438E-26	1.067E-24
ENSMUSG00000038965.15	ENSMUSG00000038965.15	ENSMUSG00000038965	protein_coding	Ube2l3	1316.622733	487.3787521	1.434227121	0.0979029	14.649479	1.358E-48	2.697E-46
ENSMUSG00000029778.12	ENSMUSG00000029778.12	ENSMUSG00000029778	protein_coding	Adcyap1r1	0	8.237489972	-5.586780134	1.5695518	-3.559475	0.0003716	0.0026409
ENSMUSG0000001995.9	ENSMUSG0000001995.9	ENSMUSG0000001995	protein_coding	Sipa1l2	138.2868126	540.1631543	-1.964048812	0.1499069	-13.10179	3.216E-39	4.214E-37
ENSMUSG00000022037.15	ENSMUSG00000022037.15	ENSMUSG00000022037	protein_coding	Clu	12613.7444	31204.76763	-1.306709261	0.0877525	-14.89085	3.779E-50	7.846E-48
ENSMUSG00000031131.11	ENSMUSG00000031131.11	ENSMUSG00000031131	protein_coding	Vgll1	6.243637148	25.92049977	-2.06369992	0.5571663	-3.703921	0.0002123	0.0016216
ENSMUSG00000039717.16	ENSMUSG00000039717.16	ENSMUSG00000039717	protein_coding	Raiyl1	20.8500598	57.62409647	-1.465064322	0.3876176	-3.779664	0.000157	0.0012417
ENSMUSG00000032202.11	ENSMUSG00000032202.11	ENSMUSG00000032202	protein_coding	Rab27a	24.55450567	8.85909264	1.474870911	0.5511816	2.6758346	0.0074543	0.0348007
ENSMUSG00000050071.8	ENSMUSG00000050071.8	ENSMUSG00000050071	protein_coding	Bev1	324.248164	778.7702188	-1.264537178	0.1123321	-11.25713	2.138E-29	1.77E-27
ENSMUSG00000059498.13	ENSMUSG00000059498.13	ENSMUSG00000059498	protein_coding	Fcg3	0	6.004467385	-5.133803872	1.7311346	-2.965456	0.0030223	0.0162724
ENSMUSG00000043822.18	ENSMUSG00000043822.18	ENSMUSG00000043822	protein_coding	Adamtsl5	154.8143214	492.5691062	-1.673837988	0.1651452	-10.13555	3.842E-24	2.545E-22
ENSMUSG00000063296.4	ENSMUSG00000063296.4	ENSMUSG00000063296	protein_coding	Tmem117	17.58926445	3.064189987	2.494161657	0.8478846	2.9416288	0.0032649	0.0173859
ENSMUSG00000022076.9	ENSMUSG00000022076.9	ENSMUSG00000022076	protein_coding	Klhl1	282.5552124	615.7732489	-1.124027529	0.1052046	-10.68421	1.207E-26	9.065E-25
ENSMUSG00000035557.9	ENSMUSG00000035557.9	ENSMUSG00000035557	protein_coding	Krt17	0	5.879874888	-5.107603534	1.7254069	-2.960231	0.0030741	0.0164933
ENSMUSG0000000794.9	ENSMUSG0000000794.9	ENSMUSG0000000794	protein_coding	Kcnn3	377.4313987	987.8261794	-1.388367228	0.1403503	-9.892158	4.502E-23	2.782E-21
ENSMUSG00000028111.4	ENSMUSG00000028111.4	ENSMUSG00000028111	protein_coding	Ctsk	5.92879444	0	4.921314723	1.7645208	2.7890375	0.0052865	0.0262379
ENSMUSG00000003282.9	ENSMUSG00000003282.9	ENSMUSG00000003282	protein_coding	Plag1	88.83025917	272.4180287	-1.618837451	0.364259	-4.444194	8.822E-06	9.407E-05
ENSMUSG00000000031.15	ENSMUSG00000000031.15	ENSMUSG00000000031	lincRNA	H19	30.38094442	2.908018078	3.40873199	0.7312407	4.6615733	3.138E-06	3.658E-05
ENSMUSG00000025969.15	ENSMUSG00000025969.15	ENSMUSG00000025969	protein_coding	Nrp2	3440.623413	1542.547289	1.157384296	0.086457	13.386825	7.22E-41	1.018E-38
ENSMUSG00000073000.3	ENSMUSG00000073000.3	ENSMUSG00000073000	lincRNA	Gm10451	12.5098106	0	6.002688763	1.4510985	4.1366514	3.524E-05	0.0003267
ENSMUSG00000034057.8	ENSMUSG00000034057.8	ENSMUSG00000034057	protein_coding	Myrl1	0	7.151574671	-5.383570302	1.7158288	-3.137592	0.0017034	0.009936
ENSMUSG00000026360.9	ENSMUSG00000026360.9	ENSMUSG00000026360	protein_coding	Rgs2	15.16571032	80.103375	-2.399232016	0.3548604	-6.761058	1.37E-11	3.501E-10
ENSMUSG00000029287.14	ENSMUSG00000029287.14	ENSMUSG00000029287	protein_coding	Tgfr3	74.65269339	26.52344688	1.502798529	0.3400847	4.4188949	9.921E-06	0.0001043

Supplementary Table 2. Significant differentially expressed genes and pathways in SPC-Cre KPG and KP cell lines. [MetaCore](#) Top 10 upregulated and downregulated canonical pathways in KPG cells using all significant genes listed in SPC-Cre KPG-KP lab.

PATHWAY	DIRECTION	TOTAL	pvalue	MIN FDR	pvalue	FDR	LOG10 IN DATA	NETWORK OBJECTS FROM ACTIVE DATA
Probable BMP4-mediated induction of EMT in airway epithelium	Upregulated in KPG	21	2.173E-03	2.520E-03	2.173E-06	2.520E-03	2.59	CCL1A1, SMAD9 (SMAD8), N-cadherin, TCF8, SNAIL1, TWIST1, SIP1 (ZFHX1B)
PGE2 pathways in cancer	Upregulated in KPG	55	6.487E-06	3.406E-03	6.487E-06	3.406E-03	2.47	G-protein beta/gamma, COX-1 (PTGS1), Tcf(Lef), PKA-reg (cAMP-dependent), EGFR, Axin, PGES, Lef-1, Adenylate cyclase, SLC21A2
Stem cells: Extramembranous differentiation of embryonic stem cells	Upregulated in KPG	35	9.388E-06	3.406E-03	9.388E-06	3.406E-03	2.47	SMAD9 (SMAD8), SOX2, Grem1, GATA-6, BMP7, BMP2, NCAM1, Transferrin
E-cadherin signaling and its regulation in gastric cancer	Upregulated in KPG	38	1.175E-05	3.406E-03	1.175E-05	3.406E-03	2.47	TCF8, EGFR, SNAIL1, BMP9, Fzd9, TWIST1, SIP1 (ZFHX1B), EGF1
Hedgehog signaling in gastric cancer	Upregulated in KPG	29	2.350E-05	4.378E-03	2.350E-05	4.378E-03	2.38	N-cadherin, ROBO1, CUX2, ROR2, HNF3-beta, TWIST2, SIP1 (ZFHX1B)
Stem cells: Hedgehog, BMP and Parathyroid hormone in osteogenesis	Upregulated in KPG	51	2.432E-05	4.378E-03	2.432E-05	4.378E-03	2.38	CCL1A1, SMAD9 (SMAD8), Osteopontin, PKA-reg (cAMP-dependent), BMP7, Adenylate cyclase, BMPR1B, BMP2, PLC-beta
Stem cells: Role of BMP signaling in embryonic stem cell neural differentiation	Upregulated in KPG	30	2.984E-05	4.378E-03	2.984E-05	4.378E-03	2.38	SMAD9 (SMAD8), SOX2, Chordin, BMP7, BMPR1B, BMP2, NCAM1
Hypoxia-induced EMT in cancer and fibrosis	Upregulated in KPG	13	3.019E-05	4.378E-03	3.019E-05	4.378E-03	2.38	TCF8, SNAIL1, Lysyl oxidase, TWIST1, SIP1 (ZFHX1B)
Development: TGF-beta-dependent induction of EMT via SMAD9	Upregulated in KPG	35	8.619E-05	9.160E-03	8.619E-05	9.160E-03	2.04	N-cadherin, Vimentin, TCF8, SNAIL1, Lef-1, TWIST1, SIP1 (ZFHX1B)
Stem cells: Schema: TGF signaling in embryonic stem cell self-renewal and differentiation	Upregulated in KPG	47	9.044E-05	9.160E-03	9.044E-05	9.160E-03	2.04	TTF1, SOX2, Grem1, GATA-6, HNF3-beta, BMP2, NCAM1, TGF1
Regulation of immune cell differentiation by Notch signaling	Downregulated in KPG	43	0.0003363	0.0003363	0.0003363	0.0003363	0.49	#202a, NOTCH3 (3ICD), DLL1, DLL4, PSK cat class IA, NOTCH3
Gastric cancer (general scheme)	Downregulated in KPG	41	0.0019784	0.4839065	0.0019784	0.4839065	0.32	ESK2, DLL1, DLL4, Phox2b, NOTCH3
NF-AT signaling in cardiac hypertrophy	Downregulated in KPG	65	0.0032426	0.4839065	0.0032426	0.4839065	0.32	Cardiotropin-1, NF-AT3/NFATC4, PKC- $\alpha$ , PI3K cat class IA, NOTCH3
Stem cells: Schema: TGF signaling in embryonic stem cell self-renewal and differentiation	Downregulated in KPG	47	0.0036379	0.4839065	0.0036379	0.4839065	0.32	SPRY2, Adhvin A, GATA-2, SOX17, NEFH
Role of Shh and Notch in SCLC	Downregulated in KPG	30	0.0045469	0.4839065	0.0045469	0.4839065	0.32	DLL1, CD133, ALA1, ENO2
Protein folding and maturation: Posttranslational processing of neuroendocrine peptides	Downregulated in KPG	50	0.0047633	0.4839065	0.0047633	0.4839065	0.32	NN, NTFNN, NT, LargeN, LargeNN
wcCFR and deltaF508 traffic / Late endosome and lysosome (normal and CF)	Downregulated in KPG	16	0.0048201	0.4839065	0.0048201	0.4839065	0.32	Syntaxin 6, CFTR, Slp5
Stem cells: Endothelial differentiation during embryonic development	Downregulated in KPG	51	0.0051878	0.4839065	0.0051878	0.4839065	0.32	GATA2, DLL4, TIE2, PI3K cat class IA, Neuroglin-1
Notch signaling in breast cancer	Downregulated in KPG	53	0.0061161	0.4839065	0.0061161	0.4839065	0.32	TFF1, NOTCH3 (3ICD), DLL1, DLL4, NOTCH3
Development: Epigenetic and transcriptional regulation of oligodendrocyte precursor cell differentiation and myelination	Downregulated in KPG	34	0.0064054	0.4839065	0.0064054	0.4839065	0.32	UGT8, SMRT, SOX17, Fruzzed

**Supplementary Table 2.** Significant differentially expressed genes and pathways in SPC-Cre KPG and KP cell lines. GSEA: Top 25 Hallmarks Pathways upregulated and downregulated of a pre-ranked list of significantly expressed genes (P-adjusted < 0.05; n = 4,304) in KPG compared to KP cells.

NAME	DIRECTION	SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
HALLMARK_ADIPOGENESIS	Upregulated in KPG	64	0.3087746	2.8973925	0	0	0	1944	tags=81%, list=51%, signal=163%
HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION	Upregulated in KPG	80	0.2393306	2.4799433	0	0.0030972	0.006	680	tags=41%, list=18%, signal=49%
HALLMARK_XENOBIOTIC_METABOLISM	Upregulated in KPG	68	0.246631	2.3704953	0	0.0051904	0.015	1490	tags=63%, list=39%, signal=102%
HALLMARK_HEME_METABOLISM	Upregulated in KPG	55	0.2720178	2.368931	0.0021097	0.0038928	0.015	1337	tags=62%, list=35%, signal=94%
HALLMARK_INTERFERON_ALPHA_RESPONSE	Upregulated in KPG	30	0.3143988	2.0540638	0	0.0176706	0.077	1737	tags=77%, list=45%, signal=139%
HALLMARK_HYPOXIA	Upregulated in KPG	69	0.209919	2.0342999	0.0059172	0.0162403	0.084	1593	tags=62%, list=42%, signal=105%
HALLMARK_BILE_ACID_METABOLISM	Upregulated in KPG	29	0.2875987	1.8590988	0.016129	0.0405127	0.223	1544	tags=69%, list=40%, signal=115%
HALLMARK_OXIDATIVE_PHOSPHORYLATION	Upregulated in KPG	56	0.2105683	1.8454502	0.0061475	0.0384866	0.238	2209	tags=79%, list=58%, signal=183%
HALLMARK_MYOGENESIS	Upregulated in KPG	54	0.2072423	1.7691535	0.012	0.0515419	0.335	846	tags=43%, list=22%, signal=54%
HALLMARK_GLYCOLYSIS	Upregulated in KPG	80	0.1373864	1.4076837	0.1072165	0.2562518	0.895	1587	tags=55%, list=42%, signal=92%
HALLMARK_PROTEIN_SECRETION	Upregulated in KPG	31	0.2156891	1.388687	0.1212766	0.2523617	0.912	2017	tags=74%, list=53%, signal=156%
HALLMARK_ALLOGRAFT_REJECTION	Upregulated in KPG	40	0.1893046	1.387612	0.1133201	0.2325755	0.913	2054	tags=73%, list=54%, signal=155%
HALLMARK_IL2_STAT5_SIGNALING	Upregulated in KPG	69	0.1388686	1.3419819	0.128991	0.2639448	0.956	918	tags=38%, list=24%, signal=49%
HALLMARK_IL6_JAK_STAT3_SIGNALING	Upregulated in KPG	22	0.2351675	1.3211472	0.1425662	0.2674708	0.967	1885	tags=73%, list=49%, signal=143%
HALLMARK_INTERFERON_GAMMA_RESPONSE	Upregulated in KPG	53	0.1435594	1.2341661	0.203125	0.3435778	0.991	2054	tags=68%, list=54%, signal=145%
HALLMARK_FATTY_ACID_METABOLISM	Upregulated in KPG	52	0.1366048	1.140919	0.2900609	0.4467276	0.997	1248	tags=46%, list=33%, signal=68%
HALLMARK_ANGIOGENESIS	Upregulated in KPG	16	0.2369285	1.104808	0.3380567	0.4706182	0.998	1486	tags=63%, list=39%, signal=102%
HALLMARK_ANDROGEN_RESPONSE	Upregulated in KPG	32	0.152688	1.0580735	0.3723609	0.514609	1	973	tags=41%, list=25%, signal=54%
HALLMARK_COAGULATION	Upregulated in KPG	35	0.1463428	1.0255752	0.4047619	0.5340839	1	646	tags=31%, list=17%, signal=37%
HALLMARK_PEROXISOME	Upregulated in KPG	31	0.1551637	1.0100205	0.4388778	0.531258	1	1630	tags=58%, list=43%, signal=100%
HALLMARK_MTORC1_SIGNALING	Upregulated in KPG	71	0.0970258	0.9532559	0.5129311	0.5937614	1	927	tags=34%, list=24%, signal=44%
HALLMARK_APOPTOSIS	Upregulated in KPG	49	0.1168831	0.9423836	0.5297619	0.5837251	1	572	tags=27%, list=15%, signal=31%
HALLMARK_INFLAMMATORY_RESPONSE	Upregulated in KPG	61	0.0984827	0.9180151	0.5671937	0.5935605	1	1195	tags=41%, list=31%, signal=59%
HALLMARK_SPERMATOGENESIS	Upregulated in KPG	24	0.139613	0.8377472	0.6715177	0.6831927	1	2813	tags=88%, list=74%, signal=329%
HALLMARK_TGF_BETA_SIGNALING	Upregulated in KPG	21	0.1344383	0.7427978	0.7992203	0.789022	1	1854	tags=62%, list=49%, signal=120%
HALLMARK_E2F_TARGETS	Downregulated in KPG	58	-0.289842	-2.590151	0	0	0	1480	tags=67%, list=39%, signal=108%
HALLMARK_G2M_CHECKPOINT	Downregulated in KPG	57	-0.27518	-2.451213	0	0.000864	0.002	1580	tags=68%, list=41%, signal=115%
HALLMARK_MYC_TARGETS_V1	Downregulated in KPG	55	-0.195159	-1.689979	0.028169	0.1725581	0.453	1837	tags=67%, list=48%, signal=128%
HALLMARK_CHOLESTEROL_HOMEOSTASIS	Downregulated in KPG	35	-0.236969	-1.674563	0.0226415	0.1399269	0.477	1506	tags=63%, list=39%, signal=103%
HALLMARK_TNFA_SIGNALING_VIA_NFKB	Downregulated in KPG	65	-0.148523	-1.407578	0.1078067	0.3877018	0.899	913	tags=38%, list=24%, signal=50%
HALLMARK_ESTROGEN_RESPONSE_EARLY	Downregulated in KPG	78	-0.136752	-1.396809	0.107943	0.3389201	0.907	518	tags=27%, list=14%, signal=31%
HALLMARK_KRAS_SIGNALING_DN	Downregulated in KPG	35	-0.196462	-1.376531	0.1284585	0.3163018	0.923	1987	tags=71%, list=52%, signal=147%
HALLMARK_KRAS_SIGNALING_UP	Downregulated in KPG	79	-0.130563	-1.313629	0.1729622	0.3606851	0.966	238	tags=19%, list=6%, signal=20%
HALLMARK_COMPLEMENT	Downregulated in KPG	55	-0.133765	-1.159425	0.2620545	0.5715651	0.998	331	tags=22%, list=9%, signal=24%
HALLMARK_UNFOLDED_PROTEIN_RESPONSE	Downregulated in KPG	43	-0.141787	-1.088666	0.3514563	0.6399371	1	2665	tags=84%, list=70%, signal=273%
HALLMARK_UV_RESPONSE_UP	Downregulated in KPG	48	-0.134638	-1.086468	0.3527132	0.5862522	1	2439	tags=77%, list=64%, signal=210%
HALLMARK_ESTROGEN_RESPONSE_LATE	Downregulated in KPG	71	-0.109334	-1.072391	0.3466136	0.5611009	1	829	tags=32%, list=22%, signal=41%
HALLMARK_P53_PATHWAY	Downregulated in KPG	63	-0.09781	-0.884625	0.5783898	0.8654372	1	1514	tags=49%, list=40%, signal=80%
HALLMARK_UV_RESPONSE_DN	Downregulated in KPG	54	-0.09678	-0.834176	0.65286	0.9006521	1	698	tags=28%, list=18%, signal=34%
HALLMARK_DNA_REPAIR	Downregulated in KPG	31	-0.119681	-0.789318	0.7534791	0.9234579	1	3246	tags=97%, list=85%, signal=637%
HALLMARK_WNT_BETA_CATENIN_SIGNALING	Downregulated in KPG	17	-0.155693	-0.782687	0.7391304	0.8767106	1	1432	tags=63%, list=37%, signal=84%
HALLMARK_APICAL_JUNCTION	Downregulated in KPG	65	-0.080543	-0.760303	0.7930368	0.8606477	1	404	tags=18%, list=11%, signal=20%
HALLMARK_PI3K_AKT_MTOR_SIGNALING	Downregulated in KPG	32	-0.104106	-0.691927	0.8742268	0.9010095	1	3309	tags=97%, list=87%, signal=716%
HALLMARK_MITOTIC_SPINDLE	Downregulated in KPG	59	-0.053825	-0.476869	0.9959596	0.9939423	1	3167	tags=88%, list=83%, signal=506%