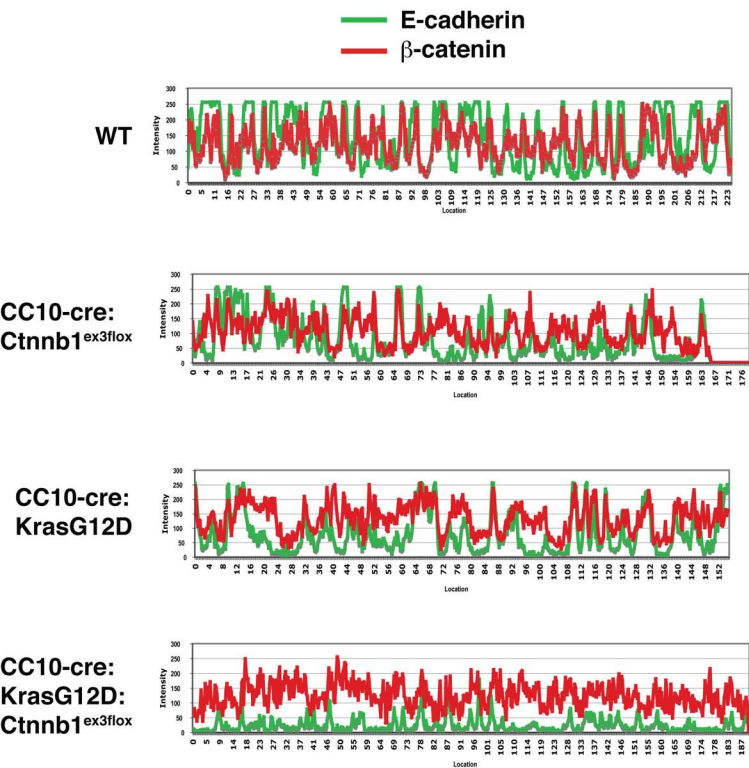


Supplemental Figure 1. Vimentin immunohistochemistry on KrasG12D and CC10-cre:KrasG12D:Ctnnb1 mutants. Vimentin immunostaining shows no increase in vimentin expression in the tumors of CC10-cre:KrasG12D:Ctnnb1 mutants. Dotted line indicated tumor border in B. BV=blood vessel. Scale bar=100 mm.



Supplemental Figure 2. Confocal tracings for data presented in Figure 6.

Double mutant specific genes

Transcript ID	gene_assignment	Gene Symbol	RefSeq	FDR (single vs. wt)	Fold-Change (single vs. wt)	FDR (double vs. wt)	Fold-Change (double vs. wt)	FDR (double vs. single)	Fold-Change (double vs. single)
10485013	BC085239 // 1110051M20Rik // RIKEN cDNA 1110051M20 gene // 2 E1 // 228356 /// NM	1110051M20Rik	BC085239	0.164013	-1.38517	0.0345128	-2.24228	0.154535	-1.61877
10358717	NM_197990 // 1700025G04Rik // RIKEN cDNA 1700025G04 gene // 1 G2 // 69399 /// BC	1700025G04Rik	NM_197990	0.142593	-1.37878	0.0212926	-3.13385	0.093068	-2.27291
10358713	NM_197990 // 1700025G04Rik // RIKEN cDNA 1700025G04 gene // 1 G2 // 69399	1700025G04Rik	NM_197990	0.0655213	-1.71563	0.0222468	-2.32498	0.166843	-1.35517
10481312	NM_027283 // 1700026L06Rik // RIKEN cDNA 1700026L06 gene // 2 A3 // 69987 /// EN	1700026L06Rik	NM_027283	0.0503754	-1.46385	0.0140999	-2.19537	0.0825609	-1.49972
10351465	BC150846 // 1700084C01Rik // RIKEN cDNA 1700084C01 gene // 1 H3 // 78465 /// NM_	1700084C01Rik	BC150846	0.107391	-1.5916	0.0385418	-2.05801	0.295457	-1.29305
10569654	AK007416 // 1810010D01Rik // RIKEN cDNA 1810010D01 gene // 7 F5 // 381935 /// XR	1810010D01Rik	AK007416	0.145576	1.69432	0.0476957	2.51662	0.288571	1.48533
10508883	NM_001083916 // 1810019J16Rik // RIKEN cDNA 1810019J16 gene // 4 D2.3 // 69073 /	1810019J16Rik	NM_001083916	0.0533206	1.57139	0.0145433	2.56417	0.0836674	1.63179
10585282	ENSMUST00000050829 // 2010007H06Rik // RIKEN cDNA 2010007H06 gene // --- // 6984	2010007H06Rik	ENSMUST00000050829	0.129914	-1.71998	0.0434862	-2.51672	0.278718	-1.46323
10558265	NM_029609 // 2310007H09Rik // RIKEN cDNA 2310007H09 gene // 7 F4 // 76429 /// EN	2310007H09Rik	NM_029609	0.345375	1.41954	0.039324	4.8369	0.134274	3.40738
10550059	BC141220 // 2310014L17Rik // RIKEN cDNA 2310014L17 gene // 7 A1 // 381845 /// NM	2310014L17Rik	BC141220	0.0513691	1.71055	0.0145433	2.86695	0.0848947	1.67604
10399549	ENSMUST00000095823 // 2410004P03Rik // RIKEN cDNA 2410004P03 gene // 12 A1.1 //	2410004P03Rik	ENSMUST00000095823	0.0827129	-1.7203	0.0284194	-2.31388	0.228521	-1.34505
10444997	ENSMUST00000090537 // 2410017I17Rik // RIKEN cDNA 2410017I17 gene // 17 B1 // 63	2410017I17Rik	ENSMUST00000090537	0.965538	-1.01167	0.0467555	3.00035	0.120064	3.03536
10577222	NM_025556 // 2410022L05Rik // RIKEN cDNA 2410022L05 gene // 8 A1.1 // 66423 ///	2410022L05Rik	NM_025556	0.17476	1.45276	0.0461145	2.19804	0.225877	1.51301
10364155	NM_029816 // 2610028H24Rik // RIKEN cDNA 2610028H24 gene // 10 C1 // 76964 /// N	2610028H24Rik	NM_029816	0.413044	-1.25974	0.0448706	-3.11208	0.143091	-2.47042
10439016	NM_053264 // 4930444G20Rik // RIKEN cDNA 4930444G20 gene // 10 A3 // 114671 ///	4930444G20Rik	NM_053264	0.124726	-1.54997	0.0429336	-2.05946	0.28934	-1.32871
10350977	NM_001162896 // 4930523C07Rik // RIKEN cDNA 4930523C07 gene // 1 H2.1 // 67647 /	4930523C07Rik	NM_001162896	0.0501322	-1.63485	0.0153897	-2.1391	0.121261	-1.30844
10509039	NM_030189 // 4930555I21Rik // RIKEN cDNA 4930555I21 gene // 4 D3 // 78806 /// EN	4930555I21Rik	NM_030189	0.0863916	-1.68247	0.0357456	-2.00399	0.393891	-1.1911
10603796	BC118515 // 4930578C19Rik // RIKEN cDNA 4930578C19 gene // X A1.3 // 75905 /// N	4930578C19Rik	BC118515	0.507029	-1.09756	0.0333553	-2.10906	0.107852	-1.92159
10562368	BC060233 // 4931406P16Rik // RIKEN cDNA 4931406P16 gene // 7 B1 // 233103 /// NM	4931406P16Rik	BC060233	0.042982	-1.67991	0.0145433	-2.01767	0.137322	-1.20106
10566304	ENSMUST00000053743 // 4931431F19Rik // RIKEN cDNA 4931431F19 gene // 7 E3 // 709	4931431F19Rik	ENSMUST00000053743	0.335793	1.21204	0.0444585	2.13927	0.150035	1.76501
10375322	ENSMUST00000056256 // 4933415A04Rik // RIKEN cDNA 4933415A04 gene // 11 B1.1 //	4933415A04Rik	ENSMUST00000056256	0.101064	1.39329	0.0214547	2.34228	0.103017	1.68111
10459210	NM_177828 // 4933429F08Rik // RIKEN cDNA 4933429F08 gene // 18 E1 // 328967 ///	4933429F08Rik	NM_177828	0.250632	1.18108	0.028203	2.05012	0.106538	1.7358
10501374	NM_001033304 // 5330417C22Rik // RIKEN cDNA 5330417C22 gene // 3 F3 // 229722 //	5330417C22Rik	NM_001033304	0.940808	-1.01574	0.027407	-3.79621	0.0909978	-3.73737
10477536	BC083121 // 5430413K10Rik // RIKEN cDNA 5430413K10 gene // 2 H1 // 433492	5430413K10Rik	BC083121	0.622203	1.24255	0.049018	6.00471	0.139693	4.83258
10349661	NM_145509 // 5430435G22Rik // RIKEN cDNA 5430435G22 gene // 1 E4 // 226421 /// E	5430435G22Rik	NM_145509	0.0413604	-1.60391	0.0129996	-2.39726	0.0715387	-1.49463
10419082	BC056635 // 5730469M10Rik // RIKEN cDNA 5730469M10 gene // 14 B // 70564 /// ENS	5730469M10Rik	BC056635	0.0974063	1.69898	0.0333147	2.33118	0.2484	1.37211
10477107	BC137826 // 6820408C15Rik // RIKEN cDNA 6820408C15 gene // 2 H1 // 228778 /// NM	6820408C15Rik	BC137826	0.065811	-1.65377	0.0235151	-2.10625	0.199678	-1.27361
10421697	BC116748 // 9030625A04Rik // RIKEN cDNA 9030625A04 gene // 14 D3 // 210808 /// N	9030625A04Rik	BC116748	0.202021	1.34018	0.0399726	2.19472	0.164021	1.63763
10452566	ENSMUST00000024914 // 9130404H23Rik // RIKEN cDNA 9130404H23 gene // 17 E1.1 //	9130404H23Rik	ENSMUST00000024914	0.545026	1.14383	0.0487063	2.44031	0.142753	2.13347
10408861	NM_175417 // 9530008L14Rik // RIKEN cDNA 9530008L14 gene // 13 A4 // 109254 ///	9530008L14Rik	NM_175417	0.174069	1.38392	0.0132077	23.3885	0.0611318	16.9003
10369171	AK079179 // 9530009G21Rik // RIKEN cDNA 9530009G21 gene // 10 B3 // 320305 /// A	9530009G21Rik	AK079179	0.94006	-1.01586	0.0431042	-2.50665	0.116362	-2.46752
10489092	ENSMUST00000069098 // 9830001H06Rik // RIKEN cDNA 9830001H06 gene // 2 H1 // 320	9830001H06Rik	ENSMUST00000069098	0.15171	-1.46972	0.0444935	-2.08176	0.244971	-1.41643
10464137	BC090250 // 9930023K05Rik // RIKEN cDNA 9930023K05 gene // 19 D2 // 226245 /// B	9930023K05Rik	BC090250	0.956461	1.03547	0.0494327	12.171	0.127184	11.7541
10385513	NM_173434 // 9930111J21Rik // RIKEN cDNA 9930111J21 gene // 11 B1.2 // 245240 //	9930111J21Rik	NM_173434	0.0958433	-1.12055	0.0129996	-2.67895	0.05086	-2.39073
10385526	NM_173434 // 9930111J21Rik // RIKEN cDNA 9930111J21 gene // 11 B1.2 // 245240 //	9930111J21Rik	NM_173434	0.136279	-1.12973	0.0130658	-2.62407	0.0611318	-2.32275

10422512	NM_145466 // A2ld1 // AIG2-like domain 1 // 14 E5 // 223267 /// ENSMUST000000380	A2ld1	NM_145466	0.102888	1.67869	0.0330522	2.38693	0.227639	1.42191
10430968	NM_001004150 // A4galt // alpha 1,4-galactosyltransferase // 15 E1 // 239559 ///	A4galt	NM_001004150	0.0795312	-1.51084	0.020454	-2.40112	0.108516	-1.58927
10578241	NM_178735 // A730069N07Rik // RIKEN cDNA A730069N07 gene // 8 A4 // 244425 /// E	A730069N07Rik	NM_178735	0.0790989	-1.72776	0.0243242	-2.60064	0.154535	-1.50521
10519527	NM_011076 // Abcb1a // ATP-binding cassette, sub-family B (MDR/TAP), member 1A /	Abcb1a	NM_011076	0.307368	-1.32196	0.0439847	2.78355	0.0959124	3.67975
10422280	NM_001033336 // Abcc4 // ATP-binding cassette, sub-family C (CFTR/MRP), member 4	Abcc4	NM_001033336	0.129482	1.46405	0.02587	2.72089	0.119636	1.85847
10453318	NM_031884 // Abcg5 // ATP-binding cassette, sub-family G (WHITE), member 5 // 17	Abcg5	NM_031884	0.687201	1.09345	0.0374729	3.03693	0.111992	2.77737
10554269	NM_018811 // Abhd2 // abhydrolase domain containing 2 // 7 D2 // 54608 /// ENSMU	Abhd2	NM_018811	0.107391	1.47293	0.0229084	2.65638	0.107708	1.80347
10538163	NM_029638 // Abp1 // amiloride binding protein 1 (amine oxidase, copper-containi	Abp1	NM_029638	0.849231	1.04317	0.0400589	-2.89099	0.106356	-3.01579
10381962	NM_207624 // Ace // angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 /	Ace	NM_207624	0.143017	-1.68854	0.0318283	-3.44768	0.149419	-2.04181
10406564	NM_028790 // Acot12 // acyl-CoA thioesterase 12 // 13 C3 // 74156 /// ENSMUST000	Acot12	NM_028790	0.15243	1.12059	0.0129996	3.31296	0.052094	2.95645
10347748	NM_028817 // Acsl3 // acyl-CoA synthetase long-chain family member 3 // 1 C4 1 2	Acsl3	NM_028817	0.202823	1.36445	0.0349167	2.52162	0.141776	1.84808
10372208	NM_001142804 // Acss3 // acyl-CoA synthetase short-chain family member 3 // 10 D	Acss3	NM_001142804	0.267798	-1.4008	0.0286866	4.58945	0.0832518	6.42892
10528038	NM_001007220 // Adam22 // a disintegrin and metallopeptidase domain 22 // 5 A1 5	Adam22	NM_001007220	0.163718	1.59156	0.0469746	-2.48354	0.092159	-3.95272
10531195	NM_001081401 // Adamts3 // a disintegrin-like and metallopeptidase (reprolysin t	Adamts3	NM_001081401	0.0933497	-1.63805	0.0250929	-2.68014	0.140118	-1.63617
10470392	NM_029981 // Adamtsl2 // ADAMTS-like 2 // 2 A3 // 77794 /// ENSMUST00000091233 /	Adamtsl2	NM_029981	0.220228	-1.30432	0.0229235	-3.56193	0.093068	-2.73088
10379389	NM_172133 // Adap2 // ArfGAP with dual PH domains 2 // 11 B5 11 47.24 cM // 2169	Adap2	NM_172133	0.176477	-1.38307	0.0372567	-2.25196	0.163549	-1.62823
10370303	NR_004429 // Adarb1 // adenosine deaminase, RNA-specific, B1 // 10 41.4 cM // 11	Adarb1	NR_004429	0.0513591	-1.69161	0.015127	-2.3957	0.106538	-1.41622
10435388	NM_001012765 // Adcy5 // adenylate cyclase 5 // 16 B-5 // 224129 /// ENSMUST0000	Adcy5	NM_001012765	0.0552506	-1.55609	0.016868	-2.10118	0.116362	-1.35029
10413086	NM_134079 // Adk // adenosine kinase // 14 A2-B // 11534 /// ENSMUST00000045376	Adk	NM_134079	0.150446	1.32459	0.0307736	2.04236	0.140118	1.54187
10434689	NM_013465 // Ahsg // alpha-2-HS-glycoprotein // 16 B1 16 15.0 cM // 11625 /// EN	Ahsg	NM_013465	0.125841	1.32712	0.0135399	6.96509	0.0614248	5.24829
10512251	BC137640 // AI464131 // expressed sequence AI464131 // 4 A5 // 329828 /// NM_001	AI464131	BC137640	0.060515	1.62405	0.0197873	2.18777	0.141168	1.3471
10472923	NM_009647 // Ak3l1 // adenylate kinase 3-like 1 // 4 C6 4 47.6 cM // 11639 /// D	Ak3l1	NM_009647	0.254745	-1.39889	0.0499907	2.53731	0.0989997	3.54942
10460253	ENSMUST00000100032 // Aldh3b2 // aldehyde dehydrogenase 3 family, member B2 // 1	Aldh3b2	ENSMUST00000100032	0.866077	1.03284	0.03065	3.08089	0.0959124	2.98293
10408335	NM_172532 // Aldh5a1 // aldehyde dehydrogenase family 5, subfamily A1 // 13 A3.	Aldh5a1	NM_172532	0.183139	1.0347	0.0129996	2.27882	0.05086	2.20241
10554487	NM_054085 // Alpk3 // alpha-kinase 3 // 7 D3 // 116904 /// ENSMUST00000107348 //	Alpk3	NM_054085	0.926337	-1.01073	0.0240468	2.34474	0.0832518	2.36991
10588883	NM_001013814 // Amt // aminomethyltransferase // 9 F2 // 434437 /// ENSMUST00000	Amt	NM_001013814	0.950179	1.01215	0.0345227	2.70599	0.10276	2.6735
10521863	NM_024213 // Anapc4 // anaphase promoting complex subunit 4 // 5 C1 5 31.0 cM //	Anapc4	NM_024213	0.127588	1.3871	0.0294331	2.10652	0.144692	1.51865
10501971	NM_178655 // Ank2 // ankyrin 2, brain // 3 G2 3 62.5 cM // 109676 /// NM_0010341	Ank2	NM_178655	0.25024	-1.28891	0.0446082	2.12663	0.0959124	2.74104
10452516	NM_001025572 // Ankrd12 // ankyrin repeat domain 12 // 17 E1.1 // 106585	Ankrd12	NM_001025572	0.0655213	-1.4041	0.016554	-2.04968	0.0959124	-1.45978
10569038	NM_178381 // Ano9 // anoctamin 9 // 7 F5 // 71345	Ano9	NM_178381	0.196432	1.3485	0.0345577	2.3849	0.142491	1.76856
10385966	NM_013472 // Anxa6 // annexin A6 // 11 B1.3 11 29.5 cM // 11749 /// NM_001110211	Anxa6	NM_013472	0.407921	-1.13332	0.0363842	-2.03761	0.121261	-1.79791
10530287	NM_009686 // Apbb2 // amyloid beta (A4) precursor protein-binding, family B, mem	Apbb2	NM_009686	0.0501268	-1.58435	0.0145433	-2.18065	0.1008	-1.37637
10456184	NM_133237 // Apcdd1 // adenomatosis polyposis coli down-regulated 1 // 18 E1 //	Apcdd1	NM_133237	0.289166	-1.38771	0.0232627	7.2871	0.0804509	10.1124
10560614	NM_007385 // Apoc4 // apolipoprotein C-IV // 7 A3 7 4.0 cM // 11425 /// ENSMUST0	Apoc4	NM_007385	0.184639	1.36011	0.0223247	3.67681	0.093068	2.70332
10579776	NM_030113 // Arhgap10 // Rho GTPase activating protein 10 // 8 C2 // 78514 /// E	Arhgap10	NM_030113	0.404548	1.1814	0.0234844	-4.14734	0.0814114	-4.89965
10523579	NM_029270 // Arhgap24 // Rho GTPase activating protein 24 // 5 E4 // 231532 ///	Arhgap24	NM_029270	0.0993766	-1.42127	0.0260081	-2.04766	0.141552	-1.44073
10495685	NM_172525 // Arhgap29 // Rho GTPase activating protein 29 // 3 G1 // 214137 ///	Arhgap29	NM_172525	0.0560524	-1.60077	0.019471	-2.01675	0.15828	-1.25986
10440246	NM_026577 // Arl13b // ADP-ribosylation factor-like 13B // 16 C1.2 // 68146 ///	Arl13b	NM_026577	0.0519328	-1.6109	0.0162178	-2.15309	0.119319	-1.33657
10457345	NM_001081393 // Armc4 // armadillo repeat containing 4 // 18 A1 // 74934 /// ENS	Armc4	NM_001081393	0.0564513	-1.72538	0.0202365	-2.22425	0.170434	-1.28914
10568363	NM_027870 // Armcx3 // armadillo repeat containing, X-linked 3 // X E3 // 71703	Armcx3	NM_027870	0.128997	-1.65146	0.0308991	-3.03246	0.152911	-1.83623
10601778	NM_027870 // Armcx3 // armadillo repeat containing, X-linked 3 // X E3 // 71703	Armcx3	NM_027870	0.128511	-1.64836	0.0348188	-2.70312	0.189288	-1.63988

10451851	NM_027870 // Armcx3 // armadillo repeat containing, X-linked 3 // X E3 // 71703	Armcx3	NM_027870	0.141244	-1.6951	0.0378935	-2.92297	0.198964	-1.72437
10548875	NM_026639 // Art4 // ADP-ribosyltransferase 4 // 6 G1 6 66.5 cM // 109978 /// EN	Art4	NM_026639	0.139482	-1.4942	0.0310649	-2.59143	0.14645	-1.73432
10428998	NM_010026 // Asap1 // ArfGAP with SH# domain, ankyrin repeat and PH domain1 // 1	Asap1	NM_010026	0.0893974	-1.68371	0.0284738	-2.39667	0.196931	-1.42344
10536324	NM_023048 // Asb4 // ankyrin repeat and SOCS box-containing 4 // 6 A1 6 0.6 cM /	Asb4	NM_023048	0.706961	1.17342	0.0304394	12.6451	0.0965097	10.7762
10365469	AK018959 // Ascl4 // achaete-scute complex homolog 4 (Drosophila) // 10 C1 // 67	Ascl4	AK018959	0.272248	1.40332	0.0353514	3.68658	0.130852	2.62704
10534120	NM_133768 // Asl // argininosuccinate lyase // 5 G1.3 5 74.0 cM // 109900 /// EN	Asl	NM_133768	0.869836	1.03651	0.0350758	3.14854	0.104496	3.03764
10543067	NM_012055 // Asns // asparagine synthetase // 6 A1 // 27053 /// ENSMUST000000317	Asns	NM_012055	0.0920768	1.59621	0.0250916	2.511	0.141305	1.5731
10539739	NM_026414 // Asprv1 // aspartic peptidase, retroviral-like 1 // 6 D1 // 67855 //	Asprv1	NM_026414	0.275013	1.15987	0.0201192	2.73933	0.0832518	2.36175
10454235	ENSMUST00000120223 // Asxl3 // additional sex combs like 3 (Drosophila) // 18 A2	Asxl3	ENSMUST00000120223	0.315518	1.13771	0.0205376	2.6578	0.0832518	2.33608
10438822	NM_175650 // Atp13a5 // ATPase type 13A5 // 16 B2 // 268878 /// ENSMUST000000758	Atp13a5	NM_175650	0.147454	1.58123	0.0353229	2.77693	0.170563	1.75619
10378216	NM_016745 // Atp2a3 // ATPase, Ca++ transporting, ubiquitous // 11 B4 // 53313 /	Atp2a3	NM_016745	0.210864	-1.33836	0.0194346	-4.98565	0.0832518	-3.7252
10572146	NM_007509 // Atp6v1b2 // ATPase, H+ transporting, lysosomal V1 subunit B2 // 8 B	Atp6v1b2	NM_007509	0.167502	1.30854	0.0306117	2.12477	0.133225	1.62378
10577449	NM_007511 // Atp7b // ATPase, Cu++ transporting, beta polypeptide // 8 A2 8 10.0	Atp7b	NM_007511	0.0515069	1.67899	0.0145433	2.60142	0.0945669	1.5494
10499666	NM_001081182 // Atp8b2 // ATPase, class I, type 8B, member 2 // 3 F2 // 54667 //	Atp8b2	NM_001081182	0.117226	-1.64494	0.033534	-2.55724	0.194469	-1.55461
10467739	NM_027106 // Avpi1 // arginine vasopressin-induced 1 // 19 C3 // 69534 /// ENSMU	Avpi1	NM_027106	0.0768214	1.56925	0.0245164	2.13607	0.164841	1.3612
10382228	NM_015732 // Axin2 // axin2 // 11 E1 11 70.0 cM // 12006 /// ENSMUST00000052915	Axin2	NM_015732	0.0511051	-1.17203	0.0129996	7.88664	0.0137869	9.2434
10526712	NM_013478 // Azgp1 // alpha-2-glycoprotein 1, zinc // 5 G2 5 78.0 cM // 12007 //	Azgp1	NM_013478	0.288727	1.29558	0.0153167	11.4895	0.0713526	8.86825
10581175	NM_178879 // B3gnt9 // UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransfera	B3gnt9	NM_178879	0.109744	-1.73521	0.0403894	-2.32032	0.315678	-1.3372
10439667	NM_145389 // BC016579 // cDNA sequence, BC016579 // 16 B5 // 212998 /// ENSMUST0	BC016579	NM_145389	0.386746	1.28065	0.0403467	3.40939	0.133732	2.66224
10477512	NM_144890 // BC018465 // cDNA sequence BC018465 // 2 H1 // 228802 /// ENSMUST000	BC018465	NM_144890	0.127247	-1.28008	0.0129996	12.4313	0.05086	15.9129
10477237	BC020535 // BC020535 // cDNA sequence BC020535 // 2 H1 // 228788 /// ENSMUST0000	BC020535	BC020535	0.0638736	-1.54415	0.0188844	-2.19432	0.116906	-1.42106
10439409	AK169533 // BC031361 // cDNA sequence BC031361 // --- // 414072 /// AK145079 //	BC031361	AK169533	0.28064	1.24722	0.044801	2.07099	0.162	1.66049
10357043	NM_009741 // Bcl2 // B-cell leukemia/lymphoma 2 // 1 E2.1 1 59.8 cM // 12043 ///	Bcl2	NM_009741	0.100394	-1.73048	0.0411191	-2.14657	0.390578	-1.24044
10606868	NM_009052 // Bex1 // brain expressed gene 1 // X F1 X 57.5 cM // 19716 /// ENSMU	Bex1	NM_009052	0.378573	1.21635	0.0145433	16.0042	0.0681156	13.1576
10369844	NM_031397 // Bicc1 // biccaudal C homolog 1 (Drosophila) // 10 B5.3 10 38.6 cM //	Bicc1	NM_031397	0.389207	-1.33887	0.041535	-4.17566	0.136152	-3.11879
10523506	NM_173404 // Bmp3 // bone morphogenetic protein 3 // 5 E3 5 55.0 cM // 110075 //	Bmp3	NM_173404	0.498132	-1.20498	0.0481738	-3.01376	0.144692	-2.5011
10587231	NM_007555 // Bmp5 // bone morphogenetic protein 5 // 9 D 9 42.0 cM // 12160 ///	Bmp5	NM_007555	0.311691	1.27466	0.0471914	-2.34995	0.100141	-2.99539
10346651	NM_007561 // Bmpr2 // bone morphogenic protein receptor, type II (serine/threoni	Bmpr2	NM_007561	0.0623976	-1.73241	0.0246516	-2.05373	0.299782	-1.18548
10348858	NM_016778 // Bok // BCL2-related ovarian killer protein // 1 D // 51800 /// ENSM	Bok	NM_016778	0.374624	1.15669	0.0312221	2.35381	0.107492	2.03495
10443421	NM_001081315 // Brpf3 // bromodomain and PHD finger containing, 3 // 17 A3.3 //	Brpf3	NM_001081315	0.201397	1.26601	0.0304394	2.18914	0.122293	1.72917
10400030	NM_025840 // Bzw2 // basic leucine zipper and W2 domains 2 // 12 B2 // 66912 ///	Bzw2	NM_025840	0.0621724	1.35998	0.0145433	2.10856	0.0832188	1.55044
10357516	NM_007576 // C4bp // complement component 4 binding protein // 1 E4 1 67.6 cM //	C4bp	NM_007576	0.50636	1.29596	0.0305565	9.41385	0.103017	7.26398
10590438	BC113767 // C730027P07Rik // RIKEN cDNA C730027P07 gene // 9 F4 // 245050 /// NM	C730027P07Rik	BC113767	0.069703	-1.47736	0.0191218	-2.19403	0.106538	-1.48511
10516566	NM_001033189 // C77080 // expressed sequence C77080 // 4 D2.2 // 97130 /// ENSMU	C77080	NM_001033189	0.105265	1.56517	0.0314749	2.2301	0.196765	1.42483
10415678	NM_026908 // Cab39l // calcium binding protein 39-like // 14 C3-D1 // 69008 ///	Cab39l	NM_026908	0.226023	1.2684	0.0259658	2.76116	0.102052	2.17689
10547322	NM_001159533 // Cacna1c // calcium channel, voltage-dependent, L type, alpha 1C	Cacna1c	NM_001159533	0.171362	1.27981	0.0250075	-2.36082	0.0777885	-3.0214
10519855	NM_001110843 // Cacna2d1 // calcium channel, voltage-dependent, alpha2/delta sub	Cacna2d1	NM_001110843	0.0868382	-1.7498	0.0161702	-5.21631	0.0832518	-2.9811
10537184	NM_145575 // Cald1 // caldesmon 1 // 6 B1 6 11.5 cM // 109624 /// ENSMUST0000011	Cald1	NM_145575	0.457718	-1.1001	0.0202365	-3.04833	0.0814114	-2.77094
10407416	NM_027416 // Calm13 // calmodulin-like 3 // 13 A1 // 70405 /// ENSMUST0000007769	Calm13	NM_027416	0.216492	-1.48525	0.0415534	2.98661	0.093068	4.43588
10495896	NM_001025439 // Camk2d // calcium/calmodulin-dependent protein kinase II, delta	Camk2d	NM_001025439	0.0838056	1.33362	0.0165892	2.21107	0.0847588	1.65795
10452770	NM_001033444 // Capn13 // calpain 13 // 17 E2 // 381122 /// ENSMUST00000095208 /	Capn13	NM_001033444	0.199828	-1.56683	0.028835	4.71707	0.0832188	7.39083

10607143	NM_007603 // Capn6 // calpain 6 // X F2 // 12338 /// ENSMUST00000087316 // Capn6	Capn6	NM_007603	0.153645	-1.48041	0.0276256	3.04855	0.0814114	4.51309
10500283	NM_011797 // Car14 // carbonic anhydrase 14 // 3 F2.1 // 23831 /// NM_146104 //	Car14	NM_011797	0.171362	-1.59975	0.040178	-2.9555	0.18485	-1.84747
10490923	NM_009801 // Car2 // carbonic anhydrase 2 // 3 A1 3 10.5 cM // 12349 /// ENSMUST	Car2	NM_009801	0.351094	-1.17806	0.0294825	2.57596	0.0846822	3.03465
10496023	NM_009811 // Casp6 // caspase 6 // 3 H1 // 12368 /// ENSMUST00000029626 // Casp6	Casp6	NM_009811	0.571725	1.0807	0.0321703	2.15378	0.104542	1.99295
10393936	NM_007621 // Cbr2 // carbonyl reductase 2 // 11 E2 11 72.5 cM // 12409 /// ENSMU	Cbr2	NM_007621	0.331844	-1.05806	0.0139506	-2.25044	0.0614248	-2.12695
10481435	NM_172404 // Ccbl1 // cysteine conjugate-beta lyase 1 // 2 B // 70266 /// ENSMUS	Ccbl1	NM_172404	0.0585699	1.67341	0.0219453	2.06011	0.211025	1.23108
10502156	NM_025779 // Ccdc109b // coiled-coil domain containing 109B // 3 H1 // 66815 ///	Ccdc109b	NM_025779	0.0738199	-1.70248	0.0192673	-3.08175	0.104704	-1.81015
10456639	NM_028948 // Ccdc11 // coiled-coil domain containing 11 // 18 E2 // 74453 /// EN	Ccdc11	NM_028948	0.161432	-1.57338	0.0458401	-2.44785	0.241223	-1.55579
10406905	NM_183115 // Ccdc125 // coiled-coil domain containing 125 // 13 D1 // 76041 ///	Ccdc125	NM_183115	0.0531318	1.63583	0.0165382	2.23099	0.119319	1.36383
10394018	NM_027745 // Ccdc57 // coiled-coil domain containing 57 // 11 E2 // 71276 /// EN	Ccdc57	NM_027745	0.157688	1.32125	0.0220255	2.82339	0.0945669	2.13691
10533034	NM_177759 // Ccdc60 // coiled-coil domain containing 60 // 5 F // 269693 /// ENS	Ccdc60	NM_177759	0.091992	-1.46834	0.0265525	-2.02684	0.160602	-1.38036
10426627	NM_153518 // Ccdc65 // coiled-coil domain containing 65 // 15 F1 // 105833 /// E	Ccdc65	NM_153518	0.0501322	-1.68312	0.0169783	-2.0968	0.151433	-1.24578
10530089	NM_009827 // Cckar // cholecystokinin A receptor // 5 C1 5 34.0 cM // 12425 ///	Cckar	NM_009827	0.0847764	-1.56816	0.0135399	-8.4243	0.0614248	-5.3721
10504127	NM_011124 // Ccl21a // chemokine (C-C motif) ligand 21A // 4 A5 4 13.3 cM // 188	Ccl21a	NM_011124	0.388349	-1.37494	0.0345128	-5.95703	0.117905	-4.33256
10504154	NM_011124 // Ccl21a // chemokine (C-C motif) ligand 21A // 4 A5 4 13.3 cM // 188	Ccl21a	NM_011124	0.388349	-1.37494	0.0345128	-5.95703	0.117905	-4.33256
10504183	NM_011124 // Ccl21a // chemokine (C-C motif) ligand 21A // 4 A5 4 13.3 cM // 188	Ccl21a	NM_011124	0.388349	-1.37494	0.0345128	-5.95703	0.117905	-4.33256
10512377	NM_011124 // Ccl21a // chemokine (C-C motif) ligand 21A // 4 A5 4 13.3 cM // 188	Ccl21a	NM_011124	0.388349	-1.37494	0.0345128	-5.95703	0.117905	-4.33256
10375313	NM_001045530 // Ccnj1 // cyclin J-like // 11 B1.1 // 380694 /// ENSMUST000000505	Ccnj1	NM_001045530	0.285952	1.53034	0.0301839	7.10157	0.109635	4.6405
10390763	NM_007719 // Ccr7 // chemokine (C-C motif) receptor 7 // 11 D // 12775 /// ENSMU	Ccr7	NM_007719	0.229915	-1.51887	0.0371063	3.75207	0.088388	5.69892
10597279	NM_017466 // Ccr12 // chemokine (C-C motif) receptor-like 2 // 9 F 9 70.1 cM //	Ccr12	NM_017466	0.093563	-1.45863	0.0172046	-3.13863	0.0837773	-2.15177
10444046	NM_019421 // Cd320 // CD320 antigen // 17 B1 17 18.0 cM // 54219 /// ENSMUST0000	Cd320	NM_019421	0.278048	1.54406	0.0482784	3.82767	0.177991	2.47897
10352905	NM_001111059 // Cd34 // CD34 antigen // 1 H6 1 106.6 cM // 12490 /// NM_133654 /	Cd34	NM_001111059	0.122976	-1.41561	0.0190918	-3.39197	0.0850136	-2.39611
10478678	NR_027852 // Cd40 // CD40 antigen // 2 H3 2 97.0 cM // 21939 /// NM_011611 // Cd	Cd40	NR_027852	0.0612533	-1.46812	0.0145433	-2.77697	0.0777885	-1.89151
10394054	NM_009854 // Cd7 // CD7 antigen // 11 E2 11 74.0 cM // 12516 /// ENSMUST000000026	Cd7	NM_009854	0.0517247	-1.53823	0.0146545	-2.16711	0.0959124	-1.40883
10515090	NM_007671 // Cdkn2c // cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)	Cdkn2c	NM_007671	0.0846769	-1.39338	0.0197769	-2.16834	0.101625	-1.55617
10360479	NM_001099637 // Cep170 // centrosomal protein 170 // 1 H4 // 545389 /// BC054781	Cep170	NM_001099637	0.10694	-1.57537	0.0203807	-3.63952	0.0959124	-2.31026
10384956	NM_026527 // Chac2 // ChaC, cation transport regulator homolog 2 (E. coli) // 11	Chac2	NM_026527	0.388554	1.27292	0.0472452	2.90556	0.151433	2.2826
10413517	NM_175343 // Chdh // choline dehydrogenase // 14 B // 218865 /// NM_001136240 //	Chdh	NM_175343	0.17576	1.58008	0.0413213	2.87696	0.189039	1.82077
10568553	NM_029935 // Chst15 // carbohydrate (N-acetylgalactosamine 4-sulfate 6-O) sulfot	Chst15	NM_029935	0.0947349	-1.682	0.0294611	-2.46057	0.192991	-1.46288
10507726	NM_019563 // Cited4 // Cbp/p300-interacting transactivator, with Glu/Asp-rich ca	Cited4	NM_019563	0.199256	1.28217	0.0353323	2.05925	0.144543	1.60606
10440647	NM_018778 // Cldn8 // claudin 8 // 16 C3.3 // 54420 /// ENSMUST00000049697 // Cl	Cldn8	NM_018778	0.263491	-1.71335	0.0354804	7.44409	0.088388	12.7543
10542120	NM_020257 // Clec2i // C-type lectin domain family 2, member i // 6 F3 // 93675	Clec2i	NM_020257	0.0649123	-1.6573	0.0220882	-2.18308	0.170275	-1.31725
10445347	NM_172621 // Clic5 // chloride intracellular channel 5 // 17 C // 224796 /// ENS	Clic5	NM_172621	0.074085	-1.61746	0.0177974	-3.0528	0.09514	-1.88741
10542665	NM_009908 // Cmas // cytidine monophospho-N-acetylneuraminic acid synthetase //	Cmas	NM_009908	0.448468	1.15279	0.02867	3.02748	0.0990406	2.62623
10574471	NM_024217 // Cmtm3 // KLF-like MARVEL transmembrane domain containing 3 // 8 D3	Cmtm3	NM_024217	0.0579859	-1.52709	0.0145433	-2.58766	0.0832518	-1.6945
10395659	NM_007728 // Coch // coagulation factor C homolog (Limulus polyphemus) // 12 C1	Coch	NM_007728	0.339382	1.10561	0.0145433	3.3579	0.0681156	3.03714
10536220	NM_007743 // Col1a2 // collagen, type I, alpha 2 // 6 A1 6 0.68 cM // 12843 ///	Col1a2	NM_007743	0.226551	-1.5142	0.0488875	-2.85788	0.20308	-1.88739
10568024	NM_009898 // Coro1a // coronin, actin binding protein 1A // 7 F3 7 62.5 cM // 12	Coro1a	NM_009898	0.123852	-1.67625	0.039203	-2.47601	0.244505	-1.47711
10512774	NM_178893 // Coro2a // coronin, actin binding protein 2A // 4 B1 // 107684 /// E	Coro2a	NM_178893	0.726338	1.048	0.0184332	3.87898	0.0770679	3.7013
10568536	NM_018867 // Cpxm2 // carboxypeptidase X 2 (M14 family) // 7 F4 // 55987 /// ENS	Cpxm2	NM_018867	0.275996	1.35573	0.0339611	3.40623	0.124616	2.51247
10450938	NM_009420 // Crisp2 // cysteine-rich secretory protein 2 // 17 B2 17 22.8 cM //	Crisp2	NM_009420	0.265301	1.61981	0.0318957	7.2044	0.119319	4.44767

10585214	NM_009964 // Cryab // crystallin, alpha B // 9 A5.3 9 29.0 cM // 12955 /// NM_02	Cryab	NM_009964	0.0430287	-1.60073	0.0129996	-2.75885	0.0681156	-1.72349
10528686	NM_153076 // Crygn // crystallin, gamma N // 5 A3 // 214301 /// ENSMUST000000471	Crygn	NM_153076	0.208586	1.1796	0.0178834	2.69771	0.0814114	2.28697
10574220	NM_009142 // Cx3cl1 // chemokine (C-X3-C motif) ligand 1 // 8 C5 8 46.0 cM // 20	Cx3cl1	NM_009142	0.208786	-1.07876	0.0135399	2.27866	0.052094	2.45813
10551197	NM_009999 // Cyp2b10 // cytochrome P450, family 2, subfamily b, polypeptide 10 /	Cyp2b10	NM_009999	0.0981885	-1.39266	0.0192673	-2.52921	0.0938293	-1.8161
10551293	NM_007817 // Cyp2f2 // cytochrome P450, family 2, subfamily f, polypeptide 2 //	Cyp2f2	NM_007817	0.259633	-1.39264	0.0204211	-8.10822	0.0832518	-5.8222
10458046	NM_053078 // D0H4S114 // DNA segment, human D4S114 // 18 B1 // 27528 /// NM_0011	D0H4S114	NM_053078	0.120576	-1.63886	0.043186	-2.19711	0.307433	-1.34063
10373073	NM_028027 // D10Ert610e // DNA segment, Chr 10, ERATO Doi 610, expressed // 10	D10Ert610e	NM_028027	0.0904365	-1.74888	0.0289253	-2.55246	0.200626	-1.45948
10456492	BC096371 // D18Ert653e // DNA segment, Chr 18, ERATO Doi 653, expressed // 18 E	D18Ert653e	BC096371	0.106813	-1.32706	0.0195658	-2.30384	0.093068	-1.73605
10513190	BC095953 // D630039A03Rik // RIKEN cDNA D630039A03 gene // 4 B3 // 242484 /// BC	D630039A03Rik	BC095953	0.150446	1.40435	0.0329082	2.2508	0.152564	1.60274
10571344	NM_172911 // D8Ert82e // DNA segment, Chr 8, ERATO Doi 82, expressed // 8 A4 8	D8Ert82e	NM_172911	0.1318	1.3659	0.0171478	3.68349	0.0819236	2.69674
10375886	NR_027958 // D930048N14Rik // RIKEN cDNA D930048N14 gene // 11 B1.3 // 97775 ///	D930048N14Rik	NR_027958	0.0432708	1.58102	0.0137066	2.32298	0.0825609	1.46929
10391831	NM_026551 // Dcakd // dephospho-CoA kinase domain containing // 11 E1 // 68087 /	Dcakd	NM_026551	0.202967	1.42289	0.0465827	2.31807	0.204587	1.62913
10533180	NM_028041 // Ddx54 // DEAD (Asp-Glu-Ala-Asp) box polypeptide 54 // 5 F // 71990	Ddx54	NM_028041	0.157445	-1.47457	0.043417	-2.18616	0.22508	-1.48258
10570741	NM_007843 // Defb1 // defensin beta 1 // 8 A4 8 9.0 cM // 13214 /// ENSMUST00000	Defb1	NM_007843	0.821318	-1.05218	0.0267139	4.41331	0.0871517	4.6436
10586248	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442	Dennd4a	NM_001162917	0.0570945	-1.60551	0.0146213	-2.72561	0.0871621	-1.69765
10586242	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442	Dennd4a	NM_001162917	0.0787531	-1.39897	0.0186245	-2.19696	0.0959124	-1.57041
10586250	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442	Dennd4a	NM_001162917	0.070829	-1.73979	0.0183797	-3.24524	0.1008	-1.86531
10586244	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442	Dennd4a	NM_001162917	0.0968208	-1.52165	0.0209839	-2.88851	0.102329	-1.89827
10586227	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442 /// B	Dennd4a	NM_001162917	0.129885	-1.50235	0.0263563	-2.85361	0.122293	-1.89943
10586246	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442	Dennd4a	NM_001162917	0.118065	-1.50642	0.0261909	-2.65858	0.127427	-1.76483
10586254	NM_001162917 // Dennd4a // DENN/MADD domain containing 4A // 9 C // 102442 /// E	Dennd4a	NM_001162917	0.166046	-1.43328	0.0358497	-2.40787	0.16055	-1.67997
10542460	NM_172733 // Dera // 2-deoxyribose-5-phosphate aldolase homolog (C. elegans) //	Dera	NM_172733	0.0871895	1.74618	0.0391637	2.01804	0.495237	1.15569
10400941	NM_025522 // Dhrr7 // dehydrogenase/reductase (SDR family) member 7 // 12 C3 //	Dhrr7	NM_025522	0.116295	1.29823	0.0194035	2.32881	0.0893731	1.79384
10389561	NM_026191 // Dhx40 // DEAH (Asp-Glu-Ala-His) box polypeptide 40 // 11 C // 67487	Dhx40	NM_026191	0.0748819	1.43246	0.0188844	2.20733	0.100141	1.54093
10377725	NM_007864 // Dlg4 // discs, large homolog 4 (Drosophila) // 11 B4 // 13385 /// N	Dlg4	NM_007864	0.24578	-1.45169	0.0459292	-2.90264	0.178302	-1.9995
10552044	NM_172899 // Dmkn // dermokine // 7 A3 // 73712 /// NM_028618 // Dmkn // dermoki	Dmkn	NM_172899	0.0772861	1.45275	0.0226028	-2.00379	0.0681156	-2.91101
10525854	ENSMUST000000037065 // Dnahc10 // dynein, axonemal, heavy chain 10 // 5 F // 5608	Dnahc10	ENSMUST000000037065	0.0578721	-1.63538	0.0203921	-2.09972	0.161712	-1.28394
10565890	NM_153527 // Dnajb13 // DnaJ (Hsp40) related, subfamily B, member 13 // 7 E3 //	Dnajb13	NM_153527	0.0958433	-1.68664	0.0290029	-2.52398	0.185328	-1.49646
10426685	NM_176835 // Dnajc22 // DnaJ (Hsp40) homolog, subfamily C, member 22 // 15 F1 //	Dnajc22	NM_176835	0.204174	1.56318	0.044016	3.05983	0.187782	1.95744
10417526	NM_007870 // Dnase1l3 // deoxyribonuclease 1-like 3 // 14 A1 // 13421 /// ENSMUS	Dnase1l3	NM_007870	0.140878	-1.64558	0.0495048	-2.27663	0.323132	-1.38348
10591622	NM_177030 // Dock6 // dedicator of cytokinesis 6 // 9 A3 // 319899 /// ENSMUST00	Dock6	NM_177030	0.0486459	-1.67622	0.0153897	-2.13577	0.133225	-1.27415
10591620	NM_177030 // Dock6 // dedicator of cytokinesis 6 // 9 A3 // 319899 /// ENSMUST00	Dock6	NM_177030	0.0522596	-1.66316	0.0180966	-2.11715	0.149087	-1.27297
10591576	NM_177030 // Dock6 // dedicator of cytokinesis 6 // 9 A3 // 319899 /// ENSMUST00	Dock6	NM_177030	0.0825798	-1.63788	0.0275634	-2.1786	0.213091	-1.33013
10576235	NM_007876 // Dpep1 // dipeptidase 1 (renal) // 8 E1 8 67.0 cM // 13479 /// ENSMU	Dpep1	NM_007876	0.249867	-1.7389	0.0382577	-6.36661	0.143678	-3.66128
10368647	NM_172508 // Dse // dermatan sulfate epimerase // 10 B1 // 212898 /// ENSMUST000	Dse	NM_172508	0.71828	-1.08496	0.0458856	-2.64283	0.129445	-2.43587
10486988	NM_145395 // Duoxa1 // dual oxidase maturation factor 1 // 2 E5 // 213696 /// EN	Duoxa1	NM_145395	0.158167	1.35715	0.0212562	3.29624	0.0907435	2.4288
10373810	NM_173745 // Dusp18 // dual specificity phosphatase 18 // 11 A1 // 75219 /// ENS	Dusp18	NM_173745	0.213886	-1.21804	0.0238783	-2.42449	0.0959124	-1.99048
10391513	NM_028207 // Dusp3 // dual specificity phosphatase 3 (vaccinia virus phosphatase	Dusp3	NM_028207	0.143017	-1.56912	0.0439847	-2.28062	0.254061	-1.45344
10588495	NM_153459 // Dusp7 // dual specificity phosphatase 7 // 9 F1 // 235584 /// ENSMU	Dusp7	NM_153459	0.10236	-1.58563	0.0313201	-2.24114	0.202426	-1.41341
10357590	NM_145508 // Dyrk3 // dual-specificity tyrosine-(Y)-phosphorylation regulated ki	Dyrk3	NM_145508	0.170037	1.27189	0.0193374	2.99409	0.0836423	2.35405

10566315	BC058791 // E030002O03Rik // RIKEN cDNA E030002O03 gene // 7 E3 // 244180 /// EN	E030002O03Rik	BC058791	0.136577	1.4466	0.0129996	117.467	0.05086	81.202
10595836	ENSMUST00000062899 // E030011O05Rik // RIKEN cDNA E030011O05 gene // 9 E3.3 // 3	E030011O05Rik	ENSMUST00000062899	0.197703	1.40538	0.0191683	6.11093	0.0832518	4.34824
10413932	NM_178791 // E130203B14Rik // RIKEN cDNA E130203B14 gene // 14 B // 320736 /// E	E130203B14Rik	NM_178791	0.211702	-1.31314	0.0428319	-2.06116	0.174966	-1.56965
10509441	NM_199307 // Ece1 // endothelin converting enzyme 1 // 4 D3 // 230857 /// ENSMUS	Ece1	NM_199307	0.218799	-1.37075	0.0423645	-2.38004	0.170275	-1.73631
10369236	NM_010100 // Edar // ectodysplasin-A receptor // 10 B3 10 29.0 cM // 13608 /// E	Edar	NM_010100	0.757015	1.04955	0.0436736	2.00751	0.122293	1.91274
10546104	NM_023060 // Eefsec // eukaryotic elongation factor, selenocysteine-tRNA-specifi	Eefsec	NM_023060	0.88346	1.01608	0.0216439	2.49532	0.0814887	2.45584
10460603	NM_021474 // Efemp2 // epidermal growth factor-containing fibulin-like extracell	Efemp2	NM_021474	0.286341	-1.17626	0.0319886	-2.03563	0.117639	-1.73059
10499545	NM_010108 // Efna3 // ephrin A3 // 3 F1 3 48.0 cM // 13638 /// ENSMUST0000002967	Efna3	NM_010108	0.309743	1.51464	0.0457964	4.41931	0.158386	2.91774
10499552	NM_007910 // Efna4 // ephrin A4 // 3 F1 3 48.0 cM // 13639 /// ENSMUST0000002967	Efna4	NM_007910	0.12578	1.52622	0.0250916	3.04664	0.116156	1.9962
10399234	NM_001082483 // Efr3b // EFR3 homolog B (S. cerevisiae) // 12 A1.1 // 668212 ///	Efr3b	NM_001082483	0.248631	1.15467	0.0235445	2.11154	0.093068	1.82869
10560190	NM_153068 // Ehd2 // EH-domain containing 2 // 7 A2 7 15.13 cM // 259300 /// ENS	Ehd2	NM_153068	0.116185	-1.51036	0.0208584	-3.44914	0.0959124	-2.28365
10533858	NM_145371 // Eif2b1 // eukaryotic translation initiation factor 2B, subunit 1 (a	Eif2b1	NM_145371	0.155531	1.29567	0.0298487	2.00401	0.133553	1.5467
10546685	NM_025829 // Eif4e3 // eukaryotic translation initiation factor 4E member 3 // 6	Eif4e3	NM_025829	0.137464	-1.66328	0.0360982	-2.8463	0.18846	-1.71126
10430384	NM_183141 // Elfn2 // leucine rich repeat and fibronectin type III, extracellular	Elfn2	NM_183141	0.126555	1.24904	0.0179324	2.3464	0.0832518	1.87857
10496359	NM_016885 // Emcn // endomucin // 3 G3 // 59308 /// ENSMUST00000119475 // Emcn /	Emcn	NM_016885	0.23525	-1.51914	0.0320613	-4.57879	0.123283	-3.01407
10383953	NM_080595 // Emid1 // EMI domain containing 1 // 11 A1 // 140703 /// ENSMUST0000	Emid1	NM_080595	0.451735	-1.10094	0.0160213	4.02847	0.0681156	4.43513
10542355	NM_010128 // Emp1 // epithelial membrane protein 1 // 6 G1 6 65.0 cM // 13730 //	Emp1	NM_010128	0.116616	-1.47335	0.0263563	-2.46718	0.131757	-1.67454
10563441	NM_010129 // Emp3 // epithelial membrane protein 3 // 7 B4 7 24.5 cM // 13732 //	Emp3	NM_010129	0.195874	-1.42252	0.0405961	-2.47258	0.171963	-1.73817
10406817	NM_007930 // Enc1 // ectodermal-neural cortex 1 // 13 D1 // 13803 /// ENSMUST000	Enc1	NM_007930	0.0483445	1.67554	0.0145433	2.31152	0.103017	1.37956
10590306	NM_178676 // Entpd3 // ectonucleoside triphosphate diphosphohydrolase 3 // 9 F4	Entpd3	NM_178676	0.116616	1.58606	0.0214547	3.89171	0.0959124	2.4537
10447317	NM_010137 // Epas1 // endothelial PAS domain protein 1 // 17 E4 // 13819 /// ENS	Epas1	NM_010137	0.0952687	-1.54915	0.0191225	-3.36601	0.093068	-2.17281
10458052	NM_013512 // Epb4.114a // erythrocyte protein band 4.1-like 4a // 18 B1 // 13824	Epb4.114a	NM_013512	0.103328	-1.60392	0.0288831	-2.45401	0.167471	-1.53001
10509965	NM_010139 // Epha2 // Eph receptor A2 // 4 D-E 4 73.2 cM // 13836 /// ENSMUST000	Epha2	NM_010139	0.146292	1.17842	0.0172933	2.10555	0.0814114	1.78676
10517488	NM_010142 // Ephb2 // Eph receptor B2 // 4 D-E 4 65.7 cM // 13844 /// ENSMUST000	Ephb2	NM_010142	0.109619	1.6936	0.0215168	4.2773	0.0990406	2.52557
10501183	NM_133867 // Eps8l3 // EPS8-like 3 // 3 F2.3 // 99662 /// ENSMUST00000037375 //	Eps8l3	NM_133867	0.925417	1.01022	0.0137066	5.87528	0.0614248	5.81583
10495223	NM_133867 // Eps8l3 // EPS8-like 3 // 3 F2.3 // 99662 /// ENSMUST00000037375 //	Eps8l3	NM_133867	0.198417	1.2742	0.0228765	2.90175	0.0938293	2.27732
10349932	NM_175443 // Etnk2 // ethanolamine kinase 2 // 1 E4 // 214253 /// ENSMUST00000009	Etnk2	NM_175443	0.369419	1.20293	0.0262092	3.54069	0.0959124	2.94339
10363901	NM_023794 // Etv5 // ets variant gene 5 // 16 B1 // 104156 /// ENSMUST0000007960	Etv5	NM_023794	0.110343	1.49026	0.0229235	2.80606	0.106605	1.88293
10438626	NM_023794 // Etv5 // ets variant gene 5 // 16 B1 // 104156 /// ENSMUST0000007960	Etv5	NM_023794	0.204727	1.53527	0.0418271	3.0723	0.173218	2.00114
10353192	NM_010164 // Eya1 // eyes absent 1 homolog (Drosophila) // 1 A3 1 10.4 cM // 140	Eya1	NM_010164	0.246352	1.33047	0.032381	2.91398	0.123729	2.1902
10395155	BC085288 // Fam110c // family with sequence similarity 110, member C // 12 A2 //	Fam110c	BC085288	0.0939119	1.33944	0.0145433	3.36052	0.0687496	2.50889
10522060	NM_026667 // Fam114a1 // family with sequence similarity 114, member A1 // 5 C3.	Fam114a1	NM_026667	0.128483	-1.53709	0.0360064	-2.30264	0.200556	-1.49805
10353549	NM_026604 // Fam135a // family with sequence similarity 135, member A // 1 A5 //	Fam135a	NM_026604	0.195798	1.19178	0.0226132	2.15729	0.093068	1.81014
10401443	BC062132 // Fam161b // family with sequence similarity 161, member B // 12 D1 //	Fam161b	BC062132	0.0603632	-1.67196	0.0203471	-2.24778	0.148839	-1.3444
10490802	NM_173181 // Fam164a // family with sequence similarity 164, member A // 3 A1 //	Fam164a	NM_173181	0.0568497	-1.25746	0.0129996	-2.20333	0.0614248	-1.75221
10554156	NM_001162532 // Fam174b // family with sequence similarity 174, member B // ---	Fam174b	NM_001162532	0.071902	-1.4986	0.0137066	-4.41422	0.0681156	-2.94556
10369132	NM_001081428 // Fam184a // family with sequence similarity 184, member A // 10 B	Fam184a	NM_001081428	0.78563	1.04071	0.0333147	-2.23698	0.0959124	-2.32805
10549497	NM_019643 // Fam60a // family with sequence similarity 60, member A // --- // 56	Fam60a	NM_019643	0.10463	1.38076	0.0258247	2.00039	0.135591	1.44876
10436442	NM_019643 // Fam60a // family with sequence similarity 60, member A // --- // 56	Fam60a	NM_019643	0.103083	1.41169	0.0265525	2.0262	0.144692	1.4353
10494208	BC094388 // Fam63a // family with sequence similarity 63, member A // 3 F2 // 75	Fam63a	BC094388	0.0427768	1.54279	0.0129996	3.21823	0.0562862	2.08598

10502845	NM_174868 // Fam73a // family with sequence similarity 73, member A // 3 H3 // 2	Fam73a	NM_174868	0.107391	1.55927	0.0355798	2.08274	0.247789	1.33571
10429691	NM_134087 // Fam83h // family with sequence similarity 83, member H // 15 D3 //	Fam83h	NM_134087	0.0959934	1.54178	0.0263563	2.32509	0.149087	1.50806
10582694	NM_001081120 // Fam89a // family with sequence similarity 89, member A // 8 E2 /	Fam89a	NM_001081120	0.243	1.29496	0.0208584	4.4654	0.0837773	3.4483
10483521	NM_177244 // Fastkd1 // FAST kinase domains 1 // 2 C2 // 320720 /// ENSMUST00000	Fastkd1	NM_177244	0.633371	-1.07576	0.0341861	2.27432	0.0959124	2.44662
10571530	NM_001081286 // Fat1 // FAT tumor suppressor homolog 1 (Drosophila) // 8 B1.1 8	Fat1	NM_001081286	0.0549197	1.55751	0.0174872	2.05431	0.124152	1.31897
10402211	NM_011812 // Fbln5 // fibulin 5 // 12 F1 // 23876 /// ENSMUST00000021603 // Fbln	Fbln5	NM_011812	0.0712733	-1.66	0.0154788	-3.56908	0.0847588	-2.15004
10487040	NM_007993 // Fbn1 // fibrillin 1 // 2 F 2 71.0 cM // 14118 /// ENSMUST0000010323	Fbn1	NM_007993	0.245272	-1.30125	0.0342867	-2.56206	0.131944	-1.96892
10540168	NM_172731 // Fgd5 // FYVE, RhoGEF and PH domain containing 5 // 6 D1 // 232237 /	Fgd5	NM_172731	0.0533206	-1.56296	0.0156631	-2.15382	0.106538	-1.37804
10507908	NM_010213 // Fhl3 // four and a half LIM domains 3 // 4 D1 // 14201 /// ENSMUST0	Fhl3	NM_010213	0.678923	-1.07721	0.0454767	2.16829	0.108912	2.3357
10454369	NM_175276 // Fhod3 // formin homology 2 domain containing 3 // 18 A2 // 225288 /	Fhod3	NM_175276	0.74967	-1.04957	0.0303108	2.47736	0.093068	2.60018
10436369	NM_030163 // Filip1l // filamin A interacting protein 1-like // 16 C1.1 // 78749	Filip1l	NM_030163	0.172443	-1.34286	0.0387932	-2.01552	0.174475	-1.50091
10483865	NM_010222 // Fkbp7 // FK506 binding protein 7 // 2 C3 2 60.5 cM // 14231 /// ENS	Fkbp7	NM_010222	0.0437752	-1.51205	0.0129996	-2.4851	0.0681156	-1.64353
10538547	NM_012056 // Fkbp9 // FK506 binding protein 9 // 6 B3 6 28.0 cM // 27055 /// ENS	Fkbp9	NM_012056	0.0731903	-1.63319	0.0229084	-2.32648	0.148283	-1.4245
10605256	NM_010227 // Flna // filamin, alpha // X A7.3 // 192176 /// ENSMUST00000114299 /	Flna	NM_010227	0.0952433	-1.32828	0.0179777	-2.30614	0.0872686	-1.73618
10359582	NM_018881 // Fmo2 // flavin containing monooxygenase 2 // 1 H1 // 55990 /// ENSM	Fmo2	NM_018881	0.0880991	-1.44858	0.0192444	-2.55247	0.0959124	-1.76205
10481540	NM_001038700 // Fnbp1 // formin binding protein 1 // 2 B // 14269 /// NM_019406	Fnbp1	NM_001038700	0.145603	-1.30397	0.0267067	-2.10131	0.120064	-1.61147
10590974	NM_176807 // Folr4 // folate receptor 4 (delta) // 9 A2 // 64931 /// NM_022888 /	Folr4	NM_176807	0.671682	1.13104	0.0431822	3.69117	0.124179	3.26353
10505030	NM_176966 // Fsd1l // fibronectin type III and SPRY domain containing 1-like //	Fsd1l	NM_176966	0.135185	-1.42303	0.0260201	-2.6052	0.118446	-1.83074
10375956	NM_177059 // Fstl4 // follistatin-like 4 // 11 B1.3 // 320027 /// ENSMUST0000003	Fstl4	NM_177059	0.495334	1.25174	0.0298591	6.84402	0.101135	5.46761
10453738	NM_008058 // Fzd8 // frizzled homolog 8 (Drosophila) // 18 A1 18 2.0 cM // 14370	Fzd8	NM_008058	0.652985	-1.05183	0.0245223	-2.28017	0.0869765	-2.16781
10604944	NM_017369 // Gabre // gamma-aminobutyric acid (GABA) A receptor, subunit epsilon	Gabre	NM_017369	0.124216	-1.43467	0.027191	-2.34873	0.134054	-1.63712
10447084	NM_176963 // Galm // galactose mutarotase // 17 E3 // 319625 /// ENSMUST00000039	Galm	NM_176963	0.208329	1.17361	0.0193374	2.40187	0.0832518	2.04657
10370766	NM_010255 // Gamt // guanidinoacetate methyltransferase // 10 C1 10 43.0 cM // 1	Gamt	NM_010255	0.0874068	-1.35567	0.016868	-2.38152	0.0847588	-1.75671
10404702	NM_023887 // Gcnt2 // glucosaminyl (N-acetyl) transferase 2, l-branching enzyme	Gcnt2	NM_023887	0.0962414	-1.48122	0.0279435	-2.06268	0.168853	-1.39255
10601044	NM_023608 // Gdpd2 // glycerophosphodiester phosphodiesterase domain containing	Gdpd2	NM_023608	0.214085	1.69575	0.0206711	16.023	0.084382	9.44892
10544906	NM_026637 // Ggct // gamma-glutamyl cyclotransferase // 6 26.0 cM // 110175 ///	Ggct	NM_026637	0.128294	1.20148	0.0145433	2.64421	0.0681156	2.2008
10461652	NM_008118 // Gif // gastric intrinsic factor // 19 A // 14603 /// ENSMUST0000002	Gif	NM_008118	0.0899443	1.26092	0.0146377	2.2358	0.0786621	1.77315
10538115	NM_001077410 // Gimap8 // GTPase, IMAP family member 8 // 6 B2.3 // 243374 /// N	Gimap8	NM_001077410	0.109974	-1.58884	0.0389998	-2.07774	0.288035	-1.30771
10538123	NM_174960 // Gimap9 // GTPase, IMAP family member 9 // 6 B2.3 // 317758 /// ENSM	Gimap9	NM_174960	0.0911044	-1.62452	0.026266	-2.46243	0.155527	-1.51579
10516481	NM_008120 // Gja4 // gap junction protein, alpha 4 // 4 D2.2 4 57.6 cM // 14612	Gja4	NM_008120	0.0985593	-1.74143	0.0290372	-2.73437	0.17937	-1.57018
10391762	NM_001159382 // Gjc1 // gap junction protein, gamma 1 // 11 E1 // 14615 /// NM_0	Gjc1	NM_001159382	0.0666861	-1.5592	0.0155626	-2.80074	0.0879075	-1.79627
10385822	ENSMUST00000084653 // Gm10447 // predicted gene 10447 // --- // 100038498	Gm10447	ENSMUST00000084653	0.0941782	1.58673	0.0252099	2.52468	0.140118	1.59112
10353252	NM_001033288 // Gm106 // predicted gene 106 // 1 A3 // 226866 /// ENSMUST0000004	Gm106	NM_001033288	0.238808	-1.22338	0.0172164	4.12247	0.0681156	5.04336
10436692	ENSMUST00000099574 // Gm10791 // predicted gene 10791 // --- // 100038614	Gm10791	ENSMUST00000099574	0.345985	1.16942	0.0263563	2.68624	0.0959124	2.29707
10425265	ENSMUST00000100455 // Gm10863 // predicted gene 10863 // --- // 100038350	Gm10863	ENSMUST00000100455	0.521673	1.13548	0.0356231	2.73304	0.113028	2.40695
10382830	DQ390337 // Gm11744 // predicted gene 11744 // 11 E2 11 // 100038570 /// ENSMUST	Gm11744	DQ390337	0.759862	1.03064	0.0145433	4.06169	0.0616727	3.94093
10503376	DQ351292 // Gm11818 // predicted gene 11818 // 4 A1 4 // 208820 /// ENSMUST00000	Gm11818	DQ351292	0.0519328	-1.40915	0.0145433	-2.07242	0.0832188	-1.47069
10494757	ENSMUST00000066727 // Gm12474 // predicted gene 12474 // 3 F2.2 3 // 545557	Gm12474	ENSMUST00000066727	0.0818024	-1.72285	0.0313464	-2.13353	0.315678	-1.23837
10513362	ENSMUST00000107544 // Gm12528 // predicted gene 12528 // 4 B3 // 634731 /// ENSM	Gm12528	ENSMUST00000107544	0.143542	1.68497	0.0289253	3.83345	0.133363	2.27508
10605917	ENSMUST00000101369 // Gm14812 // predicted gene 14812 // --- // 100038584	Gm14812	ENSMUST00000101369	0.234065	1.34029	0.0445319	2.26664	0.176067	1.69116
10524221	BC147447 // Gm1679 // predicted gene 1679 // 5 F // 381667 /// NM_001033459 // G	Gm1679	BC147447	0.074201	1.50414	0.0195652	2.33639	0.106538	1.5533

10385504	NM_001024230 // Gm5431 // predicted gene 5431 // 11 B1.2 // 432555 /// ENSMUST00	Gm5431	NM_001024230	0.608135	1.09756	0.0363842	-2.52162	0.0959124	-2.76764
10439660	BC054854 // Gm609 // predicted gene 609 // 16 B5 // 208166 /// ENSMUST0000006546	Gm609	BC054854	0.584621	1.23932	0.0448172	5.43228	0.133225	4.38328
10414001	XM_985917 // Gm626 // predicted gene 626 // 14 B // 268729 /// XM_001481294 // G	Gm626	XM_985917	0.0943551	-1.71917	0.0345128	-2.257	0.289611	-1.31284
10549836	AY226991 // Gm6792 // predicted gene 6792 // 7 A1 // 627821 /// ENSMUST000001210	Gm6792	AY226991	0.874263	1.05047	0.0428501	4.05949	0.117908	3.86444
10356262	NM_001081746 // Gm7609 // predicted gene 7609 // 1 C5 // 665378 /// NM_013673 //	Gm7609	NM_001081746	0.0737166	-1.5857	0.0217034	-2.34856	0.13113	-1.48109
10434224	BC029862 // Gnb11 // guanine nucleotide binding protein (G protein), beta polype	Gnb11	BC029862	0.347922	1.18153	0.0345128	2.29734	0.120266	1.94437
10497689	NM_013531 // Gnb4 // guanine nucleotide binding protein (G protein), beta 4 // 3	Gnb4	NM_013531	0.104868	-1.64063	0.0229441	-3.33699	0.111294	-2.03397
10380571	NM_023121 // Gngt2 // guanine nucleotide binding protein (G protein), gamma tran	Gngt2	NM_023121	0.12954	-1.66215	0.0382083	-2.58418	0.221013	-1.55472
10451451	NM_010321 // Gnmt // glycine N-methyltransferase // 17 C17 10.0 cM // 14711 ///	Gnmt	NM_010321	0.114456	1.59169	0.0297049	2.58755	0.158386	1.62566
10467842	NM_010324 // Got1 // glutamate oxaloacetate transaminase 1, soluble // 19 C3 19	Got1	NM_010324	0.114734	1.46809	0.0342	2.00914	0.208802	1.36854
10404218	NM_008156 // Gpld1 // glycosylphosphatidylinositol specific phospholipase D1 //	Gpld1	NM_008156	0.179551	-1.29083	0.0258247	2.45354	0.0810976	3.1671
10422496	NM_183031 // Gpr183 // G protein-coupled receptor 183 // 14 E5 // 321019 /// ENS	Gpr183	NM_183031	0.158338	-1.39542	0.0412617	-2.01731	0.205235	-1.44566
10401109	NM_030677 // Gpx2 // glutathione peroxidase 2 // 12 C3 12 36.0 cM // 14776 ///	Gpx2	NM_030677	0.129151	-1.67011	0.040281	2.50076	0.0836674	4.17654
10376201	NM_001083929 // Gpx3 // glutathione peroxidase 3 // 11 B3-B5 // 14778 /// NM_008	Gpx3	NM_001083929	0.139476	-1.15588	0.0150723	-2.05942	0.0770679	-1.78169
10592471	NM_172768 // Gramd1b // GRAM domain containing 1B // 9 B // 235283 /// ENSMUST00	Gramd1b	NM_172768	0.0898391	1.4415	0.0203471	2.43818	0.1008	1.69142
10504504	NM_080289 // Grhpr // glyoxylate reductase/hydroxypyruvate reductase // 4 B2 //	Grhpr	NM_080289	0.102888	1.41691	0.0183408	2.92644	0.0871621	2.06537
10528145	NM_181850 // Grm3 // glutamate receptor, metabotropic 3 // 5 A1 // 108069 /// EN	Grm3	NM_181850	0.877546	1.08053	0.0446603	8.87683	0.121055	8.21525
10459236	NM_021296 // Grpel2 // GrpE-like 2, mitochondrial // 18 D3 // 17714 /// ENSMUST0	Grpel2	NM_021296	0.0702307	1.35448	0.0145433	2.29575	0.0814114	1.69493
10501199	NM_026672 // Gstm7 // glutathione S-transferase, mu 7 // 3 F2.3 // 68312 /// ENS	Gstm7	NM_026672	0.0939119	-1.56484	0.0129996	12.8491	0.05086	20.1069
10534253	NM_001081462 // Gtf2ird1 // general transcription factor II I repeat domain-cont	Gtf2ird1	NM_001081462	0.251033	1.1887	0.0301845	2.02486	0.113527	1.70343
10386633	NR_027800 // Gtlf3a // gene trap locus F3a // 11 B2 // 24082 /// BC031537 // Gtl	Gtlf3a	NR_027800	0.346657	1.11727	0.0244946	2.14429	0.093068	1.91921
10507671	NM_008190 // Guca2a // guanylate cyclase activator 2a (guanylin) // 4 D2.1 4 57.	Guca2a	NM_008190	0.304422	1.3509	0.0197419	9.92803	0.0828937	7.34922
10468562	NM_001081076 // Gucy2g // guanylate cyclase 2g // 19 D2 19 53.0 cM // 73707 ///	Gucy2g	NM_001081076	0.641542	1.19801	0.0407975	6.16388	0.120656	5.14509
10420899	NM_178747 // Gulo // gulonolactone (L-) oxidase // 14 D1 // 268756 /// ENSMUST00	Gulo	NM_178747	0.169161	1.30086	0.0129996	21.4014	0.052094	16.4518
10566574	NM_029000 // Gvin1 // GTPase, very large interferon inducible 1 // 7 E3 // 74558	Gvin1	NM_029000	0.184616	-1.72959	0.0414352	-3.73238	0.184036	-2.15796
10450704	NM_008199 // H2-BI // histocompatibility 2, blastocyst // 17 B1 17 19.0 cM // 14	H2-BI	NM_008199	0.77534	1.04765	0.0240468	3.4253	0.0836674	3.2695
10444824	NM_207648 // H2-Q6 // histocompatibility 2, Q region locus 6 // 17 B1 17 19.18 c	H2-Q6	NM_207648	0.270285	-1.29778	0.0297049	-3.16617	0.109635	-2.43967
10450735	NM_008208 // H2-T3 // histocompatibility 2, T region locus 3 // 17 B1 17 20.03 c	H2-T3	NM_008208	0.28213	1.21757	0.0220698	3.44121	0.0865224	2.82631
10464113	NM_146101 // Habp2 // hyaluronic acid binding protein 2 // 19 D2 // 226243 /// E	Habp2	NM_146101	0.284256	1.24932	0.0161973	6.97775	0.0748152	5.58522
10391084	NM_010404 // Hap1 // huntingtin-associated protein 1 // 11 D 11 60.0 cM // 15114	Hap1	NM_010404	0.142593	1.40315	0.0365602	2.03613	0.187317	1.45112
10368092	NM_019487 // Hebp2 // heme binding protein 2 // 10 A2 // 56016 /// ENSMUST000000	Hebp2	NM_019487	0.906856	-1.02281	0.0416011	2.39986	0.108424	2.45459
10538590	ENSMUST00000031817 // Herc5 // hect domain and RLD 5 // 6 C1 6 // 67138 /// ENSM	Herc5	ENSMUST00000031817	0.149371	-1.37586	0.0325427	-2.14522	0.151319	-1.55919
10394082	NM_001001333 // Hexdc // hexosaminidase (glycosyl hydrolase family 20, catalytic	Hexdc	NM_001001333	0.0771575	1.48376	0.0213316	2.18338	0.120266	1.47152
10435626	NM_013547 // Hgd // homogentisate 1, 2-dioxygenase // 16 B3 16 27.3 cM // 15233	Hgd	NM_013547	0.455282	1.15819	0.0217332	4.77955	0.0832518	4.12674
10383479	NM_016660 // Hmga1 // high mobility group AT-hook 1 // 17 A3.3 17 13.19 cM // 15	Hmga1	NM_016660	0.199256	1.39991	0.0499233	2.1158	0.229335	1.51139
10530819	NM_175606 // Hopx // HOP homeobox // 5 C3.3 // 74318 /// NM_001159900 // Hopx //	Hopx	NM_175606	0.105727	-1.60485	0.0298344	-2.43681	0.174475	-1.5184
10581605	NM_017370 // Hp // haptoglobin // 8 D3 8 55.0 cM // 15439 /// ENSMUST00000074898	Hp	NM_017370	0.263051	1.17409	0.018663	-3.12795	0.0681156	-3.6725
10399671	NM_016677 // Hpcal1 // hippocalcin-like 1 // 12 A1.1-A1.2 // 53602 /// ENSMUST00	Hpcal1	NM_016677	0.300379	1.20622	0.0360982	2.1856	0.129445	1.81193
10361234	NM_008288 // Hsd11b1 // hydroxysteroid 11-beta dehydrogenase 1 // 1 H6 // 15483	Hsd11b1	NM_008288	0.147615	-1.4655	0.0203471	-4.37966	0.0879075	-2.98851
10575833	NM_008290 // Hsd17b2 // hydroxysteroid (17-beta) dehydrogenase 2 // 8 E1 // 1548	Hsd17b2	NM_008290	0.330926	1.28899	0.0380071	3.06115	0.132452	2.37485
10574659	NM_011939 // Hsf4 // heat shock transcription factor 4 // 8 D1 // 26386 /// AB02	Hsf4	NM_011939	0.122531	1.49421	0.0360982	2.09837	0.213802	1.40434

10429580	ENSMUST00000100541 // I830127L07Rik // RIKEN cDNA I830127L07 gene // 15 D3 // 54	I830127L07Rik	ENSMUST00000100541	0.331538	-1.21786	0.0336297	2.60267	0.0890754	3.16968
10394914	NM_026347 // lah1 // isoamyl acetate-hydrolyzing esterase 1 homolog (S. cerevisi	lah1	NM_026347	0.206218	1.31875	0.0192257	4.60495	0.0832518	3.49192
10399691	NM_010496 // Id2 // inhibitor of DNA binding 2 // 12 B 12 7.0 cM // 15902 /// EN	Id2	NM_010496	0.0492692	1.66443	0.0146545	2.25763	0.107708	1.3564
10604906	NM_010498 // Ids // iduronate 2-sulfatase // X A7.1 X 27.0 cM // 15931 /// NM_00	Ids	NM_010498	0.0713119	-1.6285	0.0193374	-2.66264	0.108385	-1.63502
10397975	NM_026790 // Ifi2711 // interferon, alpha-inducible protein 27 like 1 // 12 E 12	Ifi2711	NM_026790	0.073422	-1.30385	0.0153364	-2.0056	0.0832518	-1.53821
10347277	NM_008342 // Igfbp2 // insulin-like growth factor binding protein 2 // 1 C3 1 36	Igfbp2	NM_008342	0.0401377	-1.5884	0.0129996	-2.85051	0.052094	-1.79457
10355312	NM_011770 // Ikzf2 // IKAROS family zinc finger 2 // 1 C3 // 22779 /// ENSMUST00	Ikzf2	NM_011770	0.149837	-1.31481	0.0240901	-2.4121	0.103992	-1.83456
10499655	NM_010559 // Il6ra // interleukin 6 receptor, alpha // 3 F1 3 42.1 cM // 16194 /	Il6ra	NM_010559	0.162526	-1.49053	0.0412247	-2.36438	0.200915	-1.58627
10407173	NM_010560 // Il6st // interleukin 6 signal transducer // 13 D2.2 13 67.0 cM // 1	Il6st	NM_010560	0.0697256	-1.46437	0.0190918	-2.15982	0.106538	-1.47492
10544932	NM_009349 // Inmt // indolethylamine N-methyltransferase // 6 B3 // 21743 /// EN	Inmt	NM_009349	0.0511051	-1.74852	0.0129996	-5.3138	0.0614248	-3.03902
10587495	NM_022986 // Irak1bp1 // interleukin-1 receptor-associated kinase 1 binding prot	Irak1bp1	NM_022986	0.173912	-1.58716	0.0465173	-2.61818	0.231106	-1.6496
10433114	NM_010577 // Itga5 // integrin alpha 5 (fibronectin receptor alpha) // 15 F3 15	Itga5	NM_010577	0.086209	-1.71057	0.0304394	-2.26544	0.249397	-1.32438
10557591	NM_008400 // Itgal // integrin alpha L // 7 F3 7 60.0 cM // 16408 /// ENSMUST000	Itgal	NM_008400	0.0752669	-1.65007	0.0197419	-2.84375	0.106902	-1.72341
10435305	NM_001145884 // Itgb5 // integrin beta 5 // 16 B3 // 16419 /// NM_010580 // Itgb	Itgb5	NM_001145884	0.0662472	-1.42386	0.0171478	-2.10456	0.0959124	-1.47807
10385428	NM_010583 // Itk // IL2-inducible T-cell kinase // 11 B1.1 11 22.0 cM // 16428 /	Itk	NM_010583	0.0985952	-1.68859	0.0319362	-2.40077	0.221464	-1.42177
10443131	NM_080553 // Itpr3 // inositol 1,4,5-triphosphate receptor 3 // 17 A3.3 17 19.0	Itpr3	NM_080553	0.0619232	1.72386	0.0179363	2.73827	0.108385	1.58845
10436892	NM_010587 // Itsn1 // intersectin 1 (SH3 domain protein 1A) // 16 C3.3-C4 // 164	Itsn1	NM_010587	0.0720302	-1.6489	0.0246614	-2.16955	0.193614	-1.31575
10436666	NM_023844 // Jam2 // junction adhesion molecule 2 // 16 C3.3 // 67374 /// ENSMUS	Jam2	NM_023844	0.403178	-1.17716	0.032263	-2.744	0.108912	-2.33103
10591967	NM_023277 // Jam3 // junction adhesion molecule 3 // 9 A4 // 83964 /// ENSMUST00	Jam3	NM_023277	0.0733305	-1.69047	0.027084	-2.11118	0.262798	-1.24887
10548051	NM_013568 // Kcna6 // potassium voltage-gated channel, shaker-related, subfamily	Kcna6	NM_013568	0.355123	1.08802	0.0145433	3.09601	0.0681156	2.84554
10555297	NM_020574 // Kcne3 // potassium voltage-gated channel, Isk-related subfamily, ge	Kcne3	NM_020574	0.20572	1.10292	0.0129996	4.57997	0.05086	4.15258
10468113	NM_145703 // Kcnip2 // Kv channel-interacting protein 2 // 19 D1 19 45.2 cM // 8	Kcnip2	NM_145703	0.146861	1.13821	0.0145433	2.10579	0.0687496	1.85008
10418053	NM_010610 // Kcnma1 // potassium large conductance calcium-activated channel, su	Kcnma1	NM_010610	0.468982	-1.06951	0.0206779	2.19079	0.0770679	2.34308
10559276	NM_008434 // Kcnq1 // potassium voltage-gated channel, subfamily Q, member 1 //	Kcnq1	NM_008434	0.0735452	1.4562	0.0193374	2.18708	0.106538	1.50191
10555059	NM_001012434 // Kctd14 // potassium channel tetramerisation domain containing 14	Kctd14	NM_001012434	0.0960402	1.39666	0.0248489	2.00142	0.134482	1.433
10585338	NM_212445 // Kdelc2 // KDEL (Lys-Asp-Glu-Leu) containing 2 // 9 A5.3 // 68304 //	Kdelc2	NM_212445	0.110753	-1.68058	0.0442625	-2.11149	0.383903	-1.2564
10545308	NM_001038695 // Kdm3a // lysine (K)-specific demethylase 3A // 6 C1 // 104263 //	Kdm3a	NM_001038695	0.230358	1.37985	0.0400991	2.63067	0.154231	1.90649
10424559	NM_010158 // Khdrbs3 // KH domain containing, RNA binding, signal transduction a	Khdrbs3	NM_010158	0.0447743	-1.67408	0.0145433	-2.14483	0.117242	-1.2812
10520612	NM_008439 // Khk // ketohexokinase // 5 B1 5 18.1 cM // 16548 /// ENSMUST00000003	Khk	NM_008439	0.150506	1.48638	0.0298591	2.80732	0.135709	1.88869
10352000	NM_133809 // Kmo // kynurenine 3-monooxygenase (kynurenine 3-hydroxylase) // 1 H	Kmo	NM_133809	0.24578	-1.68838	0.0465484	-4.40175	0.181735	-2.60708
10432682	NM_028770 // Krt80 // keratin 80 // 15 F3 15 // 74127 /// ENSMUST00000077196 //	Krt80	NM_028770	0.0708059	-1.67377	0.0253481	-2.14759	0.219783	-1.28308
10521709	NM_024434 // Lap3 // leucine aminopeptidase 3 // 5 B3 5 67.0 cM // 66988 /// ENS	Lap3	NM_024434	0.0764502	1.69398	0.0267029	2.22687	0.222181	1.31458
10496091	NM_010703 // Lef1 // lymphoid enhancer binding factor 1 // 3 G3 3 61.6 cM // 168	Lef1	NM_010703	0.0519328	-1.42893	0.0129996	3.28821	0.05086	4.69861
10438753	NM_173379 // Leprel1 // leprecan-like 1 // 16 B1 // 210530 /// ENSMUST0000003999	Leprel1	NM_173379	0.210489	-1.32676	0.0312983	-2.59862	0.124233	-1.95862
10527012	NM_008494 // Lfng // LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferas	Lfng	NM_008494	0.0514276	-1.65257	0.0183797	-2.01353	0.173218	-1.21843
10425161	NM_008495 // Lgals1 // lectin, galactose binding, soluble 1 // 15 E 15 44.9 cM /	Lgals1	NM_008495	0.127944	-1.54707	0.031631	-2.54511	0.160653	-1.64512
10372503	NM_010195 // Lgr5 // leucine rich repeat containing G protein coupled receptor 5	Lgr5	NM_010195	0.923398	1.01246	0.0129996	12.6279	0.052094	12.4725
10491970	NM_175386 // Lhfp // lipoma HMGIC fusion partner // 3 C // 108927 /// BC052079 /	Lhfp	NM_175386	0.115991	-1.4472	0.0171478	-3.93258	0.0832188	-2.71737
10520043	NM_029990 // Lhfp13 // lipoma HMGIC fusion partner-like 3 // 5 A3 // 269629 ///	Lhfp13	NM_029990	0.461931	1.10147	0.0145433	5.44992	0.0681156	4.94785
10432540	NM_001113545 // Lima1 // LIM domain and actin binding 1 // 15 F1 15 60.4 cM // 6	Lima1	NM_001113545	0.17321	-1.34569	0.0382638	-2.04354	0.171594	-1.51858
10366229	NM_001039354 // Lin7a // lin-7 homolog A (C. elegans) // 10 D1 // 108030 /// NM_	Lin7a	NM_001039354	0.502507	1.14796	0.0413213	2.5311	0.12859	2.20486

10394812	XR_034974 // LOC677548 // similar to Hippocalcin-like protein 1 (Visinin-like pr	LOC677548	XR_034974	0.257233	1.20282	0.028203	2.25885	0.106538	1.87796
10394819	XR_034974 // LOC677548 // similar to Hippocalcin-like protein 1 (Visinin-like pr	LOC677548	XR_034974	0.149235	1.38469	0.0346293	2.09671	0.16581	1.51421
10499870	NM_008508 // Lor // lorocrin // 3 F1 3 42.1 cM // 16939 /// ENSMUST00000058150 /	Lor	NM_008508	0.194043	1.2735	0.0215355	3.05015	0.0883205	2.39509
10594066	NM_010729 // Loxl1 // lysyl oxidase-like 1 // 9 B 9 33.0 cM // 16949 /// ENSMUST	Loxl1	NM_010729	0.280929	-1.38458	0.0462015	-2.854	0.16787	-2.06127
10502778	NM_001081298 // Lphn2 // latrophilin 2 // 3 H3 // 99633 /// ENSMUST00000106127 /	Lphn2	NM_001081298	0.0701632	-1.46833	0.0164403	-2.44311	0.0916599	-1.66387
10502780	NM_001081298 // Lphn2 // latrophilin 2 // 3 H3 // 99633 /// ENSMUST00000106127 /	Lphn2	NM_001081298	0.111234	-1.2696	0.0206475	-2.01325	0.0959124	-1.58574
10502776	NM_001081298 // Lphn2 // latrophilin 2 // 3 H3 // 99633 /// ENSMUST00000106127 /	Lphn2	NM_001081298	0.126057	-1.35067	0.0264166	-2.11114	0.125718	-1.56303
10502774	NM_001081298 // Lphn2 // latrophilin 2 // 3 H3 // 99633 /// ENSMUST00000106127 /	Lphn2	NM_001081298	0.193293	-1.32838	0.0360564	-2.20203	0.149175	-1.65768
10546510	NM_008377 // Lrig1 // leucine-rich repeats and immunoglobulin-like domains 1 //	Lrig1	NM_008377	0.639622	-1.11278	0.0338088	3.45234	0.0959124	3.8417
10373223	NM_008512 // Lrp1 // low density lipoprotein receptor-related protein 1 // 10 B2	Lrp1	NM_008512	0.0483445	-1.58467	0.0146213	-2.06501	0.108912	-1.30311
10473880	NM_172668 // Lrp4 // low density lipoprotein receptor-related protein 4 // 2 E1	Lrp4	NM_172668	0.0846769	-1.27385	0.0145433	-2.50351	0.0691498	-1.9653
10525575	NM_001033461 // Lrrc43 // leucine rich repeat containing 43 // 5 F // 381741 ///	Lrrc43	NM_001033461	0.0655878	-1.74051	0.0263783	-2.04305	0.340312	-1.17382
10566043	NM_001162974 // Lrrc51 // leucine rich repeat containing 51 // 7 F1 // 69358 ///	Lrrc51	NM_001162974	0.135495	-1.56936	0.0326721	-2.6878	0.162834	-1.71268
10540401	NM_008516 // Lrrn1 // leucine rich repeat protein 1, neuronal // 6 E1 // 16979 /	Lrrn1	NM_008516	0.921716	-1.02591	0.0138876	61.2177	0.0614248	62.8039
10498576	NM_016753 // Lxn // latexin // 3 E1 3 31.6 cM // 17035 /// ENSMUST00000058981 //	Lxn	NM_016753	0.207719	-1.32283	0.0360982	-2.2934	0.145341	-1.7337
10429564	NM_010738 // Ly6a // lymphocyte antigen 6 complex, locus A // 15 D3 15 42.7 cM /	Ly6a	NM_010738	0.185327	-1.29464	0.0303108	-2.22901	0.124947	-1.72172
10424683	ENSMUST00000023246 // Ly6g // lymphocyte antigen 6 complex, locus G // 15 D3 //	Ly6g	ENSMUST00000023246	0.714658	-1.13664	0.0183213	35.8085	0.0727608	40.7015
10503098	NM_001111096 // Lyn // Yamaguchi sarcoma viral (v-yes-1) oncogene homolog // 4 A	Lyn	NM_001111096	0.114286	-1.27386	0.0203807	-2.09118	0.0945669	-1.6416
10360914	NM_146106 // Lyplal1 // lysophospholipase-like 1 // 1 H5 // 226791 /// ENSMUST00	Lyplal1	NM_146106	0.124374	1.53866	0.0264755	2.8654	0.128052	1.86226
10599962	NM_001081354 // Mamld1 // mastermind-like domain containing 1 // X A7.2 // 33363	Mamld1	NM_001081354	0.142093	-1.53576	0.0469746	-2.10179	0.289725	-1.36856
10369154	NM_008548 // Man1a // mannosidase 1, alpha // 10 B3 // 17155 /// ENSMUST000000003	Man1a	NM_008548	0.852766	-1.05851	0.0419605	-4.09704	0.116906	-3.87058
10598771	NM_173740 // Maa // monoamine oxidase A // X A2 X 5.2 cM // 17161 /// ENSMUST00	Maa	NM_173740	0.10027	-1.62781	0.0286866	-2.47454	0.171082	-1.52016
10355474	NM_001045533 // March4 // membrane-associated ring finger (C3HC4) 4 // 1 C3 // 3	March4	NM_001045533	0.0789968	-1.51324	0.018188	-2.70483	0.09514	-1.78744
10357261	NM_010766 // Marco // macrophage receptor with collagenous structure // 1 E4-F /	Marco	NM_010766	0.239342	1.17415	0.0263563	2.0312	0.103017	1.72993
10414211	NM_010775 // Mbl1 // mannose-binding lectin (protein A) 1 // 14 B 14 15.0 cM //	Mbl1	NM_010775	0.0943551	1.74541	0.0364923	2.22756	0.333187	1.27624
10406434	NM_025282 // Mef2c // myocyte enhancer factor 2C // 13 C3 13 45.0 cM // 17260 //	Mef2c	NM_025282	0.151604	-1.57245	0.0312221	-3.14082	0.141305	-1.9974
10376778	NM_029568 // Mfap4 // microfibrillar-associated protein 4 // 11 B2 11 34.35 cM /	Mfap4	NM_029568	0.351057	-1.67647	0.0416786	-9.57786	0.140118	-5.71311
10541496	NM_015776 // Mfap5 // microfibrillar associated protein 5 // 6 F1 // 50530 /// E	Mfap5	NM_015776	0.771759	-1.03984	0.0153167	-5.1331	0.0681156	-4.93644
10548879	NM_008597 // Mgp // matrix Gla protein // 6 G1 // 17313 /// ENSMUST00000032342 /	Mgp	NM_008597	0.0952433	-1.26459	0.0140999	-2.85768	0.0681156	-2.25977
10535103	NM_174850 // Micall2 // MICAL-like 2 // 5 G2 // 231830 /// ENSMUST00000044642 //	Micall2	NM_174850	0.0792345	1.66346	0.023305	2.54854	0.140367	1.53208
10392970	NM_027162 // Mif4gd // MIF4G domain containing // 11 E2 // 69674 /// ENSMUST0000	Mif4gd	NM_027162	0.0519708	1.73567	0.0146213	2.77344	0.09514	1.5979
10492355	NM_008604 // Mme // membrane metallo endopeptidase // 3 E1 3 29.6 cM // 17380 //	Mme	NM_008604	0.523853	-1.32384	0.0314749	-11.7896	0.104496	-8.90559
10583133	NM_010810 // Mmp7 // matrix metallopeptidase 7 // 9 A1 9 1.0 cM // 17393 /// ENS	Mmp7	NM_010810	0.71267	1.10033	0.0145433	49.0699	0.0614248	44.5955
10565786	NM_177448 // Mogat2 // monoacylglycerol O-acyltransferase 2 // 7 E2 // 233549 //	Mogat2	NM_177448	0.185327	1.40957	0.0253631	3.52849	0.104174	2.50324
10584835	NM_176993 // Mpzl3 // myelin protein zero-like 3 // 9 A5.2 // 319742 /// NM_0010	Mpzl3	NM_176993	0.0967759	1.73856	0.0243307	3.27136	0.129019	1.88164
10381898	NM_008626 // Mrc2 // mannose receptor, C type 2 // 11 E1 // 17534 /// ENSMUST000	Mrc2	NM_008626	0.0940106	-1.37152	0.0153364	-2.91037	0.0814114	-2.12199
10382565	NM_025305 // Mrps7 // mitochondrial ribosomal protein S7 // 11 E2 // 50529 /// EN	Mrps7	NM_025305	0.138867	1.07682	0.0129996	2.50647	0.05086	2.32766
10505894	NM_024433 // Mtap // methylthioadenosine phosphorylase // 4 C4 // 66902 /// ENSM	Mtap	NM_024433	0.0526311	1.53368	0.0145433	2.52961	0.0830469	1.64937
10589438	NM_008633 // Mtap4 // microtubule-associated protein 4 // 9 F2 9 58.0 cM // 1775	Mtap4	NM_008633	0.0406821	-1.64612	0.0129996	-2.31209	0.0772822	-1.40457
10578324	NM_001005863 // Mtus1 // mitochondrial tumor suppressor 1 // 8 A4 // 102103 ///	Mtus1	NM_001005863	0.0975459	-1.69821	0.0386345	-2.129	0.352874	-1.25367
10511180	NM_024263 // Mxra8 // matrix-remodelling associated 8 // 4 E2 4 83.0 cM // 74761	Mxra8	NM_024263	0.0478867	-1.66789	0.0134031	-3.21975	0.071081	-1.93043

10399421	NM_008709 // Mycn // v-myc myelocytomatosis viral related oncogene, neuroblastom	Mycn	NM_008709	0.145521	1.64808	0.0325427	3.22383	0.153489	1.95611
10379840	BC007156 // Myo19 // myosin XIX // 11 B5 // 66196 /// ENSMUST00000093969 // Myo1	Myo19	BC007156	0.112728	1.34561	0.0233937	2.15555	0.108385	1.60192
10585956	NM_173018 // Myo9a // myosin IXa // 9 B // 270163 /// ENSMUST00000085572 // Myo9	Myo9a	NM_173018	0.169725	-1.10404	0.0140999	-2.11809	0.0632074	-1.9185
10585978	NM_173018 // Myo9a // myosin IXa // 9 B // 270163 /// ENSMUST00000085572 // Myo9	Myo9a	NM_173018	0.176055	-1.31705	0.0289253	-2.3378	0.12205	-1.77503
10585988	NM_173018 // Myo9a // myosin IXa // 9 B // 270163 /// ENSMUST00000085572 // Myo9	Myo9a	NM_173018	0.592244	-1.10547	0.040714	-2.3933	0.122269	-2.16496
10585972	NM_173018 // Myo9a // myosin IXa // 9 B // 270163 /// ENSMUST00000085572 // Myo9	Myo9a	NM_173018	0.146292	-1.36291	0.0289237	-2.24952	0.132452	-1.65052
10585984	NM_173018 // Myo9a // myosin IXa // 9 B // 270163 /// ENSMUST00000085572 // Myo9	Myo9a	NM_173018	0.16967	-1.3706	0.0318992	-2.36592	0.138772	-1.72619
10585990	NM_173018 // Myo9a // myosin IXa // 9 B // 270163	Myo9a	NM_173018	0.391848	-1.19655	0.0439847	-2.33045	0.142491	-1.94763
10407940	ENSMUST00000103563 // Naip3 // NLR family, apoptosis inhibitory protein 3 // 13	Naip3	ENSMUST00000103563	0.402041	-1.47549	0.0428205	-6.87387	0.138656	-4.65869
10414460	NM_001081430 // Nat12 // N-acetyltransferase 12 // 14 C1 // 70646 /// ENSMUST000	Nat12	NM_001081430	0.850286	-1.01978	0.0241649	2.17026	0.0832518	2.21318
10372342	NM_001081035 // Nav3 // neuron navigator 3 // 10 D1 // 260315 /// ENSMUST00000003	Nav3	NM_001081035	0.718975	1.07994	0.042741	2.64732	0.122269	2.45135
10459089	NM_008306 // Ndst1 // N-deacetylase/N-sulfotransferase (heparan glucosaminy) 1	Ndst1	NM_008306	0.110203	-1.72057	0.0362328	-2.47357	0.247789	-1.43765
10596327	NM_172461 // Nek11 // NIMA (never in mitosis gene a)-related expressed kinase 11	Nek11	NM_172461	0.0510291	-1.53354	0.0145433	-2.27718	0.0856819	-1.48491
10594110	NM_008684 // Neo1 // neogenin // 9 B // 18007 /// NM_001042752 // Neo1 // neogen	Neo1	NM_008684	0.292899	-1.40698	0.0299017	-5.05053	0.108385	-3.58963
10573779	NM_027280 // Nkd1 // naked cuticle 1 homolog (Drosophila) // 8 C4 // 93960 /// E	Nkd1	NM_027280	0.220428	1.37799	0.0405842	2.49374	0.160662	1.8097
10410547	NM_028186 // Nkd2 // naked cuticle 2 homolog (Drosophila) // 13 C1 // 72293 ///	Nkd2	NM_028186	0.153627	-1.44932	0.0380621	-2.24255	0.186567	-1.54731
10574149	FJ889356 // Nlrc5 // NLR family, CARD domain containing 5 // 8 C5 // 434341	Nlrc5	FJ889356	0.167941	-1.64757	0.0418143	-2.98929	0.199678	-1.81436
10566709	NM_175532 // Nlrp10 // NLR family, pyrin domain containing 10 // 7 E3 // 244202	Nlrp10	NM_175532	0.265173	1.28122	0.0258247	3.45028	0.0965097	2.69297
10574676	NM_030152 // Nol3 // nucleolar protein 3 (apoptosis repressor with CARD domain)	Nol3	NM_030152	0.17749	-1.28459	0.0307736	-2.09224	0.130508	-1.62872
10449775	NM_008716 // Notch3 // Notch gene homolog 3 (Drosophila) // 17 B1 17 20.0 cM //	Notch3	NM_008716	0.0417339	-1.56285	0.0129996	-2.10836	0.0825609	-1.34904
10393904	NM_175263 // Notum // notum pectinacetyltransferase homolog (Drosophila) // 11 E2 /	Notum	NM_175263	0.378848	-1.32014	0.047067	3.3158	0.103543	4.37731
10448690	NM_001099664 // Npw // neuropeptide W // 17 A3.3 // 381073 /// ENSMUST0000009554	Npw	NM_001099664	0.759457	-1.04642	0.0342595	-2.21381	0.104704	-2.1156
10498965	NM_008731 // Npy2r // neuropeptide Y receptor Y2 // 3 E3 3 36.0 cM // 18167 ///	Npy2r	NM_008731	0.41348	1.57	0.0218489	70.4305	0.0832518	44.8602
10391963	NM_008740 // Nsf // N-ethylmaleimide sensitive fusion protein // 11 E1 11 63.0 c	Nsf	NM_008740	0.295739	1.2346	0.0318324	2.60048	0.115809	2.10633
10501468	NM_030699 // Ntng1 // netrin G1 // 3 F3 // 80883 /// ENSMUST00000106575 // Ntng1	Ntng1	NM_030699	0.439785	1.19221	0.0173412	9.89084	0.076701	8.29623
10562480	NM_033080 // Nudt19 // nudix (nucleoside diphosphate linked moiety X)-type motif	Nudt19	NM_033080	0.144192	1.38663	0.0363259	2.00907	0.183151	1.44889
10533213	NM_145226 // Oas3 // 2'-5' oligoadenylate synthetase 3 // 5 F 5 67.1 cM // 24672	Oas3	NM_145226	0.176477	1.37139	0.0433257	2.02534	0.202426	1.47685
10500808	NM_133859 // Olfr644 // olfactomedin-like 3 // 3 F2.2 // 99543 /// ENSMUST00000002	Olfr644	NM_133859	0.139367	-1.4273	0.0147381	-6.24681	0.0737683	-4.37667
10566300	NM_147121 // Olfr644 // olfactory receptor 644 // --- // 259125 /// ENSMUST000000	Olfr644	NM_147121	0.264835	1.42152	0.0336297	3.94402	0.124907	2.77451
10479833	NM_181848 // Optn // optineurin // 2 A1 2 0.5 cM // 71648 /// ENSMUST00000114996	Optn	NM_181848	0.116616	1.53293	0.0312221	2.34585	0.170563	1.53031
10573615	NM_019716 // Orc6l // origin recognition complex, subunit 6-like (S. cerevisiae)	Orc6l	NM_019716	0.357969	1.12223	0.0263563	2.12443	0.0959124	1.89305
10532346	NM_153400 // P2rx2 // purinergic receptor P2X, ligand-gated ion channel, 2 // 5	P2rx2	NM_153400	0.0991349	1.4348	0.0129996	11.3604	0.0535018	7.91771
10493235	NM_198410 // Paqr6 // progesterone and adipoQ receptor family member VI // 3 F1 //	Paqr6	NM_198410	0.459928	1.09673	0.0179149	3.42568	0.0770679	3.12355
10416700	NM_001013753 // Pcdh17 // protocadherin 17 // 14 D3 // 219228 /// ENSMUST00000007	Pcdh17	NM_001013753	0.0755466	-1.70897	0.0263563	-2.26848	0.215675	-1.3274
10455054	NM_053128 // Pcdhb3 // protocadherin beta 3 // --- // 93874 /// ENSMUST000000517	Pcdhb3	NM_053128	0.0513591	-1.59664	0.0145433	-2.4466	0.0883205	-1.53234
10455071	NM_053132 // Pcdhb7 // protocadherin beta 7 // 18 B3 // 93878 /// ENSMUST00000005	Pcdhb7	NM_053132	0.107244	-1.47885	0.0287735	-2.16241	0.159858	-1.46223
10455080	NM_053134 // Pcdhb9 // protocadherin beta 9 // 18 B3 // 93880 /// ENSMUST00000005	Pcdhb9	NM_053134	0.126883	-1.64989	0.0263563	-3.53613	0.123729	-2.14325
10357676	NM_008795 // Pctk3 // PCTAIRE-motif protein kinase 3 // 1 E4 // 18557 /// ENSMUS	Pctk3	NM_008795	0.12175	1.37805	0.0217718	2.60316	0.0965097	1.88901
10492689	NM_019971 // Pdgfr // platelet-derived growth factor, C polypeptide // 3 E3 // 5	Pdgfr	NM_019971	0.92677	1.01801	0.0473798	2.21935	0.124179	2.18008
10522503	NM_011058 // Pdgfra // platelet derived growth factor receptor, alpha polypeptid	Pdgfra	NM_011058	0.0920152	-1.57425	0.0150389	-4.64419	0.0814114	-2.95009
10456046	NM_001146268 // Pdgfrb // platelet derived growth factor receptor, beta polypept	Pdgfrb	NM_001146268	0.188694	-1.42584	0.0307835	-3.01097	0.127184	-2.11171

10467420	NM_016861 // Pdlim1 // PDZ and LIM domain 1 (elfin) // 19 D1 // 54132 /// ENSMUS	Pdlim1	NM_016861	0.279703	-1.33655	0.0253481	-4.69524	0.0959124	-3.51295
10520950	NM_016861 // Pdlim1 // PDZ and LIM domain 1 (elfin) // 19 D1 // 54132 /// ENSMUS	Pdlim1	NM_016861	0.400037	-1.2925	0.035304	-4.33534	0.119123	-3.35424
10385903	NM_019417 // Pdlim4 // PDZ and LIM domain 4 // 11 B1.3 11 28.5 cM // 30794 /// E	Pdlim4	NM_019417	0.813701	1.06308	0.0481414	2.9183	0.129931	2.74514
10518147	NM_010329 // Pdpn // podoplanin // 4 E1 // 14726 /// ENSMUST0000030317 // Pdpn	Pdpn	NM_010329	0.0892729	-1.4844	0.0145369	-4.93233	0.0681156	-3.32277
10494536	NM_021517 // Pdzk1 // PDZ domain containing 1 // 3 F2.1 // 59020 /// NM_00114600	Pdzk1	NM_021517	0.709783	1.07977	0.027084	3.88482	0.093068	3.59781
10414417	NM_033602 // Peli2 // pellino 2 // 14 C1 14 16.5 cM // 93834 /// ENSMUST00000073	Peli2	NM_033602	0.138436	-1.55458	0.0402638	-2.31954	0.224728	-1.49206
10589329	NM_173019 // Pfkfb4 // 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4 //	Pfkfb4	NM_173019	0.113215	1.49847	0.0291634	2.29948	0.155027	1.53455
10370376	NM_008826 // Pfk1 // phosphofructokinase, liver, B-type // 10 C1 10 41.7 cM // 1	Pfk1	NM_008826	0.114919	1.65077	0.0318421	2.63746	0.180314	1.59772
10527940	NM_011074 // Pftk1 // PFTAIRe protein kinase 1 // 5 A1 5 0.0 cM // 18647 /// ENS	Pftk1	NM_011074	0.214732	-1.42452	0.042116	-2.61884	0.170311	-1.8384
10463168	NM_023418 // Pgam1 // phosphoglycerate mutase 1 // 19 C3 // 18648 /// ENSMUST000	Pgam1	NM_023418	0.337315	1.20563	0.0472452	2.03467	0.158726	1.68763
10561302	NM_023418 // Pgam1 // phosphoglycerate mutase 1 // 19 C3 // 18648 /// ENSMUST000	Pgam1	NM_023418	0.337315	1.20563	0.0472452	2.03467	0.158726	1.68763
10445718	NM_025973 // Pgc // progastricsin (pepsinogen C) // 17 C 17 30.0 cM // 109820 //	Pgc	NM_025973	0.563701	1.30236	0.0226132	37.435	0.0832518	28.7439
10366346	NM_009344 // Phlda1 // pleckstrin homology-like domain, family A, member 1 // 10	Phlda1	NM_009344	0.327112	1.20089	0.0261698	3.02114	0.0959124	2.51575
10592891	NM_153537 // Phldb1 // pleckstrin homology-like domain, family B, member 1 // 9	Phldb1	NM_153537	0.0913343	-1.62268	0.0301839	-2.20562	0.217968	-1.35925
10349834	BC132141 // Pik3c2b // phosphoinositide-3-kinase, class 2, beta polypeptide // 1	Pik3c2b	BC132141	0.0607769	1.46438	0.0145433	2.61575	0.0814114	1.78625
10523727	NM_008861 // Pkd2 // polycystic kidney disease 2 // 5 E5 5 55.0 cM // 18764 ///	Pkd2	NM_008861	0.14089	-1.53278	0.0327241	-2.63636	0.157935	-1.71999
10439442	NM_134102 // Pla1a // phospholipase A1 member A // 16 B4 16 28.4 cM // 85031 ///	Pla1a	NM_134102	0.0549197	1.64801	0.0160213	2.40392	0.106538	1.45868
10496015	NM_183423 // Pla2g12a // phospholipase A2, group XIIA // 3 H1 // 66350 /// NM_02	Pla2g12a	NM_183423	0.451785	1.12563	0.0312818	2.36783	0.105747	2.10357
10517646	NM_012045 // Pla2g2f // phospholipase A2, group IIF // 4 D3 // 26971 /// ENSMUST	Pla2g2f	NM_012045	0.787407	1.07005	0.0206779	9.2403	0.0814114	8.63536
10358434	NM_008869 // Pla2g4a // phospholipase A2, group IVA (cytosolic, calcium-dependen	Pla2g4a	NM_008869	0.14243	-1.48652	0.044651	-2.04325	0.263097	-1.37452
10517655	NM_001122954 // Pla2g5 // phospholipase A2, group V // 4 D3 4 68.0 cM // 18784 /	Pla2g5	NM_001122954	0.13124	1.25338	0.0129996	26.4809	0.05086	21.1276
10445293	NM_013737 // Pla2g7 // phospholipase A2, group VII (platelet-activating factor a	Pla2g7	NM_013737	0.0560524	1.48239	0.0137066	2.88089	0.0715833	1.9434
10488697	NM_018807 // Plagl2 // pleiomorphic adenoma gene-like 2 // 2 H2 // 54711 /// ENS	Plagl2	NM_018807	0.156931	1.24746	0.0241649	2.09628	0.103017	1.68044
10597575	NM_019676 // Plcd1 // phospholipase C, delta 1 // 9 F3 // 18799 /// ENSMUST00000	Plcd1	NM_019676	0.0724758	-1.50474	0.0193206	-2.30977	0.106538	-1.53499
10372028	NM_018797 // Plxnc1 // plexin C1 // 10 C3 // 54712 /// ENSMUST0000099337 // Plx	Plxnc1	NM_018797	0.338688	-1.20963	0.0252099	-3.4296	0.0948864	-2.83526
10376950	NM_008885 // Pmp22 // peripheral myelin protein 22 // 11 B3 11 34.45 cM // 18858	Pmp22	NM_008885	0.118404	-1.65708	0.0267029	-3.24312	0.133225	-1.95713
10457007	NM_025861 // Pqlc1 // PQ loop repeat containing 1 // 18 E3 // 66943 /// ENSMUST0	Pqlc1	NM_025861	0.276732	1.35547	0.0386611	3.03708	0.140367	2.2406
10468869	NM_007452 // Prdx3 // peroxiredoxin 3 // 19 D3 19 50.0 cM // 11757 /// ENSMUST00	Prdx3	NM_007452	0.0920152	1.53969	0.0258544	2.27647	0.149419	1.47853
10566454	NM_028444 // Prkcdp // protein kinase C, delta binding protein // 7 F1 // 10904	Prkcdp	NM_028444	0.0570308	-1.61457	0.0145433	-2.77745	0.0865224	-1.72024
10438272	NM_011172 // Prodh // proline dehydrogenase // 16 A3 16 10.73 cM // 19125 /// EN	Prodh	NM_011172	0.697954	1.04488	0.0145433	4.53606	0.0681156	4.34121
10361023	NM_008937 // Prox1 // prospero-related homeobox 1 // 1 H6 1 106.3 cM // 19130 //	Prox1	NM_008937	0.371327	-1.15612	0.017761	4.64678	0.0681156	5.37226
10551365	NM_019412 // Prx // periaxin // 7 A3 7 10.75 cM // 19153 /// NM_198048 // Prx //	Prx	NM_019412	0.0920152	-1.65942	0.0366516	-2.02697	0.358643	-1.2215
10578986	NM_030263 // Psd3 // pleckstrin and Sec7 domain containing 3 // 8 B3.3 // 234353	Psd3	NM_030263	0.0735452	-1.598	0.0226028	-2.28343	0.142491	-1.42893
10543959	NM_008973 // Ptn // pleiotrophin // 6 B1 6 13.5 cM // 19242 /// ENSMUST000001015	Ptn	NM_008973	0.425564	1.08662	0.0156631	3.11543	0.0713526	2.86709
10594501	NM_021345 // Ptplad1 // protein tyrosine phosphatase-like A domain containing 1	Ptplad1	NM_021345	0.498122	1.11892	0.0390239	2.18774	0.122269	1.95523
10435383	NM_023587 // Ptplb // protein tyrosine phosphatase-like (proline instead of cata	Ptplb	NM_023587	0.16506	1.46164	0.0215355	4.5544	0.0916599	3.11595
10494978	NM_008979 // Ptpn22 // protein tyrosine phosphatase, non-receptor type 22 (lymph	Ptpn22	NM_008979	0.194085	-1.53407	0.0380329	-3.14824	0.158089	-2.05221
10358224	NM_001111316 // Ptprc // protein tyrosine phosphatase, receptor type, C // 1 E4	Ptprc	NM_001111316	0.253317	-1.4419	0.0402638	-3.29502	0.149419	-2.28519
10452571	NM_008984 // Ptpm // protein tyrosine phosphatase, receptor type, M // 17 E1.1	Ptpm	NM_008984	0.0968032	-1.32684	0.0161993	-2.54287	0.0832188	-1.91649
10516789	NM_001083119 // Ptpu // protein tyrosine phosphatase, receptor type, U // 4 D2.	Ptpu	NM_001083119	0.0872567	-1.47975	0.0203471	-2.52022	0.103017	-1.70313
10453715	BC056351 // Rab18 // RAB18, member RAS oncogene family // 18 A1 18 7.5 cM // 193	Rab18	BC056351	0.295621	1.41043	0.0465623	3.17633	0.165752	2.25202

10594645	NM_173413 // Rab8b // RAB8B, member RAS oncogene family // 9 C // 235442 /// ENS	Rab8b	NM_173413	0.0937938	-1.2997	0.0178665	-2.15167	0.0871621	-1.65551
10385052	NM_023146 // Ranbp17 // RAN binding protein 17 // --- // 66011 /// ENSMUST000001	Ranbp17	NM_023146	0.539805	1.2038	0.0328045	5.18526	0.106538	4.30743
10417065	NM_029519 // Rap2a // RAS related protein 2a // 14 E4 // 76108 /// ENSMUST000000	Rap2a	NM_029519	0.147759	-1.55252	0.0485432	-2.15742	0.29346	-1.38962
10498802	NM_001099624 // Rapgef2 // Rap guanine nucleotide exchange factor (GEF) 2 // 3 E	Rapgef2	NM_001099624	0.0713119	-1.63404	0.0254465	-2.08122	0.217757	-1.27367
10486061	NM_011246 // Rasgrp1 // RAS guanyl releasing protein 1 // 2 E5 2 65.0 cM // 1941	Rasgrp1	NM_011246	0.115967	-1.65245	0.0313464	-2.69298	0.173218	-1.62969
10522467	NM_026878 // Rasl11b // RAS-like, family 11, member B // 5 D // 68939 /// ENSMUS	Rasl11b	NM_026878	0.0455181	-1.52637	0.0129996	-2.62842	0.0681156	-1.72201
10436552	NM_198302 // Rbm11 // RNA binding motif protein 11 // 16 C3.1 // 224344 /// ENSM	Rbm11	NM_198302	0.85003	1.05707	0.0363259	4.49135	0.106538	4.24887
10367036	NM_080436 // Rdh1 // retinol dehydrogenase 1 (all trans) // 10 D3 10 70.0 cM //	Rdh1	NM_080436	0.304474	1.29663	0.0492825	2.37229	0.173962	1.82958
10415332	NM_020002 // Rec8 // REC8 homolog (yeast) // 14 C3 14 18.2 cM // 56739 /// ENSMU	Rec8	NM_020002	0.386542	1.18279	0.0371063	2.42702	0.124179	2.05194
10539017	NM_178608 // Reep1 // receptor accessory protein 1 // 6 C1 6 31.5 cM // 52250 //	Reep1	NM_178608	0.0720302	-1.42544	0.0183408	2.15093	0.0614248	3.06603
10354741	NM_028713 // Rftn2 // raftlin family member 2 // 1 C1 // 74013 /// ENSMUST000000	Rftn2	NM_028713	0.805573	-1.03212	0.0269503	-2.33058	0.092159	-2.25805
10363090	NM_001159389 // Rfx6 // regulatory factor X, 6 // 10 B3 // 320995 /// NM_177306	Rfx6	NM_001159389	0.607362	1.08573	0.0138876	13.4036	0.0614248	12.3453
10568392	NM_026418 // Rgs10 // regulator of G-protein signalling 10 // 7 F3 // 67865 ///	Rgs10	NM_026418	0.812113	1.05898	0.0451762	-2.83455	0.112792	-3.00173
10358389	NM_009061 // Rgs2 // regulator of G-protein signaling 2 // 1 F1 78.0 cM // 1973	Rgs2	NM_009061	0.245319	-1.41762	0.0250916	-5.28965	0.0959124	-3.73137
10464754	NM_007485 // Rhod // ras homolog gene family, member D // 19 A // 11854 /// ENSM	Rhod	NM_007485	0.0513691	1.72287	0.0160213	2.36892	0.120266	1.37498
10397853	NM_177620 // Rin3 // Ras and Rab interactor 3 // 12 E // 217835 /// NM_001161365	Rin3	NM_177620	0.119962	-1.5702	0.0371063	-2.23105	0.231084	-1.42087
10399696	NM_001081977 // Rnf144a // ring finger protein 144A // 12 A3 // 108089 /// NM_08	Rnf144a	NM_001081977	0.206995	-1.50072	0.0453806	-2.73898	0.192991	-1.82511
10393272	BC053070 // Rnf157 // ring finger protein 157 // 11 E2 // 217340 /// ENSMUST0000	Rnf157	BC053070	0.291544	1.3016	0.0338456	3.06374	0.122293	2.35383
10513587	NM_153504 // Rnf183 // ring finger protein 183 // 4 B3 // 76072 /// ENSMUST000000	Rnf183	NM_153504	0.0922526	1.74544	0.0267139	2.77105	0.163773	1.5876
10380116	NM_172448 // Rnf43 // ring finger protein 43 // 11 C // 207742 /// ENSMUST000000	Rnf43	NM_172448	0.615101	-1.03024	0.0137066	2.84876	0.0585841	2.9349
10440344	NM_175549 // Robo2 // roundabout homolog 2 (Drosophila) // 16 C3.1 // 268902 ///	Robo2	NM_175549	0.212772	-1.45684	0.0262934	-4.52951	0.104466	-3.10914
10402117	NM_153587 // Rps6ka5 // ribosomal protein S6 kinase, polypeptide 5 // 12 E // 73	Rps6ka5	NM_153587	0.152798	-1.49243	0.0464072	-2.10634	0.260208	-1.41135
10451213	NM_029338 // Rsph9 // radial spoke head 9 homolog (Chlamydomonas) // 17 C // 755	Rsph9	NM_029338	0.0842132	-1.6829	0.0335316	-2.0308	0.356356	-1.20673
10369901	BC147792 // Rtdr1 // rhabdoid tumor deletion region gene 1 // 10 B5.3 10 // 7123	Rtdr1	BC147792	0.0483445	-1.67007	0.0153167	-2.11727	0.132452	-1.26778
10528090	NM_198620 // Rundc3b // RUN domain containing 3B // 5 A1 // 242819 /// ENSMUST00	Rundc3b	NM_198620	0.747562	-1.10447	0.0438659	3.95362	0.108385	4.36665
10440593	NM_016924 // Rwdd2b // RWD domain containing 2B // 16 C3.3 // 53858 /// ENSMUST0	Rwdd2b	NM_016924	0.262836	1.31819	0.0497695	2.20592	0.189879	1.67345
10490724	NM_172676 // Samd10 // sterile alpha motif domain containing 10 // 2 H4 // 22901	Samd10	NM_172676	0.0666861	1.64145	0.0229235	2.15574	0.176705	1.31331
10489107	NM_018851 // Samhd1 // SAM domain and HD domain, 1 // 2 H2 // 56045 /// NM_00113	Samhd1	NM_018851	0.0748424	-1.23489	0.0145433	-2.00085	0.0737683	-1.62027
10434105	NM_153790 // Scarf2 // scavenger receptor class F, member 2 // 16 A3 // 224024 /	Scarf2	NM_153790	0.242697	-1.23676	0.0323971	-2.18886	0.124226	-1.76984
10465840	NM_011681 // Scgb1a1 // secretoglobin, family 1A, member 1 (uteroglobin) // 19 A	Scgb1a1	NM_011681	0.0881233	-1.24026	0.0145433	-2.23234	0.0737245	-1.79989
10557124	NM_011325 // Scnn1b // sodium channel, nonvoltage-gated 1 beta // 7 F2 7 56.0 cM	Scnn1b	NM_011325	0.220502	-1.34427	0.0261629	-3.42326	0.103017	-2.54656
10557111	NM_011326 // Scnn1g // sodium channel, nonvoltage-gated 1 gamma // 7 F2 7 56.0 c	Scnn1g	NM_011326	0.37575	-1.25066	0.0472613	-2.59485	0.153072	-2.07478
10477022	NM_145535 // Sdcbp2 // syndecan binding protein (syntenin) 2 // 2 G3 // 228765 /	Sdcbp2	NM_145535	0.0818536	1.6269	0.0272991	2.14994	0.212933	1.3215
10394068	NM_145373 // Sectm1a // secreted and transmembrane 1A // 11 E2 // 209588 /// ENS	Sectm1a	NM_145373	0.0789968	1.66504	0.0193305	3.13595	0.102275	1.88341
10523281	NM_001009818 // Sept11 // septin 11 // 5 E2 5 52.0 cM // 52398 /// ENSMUST000000	Sept11	NM_001009818	0.175812	-1.43151	0.0341963	-2.60582	0.147355	-1.82033
10425726	NM_011889 // Sept3 // septin 3 // --- // 24050 /// ENSMUST00000023095 // Sept3 /	Sept3	NM_011889	0.111907	-1.63538	0.0454402	-2.02103	0.395972	-1.23581
10560174	NM_009156 // Sepw1 // selenoprotein W, muscle 1 // 7 A2 // 20364 /// ENSMUST0000	Sepw1	NM_009156	0.0797693	-1.27072	0.0147769	-2.04668	0.0814114	-1.61065
10516765	NM_172702 // Serinc2 // serine incorporator 2 // 4 D2.2 // 230779 /// BC031720 /	Serinc2	NM_172702	0.0817168	1.73313	0.0275033	2.35908	0.217733	1.36117
10349138	NM_025867 // Serpinb11 // serine (or cysteine) peptidase inhibitor, clade B (ova	Serpinb11	NM_025867	0.778212	1.10155	0.0190918	28.8673	0.0771324	26.2061
10349174	NM_011459 // Serpinb8 // serine (or cysteine) peptidase inhibitor, clade B, memb	Serpinb8	NM_011459	0.327683	-1.21316	0.0383923	2.3101	0.0945669	2.80251
10484463	NM_009776 // Serping1 // serine (or cysteine) peptidase inhibitor, clade G, memb	Serping1	NM_009776	0.111462	-1.64157	0.0219212	-3.89424	0.102275	-2.37227

10344750	NM_133220 // Sgk3 // serum/glucocorticoid regulated kinase 3 // 1 A2 1 7.5 cM //	Sgk3	NM_133220	0.0649322	-1.73501	0.0145433	-4.02813	0.0825609	-2.32168
10587503	NM_172507 // Sh3bgrl2 // SH3 domain binding glutamic acid-rich protein like 2 //	Sh3bgrl2	NM_172507	0.162995	1.64083	0.0229235	6.1374	0.0959124	3.74044
10376007	NM_027917 // Shroom1 // shroom family member 1 // 11 B1.3 // 71774 /// ENSMUST00	Shroom1	NM_027917	0.128115	1.67406	0.0262934	3.71878	0.122293	2.22141
10439583	NM_001159419 // Sidt1 // SID1 transmembrane family, member 1 // 16 B4 // 320007	Sidt1	NM_001159419	0.548768	1.09855	0.0399726	2.09112	0.122269	1.90352
10465132	NM_011379 // Sip1 // signal-induced proliferation associated gene 1 // 19 A 19	Sip1	NM_011379	0.126517	-1.74548	0.0475567	-2.3646	0.350946	-1.3547
10531887	NM_029415 // Slc10a6 // solute carrier family 10 (sodium/bile acid cotransporter	Slc10a6	NM_029415	0.281634	-1.56603	0.0421577	-4.7548	0.150294	-3.03621
10489705	NM_054055 // Slc13a3 // solute carrier family 13 (sodium-dependent dicarboxylate	Slc13a3	NM_054055	0.770409	1.08164	0.043186	3.35043	0.121307	3.09756
10495206	NM_146136 // Slc16a4 // solute carrier family 16 (monocarboxylic acid transporte	Slc16a4	NM_146136	0.496498	-1.4252	0.044049	9.2861	0.104466	13.2346
10404077	NM_144836 // Slc17a2 // solute carrier family 17 (sodium phosphate), member 2 //	Slc17a2	NM_144836	0.582526	1.16355	0.0394551	3.72752	0.120064	3.20357
10595189	NM_172773 // Slc17a5 // solute carrier family 17 (anion/sugar transporter), memb	Slc17a5	NM_172773	0.0519352	1.60612	0.0155626	2.21941	0.107822	1.38184
10579023	NM_153054 // Slc18a1 // solute carrier family 18 (vesicular monoamine), member 1	Slc18a1	NM_153054	0.856879	1.04887	0.0294825	5.02034	0.0957518	4.78643
10462313	NM_009199 // Slc1a1 // solute carrier family 1 (neuronal/epithelial high affinit	Slc1a1	NM_009199	0.279564	-1.22033	0.0265525	-2.73302	0.100438	-2.23957
10570837	NM_011394 // Slc20a2 // solute carrier family 20, member 2 // 8 A2 8 9.0 cM // 2	Slc20a2	NM_011394	0.0834313	1.66951	0.032381	2.03511	0.330647	1.21899
10441774	NM_013667 // Slc22a2 // solute carrier family 22 (organic cation transporter), m	Slc22a2	NM_013667	0.263332	1.27236	0.0240901	3.6222	0.0945669	2.84685
10543031	NM_015829 // Slc25a13 // solute carrier family 25 (mitochondrial carrier, adenin	Slc25a13	NM_015829	0.0573917	1.7009	0.0145433	3.38564	0.0832518	1.9905
10475653	NM_011978 // Slc27a2 // solute carrier family 27 (fatty acid transporter), membe	Slc27a2	NM_011978	0.110892	-1.65712	0.0434007	-2.09854	0.361528	-1.26637
10507594	NM_011400 // Slc2a1 // solute carrier family 2 (facilitated glucose transporter)	Slc2a1	NM_011400	0.270857	1.39407	0.0423902	3.0321	0.153468	2.175
10505270	NM_025286 // Slc31a2 // solute carrier family 31, member 2 // 4 B3 // 20530 ///	Slc31a2	NM_025286	0.282137	1.20619	0.0297408	2.36931	0.10875	1.9643
10585381	NM_028060 // Slc35f2 // solute carrier family 35, member F2 // 9 A5.3 // 72022 /	Slc35f2	NM_028060	0.596446	-1.13896	0.032263	3.96466	0.0935577	4.51558
10431874	NM_134086 // Slc38a1 // solute carrier family 38, member 1 // 15 F1 // 105727 //	Slc38a1	NM_134086	0.18186	-1.32601	0.026056	-2.6988	0.106538	-2.03528
10596718	NM_023805 // Slc38a3 // solute carrier family 38, member 3 // 9 F1 9 63.0 cM //	Slc38a3	NM_023805	0.227825	1.29724	0.0434279	2.06531	0.171963	1.59208
10366163	NM_175328 // Slc6a15 // solute carrier family 6 (neurotransmitter transporter),	Slc6a15	NM_175328	0.818853	-1.09635	0.0494315	-5.02699	0.133135	-4.58522
10540122	NM_009320 // Slc6a6 // solute carrier family 6 (neurotransmitter transporter, ta	Slc6a6	NM_009320	0.82181	1.04185	0.0496286	2.07668	0.133223	1.99325
10406176	NM_001081060 // Slc9a3 // solute carrier family 9 (sodium/hydrogen exchanger), m	Slc9a3	NM_001081060	0.187041	1.27564	0.0323837	2.04243	0.136152	1.6011
10548996	NM_030687 // Slco1a4 // solute carrier organic anion transporter family, member	Slco1a4	NM_030687	0.804823	1.07472	0.0170412	23.9593	0.0715833	22.2936
10462237	NM_011416 // Smarca2 // SWI/SNF related, matrix associated, actin dependent regu	Smarca2	NM_011416	0.0513691	-1.66691	0.0136378	-3.64516	0.0689425	-2.18677
10368806	NM_009213 // Smpd2 // sphingomyelin phosphodiesterase 2, neutral // 10 B2 // 205	Smpd2	NM_009213	0.113191	1.30711	0.02241	2.07408	0.103992	1.58677
10361007	NM_026796 // Smyd2 // SET and MYND domain containing 2 // 1 H6 // 226830 /// ENS	Smyd2	NM_026796	0.114286	1.1826	0.0140999	2.42769	0.0681156	2.05284
10461158	AK051045 // Snhg1 // small nucleolar RNA host gene (non-protein coding) 1 // 19	Snhg1	AK051045	0.249867	1.21176	0.029306	2.22629	0.110071	1.83723
10450363	AF357375 // Snord52 // small nucleolar RNA, C/D box 52 // 17 17 // 100217427	Snord52	AF357375	0.276284	1.22721	0.0253631	2.93762	0.0959124	2.39374
10590445	NM_133741 // Snrk // SNF related kinase // 9 F4 // 20623 /// ENSMUST00000120173	Snrk	NM_133741	0.0658752	-1.64828	0.0224634	-2.17848	0.170278	-1.32167
10566668	NM_018821 // Socs6 // suppressor of cytokine signaling 6 // 18 E4 // 54607 /// E	Socs6	NM_018821	0.168891	1.30912	0.0191683	3.46868	0.0832518	2.64961
10460118	NM_018821 // Socs6 // suppressor of cytokine signaling 6 // 18 E4 // 54607 /// E	Socs6	NM_018821	0.269556	1.2932	0.028203	3.27677	0.106356	2.53386
10571567	NM_172752 // Sorbs2 // sorbin and SH3 domain containing 2 // 8 B1.1 // 234214 //	Sorbs2	NM_172752	0.191251	-1.41547	0.0206475	5.22429	0.0715387	7.39485
10382328	NM_011448 // Sox9 // SRY-box containing gene 9 // 11 E2 11 69.5 cM // 20682 ///	Sox9	NM_011448	0.231111	1.72708	0.0307835	7.60553	0.119406	4.40369
10534909	NM_175397 // Sp110 // Sp110 nuclear body protein // 1 C5 // 109032 /// AY845948	Sp110	NM_175397	0.0660541	-1.48164	0.0166574	-2.32027	0.0959124	-1.56601
10347928	NM_175397 // Sp110 // Sp110 nuclear body protein // 1 C5 // 109032 /// AY845948	Sp110	NM_175397	0.074085	-1.5277	0.0192257	-2.47376	0.104174	-1.61927
10582874	NM_175397 // Sp110 // Sp110 nuclear body protein // 1 C5 // 109032 /// AY845948	Sp110	NM_175397	0.074085	-1.5277	0.0192257	-2.47376	0.104174	-1.61927
10356278	NM_175397 // Sp110 // Sp110 nuclear body protein // 1 C5 // 109032 /// AY845948	Sp110	NM_175397	0.0677532	-1.48076	0.0192444	-2.13231	0.111294	-1.44001
10472688	NM_022435 // Sp5 // trans-acting transcription factor 5 // 2 C2 2 40.0 cM // 644	Sp5	NM_022435	0.241727	1.32342	0.0319936	2.84591	0.122269	2.15043
10531931	NM_010097 // Sparcl1 // SPARC-like 1 // 5 E4 5 55.0 cM // 13602 /// ENSMUST00000	Sparcl1	NM_010097	0.116385	-1.30462	0.018663	-2.48898	0.0847588	-1.90782

10369615	NM_011157 // Srgn // serglycin // 10 B4 // 19073 /// ENSMUST00000105446 // Srgn	Srgn	NM_011157	0.127556	-1.52786	0.0322043	-2.43963	0.166277	-1.59676
10406551	NM_024272 // Ssbp2 // single-stranded DNA binding protein 2 // 13 C3 // 66970 //	Ssbp2	NM_024272	0.854374	-1.01312	0.0137066	-3.46521	0.0611711	-3.42034
10476886	NM_009219 // Sstr4 // somatostatin receptor 4 // 2 G3 2 84.0 cM // 20608 /// ENS	Sstr4	NM_009219	0.0596334	-1.5434	0.0171478	-2.24372	0.105151	-1.45376
10346191	NM_009283 // Stat1 // signal transducer and activator of transcription 1 // 1 C1	Stat1	NM_009283	0.132099	-1.2844	0.0212926	-2.30057	0.0948864	-1.79117
10416181	NM_009285 // Stc1 // stanniocalcin 1 // 14 D2 // 20855 /// ENSMUST00000014957 //	Stc1	NM_009285	0.611667	1.09003	0.0141179	14.1823	0.0614248	13.0109
10585803	NM_009291 // Stra6 // stimulated by retinoic acid gene 6 // 9 C // 20897 /// NM_	Stra6	NM_009291	0.649547	1.20018	0.0298591	11.2296	0.0965097	9.35656
10548573	NM_172891 // Styk1 // serine/threonine/tyrosine kinase 1 // 6 F3 // 243659 /// E	Styk1	NM_172891	0.25806	1.14453	0.0237678	2.05853	0.093068	1.79858
10607497	NM_011507 // Suclg2 // succinate-Coenzyme A ligase, GDP-forming, beta subunit //	Suclg2	NM_011507	0.238921	1.24643	0.0380394	2.03191	0.145641	1.63019
10489759	NM_028072 // Sulf2 // sulfatase 2 // 2 H3 // 72043 /// ENSMUST00000109249 // Sul	Sulf2	NM_028072	0.210192	-1.3092	0.0394551	2.13278	0.0893731	2.79224
10370510	NM_027875 // Syde1 // synapse defective 1, Rho GTPase, homolog 1 (C. elegans) //	Syde1	NM_027875	0.0427768	-1.68168	0.0137066	-2.26447	0.088388	-1.34655
10425335	NM_207708 // Syng1 // synaptogyrin 1 // 15 E1 // 20972 /// NM_009303 // Syng1	Syng1	NM_207708	0.100815	1.56575	0.0192673	3.61657	0.093068	2.30981
10606619	NM_013757 // Sytl4 // synaptotagmin-like 4 // X E3 // 27359 /// ENSMUST0000000336	Sytl4	NM_013757	0.154547	-1.30152	0.0183213	3.27204	0.0681156	4.25864
10362162	NM_001010838 // Taar7d // trace amine-associated receptor 7D // 10 A4 // 435206	Taar7d	NM_001010838	0.208586	1.25584	0.0326652	2.08107	0.132452	1.65712
10593123	NM_011526 // Tagln // transgelin // 9 A5.2 9 27.0 cM // 21345 /// ENSMUST00000003	Tagln	NM_011526	0.131709	-1.72158	0.0333354	-3.14962	0.171082	-1.82949
10568765	NM_183289 // Tcerg1l // transcription elongation regulator 1-like // 7 F4 // 705	Tcerg1l	NM_183289	0.252596	1.20625	0.0258247	2.44443	0.0984497	2.02647
10445407	NM_013688 // Tcte1 // t-complex-associated testis expressed 1 // 17 C 17 23.5 cM	Tcte1	NM_013688	0.0871895	-1.73537	0.033534	-2.18273	0.32128	-1.25779
10388174	NM_011569 // Tekt1 // tektin 1 // 11 B4 // 21689 /// ENSMUST00000108503 // Tekt1	Tekt1	NM_011569	0.0763269	-1.70776	0.0303991	-2.06358	0.332428	-1.20835
10524955	NM_021344 // Tesc // tescalcin // 5 F 5 64.0 cM // 57816 /// ENSMUST000000031304	Tesc	NM_021344	0.360852	1.0479	0.0129996	3.3641	0.05086	3.21033
10539692	NM_031199 // Tgfa // transforming growth factor alpha // 6 D1 6 35.8 cM // 21802	Tgfa	NM_031199	0.56968	1.09852	0.039254	2.20322	0.120064	2.00563
10452633	NM_009372 // Tgif1 // TGFB-induced factor homeobox 1 // 17 E1.3 // 21815 /// ENS	Tgif1	NM_009372	0.102162	1.64245	0.0307736	2.4154	0.193631	1.47061
10385518	NM_011579 // Tgtp // T-cell specific GTPase // 11 B1.2 // 21822 /// NM_001145164	Tgtp	NM_011579	0.342621	-1.41601	0.0344095	-5.55094	0.120258	-3.92013
10385533	NM_011579 // Tgtp // T-cell specific GTPase // 11 B1.2 // 21822 /// NM_001145164	Tgtp	NM_011579	0.359137	-1.41209	0.0357456	-5.66765	0.122269	-4.01367
10453216	BC065413 // Thumpd2 // THUMP domain containing 2 // 17 E3 // 72167 /// ENSMUST00	Thumpd2	BC065413	0.277534	1.22702	0.0357456	2.21391	0.132132	1.8043
10414470	NM_205819 // Tlr11 // toll-like receptor 11 // 14 C1 // 239081 /// ENSMUST000000	Tlr11	NM_205819	0.294351	-1.21095	0.0400589	-2.05908	0.141776	-1.70037
10554574	NM_145375 // Tm6sf1 // transmembrane 6 superfamily member 1 // 7 D1 // 107769 //	Tm6sf1	NM_145375	0.196463	-1.36391	0.0439847	-2.12466	0.190925	-1.55777
10581518	NM_025458 // Tmed6 // transmembrane emp24 protein transport domain containing 6	Tmed6	NM_025458	0.478171	1.34385	0.0363287	7.71565	0.117884	5.74147
10387648	NM_001033433 // Tmem102 // transmembrane protein 102 // 11 B3 // 380705 /// NR_0	Tmem102	NM_001033433	0.0827129	1.54245	0.0240468	2.23224	0.143085	1.4472
10534002	NM_172885 // Tmem132d // transmembrane protein 132D // 5 G1.2-G1.3 // 243274 ///	Tmem132d	NM_172885	0.238782	-1.53797	0.0287887	5.70937	0.0832518	8.78083
10537227	NM_197986 // Tmem140 // transmembrane protein 140 // 6 B1 // 68487 /// NM_199145	Tmem140	NM_197986	0.118056	-1.33434	0.0229299	-2.20731	0.10521	-1.65423
10547056	NM_144805 // Tmem40 // transmembrane protein 40 // 6 E3 // 94346 /// ENSMUST0000	Tmem40	NM_144805	0.244664	1.31406	0.0475879	2.13298	0.186882	1.6232
10499348	NM_024246 // Tmem79 // transmembrane protein 79 // 3 F1 // 71913 /// ENSMUST0000	Tmem79	NM_024246	0.123741	1.4776	0.0313464	2.25739	0.163928	1.52774
10434668	NM_133706 // Tmem97 // transmembrane protein 97 // 11 B5 11 45.19 cM // 69071 //	Tmem97	NM_133706	0.117993	1.3381	0.0218702	2.32612	0.0990406	1.73837
10388880	NM_133706 // Tmem97 // transmembrane protein 97 // 11 B5 11 45.19 cM // 69071 //	Tmem97	NM_133706	0.230702	1.30814	0.0446932	2.09327	0.178905	1.60018
10504692	NM_021883 // Tmod1 // tropomodulin 1 // 4 B1 4 21.5 cM // 21916 /// ENSMUST00000	Tmod1	NM_021883	0.292561	-1.4165	0.0356309	-4.15858	0.129445	-2.93582
10584870	NM_001013373 // Tmprss13 // transmembrane protease, serine 13 // 9 A5.2 // 21453	Tmprss13	NM_001013373	0.18834	1.61557	0.0345128	3.84994	0.144692	2.38302
10545479	NM_025284 // Tmsb10 // thymosin, beta 10 // 6 C1 // 19240 /// NM_001039392 // Tm	Tmsb10	NM_025284	0.0674024	-1.72019	0.0264987	-2.07516	0.299054	-1.20636
10422518	NM_028651 // Tmtc4 // transmembrane and tetratricopeptide repeat containing 4 //	Tmtc4	NM_028651	0.287591	1.33905	0.0246369	5.19256	0.09514	3.8778
10513739	NM_011607 // Tnc // tenascin C // 4 C1 4 32.2 cM // 21923 /// ENSMUST000000030056	Tnc	NM_011607	0.621539	1.09574	0.0426906	-2.31527	0.104704	-2.53695
10446063	NM_025566 // Tnfaip8l1 // tumor necrosis factor, alpha-induced protein 8-like 1	Tnfaip8l1	NM_025566	0.1388	1.35688	0.027084	2.23425	0.124658	1.64661
10428604	NM_008764 // Tnfrsf11b // tumor necrosis factor receptor superfamily, member 11b	Tnfrsf11b	NM_008764	0.268974	1.385	0.0340878	3.58048	0.126365	2.58518
10513722	NM_177371 // Tnfsf15 // tumor necrosis factor (ligand) superfamily, member 15 //	Tnfsf15	NM_177371	0.165585	-1.5507	0.0447914	-2.45601	0.227914	-1.5838

10355536	NM_027884 // Tns1 // tensin 1 // 1 C3 1 44.5 cM // 21961 /// ENSMUST00000050681	Tns1	NM_027884	0.0560524	-1.53306	0.0160287	-2.16939	0.103992	-1.41507
10355514	NM_027884 // Tns1 // tensin 1 // 1 C3 1 44.5 cM // 21961 /// BC055076 // Tns1 //	Tns1	NM_027884	0.0578721	-1.64274	0.0181921	-2.33218	0.1206	-1.41969
10355534	NM_027884 // Tns1 // tensin 1 // 1 C3 1 44.5 cM // 21961	Tns1	NM_027884	0.0756672	-1.72232	0.0252099	-2.39184	0.186567	-1.38873
10390748	NM_172564 // Tns4 // tensin 4 // 11 D // 217169 /// ENSMUST00000017751 // Tns4 /	Tns4	NM_172564	0.537122	1.22293	0.0237678	11.501	0.0848947	9.40449
10368566	NM_009413 // Tpd52l1 // tumor protein D52-like 1 // 10 A4-B2 // 21987 /// ENSMUS	Tpd52l1	NM_009413	0.189944	1.17663	0.0129996	9.28438	0.05086	7.89066
10547830	NM_009415 // Tpi1 // triosephosphate isomerase 1 // 6 F2 6 60.2 cM // 21991 ///	Tpi1	NM_009415	0.166403	1.6863	0.0489592	2.73591	0.260391	1.62243
10361139	NM_011633 // Traf5 // TNF receptor-associated factor 5 // 1 H6 1 105.0 cM // 220	Traf5	NM_011633	0.104877	-1.48686	0.024434	-2.48062	0.122269	-1.66837
10605051	NM_011907 // Trex2 // three prime repair exonuclease 2 // X A6 // 24102 /// ENSM	Trex2	NM_011907	0.223606	1.59948	0.0384329	4.11298	0.149654	2.57145
10499045	NM_030706 // Trim2 // tripartite motif-containing 2 // 3 F1 // 80890 /// ENSMUST	Trim2	NM_030706	0.890215	1.03015	0.0381815	2.85571	0.107852	2.77212
10555848	NM_001013616 // Trim6 // tripartite motif-containing 6 // 7 49.8 cM // 94088 ///	Trim6	NM_001013616	0.206303	1.36127	0.036396	2.4615	0.147678	1.80824
10583163	NM_013838 // Trpc6 // transient receptor potential cation channel, subfamily C,	Trpc6	NM_013838	0.10236	-1.73662	0.0222468	-3.941	0.106538	-2.26935
10543306	NM_173007 // Tspan12 // tetraspanin 12 // 6 A3.1 // 269831 /// ENSMUST0000003167	Tspan12	NM_173007	0.358825	-1.1835	0.0306977	2.61356	0.0866621	3.09315
10558961	NM_053082 // Tspan4 // tetraspanin 4 // 7 F5 // 64540 /// ENSMUST00000026585 //	Tspan4	NM_053082	0.194801	-1.35042	0.044016	-2.05547	0.193473	-1.5221
10496494	NM_019571 // Tspan5 // tetraspanin 5 // 3 H1 // 56224 /// ENSMUST00000029800 //	Tspan5	NM_019571	0.131709	-1.41517	0.0354772	2.01189	0.0832518	2.84717
10396952	NM_001033149 // Ttc9 // tetratricopeptide repeat domain 9 // 12 D1 // 69480 ///	Ttc9	NM_001033149	0.194279	1.37962	0.0200578	4.95448	0.0836674	3.59118
10452508	NM_023053 // Twsg1 // twisted gastrulation homolog 1 (Drosophila) // 17 E1.1 17	Twsg1	NM_023053	0.0708059	-1.61934	0.0237354	-2.16946	0.170563	-1.33972
10595452	NM_027394 // Ube2cbp // ubiquitin-conjugating enzyme E2C binding protein // 9 E3	Ube2cbp	NM_027394	0.43659	1.09686	0.023979	2.32435	0.0879075	2.1191
10566309	NM_198624 // Ubqln1 // ubiquilin-like // 7 E3 // 244179 /// ENSMUST00000059121 /	Ubqln1	NM_198624	0.593923	1.08617	0.0170906	5.334	0.0737683	4.91085
10508936	NM_026257 // Ubx11 // UBX domain protein 11 // 4 D3 4 65.7 cM // 67586 /// ENSM	Ubx11	NM_026257	0.0495996	-1.63083	0.0145433	-2.3115	0.0959124	-1.41738
10598933	NM_145628 // Usp11 // ubiquitin specific peptidase 11 // X A1.3 // 236733 /// EN	Usp11	NM_145628	0.0949742	-1.43303	0.0238001	-2.18497	0.122958	-1.52472
10491414	NM_001013024 // Usp13 // ubiquitin specific peptidase 13 (isopeptidase T-3) // 3	Usp13	NM_001013024	0.284384	-1.18911	0.0197873	-3.42376	0.0832188	-2.87926
10541307	NM_011909 // Usp18 // ubiquitin specific peptidase 18 // 6 F 6 56.0 cM // 24110	Usp18	NM_011909	0.174844	-1.56027	0.0401938	-2.84741	0.181924	-1.82495
10451198	NM_001025250 // Vegfa // vascular endothelial growth factor A // 17 C 17 24.2 cM	Vegfa	NM_001025250	0.0444929	-1.72952	0.0145116	-2.45374	0.0957518	-1.41874
10571788	NM_009506 // Vegfc // vascular endothelial growth factor C // 8 B3 // 22341 ///	Vegfc	NM_009506	0.075067	-1.66623	0.0226132	-2.50312	0.140348	-1.50226
10347364	NM_009509 // Vil1 // villin 1 // 1 C5 1 40.8 cM // 22349 /// ENSMUST00000027366	Vil1	NM_009509	0.11948	1.49869	0.0256548	2.70856	0.122269	1.80728
10469322	NM_011701 // Vim // vimentin // 2 A2 2 7.0 cM // 22352 /// ENSMUST00000028062 //	Vim	NM_011701	0.150139	-1.37697	0.0267139	-2.49784	0.119319	-1.81401
10584325	NM_020518 // Vsig2 // V-set and immunoglobulin domain containing 2 // 9 B // 572	Vsig2	NM_020518	0.0591271	1.62935	0.0145433	2.99351	0.0836674	1.83724
10527516	NM_145155 // Wasf3 // WAS protein family, member 3 // 5 G3 // 245880 /// ENSMUST	Wasf3	NM_145155	0.0654794	-1.61535	0.0215545	-2.16822	0.15149	-1.34227
10526232	NM_024479 // Wbscr27 // Williams Beuren syndrome chromosome region 27 (human) //	Wbscr27	NM_024479	0.272335	1.28075	0.0477115	2.13208	0.176856	1.66471
10418868	NM_001146022 // Wdfy4 // WD repeat and FYVE domain containing 4 // 14 B // 54503	Wdfy4	NM_001146022	0.147524	-1.48683	0.0363362	-2.37008	0.179976	-1.59405
10424252	NM_029734 // Wdyhv1 // WDYHV motif containing 1 // 15 D2 15 // 76773 /// ENSMUST	Wdyhv1	NM_029734	0.270285	-1.27366	0.0492511	-2.04832	0.185413	-1.60821
10489444	NM_138685 // Wfdc15b // WAP four-disulfide core domain 15B // 2 H3 // 192201 ///	Wfdc15b	NM_138685	0.591825	1.12417	0.0339611	3.22521	0.106538	2.86897
10483698	NM_153138 // Wipf1 // WAS/WASL interacting protein family, member 1 // 2 C3 2 43	Wipf1	NM_153138	0.144125	-1.62156	0.0402373	-2.60477	0.214578	-1.60634
10478415	NM_016873 // Wisp2 // WNT1 inducible signaling pathway protein 2 // 2 H3 // 2240	Wisp2	NM_016873	0.154774	-1.61717	0.0439847	-2.56721	0.235046	-1.58747
10536658	NM_053116 // Wnt16 // wingless-related MMTV integration site 16 // 6 A3 // 93735	Wnt16	NM_053116	0.477769	1.15443	0.043186	2.39388	0.134274	2.07365
10431210	NM_009528 // Wnt7b // wingless-related MMTV integration site 7B // 15 E2 15 46.9	Wnt7b	NM_009528	0.300664	1.1853	0.0355371	2.05218	0.127395	1.73137
10595831	NM_175537 // Zbtb38 // zinc finger and BTB domain containing 38 // 9 E3.3 // 245	Zbtb38	NM_175537	0.156195	1.41761	0.0299037	2.55696	0.133553	1.80371
10600825	NM_001034907 // Zc3h12b // zinc finger CCH-type containing 12B // X C3 // 54717	Zc3h12b	NM_001034907	0.0929269	-1.74586	0.032263	-2.39728	0.249062	-1.37312
10593497	NM_001162921 // Zc3h12c // zinc finger CCH type containing 12C // 9 A5.3 // 244	Zc3h12c	NM_001162921	0.595103	-1.10703	0.0439847	2.32041	0.106534	2.56876
10606235	NM_175358 // Zdhc15 // zinc finger, DHHC domain containing 15 // X D // 108672	Zdhc15	NM_175358	0.160528	-1.50236	0.0197112	5.69317	0.0681156	8.55317
10385665	NM_013744 // Zfp354b // zinc finger protein 354B // 11 B1.3 // 27274 /// ENSMUST	Zfp354b	NM_013744	0.126036	-1.57633	0.0480884	-2.00402	0.360627	-1.27132

10547282	NM_011763 // Zfp9 // zinc finger protein 9 // 6 F1 // 22750 /// ENSMUST000001128	Zfp9	NM_011763	0.207719	-1.53596	0.0404905	-3.2042	0.16575	-2.08612
10599812	NM_009575 // Zic3 // zinc finger protein of the cerebellum 3 // X A6 X 16.5 cM /	Zic3	NM_009575	0.522193	1.25273	0.0263839	10.0848	0.0945669	8.05026
10383982	NM_001080924 // Znrf3 // zinc and ring finger 3 // 11 A1 // 407821 /// ENSMUST00	Znrf3	NM_001080924	0.0736282	-1.2524	0.0135399	2.55235	0.05086	3.19657
10585129	NM_012039 // Zw10 // ZW10 homolog (Drosophila), centromere/kinetochore protein /	Zw10	NM_012039	0.369546	1.17386	0.0263563	2.95451	0.0959124	2.51692
10579763	---	---	---	0.0402362	1.6944	0.0129996	2.51904	0.0681156	1.48668
10427657	---	---	---	0.0427768	-1.67485	0.0130516	-2.44798	0.0814114	-1.46161
10571599	---	---	---	0.195798	-1.54973	0.0312818	3.99216	0.0832518	6.18675
10392413	---	---	---	0.540124	-1.17926	0.0276928	5.48236	0.0847588	6.46514
10576490	---	---	---	0.98249	-1.00405	0.0261155	3.32633	0.0869765	3.3398
10528031	---	---	---	0.751072	1.03954	0.0250916	2.39987	0.0871621	2.30859
10349872	---	---	---	0.157688	1.2485	0.0208584	2.4079	0.0890754	1.92864
10403825	---	---	---	0.107904	-1.60532	0.0226132	-3.35661	0.106538	-2.09093
10501190	---	---	---	0.918526	-1.01668	0.0398852	2.13523	0.106538	2.17084
10502230	---	---	---	0.938324	-1.01523	0.0455467	2.27375	0.117639	2.30838
10545177	---	---	---	0.604698	-1.11228	0.0439847	-2.47906	0.129445	-2.2288
10353413	---	---	---	0.603636	1.09913	0.0439847	2.22919	0.129793	2.02815
10598032	---	---	---	0.119338	-1.40385	0.0273886	-2.1701	0.137517	-1.54582
10441554	---	---	---	0.229823	1.50105	0.0417414	3.2485	0.162834	2.16415
10527959	---	---	---	0.180267	-1.4397	0.0383099	-2.48378	0.167249	-1.7252
10598041	---	---	---	0.299364	-1.33653	0.0475567	-2.65566	0.168286	-1.98699
10527961	---	---	---	0.123674	-1.55516	0.033908	-2.37029	0.18846	-1.52415
10598023	---	---	---	0.11817	-1.52175	0.0377548	-2.07161	0.242671	-1.36133
10494753	---	---	---	0.117815	1.66431	0.0408247	2.29175	0.283729	1.377
10598053	---	---	---	0.146317	-1.59983	0.0483561	-2.26143	0.295583	-1.41355
10497485	---	---	---	0.122213	1.55333	0.0436545	2.01765	0.310178	1.29892

Singe mutant specific genes

Transcript ID	gene_assignment	Gene Symbol	RefSeq	FDR (single vs. wt)	Fold-Change (single vs. wt)	FDR (double vs. wt)	Fold-Change (double vs. wt)	FDR (double vs. single)	Fold-Change (double vs. single)
10542317	NM_009875 // Cdkn1b // cyclin-dependent kinase inhibitor 1B // 6 G1 6 62.0 cM //	Cdkn1b	NM_009875	0.0401377	-2.00831	0.0140999	-1.63076	0.0879075	1.23152
10479975	---	---	---	0.0402362	-2.15906	0.0238744	-1.5123	0.0893731	1.42766
10538503	NM_001081665 // Ccdc129 // coiled-coil domain containing 129 // 6 B3 // 232016 /	Ccdc129	NM_001081665	0.0402362	-2.88404	0.0327241	-1.51079	0.0814114	1.90896
10377439	NM_001159367 // Per1 // period homolog 1 (Drosophila) // 11 B // 18626 /// NM_01	Per1	NM_001159367	0.0415262	-2.25698	0.0402638	-1.35779	0.0832518	1.66225
10559796	NM_008817 // Peg3 // paternally expressed 3 // 7 A2-B1 7 6.5 cM // 18616 /// ENS	Peg3	NM_008817	0.0401377	-2.2624	0.0129996	-1.3351	0.05086	1.69456
10369040	NM_011282 // Ros1 // Ros1 proto-oncogene // 10 B3 10 28.0 cM // 19886 /// ENSMUS	Ros1	NM_011282	0.0455181	9.8848	0.607837	-1.13186	0.0777885	-11.1882
10568369	NM_009943 // Cox6a2 // cytochrome c oxidase, subunit VI a, polypeptide 2 // 7 F3	Cox6a2	NM_009943	0.0427768	2.76305	0.365447	-1.09095	0.0681156	-3.01435
10607562	NM_177751 // Cnksr2 // connector enhancer of kinase suppressor of Ras 2 // X F4	Cnksr2	NM_177751	0.0430287	-3.31661	0.475873	-1.08326	0.0770679	3.0617
10431326	NM_133241 // Mlc1 // megalencephalic leukoencephalopathy with subcortical cysts	Mlc1	NM_133241	0.0479402	2.16972	0.0993979	1.25718	0.09514	-1.72585
10351099	NM_183391 // Tnfsf18 // tumor necrosis factor (ligand) superfamily, member 18 //	Tnfsf18	NM_183391	0.044467	2.98252	0.0762195	1.42446	0.093068	-2.09378
10522368	NM_001081205 // Nipal1 // NIPA-like domain containing 1 // 5 C3.2 // 70701 /// E	Nipal1	NM_001081205	0.0427768	2.16341	0.0270036	1.60656	0.12288	-1.34661
10580663	BC013479 // AU018778 // expressed sequence AU018778 // 8 C5 // 234564 /// ENSMUS	AU018778	BC013479	0.042982	-3.84443	0.0517139	1.65724	0.0614248	6.37112

Common genes

Transcript ID	gene_assignment	Gene Symbol	RefSeq	FDR (single vs. wt)	Fold-Change (single vs. wt)	FDR (double vs. wt)	Fold-Change (double vs. wt)	FDR (double vs. single)	Fold-Change (double vs. single)
10558687	NM_029821 // 1190003J15Rik // RIKEN cDNA 1190003J15 gene // 7 F5 // 76974 /// EN	1190003J15Rik	NM_029821	0.0401377	2.83945	0.0137066	2.66717	0.457681	-1.06459
10520501	BC060996 // 1700001C02Rik // RIKEN cDNA 1700001C02 gene // 5 B1 // 75434 /// ENS	1700001C02Rik	BC060996	0.0430287	-2.55519	0.0145433	-3.87683	0.113527	-1.51724
10511984	NM_027041 // 1700003M02Rik // RIKEN cDNA 1700003M02 gene // 4 A5 // 69329 /// EN	1700003M02Rik	NM_027041	0.0401377	-2.98445	0.0129996	-9.87747	0.05086	-3.30965
10523497	BC049770 // 1700007G11Rik // RIKEN cDNA 1700007G11 gene // 5 E3 // 75784 /// ENS	1700007G11Rik	BC049770	0.0401377	-3.02873	0.0129996	-4.15575	0.0959124	-1.37211
10378749	NM_198637 // 1700016K19Rik // RIKEN cDNA 1700016K19 gene // 11 B5 // 74230 /// E	1700016K19Rik	NM_198637	0.0430287	-2.63612	0.014348	-4.32977	0.103017	-1.64248
10588819	NM_001122635 // 1700021K14Rik // RIKEN cDNA 1700021K14 gene // 9 F2 // 69398 ///	1700021K14Rik	NM_001122635	0.0483445	-2.44503	0.0145037	-5.29178	0.0847588	-2.1643
10466728	BC049563 // 1700028P14Rik // RIKEN cDNA 1700028P14 gene // 19 B // 67483 /// ENS	1700028P14Rik	BC049563	0.0479402	-3.71508	0.0145433	-10.3588	0.088388	-2.7883
10574572	BC027185 // 2210023G05Rik // RIKEN cDNA 2210023G05 gene // 8 D3 // 72361 /// ENS	2210023G05Rik	BC027185	0.0401377	-4.49034	0.0129996	-6.8815	0.0945669	-1.53251
10499988	NM_025506 // 2310007A19Rik // RIKEN cDNA 2310007A19Rik // --- // 66353 /// ENSMU	2310007A19Rik	NM_025506	0.0440848	-3.42307	0.0179661	-3.82061	0.561079	-1.11614
10468309	AK009333 // 2310014D11Rik // RIKEN cDNA 2310014D11 gene // --- // 69633	2310014D11Rik	AK009333	0.0402362	-2.54684	0.0129996	-4.61418	0.0804626	-1.81173
10538408	BC042507 // 2410066E13Rik // RIKEN cDNA 2410066E13 gene // 6 B3 // 68235 /// ENS	2410066E13Rik	BC042507	0.0483445	-2.27765	0.0193305	-2.6182	0.373247	-1.14952
10397230	BC151099 // 2900006K08Rik // RIKEN cDNA 2900006K08 gene // 12 D1 // 72873 /// NM	2900006K08Rik	BC151099	0.0415619	-4.05386	0.0148074	-4.04304	0.988848	1.00268
10466903	NM_198651 // 443040218Rik // RIKEN cDNA 443040218 gene // 19 C1 // 381218 ///	443040218Rik	NM_198651	0.0478867	-2.74435	0.0145433	-4.75388	0.111294	-1.73224
10593460	BC048587 // 4833427G06Rik // RIKEN cDNA 4833427G06 gene // 9 B // 235345 /// ENS	4833427G06Rik	BC048587	0.0495996	-2.89331	0.0153364	-4.96853	0.124883	-1.71725
10371942	BC115566 // 4930485B16Rik // RIKEN cDNA 4930485B16 gene // 10 C2 // 380654	4930485B16Rik	BC115566	0.0427768	-2.64555	0.0145433	-3.82182	0.122392	-1.44462
10371916	ENSMUST00000067705 // 4930485B16Rik // RIKEN cDNA 4930485B16 gene // 10 C2 // 38	4930485B16Rik	ENSMUST00000067705	0.0454003	-2.59757	0.0145116	-5.00256	0.093068	-1.92586
10476793	ENSMUST00000099283 // 4930529M08Rik // RIKEN cDNA 4930529M08 gene // 2 G1 // 787	4930529M08Rik	ENSMUST00000099283	0.0461515	-2.90307	0.0145433	-5.94433	0.0957518	-2.0476
10427049	ENSMUST00000071328 // 6030408B16Rik // RIKEN cDNA 6030408B16 gene // 15 F2 // 77	6030408B16Rik	ENSMUST00000071328	0.0427768	-2.23091	0.014348	-3.25249	0.106538	-1.45792
10505465	BC023748 // 6330416G13Rik // RIKEN cDNA 6330416G13 gene // 4 C1 // 230279 /// NM	6330416G13Rik	BC023748	0.0495996	2.88492	0.0295531	2.25637	0.27888	-1.27857
10367805	NM_001127353 // 9130014G24Rik // RIKEN cDNA 9130014G24 gene // 10 A1 // 215772 //	9130014G24Rik	NM_001127353	0.0432708	-3.62288	0.0145433	-5.633	0.146526	-1.55484
10568826	ENSMUST00000074388 // 9330101J02Rik // RIKEN cDNA 9330101J02 gene // 7 F4 // 664	9330101J02Rik	ENSMUST00000074388	0.0402362	-2.41715	0.0129996	-3.06565	0.119897	-1.26829
10453629	NM_001081963 // 9430020K01Rik // RIKEN cDNA 9430020K01 gene // 18 A1 // 240185 /	9430020K01Rik	NM_001081963	0.0402362	-2.4361	0.0129996	-4.7856	0.0715387	-1.96445
10459262	NM_198649 // Ablim3 // actin binding LIM protein family, member 3 // 18 E1 // 31	Ablim3	NM_198649	0.0424565	-2.45126	0.0135399	-4.17103	0.0847949	-1.70159
10429029	NM_009623 // Adcy8 // adenylate cyclase 8 // 15 D1 // 15 37.5 cM // 11514 /// ENSMU	Adcy8	NM_009623	0.0401377	-2.94549	0.0129996	-4.42728	0.0812608	-1.50307
10434747	NM_009605 // Adipoq // adiponectin, C1Q and collagen domain containing // 16 16.	Adipoq	NM_009605	0.0427768	-3.26796	0.015127	-3.53405	0.601986	-1.08142
10398859	NM_007421 // Adssl1 // adenylosuccinate synthetase like 1 // 12 F1 // 11565 ///	Adssl1	NM_007421	0.0473076	5.04981	0.0210816	5.07338	0.988273	1.00467
10599927	NM_008032 // Aff2 // AF4/FMR2 family, member 2 // X A5 // 14266 /// ENSMUST00000	Aff2	NM_008032	0.0409899	-2.09789	0.0129996	-3.14634	0.0832518	-1.49976
10395356	NM_207531 // Agr3 // anterior gradient homolog 3 (Xenopus laevis) // 12 A3 // 40	Agr3	NM_207531	0.0455181	-4.34144	0.0141401	-13.0185	0.0883205	-2.99866
10404376	NM_177322 // Agtr1a // angiotensin II receptor, type 1a // 13 A3.2 // 13 16.0 cM //	Agtr1a	NM_177322	0.0409899	-2.90348	0.0137066	-4.08504	0.119123	-1.40695
10590830	BC119072 // AK129341 // cDNA sequence AK129341 // 9 A1 // 234915 /// ENSMUST0000	AK129341	BC119072	0.0430287	-2.66943	0.016868	-2.91429	0.538288	-1.09173
10367634	NM_031185 // Akap12 // A kinase (PRKA) anchor protein (gravin) // 12 // 10 A1 // 83	Akap12	NM_031185	0.0401377	-4.31932	0.0129996	-5.89465	0.137519	-1.36472
10414260	NM_001123394 // Ang3 // angiogenin, ribonuclease A family, member 3 // 14 C1 //	Ang3	NM_001123394	0.0417339	-18.5104	0.0148543	-19.8378	0.851254	-1.07171
10389759	NM_001080933 // Ankfn1 // ankyrin-repeat and fibronectin type III domain contain	Ankfn1	NM_001080933	0.0401377	-2.21526	0.0129996	-2.67777	0.111992	-1.20879
10428004	NM_026153 // Ankrd33b // ankyrin repeat domain 33B // 15 B3.2 // 67434 /// NM_02	Ankrd33b	NM_026153	0.0427768	-2.82332	0.0137066	-4.69165	0.0989605	-1.66175
10449258	NM_008113 // Arhgdig // Rho GDP dissociation inhibitor (GDI) gamma // 17 A3.3 //	Arhgdig	NM_008113	0.0497627	-2.29453	0.0176709	-3.06304	0.18246	-1.33493
10368859	NM_001034858 // Armc2 // armadillo repeat containing 2 // 10 B2 // 213402 /// EN	Armc2	NM_001034858	0.0401377	-2.13246	0.0129996	-2.61737	0.114042	-1.2274
10469540	NM_001081083 // Armc3 // armadillo repeat containing 3 // 2 A3 // 70882 /// ENSM	Armc3	NM_001081083	0.0427768	-2.93842	0.0145433	-3.3952	0.334424	-1.15545
10406407	NM_001042591 // Arrdc3 // arrestin domain containing 3 // 13 C3 // 105171 /// EN	Arrdc3	NM_001042591	0.0483445	-2.23924	0.0137493	-5.12792	0.0814114	-2.29002
10413381	NM_080856 // Asb14 // ankyrin repeat and SOCS box-containing 14 // 14 A3 // 1426	Asb14	NM_080856	0.0401377	-3.18026	0.0129996	-4.03146	0.106538	-1.26765
10544036	NM_080467 // Atp6v0a4 // ATPase, H+ transporting, lysosomal V0 subunit A4 // 6 B	Atp6v0a4	NM_080467	0.0427768	8.69736	0.0175127	8.16035	0.832842	-1.06581
10387797	NM_007528 // Bcl6b // B-cell CLL/lymphoma 6, member B // 11 B4 // 12029 /// ENSM	Bcl6b	NM_007528	0.0427768	-2.30796	0.0135399	-4.37084	0.0825609	-1.89381
10511042	BC113168 // C030017K20Rik // RIKEN cDNA C030017K20 gene // 4 E2 // 381581 /// EN	C030017K20Rik	BC113168	0.0401377	-2.6969	0.0129996	-4.04984	0.0814114	-1.50166
10469404	NM_023116 // Cacnb2 // calcium channel, voltage-dependent, beta 2 subunit // 2 A	Cacnb2	NM_023116	0.0410307	-2.38089	0.0136279	-3.40791	0.0998122	-1.43136
10490913	NM_007606 // Car3 // carbonic anhydrase 3 // 3 A2 // 11 7.7 cM // 12350 /// ENSMUST	Car3	NM_007606	0.0432708	-38.2308	0.0203807	-29.1785	0.619254	1.31024
10560672	NM_023224 // Cblc // Casitas B-lineage lymphoma c // 7 A3 // 80794 /// NM_001161	Cblc	NM_023224	0.0413604	2.11624	0.0137066	2.79786	0.108942	1.32209
10574288	NM_001042715 // Ccdc135 // coiled-coil domain containing 135 // 8 D1 // 330830 /	Ccdc135	NM_001042715	0.0454003	-2.15947	0.0145433	-3.41871	0.100141	-1.58312
10515894	NM_029286 // Ccdc30 // coiled-coil domain containing 30 // 4 D2.1 // 73332 /// E	Ccdc30	NM_029286	0.042982	-2.11551	0.0145433	-2.97681	0.109097	-1.40713
10497731	NM_026222 // Ccdc39 // coiled-coil domain containing 39 // 3 A3 // 51938 /// NM_	Ccdc39	NM_026222	0.0401377	-3.90135	0.0129996	-7.47332	0.0744596	-1.91557

10565463	NM_001162979 // Cdc81 // coiled-coil domain containing 81 // 7 E1 7 47.1 cM //	Cdc81	NM_001162979	0.0402362	-2.3018	0.0129996	-3.08316	0.0996658	-1.33946
10576835	NM_026956 // Cd209f // CD209f antigen // 8 A1.1 // 69142 /// ENSMUST00000078702	Cd209f	NM_026956	0.0401377	-4.05237	0.0141356	-3.52064	0.295457	1.15103
10453166	NM_001033443 // Cdk4 // cyclin-dependent kinase-like 4 // 17 E3 // 381113 /// E	Cdk4	NM_001033443	0.0483445	-2.99159	0.0174747	-4.1886	0.199869	-1.40012
10458828	NM_033037 // Cdo1 // cysteine dioxygenase 1, cytosolic // 18 C 18 23.0 cM // 125	Cdo1	NM_033037	0.0401377	-2.77336	0.0129996	-4.02942	0.093068	-1.4529
10567564	NM_007672 // Cdr2 // cerebellar degeneration-related 2 // 7 F2 7 60.0 cM // 1258	Cdr2	NM_007672	0.0409899	-4.49104	0.0137493	-6.1829	0.170275	-1.37672
10345074	NM_145825 // Ctn4 // centrin 4 // 3 B // 207175 /// ENSMUST00000102955 // Ctn4	Ctn4	NM_145825	0.0401377	-3.4552	0.0129996	-4.47683	0.133225	-1.29568
10420165	NM_009894 // Cideb // cell death-inducing DNA fragmentation factor, alpha subuni	Cideb	NM_009894	0.0476038	4.04447	0.0209162	4.1562	0.918106	1.02763
10590558	NM_011606 // Clec3b // C-type lectin domain family 3, member b // 9 F1-F3 9 71.0	Clec3b	NM_011606	0.0495996	-3.36011	0.0217718	-3.585	0.777959	-1.06693
10402473	NM_053155 // Clmn // calmin // 12 F1 // 94040 /// NM_001040682 // Clmn // calmin	Clmn	NM_053155	0.0447051	2.52455	0.0238001	2.15609	0.329799	-1.17089
10404132	NM_001111110 // Cmah // cytidine monophospho-N-acetylneuraminic acid hydroxylase	Cmah	NM_001111110	0.0402362	-2.40475	0.0129996	-5.89642	0.0614248	-2.45199
10545869	NM_053097 // Cml3 // camello-like 3 // 6 C3 // 93674 /// NM_001037842 // Cml3 //	Cml3	NM_053097	0.0440848	-2.47151	0.0135399	-5.9545	0.0786621	-2.40925
10545862	NM_001037842 // Cml3 // camello-like 3 // 6 C3 // 93674 /// NM_053097 // Cml3 //	Cml3	NM_001037842	0.0401377	-2.15352	0.0129996	-4.93405	0.05086	-2.29115
10551836	NM_009944 // Cox7a1 // cytochrome c oxidase, subunit VIIa 1 // 7 B1 7 8.0 cM //	Cox7a1	NM_009944	0.0417339	-3.30783	0.0150389	-3.36161	0.919865	-1.01626
10569008	NM_007751 // Cox8b // cytochrome c oxidase, subunit VIIIb // 7 F5 7 68.8 cM // 1	Cox8b	NM_007751	0.0483445	-3.41381	0.0193374	-4.01779	0.452707	-1.17692
10563770	NM_013808 // Csrp3 // cysteine and glycine-rich protein 3 // 7 B4 // 13009 /// E	Csrp3	NM_013808	0.0401377	-2.33737	0.0129996	-2.46087	0.390305	-1.05284
10514520	NM_028979 // Cyp2j9 // cytochrome P450, family 2, subfamily j, polypeptide 9 //	Cyp2j9	NM_028979	0.0444929	-2.01259	0.0145433	-2.92953	0.106351	-1.45561
10468417	XM_129357 // D19Ert652e // DNA segment, Chr 19, ERATO Doi 652, expressed // 19	D19Ert652e	XM_129357	0.0471242	-4.77101	0.0145433	-10.3603	0.119136	-2.1715
10468399	BC107403 // D19Ert652e // DNA segment, Chr 19, ERATO Doi 652, expressed // 19 D	D19Ert652e	BC107403	0.0440848	-4.32114	0.0137066	-16.6126	0.0814114	-3.84451
10468415	BC107403 // D19Ert652e // DNA segment, Chr 19, ERATO Doi 652, expressed // 19 D	D19Ert652e	BC107403	0.0401377	-4.22228	0.0129996	-9.58428	0.0614248	-2.26993
10468419	XM_129357 // D19Ert652e // DNA segment, Chr 19, ERATO Doi 652, expressed // 19	D19Ert652e	XM_129357	0.0483445	-4.05166	0.0156184	-7.29725	0.142604	-1.80105
10366524	NR_027846 // D630029K05Rik // RIKEN cDNA D630029K05 gene // 10 D2 // 103175 ///	D630029K05Ri	NR_027846	0.0401377	-4.63546	0.0129996	-5.42561	0.242896	-1.17046
10566543	NM_001162943 // Dchs1 // dachsous 1 (Drosophila) // 7 E3 // 233651 /// ENSMUST00	Dchs1	NM_001162943	0.0430287	-2.15057	0.018393	-2.16911	0.947506	-1.00862
10403112	NM_010060 // Dnahc11 // dynein, axonemal, heavy chain 11 // 12 F2 12 60.0 cM //	Dnahc11	NM_010060	0.0440848	-2.96704	0.0145433	-4.82702	0.120117	-1.62688
10413333	Z83811 // Dnahc12 // dynein, axonemal, heavy chain 12 // 14 A3 14 6.0 cM // 1100	Dnahc12	Z83811	0.0427768	-3.47878	0.0129996	-15.9861	0.0616727	-4.59531
10567506	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0447051	-6.76479	0.0145433	-16.3481	0.120266	-2.41664
10567502	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0401377	-6.09629	0.0129996	-10.203	0.108424	-1.67364
10567456	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0478666	-6.04868	0.0153167	-12.9883	0.13867	-2.14729
10567430	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0427768	-6.04168	0.0137066	-20.0624	0.0847588	-3.32066
10567512	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0401377	-5.79351	0.0129996	-14.0075	0.0681156	-2.41779
10567520	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0440848	-5.74939	0.0138876	-20.2314	0.0872686	-3.51887
10567518	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0447646	-5.62658	0.0141401	-18.8765	0.0909909	-3.35489
10567464	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0427768	-4.57629	0.0137493	-11.0725	0.0945669	-2.41954
10567466	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0452667	-4.27854	0.0145433	-8.97897	0.111373	-2.09861
10567448	BC051401 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	BC051401	0.0455181	-4.15095	0.0148074	-7.46141	0.1375	-1.79752
10567468	Z83816 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	Z83816	0.0402362	-4.06628	0.0129996	-7.76483	0.0846822	-1.90957
10567498	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0427768	-3.88025	0.0145433	-6.29239	0.134344	-1.62164
10567432	ENSMUST00000046993 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 38191	Dnahc3	ENSMUST00000046993	0.0401377	-3.76943	0.0129996	-8.80048	0.05086	-2.3347
10567496	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0427768	-3.10461	0.0140999	-5.20268	0.106356	-1.67579
10567444	BC051401 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	BC051401	0.0402362	-2.74551	0.0129996	-5.37445	0.0748152	-1.95754
10567510	XM_355934 // Dnahc3 // dynein, axonemal, heavy chain 3 // 7 F2 // 381917	Dnahc3	XM_355934	0.0427768	-2.51889	0.0137066	-3.92378	0.0959124	-1.55774
10354563	NM_001160386 // Dnahc7b // dynein, axonemal, heavy chain 7B // 1 C1.1 // 227058	Dnahc7b	NM_001160386	0.0430287	-4.15213	0.0139707	-9.82306	0.0945669	-2.36579
10413316	ENSMUST00000022433 // Dnahc7l // dynein, axonemal, heavy chain 7-like // 14 A3 /	Dnahc7l	ENSMUST00000022433	0.0427768	-3.79813	0.0129996	-14.3455	0.0727608	-3.77698
10387029	NM_001099633 // Dnahc9 // dynein, axonemal, heavy chain 9 // 11 B3 // 237806 ///	Dnahc9	NM_001099633	0.0413604	-2.81184	0.0130516	-5.08979	0.0836674	-1.81013
10516259	NM_175223 // Dnali1 // dynein, axonemal, light intermediate polypeptide 1 // 4 D	Dnali1	NM_175223	0.0409899	-3.44413	0.0129996	-7.72185	0.0814114	-2.24203
10420988	NM_009955 // Dpysl2 // dihydropyrimidinase-like 2 // 14 D1 14 28.2 cM // 12934 /	Dpysl2	NM_009955	0.0483445	-2.19254	0.0140999	-4.56575	0.0832518	-2.0824
10422321	NM_025943 // Dzip1 // DAZ interacting protein 1 // 14 E4 // 66573 /// ENSMUST000	Dzip1	NM_025943	0.0402362	-3.73845	0.0135399	-5.4122	0.124226	-1.44771
10452450	NM_001008973 // E130009J12Rik // RIKEN cDNA E130009J12 gene // 17 E1.1 // 381107	E130009J12Rik	NM_001008973	0.0424565	-3.78621	0.0137066	-6.43255	0.108424	-1.69894
10504621	ENSMUST00000043958 // E230008N13Rik // RIKEN cDNA E230008N13 gene // 4 B1 // 381	E230008N13Ri	ENSMUST00000043958	0.0432708	-2.07064	0.0149752	-2.52076	0.189175	-1.21738
10375360	NM_007897 // Ebf1 // early B-cell factor 1 // 11 B1.1 11 20.0 cM // 13591 /// EN	Ebf1	NM_007897	0.0440848	-2.83319	0.0145433	-4.54904	0.119319	-1.60562
10405033	NM_001012324 // Ecm2 // extracellular matrix protein 2, female organ and adipocy	Ecm2	NM_001012324	0.0401377	-4.72097	0.0129996	-13.089	0.0684766	-2.77251
10368062	ENSMUST00000095817 // Ect2l // epithelial cell transforming sequence 2 oncogene-	Ect2l	ENSMUST00000095817	0.0427768	-3.59006	0.0145433	-5.43907	0.145341	-1.51503
10374366	NM_207655 // Egfr // epidermal growth factor receptor // 11 A1-A4 11 9.0 cM // 1	Egfr	NM_207655	0.0427768	-2.35781	0.0137066	-3.75656	0.0959124	-1.59324
10593634	NM_177769 // Elmod1 // ELMO domain containing 1 // 9 A5.3 // 270162 /// ENSMUST0	Elmod1	NM_177769	0.0401377	-3.49299	0.0129996	-8.64423	0.0668732	-2.47473

10407072	NM_029001 // Elovl7 // ELOVL family member 7, elongation of long chain fatty aci	Elovl7	NM_029001	0.0427768	2.41998	0.0145433	2.97408	0.182106	1.22897
10480414	NM_027728 // Enkur // enkurin, TRPC channel interacting protein // 2 A3 // 71233	Enkur	NM_027728	0.0483445	-3.70742	0.0153364	-6.71579	0.134344	-1.81145
10389990	NM_027984 // Epn3 // epsin 3 // 11 C // 71889 /// ENSMUST00000010224 // Epn3 //	Epn3	NM_027984	0.0409899	2.28199	0.0135399	3.10447	0.104704	1.36042
10441093	NM_133659 // Erg // avian erythroblastosis virus E-26 (v-ets) oncogene related /	Erg	NM_133659	0.0427768	-2.70278	0.0137066	-4.93704	0.0883205	-1.82665
10432492	NM_028224 // Faim2 // Fas apoptotic inhibitory molecule 2 // 15 F3 // 72393 ///	Faim2	NM_028224	0.0402362	-2.5688	0.0153897	-2.16623	0.189879	1.18584
10565210	NM_177894 // Fam154b // family with sequence similarity 154, member B // 7 D3 //	Fam154b	NM_177894	0.0427768	-2.6284	0.0136279	-5.18144	0.0832518	-1.97133
10374578	BC024460 // Fam161a // family with sequence similarity 161, member A // 11 A3.3	Fam161a	BC024460	0.0442034	-2.85319	0.0147769	-4.08955	0.152828	-1.43332
10404152	NM_029679 // Fam65b // family with sequence similarity 65, member B // 13 A3.2 /	Fam65b	NM_029679	0.0455181	-2.70954	0.0214547	-2.58138	0.771664	1.04965
10410731	ENSMUST00000109592 // Fam81b // family with sequence similarity 81, member B //	Fam81b	ENSMUST00000109592	0.0402362	-3.07647	0.0129996	-4.56888	0.0959124	-1.48511
10591123	NM_001080814 // Fat3 // FAT tumor suppressor homolog 3 (Drosophila) // 9 A2 // 2	Fat3	NM_001080814	0.047779	-4.30772	0.0145433	-11.0244	0.0985625	-2.55922
10591118	NM_001080814 // Fat3 // FAT tumor suppressor homolog 3 (Drosophila) // 9 A2 // 2	Fat3	NM_001080814	0.0401377	-4.29192	0.0129996	-10.0942	0.0614248	-2.3519
10591131	NM_001080814 // Fat3 // FAT tumor suppressor homolog 3 (Drosophila) // 9 A2 // 2	Fat3	NM_001080814	0.0427768	-4.00739	0.0145027	-6.33374	0.133553	-1.58052
10591135	NM_001080814 // Fat3 // FAT tumor suppressor homolog 3 (Drosophila) // 9 A2 // 2	Fat3	NM_001080814	0.0402362	-3.51926	0.0129996	-8.81494	0.0737683	-2.50477
10591120	NM_001080814 // Fat3 // FAT tumor suppressor homolog 3 (Drosophila) // 9 A2 // 2	Fat3	NM_001080814	0.0455181	-2.48605	0.0145433	-3.76182	0.124179	-1.51317
10491732	NM_183221 // Fat4 // FAT tumor suppressor homolog 4 (Drosophila) // 3 B // 32962	Fat4	NM_183221	0.0427768	-2.42128	0.0145116	-3.47346	0.116906	-1.43456
10427898	NM_176959 // Fbxl7 // F-box and leucine-rich repeat protein 7 // 15 B1 // 448987	Fbxl7	NM_176959	0.0403299	-2.14552	0.0129996	-3.02983	0.092159	-1.41216
10405380	NM_008011 // Fgfr4 // fibroblast growth factor receptor 4 // 13 B1 13 33.0 cM //	Fgfr4	NM_008011	0.0492692	-3.17027	0.0208584	-3.53517	0.602883	-1.1151
10359593	NM_008030 // Fmo3 // flavin containing monooxygenase 3 // 1 H2.1 1 92.6 cM // 14	Fmo3	NM_008030	0.0430287	-8.89497	0.0149678	-14.2955	0.230379	-1.60715
10359561	NM_144878 // Fmo4 // flavin containing monooxygenase 4 // 1 H2.1 1 85.0 cM // 22	Fmo4	NM_144878	0.0402362	4.30071	0.0145433	3.33319	0.171121	-1.29027
10404404	NM_010225 // Foxf2 // forkhead box F2 // 13 A4 // 14238 /// ENSMUST00000042054 /	Foxf2	NM_010225	0.0495996	-2.06238	0.0145433	-4.02212	0.0836674	-1.95023
10514088	NM_177863 // Frem1 // Fras1 related extracellular matrix protein 1 // 4 C3 // 32	Frem1	NM_177863	0.0427768	-2.1738	0.0145433	-2.80024	0.137519	-1.28818
10422760	NM_011815 // Fyb // FYN binding protein // 15 A1 // 23880 /// ENSMUST00000090461	Fyb	NM_011815	0.0401377	-2.12018	0.0129996	-2.38318	0.134274	-1.12404
10401968	NM_008079 // Galc // galactosylceramidase // 12 E 12 48.0 cM // 14420 /// ENSMUS	Galc	NM_008079	0.0483445	2.02289	0.0145433	3.06708	0.106538	1.51619
10490491	NM_008093 // Gata5 // GATA binding protein 5 // 2 H4 2 106.0 cM // 14464 /// ENS	Gata5	NM_008093	0.049754	-2.3411	0.0229235	-2.34938	0.984597	-1.00354
10496580	NM_018734 // Gbp3 // guanylate binding protein 3 // 3 H1 // 55932 /// ENSMUST000	Gbp3	NM_018734	0.0454003	-2.30172	0.0145433	-3.53935	0.110499	-1.5377
10557470	NM_024228 // Gdgd3 // glycerophosphodiester phosphodiesterase domain containing	Gdgd3	NM_024228	0.0401377	-17.2155	0.0140999	-13.1551	0.314702	1.30865
10416340	NM_008115 // Gfra2 // glial cell line derived neurotrophic factor family recepto	Gfra2	NM_008115	0.0456096	-2.82435	0.0147649	-4.39412	0.133732	-1.5558
10350668	NM_177756 // Glt25d2 // glycosyltransferase 25 domain containing 2 // 1 G3 // 26	Glt25d2	NM_177756	0.0475757	-3.14001	0.0177974	-4.0296	0.274674	-1.28331
10542592	AK143453 // Gm10400 // predicted gene 10400 // --- // 100093700	Gm10400	AK143453	0.0495996	-4.26223	0.0178275	-6.75662	0.199637	-1.58523
10404898	BC064117 // Gm1574 // predicted gene 1574 // 13 A5 // 380842 /// ENSMUST000000076	Gm1574	BC064117	0.0424565	-2.86783	0.0145433	-3.54138	0.21053	-1.23486
10417667	XM_138893 // Gm281 // predicted gene 281 // 14 A1 // 238939	Gm281	XM_138893	0.0402362	-7.52306	0.0132632	-13.6618	0.115169	-1.81599
10438784	BC086669 // Gm606 // predicted gene 606 // 16 B2 // 239789 /// ENSMUST0000008983	Gm606	BC086669	0.0432708	-4.24409	0.0164193	-5.15527	0.385907	-1.21469
10413981	XM_985917 // Gm626 // predicted gene 626 // 14 B // 268729 /// XM_001481294 // G	Gm626	XM_985917	0.0401377	-3.20396	0.0129996	-7.15627	0.0611318	-2.23357
10362745	XR_032514 // Gm7127 // predicted gene 7127 // 10 B1 10 // 633979	Gm7127	XR_032514	0.0427768	-2.64607	0.0145433	-3.93123	0.120064	-1.48569
10536216	NM_025331 // Gng11 // guanine nucleotide binding protein (G protein), gamma 11 /	Gng11	NM_025331	0.0413035	-2.78765	0.0130839	-4.90031	0.0848947	-1.75786
10571815	NM_153581 // Gpm6a // glycoprotein m6a // 8 B3.2 // 234267 /// ENSMUST0000003391	Gpm6a	NM_153581	0.0402362	-4.21986	0.0129996	-12.2342	0.0713526	-2.89921
10571142	NM_054044 // Gpr124 // G protein-coupled receptor 124 // 8 A3 // 78560 /// ENSMU	Gpr124	NM_054044	0.0410307	-2.00501	0.0129996	-3.01898	0.0832518	-1.50571
10360415	NM_011825 // Grem2 // gremlin 2 homolog, cysteine knot superfamily (Xenopus lae	Grem2	NM_011825	0.0427768	-2.61072	0.0138876	-4.32769	0.0959124	-1.65766
10471655	NM_146120 // Gsn // gelsolin // 2 B 2 24.5 cM // 227753 /// ENSMUST00000028239 /	Gsn	NM_146120	0.0417339	-2.45623	0.0130839	-4.2369	0.0832518	-1.72496
10495243	NM_010360 // Gstm5 // glutathione S-transferase, mu 5 // 3 F2.3 // 14866 /// ENS	Gstm5	NM_010360	0.0427768	-2.2268	0.0129996	5.91292	0.05086	13.1669
10354598	NM_001001883 // Hecw2 // HECT, C2 and WW domain containing E3 ubiquitin protein	Hecw2	NM_001001883	0.0440848	-2.47704	0.0145433	-3.50429	0.13867	-1.41471
10435271	NM_175256 // Heg1 // HEG homolog 1 (zebrafish) // 16 B3 // 77446 /// ENSMUST00000	Heg1	NM_175256	0.0456915	-2.60007	0.0137066	-6.07608	0.0832518	-2.33689
10519857	NM_010427 // Hgf // hepatocyte growth factor // 5 4.0 cM // 15234 /// ENSMUST000	Hgf	NM_010427	0.0424565	-2.97744	0.0129996	-9.28443	0.0681156	-3.11826
10389786	NM_172563 // Hlf // hepatic leukemia factor // 11 C-D 11 52.0 cM // 217082 /// E	Hlf	NM_172563	0.0427768	-3.95815	0.0146379	-4.6886	0.364544	-1.18454
10358613	NM_001024720 // Hmcn1 // hemicentin 1 // 1 G1 // 545370 /// ENSMUST00000074783 /	Hmcn1	NM_001024720	0.0427768	-4.51691	0.0147769	-5.77917	0.291339	-1.27945
10358627	NM_001024720 // Hmcn1 // hemicentin 1 // 1 G1 // 545370 /// ENSMUST00000074783 /	Hmcn1	NM_001024720	0.0483445	-4.47162	0.0197873	-5.48051	0.453983	-1.22562
10358615	NM_001024720 // Hmcn1 // hemicentin 1 // 1 G1 // 545370 /// ENSMUST00000074783 /	Hmcn1	NM_001024720	0.0432708	-3.98155	0.0147359	-6.05732	0.166394	-1.52135
10358611	NM_001024720 // Hmcn1 // hemicentin 1 // 1 G1 // 545370 /// ENSMUST00000074783 /	Hmcn1	NM_001024720	0.0407729	-2.84133	0.0137066	-3.55308	0.166834	-1.2505
10379765	NM_009330 // Hnf1b // HNF1 homeobox B // 11 C 11 44.0 cM // 21410 /// ENSMUST000	Hnf1b	NM_009330	0.0427768	2.30363	0.0145433	2.75249	0.220207	1.19485
10376956	NM_178870 // Hs3st3a1 // heparan sulfate (glucosamine) 3-O-sulfotransferase 3A1	Hs3st3a1	NM_178870	0.0483445	2.91078	0.0162584	4.40032	0.155027	1.51173
10476237	NM_028306 // Hspa12b // heat shock protein 12B // 2 F3 // 72630 /// ENSMUST000000	Hspa12b	NM_028306	0.0472495	-2.61324	0.0153364	-3.7707	0.148839	-1.44292
10575380	NM_172916 // Hydin // hydrocephalus inducing // 8 E1 // 244653 /// ENSMUST000000	Hydin	NM_172916	0.0475546	-3.62849	0.0145433	-7.14046	0.113411	-1.96789
10402347	NM_029803 // Ifi2712a // interferon, alpha-inducible protein 27 like 2A // 12 E	Ifi2712a	NM_029803	0.0402362	-4.50195	0.0137066	-6.08615	0.166901	-1.35189
10498383	NM_001162884 // Igsf10 // immunoglobulin superfamily, member 10 // 3 D // 242050	Igsf10	NM_001162884	0.0430287	-3.18897	0.0145433	-5.30104	0.115169	-1.6623

10498386	NM_001162884 // Igsf10 // immunoglobulin superfamily, member 10 // 3 D // 242050	Igsf10	NM_001162884	0.0430287	-2.96905	0.0145027	-5.14302	0.104466	-1.73221
10543572	NM_011829 // Impdh1 // inosine 5'-phosphate dehydrogenase 1 // 6 A3 // 23917 ///	Impdh1	NM_011829	0.0402362	-2.13022	0.0145433	-2.01405	0.471214	1.05768
10356498	ENSMUST00000092611 // Iqca // IQ motif containing with AAA domain // 1 D // 7491	Iqca	ENSMUST00000092611	0.0401377	-2.5123	0.0129996	-3.17666	0.119726	-1.26445
10543428	NM_172535 // Iqub // IQ motif and ubiquitin domain containing // 6 A3.1 // 21470	Iqub	NM_172535	0.0432708	-3.14355	0.0137066	-7.92708	0.0832188	-2.5217
10530692	NM_010612 // Kdr // kinase insert domain protein receptor // 5 C3.3 5 42.0 cM //	Kdr	NM_010612	0.0427768	-4.02633	0.0134031	-10.0098	0.0832518	-2.4861
10409666	NM_175214 // Kif27 // kinesin family member 27 // 13 B1 // 75050 /// ENSMUST0000	Kif27	NM_175214	0.0401377	-2.31208	0.0129996	-2.87852	0.0777885	-1.24499
10513008	NM_010637 // Klf4 // Kruppel-like factor 4 (gut) // 4 B3 4 19.7 cM // 16600 ///	Klf4	NM_010637	0.0409899	-3.63071	0.0145433	-3.91257	0.595986	-1.07763
10542140	NM_153094 // Klrb1f // killer cell lectin-like receptor subfamily B member 1F //	Klrb1f	NM_153094	0.0495996	-2.37779	0.0146545	-4.06855	0.106538	-1.71106
10352838	NM_008484 // Lamb3 // laminin, beta 3 // 1 H2-H6 1 104.0 cM // 16780 /// ENSMUST	Lamb3	NM_008484	0.0401377	2.45959	0.0129996	2.57268	0.453328	1.04598
10529875	NM_001077398 // Ldb2 // LIM domain binding 2 // 5 B3 // 16826 /// NM_010698 // L	Ldb2	NM_001077398	0.0430287	-2.86354	0.0145433	-4.0315	0.150564	-1.40787
10522217	NM_001001980 // Limch1 // LIM and calponin homology domains 1 // 5 C3.1 // 77569	Limch1	NM_001001980	0.0402362	-2.11144	0.0129996	-3.39272	0.0782213	-1.60683
10438592	NM_001083894 // Liph // lipase, member H // 16 B1 16 14.8 cM // 239759 /// NM_15	Liph	NM_001083894	0.0401377	2.6519	0.0145433	2.04546	0.106538	-1.29648
10494445	ENSMUST00000062058 // Lix1l // Lix1-like // 3 F2.1 // 280411	Lix1l	ENSMUST00000062058	0.0417339	-2.12539	0.0137066	-3.08451	0.0945669	-1.45127
10519998	NM_028977 // Lrrc17 // leucine rich repeat containing 17 // 5 A3 // 74511 /// EN	Lrrc17	NM_028977	0.0402362	-2.92386	0.0137066	-3.49744	0.206294	-1.19617
10547820	NM_013588 // Lrrc23 // leucine rich repeat containing 23 // 6 F2 6 60.21 cM // 1	Lrrc23	NM_013588	0.0455181	-2.51015	0.014921	-3.61088	0.141305	-1.43851
10376579	NM_029044 // Lrrc48 // leucine rich repeat containing 48 // 11 B2 // 74665 /// E	Lrrc48	NM_029044	0.0432708	-2.677	0.0138676	-5.28235	0.0883205	-1.97323
10429506	NM_026671 // Lypd2 // Ly6/Plaur domain containing 2 // 15 E1 // 68311 /// ENSMUS	Lypd2	NM_026671	0.0450295	-6.18991	0.0318992	-3.13089	0.14599	1.97704
10587226	NM_027309 // Lysmd2 // LysM, putative peptidoglycan-binding, domain containing 2	Lysmd2	NM_027309	0.0401377	-3.36158	0.0129996	-3.88628	0.231614	-1.15609
10581992	NM_001025577 // Maf // avian musculoaponeurotic fibrosarcoma (v-maf) AS42 oncogene	Maf	NM_001025577	0.0483445	-2.2877	0.0229952	-2.20026	0.796049	1.03974
10487441	NM_010762 // Mal // myelin and lymphocyte protein, T-cell differentiation protei	Mal	NM_010762	0.047133	3.16284	0.0145433	5.68728	0.116262	1.79816
10381776	NM_001038609 // Mapt // microtubule-associated protein tau // 11 E1 11 64.0 cM /	Mapt	NM_001038609	0.0444929	-2.49704	0.0153364	-3.26629	0.182857	-1.30806
10404359	NM_153546 // Mboat1 // membrane bound O-acyltransferase domain containing 1 // 1	Mboat1	NM_153546	0.0402362	2.3952	0.0129996	4.27485	0.0770679	1.78476
10584674	NM_023061 // Mcam // melanoma cell adhesion molecule // 9 A5.1 // 84004 /// ENSM	Mcam	NM_023061	0.0406139	-2.29806	0.0137066	-2.82589	0.143085	-1.22969
10595480	NM_008615 // Me1 // malic enzyme 1, NADP(+)-dependent, cytosolic // 9 E3.1 9 48.	Me1	NM_008615	0.0415619	2.54495	0.0146919	2.59167	0.875648	1.01836
10405753	NM_008615 // Me1 // malic enzyme 1, NADP(+)-dependent, cytosolic // 9 E3.1 9 48.	Me1	NM_008615	0.0427768	2.76998	0.0160954	2.76245	0.985525	-1.00272
10479761	NM_008579 // Meig1 // meiosis expressed gene 1 // 2 A1 // 104362 /// ENSMUST0000	Meig1	NM_008579	0.0495996	-2.66358	0.0134031	-11.0832	0.0681156	-4.16102
10348471	NM_053015 // Mlph // melanophilin // 1 D 1 59.0 cM // 171531 /// ENSMUST00000027	Mlph	NM_053015	0.0430287	2.81814	0.0145433	4.09893	0.136152	1.45448
10514000	NM_010820 // Mpdz // multiple PDZ domain protein // 4 C3 4 38.6 cM // 17475 ///	Mpdz	NM_010820	0.0430287	-2.83669	0.0195175	-2.67261	0.699173	1.06139
10584827	NM_007962 // Mpzl2 // myelin protein zero-like 2 // 9 A5.2 9 26.0 cM // 14012 //	Mpzl2	NM_007962	0.042982	4.50208	0.0145433	7.63223	0.137517	1.69527
10461594	NM_029499 // Ms4a4c // membrane-spanning 4-domains, subfamily A, member 4C // 19	Ms4a4c	NM_029499	0.042982	-2.55647	0.0139506	-4.30602	0.0959124	-1.68436
10575497	NM_198625 // Mtss1l // metastasis suppressor 1-like // 8 E1 // 244654 /// ENSMUS	Mtss1l	NM_198625	0.0427768	-2.52409	0.0147649	-2.90787	0.307903	-1.15205
10601980	NM_175541 // Mum1l1 // melanoma associated antigen (mutated) 1-like 1 // X F1 //	Mum1l1	NM_175541	0.0401377	-2.94201	0.0129996	-3.56759	0.140137	-1.21264
10368199	NM_010848 // Myb // myeloblastosis oncogene // 10 A3 10 16.0 cM // 17863 /// ENS	Myb	NM_010848	0.044053	-2.48457	0.0140999	-4.44812	0.0945669	-1.7903
10381798	NM_010858 // Myl4 // myosin, light polypeptide 4 // 11 E1 11 65.0 cM // 17896 ///	Myl4	NM_010858	0.0402362	-11.4768	0.0144057	-11.8878	0.89046	-1.03581
10384044	NM_022879 // Myl7 // myosin, light polypeptide 7, regulatory // 11 A1 11 0.75 cM	Myl7	NM_022879	0.0440848	-18.0797	0.0213316	-13.6724	0.529983	1.32235
10501895	NM_021503 // Myoz2 // myozenin 2 // 3 G3 // 59006 /// ENSMUST00000029761 // Myoz	Myoz2	NM_021503	0.0401377	-7.22992	0.0137066	-5.751	0.230795	1.25716
10591139	NM_028279 // Naalad2 // N-acetylated alpha-linked acidic dipeptidase 2 // 9 A3 9	Naalad2	NM_028279	0.0401377	-2.93423	0.0129996	-3.72878	0.09514	-1.27079
10552697	NM_008437 // Napsa // napsin A aspartic peptidase // 7 B4 // 16541 /// ENSMUST00	Napsa	NM_008437	0.0492692	2.7539	0.0290029	2.17967	0.276793	-1.26345
10553833	NM_010882 // Ndn // necdin // 7 C 7 28.0 cM // 17984 /// ENSMUST00000038775 // N	Ndn	NM_010882	0.0461515	-4.46004	0.0145433	-10.9755	0.101625	-2.46085
10458122	NM_080637 // Nme5 // non-metastatic cells 5, protein expressed in (nucleoside-di	Nme5	NM_080637	0.0427768	-2.8658	0.0137066	-5.23666	0.088388	-1.8273
10472514	NM_181547 // Nostrin // nitric oxide synthase trafficker // 2 C2 // 329416 /// E	Nostrin	NM_181547	0.0430287	-3.05475	0.0145433	-5.18922	0.108912	-1.69874
10358879	NM_028749 // Npl // N-acetylneuraminatase pyruvate lyase // 1 G2 // 74091 /// ENSM	Npl	NM_028749	0.0409899	3.80173	0.0146213	3.74636	0.930818	-1.01478
10529656	NM_010942 // Nsg1 // neuron specific gene family member 1 // 5 B3 5 21.0 cM // 1	Nsg1	NM_010942	0.0473076	-2.48787	0.0145433	-4.14497	0.106902	-1.66607
10387170	NM_008744 // Ntn1 // netrin 1 // 11 B3 // 18208 /// BC141294 // Ntn1 // netrin 1	Ntn1	NM_008744	0.0432708	-2.07376	0.0153364	-2.44154	0.231945	-1.17735
10524621	NM_011854 // Oasl2 // 2'-5' oligoadenylate synthetase-like 2 // 5 F // 23962 ///	Oasl2	NM_011854	0.0497614	-2.25355	0.0144057	-4.88949	0.0832518	-2.16969
10474129	NM_173749 // Pamr1 // peptidase domain containing associated with muscle regener	Pamr1	NM_173749	0.0427768	-3.97861	0.0145433	-5.60269	0.187551	-1.4082
10363455	NM_025273 // Pcbd1 // pterin 4 alpha carbinolamine dehydratase/dimerization cofa	Pcbd1	NM_025273	0.0427768	2.63029	0.0147649	3.00418	0.338052	1.14215
10427816	NM_001081064 // Pdxd2 // PDZ domain containing 2 // 15 A2 // 68070 /// ENSMUST00	Pdxd2	NM_001081064	0.0432708	-3.19556	0.0135399	-9.65947	0.0777885	-3.02278
10506188	NM_028132 // Pgm2 // phosphoglucomutase 2 // 4 C6 4 45.8 cM // 72157 /// BC00852	Pgm2	NM_028132	0.0430287	2.20188	0.015627	2.50364	0.314392	1.13705
10392347	NM_145823 // Pitpnc1 // phosphatidylinositol transfer protein, cytoplasmic 1 //	Pitpnc1	NM_145823	0.042982	-3.50282	0.0156184	-4.17018	0.358456	-1.19052
10418193	NM_207229 // Plac9 // placenta specific 9 // 14 B // 211623 /// BC032982 // Plac	Plac9	NM_207229	0.0417339	-2.77904	0.0129996	-5.69865	0.0814114	-2.05058
10418180	NM_207229 // Plac9 // placenta specific 9 // 14 B // 211623 /// BC032982 // Plac	Plac9	NM_207229	0.0427768	-2.7129	0.0129996	-5.68987	0.0814114	-2.09733
10418205	NM_207229 // Plac9 // placenta specific 9 // 14 B // 211623 /// BC032982 // Plac	Plac9	NM_207229	0.0427768	-2.7129	0.0129996	-5.68987	0.0814114	-2.09733
10422628	NM_177355 // Plcx3 // phosphatidylinositol-specific phospholipase C, X domain c	Plcx3	NM_177355	0.0401377	-2.11501	0.0129996	-2.53163	0.112177	-1.19698

10363157	NM_001141927 // Pln // phospholamban // 10 B3 // 18821 /// NM_023129 // Pln // p	Pln	NM_001141927	0.0413035	-9.09737	0.0145433	-10.1082	0.673432	-1.11111
10370552	NM_015817 // Ppap2c // phosphatidic acid phosphatase type 2C // 10 C1 // 10 42.0 cM	Ppap2c	NM_015817	0.0495996	2.32203	0.0203807	2.61521	0.451382	1.12626
10433929	NM_176833 // Ppm1f // protein phosphatase 1F (PP2C domain containing) // 16 A3 /	Ppm1f	NM_176833	0.0409899	-2.19039	0.0137066	-2.65992	0.14862	-1.21436
10478145	NM_153089 // Ppp1r16b // protein phosphatase 1, regulatory (inhibitor) subunit 1	Ppp1r16b	NM_153089	0.0402362	-3.22883	0.0129996	-6.62298	0.0814114	-2.0512
10447294	NM_011104 // Prkce // protein kinase C, epsilon // 17 E4 // 18754 /// ENSMUST000	Prkce	NM_011104	0.0401377	-2.80372	0.0129996	-4.03599	0.088388	-1.43951
10359624	NM_175686 // Prrx1 // paired related homeobox 1 // 1 H2.1 // 85.4 cM // 18933 ///	Prrx1	NM_175686	0.0427768	-2.25251	0.0137066	-3.34062	0.0990406	-1.48306
10565456	NM_029614 // Prss23 // protease, serine, 23 // 7 E1 // 76453 /// ENSMUST00000041	Prss23	NM_029614	0.0427768	-2.42702	0.015627	-2.41732	0.974607	1.00401
10502805	NM_008966 // Ptgr // prostaglandin F receptor // 3 H3 // 75.8 cM // 19220 /// EN	Ptgr	NM_008966	0.0401377	-4.81868	0.0129996	-7.46985	0.0715833	-1.55019
10513320	NM_025968 // Ptgr1 // prostaglandin reductase 1 // 4 C1 // 67103 /// ENSMUST0000	Ptgr1	NM_025968	0.0401377	2.33116	0.0129996	3.44721	0.0812608	1.47875
10401114	NM_134050 // Rab15 // RAB15, member RAS oncogene family // 12 C3 // 104886 /// E	Rab15	NM_134050	0.0478867	2.41232	0.0145433	4.43851	0.0959124	1.83994
10587023	NM_023635 // Rab27a // RAB27A, member RAS oncogene family // 9 D // 9 41.0 cM // 11	Rab27a	NM_023635	0.0495996	3.75824	0.0262934	3.12135	0.45231	-1.20404
10588283	NM_173781 // Rab6b // RAB6B, member RAS oncogene family // 9 F // 9 56.0 cM // 270	Rab6b	NM_173781	0.0409899	-3.20178	0.0138148	-4.20491	0.157539	-1.3133
10553042	NM_028544 // Rasip1 // Ras interacting protein 1 // 7 B2 // 69903 /// ENSMUST000	Rasip1	NM_028544	0.0401377	-2.95082	0.0137066	-3.06696	0.677556	-1.03936
10527538	NM_026864 // Rasl11a // RAS-like, family 11, member A // 5 G3 // 68895 /// ENSMU	Rasl11a	NM_026864	0.0440848	4.6235	0.0177974	5.45302	0.489774	1.17941
10392415	NM_011268 // Rgs9 // regulator of G-protein signaling 9 // 1 E1 // 11 70.0 cM // 1	Rgs9	NM_011268	0.0495996	-2.3242	0.0191683	-2.79807	0.295603	-1.20388
10441565	NM_011299 // Rps6ka2 // ribosomal protein S6 kinase, polypeptide 2 // 17 F4 // 17 3	Rps6ka2	NM_011299	0.0427768	-2.1957	0.0146545	-2.35573	0.476321	-1.07288
10363743	NM_001081346 // Rtkn2 // rhotekin 2 // 10 B5.1 // 170799 /// ENSMUST00000105437	Rtkn2	NM_001081346	0.0409899	-2.56698	0.0129996	-7.98741	0.0614248	-3.1116
10434778	NM_023386 // Rtp4 // receptor transporter protein 4 // 16 B1 // 67775 /// ENSMUS	Rtp4	NM_023386	0.0417339	-2.0142	0.0129996	-4.28472	0.0667223	-2.12726
10493794	NM_025393 // S100a14 // S100 calcium binding protein A14 // 3 F2 // 66166 /// EN	S100a14	NM_025393	0.0413604	4.10851	0.0140999	5.70298	0.166394	1.38809
10483353	NM_009135 // Scn7a // sodium channel, voltage-gated, type VII, alpha // 2 C1.3 // 2	Scn7a	NM_009135	0.0427768	-2.74979	0.0129996	-25.0975	0.05086	-9.12704
10566822	NM_020052 // Scube2 // signal peptide, CUB domain, EGF-like 2 // 7 F1 // 7 50.0 cM	Scube2	NM_020052	0.0427768	-2.73788	0.0145433	-3.60506	0.166277	-1.31673
10423548	NM_008304 // Sdc2 // syndecan 2 // 15 B3.1 // 15 12.4 cM // 15529 /// ENSMUST000000	Sdc2	NM_008304	0.0479471	-2.30637	0.0212946	-2.34516	0.917196	-1.01682
10351197	NM_011346 // Sell // selectin, lymphocyte // 1 H2.2 // 1 86.6 cM // 20343 /// ENSMU	Sell	NM_011346	0.0483445	-2.57314	0.0147649	-4.28367	0.116362	-1.66476
10413733	NM_001025379 // Sema3g // sema domain, immunoglobulin domain (Ig), short basic d	Sema3g	NM_001025379	0.0430287	-2.51116	0.0145433	-3.4193	0.144692	-1.36164
10492798	NM_009144 // Sfrp2 // secreted frizzled-related protein 2 // 3 E3 // 3 38.5 cM // 2	Sfrp2	NM_009144	0.0483445	-4.41332	0.0217034	-4.4985	0.949979	-1.0193
10506360	NM_144906 // Sgip1 // SH3-domain GRB2-like (endophilin) interacting protein 1 //	Sgip1	NM_144906	0.0417339	-2.33722	0.0137066	-3.1998	0.113147	-1.36906
10418702	NM_011894 // Sh3bp5 // SH3-domain binding protein 5 (BTK-associated) // 14 B //	Sh3bp5	NM_011894	0.0402362	-2.23624	0.0129996	-2.90173	0.104704	-1.2976
10493604	NM_172530 // She // src homology 2 domain-containing transforming protein E // 3	She	NM_172530	0.0401377	-2.38648	0.0129996	-3.1187	0.0982262	-1.30682
10439321	NM_021301 // Slc15a2 // solute carrier family 15 (H+/peptide transporter), membe	Slc15a2	NM_021301	0.0497548	5.60543	0.027084	4.20289	0.392176	-1.33371
10598507	NM_172479 // Slc38a5 // solute carrier family 38, member 5 // X A1.1 // 209837 /	Slc38a5	NM_172479	0.0430287	-3.56507	0.0145433	-6.56429	0.106836	-1.84128
10552143	NM_017394 // Slc7a10 // solute carrier family 7 (cationic amino acid transporter	Slc7a10	NM_017394	0.0447646	-3.492	0.0160213	-4.80371	0.215967	-1.37563
10356886	NM_172658 // Slc4c1 // solute carrier organic anion transporter family, member	Slc4c1	NM_172658	0.0483445	3.05956	0.0229235	2.88878	0.77702	-1.05912
10602756	NM_025357 // Smpx // small muscle protein, X-linked // X F4 // 66106 /// ENSMUST	Smpx	NM_025357	0.0401377	-2.52734	0.0137066	-2.49182	0.861122	1.01425
10433776	NM_011415 // Snai2 // snail homolog 2 (Drosophila) // 16 A1 // 16 9.4 cM // 20583 /	Snai2	NM_011415	0.042982	-3.62923	0.0143414	-6.76062	0.104704	-1.86282
10494684	NM_028892 // Spag17 // sperm associated antigen 17 // 3 F2.2 // 74362 /// ENSMUS	Spag17	NM_028892	0.0415619	-2.89641	0.0129996	-5.6685	0.0832188	-1.95708
10522445	NM_178387 // Spata18 // spermatogenesis associated 18 // 5 C3.3 // 73472 /// ENS	Spata18	NM_178387	0.0495996	-3.48045	0.0145433	-10.3593	0.0867083	-2.97644
10427685	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0455181	-5.9513	0.0145433	-14.5293	0.115169	-2.44136
10427677	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0427768	-4.15612	0.0132796	-12.3923	0.0814114	-2.98171
10427689	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0483445	-4.1291	0.0145433	-10.9364	0.0959124	-2.64861
10427683	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0447051	-3.81198	0.0137066	-12.2331	0.0832188	-3.20911
10427691	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0401377	-3.27882	0.0129996	-8.82706	0.052094	-2.69214
10427675	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0454003	-3.1037	0.0145433	-6.09054	0.100541	-1.96235
10427681	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0402362	-3.00875	0.0129996	-10.8607	0.0562862	-3.60972
10427687	NM_177123 // Spef2 // sperm flagellar 2 // 15 A1 // 320277 /// ENSMUST0000004184	Spef2	NM_177123	0.0432708	-2.7698	0.0137859	-5.55841	0.0883205	-2.0068
10575534	NM_009179 // St3gal2 // ST3 beta-galactoside alpha-2,3-sialyltransferase 2 // 8	St3gal2	NM_009179	0.0409899	-2.30896	0.0160213	-2.08466	0.320597	1.10759
10475229	ENSMUST00000099504 // Stard9 // START domain containing 9 // 2 E5 // 668880 ///	Stard9	ENSMUST00000099504	0.0432708	-2.36129	0.0145433	-3.41625	0.122269	-1.44677
10544017	NM_177200 // Svop1 // SV2 related protein homolog (rat)-like // 6 B1 // 320590 /	Svop1	NM_177200	0.0483445	3.17717	0.0177974	4.33269	0.229613	1.36369
10556280	NM_009302 // Swap70 // SWA-70 protein // 7 F1 // 7 50.0 cM // 20947 /// ENSMUST0000	Swap70	NM_009302	0.0402362	-2.184	0.0137066	-2.50724	0.184942	-1.14801
10361381	NM_001079686 // Syne1 // synapctic nuclear envelope 1 // 10 A1 // 64009 /// NM_15	Syne1	NM_001079686	0.0479402	-2.80947	0.0145433	-5.926	0.0945669	-2.10929
10501903	NM_080451 // Synpo2 // synaptopodin 2 // 3 G3 // 118449 /// ENSMUST00000106426 /	Synpo2	NM_080451	0.0483445	-2.25068	0.020894	-2.36871	0.727545	-1.05244
10603573	NM_177704 // Sytl5 // synaptotagmin-like 5 // X A1.1 // 236643 /// ENSMUST000000	Sytl5	NM_177704	0.0401377	4.8045	0.0129996	3.42155	0.0879075	-1.40419
10537785	NM_001001452 // Tas2r143 // taste receptor, type 2, member 143 // 6 B2.1 // 3875	Tas2r143	NM_001001452	0.044933	-2.73286	0.02241	-2.44783	0.495668	1.11644
10402195	NM_028924 // Tc2n // tandem C2 domains, nuclear // 12 F1 // 74413 /// NM_0010829	Tc2n	NM_028924	0.0413035	4.15759	0.0145433	4.67512	0.473894	1.12448
10516335	NM_011902 // Tekt2 // tektin 2 // 4 D2.2 // 24084 /// ENSMUST00000102616 // Tekt	Tekt2	NM_011902	0.0455181	-2.33397	0.0146545	-3.38502	0.129445	-1.45033

10578880	NM_009390 // Tll1 // tolloid-like // 8 B3.1 8 32.4 cM // 21892 /// ENSMUST000000	Tll1	NM_009390	0.049258	-2.15861	0.01671	-2.87079	0.165128	-1.32992
10498273	NM_008536 // Tm4sf1 // transmembrane 4 superfamily member 1 // 3 D // 17112 ///	Tm4sf1	NM_008536	0.0495996	-2.27459	0.0137066	-6.16523	0.0770679	-2.71048
10532741	NM_146162 // Tmem119 // transmembrane protein 119 // 5 F // 231633 /// ENSMUST00	Tmem119	NM_146162	0.0440848	-2.95614	0.0145433	-4.64369	0.129445	-1.57086
10549420	NM_198967 // Tmtc1 // transmembrane and tetratricopeptide repeat containing 1 //	Tmtc1	NM_198967	0.0427768	-2.00602	0.0129996	-4.70119	0.0616727	-2.34355
10570018	NM_033622 // Tnfsf13b // tumor necrosis factor (ligand) superfamily, member 13b	Tnfsf13b	NM_033622	0.0444929	-2.54001	0.0137066	-5.4885	0.0832518	-2.16082
10413726	NM_009393 // Tnnc1 // troponin C, cardiac/slow skeletal // 14 B 14 10.0 cM // 21	Tnnc1	NM_009393	0.0413035	-4.17093	0.0145433	-4.69583	0.470238	-1.12585
10559558	NM_009406 // Tnni3 // troponin I, cardiac 3 // 7 A 7 9.0 cM // 21954 /// ENSMUS	Tnni3	NM_009406	0.0402362	-7.06583	0.0145433	-7.32472	0.865685	-1.03664
10350173	NM_001130174 // Tnnt2 // troponin T2, cardiac // 1 E4 1 60.0 cM // 21956 /// NM_	Tnnt2	NM_001130174	0.0440848	-5.01284	0.0203959	-4.59665	0.731923	1.09054
10444459	NM_031176 // Tnxb // tenascin XB // 17 B 17 18.74 cM // 81877 /// ENSMUST000000	Tnxb	NM_031176	0.0401377	-4.55217	0.0129996	-8.02922	0.0814114	-1.76382
10526120	NM_001130476 // Tpst1 // protein-tyrosine sulfotransferase 1 // 5 F-G1 // 22021	Tpst1	NM_001130476	0.0413035	-2.74434	0.0153364	-2.55792	0.53969	1.07288
10428534	NM_032000 // Trps1 // trichorhinophalangeal syndrome I (human) // 15 C 15 30.1 c	Trps1	NM_032000	0.0417339	-2.42183	0.0129996	-5.20089	0.0732669	-2.14751
10428536	NM_032000 // Trps1 // trichorhinophalangeal syndrome I (human) // 15 C 15 30.1 c	Trps1	NM_032000	0.0417339	-2.0714	0.0129996	-3.71724	0.076701	-1.79455
10417841	BC138269 // Ttc18 // tetratricopeptide repeat domain 18 // 14 B // 76670 /// BC1	Ttc18	BC138269	0.0430287	-2.9767	0.0145433	-4.65554	0.122269	-1.564
10380599	NM_172799 // Ttl6 // tubulin tyrosine ligase-like family, member 6 // 11 D // 2	Ttl6	NM_172799	0.0427768	-2.69952	0.0137066	-4.30087	0.100623	-1.5932
10432404	NM_011653 // Tuba1a // tubulin, alpha 1A // 15 F1 15 60.4 cM // 22142 /// ENSMUS	Tuba1a	NM_011653	0.0401377	-2.02394	0.0129996	-4.67492	0.052094	-2.30981
10473356	NM_019949 // Ube2l6 // ubiquitin-conjugating enzyme E2L 6 // 2 E1 // 56791 /// E	Ube2l6	NM_019949	0.0409899	-2.44229	0.0129996	-3.994	0.0839966	-1.63535
10496519	NM_009472 // Unc5c // unc-5 homolog C (C. elegans) // 3 H1 3 68.5 cM // 22253 //	Unc5c	NM_009472	0.0480881	-2.55243	0.0179152	-3.16827	0.263598	-1.24128
10455015	NR_027885 // Vaultrc5 // vault RNA component 5 // --- // 378472	Vaultrc5	NR_027885	0.0479402	-3.52459	0.0209162	-3.68141	0.850147	-1.0445
10399407	NM_012038 // Vsnl1 // visinin-like 1 // 12 A2 // 26950 /// ENSMUST00000072299 //	Vsnl1	NM_012038	0.0402362	-3.811	0.0129996	-10.5212	0.0715387	-2.76075
10498763	XM_143339 // Wdr49 // WD repeat domain 49 // 3 E3 // 213248	Wdr49	XM_143339	0.0427768	-3.43366	0.0148695	-4.22948	0.28522	-1.23177
10502661	NM_172864 // Wdr63 // WD repeat domain 63 // 3 H2 // 242253 /// ENSMUST0000000610	Wdr63	NM_172864	0.044933	-3.25514	0.0145433	-6.97688	0.0959124	-2.14334
10543253	NM_023653 // Wnt2 // wingless-related MMTV integration site 2 // 6 4.2 cM // 224	Wnt2	NM_023653	0.0401377	-2.7812	0.0134031	-3.26393	0.189175	-1.17357
10498720	NM_172515 // Zbbx // zinc finger, B-box domain containing // 3 E3 // 213234 ///	Zbbx	NM_172515	0.0409899	-3.28965	0.0137066	-4.64154	0.132452	-1.41095
10418171	NM_001101433 // Zcchc24 // zinc finger, CCHC domain containing 24 // 14 A3 // 71	Zcchc24	NM_001101433	0.0483445	-2.38117	0.0165892	-3.21517	0.173183	-1.35025
10504634	---	---	---	0.0401377	-9.53458	0.0129996	-17.0199	0.0959124	-1.78507
10454731	---	---	---	0.044619	-8.7741	0.0195085	-9.09426	0.925964	-1.03649
10361507	---	---	---	0.0409899	-7.43285	0.0140999	-11.1059	0.18964	-1.49417
10504632	---	---	---	0.0430287	-5.80585	0.0145433	-10.9604	0.13928	-1.88783
10514185	---	---	---	0.0402362	-5.56636	0.0129996	-10.4105	0.0969277	-1.87025
10504638	---	---	---	0.0401377	-5.48976	0.0129996	-9.00203	0.0737245	-1.63978
10427653	---	---	---	0.0401377	-4.66021	0.0129996	-11.1662	0.0681156	-2.39606
10504664	---	---	---	0.0427768	-4.57719	0.0145433	-8.09694	0.124152	-1.76897
10427663	---	---	---	0.0401377	-4.3367	0.0129996	-10.4187	0.0614248	-2.40245
10504642	---	---	---	0.0427768	-4.1885	0.0146213	-5.27968	0.285112	-1.26052
10504646	---	---	---	0.0495996	-4.17323	0.0179661	-6.49853	0.205496	-1.55719
10427671	---	---	---	0.047779	-3.72778	0.0146545	-7.17544	0.120266	-1.92486
10427669	---	---	---	0.0442034	-3.57036	0.0149282	-5.41768	0.16024	-1.5174
10427655	---	---	---	0.0475642	-3.56856	0.0137066	-12.1891	0.0814966	-3.41569
10504662	---	---	---	0.0483445	-3.48152	0.0160198	-5.5862	0.154484	-1.60453
10427661	---	---	---	0.0440848	-3.40497	0.0140999	-7.78759	0.0917894	-2.28712
10367816	---	---	---	0.0402362	-3.391	0.0129996	-5.51185	0.0945669	-1.62543
10504668	---	---	---	0.0495996	-3.35162	0.0203241	-3.97755	0.44702	-1.18675
10368836	---	---	---	0.0440848	-3.03634	0.0146545	-4.46428	0.148929	-1.47028
10504630	---	---	---	0.0427768	-2.86568	0.0148543	-3.3827	0.303884	-1.18042
10504658	---	---	---	0.0495996	-2.7947	0.0186245	-3.6593	0.244971	-1.30937
10504650	---	---	---	0.0483445	-2.74761	0.0188844	-3.34613	0.31888	-1.21783
10427667	---	---	---	0.0475642	-2.66417	0.0145433	-5.07783	0.0959124	-1.90597
10427665	---	---	---	0.047779	-2.65979	0.0145433	-5.09519	0.0959124	-1.91564
10384670	---	---	---	0.0401377	-2.64436	0.0137493	-2.00818	0.0893731	1.3168
10605503	---	---	---	0.0495996	-2.46758	0.02966	-2.00474	0.283004	1.23087
10504660	---	---	---	0.0430287	-2.24735	0.0145433	-3.00343	0.13864	-1.33643
10415723	---	---	---	0.0455181	-2.10926	0.0162439	-2.57151	0.211594	-1.21915
10525835	---	---	---	0.0450295	-2.00278	0.0145433	-2.75336	0.122269	-1.37477

Clustered Image Map(CIM) data: Significantly Enriched Gene Ontology Categories and genes.
Significantly Enriched categories in Double mutant when no directions of the changes are included

	Category Name	CIM value	Total genes in category	Changed genes in this study	Changed genes
GO:0006812	Cation Transport	0.014	493	32	ATP6V1B2, CAMK2D, CACNA1C, ANXA6, ATP13A5, CORO1A, SLC9A3, SLC13A3, SLC10A6, PTPRC, NSF, KCNQ1, SLC17A2, KCNA6, ATP7B, SCNN1G, SLC20A2, BCL2, KCNE3, SCNN1B, PKD2, SLC22A2, KCNIP2, CACNA2D1, ATP2A3, SLC38A3, SLC31A2, KCNMA1, SLC38A1, GIF, TRPC6, ITPR3

Significantly Enriched categories in Over-expressed genes of the Double mutant Tumors

GO:0006536	Glutamate metabolic process	0.05	9	4	ALDH5A1, ASL, GOT1, PRODH
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Significantly Enriched categories in Under-expressed genes of the Double mutant Tumors

GO:0007517	Muscle Organ Development	0.010625	198	14	P2RX2, LGALS1, NEO1, CRYAB,
GO:0048747	Muscle Fiber Development	0.016	60	6	BCL2, TNC, LEF1, LRP4, LRP4,
GO:0014706	Striated Muscle Tissue Development	0.018275	147	11	TMOD1, PROX1, PDGFRB,
GO:0060537	Muscle Tissue Development	0.010786	157	12	HOPX, GJC1, TAGLN
GO:0048741	Skeletal Muscle Fiber Development	0.018829	58	6	
GO:0048871	Multicellular Organismal Homeostasis	0.011	54	6	VEGFA, PDGFRB, EPAS1, BCL2, CD7, CORO1A
GO:0048010	Vascular Endothelial Growth Factor Receptor Signaling Pathway	0.016432	16	3	VEGFC, VEGFA, BMPR
GO:0030323	Respiratory Tube Development	0.017789	99	8	BMPR2, PDGFRA, VEGFA,
GO:0030324	Lung Development	0.007769	96	8	PDPN, HOPX, EPAS1, HSD11B1,
GO:0060541	Respiratory System Development	0.0191	107	8	MYCN
GO:0051056	Regulation of Small GTPase Mediated Signal Transduction	0.017214	183	10	SIPA1, ITSN1, PSD3, FGD5, LYN, ADAP2, ASAP1, 4933429F08RIK,
GO:0007264	Small Gtpase Mediated Signal Transduction	0.01714	380	18	RASGRP1, RASL11B, RAB18, PTPLAD1, RHOD, RAPGEF2, RAB8B, RAP2A, 5430435G22RIK, D10ERTD610E
GO:0042127	Regulation of Cell Proliferation	0.02	449	25	CDKN2C, SCGB1A1, SMARCA2, TRAF5, CLEC2I, BCL2, LYN, PLA2G4A, CORO1A, PLCD1, VEGFC, PTPRC, IL6ST, VEGFA, ITGAL, PDGFC, TGIF1, PROX1, MMP7, CD40, BEX1, HSF4,

					AXIN2, SOX-9, MYCN
GO:0016044	Cellular Membrane Organization	0.009313	264	13	NEO1, BCL2, EHD2, LRP4, MRC2, A4GALT, DLG4, ITSN1, FNBP1, MICALL2, LRP1, MARCH3, ZDHHC15
GO:0016049	Cell Growth	0.0059	66	6	BCL2, EMP3, EMP1, APBB2, WISP2, IGFBP2
GO:0008361	Regulation of Cell Size	0.019294	81	6	BCL2, EMP3, EMP1, APBB2, WISP2, IGFBP2
GO:0016311	Dephosphorylation	0.0065	123	10	EYA1, PTPLB, BCL2, PTPN22, DUSP18, DUSP7, PTPRU, DUSP3, PTPRC, PTPRM
GO:0016337	Cell-cell_Adhesion	0.00883	153	12	LGALS1, SCARF2, PDPN, WNT7B, BCL2, FAT1, LEF1, ITGA5, SOX9, PTPRU, ITGAL, PTPRC
GO:0002764	Immune Response Regulating Signal Transduction	0.018114	56	5	PTPN22, LYN, SCGB1A1, CLEC2I, CORO1A, ITGAL, CD40, PTPRC, BCL2,
GO:0002768	Immune Response-Regulating Cell Surface Receptor Signaling Pathway	0.021773	48	5	
GO:0042129	Regulation of T Cell Proliferation	0.016842	57	5	
GO:0032944	Regulation of Mononuclear Cell Proliferation	0.020857	72	6	
GO:0070663	Regulation of Leukocyte Proliferation	0.018696	74	6	
GO:0050670	Regulation of Lymphocyte Proliferation	0.020857	72	6	
GO:0046651	Lymphocyte Proliferation	0.0191	107	7	
GO:0070661	Leukocyte Proliferation	0.019062	109	7	
GO:0032943	Mononuclear Cell Proliferation	0.0191	107	7	
GO:0006816	Calcium Ion Transport	0.0068	128	11	CAMK2D, CACNA1C, ANXA6, BCL2, CORO1A, TRPC6, PKD2, ITPR3, PTPRC, CACNA2D1, ATP2A3, GIF
GO:0015674	Di-tri-valent Inorganic Cation Transport	0.0134	158	12	
GO:0070838	Divalent Metal Ion Transport	0.011429	131	9	
GO:0007204	Elevation of Cytosolic Calcium Ion Concentration	0.015059	27	4	
GO:0051480	Cytosolic Calcium Ion Homeostasis	0.02	29	4	
GO:0060402	Calcium Ion Transport into Cytosol	0.018	14	3	
GO:0060401	Cytosolic Calcium Ion Transport	0.018	14	3	
GO:0007044	Cell-substrate Junction Assembly	0.012875	12	3	BCL2, ITGA5, TNS1
GO:0034329	Cell Junction Assembly	0.016455	17	3	

PCR Primers

Genotyping primers

	Forward	Reverse
Ctnnb1ex3flox	GACACCGCTGCGTGGACAATG	GTGGCTGACAGCAGCTTTTCT
CC10-cre	GAGAGGACACAGTTGTCTTCTACAG	GAAGATAATCGCGAACATCTTCAGG
LSL-KrasG12D	GTC GAC AAG CTC ATG CGG GTG	AGC TAG CCA CCA TGG CTT GAG TAA GTC TGC A
R26R	AAA GTC GCT CTG AGT TGT TAT	GCG AAG AGT TTG TCC TCA ACC

Q-PCR primers

beta-actin	CAG AAG GAG ATT ACT GCT CT	GAG CCA CCG ATC CAC ACA
SP-C	GCA TCC ACA GGG TCG GTA GA	CTT TGC GGA GGG TCT TTC C
SP-B	TGC CCA GGT GCA GCT ATC A	CCA GAA TTG AGG GCC TTG TG
SP-A	TGC ACC TGG AGA ACA TGG AGA CAA	ATG GAT CCT TGC AAG CTG AGG ACT
Hop	TTC AAC AAG GTC AAC AAG CAC CCG	GCG CTG CTT AAA CCA TTT CTG CGT
Sox9	CGG CTC CAG CAA GAA CAA G	GCG CCC ACA CCA TGA AG
Sox2	TGC ACA TGG CCC AGC ACT A	TTC TCC AGT TCG CAG TCC AG
Gata6	AGC ACT GGG AGC CAT TTG GTC TAT	AAG TGA CCT CAG ATC AGC CAG GTT
Wnt7b	TCC ACA ACA CAT GGC AGG GTA AGA	ATA GGG ACA CAC AGC TGG ATG CAA
Id2	TGA CCA CCC TGA ACA CGG ACA T	GCT ATC ATT CGA CAT AAG CTC AGA
hu Sox9	AAA GGC AAC TCG TAC CCA AAT TT	AGT GGG TAA TGC GCT TGG AT
hu Id2	CCT GGA CTC GCA TCC CAC TA	GGT TCT GCC CGG GTC TCT