

Table S1. Differentially regulated genes by RNA-Seq analysis in tissue isolated from *HBUS* polyps compared with unaffected proximal cecum, as show in the heat map

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000000303	0.635	9.608	9.131	0.003	0.041	Cdh1	MGI:88354	Cdh1	cadherin 1
ENSMUSG00000000538	-0.635	5.376	8.706	0.003	0.049	Tom1l2	MGI:2443306	Tom1l2	target of myb1-like 2 (chicken)
ENSMUSG00000000805	-3.219	5.838	115.154	0.000	0.000	Car4	MGI:1096574	Car4	carbonic anhydrase 4
ENSMUSG00000000938	-1.838	3.136	21.098	0.000	0.000	Hoxa10	MGI:96171	Hoxa10	homeobox A10
ENSMUSG00000000957	1.428	3.328	12.041	0.001	0.011	Mmp14	MGI:101900	Mmp14	matrix metalloproteinase 14 (membrane-inserted)
ENSMUSG00000001025	1.092	7.162	18.812	0.000	0.001	S100a6	MGI:1339467	S100a6	S100 calcium binding protein A6 (calcyclin)
ENSMUSG00000001095	-1.533	5.176	25.507	0.000	0.000	Slc13a2	MGI:1276558	Slc13a2	solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2
ENSMUSG00000001225	-2.241	8.181	85.132	0.000	0.000	Slc26a3	MGI:107181	Slc26a3	solute carrier family 26, member 3
ENSMUSG00000001313	2.593	3.818	15.414	0.000	0.003	Rnd2	MGI:1338755	Rnd2	Rho family GTPase 2
ENSMUSG00000001349	-3.237	2.230	17.426	0.000	0.001	Cnn1	MGI:104979	Cnn1	calponin 1
ENSMUSG00000001435	2.171	4.432	60.550	0.000	0.000	Col18a1	MGI:88451	Col18a1	collagen, type XVIII, alpha 1
ENSMUSG00000001506	2.312	5.576	84.733	0.000	0.000	Col1a1	MGI:88467	Col1a1	collagen, type I, alpha 1
ENSMUSG00000001507	0.682	6.470	10.377	0.001	0.024	Itga3	MGI:96602	Itga3	integrin alpha 3
ENSMUSG00000001627	0.945	5.928	16.138	0.000	0.002	Ifrd1	MGI:1316717	Ifrd1	interferon-related developmental regulator 1
ENSMUSG00000001700	-0.761	4.658	9.344	0.002	0.037	Gramd3	MGI:1914815	Gramd3	GRAM domain containing 3
ENSMUSG00000001943	-1.611	3.149	15.783	0.000	0.002	Vsig2	MGI:1928009	Vsig2	V-set and immunoglobulin domain containing 2
ENSMUSG00000002020	3.211	1.073	10.047	0.002	0.028	Ltbp2	MGI:99502	Ltbp2	latent transforming growth factor beta binding protein 2
ENSMUSG00000002365	0.711	5.559	9.807	0.002	0.031	Snx9	MGI:1913866	Snx9	sorting nexin 9
ENSMUSG00000002565	-0.931	5.441	17.857	0.000	0.001	Scin	MGI:1306794	Scin	scinderin
ENSMUSG00000002602	1.337	3.469	11.747	0.001	0.013	Axl	MGI:1347244	Axl	AXL receptor tyrosine kinase
ENSMUSG00000002741	0.648	5.617	9.622	0.002	0.034	Ykt6	MGI:1927550	Ykt6	YKT6 homolog (S. Cerevisiae)
ENSMUSG00000002885	2.108	3.416	29.660	0.000	0.000	Cd97	MGI:1347095	Cd97	CD97 antigen
ENSMUSG00000002900	1.608	4.618	35.267	0.000	0.000	Lamb1	MGI:96743	Lamb1	laminin B1
ENSMUSG00000002944	-1.821	2.205	10.347	0.001	0.025	Cd36	MGI:107899	Cd36	CD36 antigen
ENSMUSG00000003032	-0.942	7.754	20.054	0.000	0.000	Klf4	MGI:1342287	Klf4	Kruppel-like factor 4 (gut)
ENSMUSG00000003541	1.452	2.676	9.187	0.002	0.040	Ier3	MGI:104814	Ier3	immediate early response 3
ENSMUSG00000003545	2.249	2.361	15.495	0.000	0.002	Fosb	MGI:95575	Fosb	FBJ osteosarcoma oncogene B
ENSMUSG00000004383	-2.109	2.456	14.936	0.000	0.003	Large	MGI:1342270	Large	like-glycosyltransferase
ENSMUSG00000004568	0.750	4.716	9.769	0.002	0.031	Arhgef18	MGI:2142567	Arhgef18	rho/rac guanine nucleotide exchange factor (GEF) 18
ENSMUSG00000005364	2.863	2.422	22.937	0.000	0.000	Il5ra	MGI:96558	Il5ra	interleukin 5 receptor, alpha
ENSMUSG00000005397	1.858	4.673	50.768	0.000	0.000	Nid1	MGI:97342	Nid1	nidogen 1
ENSMUSG00000006403	2.996	1.587	12.260	0.000	0.011	Adamts4	MGI:1339949	Adamts4	a disintegrin-like and

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
									metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 4
ENSMUSG00000006412	2.930	1.510	11.609	0.001	0.014	Pfdn2	MGI:1276111	Pfdn2	prefoldin 2
ENSMUSG00000006445	1.470	5.859	37.335	0.000	0.000	Epha2	MGI:95278	Epha2	Eph receptor A2
ENSMUSG00000006538	-1.227	3.906	10.497	0.001	0.023	Ihh	MGI:96533	Ihh	Indian hedgehog
ENSMUSG00000006642	1.569	3.346	13.951	0.000	0.005	Tcf23	MGI:1934960	Tcf23	transcription factor 23
ENSMUSG00000007908	1.660	3.274	16.034	0.000	0.002	Hmgcl1	MGI:2446108	Hmgcl1	3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase-like 1
ENSMUSG00000008136	1.537	3.215	13.878	0.000	0.005	Fhl2	MGI:1338762	Fhl2	four and a half LIM domains 2
ENSMUSG00000008398	2.059	2.678	17.636	0.000	0.001	Elk3	MGI:101762	Elk3	ELK3, member of ETS oncogene family
ENSMUSG00000008892	-0.776	5.673	13.811	0.000	0.005	Vdac3	MGI:106922	Vdac3	voltage-dependent anion channel 3
ENSMUSG00000011034	-1.118	3.933	12.422	0.000	0.010	Slc5a1	MGI:107678	Slc5a1	solute carrier family 5 (sodium/glucose cotransporter), member 1
ENSMUSG00000011877	0.973	5.053	16.842	0.000	0.001	Git1	MGI:1927140	Git1	G protein-coupled receptor kinase-interactor 1
ENSMUSG00000012428	1.231	3.402	9.583	0.002	0.034	Steap4	MGI:1923560	Steap4	STEAP family member 4
ENSMUSG00000013338	2.111	4.190	27.672	0.000	0.000	Fer1l4	MGI:1921812	Fer1l4	fer-1-like 4 (C. elegans)
ENSMUSG00000013523	-1.256	3.541	11.316	0.001	0.016	Bcas1	MGI:1924210	Bcas1	breast carcinoma amplified sequence 1
ENSMUSG00000013653	-1.057	8.827	21.245	0.000	0.000	1810065E05Rik	MGI:1917114	1810065E05Rik	RIKEN cDNA 1810065E05 gene
ENSMUSG00000013698	1.186	5.066	18.107	0.000	0.001	Pea15a	MGI:104799	Pea15a	phosphoprotein enriched in astrocytes 15A
ENSMUSG00000014329	2.630	1.612	10.139	0.001	0.027	Bicc1	MGI:1933388	Bicc1	bicaudal C homolog 1 (Drosophila)
ENSMUSG00000014418	-0.892	5.283	13.362	0.000	0.006	Hps5	MGI:2180307	Hps5	Hermansky-Pudlak syndrome 5 homolog (human)
ENSMUSG00000014813	3.814	3.185	37.827	0.000	0.000	Stc1	MGI:109131	Stc1	stanniocalcin 1
ENSMUSG00000015134	2.793	4.571	31.583	0.000	0.000	Aldh1a3	MGI:1861722	Aldh1a3	aldehyde dehydrogenase family 1, subfamily A3
ENSMUSG00000015143	1.528	5.696	49.138	0.000	0.000	Actn1	MGI:2137706	Actn1	actinin, alpha 1
ENSMUSG00000015405	3.499	1.204	9.567	0.002	0.034	Ace2	MGI:1917258	Ace2	angiotensin I converting enzyme (peptidyl-dipeptidase A) 2
ENSMUSG00000015468	2.799	1.344	11.624	0.001	0.014	Notch4	MGI:107471	Notch4	Notch gene homolog 4 (Drosophila)
ENSMUSG00000015533	1.684	6.803	49.993	0.000	0.000	Itga2	MGI:96600	Itga2	integrin alpha 2
ENSMUSG00000015568	-1.089	3.603	9.421	0.002	0.036	Lpl	MGI:96820	Lpl	lipoprotein lipase
ENSMUSG00000015647	2.046	3.894	33.254	0.000	0.000	Lama5	MGI:105382	Lama5	laminin, alpha 5
ENSMUSG00000015787	1.731	2.109	9.413	0.002	0.036	Abo	MGI:2135738	Abo	ABO blood group (transferase A, alpha 1-3-N-

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ENSMUSG00000015850	1.603	2.792	12.975	0.000	0.008	Adamtsl4	MGI:2389008	Adamtsl4	acetylgalactosaminyltransferase, transferase B, alpha 1-3-galactosyltransferase)
ENSMUSG00000015869	-0.749	5.440	10.354	0.001	0.024	Prpsap1	MGI:1915013	Prpsap1	ADAMTS-like 4
ENSMUSG00000015970	0.731	4.937	9.924	0.002	0.029	Chdh	MGI:1860776	Chdh	phosphoribosyl pyrophosphate synthetase-associated protein 1
ENSMUSG00000016487	0.949	4.480	12.513	0.000	0.009	Ppfibp1	MGI:1914783	Ppfibp1	choline dehydrogenase
ENSMUSG00000016763	2.219	1.967	12.609	0.000	0.009	Scube1	MGI:1890616	Scube1	PTPRF interacting protein, binding protein 1 (liprin beta 1)
ENSMUSG00000016933	1.105	3.748	10.244	0.001	0.026	Plcg1	MGI:97615	Plcg1	signal peptide, CUB domain, EGF-like 1
ENSMUSG00000016946	0.811	5.851	13.078	0.000	0.007	Kctd5	MGI:1916509	Kctd5	phospholipase C, gamma 1
ENSMUSG00000017493	1.433	4.415	18.572	0.000	0.001	Igfbp4	MGI:96439	Igfbp4	potassium channel tetramerisation domain containing 5
ENSMUSG00000017607	-0.844	6.101	16.568	0.000	0.002	Tns4	MGI:2144377	Tns4	insulin-like growth factor binding protein 4
ENSMUSG00000017737	1.885	3.771	21.077	0.000	0.000	Mmp9	MGI:97011	Mmp9	protein 4
ENSMUSG00000017774	1.312	6.094	34.907	0.000	0.000	Myo1c	MGI:106612	Myo1c	tensin 4
ENSMUSG00000017868	-1.702	4.113	29.877	0.000	0.000	Sgk2	MGI:1351318	Sgk2	matrix metalloproteinase 9
ENSMUSG00000018401	-0.818	4.796	12.008	0.001	0.012	Mttr4	MGI:2180699	Mttr4	myosin IC
ENSMUSG00000018593	1.917	5.095	63.411	0.000	0.000	Sparc	MGI:98373	Sparc	serum/glucocorticoid regulated kinase 2
ENSMUSG00000018659	-1.204	4.385	16.906	0.000	0.001	Pnpo	MGI:2144151	Pnpo	myotubularin related protein 4
ENSMUSG00000018830	-2.714	5.634	33.597	0.000	0.000	Myh11	MGI:102643	Myh11	secreted acidic cysteine rich glycoprotein
ENSMUSG00000018849	1.049	5.461	24.315	0.000	0.000	Wwc1	MGI:2388637	Wwc1	pyridoxine 5'-phosphate oxidase
ENSMUSG00000018906	2.840	1.298	11.147	0.001	0.017	P4ha2	MGI:894286	P4ha2	myosin, heavy polypeptide 11, smooth muscle
ENSMUSG00000018919	2.636	2.225	19.130	0.000	0.000	Tm4sf5	MGI:1922854	Tm4sf5	WW, C2 and coiled-coil domain containing 1
ENSMUSG00000018920	1.259	4.214	18.620	0.000	0.001	Cxcl16	MGI:1932682	Cxcl16	procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase), alpha II polypeptide
ENSMUSG00000019302	0.906	6.104	19.238	0.000	0.000	Atp6v0a1	MGI:103286	Atp6v0a1	transmembrane 4 superfamily member 5
ENSMUSG00000019359	-2.357	1.969	12.835	0.000	0.008	Gdpd2	MGI:1918834	Gdpd2	chemokine (C-X-C motif) ligand 16
ENSMUSG00000019577	-2.039	4.061	32.029	0.000	0.000	Pdk4	MGI:1351481	Pdk4	ATPase, H+ transporting, lysosomal V0 subunit A1
									glycerophosphodiester phosphodiesterase domain containing 2
									pyruvate dehydrogenase kinase,

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ENSMUSG00000019647	-1.137	5.574	29.302	0.000	0.000	Sema6a	MGI:1203727	Sema6a	isoenzyme 4 sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A
ENSMUSG00000019659	1.321	2.958	9.393	0.002	0.037	Ccdc12	MGI:1919904	Ccdc12	coiled-coil domain containing 12
ENSMUSG00000019890	-1.643	3.598	16.058	0.000	0.002	Nts	MGI:1328351	Nts	neurotensin
ENSMUSG00000019929	1.128	4.061	11.938	0.001	0.012	Dcn	MGI:94872	Dcn	decorin
ENSMUSG00000019960	0.637	5.782	9.271	0.002	0.038	Dusp6	MGI:1914853	Dusp6	dual specificity phosphatase 6
ENSMUSG00000019970	-0.982	5.446	20.324	0.000	0.000	Sgk1	MGI:1340062	Sgk1	serum/glucocorticoid regulated kinase 1
ENSMUSG00000019987	3.115	4.369	63.983	0.000	0.000	Arg1	MGI:88070	Arg1	arginase, liver
ENSMUSG00000020053	1.418	3.072	11.159	0.001	0.017	Igf1	MGI:96432	Igf1	insulin-like growth factor 1
ENSMUSG00000020108	0.856	4.634	9.598	0.002	0.034	Ddit4	MGI:1921997	Ddit4	DNA-damage-inducible transcript 4
ENSMUSG00000020122	1.188	7.187	28.833	0.000	0.000	Egfr	MGI:95294	Egfr	epidermal growth factor receptor
ENSMUSG00000020154	1.520	2.986	13.798	0.000	0.005	Ptprb	MGI:97809	Ptprb	protein tyrosine phosphatase, receptor type, B
ENSMUSG00000020205	2.039	5.590	59.400	0.000	0.000	Phlda1	MGI:1096880	Phlda1	pleckstrin homology-like domain, family A, member 1
ENSMUSG00000020241	1.373	3.727	12.864	0.000	0.008	Col6a2	MGI:88460	Col6a2	collagen, type VI, alpha 2
ENSMUSG00000020250	1.240	7.618	32.951	0.000	0.000	Txnrd1	MGI:1354175	Txnrd1	thioredoxin reductase 1
ENSMUSG00000020272	-0.958	5.162	10.861	0.001	0.020	Stk10	MGI:1099439	Stk10	serine/threonine kinase 10
ENSMUSG00000020427	1.929	2.728	17.942	0.000	0.001	Igfbp3	MGI:96438	Igfbp3	insulin-like growth factor binding protein 3
ENSMUSG00000020458	0.862	7.408	16.527	0.000	0.002	Rtn4	MGI:1915835	Rtn4	reticulon 4
ENSMUSG00000020469	3.837	1.135	13.625	0.000	0.006	Myl7	MGI:107495	Myl7	myosin, light polypeptide 7, regulatory
ENSMUSG00000020520	0.728	4.813	9.491	0.002	0.035	Galnt10	MGI:1890480	Galnt10	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 10
ENSMUSG00000020527	-0.893	5.062	15.505	0.000	0.002	Myo19	MGI:1913446	Myo19	myosin XIX
ENSMUSG00000020589	-2.091	2.545	19.360	0.000	0.000	Fam49a	MGI:1261783	Fam49a	family with sequence similarity 49, member A
ENSMUSG00000020634	0.704	6.096	10.369	0.001	0.024	Ubxn2a	MGI:2442310	Ubxn2a	UBX domain protein 2A
ENSMUSG00000020674	1.932	3.347	25.387	0.000	0.000	Pxdn	MGI:1916925	Pxdn	peroxidasin homolog (Drosophila)
ENSMUSG00000020689	1.509	2.729	11.843	0.001	0.012	Itgb3	MGI:96612	Itgb3	integrin beta 3
ENSMUSG00000020718	-2.615	1.603	9.133	0.003	0.041	Polg2	MGI:1354947	Polg2	polymerase (DNA directed), gamma 2, accessory subunit
ENSMUSG00000020758	0.864	7.360	14.871	0.000	0.003	Itgb4	MGI:96613	Itgb4	integrin beta 4
ENSMUSG00000020826	2.606	3.550	8.944	0.003	0.044	Nos2	MGI:97361	Nos2	nitric oxide synthase 2, inducible
ENSMUSG00000020911	0.726	9.707	12.268	0.000	0.011	Krt19	MGI:96693	Krt19	keratin 19
ENSMUSG00000021097	-0.660	7.569	9.932	0.002	0.029	Clmn	MGI:2136957	Clmn	calmin

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ENSMUSG00000021109	0.881	8.116	12.944	0.000	0.008	Hif1a	MGI:106918	Hif1a	hypoxia inducible factor 1, alpha subunit
ENSMUSG00000021118	0.994	6.005	21.726	0.000	0.000	Plek2	MGI:1351466	Plek2	pleckstrin 2
ENSMUSG00000021136	3.172	1.446	13.468	0.000	0.006	Smoc1	MGI:1929878	Smoc1	SPARC related modular calcium binding 1
ENSMUSG00000021187	1.099	6.057	27.424	0.000	0.000	Tc2n	MGI:1921663	Tc2n	tandem C2 domains, nuclear
ENSMUSG00000021193	1.110	3.691	10.644	0.001	0.021	Pitrm1	MGI:1916867	Pitrm1	pitrilysin metallepetidase 1
ENSMUSG00000021250	0.943	6.481	20.490	0.000	0.000	Fos	MGI:95574	Fos	FBJ osteosarcoma oncogene
ENSMUSG00000021268	2.800	2.323	13.214	0.000	0.007	Meg3	MGI:1202886	Meg3	maternally expressed 3
ENSMUSG00000021281	3.188	0.952	10.015	0.002	0.028	Tnfaip2	MGI:104960	Tnfaip2	tumor necrosis factor, alpha-induced protein 2
ENSMUSG00000021306	2.389	3.776	31.745	0.000	0.000	Gpr137b	MGI:1891463	Gpr137b	G protein-coupled receptor 137B
ENSMUSG00000021338	0.890	5.361	17.165	0.000	0.001	Lrrc16a	MGI:1915982	Lrrc16a	leucine rich repeat containing 16A
ENSMUSG00000021360	0.903	4.831	10.280	0.001	0.025	Gcnt2	MGI:1100870	Gcnt2	glucosaminyl (N-acetyl) transferase 2, I-branching enzyme
ENSMUSG00000021493	2.135	3.032	19.859	0.000	0.000	Pdlim7	MGI:1914649	Pdlim7	PDZ and LIM domain 7
ENSMUSG00000021508	3.046	3.527	49.486	0.000	0.000	Cxcl14	MGI:1888514	Cxcl14	chemokine (C-X-C motif) ligand 14
ENSMUSG00000021614	1.731	2.494	11.929	0.001	0.012	Vcan	MGI:102889	Vcan	versican
ENSMUSG00000021676	-0.698	7.885	11.516	0.001	0.014	Iqgap2	MGI:2449975	Iqgap2	IQ motif containing GTPase activating protein 2
ENSMUSG00000021765	3.259	1.436	12.334	0.000	0.010	Fst	MGI:95586	Fst	follistatin
ENSMUSG00000021806	1.994	2.598	17.700	0.000	0.001	Nid2	MGI:1298229	Nid2	nidogen 2
ENSMUSG00000021822	1.819	3.704	24.635	0.000	0.000	Plau	MGI:97611	Plau	plasminogen activator, urokinase
ENSMUSG00000021831	1.276	6.357	36.016	0.000	0.000	Ero1l	MGI:1354385	Ero1l	ERO1-like (S. cerevisiae)
ENSMUSG00000021950	2.647	5.611	53.548	0.000	0.000	Anxa8	MGI:1201374	Anxa8	annexin A8
ENSMUSG00000021994	1.781	4.024	24.541	0.000	0.000	Wnt5a	MGI:98958	Wnt5a	wingless-related MMTV integration site 5A
ENSMUSG00000021996	0.735	6.195	9.617	0.002	0.034	Esd	MGI:95421	Esd	esterase D/formylglutathione hydrolase
ENSMUSG00000022019	-1.534	3.236	9.247	0.002	0.039	Tdrd3	MGI:2444023	Tdrd3	tudor domain containing 3
ENSMUSG00000022037	2.389	4.966	52.702	0.000	0.000	Clu	MGI:88423	Clu	clusterin
ENSMUSG00000022057	1.119	5.268	22.157	0.000	0.000	Adamdec1	MGI:1917650	Adamdec1	ADAM-like, decysin 1
ENSMUSG00000022221	0.823	4.537	9.501	0.002	0.035	Ripk3	MGI:2154952	Ripk3	receptor-interacting serine-threonine kinase 3
ENSMUSG00000022358	-1.005	5.705	22.278	0.000	0.000	Fbxo32	MGI:1914981	Fbxo32	F-box protein 32
ENSMUSG00000022419	-0.662	5.713	10.435	0.001	0.024	Deptor	MGI:2146322	Deptor	DEP domain containing MTOR-interacting protein
ENSMUSG00000022479	-0.875	6.447	16.883	0.000	0.001	Vdr	MGI:103076	Vdr	vitamin D receptor
ENSMUSG00000022546	-1.609	3.748	20.129	0.000	0.000	Gpt	MGI:95802	Gpt	glutamic pyruvic transaminase, soluble

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ENSMUSG00000022582	2.664	3.999	22.315	0.000	0.000	Ly6g	MGI:109440	Ly6g	lymphocyte antigen 6 complex, locus G
ENSMUSG00000022636	1.798	4.600	36.258	0.000	0.000	Alcam	MGI:1313266	Alcam	activated leukocyte cell adhesion molecule
ENSMUSG00000022747	1.571	3.423	17.382	0.000	0.001	St3gal6	MGI:1888707	St3gal6	ST3 beta-galactoside alpha-2,3-sialyltransferase 6
ENSMUSG00000022797	-0.756	7.119	12.996	0.000	0.008	Tfrc	MGI:98822	Tfrc	transferrin receptor
ENSMUSG00000022816	2.235	3.644	25.524	0.000	0.000	Fstl1	MGI:102793	Fstl1	follicle-stimulating-like 1
ENSMUSG00000022952	0.942	5.690	20.443	0.000	0.000	Runx1	MGI:99852	Runx1	runt related transcription factor 1
ENSMUSG00000022974	-0.936	4.154	8.770	0.003	0.048	Gcfc1	MGI:1914617	Gcfc1	GC-rich sequence DNA-binding factor 1
ENSMUSG00000023039	1.897	6.486	54.525	0.000	0.000	Krt7	MGI:96704	Krt7	keratin 7
ENSMUSG00000023043	1.563	7.721	47.479	0.000	0.000	Krt18	MGI:96692	Krt18	keratin 18
ENSMUSG00000023057	-1.214	7.741	24.829	0.000	0.000	Fabp2	MGI:95478	Fabp2	fatty acid binding protein 2, intestinal
ENSMUSG00000023132	-4.522	0.413	9.680	0.002	0.033	Gzma	MGI:109266	Gzma	granzyme A
ENSMUSG00000023186	-0.781	5.795	13.652	0.000	0.006	Vwa5a	MGI:1915026	Vwa5a	von Willebrand factor A domain containing 5A
ENSMUSG00000023247	-0.920	7.861	13.615	0.000	0.006	Guca2a	MGI:102738	Guca2a	guanylate cyclase activator 2a (guanylin)
ENSMUSG00000023905	1.832	3.357	22.845	0.000	0.000	Tnfrsf12a	MGI:1351484	Tnfrsf12a	tumor necrosis factor receptor superfamily, member 12a
ENSMUSG00000023914	-1.154	6.684	26.709	0.000	0.000	Mep1a	MGI:96963	Mep1a	mephrin 1 alpha
ENSMUSG00000023959	-1.158	6.016	29.503	0.000	0.000	Clic5	MGI:1917912	Clic5	chloride intracellular channel 5
ENSMUSG00000024044	-0.753	5.011	10.230	0.001	0.026	Epb4.1l3	MGI:103008	Epb4.1l3	erythrocyte protein band 4.1-like 3
ENSMUSG00000024048	0.847	5.975	15.518	0.000	0.002	Myl12a	MGI:1914518	Myl12a	myosin, light chain 12A, regulatory, non-sarcomeric
ENSMUSG00000024124	-0.759	5.988	10.085	0.001	0.027	Prss30	MGI:1353645	Prss30	protease, serine, 30
ENSMUSG00000024143	1.597	2.587	11.757	0.001	0.013	Rhoq	MGI:1931553	Rhoq	ras homolog gene family, member Q
ENSMUSG00000024164	-2.613	4.801	38.586	0.000	0.000	C3	MGI:88227	C3	complement component 3
ENSMUSG00000024190	1.361	4.520	26.857	0.000	0.000	Dusp1	MGI:105120	Dusp1	dual specificity phosphatase 1
ENSMUSG00000024298	-0.774	4.605	9.469	0.002	0.035	Zfp871	MGI:1921793	Zfp871	zinc finger protein 871
ENSMUSG00000024340	-1.377	3.084	8.879	0.003	0.046	Btnl2	MGI:1859549	Btnl2	butyrophilin-like 2
ENSMUSG00000024421	1.314	8.399	27.948	0.000	0.000	Lama3	MGI:99909	Lama3	laminin, alpha 3
ENSMUSG00000024521	1.088	4.787	20.984	0.000	0.000	Pmaip1	MGI:1930146	Pmaip1	phorbol-12-myristate-13-acetate-induced protein 1
ENSMUSG00000024529	2.881	2.460	22.889	0.000	0.000	Lox	MGI:96817	Lox	lysyl oxidase
ENSMUSG00000024538	3.270	1.501	17.175	0.000	0.001	Ppic	MGI:97751	Ppic	peptidylprolyl isomerase C
ENSMUSG00000024544	2.128	2.007	12.326	0.000	0.010	D18Ert653e	MGI:1277150	D18Ert653e	DNA segment, Chr 18, ERATO Doi 653, expressed
ENSMUSG00000024556	-1.045	5.470	20.410	0.000	0.000	Me2	MGI:2147351	Me2	malic enzyme 2, NAD(+)-dependent, mitochondrial

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000024589	-0.977	5.555	15.387	0.000	0.003	Nedd4l	MGI:1933754	Nedd4l	neural precursor cell expressed, developmentally down-regulated gene 4-like
ENSMUSG00000024598	2.679	1.613	12.818	0.000	0.008	Fbn2	MGI:95490	Fbn2	fibrillin 2
ENSMUSG00000024610	-1.432	6.235	13.308	0.000	0.007	Cd74	MGI:96534	Cd74	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)
ENSMUSG00000024620	1.344	3.092	11.172	0.001	0.017	Pdgfrb	MGI:97531	Pdgfrb	platelet derived growth factor receptor, beta polypeptide
ENSMUSG00000024642	0.945	4.706	15.253	0.000	0.003	Tle4	MGI:104633	Tle4	transducin-like enhancer of split 4, homolog of Drosophila E(spl)
ENSMUSG00000024659	2.368	8.377	59.137	0.000	0.000	Anxa1	MGI:96819	Anxa1	annexin A1
ENSMUSG00000024727	-1.903	4.755	55.153	0.000	0.000	Trpm6	MGI:2675603	Trpm6	transient receptor potential cation channel, subfamily M, member 6
ENSMUSG00000024854	1.659	3.460	20.074	0.000	0.000	Pold4	MGI:1916995	Pold4	polymerase (DNA-directed), delta 4
ENSMUSG00000024899	-0.911	8.110	19.268	0.000	0.000	Papss2	MGI:1330223	Papss2	3'-phosphoadenosine 5'-phosphosulfate synthase 2
ENSMUSG00000024900	-0.735	6.703	12.138	0.000	0.011	Cpt1a	MGI:1098296	Cpt1a	carnitine palmitoyltransferase 1a, liver
ENSMUSG00000024913	0.989	4.832	17.388	0.000	0.001	Lrp5	MGI:1278315	Lrp5	low density lipoprotein receptor-related protein 5
ENSMUSG00000024937	0.770	5.526	11.469	0.001	0.015	Ehbp111	MGI:3612340	Ehbp111	EH domain binding protein 1-like 1
ENSMUSG00000024952	0.988	4.109	10.622	0.001	0.022	Rps6ka4	MGI:1930076	Rps6ka4	ribosomal protein S6 kinase, polypeptide 4
ENSMUSG00000025002	-1.811	10.242	52.529	0.000	0.000	Cyp2c55	MGI:1919332	Cyp2c55	cytochrome P450, family 2, subfamily c, polypeptide 55
ENSMUSG00000025037	-0.750	8.473	11.857	0.001	0.012	Maoa	MGI:96915	Maoa	monoamine oxidase A
ENSMUSG00000025092	-1.558	2.448	10.400	0.001	0.024	Hspa12a	MGI:1920692	Hspa12a	heat shock protein 12A
ENSMUSG00000025161	1.418	5.570	41.402	0.000	0.000	Slc16a3	MGI:1933438	Slc16a3	solute carrier family 16 (monocarboxylic acid transporters), member 3
ENSMUSG00000025277	-1.238	3.859	13.829	0.000	0.005	Abhd6	MGI:1913332	Abhd6	abhydrolase domain containing 6
ENSMUSG00000025278	1.260	10.112	34.896	0.000	0.000	Flnb	MGI:2446089	Flnb	filamin, beta
ENSMUSG00000025283	0.627	6.672	9.282	0.002	0.038	Sat1	MGI:98233	Sat1	spermidine/spermine N1-acetyl transferase 1
ENSMUSG00000025287	0.910	4.682	12.422	0.000	0.010	Acot9	MGI:1928939	Acot9	acyl-CoA thioesterase 9
ENSMUSG00000025321	2.062	3.005	21.321	0.000	0.000	Itgb8	MGI:1338035	Itgb8	integrin beta 8
ENSMUSG00000025323	-1.191	3.183	9.522	0.002	0.035	Sp4	MGI:107595	Sp4	trans-acting transcription factor 4

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000025347	-0.619	6.147	9.085	0.003	0.041	Mettl7b	MGI:1918914	Mettl7b	methyltransferase like 7B
ENSMUSG00000025809	0.692	8.067	10.380	0.001	0.024	Itgb1	MGI:96610	Itgb1	integrin beta 1 (fibronectin receptor beta)
ENSMUSG00000025921	1.410	6.142	33.198	0.000	0.000	Rdh10	MGI:1924238	Rdh10	retinol dehydrogenase 10 (all-trans)
ENSMUSG00000025937	0.770	4.760	10.111	0.001	0.027	Lactb2	MGI:2442551	Lactb2	lactamase, beta 2
ENSMUSG00000025991	2.728	2.093	11.319	0.001	0.016	Cps1	MGI:891996	Cps1	carbamoyl-phosphate synthetase 1
ENSMUSG00000026042	2.990	4.037	60.265	0.000	0.000	Col5a2	MGI:88458	Col5a2	collagen, type V, alpha 2
ENSMUSG00000026043	2.082	6.803	92.466	0.000	0.000	Col3a1	MGI:88453	Col3a1	collagen, type III, alpha 1
ENSMUSG00000026069	3.136	5.184	75.223	0.000	0.000	Il1rl1	MGI:98427	Il1rl1	interleukin 1 receptor-like 1
ENSMUSG00000026107	1.243	3.960	15.182	0.000	0.003	Obfc2a	MGI:1923258	Obfc2a	oligonucleotide/oligosaccharide-binding fold containing 2A
ENSMUSG00000026110	0.857	7.996	15.291	0.000	0.003	Mgat4a	MGI:2662992	Mgat4a	mannoside acetylglucosaminyltransferase 4, isoenzyme A
ENSMUSG00000026134	1.316	2.716	9.001	0.003	0.043	Prim2	MGI:97758	Prim2	DNA primase, p58 subunit
ENSMUSG00000026185	1.802	6.018	52.727	0.000	0.000	Igfbp5	MGI:96440	Igfbp5	insulin-like growth factor binding protein 5
ENSMUSG00000026193	1.750	5.218	58.937	0.000	0.000	Fn1	MGI:95566	Fn1	fibronectin 1
ENSMUSG00000026208	-1.997	4.087	17.271	0.000	0.001	Des	MGI:94885	Des	desmin
ENSMUSG00000026222	-1.645	3.432	15.946	0.000	0.002	Sp100	MGI:109561	Sp100	nuclear antigen Sp100
ENSMUSG00000026249	2.814	2.760	29.351	0.000	0.000	Serpine2	MGI:101780	Serpine2	serine (or cysteine) peptidase inhibitor, clade E, member 2
ENSMUSG00000026305	0.781	6.912	14.150	0.000	0.005	Lrrfip1	MGI:1342770	Lrrfip1	leucine rich repeat (in FLII) interacting protein 1
ENSMUSG00000026393	0.799	5.625	13.623	0.000	0.006	Nek7	MGI:1890645	Nek7	NIMA (never in mitosis gene a)-related expressed kinase 7
ENSMUSG00000026399	1.818	6.028	57.577	0.000	0.000	Cd55	MGI:104850	Cd55	CD55 antigen
ENSMUSG00000026421	-1.156	3.983	13.446	0.000	0.006	Csrp1	MGI:88549	Csrp1	cysteine and glycine-rich protein 1
ENSMUSG00000026435	0.986	4.069	9.355	0.002	0.037	Slc45a3	MGI:1922082	Slc45a3	solute carrier family 45, member 3
ENSMUSG00000026437	1.037	5.081	20.834	0.000	0.000	Cdk18	MGI:97518	Cdk18	cyclin-dependent kinase 18
ENSMUSG00000026463	-1.244	3.629	12.837	0.000	0.008	Atp2b4	MGI:88111	Atp2b4	ATPase, Ca++ transporting, plasma membrane 4
ENSMUSG00000026478	1.433	4.426	27.307	0.000	0.000	Lamc1	MGI:99914	Lamc1	laminin, gamma 1
ENSMUSG00000026479	2.258	7.283	49.478	0.000	0.000	Lamc2	MGI:99913	Lamc2	laminin, gamma 2
ENSMUSG00000026509	0.980	6.212	19.496	0.000	0.000	Capn2	MGI:88264	Capn2	calpain 2
ENSMUSG00000026547	0.872	5.871	15.744	0.000	0.002	Tagln2	MGI:1312985	Tagln2	transgelin 2
ENSMUSG00000026614	-1.104	3.800	10.221	0.001	0.026	Slc30a10	MGI:2685058	Slc30a10	solute carrier family 30, member 10
ENSMUSG00000026628	1.000	4.632	14.695	0.000	0.004	Atf3	MGI:109384	Atf3	activating transcription factor 3
ENSMUSG00000026639	0.846	7.278	16.482	0.000	0.002	Lamb3	MGI:99915	Lamb3	laminin, beta 3

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000026655	0.674	6.104	10.036	0.002	0.028	Fam107b	MGI:1913790	Fam107b	family with sequence similarity 107, member B
ENSMUSG00000026664	-1.201	5.306	28.316	0.000	0.000	Phyh	MGI:891978	Phyh	phytanoyl-CoA hydroxylase
ENSMUSG00000026675	0.774	5.276	12.135	0.000	0.011	Hsd17b7	MGI:1330808	Hsd17b7	hydroxysteroid (17-beta) dehydrogenase 7
ENSMUSG00000026728	1.162	3.614	11.001	0.001	0.018	Vim	MGI:98932	Vim	vimentin
ENSMUSG00000026796	0.954	5.720	21.704	0.000	0.000	Fam129b	MGI:2442910	Fam129b	family with sequence similarity 129, member B
ENSMUSG00000026797	1.036	4.346	12.549	0.000	0.009	Stxbp1	MGI:107363	Stxbp1	syntaxin binding protein 1
ENSMUSG00000026832	-1.679	2.918	15.938	0.000	0.002	Cytip	MGI:2183535	Cytip	cytohesin 1 interacting protein
ENSMUSG00000026836	1.435	3.825	17.353	0.000	0.001	Acvr1	MGI:87911	Acvr1	activin A receptor, type 1
ENSMUSG00000026837	1.679	3.634	21.639	0.000	0.000	Col5a1	MGI:88457	Col5a1	collagen, type V, alpha 1
ENSMUSG00000026922	0.902	5.387	13.417	0.000	0.006	Agpat2	MGI:1914762	Agpat2	1-acylglycerol-3-phosphate O-acyltransferase 2 (lysophosphatidic acid acyltransferase, beta)
ENSMUSG00000026971	0.718	7.254	11.417	0.001	0.015	Itgb6	MGI:96615	Itgb6	integrin beta 6
ENSMUSG00000026980	-1.236	4.316	18.728	0.000	0.001	Ly75	MGI:106662	Ly75	lymphocyte antigen 75
ENSMUSG00000026981	2.370	7.502	75.825	0.000	0.000	Il1rn	MGI:96547	Il1rn	interleukin 1 receptor antagonist
ENSMUSG00000026987	-0.759	5.542	9.927	0.002	0.029	Baz2b	MGI:2442782	Baz2b	bromodomain adjacent to zinc finger domain, 2B
ENSMUSG00000026994	1.128	6.106	22.765	0.000	0.000	Galnt3	MGI:894695	Galnt3	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 3
ENSMUSG00000027087	1.038	8.724	21.480	0.000	0.000	Itgav	MGI:96608	Itgav	integrin alpha V
ENSMUSG00000027111	1.205	8.379	30.551	0.000	0.000	Itga6	MGI:96605	Itga6	integrin alpha 6
ENSMUSG00000027134	1.396	5.812	38.371	0.000	0.000	Lpcat4	MGI:2138993	Lpcat4	lysophosphatidylcholine acyltransferase 4
ENSMUSG00000027171	1.727	3.107	18.774	0.000	0.001	Prrg4	MGI:2442211	Prrg4	proline rich Gla (G-carboxyglutamic acid) 4 (transmembrane)
ENSMUSG00000027187	-0.789	5.291	13.265	0.000	0.007	Cat	MGI:88271	Cat	catalase
ENSMUSG00000027203	1.234	2.796	8.808	0.003	0.047	Dut	MGI:1346051	Dut	deoxyuridine triphosphatase
ENSMUSG00000027204	1.297	3.594	13.131	0.000	0.007	Fbn1	MGI:95489	Fbn1	fibrillin 1
ENSMUSG00000027225	2.182	6.648	41.387	0.000	0.000	Duoxa2	MGI:1914061	Duoxa2	dual oxidase maturation factor 2
ENSMUSG00000027227	1.045	4.043	9.710	0.002	0.032	Sord	MGI:98266	Sord	sorbitol dehydrogenase
ENSMUSG00000027282	-0.684	5.926	11.139	0.001	0.017	Mtch2	MGI:1929260	Mtch2	mitochondrial carrier homolog 2 (C. elegans)
ENSMUSG00000027314	1.793	2.241	11.708	0.001	0.013	Dll4	MGI:1859388	Dll4	delta-like 4 (Drosophila)
ENSMUSG00000027333	1.289	5.383	30.464	0.000	0.000	Smox	MGI:2445356	Smox	spermine oxidase
ENSMUSG00000027358	0.774	4.936	11.412	0.001	0.015	Bmp2	MGI:88177	Bmp2	bone morphogenetic protein 2
ENSMUSG00000027359	-3.670	2.000	10.281	0.001	0.025	Slc27a2	MGI:1347099	Slc27a2	solute carrier family 27 (fatty acid transporter), member 2

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000027366	-0.757	9.196	13.263	0.000	0.007	2010106G01Rik	MGI:1913802	2010106G01Rik	RIKEN cDNA 2010106G01 gene
ENSMUSG00000027375	-3.258	4.701	35.492	0.000	0.000	Mal	MGI:892970	Mal	myelin and lymphocyte protein, T cell differentiation protein
ENSMUSG00000027398	2.227	2.619	12.859	0.000	0.008	Il1b	MGI:96543	Il1b	interleukin 1 beta
ENSMUSG00000027420	3.312	1.679	20.271	0.000	0.000	Bfsp1	MGI:101770	Bfsp1	beaded filament structural protein 1, in lens-CP94
ENSMUSG00000027435	2.974	2.299	22.913	0.000	0.000	Cd93	MGI:106664	Cd93	CD93 antigen
ENSMUSG00000027457	-1.766	2.372	10.214	0.001	0.026	Snph	MGI:2139270	Snph	syntaphilin
ENSMUSG00000027513	-1.881	2.504	15.267	0.000	0.003	Pck1	MGI:97501	Pck1	phosphoenolpyruvate carboxykinase 1, cytosolic
ENSMUSG00000027559	-2.486	3.945	28.706	0.000	0.000	Car3	MGI:88270	Car3	carbonic anhydrase 3
ENSMUSG00000027580	-0.730	6.270	11.992	0.001	0.012	BC006779	MGI:2385169	BC006779	cDNA sequence BC006779
ENSMUSG00000027597	-1.330	5.266	34.202	0.000	0.000	Ahcy	MGI:87968	Ahcy	S-adenosylhomocysteine hydrolase
ENSMUSG00000027611	2.785	2.253	24.372	0.000	0.000	Procr	MGI:104596	Procr	protein C receptor, endothelial
ENSMUSG00000027639	-0.949	5.305	17.218	0.000	0.001	Samhd1	MGI:1927468	Samhd1	SAM domain and HD domain, 1
ENSMUSG00000027669	1.381	2.688	9.968	0.002	0.029	Gnb4	MGI:104581	Gnb4	guanine nucleotide binding protein (G protein), beta 4
ENSMUSG00000027698	-0.884	4.735	12.339	0.000	0.010	Nceh1	MGI:2443191	Nceh1	arylacamide deacetylase-like 1
ENSMUSG00000027712	2.366	5.913	74.566	0.000	0.000	Anxa5	MGI:106008	Anxa5	annexin A5
ENSMUSG00000027737	1.255	5.711	27.866	0.000	0.000	Slc7a11	MGI:1347355	Slc7a11	solute carrier family 7 (cationic amino acid transporter, y+ system), member 11
ENSMUSG00000027797	-2.246	2.489	16.366	0.000	0.002	Dclk1	MGI:1330861	Dclk1	doublecortin-like kinase 1
ENSMUSG00000027801	4.192	1.025	15.213	0.000	0.003	Tm4sf4	MGI:2385173	Tm4sf4	transmembrane 4 superfamily member 4
ENSMUSG00000027864	0.702	6.396	11.653	0.001	0.014	Ptgfrn	MGI:1277114	Ptgfrn	prostaglandin F2 receptor negative regulator
ENSMUSG00000027870	-0.892	6.028	17.746	0.000	0.001	Hao2	MGI:96012	Hao2	hydroxyacid oxidase 2
ENSMUSG00000027875	-1.272	7.741	37.646	0.000	0.000	Hmgcs2	MGI:101939	Hmgcs2	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 2
ENSMUSG00000027907	1.418	6.258	32.793	0.000	0.000	S100a11	MGI:1338798	S100a11	S100 calcium binding protein A11 (calgizzarin)
ENSMUSG00000028032	-0.950	4.272	9.247	0.002	0.039	Papss1	MGI:1330587	Papss1	3'-phosphoadenosine 5'-phosphosulfate synthase 1
ENSMUSG00000028063	0.767	6.225	13.550	0.000	0.006	Lmna	MGI:96794	Lmna	lamin A
ENSMUSG00000028073	2.286	2.553	22.182	0.000	0.000	Pear1	MGI:1920432	Pear1	platelet endothelial aggregation receptor 1
ENSMUSG00000028088	-0.759	5.872	12.133	0.000	0.011	Fmo5	MGI:1310004	Fmo5	flavin containing monooxygenase 5
ENSMUSG00000028108	1.694	2.792	13.913	0.000	0.005	Ecm1	MGI:103060	Ecm1	extracellular matrix protein 1
ENSMUSG00000028128	3.110	6.586	52.089	0.000	0.000	F3	MGI:88381	F3	coagulation factor III
ENSMUSG00000028158	3.545	1.575	18.220	0.000	0.001	Mttp	MGI:106926	Mttp	microsomal triglyceride transfer protein

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000028194	0.730	6.186	12.255	0.000	0.011	Ddah1	MGI:1916469	Ddah1	dimethylarginine dimethylaminohydrolase 1
ENSMUSG00000028255	-1.874	7.911	73.756	0.000	0.000	Clca3	MGI:1346342	Clca3	chloride channel calcium activated 3
ENSMUSG00000028256	1.424	3.053	10.942	0.001	0.019	Odf2l	MGI:1098600	Odf2l	outer dense fiber of sperm tails 2-like
ENSMUSG00000028270	-1.560	4.325	22.449	0.000	0.000	Gbp2	MGI:102772	Gbp2	guanylate binding protein 2
ENSMUSG00000028273	0.774	5.741	14.186	0.000	0.005	Pdlim5	MGI:1927489	Pdlim5	PDZ and LIM domain 5
ENSMUSG00000028339	2.012	2.571	13.762	0.000	0.005	Col15a1	MGI:88449	Col15a1	collagen, type XV, alpha 1
ENSMUSG00000028364	1.601	4.863	44.931	0.000	0.000	Tnc	MGI:101922	Tnc	tenascin C
ENSMUSG00000028370	3.300	3.147	36.494	0.000	0.000	Pappa	MGI:97479	Pappa	pregnancy-associated plasma protein A
ENSMUSG00000028389	2.098	2.647	16.163	0.000	0.002	Zfp37	MGI:99181	Zfp37	zinc finger protein 37
ENSMUSG00000028403	0.714	7.818	11.045	0.001	0.018	Zdhhc21	MGI:1915518	Zdhhc21	zinc finger, DHHC domain containing 21
ENSMUSG00000028522	-0.672	7.198	10.757	0.001	0.020	Mier1	MGI:1918398	Mier1	mesoderm induction early response 1 homolog (Xenopus laevis)
ENSMUSG00000028527	1.387	4.120	13.278	0.000	0.007	Ak4	MGI:87979	Ak4	adenylate kinase 4
ENSMUSG00000028617	-1.000	5.679	22.785	0.000	0.000	Lrrc42	MGI:1925059	Lrrc42	leucine rich repeat containing 42
ENSMUSG00000028645	0.634	8.262	8.872	0.003	0.046	Slc2a1	MGI:95755	Slc2a1	solute carrier family 2 (facilitated glucose transporter), member 1
ENSMUSG00000028664	0.765	5.247	11.714	0.001	0.013	Ephb2	MGI:99611	Ephb2	Eph receptor B2
ENSMUSG00000028680	0.980	4.296	11.614	0.001	0.014	Plk3	MGI:109604	Plk3	polo-like kinase 3 (Drosophila)
ENSMUSG00000028696	-1.679	2.146	8.836	0.003	0.046	Ipp	MGI:96581	Ipp	IAP promoted placental gene
ENSMUSG00000028713	-2.230	2.125	11.361	0.001	0.016	Cyp4b1	MGI:103225	Cyp4b1	cytochrome P450, family 4, subfamily b, polypeptide 1
ENSMUSG00000028763	0.950	4.156	9.567	0.002	0.034	Hspg2	MGI:96257	Hspg2	perlecan (heparan sulfate proteoglycan 2)
ENSMUSG00000028962	-0.797	5.764	14.905	0.000	0.003	Slc4a2	MGI:109351	Slc4a2	solute carrier family 4 (anion exchanger), member 2
ENSMUSG00000028967	0.936	6.924	19.553	0.000	0.000	Errfi1	MGI:1921405	Errfi1	ERBB receptor feedback inhibitor 1
ENSMUSG00000029154	1.892	6.332	48.437	0.000	0.000	Cwh43	MGI:2444131	Cwh43	cell wall biogenesis 43 C-terminal homolog (S. cerevisiae)
ENSMUSG00000029231	1.592	4.569	31.801	0.000	0.000	Pdgfra	MGI:97530	Pdgfra	platelet derived growth factor receptor, alpha polypeptide
ENSMUSG00000029260	-0.822	7.161	13.792	0.000	0.005	Ugt2b34	MGI:2140962	Ugt2b34	UDP glucuronosyltransferase 2 family, polypeptide B34
ENSMUSG00000029269	-0.691	6.106	11.105	0.001	0.017	Sult1b1	MGI:2136282	Sult1b1	sulfotransferase family 1B, member 1
ENSMUSG00000029273	-0.664	8.504	9.340	0.002	0.037	Sult1d1	MGI:1926341	Sult1d1	sulfotransferase family 1D, member 1
ENSMUSG00000029338	1.657	5.761	50.861	0.000	0.000	Antxr2	MGI:1919164	Antxr2	anthrax toxin receptor 2

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000029377	2.373	4.404	42.418	0.000	0.000	Ereg	MGI:107508	Ereg	epiregulin
ENSMUSG00000029378	1.103	4.677	18.878	0.000	0.001	Areg	MGI:88068	Areg	amphiregulin
ENSMUSG00000029416	-2.055	2.332	12.254	0.000	0.011	Slc15a4	MGI:2140796	Slc15a4	solute carrier family 15, member 4
ENSMUSG00000029484	1.694	5.553	56.997	0.000	0.000	Anxa3	MGI:1201378	Anxa3	annexin A3
ENSMUSG00000029561	-1.392	5.099	13.642	0.000	0.006	Oasl2	MGI:1344390	Oasl2	2'-5' oligoadenylate synthetase-like 2
ENSMUSG00000029580	0.703	11.801	11.591	0.001	0.014	Actb	MGI:87904	Actb	actin, beta
ENSMUSG00000029661	2.077	5.442	85.325	0.000	0.000	Col1a2	MGI:88468	Col1a2	collagen, type I, alpha 2
ENSMUSG00000029727	-0.751	6.848	13.395	0.000	0.006	Cyp3a13	MGI:88610	Cyp3a13	cytochrome P450, family 3, subfamily a, polypeptide 13
ENSMUSG00000029762	1.255	4.818	24.921	0.000	0.000	Akr1b8	MGI:107673	Akr1b8	aldo-keto reductase family 1, member B8
ENSMUSG00000029772	-0.737	8.727	12.527	0.000	0.009	Ahcy12	MGI:1921590	Ahcy12	S-adenosylhomocysteine hydrolase-like 2
ENSMUSG00000029798	-2.044	3.706	12.364	0.000	0.010	Herc6	MGI:1914388	Herc6	hect domain and RLD 6
ENSMUSG00000029802	-0.797	6.629	12.710	0.000	0.009	Abcg2	MGI:1347061	Abcg2	ATP-binding cassette, subfamily G (WHITE), member 2
ENSMUSG00000029811	-1.158	5.598	19.611	0.000	0.000	Abp1	MGI:1923757	Abp1	amiloride binding protein 1 (amine oxidase, copper-containing)
ENSMUSG00000029821	-1.186	4.088	14.205	0.000	0.005	Dfna5	MGI:1889850	Dfna5	deafness, autosomal dominant 5 (human)
ENSMUSG00000030017	3.219	4.227	12.329	0.000	0.010	Reg3g	MGI:109406	Reg3g	regenerating islet-derived 3 gamma
ENSMUSG00000030064	0.769	5.664	13.747	0.000	0.005	Frmd4b	MGI:2141794	Frmd4b	FERM domain containing 4B
ENSMUSG00000030095	0.697	5.189	9.392	0.002	0.037	Tmem43	MGI:1921372	Tmem43	transmembrane protein 43
ENSMUSG00000030103	0.917	6.582	18.404	0.000	0.001	Bhlhe40	MGI:1097714	Bhlhe40	basic helix-loop-helix family, member e40
ENSMUSG00000030110	2.594	3.474	35.073	0.000	0.000	Ret	MGI:97902	Ret	ret proto-oncogene
ENSMUSG00000030155	-0.917	5.525	17.156	0.000	0.001	Clec2e	MGI:3028921	Clec2e	C-type lectin domain family 2, member e
ENSMUSG00000030162	-1.604	2.394	9.385	0.002	0.037	Olr1	MGI:1261434	Olr1	oxidized low density lipoprotein (lectin-like) receptor 1
ENSMUSG00000030342	0.672	6.494	10.677	0.001	0.021	Cd9	MGI:88348	Cd9	CD9 antigen
ENSMUSG00000030364	-1.094	7.096	17.234	0.000	0.001	Clec2h	MGI:2136934	Clec2h	C-type lectin domain family 2, member h
ENSMUSG00000030492	6.114	0.318	15.333	0.000	0.003	Slc7a9	MGI:1353656	Slc7a9	solute carrier family 7 (cationic amino acid transporter, y+ system), member 9
ENSMUSG00000030530	0.623	5.555	8.953	0.003	0.044	Furin	MGI:97513	Furin	furin (paired basic amino acid cleaving enzyme)
ENSMUSG00000030536	0.747	8.010	12.116	0.000	0.011	Iqgap1	MGI:1352757	Iqgap1	IQ motif containing GTPase activating protein 1

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000030554	-1.548	3.130	9.354	0.002	0.037	Synm	MGI:2661187	Synm	synemin, intermediate filament protein
ENSMUSG00000030560	1.036	5.639	19.729	0.000	0.000	Ctsc	MGI:109553	Ctsc	cathepsin C
ENSMUSG00000030711	-1.933	3.967	29.276	0.000	0.000	Sult1a1	MGI:102896	Sult1a1	sulfotransferase family 1A, phenol-preferring, member 1
ENSMUSG00000030747	0.978	7.058	21.522	0.000	0.000	Dgat2	MGI:1915050	Dgat2	diacylglycerol O-acyltransferase 2
ENSMUSG00000030748	0.793	5.262	13.276	0.000	0.007	Il4ra	MGI:105367	Il4ra	interleukin 4 receptor, alpha
ENSMUSG00000030762	-1.387	7.931	38.524	0.000	0.000	Aqp8	MGI:1195271	Aqp8	aquaporin 8
ENSMUSG00000030849	-1.912	5.731	77.281	0.000	0.000	Fgfr2	MGI:95523	Fgfr2	fibroblast growth factor receptor 2
ENSMUSG00000031075	1.489	3.972	18.939	0.000	0.001	Ano1	MGI:2142149	Ano1	anoctamin 1, calcium activated chloride channel
ENSMUSG00000031098	1.798	2.543	13.864	0.000	0.005	Syt8	MGI:1859867	Syt8	synaptotagmin VIII
ENSMUSG00000031375	1.685	3.898	26.559	0.000	0.000	Bgn	MGI:88158	Bgn	biglycan
ENSMUSG00000031430	2.178	2.680	18.096	0.000	0.001	Vsig1	MGI:1926039	Vsig1	V-set and immunoglobulin domain containing 1
ENSMUSG00000031431	-1.329	3.583	13.861	0.000	0.005	Tsc22d3	MGI:1196284	Tsc22d3	TSC22 domain family, member 3
ENSMUSG00000031441	-1.225	6.651	31.775	0.000	0.000	Atp11a	MGI:1354735	Atp11a	ATPase, class VI, type 11A
ENSMUSG00000031442	-1.252	3.334	11.219	0.001	0.017	Mcf2l	MGI:103263	Mcf2l	mcf.2 transforming sequence-like
ENSMUSG00000031451	-0.703	5.263	10.301	0.001	0.025	Gas6	MGI:95660	Gas6	growth arrest specific 6
ENSMUSG00000031502	1.617	5.190	40.530	0.000	0.000	Col4a1	MGI:88454	Col4a1	collagen, type IV, alpha 1
ENSMUSG00000031503	1.983	4.344	48.679	0.000	0.000	Col4a2	MGI:88455	Col4a2	collagen, type IV, alpha 2
ENSMUSG00000031511	0.621	5.783	8.875	0.003	0.046	Arhgef7	MGI:1860493	Arhgef7	Rho guanine nucleotide exchange factor (GEF7)
ENSMUSG00000031530	2.074	4.036	36.285	0.000	0.000	Dusp4	MGI:2442191	Dusp4	dual specificity phosphatase 4
ENSMUSG00000031538	3.002	3.092	29.432	0.000	0.000	Plat	MGI:97610	Plat	plasminogen activator, tissue
ENSMUSG00000031551	-2.271	3.049	26.613	0.000	0.000	Ido1	MGI:96416	Ido1	indoleamine 2,3-dioxygenase 1
ENSMUSG00000031584	0.651	6.195	10.025	0.002	0.028	Gsr	MGI:95804	Gsr	glutathione reductase
ENSMUSG00000031618	-0.728	6.755	12.159	0.000	0.011	Nr3c2	MGI:99459	Nr3c2	nuclear receptor subfamily 3, group C, member 2
ENSMUSG00000031621	-1.166	5.081	25.740	0.000	0.000	Isx	MGI:1918847	Isx	intestine specific homeobox
ENSMUSG00000031740	2.347	2.607	23.349	0.000	0.000	Mmp2	MGI:97009	Mmp2	matrix metalloproteinase 2
ENSMUSG00000031762	1.391	3.257	9.551	0.002	0.034	Mt2	MGI:97172	Mt2	metallothionein 2
ENSMUSG00000031765	1.454	5.370	28.680	0.000	0.000	Mt1	MGI:97171	Mt1	metallothionein 1
ENSMUSG00000031799	1.196	5.525	25.034	0.000	0.000	Tpm4	MGI:2449202	Tpm4	tropomyosin 4
ENSMUSG00000031844	-0.933	5.728	18.635	0.000	0.001	Hsd17b2	MGI:1096386	Hsd17b2	hydroxysteroid (17-beta) dehydrogenase 2
ENSMUSG00000032010	-2.469	1.367	10.012	0.002	0.028	Usp2	MGI:1858178	Usp2	ubiquitin specific peptidase 2
ENSMUSG00000032013	2.780	3.928	42.338	0.000	0.000	Trim29	MGI:1919419	Trim29	tripartite motif-containing 29
ENSMUSG00000032035	0.913	4.162	9.346	0.002	0.037	Ets1	MGI:95455	Ets1	E26 avian leukemia oncogene 1, 5' domain

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000032038	1.768	4.860	28.952	0.000	0.000	St3gal4	MGI:1316743	St3gal4	ST3 beta-galactoside alpha-2,3-sialyltransferase 4
ENSMUSG00000032068	1.851	6.629	15.578	0.000	0.002	1600029D21Rik	MGI:1923759	1600029D21Rik	RIKEN cDNA 1600029D21 gene
ENSMUSG00000032085	-2.283	4.060	44.619	0.000	0.000	Tagln	MGI:106012	Tagln	transgelin
ENSMUSG00000032122	-2.401	2.538	18.109	0.000	0.001	Slc37a2	MGI:1929693	Slc37a2	solute carrier family 37 (glycerol-3-phosphate transporter), member 2
ENSMUSG00000032231	1.197	8.767	28.966	0.000	0.000	Anxa2	MGI:88246	Anxa2	annexin A2
ENSMUSG00000032232	1.404	4.211	15.838	0.000	0.002	Cgnl1	MGI:1915428	Cgnl1	cingulin-like 1
ENSMUSG00000032280	-1.022	4.920	14.766	0.000	0.003	Tle3	MGI:104634	Tle3	transducin-like enhancer of split 3, homolog of Drosophila E(spl)
ENSMUSG00000032281	2.980	3.279	39.772	0.000	0.000	Acsbg1	MGI:2385656	Acsbg1	acyl-CoA synthetase bubblegum family member 1
ENSMUSG00000032324	-0.919	6.567	19.802	0.000	0.000	Tspan3	MGI:1928098	Tspan3	tetraspanin 3
ENSMUSG00000032332	2.020	5.071	47.208	0.000	0.000	Col12a1	MGI:88448	Col12a1	collagen, type XII, alpha 1
ENSMUSG00000032359	0.773	4.839	10.692	0.001	0.021	Ctsh	MGI:107285	Ctsh	cathepsin H
ENSMUSG00000032377	-1.508	3.218	15.080	0.000	0.003	Plscr4	MGI:2143267	Plscr4	phospholipid scramblase 4
ENSMUSG00000032410	-0.802	4.823	10.546	0.001	0.022	Xrn1	MGI:891964	Xrn1	5'-3' exoribonuclease 1
ENSMUSG00000032418	1.249	5.507	33.077	0.000	0.000	Me1	MGI:97043	Me1	malic enzyme 1, NADP(+)-dependent, cytosolic
ENSMUSG00000032420	1.595	6.664	54.844	0.000	0.000	Nt5e	MGI:99782	Nt5e	5' nucleotidase, ecto
ENSMUSG00000032440	1.047	5.703	24.753	0.000	0.000	Tgfr2	MGI:98729	Tgfr2	transforming growth factor, beta receptor II
ENSMUSG00000032462	0.967	4.459	12.929	0.000	0.008	Pik3cb	MGI:1922019	Pik3cb	phosphatidylinositol 3-kinase, catalytic, beta polypeptide
ENSMUSG00000032487	3.051	4.560	26.854	0.000	0.000	Ptgs2	MGI:97798	Ptgs2	prostaglandin-endoperoxide synthase 2
ENSMUSG00000032501	0.704	5.529	9.592	0.002	0.034	Trib1	MGI:2443397	Trib1	tribbles homolog 1 (Drosophila)
ENSMUSG00000032528	-0.849	5.670	15.679	0.000	0.002	Vipr1	MGI:109272	Vipr1	vasoactive intestinal peptide receptor 1
ENSMUSG00000032548	-1.647	5.385	49.641	0.000	0.000	Slco2a1	MGI:1346021	Slco2a1	solute carrier organic anion transporter family, member 2a1
ENSMUSG00000032570	1.057	6.346	21.706	0.000	0.000	Atp2c1	MGI:1889008	Atp2c1	ATPase, Ca ⁺⁺ -sequestering
ENSMUSG00000032572	1.420	4.071	19.708	0.000	0.000	Col6a4	MGI:1915803	Col6a4	collagen, type VI, alpha 4
ENSMUSG00000032589	1.319	3.176	9.568	0.002	0.034	Bsn	MGI:1277955	Bsn	bassoon
ENSMUSG00000032661	-1.091	5.249	9.346	0.002	0.037	Oas3	MGI:2180850	Oas3	2'-5' oligoadenylate synthetase 3
ENSMUSG00000032724	2.851	2.241	22.007	0.000	0.000	Abtb2	MGI:2139365	Abtb2	ankyrin repeat and BTB (POZ) domain containing 2
ENSMUSG00000032727	-1.388	5.970	31.057	0.000	0.000	Mier3	MGI:2442317	Mier3	mesoderm induction early response 1, family member 3
ENSMUSG00000032769	3.007	2.275	27.686	0.000	0.000	Trpa1	MGI:3522699	Trpa1	transient receptor potential cation channel, subfamily A, member 1
ENSMUSG00000032796	2.900	1.751	13.521	0.000	0.006	Lama1	MGI:99892	Lama1	laminin, alpha 1

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000032802	0.727	6.909	10.565	0.001	0.022	Srxn1	MGI:104971	Srxn1	sulfiredoxin 1 homolog (S. cerevisiae)
ENSMUSG00000032849	1.914	3.890	31.790	0.000	0.000	Abcc4	MGI:2443111	Abcc4	ATP-binding cassette, sub-family C (CFTR/MRP), member 4
ENSMUSG00000032902	-1.021	7.797	23.502	0.000	0.000	Slc16a1	MGI:106013	Slc16a1	solute carrier family 16 (monocarboxylic acid transporters), member 1
ENSMUSG00000033149	1.782	5.249	44.761	0.000	0.000	Phldb2	MGI:2444981	Phldb2	pleckstrin homology-like domain, family B, member 2
ENSMUSG00000033213	0.614	6.670	8.899	0.003	0.045	AA467197	MGI:3034182	AA467197	expressed sequence AA467197
ENSMUSG00000033308	-1.755	4.292	25.112	0.000	0.000	Dpyd	MGI:2139667	Dpyd	dihydropyrimidine dehydrogenase
ENSMUSG00000033420	2.049	2.764	21.488	0.000	0.000	Antxr1	MGI:1916788	Antxr1	anthrax toxin receptor 1
ENSMUSG00000033715	-1.239	5.527	28.295	0.000	0.000	Akr1c14	MGI:2145458	Akr1c14	aldo-keto reductase family 1, member C14
ENSMUSG00000033717	-1.204	6.258	33.545	0.000	0.000	Adra2a	MGI:87934	Adra2a	adrenergic receptor, alpha 2a
ENSMUSG00000033781	-2.268	2.334	19.477	0.000	0.000	Asb13	MGI:2145525	Asb13	ankyrin repeat and SOCS box-containing 13
ENSMUSG00000033955	0.797	5.436	14.126	0.000	0.005	Tnks1bp1	MGI:2446193	Tnks1bp1	tankyrase 1 binding protein 1
ENSMUSG00000033998	0.914	5.927	14.564	0.000	0.004	Kcnk1	MGI:109322	Kcnk1	potassium channel, subfamily K, member 1
ENSMUSG00000034005	-3.056	1.207	12.115	0.001	0.011				
ENSMUSG00000034157	-0.873	4.747	12.512	0.000	0.009	2310044G17Rik	MGI:1919185	2310044G17Rik	RIKEN cDNA 2310044G17 gene
ENSMUSG00000034187	0.887	4.593	9.537	0.002	0.034	Nsf	MGI:104560	Nsf	N-ethylmaleimide sensitive fusion protein
ENSMUSG00000034205	2.006	3.314	26.158	0.000	0.000	Loxl2	MGI:2137913	Loxl2	lysyl oxidase-like 2
ENSMUSG00000034320	-0.974	8.947	21.944	0.000	0.000	Slc26a2	MGI:892977	Slc26a2	solute carrier family 26 (sulfate transporter), member 2
ENSMUSG00000034382	0.988	5.359	19.878	0.000	0.000	Al661453	MGI:2146908	Al661453	expressed sequence Al661453
ENSMUSG00000034413	-0.785	5.777	13.460	0.000	0.006	Neurl1b	MGI:3643092	Neurl1b	neuralized homolog 1b (Drosophila)
ENSMUSG00000034449	-1.166	4.328	16.223	0.000	0.002	Dhrs11	MGI:2652816	Dhrs11	dehydrogenase/reductase (SDR family) member 11
ENSMUSG00000034528	-3.065	1.999	14.277	0.000	0.004	Hsd17b13	MGI:2140804	Hsd17b13	hydroxysteroid (17-beta) dehydrogenase 13
ENSMUSG00000034570	-1.010	4.548	12.683	0.000	0.009	Inpp5j	MGI:2158663	Inpp5j	inositol polyphosphate 5-phosphatase J
ENSMUSG00000034579	-1.793	3.470	22.809	0.000	0.000	Pla2g3	MGI:2444945	Pla2g3	phospholipase A2, group III
ENSMUSG00000034613	-0.717	4.830	8.761	0.003	0.048	Ppm1h	MGI:2442087	Ppm1h	protein phosphatase 1H (PP2C domain containing)
ENSMUSG00000034634	3.842	2.520	35.517	0.000	0.000	Ly6d	MGI:96881	Ly6d	lymphocyte antigen 6 complex, locus D
ENSMUSG00000034731	-1.091	4.238	14.088	0.000	0.005	Dgkh	MGI:2444188	Dgkh	diacylglycerol kinase, eta

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000034765	1.985	3.542	27.047	0.000	0.000	Dusp5	MGI:2685183	Dusp5	dual specificity phosphatase 5
ENSMUSG00000034785	-2.512	3.239	35.334	0.000	0.000	Dio1	MGI:94896	Dio1	deiodinase, iodothyronine, type I
ENSMUSG00000035069	-0.968	4.800	15.599	0.000	0.002	Oma1	MGI:1914263	Oma1	OMA1 homolog, zinc metallopeptidase (<i>S. cerevisiae</i>)
ENSMUSG00000035105	0.692	6.312	11.302	0.001	0.016	Egln3	MGI:1932288	Egln3	EGL nine homolog 3 (<i>C. elegans</i>)
ENSMUSG00000035184	2.756	2.632	19.008	0.000	0.001	Fam124a	MGI:3645930	Fam124a	family with sequence similarity 124, member A
ENSMUSG00000035202	1.245	11.101	10.667	0.001	0.021	Lars2	MGI:2142973	Lars2	leucyl-tRNA synthetase, mitochondrial
ENSMUSG00000035493	1.620	3.955	22.636	0.000	0.000	Tgfb1	MGI:99959	Tgfb1	transforming growth factor, beta induced
ENSMUSG00000035783	-1.387	3.859	15.628	0.000	0.002	Acta2	MGI:87909	Acta2	actin, alpha 2, smooth muscle, aorta
ENSMUSG00000036123	-1.056	4.273	10.774	0.001	0.020	Slc9a3	MGI:105064	Slc9a3	solute carrier family 9 (sodium/hydrogen exchanger), member 3
ENSMUSG00000036256	1.537	3.193	14.910	0.000	0.003	Igfbp7	MGI:1352480	Igfbp7	insulin-like growth factor binding protein 7
ENSMUSG00000036309	0.664	6.750	10.035	0.002	0.028	Skp1a	MGI:103575	Skp1a	S-phase kinase-associated protein 1A
ENSMUSG00000036438	0.645	7.762	9.048	0.003	0.042	Calm2	MGI:103250	Calm2	calmodulin 2
ENSMUSG00000036492	1.888	3.094	18.432	0.000	0.001	Rnf39	MGI:2156378	Rnf39	ring finger protein 39
ENSMUSG00000036545	3.092	1.127	11.441	0.001	0.015	Adamts2	MGI:1347356	Adamts2	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 2
ENSMUSG00000036594	-1.763	4.462	22.957	0.000	0.000	H2-Aa	MGI:95895	H2-Aa	histocompatibility 2, class II antigen A, alpha
ENSMUSG00000037033	1.119	7.445	14.289	0.000	0.004	Clca4	MGI:2181989	Clca4	chloride channel calcium activated 4
ENSMUSG00000037071	-1.602	5.907	44.638	0.000	0.000	Scd1	MGI:98239	Scd1	stearoyl-Coenzyme A desaturase 1
ENSMUSG00000037106	-0.896	5.753	15.957	0.000	0.002	Fer116	MGI:3645398	Fer116	fer-1-like 6 (<i>C. elegans</i>)
ENSMUSG00000037242	1.171	5.101	26.836	0.000	0.000	Clic4	MGI:1352754	Clic4	chloride intracellular channel 4 (mitochondrial)
ENSMUSG00000037253	1.182	5.890	31.871	0.000	0.000	Mex3c	MGI:2652843	Mex3c	mex3 homolog C (<i>C. elegans</i>)
ENSMUSG00000037295	1.586	3.833	22.339	0.000	0.000	Ldlrap1	MGI:2140175	Ldlrap1	low density lipoprotein receptor adaptor protein 1
ENSMUSG00000037321	-1.021	4.133	11.333	0.001	0.016	Tap1	MGI:98483	Tap1	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)
ENSMUSG00000037411	3.027	2.343	26.487	0.000	0.000	Serpine1	MGI:97608	Serpine1	serine (or cysteine) peptidase inhibitor, clade E, member 1

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000037580	1.287	4.912	28.246	0.000	0.000	Gch1	MGI:95675	Gch1	GTP cyclohydrolase 1
ENSMUSG00000037613	2.691	5.699	86.111	0.000	0.000	Tnfrsf23	MGI:1930269	Tnfrsf23	tumor necrosis factor receptor superfamily, member 23
ENSMUSG00000037661	-1.097	4.306	12.149	0.000	0.011	Gpr160	MGI:1919112	Gpr160	G protein-coupled receptor 160
ENSMUSG00000037788	1.565	3.583	18.339	0.000	0.001	Vopp1	MGI:2141658	Vopp1	vesicular, overexpressed in cancer, prosurvival protein 1
ENSMUSG00000037820	1.684	6.582	43.511	0.000	0.000	Tgm2	MGI:98731	Tgm2	transglutaminase 2, C polypeptide
ENSMUSG00000037940	-1.673	2.490	11.915	0.001	0.012	Inpp4b	MGI:2158925	Inpp4b	inositol polyphosphate-4-phosphatase, type II
ENSMUSG00000037946	1.195	4.411	17.534	0.000	0.001	Fgd3	MGI:1353657	Fgd3	FYVE, RhoGEF and PH domain containing 3
ENSMUSG00000038119	-2.978	1.499	11.627	0.001	0.014	Cdon	MGI:1926387	Cdon	cell adhesion molecule-related/down-regulated by oncogenes
ENSMUSG00000038156	1.111	3.341	8.730	0.003	0.049	Spon1	MGI:2385287	Spon1	spondin 1, (f-spondin) extracellular matrix protein
ENSMUSG00000038264	1.476	5.851	38.038	0.000	0.000	Sema7a	MGI:1306826	Sema7a	sema domain, immunoglobulin domain (Ig), and GPI membrane anchor, (semaphorin) 7A
ENSMUSG00000038344	-1.294	4.780	28.857	0.000	0.000	Txlng	MGI:3590652	Txlng	taxilin gamma
ENSMUSG00000038388	-1.227	5.326	29.633	0.000	0.000	Mpp6	MGI:1927340	Mpp6	membrane protein, palmitoylated 6 (MAGUK p55 subfamily member 6)
ENSMUSG00000038400	2.221	5.769	64.620	0.000	0.000	Pmepa1	MGI:1929600	Pmepa1	prostate transmembrane protein, androgen induced 1
ENSMUSG00000038418	1.700	4.104	22.896	0.000	0.000	Egr1	MGI:95295	Egr1	early growth response 1
ENSMUSG00000038642	-0.844	6.399	16.573	0.000	0.002	Ctss	MGI:107341	Ctss	cathepsin S
ENSMUSG00000038697	-1.196	2.882	8.847	0.003	0.046	Taf5l	MGI:1919039	Taf5l	TAF5-like RNA polymerase II, p300/CBP-associated factor (PCAF)-associated factor
ENSMUSG00000038745	-0.893	5.063	15.979	0.000	0.002	Nlrp6	MGI:2141990	Nlrp6	NLR family, pyrin domain containing 6
ENSMUSG00000038843	1.966	2.574	17.559	0.000	0.001	Gcnt1	MGI:95676	Gcnt1	glucosaminyl (N-acetyl) transferase 1, core 2
ENSMUSG00000038894	-1.003	4.383	12.563	0.000	0.009	Irs2	MGI:109334	Irs2	insulin receptor substrate 2
ENSMUSG00000039007	-1.676	2.715	10.138	0.001	0.027	Pgcp	MGI:1889205	Pgcp	plasma glutamate carboxypeptidase
ENSMUSG00000039286	0.975	4.974	18.387	0.000	0.001	Fndc3b	MGI:1919257	Fndc3b	fibronectin type III domain containing 3B
ENSMUSG00000039304	-1.290	3.563	12.694	0.000	0.009	Tnfsf10	MGI:107414	Tnfsf10	tumor necrosis factor (ligand) superfamily, member 10
ENSMUSG00000039364	-2.041	6.358	90.604	0.000	0.000	Sectm1b	MGI:1929083	Sectm1b	secreted and transmembrane 1B

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000039840	1.240	5.551	32.562	0.000	0.000	5430411K18Rik	MGI:1918673	5430411K18Rik	RIKEN cDNA 5430411K18 gene
ENSMUSG00000040152	1.291	4.805	20.513	0.000	0.000	Thbs1	MGI:98737	Thbs1	thrombospondin 1
ENSMUSG00000040253	-2.093	3.138	16.926	0.000	0.001	Gbp7	MGI:2444421	Gbp7	guanylate binding protein 7
ENSMUSG00000040430	1.227	3.397	10.123	0.001	0.027	Pitpnc1	MGI:1919045	Pitpnc1	phosphatidylinositol transfer protein, cytoplasmic 1
ENSMUSG00000040447	2.998	3.831	61.145	0.000	0.000	Spns2	MGI:2384936	Spns2	spinster homolog 2 (Drosophila)
ENSMUSG00000040498	1.126	5.398	23.501	0.000	0.000	2210010C17Rik	MGI:1917330	2210010C17Rik	RIKEN cDNA 2210010C17 gene
ENSMUSG00000040606	-1.234	3.998	11.288	0.001	0.016	Kazn	MGI:1918779	Kazn	kazrin, periplakin interacting protein
ENSMUSG00000040734	1.364	2.752	10.143	0.001	0.027	Ppp1r13l	MGI:3525053	Ppp1r13l	protein phosphatase 1, regulatory (inhibitor) subunit 13 like
ENSMUSG00000040746	-0.896	4.210	9.057	0.003	0.042	Rnf167	MGI:1917760	Rnf167	ring finger protein 167
ENSMUSG00000040811	1.299	3.760	12.390	0.000	0.010	Eml2	MGI:1919455	Eml2	echinoderm microtubule associated protein like 2
ENSMUSG00000040990	1.058	4.761	18.547	0.000	0.001	Sh3kbp1	MGI:1889583	Sh3kbp1	SH3-domain kinase binding protein 1
ENSMUSG00000041120	1.470	3.856	19.256	0.000	0.000	Nb1	MGI:104591	Nb1	neuroblastoma, suppression of tumorigenicity 1
ENSMUSG00000041189	2.955	1.193	9.138	0.003	0.041	Chrnbl	MGI:87890	Chrnbl	cholinergic receptor, nicotinic, beta polypeptide 1 (muscle)
ENSMUSG00000041482	2.748	2.389	26.110	0.000	0.000	Fam38b	MGI:1918781	Fam38b	family with sequence similarity 38, member B
ENSMUSG00000041731	-2.850	2.837	29.483	0.000	0.000	Pgm5	MGI:1925668	Pgm5	phosphoglucomutase 5
ENSMUSG00000041957	0.714	5.699	12.031	0.001	0.012	Pkp2	MGI:1914701	Pkp2	plakophilin 2
ENSMUSG00000042121	1.157	4.571	19.996	0.000	0.000	Ssh1	MGI:2686240	Ssh1	slingshot homolog 1 (Drosophila)
ENSMUSG00000042286	1.470	2.553	8.713	0.003	0.049	Stab1	MGI:2178742	Stab1	stabilin 1
ENSMUSG00000042306	1.126	6.002	25.736	0.000	0.000	S100a14	MGI:1913416	S100a14	S100 calcium binding protein A14
ENSMUSG00000042379	4.022	1.512	14.913	0.000	0.003	Esm1	MGI:1918940	Esm1	endothelial cell-specific molecule 1
ENSMUSG00000042507	-0.666	5.972	8.904	0.003	0.045	C130039O16Rik	MGI:2685106	C130039O16Rik	RIKEN cDNA C130039O16 gene
ENSMUSG00000042810	1.159	3.806	11.947	0.001	0.012	Krba1	MGI:1925077	Krba1	KRAB-A domain containing 1
ENSMUSG00000042978	-4.377	0.336	10.857	0.001	0.020	Sbk1	MGI:2135937	Sbk1	SH3-binding kinase 1
ENSMUSG00000043079	-1.466	4.729	36.038	0.000	0.000	Synpo	MGI:1099446	Synpo	synaptopodin
ENSMUSG00000043613	4.234	1.301	15.140	0.000	0.003	Mmp3	MGI:97010	Mmp3	matrix metalloproteinase 3
ENSMUSG00000043924	2.465	1.548	9.522	0.002	0.035	A330049M08Rik	MGI:2444888	A330049M08Rik	RIKEN cDNA A330049M08 gene
ENSMUSG00000044156	-1.201	3.378	10.627	0.001	0.022	Hepacam2	MGI:2141520	Hepacam2	HEPACAM family member 2
ENSMUSG00000044162	0.933	4.522	9.118	0.003	0.041	Tnip3	MGI:3041165	Tnip3	TNFAIP3 interacting protein 3
ENSMUSG00000044229	-4.347	4.095	86.652	0.000	0.000	Fam55d	MGI:1924792	Fam55d	family with sequence similarity 55, member D

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000044359	-2.767	2.526	19.609	0.000	0.000	P2ry4	MGI:1926594	P2ry4	pyrimidinergic receptor P2Y, G-protein coupled, 4
ENSMUSG00000044674	1.720	4.473	29.868	0.000	0.000	Fzd1	MGI:1196625	Fzd1	frizzled homolog 1 (Drosophila)
ENSMUSG00000044681	3.203	2.458	27.839	0.000	0.000	Cnpy1	MGI:2442451	Cnpy1	canopy 1 homolog (zebrafish)
ENSMUSG00000044827	-1.192	3.752	10.829	0.001	0.020	Tlr1	MGI:1341295	Tlr1	toll-like receptor 1
ENSMUSG00000044986	-1.274	3.679	13.587	0.000	0.006	Tst	MGI:98852	Tst	thiosulfate sulfurtransferase, mitochondrial
ENSMUSG00000045027	2.996	3.310	36.321	0.000	0.000	Prss22	MGI:1918085	Prss22	protease, serine, 22
ENSMUSG00000045038	-1.081	4.116	13.024	0.000	0.008	Prkce	MGI:97599	Prkce	protein kinase C, epsilon
ENSMUSG00000045103	-1.547	3.151	13.924	0.000	0.005	Dmd	MGI:94909	Dmd	dystrophin, muscular dystrophy
ENSMUSG00000045316	-1.329	2.708	9.313	0.002	0.038	Fahd1	MGI:1915886	Fahd1	fumarylacetoacetate hydrolase domain containing 1
ENSMUSG00000045382	2.206	1.744	9.937	0.002	0.029	Cxcr4	MGI:109563	Cxcr4	chemokine (C-X-C motif) receptor 4
ENSMUSG00000045775	-0.969	4.413	12.240	0.000	0.011	Slc16a5	MGI:2443515	Slc16a5	solute carrier family 16 (monocarboxylic acid transporters), member 5
ENSMUSG00000045991	2.279	3.576	36.842	0.000	0.000	Onecut2	MGI:1891408	Onecut2	one cut domain, family member 2
ENSMUSG00000046027	-1.083	5.689	26.610	0.000	0.000	Stard5	MGI:2156765	Stard5	StAR-related lipid transfer (START) domain containing 5
ENSMUSG00000046169	3.916	0.846	11.836	0.001	0.013	Adamts6	MGI:1347348	Adamts6	a disintegrin-like and metallopeptidase (repolysin type) with thrombospondin type 1 motif, 6
ENSMUSG00000046223	2.213	4.687	37.767	0.000	0.000	Plaur	MGI:97612	Plaur	plasminogen activator, urokinase receptor
ENSMUSG00000046364	-1.597	2.874	9.418	0.002	0.036	Rpl27a	MGI:1347076	Rpl27a	ribosomal protein L27A
ENSMUSG00000046402	1.595	2.238	8.717	0.003	0.049	Rbp1	MGI:97876	Rbp1	retinol binding protein 1, cellular
ENSMUSG00000046618	3.777	0.772	9.607	0.002	0.034	Olfml2a	MGI:2444741	Olfml2a	olfactomedin-like 2A
ENSMUSG00000046731	1.375	2.993	9.589	0.002	0.034	Kctd11	MGI:2448712	Kctd11	potassium channel tetramerisation domain containing 11
ENSMUSG00000046733	1.004	7.342	20.691	0.000	0.000	Gprc5a	MGI:1891250	Gprc5a	G protein-coupled receptor, family C, group 5, member A
ENSMUSG00000047021	3.946	2.214	20.353	0.000	0.000	Ccdc108	MGI:2444274	Ccdc108	coiled-coil domain containing 108
ENSMUSG00000047281	0.803	5.933	14.475	0.000	0.004	Sfn	MGI:1891831	Sfn	stratifin
ENSMUSG00000047496	-1.070	6.044	23.149	0.000	0.000	Rnf152	MGI:2443787	Rnf152	ring finger protein 152
ENSMUSG00000047501	1.358	7.693	35.926	0.000	0.000	Cldn4	MGI:1313314	Cldn4	claudin 4
ENSMUSG00000047562	4.123	3.637	51.772	0.000	0.000	Mmp10	MGI:97007	Mmp10	matrix metallopeptidase 10
ENSMUSG00000047730	-0.987	9.984	18.707	0.000	0.001	Fcgbp	MGI:2444336	Fcgbp	Fc fragment of IgG binding protein
ENSMUSG00000047797	1.604	2.472	10.312	0.001	0.025	Gjb1	MGI:95719	Gjb1	gap junction protein, beta 1

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000047945	2.072	6.280	69.760	0.000	0.000	Marcksl1	MGI:97143	Marcksl1	MARCKS-like 1
ENSMUSG00000048126	2.590	5.032	97.338	0.000	0.000	Col6a3	MGI:88461	Col6a3	collagen, type VI, alpha 3
ENSMUSG00000048249	-0.744	5.751	12.180	0.000	0.011	A930001N09Rik	MGI:1924378	A930001N09Rik	RIKEN cDNA A930001N09 gene
ENSMUSG00000048373	-1.565	4.287	27.907	0.000	0.000	Fgfbp1	MGI:1096350	Fgfbp1	fibroblast growth factor binding protein 1
ENSMUSG00000048376	1.790	3.408	21.449	0.000	0.000	F2r	MGI:101802	F2r	coagulation factor II (thrombin) receptor
ENSMUSG00000048486	-1.590	2.420	10.161	0.001	0.027	Fitm2	MGI:2444508	Fitm2	fat storage-inducing transmembrane protein 2
ENSMUSG00000048572	-2.626	2.283	17.273	0.000	0.001	E030010A14Rik	MGI:3583948	E030010A14Rik	RIKEN cDNA E030010A14 gene
ENSMUSG00000048612	1.657	6.095	44.202	0.000	0.000	Myof	MGI:1919192	Myof	myoferlin
ENSMUSG00000048696	4.569	0.319	9.651	0.002	0.033	Mex3d	MGI:2681847	Mex3d	mex3 homolog D (C. elegans)
ENSMUSG00000048960	1.671	3.275	15.910	0.000	0.002	Prex2	MGI:1923385	Prex2	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 2
ENSMUSG00000049313	-0.974	7.202	21.387	0.000	0.000	Sorl1	MGI:1202296	Sorl1	sortilin-related receptor, LDLR class A repeats-containing
ENSMUSG00000049350	-1.285	7.349	31.466	0.000	0.000	Zg16	MGI:1916286	Zg16	zymogen granule protein 16
ENSMUSG00000049382	0.705	10.791	11.764	0.001	0.013	Krt8	MGI:96705	Krt8	keratin 8
ENSMUSG00000049719	3.209	1.018	9.348	0.002	0.037	Prss46	MGI:1921556	Prss46	protease, serine, 46
ENSMUSG00000049723	4.205	1.010	14.716	0.000	0.003	Mmp12	MGI:97005	Mmp12	matrix metalloproteinase 12
ENSMUSG00000049775	0.715	7.773	12.003	0.001	0.012	Tmsb4x	MGI:99510	Tmsb4x	thymosin, beta 4, X chromosome
ENSMUSG00000049858	2.099	5.363	41.915	0.000	0.000	Suox	MGI:2446117	Suox	sulfite oxidase
ENSMUSG00000050315	-1.587	3.880	21.221	0.000	0.000	Synpo2	MGI:2153070	Synpo2	synaptopodin 2
ENSMUSG00000050359	1.624	6.346	39.302	0.000	0.000	Sprr1a	MGI:106660	Sprr1a	small proline-rich protein 1A
ENSMUSG00000050578	2.987	4.275	27.845	0.000	0.000	Mmp13	MGI:1340026	Mmp13	matrix metalloproteinase 13
ENSMUSG00000050747	1.265	4.610	9.247	0.002	0.039	Trim15	MGI:1916347	Trim15	tripartite motif-containing 15
ENSMUSG00000050953	2.265	3.544	35.748	0.000	0.000	Gja1	MGI:95713	Gja1	gap junction protein, alpha 1
ENSMUSG00000050982	-1.845	5.042	62.400	0.000	0.000	Apol10a	MGI:3036238	Apol10a	apolipoprotein L 10a
ENSMUSG00000051022	2.108	2.397	16.670	0.000	0.001	Hs3st1	MGI:1201606	Hs3st1	heparan sulfate (glucosamine) 3-O-sulfotransferase 1
ENSMUSG00000052305	1.448	3.938	10.452	0.001	0.023	Hbb-b1	MGI:96021	Hbb-b1	hemoglobin, beta adult major chain
ENSMUSG00000052353	3.296	3.489	23.134	0.000	0.000	9930013L23Rik	MGI:2443629	9930013L23Rik	RIKEN cDNA 9930013L23 gene
ENSMUSG00000052485	-1.189	4.666	20.086	0.000	0.000	Tmem171	MGI:2685751	Tmem171	transmembrane protein 171
ENSMUSG00000052516	3.088	1.637	13.535	0.000	0.006	Robo2	MGI:1890110	Robo2	roundabout homolog 2 (Drosophila)
ENSMUSG00000052609	0.866	5.474	15.781	0.000	0.002	Plekhg3	MGI:2388284	Plekhg3	pleckstrin homology domain containing, family G (with RhoGef domain) member 3
ENSMUSG00000052713	0.849	4.506	10.553	0.001	0.022	Zfp608	MGI:2442338	Zfp608	zinc finger protein 608
ENSMUSG00000052837	0.797	4.956	11.330	0.001	0.016	Junb	MGI:96647	Junb	Jun-B oncogene

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000052997	0.791	4.518	9.448	0.002	0.036	Uba2	MGI:1858313	Uba2	ubiquitin-like modifier activating enzyme 2
ENSMUSG00000053062	1.485	2.855	12.670	0.000	0.009	Jam2	MGI:1933820	Jam2	junction adhesion molecule 2
ENSMUSG00000053279	-1.411	6.785	30.944	0.000	0.000	Aldh1a1	MGI:1353450	Aldh1a1	aldehyde dehydrogenase family 1, subfamily A1
ENSMUSG00000053399	-5.022	0.890	15.513	0.000	0.002	Adamts18	MGI:2442600	Adamts18	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 18
ENSMUSG00000053846	-1.118	3.858	8.937	0.003	0.044	Lipg	MGI:1341803	Lipg	lipase, endothelial
ENSMUSG00000053907	-0.999	7.633	21.816	0.000	0.000	Mat2a	MGI:2443731	Mat2a	methionine adenosyltransferase II, alpha
ENSMUSG00000054072	-2.551	3.098	19.869	0.000	0.000	ligp1	MGI:1926259	ligp1	interferon inducible GTPase 1
ENSMUSG00000054128	-1.913	3.851	27.819	0.000	0.000	H2-T3	MGI:95959	H2-T3	histocompatibility 2, T region locus 3
ENSMUSG00000054619	-1.432	4.972	36.328	0.000	0.000	Mettl7a1	MGI:1916523	Mettl7a1	methyltransferase like 7A1
ENSMUSG00000054662	-1.136	4.434	18.037	0.000	0.001	Ano9	MGI:1918595	Ano9	anoctamin 9
ENSMUSG00000054958	1.377	3.274	12.219	0.000	0.011	Nt5c1a	MGI:2155700	Nt5c1a	5'-nucleotidase, cytosolic IA
ENSMUSG00000054999	2.882	2.546	12.451	0.000	0.010	Naaladl1	MGI:2685810	Naaladl1	N-acetylated alpha-linked acidic dipeptidase-like 1
ENSMUSG00000055322	-1.156	4.787	23.462	0.000	0.000	Tns1	MGI:104552	Tns1	tensin 1
ENSMUSG00000055730	-1.832	7.314	38.827	0.000	0.000	Ces2a	MGI:2142491	Ces2a	carboxylesterase 2A
ENSMUSG00000055748	-0.921	8.035	12.857	0.000	0.008	Gsdmc4	MGI:1921798	Gsdmc4	gasdermin C4
ENSMUSG00000055976	0.688	5.094	9.768	0.002	0.031	Cldn23	MGI:1919158	Cldn23	claudin 23
ENSMUSG00000056148	-1.022	4.033	9.872	0.002	0.030	Rdh9	MGI:2143528	Rdh9	retinol dehydrogenase 9
ENSMUSG00000056293	-1.233	7.305	27.038	0.000	0.000	Gsdmc2	MGI:2146102	Gsdmc2	gasdermin C2
ENSMUSG00000056310	-2.341	2.143	12.954	0.000	0.008	Tyw1	MGI:2141161	Tyw1	tRNA-yW synthesizing protein 1 homolog (S. cerevisiae)
ENSMUSG00000056492	1.667	2.529	10.784	0.001	0.020	Gpr116	MGI:2182928	Gpr116	G protein-coupled receptor 116
ENSMUSG00000056515	1.425	4.369	24.244	0.000	0.000	Rab31	MGI:1914603	Rab31	RAB31, member RAS oncogene family
ENSMUSG00000056737	1.022	6.077	19.764	0.000	0.000	Capg	MGI:1098259	Capg	capping protein (actin filament), gelsolin-like
ENSMUSG00000057074	-1.789	4.827	48.698	0.000	0.000	Ces1g	MGI:88378	Ces1g	carboxylesterase 1G
ENSMUSG00000057335	1.757	2.602	13.018	0.000	0.008	Cep170	MGI:1918348	Cep170	centrosomal protein 170
ENSMUSG00000057421	1.363	4.169	15.080	0.000	0.003	Las1l	MGI:1923380	Las1l	LAS1-like (S. cerevisiae)
ENSMUSG00000057666	-1.806	6.093	10.197	0.001	0.026	Gapdh	MGI:95640	Gapdh	glyceraldehyde-3-phosphate dehydrogenase
ENSMUSG00000057880	-1.141	3.514	9.860	0.002	0.030	Abat	MGI:2443582	Abat	4-aminobutyrate aminotransferase
ENSMUSG00000058013	0.891	5.592	18.445	0.000	0.001	11-Sep	MGI:1277214	11-Sep	septin 11
ENSMUSG00000058022	-1.341	3.868	16.334	0.000	0.002	9530008L14Rik	MGI:1924596	9530008L14Rik	RIKEN cDNA 9530008L14 gene
ENSMUSG00000058163	-2.048	2.731	15.482	0.000	0.002	Gm5431	MGI:3645205	Gm5431	predicted gene 5431
ENSMUSG00000059149	1.381	6.438	40.025	0.000	0.000	Mfsd4	MGI:2442786	Mfsd4	major facilitator superfamily

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000059430	-4.007	2.908	38.800	0.000	0.000	Actg2	MGI:104589	Actg2	domain containing 4 actin, gamma 2, smooth muscle, enteric
ENSMUSG00000059447	-0.912	4.827	13.361	0.000	0.006	Hadhb	MGI:2136381	Hadhb	hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit
ENSMUSG00000059713	1.240	4.309	19.719	0.000	0.000	Rcan3	MGI:1858220	Rcan3	regulator of calcineurin 3
ENSMUSG00000060477	-0.903	4.451	8.943	0.003	0.044	Irak2	MGI:2429603	Irak2	interleukin-1 receptor-associated kinase 2
ENSMUSG00000060487	2.630	2.340	19.905	0.000	0.000	Samd5	MGI:2444815	Samd5	sterile alpha motif domain containing 5
ENSMUSG00000060802	-1.356	7.449	28.861	0.000	0.000	B2m	MGI:88127	B2m	beta-2 microglobulin
ENSMUSG00000060981	-2.747	1.460	10.531	0.001	0.023	Hist1h4h	MGI:2448427	Hist1h4h	histone cluster 1, H4h
ENSMUSG00000061728	-2.875	1.676	10.027	0.002	0.028	Btnl7	MGI:2388054	Btnl7	butyrophilin-like 7
ENSMUSG00000061825	-0.918	6.399	17.464	0.000	0.001	Ces2c	MGI:2385905	Ces2c	carboxylesterase 2C
ENSMUSG00000062185	-1.099	5.106	19.655	0.000	0.000				
ENSMUSG00000062410	-1.251	5.988	35.862	0.000	0.000	Hsd3b3	MGI:96235	Hsd3b3	hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 3
ENSMUSG00000062515	-1.607	2.734	10.680	0.001	0.021	Fabp4	MGI:88038	Fabp4	fatty acid binding protein 4, adipocyte
ENSMUSG00000062638	-1.479	4.825	31.394	0.000	0.000	Btnl1	MGI:1932027	Btnl1	butyrophilin-like 1
ENSMUSG00000062647	-1.492	3.978	14.010	0.000	0.005	Rpl7a	MGI:1353472	Rpl7a	ribosomal protein L7A
ENSMUSG00000062991	3.369	2.279	21.530	0.000	0.000	Nrg1	MGI:96083	Nrg1	neuregulin 1
ENSMUSG00000063522	1.003	7.707	13.920	0.000	0.005	2010109I03Rik	MGI:1914288	2010109I03Rik	RIKEN cDNA 2010109I03 gene
ENSMUSG00000063727	3.065	3.249	42.398	0.000	0.000	Tnfrsf11b	MGI:109587	Tnfrsf11b	tumor necrosis factor receptor superfamily, member 11b (osteoprotegerin)
ENSMUSG00000063730	-0.852	4.361	9.333	0.002	0.037	Hsd3b2	MGI:96234	Hsd3b2	hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 2
ENSMUSG00000064254	-0.682	6.176	9.197	0.002	0.039	Ethe1	MGI:1913321	Ethe1	ethylmalonic encephalopathy 1
ENSMUSG00000064373	-0.921	8.366	19.493	0.000	0.000	Sepp1	MGI:894288	Sepp1	selenoprotein P, plasma, 1
ENSMUSG00000066861	-1.389	3.014	9.752	0.002	0.032	Oas1g	MGI:97429	Oas1g	2'-5' oligoadenylate synthetase 1G
ENSMUSG00000066877	-0.779	4.732	9.964	0.002	0.029	Nck2	MGI:1306821	Nck2	non-catalytic region of tyrosine kinase adaptor protein 2
ENSMUSG00000067818	-3.167	1.917	16.701	0.000	0.001	Myl9	MGI:2138915	Myl9	myosin, light polypeptide 9, regulatory
ENSMUSG00000068284	-0.672	7.117	10.850	0.001	0.020	Gm608	MGI:2685454	Gm608	predicted gene 608
ENSMUSG00000068452	1.779	8.782	41.015	0.000	0.000	Duox2	MGI:3036280	Duox2	dual oxidase 2

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000068547	0.728	11.514	9.900	0.002	0.029	Ctca6	MGI:2139744	Ctca6	chloride channel calcium activated 6
ENSMUSG00000068566	0.865	5.942	16.349	0.000	0.002	Myadm	MGI:1355332	Myadm	myeloid-associated differentiation marker
ENSMUSG00000068874	-1.406	7.063	39.527	0.000	0.000	Selenbp1	MGI:96825	Selenbp1	selenium binding protein 1
ENSMUSG00000069601	-1.332	5.393	38.043	0.000	0.000	Ank3	MGI:88026	Ank3	ankyrin 3, epithelial
ENSMUSG00000069874	-1.095	4.472	16.987	0.000	0.001	Irgm2	MGI:1926262	Irgm2	immunity-related GTPase family M member 2
ENSMUSG00000070047	0.995	9.765	21.521	0.000	0.000	Fat1	MGI:109168	Fat1	FAT tumor suppressor homolog 1 (Drosophila)
ENSMUSG00000070056	0.706	5.059	10.252	0.001	0.026	Mfhas1	MGI:1098644	Mfhas1	malignant fibrous histiocytoma amplified sequence 1
ENSMUSG00000070305	0.717	5.704	12.366	0.000	0.010	Mpzl3	MGI:2442647	Mpzl3	myelin protein zero-like 3
ENSMUSG00000070436	2.049	3.366	28.745	0.000	0.000	Serpinh1	MGI:88283	Serpinh1	serine (or cysteine) peptidase inhibitor, clade H, member 1
ENSMUSG00000070476	-3.940	0.831	9.740	0.002	0.032	9030418K01Rik	MGI:1918782	9030418K01Rik	RIKEN cDNA 9030418K01 gene
ENSMUSG00000070889	1.452	6.147	33.791	0.000	0.000				
ENSMUSG00000071076	0.691	5.279	9.940	0.002	0.029	Jund	MGI:96648	Jund	Jun proto-oncogene related gene d
ENSMUSG00000071356	5.011	4.642	20.027	0.000	0.000	Reg3b	MGI:97478	Reg3b	regenerating islet-derived 3 beta
ENSMUSG00000071711	-0.805	6.088	15.607	0.000	0.002	Mpst	MGI:2179733	Mpst	mercaptopyruvate sulfurtransferase
ENSMUSG00000072244	2.892	1.915	20.502	0.000	0.000	Trim6	MGI:2137352	Trim6	tripartite motif-containing 6
ENSMUSG00000072571	1.121	3.474	9.356	0.002	0.037	G630016D24Rik	MGI:3588246	G630016D24Rik	RIKEN cDNA G630016D24 gene
ENSMUSG00000072941	4.214	1.376	22.886	0.000	0.000	Sod3	MGI:103181	Sod3	superoxide dismutase 3, extracellular
ENSMUSG00000073043	-1.376	3.228	12.535	0.000	0.009	Atoh1	MGI:104654	Atoh1	atonal homolog 1 (Drosophila)
ENSMUSG00000073608	-2.345	5.198	98.796	0.000	0.000	Gm6086	MGI:3646771	Gm6086	predicted gene 6086
ENSMUSG00000073678	1.307	5.529	36.401	0.000	0.000	Pgap1	MGI:2443342	Pgap1	post-GPI attachment to proteins 1
ENSMUSG00000073702	-1.799	3.583	11.132	0.001	0.017	Rpl31	MGI:2149632	Rpl31	ribosomal protein L31
ENSMUSG00000073987	1.234	4.365	17.584	0.000	0.001	Ggh	MGI:1329035	Ggh	gamma-glutamyl hydrolase
ENSMUSG00000074115	-1.591	5.458	38.222	0.000	0.000	Saa1	MGI:98221	Saa1	serum amyloid A 1
ENSMUSG00000074151	-2.118	1.657	9.235	0.002	0.039	Nlrc5	MGI:3612191	Nlrc5	NLR family, CARD domain containing 5
ENSMUSG00000074181	3.630	0.921	9.274	0.002	0.038				
ENSMUSG00000074183	3.136	1.904	16.528	0.000	0.002	Gsta1	MGI:1095417	Gsta1	glutathione S-transferase, alpha 1 (Ya)
ENSMUSG00000074195	3.213	6.061	18.725	0.000	0.001	A1747448	MGI:2139790	A1747448	expressed sequence A1747448
ENSMUSG00000074457	1.156	5.987	23.851	0.000	0.000	S100a16	MGI:1915110	S100a16	S100 calcium binding protein A16
ENSMUSG00000074796	3.217	4.662	45.040	0.000	0.000	Slc4a11	MGI:2138987	Slc4a11	solute carrier family 4, sodium bicarbonate transporter-like,

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000074892	-0.745	8.122	8.939	0.003	0.044	B3galt5	MGI:2136878	B3galt5	member 11 UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 5
ENSMUSG00000075602	1.248	6.756	26.541	0.000	0.000	Ly6a	MGI:107527	Ly6a	lymphocyte antigen 6 complex, locus A
ENSMUSG00000075611	1.326	4.497	23.801	0.000	0.000	Gm11545	MGI:2144683	Gm11545	predicted gene 11545
ENSMUSG00000076609	-1.489	2.915	9.808	0.002	0.031	Igkc	MGI:96495	Igkc	immunoglobulin kappa constant
ENSMUSG00000076613	-3.949	0.928	10.321	0.001	0.025	Ighg	MGI:2144967	Ighg	immunoglobulin heavy chain (gamma polypeptide)
ENSMUSG00000076617	-3.819	0.414	8.833	0.003	0.046	Ighm	MGI:96448	Ighm	immunoglobulin heavy constant mu
ENSMUSG00000078439	-0.964	4.221	11.101	0.001	0.017	2210404O07Rik	MGI:1919523	2210404O07Rik	RIKEN cDNA 2210404O07 gene
ENSMUSG00000078566	0.973	5.082	14.715	0.000	0.003	Bnip3	MGI:109326	Bnip3	BCL2/adenovirus E1B interacting protein 3
ENSMUSG00000078853	-1.438	3.680	11.248	0.001	0.016	Igtp	MGI:107729	Igtp	interferon gamma induced GTPase
ENSMUSG00000078920	-1.988	4.243	36.523	0.000	0.000	Ifi47	MGI:99448	Ifi47	interferon gamma inducible protein 47
ENSMUSG00000079037	-1.375	3.643	12.053	0.001	0.011	Prnp	MGI:97769	Prnp	prion protein
ENSMUSG00000079092	4.398	2.578	52.054	0.000	0.000	Prl2c2	MGI:97618	Prl2c2	prolactin family 2, subfamily c, member 2
ENSMUSG00000079174	-1.164	7.519	30.514	0.000	0.000	Gm3054	MGI:3781232	Gm3054	predicted gene 3054
ENSMUSG00000079507	-1.359	3.021	9.689	0.002	0.032	H2-Q1	MGI:95928	H2-Q1	histocompatibility 2, Q region locus 1
ENSMUSG00000079620	-0.673	7.026	9.592	0.002	0.034	Muc4	MGI:2153525	Muc4	mucin 4
ENSMUSG00000081488	-3.760	1.701	18.027	0.000	0.001	Gm15368	MGI:3707462	Gm15368	predicted gene 15368
ENSMUSG00000082513	-2.339	1.720	10.880	0.001	0.019	Gm15374	MGI:3707463	Gm15374	predicted gene 15374
ENSMUSG00000082956	-0.932	4.987	15.380	0.000	0.003	Naip3	MGI:1298225	Naip3	NLR family, apoptosis inhibitory protein 3
ENSMUSG00000085399	-2.791	2.410	18.872	0.000	0.001	9130206I24Rik	MGI:2444065	9130206I24Rik	RIKEN cDNA 9130206I24 gene
ENSMUSG00000085607	1.264	5.856	32.463	0.000	0.000				
ENSMUSG00000085930	-1.689	2.323	10.772	0.001	0.020				
ENSMUSG00000086320	1.080	4.959	21.320	0.000	0.000	Gm12840	MGI:3650917	Gm12840	predicted gene 12840
ENSMUSG00000086389	-2.054	2.427	13.341	0.000	0.007	Gm15998	MGI:3802094	Gm15998	predicted gene 15998
ENSMUSG00000086825	1.701	2.330	11.090	0.001	0.017	Gm15675	MGI:3783117	Gm15675	predicted gene 15675
ENSMUSG00000088025	0.970	6.686	8.765	0.003	0.048	RNaseP_nuc			
ENSMUSG00000089789	-2.111	2.328	8.776	0.003	0.048	Rdh1	MGI:1195275	Rdh1	retinol dehydrogenase 1 (all trans)
ENSMUSG00000090124	-0.738	6.300	11.674	0.001	0.013	Ugt1a7c	MGI:3032636	Ugt1a7c	UDP glucuronosyltransferase 1 family, polypeptide A7C
ENSMUSG00000090186	2.973	1.344	8.702	0.003	0.049	Gm7592	MGI:3644077	Gm7592	predicted gene 7592
ENSMUSG00000090311	-1.175	3.303	9.308	0.002	0.038				
ENSMUSG00000090600	1.941	4.549	26.367	0.000	0.000				

Table S1

Genes	logFC	logCPM	LR	P-value	FDR	Associated gene name	MGI ID	MGI symbol	MGI description
ENSMUSG00000091021	-2.178	2.711	10.022	0.002	0.028	Gm17300	MGI:4936934	Gm17300	predicted gene, 17300
ENSMUSG00000091387	2.002	2.725	20.142	0.000	0.000	Gcnt4	MGI:2684919	Gcnt4	glucosaminyl (N-acetyl) transferase 4, core 2 (beta-1,6-N-acetylglucosaminyltransferase)
ENSMUSG00000091474	1.224	3.995	11.903	0.001	0.012	2610021A01Rik	MGI:1922662	2610021A01Rik	RIKEN cDNA 2610021A01 gene
ENSMUSG00000091705	-1.281	6.221	32.671	0.000	0.000	H2-Q2	MGI:95931	H2-Q2	histocompatibility 2, Q region locus 2
ENSMUSG00000091838	3.187	0.823	9.157	0.002	0.040				
ENSMUSG00000092475	-2.835	2.001	15.585	0.000	0.002	9930038K12Rik	MGI:2443211	9930038K12Rik	RIKEN cDNA 9930038K12 gene
ENSMUSG00000092773	-0.973	6.296	11.356	0.001	0.016	AC157822.1			