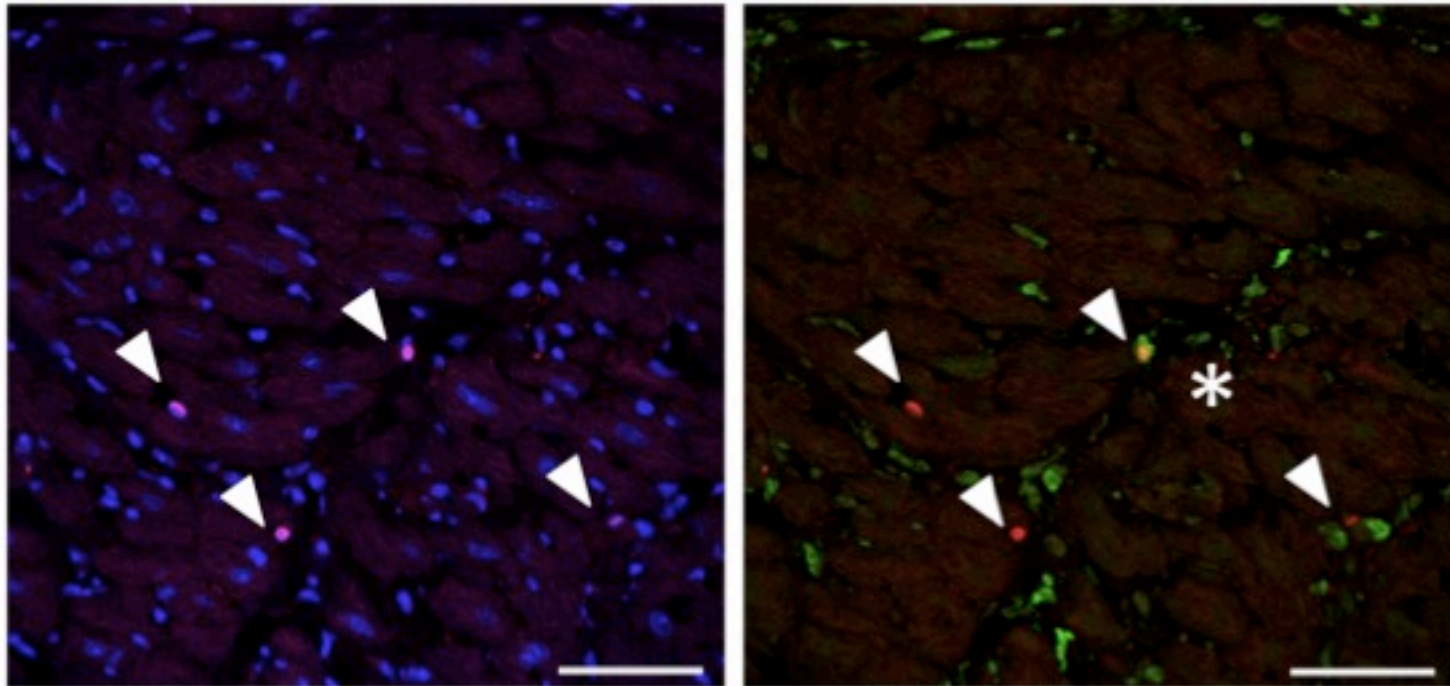


Supplemental Figure 1

Supplementary Figure 1 Legend. Construction of $\alpha\text{MHC}^{\text{R719W}}$ mice. A) The human HCM mutation Arg719Trp (RW) mutation was engineered using a targeting construct containing an EcoR1 fragment derived from the murine α cardiac MHC gene. B) Southern blot of EcoRV-digested DNA from targeted embryonic stem cells, probed with the external Smal/Smal fragment contains the engineered 5 kb fragment. C) PCR fragments demonstrating the presence of the R719W missense mutation in the targeted allele.

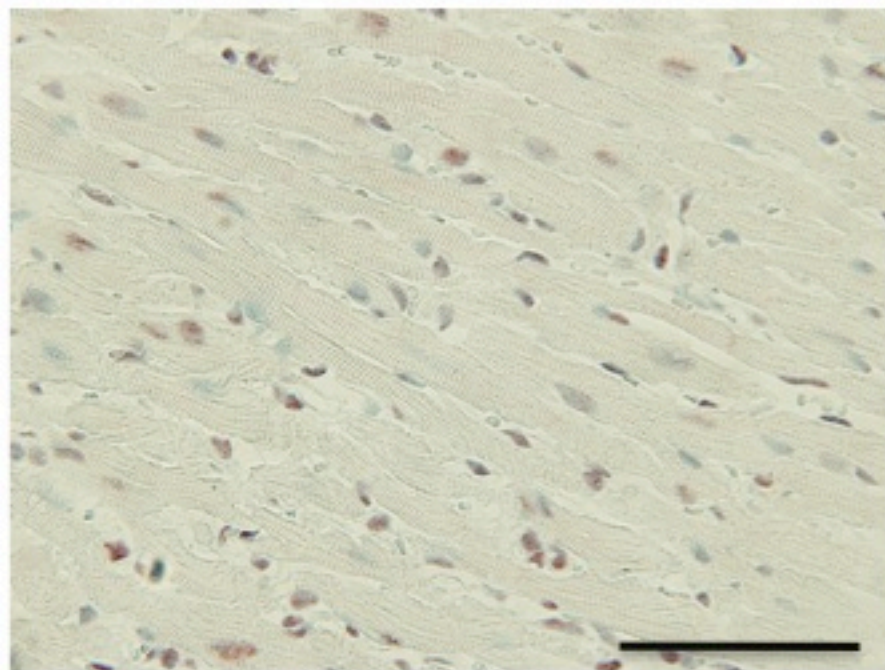


Supplemental Figure 2

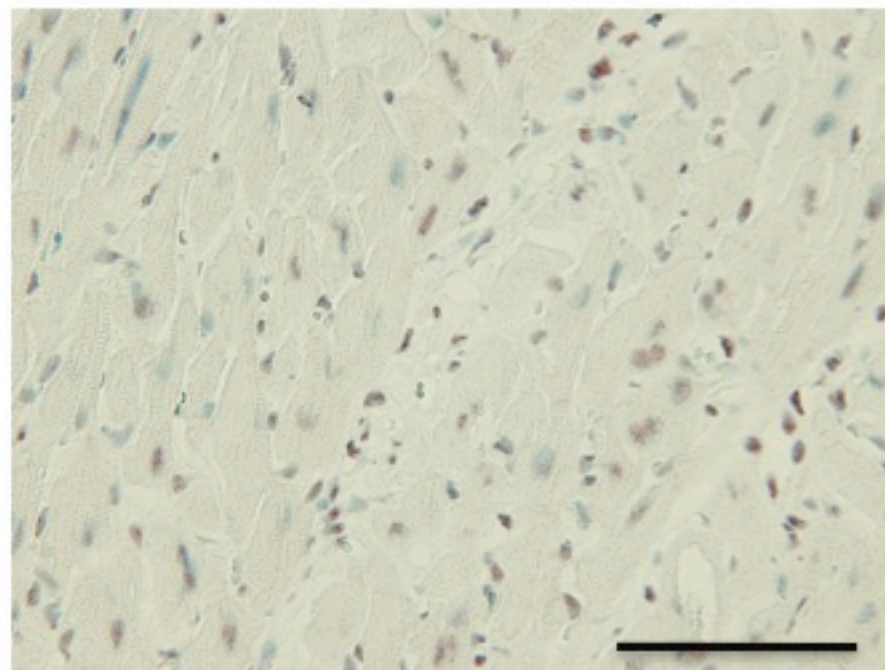
Supplemental Figure 2 Legend. Non-myocyte proliferation and Fsp1 expression in heart sections from hypertrophic $\alpha\text{MHC}^{719/+}$ csa mice. Left panel: confocal immunofluorescence of sections show DAPI-stained nuclei (blue) and proliferating cells identified with anti-Ki67 antigen antibody (magenta, arrowheads). Right panel: Cells expressing fibroblast specific protein-1 (Fsp1), identified with anti-S100A4 (Fsp1) antibody (green), and Ki67 (red, arrowhead) were identified. Ki67-Fsp1 double positive cells (*) appear yellow. Bar: 47.62 μm .

Hyp-MHC^{719/+} csa

Non-fibrosis



Fibrosis



Supplemental Figure 3

Supplemental Figure 3 Legend. pSmad2 immunohistochemical staining of LV sections from hypertrophic (Hyp) α MHC^{719/+} csa mice in regions with normal myocardial architecture (non-fibrosis) and fibrosis. pSmad2 positive nuclei appear rust-colored in comparison to hematoxylin-stained blue nuclei. Bar: 50 μ m.

Supplemental Table 1.

Non-myocytes were isolated from hearts of untreated (No CsA) and cyclosporine (CsA)-treated wildtype (WT) and α MHC^{403/+} (403) mice. GeneID is the RefGene identification. RNA levels were assessed by DSAGE and tag counts per gene are expressed as tag counts per million total counts. P-values reflect the comparison of WT versus α MHC^{403/+} non-myocyte RNA tag counts. Fold change indicates the ratio of α MHC^{403/+} to WT non-myocyte RNA expression. Cell cycle-control genes are indicated in **bold**. Chr, chromosome number. Position, chromosomal position; Geneclass_ingen, gene class as determined by Ingenuity Pathway Analysis software.

GeneID	Title	Non-myocytes								Myocytes		chr	position	geneClass	ingen
		No CsA				CsA				No CsA					
		WT	403	p-value	Fold Change	WT	403	p-Value	Fold Change	WT					
Cthrc1	Collagen triple helix repeat containing 1	1	6	6.5E-05	9.4	1	78	2.7E-74	141.2	0	15	38915894	other		
Col11a1	Collagen, type XI, alpha 1	0	1	5.4E-02	10.0	0	38	3.9E-37	139.2	0	3	113922193	other		
BC052328	CDNA sequence BC052328	8	9	4.7E-01	1.2	0	13	1.5E-12	47.8	0	15	27586352	other		
Thoc4	THO complex 4	8	9	7.8E-01	1.1	0	12	4.3E-11	42.3	2	11	120456450	transcription regulator		
Adam8	A disintegrin and metallopeptidase domain 8	7	13	2.2E-02	1.8	2	49	1.8E-38	22.0	0	7	147165206	peptidase		
Spp1	Secreted phosphoprotein 1	43	105	3.0E-20	2.4	39	828	0.0E+00	21.1	0	5	104869803	cytokine		
Col16a1	Collagen, type XVI, alpha 1	7	13	1.2E-02	1.9	2	45	9.6E-34	17.9	0	4	129776499	other		
Postn	Periostin, osteoblast specific factor	108	391	3.8E-123	3.6	147	2498	0.0E+00	17.0	4	3	54194697	other		
Ein	Elastin	14	48	2.5E-15	3.4	15	230	7.1E-162	15.4	3	5	135178776	other		
B4galt1	Beta-1,4-N-acetyl-galactosaminyl transferase 1	1	6	1.2E-03	4.7	1	17	3.5E-13	15.4	0	10	126609272	enzyme		
Ahsg	Alpha-2-HS-glycoprotein	7	11	8.6E-02	1.6	2	34	9.6E-25	15.2	0	16	22899112	other		
0610007N19Rik	RIKEN cDNA 0610007N19 gene	5	5	9.4E-01	0.9	1	12	6.2E-10	15.0	0	15	32170406			
Mfap2	Microfibrillar-associated protein 2	9	14	1.1E-01	1.5	5	71	1.9E-49	14.2	1	4	140571842	other		
Crif1	Cytokine receptor-like factor 1	8	29	2.8E-11	3.8	7	97	3.7E-67	14.0	0	8	73027874	other		
Dusp4	Dual specificity phosphatase 4	36	26	4.6E-02	0.7	15	213	1.3E-145	14.0	1	8	35884941	phosphatase		
5730596K20Rik	RIKEN cDNA 5730596K20 gene	7	4	1.2E-01	0.5	1	7	5.5E-06	13.0	1	19	7609674			
Fxyd6	FXYP domain-containing ion transport regulator 6	7	13	1.3E-02	1.9	3	36	2.1E-24	11.8	1	9	45198075	ion channel		
Top2a	Topoisomerase (DNA) II alpha	3	3	1.0E+00	0.9	1	9	2.9E-07	11.4	0	11	98854635	enzyme		
Birc5	Baculoviral IAP repeat-containing 5	5	2	6.2E-02	0.4	1	9	6.2E-07	10.9	0	11	117716950	other		
Serpina3a	Serine (or cysteine) peptidase inhibitor, clade A, member 3	5	6	6.0E-01	1.2	2	17	5.1E-12	10.5	0	12	105647132			
Tnfrsf11b	Tumor necrosis factor receptor superfamily, member 11b	5	10	2.4E-02	1.9	7	69	1.2E-43	10.4	0	15	54082553	transmembrane receptor		
Tnc	Tenascin C	22	92	2.7E-34	4.1	89	915	0.0E+00	10.2	0	4	63621147	other		
Skp2	S-phase kinase-associated protein 2 (p45)	1	2	1.6E-01	2.3	1	6	1.2E-04	10.2	0	15	9041821	other		
6330503K22Rik	RIKEN cDNA 6330503K22 gene	6	7	4.3E-01	1.3	0	13	1.7E-13	10.0	2	7	125880312			
9430028L06Rik	RIKEN cDNA 9430028L06 gene	0	2	5.7E-02	4.7	0	11	1.2E-11	10.0	0	18	63170019			
Zbtb46	Zinc finger and BTB domain containing 46	5	5	9.4E-01	1.0	0	7	1.6E-07	10.0	1	2	181145334	other		
Sdc1	Syndecan 1	12	18	2.8E-02	1.6	13	127	4.1E-76	9.6	1	12	8799478	other		
Vsig4	V-set and immunoglobulin domain containing 4	4	13	1.3E-05	3.6	1	13	3.7E-09	9.6	0	21	93442541	other		
Timp1	Tissue inhibitor of metalloproteinase 1	123	175	1.2E-07	1.4	185	1587	0.0E+00	8.6	0	20	20450238	other		
Col1a2	Collagen, type I, alpha 2	195	214	1.1E-01	1.1	102	865	0.0E+00	8.5	4	6	4489519	other		
F10	Coagulation factor X	3	7	3.3E-02	2.2	2	21	6.0E-13	8.3	0	8	13055822	peptidase		
Col3a1	Collagen, type III, alpha 1	209	447	2.1E-62	2.1	336	2755	0.0E+00	8.2	8	1	45405633	other		
Glipr2	GLI pathogenesis-related 2	4	4	7.8E-01	0.9	2	18	4.6E-11	8.0	0	4	43991184	other		
Ldlrad3	Low density lipoprotein receptor class A domain containing 3	7	5	2.9E-01	0.7	1	11	5.9E-07	7.6	1	2	101790773	other		
Col1a1	Collagen, type I, alpha 1	285	449	1.1E-26	1.6	274	2048	0.0E+00	7.5	7	11	94813053	other		
Sipi	Secretory leukocyte peptidase inhibitor	3	7	1.5E-02	2.5	5	37	7.7E-21	7.4	0	2	164179954			
Ltbp2	Latent transforming growth factor beta binding protein 2	8	24	1.3E-07	3.1	9	66	8.1E-36	7.4	1	12	86124185	other		
Fkh18	Forkhead-like 18 (Drosophila)	4	7	7.0E-02	1.9	9	68	9.4E-37	7.4	0	2	152758337	transcription regulator		
Gdf6	Growth differentiation factor 6	6	5	4.9E-01	0.8	1	10	1.2E-06	7.4	0	4	9789168	growth factor		
Arg2	Arginase type II	12	12	9.2E-01	1.0	5	37	1.5E-20	7.4	0	12	80257237	enzyme		
Nnmt	Nicotinamide N-methyltransferase	8	5	1.9E-01	0.6	1	10	2.4E-06	7.1	0	9	48400215	enzyme		
Ttc9	Tetratricopeptide repeat domain 9	5	14	8.1E-05	2.9	6	41	1.8E-22	7.1	0	12	82765870	other		
Trim59	Tripartite motif-containing 59	5	13	1.0E-03	2.4	2	15	3.1E-09	7.0	0	3	68839615	other		
Sec61b	Sec61 beta subunit	10	9	6.6E-01	0.9	2	17	3.4E-10	7.0	1	4	47496105	transporter		
C1qtnf5	C1q and tumor necrosis factor related protein 5	6	4	3.5E-01	0.7	2	13	5.6E-08	6.8	0	9	43916427	transmembrane receptor		
Calml4	Calmodulin-like 4	5	6	5.1E-01	1.2	1	9	9.6E-06	6.6	0	9	62723510	other		
E430002G05Rik	RIKEN cDNA E430002G05 gene	12	18	4.0E-02	1.5	11	69	5.5E-35	6.4	0	2	102482924			
Gad1	Glutamate decarboxylase-like 1	13	7	4.0E-02	0.6	4	25	1.8E-13	6.4	3	15	59503642	enzyme		
Hey1	Hairy/enhancer-of-split related with YRPW motif 1	7	13	1.2E-02	1.9	2	11	2.0E-06	6.4	3	3	8663555	transcription regulator		
Adcy2	Adenylate cyclase 2	3	5	3.1E-01	1.5	1	5	8.9E-04	6.4	0	13	68759165	enzyme		
Fkbp10	FK506 binding protein 10	8	15	1.4E-02	1.8	7	45	4.7E-23	6.3	1	11	100285836	enzyme		
Cdc20	Cell division cycle 20 homolog (S. cerevisiae)	4	4	1.0E+00	1.0	2	12	4.3E-07	6.2	0	16	91513599	other		
Rgs19	Regulator of G-protein signaling 19	8	12	1.3E-01	1.5	4	28	1.7E-14	6.2	2	2	181423453	other		
Lg4	Leucine-rich repeat LG1 family, member 4	4	6	2.7E-01	1.5	1	7	1.8E-04	6.1	0	7	31855554	other		
Chi3l1	Chitinase 3-like 1	3	14	1.6E-07	5.0	5	32	1.8E-16	6.1	0	1	136086093	enzyme		
Pivap	Plasmalemma vesicle associated protein	11	27	6.6E-06	2.3	6	38	2.3E-19	6.1	1	8	74022047	other		
Ptpn6	Protein tyrosine phosphatase, non-receptor type 6	3	11	2.6E-04	3.2	1	8	3.7E-05	6.0	0	6	124670735	phosphatase		
Aldh1a3	Aldehyde dehydrogenase family 1, subfamily A3	3	4	2.4E-01	1.6	8	46	2.4E-22	5.9	0	7	73536343	enzyme		
Trim47	Tripartite motif protein 47	18	27	1.5E-02	1.5	9	49	9.7E-24	5.8	3	11	115967560	other		
Gpx7	Glutathione peroxidase 7	12	19	2.0E-02	1.6	12	66	6.4E-31	5.7	3	4	108073169	enzyme		
Mast4	Microtubule associated serine/threonine kinase family 4	8	7	5.7E-01	0.8	2	9	1.5E-05	5.7	1	13	103523852	kinase		
Cxcl13	Chemokine (C-X-C motif) ligand 13	3	3	7.6E-01	1.1	2	11	3.2E-06	5.7	0	5	96389779			
Mgp	Matrix Gla protein	1031	1019	6.5E-01	1.0	1017	5693	0.0E+00	5.6	34	6	136821064	other		
Saa3	Serum amyloid A 3	21	38	5.2E-05	1.8	43	235	2.2E-103	5.5	0	7	53967467	other		
Fuca1	Fucosidase, alpha-L-1, tissue	15	22	5.2E-02	1.4	7	38	7.6E-18	5.5	5	4	135488972	enzyme		
Gfra2	Glial cell line derived neurotrophic factor family receptor type 2	7	10	2.0E-01	1.4	3	15	6.0E-08	5.5	0	14	71379329	transmembrane receptor		

S100a9	S100 calcium binding protein A9 (calgranulin B)	1	0	2.4E-01	0.0	1	8	1.4E-04	5.5	3	90496651	other	
Syn1	Syn1	7	6	8.8E-01	0.9	11	57	8.6E-26	5.4	0	20450238	transporter	
Pdia4	Protein disulfide isomerase associated 4	21	13	1.9E-02	0.6	8	45	1.5E-20	5.4	7	6	47746358	enzyme
Col18a1	Collagen, type XVIII, alpha 1	7	11	4.5E-02	1.7	6	29	5.2E-14	5.3	1	10	76515903	other
Frzb	Frizzled-related protein	16	46	1.0E-12	2.9	17	92	1.1E-40	5.3	0	2	80252641	other
BC011426	CDNA sequence BC011426	7	7	9.5E-01	1.0	2	12	2.5E-06	5.3	3	17	56037972	other
St8sia4	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltr	9	8	1.0E+00	1.0	1	7	2.7E-04	5.2	2	1	97484775	enzyme
Cilp	Cartilage intermediate layer protein, nucleotide py	20	86	8.3E-34	4.3	31	159	1.3E-66	5.1	2	9	65128324	phosphatase
Slc16a3	Solute carrier family 16 (monocarboxylic acid trans	4	9	1.7E-02	2.1	2	10	2.3E-05	5.1	0	11	120818342	transporter
Ndr3	N-myc downstream regulated gene 3	13	9	2.7E-01	0.7	3	14	4.1E-07	5.1	6	2	156753387	other
Lox3	Lysyl oxidase-like 3	10	11	6.0E-01	1.1	7	36	2.7E-16	5.0	1	6	83001272	enzyme
Tmem97	Transmembrane protein 97	11	13	5.2E-01	1.2	5	25	1.4E-11	5.0	2	16	22231651	other
Ap3m2	Adaptor-related protein complex 3, mu 2 subunit	3	6	7.0E-02	2.0	1	7	5.2E-04	4.9	0	8	23897859	transporter
Angpt7	Angiopoietin-like 7	10	10	9.4E-01	1.0	3	16	6.8E-08	4.9	0	4	147869597	other
Meox1	Mesenchyme homeobox 1	9	7	4.5E-01	0.8	8	38	1.6E-16	4.9	2	11	101738949	transcription regulator
4833428C12Rik	RIKEN cDNA 4833428C12 gene	8	16	1.8E-03	2.1	2	12	3.6E-06	4.9	2	3	115642037	
Sh3bgr3	SH3 domain binding glutamic acid-rich protein-like	24	65	1.3E-15	2.7	35	166	1.3E-66	4.8	1	4	133684576	other
Lhfp2	Lipoma HMGIC fusion partner-like 2	22	29	1.2E-01	1.3	24	114	3.6E-46	4.8	1	13	94965023	enzyme
Mm.382134	Visual cortex cDNA, RIKEN full-length enriched lib	4	7	7.6E-02	1.8	2	8	2.0E-04	4.8		5	117841422	
Gpr109a	G protein-coupled receptor 109A	4	15	2.2E-06	3.8	3	14	5.8E-07	4.7		5	124313585	
Lyp3	Lysophospholipase 3	7	13	1.6E-02	1.9	2	12	6.8E-06	4.7	2	8	108688341	enzyme
Bace2	Beta-site APP-cleaving enzyme 2	6	9	1.7E-01	1.5	2	12	6.8E-06	4.7	1	16	97658437	peptidase
Rai14	Retinoic acid induced 14	24	22	6.8E-01	0.9	16	74	4.8E-30	4.7	4	15	10499128	transcription regulator
Edg5	Endothelial differentiation, sphingolipid G-protein-c	6	11	2.6E-02	1.9	3	15	2.4E-07	4.7	1	9	20770604	-protein coupled receptor
Chac1	ChaC, cation transport regulator-like 1 (E. coli)	7	6	6.3E-01	0.8	7	33	3.8E-14	4.6	2	2	119179748	other
Fat1	FAT tumor suppressor homolog 1 (Drosophila)	17	17	9.0E-01	1.0	8	38	5.8E-16	4.6	8	8	46137382	
1110018M03Rik	RIKEN cDNA 1110018M03 gene	18	24	7.0E-02	1.4	6	29	1.9E-12	4.6	1	2	110201620	
Angpt4	Angiopoietin-like 4	34	47	1.1E-02	1.4	24	109	1.3E-42	4.6	5	17	33911937	other
B3gint1	UDP-GalNAc:betaGlcNAc beta 1,3-galactosaminy	7	8	5.4E-01	1.2	2	11	1.3E-05	4.6	1	3	69378737	enzyme
Inhba	Inhibin beta-A	17	36	3.1E-06	2.1	16	71	6.0E-28	4.5	0	13	16118932	growth factor
Zfp646	Zinc finger protein 646	7	5	3.8E-01	0.7	3	12	5.0E-06	4.5	2	7	135029271	
Nt5c	5',3'-nucleotidase, cytosolic	10	4	8.9E-03	0.4	4	17	7.0E-08	4.5	2	11	115352204	phosphatase
Eno2	Enolase 2, gamma neuronal	5	5	8.6E-01	1.0	2	9	1.5E-04	4.5	0	6	124710450	enzyme
Efemp2	Epidermal growth factor-containing fibulin-like exte	14	29	3.5E-05	2.1	14	63	7.4E-25	4.5	1	19	5481741	other
Fzd1	Frizzled homolog 1 (Drosophila)	18	21	3.7E-01	1.2	14	63	7.4E-25	4.5	3	5	4753938	-protein coupled receptor
Sparc	Secreted acidic cysteine rich glycoprotein	1735	1948	1.2E-09	1.1	1611	7183	0.0E+00	4.5	195	11	55208002	other
Cd109	CD109 antigen	2	4	1.7E-01	1.9	4	18	2.8E-08	4.5	0	9	78563546	other
Serpina3n	Serine (or cysteine) peptidase inhibitor, clade A, m	159	229	4.3E-10	1.4	208	921	0.0E+00	4.4	2	12	105652539	
Endod1	Endonuclease domain containing 1	14	23	6.7E-03	1.7	10	43	4.1E-17	4.4	3	9	14158515	enzyme
Pscbbp	Pleckstrin homology, Sec7 and coiled-coil domain	6	15	4.7E-04	2.4	4	16	3.2E-07	4.4		2	57985220	other
Il3ra	Interleukin 3 receptor, alpha chain	10	16	3.0E-02	1.6	4	16	3.2E-07	4.4	0	14	15183285	transmembrane receptor
Cdo1	Cysteine dioxygenase 1, cytosolic	6	7	8.7E-01	1.0	2	11	2.3E-05	4.4	1	18	46873260	enzyme
Fn1	Fibronectin 1	123	76	1.5E-08	0.6	98	428	1.3E-156	4.4	5	1	71632152	enzyme
1200009F10Rik	RIKEN cDNA 1200009F10 gene	43	56	2.3E-02	1.3	25	112	3.4E-42	4.4	10	10	90561297	
Rab15	RAB15, member RAS oncogene family	4	5	6.1E-01	1.2	8	34	7.0E-14	4.4	0	12	77899108	enzyme
Wisp2	WNT1 inducible signaling pathway protein 2	12	18	4.8E-02	1.5	5	21	3.4E-09	4.3	0	2	163658800	growth factor
Col5a1	Col5a1	59	96	1.9E-07	1.6	63	272	2.3E-98	4.3	1	2	27894508	other
1110006O17Rik	RIKEN cDNA 1110006O17 gene	24	21	4.1E-01	0.9	10	43	9.8E-17	4.3	4	18	35872875	
Fbx14	F-box and leucine-rich repeat protein 14	30	28	7.7E-01	1.0	12	49	4.6E-19	4.3	12	6	119432481	other
Rbp1	Retinol binding protein 1, cellular	55	95	5.5E-09	1.7	64	270	5.7E-96	4.2	2	9	98346852	transporter
Col6a1	Collagen, type VI, alpha 1	117	260	4.8E-40	2.2	127	532	6.0E-187	4.2	1	10	76171604	other
Pdk3	Pyruvate dehydrogenase kinase, isoenzyme 3	9	10	5.7E-01	1.1	4	15	1.1E-06	4.2	0	20	91010413	kinase
Col5a2	Collagen, type V, alpha 2	121	117	6.6E-01	1.0	81	339	9.3E-119	4.2	4	1	45431175	other
Pxdn	Peroxidasin homolog (Drosophila)	22	20	6.4E-01	0.9	15	64	1.0E-23	4.1	11	12	30702133	other
Creld2	Cysteine-rich with EGF-like domains 2	16	18	4.3E-01	1.2	11	46	2.9E-17	4.1	7	15	88656937	other
F2r	Coagulation factor II (thrombin) receptor	55	91	9.5E-08	1.7	46	189	9.9E-66	4.1	3	13	96372586	-protein coupled receptor
S100a8	S100 calcium binding protein A8 (calgranulin A)	4	4	8.4E-01	1.0	6	25	5.3E-10	4.1	0	3	90473542	other
1500041B16Rik	RIKEN cDNA 1500041B16 gene	13	7	4.0E-02	0.6	3	14	4.8E-06	4.1	0	11	16979029	
Armc7	Armadillo repeat containing 7	8	9	5.3E-01	1.2	2	10	7.8E-05	4.1	0	11	115351224	other
Pold4	Polymerase (DNA-directed), delta 4	15	16	5.8E-01	1.1	7	28	6.4E-11	4.0	5	19	4233443	enzyme
Lox	Lysyl oxidase	58	62	5.2E-01	1.1	90	363	4.5E-123	4.0	2	18	52675764	enzyme
Col4a2	Collagen, type IV, alpha 2	173	250	6.7E-11	1.4	251	1007	0.0E+00	4.0	57	8	11449080	other
S100a4	S100 calcium binding protein A4	7	25	3.3E-09	3.5	33	131	4.9E-45	4.0	0	3	90409920	other
Itp3	Inositol 1,4,5-triphosphate receptor 3	6	8	2.8E-01	1.4	3	12	2.2E-05	4.0	0	17	27259104	ion channel
1700016P03Rik	RIKEN cDNA 1700016P03 gene	5	4	6.2E-01	0.8	3	12	2.2E-05	4.0	0	11	74988822	
Pcsk5	Proprotein convertase subtilisin/kexin type 5	7	6	6.7E-01	0.9	3	12	2.2E-05	4.0	0	19	17635220	peptidase
Thbs3	Thrombospondin 3	4	8	3.9E-02	1.9	3	11	5.5E-05	4.0	0	3	89030286	other
Col8a1	Col8a1	165	207	1.2E-04	1.3	163	642	5.6E-212	4.0	2	16	57624461	other
D1Bwg1363e	DNA segment, Chr 1, Brigham & Women's Geneti	15	20	1.7E-01	1.3	19	73	9.8E-26	4.0	3	1	75471413	

Pgm3	Pgm3	10	11	4.9E-01	1.2	4	17	4.0E-07	3.9	3	9	86448647	enzyme
Itgb3	Integrin beta 3	2	4	6.4E-02	2.3	4	15	2.5E-06	3.9	0	11	104526887	transmembrane receptor
Hdc	Histidine decarboxylase	3	9	3.7E-03	2.6	2	8	9.2E-04	3.9	0	2	126419508	enzyme
Slc20a1	Solute carrier family 20, member 1	115	175	5.8E-10	1.5	100	387	7.5E-126	3.9	18	2	129037297	transporter
Prss23	Protease, serine, 23	19	40	7.3E-07	2.1	38	146	8.9E-49	3.9	2	7	96658217	peptidase
Sfmbt1	Scm-like with four mbt domains 1	10	12	4.8E-01	1.2	6	23	5.3E-09	3.9	1	14	31630947	other
Ssh3	Slingshot homolog 3 (Drosophila)	6	13	2.6E-03	2.3	5	18	2.8E-07	3.9	3	19	4261814	phosphatase
Ptgrn	Prostaglandin F2 receptor negative regulator	29	39	2.9E-02	1.4	20	76	1.0E-25	3.8	8	3	100844449	other
Tmem158	Tmem158	9	8	8.5E-01	0.9	5	20	8.1E-08	3.8	0	9	123168241	other
Srd5a2l	Steroid 5 alpha-reductase 2-like	8	9	5.3E-01	1.2	5	18	5.0E-07	3.8	1	5	76584244	other
Emb	Embigin	5	6	6.6E-01	1.1	6	21	4.1E-08	3.7	0	13	118062849	other
Bgn	Biglycan	409	779	6.8E-82	1.9	439	1620	0.0E+00	3.7	7	20	70740482	other
Col4a1	Collagen, type IV, alpha 1	277	461	4.7E-33	1.7	327	1201	0.0E+00	3.7	47	8	11198924	other
Unc5b	Unc-5 homolog B (C. elegans)	16	18	5.5E-01	1.1	12	46	1.6E-15	3.7	3	10	60225501	transmembrane receptor
Adams2	A disintegrin-like and metallopeptidase (reprolysin)	70	98	1.5E-04	1.4	48	175	8.2E-55	3.7	2	11	50617397	peptidase
Plp2	Proteolipid protein 2	21	37	7.3E-05	1.8	25	90	6.8E-29	3.7	10	2	75646414	transporter
Wt1	Wilms tumor homolog	6	8	3.7E-01	1.3	2	9	4.5E-04	3.6	2	2	105012900	transcription regulator
Stx2	Syntaxin 2	10	10	1.0E+00	1.0	9	32	3.3E-11	3.6	1	5	129490732	transporter
Qsox1	Quiescin Q6 sulfhydryl oxidase 1	12	12	9.9E-01	1.0	7	26	2.4E-09	3.6	5	1	157625792	enzyme
Col6a3	Collagen, type VI, alpha 3	13	20	3.0E-02	1.5	15	54	1.4E-17	3.6	0	1	92663720	other
Ccr1	Chemokine (C-C motif) receptor-like 1	14	17	2.2E-01	1.3	5	19	4.3E-07	3.6	0	9	104000525	-protein coupled receptor
Ptms	Parathyrosin	63	86	6.5E-04	1.4	46	166	7.1E-51	3.6	9	6	124864201	other
Ptprf	Protein tyrosine phosphatase, receptor type, F	7	7	1.0E+00	1.0	4	15	9.5E-06	3.6	2	4	117881163	phosphatase
5033428122Rik	RIKEN cDNA 5033428122 gene	6	10	8.1E-02	1.6	6	21	8.7E-08	3.5	1	8	59824097	other
Ptplb	Protein tyrosine phosphatase-like (proline instead	14	19	1.7E-01	1.3	9	32	7.0E-11	3.5	5	16	35106423	phosphatase
Sh3bgrl2	SH3 domain binding glutamic acid-rich protein like	7	13	1.2E-02	1.9	5	17	1.9E-06	3.5	0	9	83493074	other
Fkbp14	FK506 binding protein 14	18	20	6.8E-01	1.1	13	46	8.5E-15	3.5	6	6	54527695	enzyme
Ltb4dh	Leukotriene B4 12-hydroxydehydrogenase	21	17	3.9E-01	0.8	10	35	1.0E-11	3.5	3	10	49092830	enzyme
Kdelr3	KDEL (Lys-Asp-Glu-Leu) endoplasmic reticulum p	27	30	4.3E-01	1.1	22	77	1.4E-23	3.5	3	15	79357982	transporter
Sdf2l1	Stromal cell-derived factor 2-like 1	8	7	4.7E-01	0.8	9	31	2.9E-10	3.5	1	16	17130693	other
Sox4	SRY-box containing gene 4	25	30	2.2E-01	1.2	14	49	1.2E-15	3.4	12	13	29042713	transcription regulator
C030046G05	Hypothetical protein C030046G05	20	17	4.7E-01	0.9	6	22	1.1E-07	3.4	1	13	105370575	other
Clec4a2	C-type lectin domain family 4, member a2	23	22	8.4E-01	1.0	11	38	3.5E-12	3.4	0	6	123092776	other
Epn2	Epsin 2	11	11	9.0E-01	1.0	4	15	1.1E-05	3.4	4	11	61332252	other
Cfb	Complement factor B	4	11	1.4E-03	2.6	4	13	4.1E-05	3.4	0	17	34993325	peptidase
Pdia6	Protein disulfide isomerase associated 6	84	128	7.5E-08	1.5	105	356	1.7E-101	3.4	36	12	17290915	enzyme
Ucp2	Uncoupling protein 2 (mitochondrial, proton carrier	65	96	2.0E-05	1.5	70	238	2.1E-68	3.4	5	7	107647867	transporter
Asah1	N-acylseringosine amidohydrolase 1	82	81	9.9E-01	1.0	36	121	1.5E-35	3.4	17	8	42426673	enzyme
Ptgis	Prostaglandin I2 (prostaglyclin) synthase	44	71	6.6E-06	1.6	30	101	4.2E-30	3.4	1	2	167032291	enzyme
Serpinf1	Serine (or cysteine) peptidase inhibitor, clade F, m	139	227	4.0E-16	1.6	127	429	2.4E-121	3.4	2	11	75223530	other
Tmem87b	Transmembrane protein 87B	19	14	1.3E-01	0.7	6	21	1.8E-07	3.4	10	2	128679623	other
Sp3c3	Signal peptidase complex subunit 3 homolog (S. d	57	70	4.8E-02	1.2	46	152	2.7E-43	3.3	25	8	55606296	peptidase
Necap2	NECAP endocytosis associated 2	19	27	3.6E-02	1.4	16	54	1.8E-16	3.3	4	4	140622831	other
Scarf2	Scavenger receptor class F, member 2	4	10	3.2E-03	2.5	7	24	6.1E-08	3.3	0	16	17808163	transmembrane receptor
Lrrc33	Leucine rich repeat containing 33	10	15	5.1E-02	1.6	6	19	1.1E-06	3.3	1	16	32143343	other
Opr1	Opioid receptor, sigma 1	10	8	3.7E-01	0.8	4	13	7.0E-05	3.3	4	4	41685619	-protein coupled receptor
Ppic	Peptidylprolyl isomerase C	30	29	8.5E-01	1.0	20	68	6.4E-20	3.3	6	18	53566039	enzyme
Pstpip1	Proline-serine-threonine phosphatase-interacting	4	3	7.4E-01	0.8	3	11	2.5E-04	3.3	0	9	55976684	other
Sh3d19	SH3 domain protein D19	10	10	8.5E-01	1.0	3	11	2.5E-04	3.3	0	3	85932113	enzyme
Ass1	Argininosuccinate synthetase 1	4	9	1.4E-02	2.1	7	25	4.2E-08	3.3	0	2	31374246	enzyme
2610027C15Rik	RIKEN cDNA 2610027C15 gene	18	17	8.9E-01	1.0	9	28	5.9E-09	3.3	3	4	125826670	other
Rrm2	Ribonucleotide reductase M2	8	7	5.7E-01	0.8	5	16	9.4E-06	3.3	2	12	25398834	enzyme
Kctd17	Potassium channel tetramerisation domain contain	13	15	3.6E-01	1.2	11	35	6.9E-11	3.3	2	15	78269693	other
2010109N14Rik	RIKEN cDNA 2010109N14 gene	40	35	3.4E-01	0.9	12	38	9.7E-12	3.2	9	3	123211087	other
G6pdx	Glucose-6-phosphate dehydrogenase X-linked	13	19	6.7E-02	1.4	9	29	2.9E-09	3.2	1	20	71654929	other
Tmem115	Transmembrane protein 115	15	25	3.5E-03	1.7	14	45	2.8E-13	3.2	5	9	107440426	other
Smardc2	SWI/SNF related, matrix associated, actin depend	9	7	3.3E-01	0.7	4	12	1.2E-04	3.2	3	11	106125040	transcription regulator
AW208599	Expressed sequence AW208599	8	9	5.2E-01	1.2	4	12	1.2E-04	3.2	1	10	7433770	other
0610009O03Rik	RIKEN cDNA 0610009O03 gene	7	15	1.9E-03	2.1	6	20	8.8E-07	3.2	2	5	34976841	other
Rcn3	Reticulocalbin 3, EF-hand calcium binding domain	63	101	1.2E-07	1.6	57	180	4.2E-48	3.2	0	7	52338587	other
Col12a1	Col12a1	5	7	2.3E-01	1.5	6	19	2.1E-06	3.2	0	9	79447006	other
Sec16b	SEC16 homolog B (S. cerevisiae)	7	5	3.8E-01	0.7	4	14	5.7E-05	3.2	0	1	159498164	other
C4b	Complement component 4B (Chido blood group)	42	88	1.1E-12	2.1	64	200	7.7E-53	3.2	0	17	34946456	other
Ccdc125	Ccdc125	9	8	7.5E-01	0.9	8	25	5.8E-08	3.2	1	13	101443555	other
Col15a1	Collagen, type XV	283	346	1.4E-05	1.2	268	839	3.2E-214	3.1	8	4	47326007	other
Cott1	Coactosin-like 1 (Dictyostelium)	22	15	6.1E-02	0.7	12	37	4.5E-11	3.1	0	8	122333684	other
Cyp4v3	Cytochrome P450, family 4, subfamily v, polypepti	16	22	1.3E-01	1.3	6	20	1.5E-06	3.1	1	8	46391277	other
Paxip1	PAX interacting (with transcription-activation doma	9	11	4.0E-01	1.2	5	15	3.9E-05	3.1	3	5	28068969	other
Adcy7	Adenylate cyclase 7	22	20	6.6E-01	0.9	14	45	6.2E-13	3.1	0	8	90853484	enzyme

6030408B16Rik	RIKEN cDNA 6030408B16 gene	15	15	7.4E-01	1.1	10	30	3.8E-09	3.1	0	15	101126518	
Mfap5	Microfibrillar associated protein 5	299	403	6.9E-12	1.4	331	1026	7.9E-258	3.1	4	6	122478531	other
Grrn	Granulin	220	389	5.2E-34	1.8	198	614	2.4E-155	3.1	18	11	102297918	growth factor
Prkcdpb	Protein kinase C, delta binding protein	5	15	1.1E-04	2.8	6	19	3.6E-06	3.1	1	7	112630569	other
Zxdc	ZXD family zinc finger C	14	17	3.1E-01	1.2	6	19	3.6E-06	3.1	6	6	90353209	other
Txndc5	Thioredoxin domain containing 5	28	52	8.2E-07	1.9	35	107	2.0E-28	3.1	9	13	38592215	enzyme
Lat2	Linker for activation of T cells family, member 2	4	6	3.2E-01	1.4	4	13	1.4E-04	3.1	0	5	135084772	other
Ephb4	Eph receptor B4	14	15	7.0E-01	1.1	4	13	1.4E-04	3.1	6	5	137815175	kinase
Deaf1	Deformed epidermal autoregulatory factor 1 (Dros)	7	7	9.0E-01	1.0	4	13	1.4E-04	3.1	2	7	148483103	transcription regulator
Fstl1	Follistatin-like 1	919	1508	3.3E-99	1.6	1165	3576	0.0E+00	3.1	18	16	37835745	other
Ms4a7	Membrane-spanning 4-domains, subfamily A, member 7	33	79	2.3E-15	2.4	51	155	4.0E+00	3.1	19	19	11407841	other
9530076L18	Hypothetical protein 9530076L18	48	74	4.7E-05	1.5	95	290	9.3E-73	3.1	0	13	16123345	
Col6a2	Collagen, type VI, alpha 2	137	244	1.2E-22	1.8	218	661	9.3E-162	3.0	1	10	76058537	other
Golga7	Golgi autoantigen, golgin subfamily a, 7	34	46	1.3E-02	1.4	24	73	2.6E-19	3.0	8	20	8904461	other
Pla2g4a	Phospholipase A2, group IVA (cytosolic, calcium-dependent)	19	23	2.0E-01	1.3	16	48	4.5E-13	3.0	1	1	151676827	enzyme
Ihpk1	Inositol hexaphosphate kinase 1	14	15	7.1E-01	1.1	15	45	2.2E-12	3.0	5	9	107950464	kinase
Sgpp1	Sphingosine-1-phosphate phosphatase 1	11	16	8.7E-02	1.4	8	24	2.6E-07	3.0	5	12	76816355	phosphatase
Arhgef10	Rho guanine nucleotide exchange factor (GEF) 10	9	10	6.7E-01	1.1	4	12	2.3E-04	3.0	4	8	15000816	peptidase
Ly6k	Lymphocyte antigen 6 complex, locus K	8	16	4.4E-03	1.9	6	17	1.4E-05	3.0	15	7	74627357	other
Prr14	Proline rich 14	12	13	8.3E-01	1.0	6	18	9.8E-06	3.0	5	7	134619423	other
Hspg2	Heparan sulfate proteoglycan 2	80	119	1.1E-06	1.5	70	209	5.2E-51	3.0	19	4	137126105	other
Sgms2	Sphingomyelin synthase 2	4	7	9.8E-02	1.7	5	14	1.1E-04	3.0	3	3	131025655	enzyme
Mrc2	Mannose receptor, C type 2	21	33	4.1E-03	1.6	22	64	1.3E-16	3.0	2	11	105212225	transmembrane receptor
Atp8b2	ATPase, class I, type 8B, member 2	26	24	6.9E-01	0.9	15	43	8.6E-12	3.0	2	11	51409913	transporter
Ctsz	Cathepsin Z	141	228	7.3E-16	1.6	83	244	1.1E-58	3.0	6	2	174253051	peptidase
Serpinc2	Serine (or cysteine) peptidase inhibitor, clade B, member 2	13	21	1.8E-02	1.6	27	81	1.5E-20	3.0	1	1	109422059	other
Gatm	Glycine amidinotransferase (L-arginine:glycine antiporter)	25	20	2.3E-01	0.8	10	30	1.4E-08	3.0	2	2	122420798	enzyme
Ctsk	Cathepsin K	62	59	6.4E-01	1.0	47	138	1.4E-33	2.9	2	3	95313221	peptidase
Stard3nl	STARD3 N-terminal like	27	23	4.0E-01	0.9	16	48	1.5E-12	2.9	13	13	19449592	other
Creb3	CAMP responsive element binding protein 3	20	14	9.2E-02	0.7	11	31	1.5E-08	2.9	10	4	43579420	transcription regulator
Prdm4	PR domain containing 4	20	14	8.2E-02	0.7	10	30	2.2E-08	2.9	6	10	85355184	transcription regulator
Rac2	RAS-related C3 botulinum substrate 2	19	28	2.1E-02	1.5	16	46	5.2E-12	2.9	0	15	78391577	enzyme
Map3k3	Mitogen activated protein kinase kinase kinase 3	21	19	7.0E-01	0.9	11	31	1.1E-08	2.9	9	11	106016453	kinase
Sox17	SRY-box containing gene 17	17	16	9.0E-01	1.0	4	13	2.6E-04	2.9	7	1	4481507	transcription regulator
Nupr1	Nuclear protein 1	83	121	2.9E-06	1.5	101	291	8.5E-68	2.9	0	7	133768473	
Apold1	Apolipoprotein L domain containing 1	25	40	7.5E-04	1.6	9	27	1.1E-07	2.9	1	6	134936729	other
Fut11	Fut11	11	9	5.6E-01	0.8	5	14	1.8E-04	2.9	2	14	21517556	enzyme
Ccdc80	Coiled-coil domain containing 80	216	355	5.7E-25	1.7	170	488	1.7E-111	2.9	7	16	45127606	other
Stc1	Stanniocalcin 1	10	12	3.9E-01	1.2	5	15	8.3E-05	2.9	0	14	69657947	kinase
P4hb	Prolyl 4-hydroxylase, beta polypeptide	248	287	3.5E-03	1.2	205	588	1.8E-133	2.9	67	11	120421772	enzyme
Igf1bp6	Insulin-like growth factor binding protein 6	43	88	1.2E-12	2.1	39	111	2.0E-26	2.9	1	15	101975014	other
Cd9	CD9 antigen	133	220	1.4E-16	1.7	140	397	5.4E-90	2.9	5	6	125410721	other
Lapm5	Lysosomal-associated protein transmembrane 5	71	103	2.1E-05	1.5	58	165	2.8E-38	2.8	0	4	130492063	other
Mfsd11	Major facilitator superfamily domain containing 11	29	32	4.4E-01	1.1	17	49	2.2E-12	2.8	12	11	116735613	other
Rnh1	Ribonuclease/angiogenesis inhibitor 1	84	143	1.9E-12	1.7	73	206	4.8E-47	2.8	8	7	148346617	other
Rel1	RELT-like 1	29	50	1.8E-05	1.7	23	64	8.7E-16	2.8	1	5	64300961	other
Ctsh	Cathepsin H	43	54	3.5E-02	1.3	17	48	3.5E-12	2.8	4	9	89970859	peptidase
Ereg	Epiregulin	42	63	2.8E-04	1.5	92	258	6.6E-58	2.8	5	5	91522559	growth factor
Ccnf	Cyclin F	3	5	1.5E-01	1.8	4	12	4.3E-04	2.8	17		24360304	other
Mapk8ip1	Mitogen activated protein kinase 8 interacting protein 1	6	9	2.4E-01	1.4	4	12	4.3E-04	2.8	0	2	92224151	other
Src	Rous sarcoma oncogene	13	14	5.9E-01	1.1	4	12	4.3E-04	2.8	0	2	157297494	kinase
Snx7	Sorting nexin 7	13	15	4.0E-01	1.2	11	29	6.5E-08	2.8	2	3	117485281	transporter
Rab3d	RAB3D, member RAS oncogene family	12	15	2.9E-01	1.3	7	20	9.5E-06	2.8	5	9	21712731	enzyme
Scd2	Stearoyl-Coenzyme A desaturase 2	18	25	8.0E-02	1.4	17	48	8.9E-12	2.8	4	19	44381191	other
Enpp1	Ectonucleotide pyrophosphatase/phosphodiesterase 1	6	10	6.5E-02	1.7	12	34	7.7E-09	2.8	0	10	24361400	enzyme
S100a6	S100 calcium binding protein A6 (calcylin)	219	344	2.1E-20	1.6	256	704	2.8E-150	2.8	4	3	90417693	transporter
Sh3gl1	SH3-domain GRB2-like 1	47	51	4.6E-01	1.1	23	64	3.0E-15	2.8	6	17	56156375	other
Ssr4	Signal sequence receptor, delta	20	22	6.0E-01	1.1	18	50	5.2E-12	2.7	8	20	71035400	other
2310047A01Rik	RIKEN cDNA 2310047A01 gene	38	38	8.8E-01	1.0	15	41	4.4E-10	2.7	12	14	26531266	
G630014P10Rik	RIKEN cDNA G630014P10 gene	19	15	2.3E-01	0.8	9	24	1.6E-06	2.7	2	20	68409004	
Jarid1b	Jumonji, AT rich interactive domain 1B (Rbp2 like)	14	16	4.6E-01	1.2	8	21	7.1E-06	2.7	5	1	136527973	transcription regulator
Sema3f	Sema domain, immunoglobulin domain (Ig), short	9	15	5.8E-02	1.5	6	15	1.5E-04	2.7	2	9	107584065	other
Gpnmb	Glycoprotein (transmembrane) nmb	2	7	5.9E-03	3.0	5	14	2.2E-04	2.7	0	6	49006690	enzyme
Gria3	GRIA3	6	9	2.0E-01	1.4	5	13	4.8E-04	2.7	2	20	38965998	ion channel
Fkbp9	FK506 binding protein 9	80	81	8.5E-01	1.0	56	151	3.1E-33	2.7	32	6	56829271	enzyme
Capg	Capping protein (actin filament), gelsolin-like	23	34	1.3E-02	1.5	27	72	1.3E-16	2.7	0	6	72505866	other
Dusp6	Dual specificity phosphatase 6	38	37	8.7E-01	1.0	25	67	1.7E-15	2.7	11	10	98730033	phosphatase
Acp5	Acid phosphatase 5, tartrate resistant	31	104	4.2E-32	3.4	23	62	2.5E-14	2.7	0	9	21931559	phosphatase
Lgals1	Lectin, galactose binding, soluble 1	562	946	1.9E-68	1.7	777	2088	0.0E+00	2.7	128	15	78760526	other

Tmem59	Transmembrane protein 59	149	210	1.3E-08	1.4	99	267	2.2E-56	2.7	50	4	106873424	other
Ctss	Cathepsin S	392	535	1.6E-16	1.4	390	1044	2.2E-213	2.7	1	3	95360280	peptidase
Plat	Plasminogen activator, tissue	55	81	7.8E-05	1.5	45	120	4.4E-26	2.7	1	8	23893080	peptidase
Ndufa4i2	NADH dehydrogenase (ubiquinone) 1 alpha subco	14	19	1.7E-01	1.3	9	23	3.7E-06	2.7	1	10	126954033	enzyme
Abca1	ATP-binding cassette, sub-family A (ABC1), memb	145	199	3.7E-07	1.4	75	201	2.8E-42	2.7	6	4	53044112	transporter
Clic1	Chloride intracellular channel 1	79	104	1.1E-03	1.3	67	179	6.7E-38	2.7	4	17	35189834	ion channel
Rcn1	Reticulocalbin 1	44	25	8.2E-05	0.6	20	53	2.3E-12	2.7	12	2	105227346	other
Lgals3	Lectin, galactose binding, soluble 3	4	10	1.6E-03	2.7	5	14	3.5E-04	2.7	0	14	48001330	other
Phf13	PHD finger protein 13	7	12	3.8E-02	1.7	5	14	3.5E-04	2.7	1	4	151363827	other
Mmp14	Matrix metallopeptidase 14 (membrane-inserted)	47	64	4.5E-03	1.4	81	216	5.7E-45	2.7	0	14	55059453	peptidase
Ccl8	Chemokine (C-C motif) ligand 8	13	56	4.6E-22	4.2	54	142	3.6E-30	2.7	0	11	81930094	other
Rab9	RAB9, member RAS oncogene family	33	36	5.0E-01	1.1	24	64	1.6E-14	2.7	13	20	102677607	enzyme
AW228836	Expressed sequence AW228836	11	9	4.6E-01	0.8	9	24	2.8E-06	2.7	2	19	7612822	other
4933413N12Rik	RIKEN cDNA 4933413N12 gene	8	13	4.3E-02	1.6	5	13	5.2E-04	2.7	2	19	59371293	other
2410018M08Rik	RIKEN cDNA 2410018M08 gene	6	7	8.0E-01	1.1	5	13	5.2E-04	2.7	0	5	130379454	other
Limk1	LIM-domain containing, protein kinase	7	5	4.2E-01	0.7	5	12	7.7E-04	2.7	1	5	135131972	kinase
Atp10a	ATPase, class V, type 10A	9	7	4.5E-01	0.8	5	12	7.7E-04	2.7	0	7	66084715	transporter
Dok5	Docking protein 5	5	6	8.4E-01	1.0	5	12	7.7E-04	2.7	0	2	170705243	other
Ramp2	Receptor (calcitonin) activity modifying protein 2	39	39	8.9E-01	1.0	17	45	2.1E-10	2.6	12	11	101109296	other
Phlda3	Pleckstrin homology-like domain, family A, membe	14	12	4.4E-01	0.8	12	33	4.9E-08	2.6	2	1	137665666	other
Smc4	Structural maintenance of chromosomes 4	22	24	6.7E-01	1.1	19	50	1.7E-11	2.6	9	3	68837980	transporter
Reck	Reversion-inducing-cysteine-rich protein with kaza	27	27	9.8E-01	1.0	7	20	2.7E-05	2.6	1	4	43957332	other
Fstl3	Follistatin-like 3	12	15	3.3E-01	1.2	12	32	7.7E-08	2.6	2	10	79245014	other
Luc7l	Luc7l	80	87	3.5E-01	1.1	69	181	7.7E-37	2.6	22	17	26409366	other
Tnfrsf10b	Tnfrsf10b	19	21	5.8E-01	1.1	12	32	1.1E-07	2.6	1	14	70184030	transmembrane receptor
3110045G13Rik	RIKEN cDNA 3110045G13 gene	10	10	9.7E-01	1.0	9	23	6.4E-06	2.6	2	3	87553018	other
Rgs16	Regulator of G-protein signaling 16	4	9	6.9E-03	2.3	9	22	9.3E-06	2.6	0	1	155592542	other
Ypel2	Yppee-like 2 (Drosophila)	20	17	5.6E-01	0.9	9	22	9.3E-06	2.6	10	20	95965437	other
Aldh1a2	Aldehyde dehydrogenase family 1, subfamily A	24	24	9.9E-01	1.0	41	107	2.8E-22	2.6	1	9	71143914	enzyme
Sorbs3	Sorbin and SH3 domain containing 3	20	23	4.4E-01	1.1	14	35	2.7E-08	2.6	4	14	70580425	other
Sh3tc1	SH3 domain and tetratricopeptide repeats 1	8	8	9.1E-01	1.0	5	14	5.7E-04	2.6	0	5	36042933	other
Loxl1	Lysyl oxidase-like 1	90	123	7.0E-05	1.4	70	181	2.2E-36	2.6	2	9	58136501	enzyme
Khdrbs1	KH domain containing, RNA binding, signal transd	21	20	9.4E-01	1.0	10	26	1.5E-06	2.6	4	8	105058659	transcription regulator
Rexo1	REX1, RNA exonuclease 1 homolog (S. cerevisiae)	14	17	3.8E-01	1.2	7	19	4.2E-05	2.6	4	13	69493168	transcription regulator
4930431B09Rik	RIKEN cDNA 4930431B09 gene	7	8	6.1E-01	1.1	5	13	8.3E-04	2.6	1	3	100275771	other
Thy1	Thymus cell antigen 1, theta	66	51	2.3E-02	0.8	29	75	7.0E-16	2.6	1	9	43856585	other
Foxn2	Forkhead box N2	47	37	6.2E-02	0.8	22	56	2.5E-12	2.6	3	17	88889290	transcription regulator
Ptk2b	PTK2 protein tyrosine kinase 2 beta	12	15	2.9E-01	1.3	7	18	9.0E-05	2.6	2	14	66772169	kinase
C79267	Expressed sequence C79267	16	18	6.4E-01	1.1	9	23	6.9E-06	2.6	2	4	139176065	other
Suv39h1	Suppressor of variegation 3-9 homolog 1 (Drosop	8	13	6.5E-02	1.6	7	17	1.3E-04	2.6	2	20	7638639	enzyme
Dap	Death-associated protein	25	53	1.6E-08	2.1	39	100	1.9E-20	2.6	3	15	31203655	other
Acbd3	Acyl-Coenzyme A binding domain containing 3	59	60	7.7E-01	1.0	36	93	3.3E-19	2.6	15	1	182684173	other
Gramd1a	GRAM domain containing 1A	29	43	4.9E-03	1.5	23	59	9.8E-13	2.6	9	7	31915145	other
Mxra7	Matrix-remodelling associated 7	22	32	1.1E-02	1.5	23	60	1.1E-12	2.5	2	11	116667979	other
Srrm1	Serine/arginine repetitive matrix 1	18	16	5.8E-01	0.9	8	20	3.1E-05	2.5	7	16	9104636	other
Cd209f	CD209f antigen	12	10	5.6E-01	0.9	6	15	2.8E-04	2.5	8	8	4102849	other
Dpysl3	Dihydropyrimidinase-like 3	38	61	4.3E-05	1.6	35	89	3.4E-18	2.5	7	18	43480873	enzyme
Ndfip1	Nedd4 family interacting protein 1	82	78	5.6E-01	1.0	34	85	2.0E-17	2.5	37	18	38624231	other
Dpep2	Dipeptidase 2	7	12	3.8E-02	1.7	10	25	5.1E-06	2.5	0	8	108509140	peptidase
Faim	Fas apoptotic inhibitory molecule	7	10	1.2E-01	1.5	7	19	6.6E-05	2.5	2	9	98893087	other
Tyrobp	TYRO protein tyrosine kinase binding protein	61	94	2.5E-06	1.5	61	154	4.6E-30	2.5	1	7	31198857	other
Anxa1	Annexin A1	255	229	4.6E-02	0.9	184	463	2.7E-86	2.5	5	19	20448139	other
Ugt1a7c	UDP glucuronosyltransferase 1 family, polypeptide	41	48	2.0E-01	1.2	31	77	1.1E-15	2.5	0	1	90116577	other
Col5a3	Collagen, type V, alpha 3	7	24	4.3E-09	3.6	22	55	1.0E-11	2.5	0	9	20574701	other
Cnot2	CCR4-NOT transcription complex, subunit 2	41	44	6.3E-01	1.1	19	49	1.7E-10	2.5	21	10	115922482	transcription regulator
Tmem173	Transmembrane protein 173	9	8	8.5E-01	0.9	5	13	9.0E-04	2.5	18	35894153	other	
Rpl36a	Ribosomal protein L36a	251	300	3.3E-04	1.2	159	396	1.3E-73	2.5	119	3	145541983	other
Prdx4	Peroxisiredoxin 4	57	97	1.3E-08	1.7	90	225	1.3E-42	2.5	20	21	151758462	enzyme
Pld3	Phospholipase D family, member 3	13	23	3.6E-03	1.7	17	41	4.3E-09	2.5	6	7	28317099	enzyme
Praf2	PRA1 domain family 2	22	33	1.1E-02	1.5	19	48	3.7E-10	2.5	2	20	7308101	other
Ssr3	Signal sequence receptor, gamma	216	298	1.6E-10	1.4	250	619	3.1E-112	2.5	83	3	65184016	other
Tubb5	Tubulin, beta 5	133	144	2.4E-01	1.1	88	218	1.3E-40	2.5	60	4	24166594	other
Rcc2	Regulator of chromosome condensation 2	18	22	3.0E-01	1.2	14	34	1.1E-07	2.5	3	4	140277390	other
Trem2	Triggering receptor expressed on myeloid cells 2	7	21	2.8E-06	2.9	14	34	1.6E-07	2.5	0	17	48491410	transmembrane receptor
Rsbn1l	Rsbn1l	10	17	1.7E-02	1.7	7	18	1.0E-04	2.5	4	5	20401202	other
Cdk9	Cyclin-dependent kinase 9 (CDC2-related kinase)	22	29	1.2E-01	1.3	20	50	2.0E-10	2.5	3	4	155588917	kinase
Anpep	Alanyl (membrane) aminopeptidase	10	19	3.5E-03	1.9	16	39	2.0E-08	2.5	0	7	86966920	peptidase
Tmsb10	Thymosin, beta 10	374	475	1.0E-09	1.3	289	712	1.5E-127	2.5	17	18	75926814	other
Ctla2a	Cytotoxic T lymphocyte-associated protein 2 alpha	112	132	2.1E-02	1.2	77	190	2.0E-35	2.5	6	13	61036160	other

F630110N24Rik	RIKEN cDNA F630110N24 gene	11	11	9.4E-01	1.0	11	27	2.9E-06	2.5	4	10	80828939	
Fkbp2	FK506 binding protein 2	19	22	3.9E-01	1.2	18	43	3.6E-09	2.5	7	19	7052228	enzyme
Efnb2	Ephrin B2	10	12	3.9E-01	1.2	11	26	4.3E-06	2.5	3	8	8617537	other
Zfp87	Zinc finger protein 87	13	14	6.3E-01	1.1	9	23	1.8E-05	2.5	5	13	67622037	
Dusp5	Dual specificity phosphatase 5	100	96	6.7E-01	1.0	59	144	9.5E-27	2.4	5	19	53616810	phosphatase
Olr1	Oxidized low density lipoprotein (lectin-like) recept	40	43	6.5E-01	1.1	27	67	3.0E-13	2.4		6	129435389	transmembrane receptor
Mm.430787	CDNA clone IMAGE:6820538	5	8	5.1E-02	1.8	9	22	2.6E-05	2.4	1	13	100191732	
Ece1	Endothelin converting enzyme 1	178	203	2.6E-02	1.1	116	281	2.4E-50	2.4	15	4	137521037	peptidase
Rnf126	Ring finger protein 126	19	16	5.6E-01	0.9	10	25	9.0E-06	2.4	9	10	79221495	other
Akap13	A kinase (PRKA) anchor protein 13	12	19	1.4E-02	1.7	9	21	3.8E-05	2.4	2	7	82832100	other
Golm1	Golgi membrane protein 1	13	10	3.4E-01	0.8	13	32	5.5E-07	2.4	4	13	59736445	other
Svep1	Sushi, von Willebrand factor type A, EGF and pen	41	68	5.4E-06	1.7	51	124	1.0E-22	2.4	1	20	137869909	other
Ugcgl1	UDP-glucose ceramide glucosyltransferase-like 1	24	34	2.0E-02	1.4	26	62	4.1E-12	2.4	9	1	36200403	enzyme
Cd44	CD44 antigen	244	286	1.7E-03	1.2	203	489	1.2E-84	2.4	14	2	102651980	other
Ssr2	Signal sequence receptor, beta	39	37	7.9E-01	1.0	41	99	2.3E-18	2.4	11	3	88391826	other
Sid2	SID1 transmembrane family, member 2	42	48	2.6E-01	1.1	34	82	1.6E-15	2.4	21	9	45746016	other
Ptpra	Protein tyrosine phosphatase, receptor type, A	37	41	3.9E-01	1.1	24	57	3.4E-11	2.4	12	2	130379759	phosphatase
Aebp1	AE binding protein 1	12	19	2.9E-02	1.6	23	54	9.6E-11	2.4	1	15	62564871	peptidase
3110001A13Rik	RIKEN cDNA 3110001A13 gene	35	48	1.0E-02	1.4	20	49	7.7E-10	2.4	1	2	3698821	
Bcl6b	B-cell CLL/lymphoma 6, member B	19	23	2.2E-01	1.2	12	30	1.7E-06	2.4	3	11	70037745	transcription regulator
Rps6ka4	Ribosomal protein S6 kinase, polypeptide 4	12	11	8.2E-01	0.9	8	19	1.2E-04	2.4	4	19	6903696	kinase
Tnfsf14	Tnfsf14	8	9	4.1E-01	1.2	7	17	3.4E-04	2.4		17	57328921	cytokine
Ppib	Peptidylprolyl isomerase B	145	98	3.5E-07	0.7	94	224	2.4E-39	2.4	25	9	65914436	enzyme
Ryk	Receptor-like tyrosine kinase	41	45	3.5E-01	1.1	43	102	9.1E-19	2.4	20	9	102808396	kinase
BC023892	CDNA sequence BC023892	27	35	6.6E-02	1.3	30	73	7.0E-14	2.4	11	9	85214960	other
9130005N14Rik	RIKEN cDNA 9130005N14 gene	21	29	7.0E-02	1.3	17	40	3.6E-08	2.4	2	5	65432878	
9430020K01Rik	9430020K01Rik	24	31	1.2E-01	1.3	14	32	5.8E-07	2.4	7	18	4682641	
Ptplad2	Protein tyrosine phosphatase-like A domain conta	10	14	1.1E-01	1.4	7	16	5.0E-04	2.4	0	4	88058833	other
Creb3l2	CAMP responsive element binding protein 3-like 2	53	95	7.0E-10	1.8	75	180	1.4E-31	2.4	10	6	37277633	other
Bmp4	Bone morphogenetic protein 4	50	37	2.2E-02	0.8	17	41	2.7E-08	2.4	1	14	47003612	growth factor
2610204M08Rik	RIKEN cDNA 2610204M08 gene	8	14	2.5E-02	1.7	9	20	8.4E-05	2.4	4	12	113853701	
Cbx6	Chromobox homolog 6	15	9	4.6E-02	0.6	7	18	2.5E-04	2.4	5	15	79616848	other
Serpinh1	Serine (or cysteine) peptidase inhibitor, clade H, n	390	368	1.7E-01	0.9	407	963	2.0E-160	2.4	102	7	106494072	other
Ptn	Pleiotrophin	29	21	5.7E-02	0.7	40	94	4.5E-17	2.4	0	6	36665032	growth factor
Ankrd13a	Ankrd13a	16	20	2.1E-01	1.3	14	33	6.1E-07	2.4	3	5	115241370	other
Slfm2	Schlafen 2	211	333	3.8E-20	1.6	158	372	7.3E-63	2.4	0	11	82883980	
Plixnd1	Plexin D1	37	39	7.4E-01	1.0	19	44	9.8E-09	2.4	13	6	115905254	transmembrane receptor
Tnrc5	Trinucleotide repeat containing 5	7	15	1.7E-03	2.2	10	24	2.1E-05	2.4	2	17	46873042	other
Pltp	Phospholipid transfer protein	68	149	1.9E-23	2.2	68	160	1.4E-27	2.4	1	2	164665235	other
Npl	N-acetylneuraminatase pyruvate lyase	10	13	2.4E-01	1.3	11	26	1.1E-05	2.4	0	1	155350656	enzyme
Gramd1b	GRAM domain containing 1B	15	20	1.9E-01	1.3	8	19	1.8E-04	2.4	6	9	40100869	other
Mex3b	Mex3 homolog B (C. elegans)	14	14	8.9E-01	1.0	7	16	5.3E-04	2.4	0	7	90019919	kinase
Pmp22	Peripheral myelin protein	304	413	7.8E-13	1.4	222	520	1.3E-85	2.3	8	11	62972447	other
Tram1	Translocating chain-associating membrane protein	68	103	2.2E-06	1.5	101	235	1.1E-39	2.3	14	1	13555017	other
Selp	Selectin, platelet	288	242	4.9E-04	0.8	109	255	2.4E-42	2.3	1	1	166079689	other
Smchd1	SMC hinge domain containing 1	22	32	1.7E-02	1.5	11	25	2.2E-05	2.3	9	17	71694364	other
Pls3	Plastin 3 (T-isoform)	19	15	2.3E-01	0.8	9	22	6.4E-05	2.3	8	20	73031269	other
Dkk3	Dickkopf homolog 3 (Xenopus laevis)	9	25	4.9E-07	2.8	19	45	1.1E-08	2.3	1	7	119259668	other
Prpsap1	Phosphoribosyl pyrophosphate synthetase-associ	16	29	9.1E-04	1.8	18	41	4.4E-08	2.3	5	11	116332483	other
Ctdspl	Ctdspl	10	19	3.5E-03	1.9	10	24	3.2E-05	2.3	2	9	118949892	other
Sele	Selectin, endothelial cell	63	57	4.1E-01	0.9	32	74	3.1E-13	2.3	0	1	165987754	other
Sh2b2	SH2B adaptor protein 2	16	15	9.1E-01	1.0	10	23	4.6E-05	2.3		5	136694218	other
Fyb	FYN binding protein	14	21	4.4E-02	1.5	11	24	3.4E-05	2.3	0	15	6613214	other
Ddost	Dolichyl-di-phosphooligosaccharide-protein glycot	81	83	6.9E-01	1.0	79	182	6.6E-30	2.3	38	4	137867978	enzyme
Dusp16	Dual specificity phosphatase 16	21	32	5.7E-03	1.5	18	41	6.9E-08	2.3	10	6	134665788	phosphatase
Ly96	Lymphocyte antigen 96	29	32	5.3E-01	1.1	15	35	5.4E-07	2.3	3	1	16690965	other
lpmk	Inositol polyphosphate multikinase	30	26	3.5E-01	0.9	11	25	2.4E-05	2.3	7	20	20810313	kinase
1200015N20Rik	RIKEN cDNA 1200015N20 gene	6	21	3.9E-07	3.2	9	20	2.0E-04	2.3	2	10	70021150	
Zfp746	Zinc finger protein 746	12	11	6.1E-01	0.9	8	18	4.0E-04	2.3	4	6	48012568	
Ccl6	Chemokine (C-C motif) ligand 6	72	81	1.7E-01	1.1	77	175	1.6E-28	2.3	0	11	83401439	
Mfap4	Microfibrillar-associated protein 4	32	116	3.0E-38	3.7	51	115	2.0E-19	2.3	0	11	61302126	other
Surf4	Surfeit gene 4	57	94	6.7E-08	1.7	77	175	1.6E-28	2.3	28	2	26775866	other
Rasa1	Rasa1	53	65	4.2E-02	1.2	41	94	6.9E-16	2.3	24	13	85354946	transporter
A430110N23Rik	RIKEN cDNA A430110N23 gene	16	22	7.0E-02	1.4	12	26	1.8E-05	2.3	0	7	4896315	
BC023882	CDNA sequence BC023882	13	17	1.5E-01	1.3	11	25	3.5E-05	2.3	2	5	34506223	other
Tspan31	Tetraspanin 31	14	20	1.0E-01	1.4	11	26	2.5E-05	2.3	5	10	126505413	other
Setd1a	SET domain containing 1A	16	22	9.1E-02	1.4	11	24	5.1E-05	2.3	7	7	134943392	ion channel
H19	H19 fetal liver mRNA	18	15	4.2E-01	0.8	8	18	4.1E-04	2.3	2	7	149761514	other
Mapk3	Mitogen activated protein kinase 3	44	68	4.5E-05	1.6	37	83	4.2E-14	2.3	17	7	133909202	kinase

Aprt	Adenine phosphoribosyl transferase	28	42	2.3E-03	1.5	34	76	6.1E-13	2.3	9	8	125098920	enzyme
Cdk4	Cyclin-dependent kinase 4	29	33	3.8E-01	1.1	28	64	3.3E-11	2.3	15	10	126502276	kinase
Mpz1l	Myelin protein zero-like 1	14	17	3.1E-01	1.2	14	32	3.3E-06	2.3	5	1	167522678	other
Rab11fp1	RAB11 family interacting protein 1 (class I)	15	17	4.8E-01	1.1	13	30	6.6E-06	2.3	0	8	28251348	other
Tm9sf1	Transmembrane 9 superfamily member 1	42	44	7.7E-01	1.0	36	80	1.7E-13	2.2	21	14	56255013	transporter
Tgfb2	Transforming growth factor, beta 2	35	41	1.8E-01	1.2	25	55	1.0E-09	2.2	5	1	188448266	growth factor
Acvr1	Activin A receptor, type 1	27	27	9.0E-01	1.0	23	51	3.9E-09	2.2	5	2	58299058	kinase
Hspc171	HSPC171 protein	22	28	1.1E-01	1.3	21	47	1.5E-08	2.2	11	8	107852871	
Ikbe	Inhibitor of kappaB kinase epsilon	13	12	6.1E-01	0.9	12	28	1.3E-05	2.2	0	1	133151204	kinase
Arfgap3	ADP-ribosylation factor GTPase activating protein	13	23	2.4E-03	1.8	12	26	2.6E-05	2.2	4	15	83130974	transporter
Fgfr3	Fibroblast growth factor receptor 3	9	13	1.5E-01	1.4	9	19	3.0E-04	2.2	3	5	34079628	kinase
Prg4	Prg4	102	198	4.0E-23	1.9	169	378	1.9E-57	2.2	1	1	152298401	other
Itn2c	Integral membrane protein 2C	226	245	1.2E-01	1.1	143	321	5.0E-49	2.2	39	1	87805165	other
P4ha1	Procollagen-proline, 2-oxoglutarate 4-dioxygenase	46	68	2.4E-04	1.5	47	106	3.1E-17	2.2	6	10	58834223	enzyme
Stk24	Stk24	28	37	4.7E-02	1.3	23	52	2.8E-09	2.2	11	14	121685896	kinase
Mm.89591	10 days neonate cerebellum cDNA, RIKEN full-ler	13	23	4.4E-03	1.7	8	18	4.3E-04	2.2	2	14	78959233	
Zfand2a	Zinc finger, AN1-type domain 2A	108	88	1.9E-02	0.8	60	133	4.4E-21	2.2	9	5	139947304	other
Tusc3	Tumor suppressor candidate 3	30	29	9.3E-01	1.0	19	41	1.7E-07	2.2	10	8	40250468	enzyme
Pcdh19	Pcdh19	19	22	3.8E-01	1.2	16	36	9.0E-07	2.2	1	20	130118483	other
Rnf111	Ring finger 111	35	25	3.0E-02	0.7	15	34	1.8E-06	2.2	9	9	70273885	enzyme
Pik3c2a	Pik3c2a	28	28	9.5E-01	1.0	15	33	2.5E-06	2.2	9	7	123480936	kinase
Neu1	Neuraminidase 1	18	24	9.0E-02	1.3	10	21	1.5E-04	2.2	4	17	35071743	enzyme
Csrp2	Cysteine and glycine-rich protein 2	35	41	2.3E-01	1.2	35	78	7.3E-13	2.2	9	10	110376332	other
Tmem11	Transmembrane protein 11	34	52	4.2E-04	1.5	23	51	6.0E-09	2.2	13	11	60678183	-protein coupled receptor
Seleplg	Selectin, platelet (p-selectin) ligand	16	26	4.6E-03	1.7	17	37	9.3E-07	2.2	0	5	114268732	other
Aggf1	Angiogenic factor with G patch and FHA doma	46	45	8.8E-01	1.0	29	64	8.1E-11	2.2	13	14	49782600	other
Mmrn1	Multimerin 1	18	25	6.2E-02	1.4	15	33	3.7E-06	2.2	0	6	60939242	other
Emilin1	Elastin microfibril interfacer 1	11	17	5.4E-02	1.5	14	32	5.1E-06	2.2	0	5	31223238	other
2810026P18Rik	RIKEN cDNA 2810026P18 gene	38	30	8.8E-02	0.8	20	45	6.5E-08	2.2	7	9	88970467	
Stch	Stress 70 protein chaperone, microsome-associat	43	43	9.7E-01	1.0	30	66	8.9E-11	2.2	6	16	75755802	other
Med15	Mediator complex subunit 15	17	21	2.6E-01	1.2	14	31	7.6E-06	2.2	4	16	17651619	transcription regulator
3321401G04Rik	RIKEN cDNA 3321401G04 gene	12	27	2.1E-05	2.2	11	24	8.1E-05	2.2	2	6	42620178	
Dot1l	DOT1-like, histone H3 methyltransferase (S. cerev	25	30	2.2E-01	1.2	22	49	2.6E-08	2.2	12	10	80257029	phosphatase
Cdh5	Cadherin 5	125	112	1.7E-01	0.9	51	109	9.7E-17	2.2	37	8	106668349	other
Dpysl2	Dihydropyrimidinase-like 2	35	27	9.1E-02	0.8	19	41	3.9E-07	2.2	5	14	67421873	enzyme
Gnpda1	Glucosamine-6-phosphate deaminase 1	17	24	6.1E-02	1.4	15	32	7.8E-06	2.2	7	18	38487598	enzyme
Thex1	Thex1	28	23	2.5E-01	0.8	14	30	1.6E-05	2.2	7	8	36531831	enzyme
Tspan6	Tetraspanin 6	13	13	9.2E-01	1.0	12	26	6.0E-05	2.2	2	20	130425974	other
Hsd3b7	Hydroxy-delta-5-steroid dehydrogenase, 3 beta- a	11	27	1.5E-06	2.5	10	21	2.3E-04	2.2	4	7	134947212	enzyme
Epha2	Eph receptor A2	20	20	9.7E-01	1.0	10	21	2.3E-04	2.2	1	4	140884662	kinase
Slc7a7	Solute carrier family 7 (cationic amino acid transp	16	18	4.3E-01	1.2	8	17	9.3E-04	2.2	1	14	54989318	transporter
Rpn2	Ribophorin II	117	160	7.0E-06	1.4	134	289	4.1E-41	2.2	45	2	157151648	enzyme
Matn2	Matrilin 2	83	94	1.5E-01	1.1	71	154	1.2E-22	2.2	2	15	34365918	other
Copa	Coatomer protein complex subunit alpha	63	67	5.3E-01	1.1	52	112	7.7E-17	2.2	26	1	174051989	transporter
Zfp318	Zfp318	35	42	1.2E-01	1.2	50	107	2.8E-16	2.2	10	17	46541125	
Rassf1	Ras association (RalGDS/AF-6) domain family 1	61	57	5.5E-01	0.9	32	68	7.0E-11	2.2	8	9	107464216	other
Tpm4	Tropomyosin 4	190	227	1.5E-03	1.2	159	339	1.8E-47	2.1	9	8	74676337	other
Cndp2	CNDP dipeptidase 2 (metallopeptidase M20 family	99	180	5.0E-18	1.8	77	165	7.3E-24	2.1	8	18	84836916	peptidase
Trip1	TNFAIP3 interacting protein 1	59	100	6.3E-09	1.7	45	95	1.5E-14	2.1	11	11	54724431	other
M6pr	Mannose-6-phosphate receptor, cation dependent	71	101	5.6E-05	1.4	58	123	3.2E-18	2.1	22	6	122267255	transporter
Cebpa	CCAAT/enhancer binding protein (C/EBP), alpl	57	56	9.7E-01	1.0	38	81	2.2E-12	2.1	1	7	35906896	transcription regulator
Slc2a6	Solute carrier family 2 (facilitated glucose transpo	11	32	6.1E-09	2.8	16	34	5.9E-06	2.1	2	2	26877139	transporter
Plau	Plasminogen activator, urokinase	27	46	5.4E-05	1.7	15	32	8.2E-06	2.1	0	14	21662317	peptidase
2310066E14Rik	RIKEN cDNA 2310066E14 gene	20	21	7.3E-01	1.1	15	32	8.2E-06	2.1	5	8	108145781	
Rnf24	Ring finger protein 24	22	22	1.0E+00	1.0	14	31	1.6E-05	2.1	4	2	131124270	other
Panx1	Pannexin 1	6	15	5.7E-04	2.4	9	20	4.9E-04	2.1	0	9	14810228	transporter
Arid4a	AT rich interactive domain 4A (Rbp1 like)	15	18	3.7E-01	1.2	9	19	6.8E-04	2.1	7	12	72198625	transcription regulator
Crtap	Cartilage associated protein	58	66	1.8E-01	1.2	77	164	2.3E-23	2.1	22	9	114284364	other
Alox5ap	Arachidonate 5-lipoxygenase activating protein	33	38	2.7E-01	1.2	32	68	1.5E-10	2.1	5	5	150099196	other
Rnd1	Rho family GTPase 1	66	45	5.7E-04	0.7	20	43	3.0E-07	2.1	0	15	98500470	enzyme
Tort1aip2	Torsin A interacting protein 2	34	55	7.4E-05	1.6	34	72	6.1E-11	2.1	2	1	157914672	other
Myh9	Myosin, heavy polypeptide 9, non-muscle	26	36	2.3E-02	1.4	33	70	8.2E-11	2.1	4	8	34805080	enzyme
Ammecr1l	AMME chromosomal region gene 1-like	38	48	7.3E-02	1.2	32	67	2.2E-10	2.1	17	18	31943358	other
Slc7a2	Solute carrier family 7 (cationic amino acid transp	10	17	2.6E-02	1.6	22	47	1.1E-07	2.1	1	8	42007299	transporter
Dnajc10	DnaJ (Hsp40) homolog, subfamily C, member 10	13	21	1.6E-02	1.6	15	32	1.2E-05	2.1	6	2	80193186	enzyme
Rangap1	RAN GTPase activating protein 1	21	26	2.3E-01	1.2	20	43	4.4E-07	2.1	6	20	103949308	other
1110001P04Rik	RIKEN cDNA 1110001P04 gene	17	22	1.5E-01	1.3	14	29	3.3E-05	2.1	7	9	44448092	
Orc6l	Origin recognition complex, subunit 6-like (S. cere	10	11	5.4E-01	1.2	11	23	2.5E-04	2.1	4	8	87831738	other
Pcdhga12	Protocadherin gamma subfamily A, 12	20	17	4.9E-01	0.9	10	21	3.5E-04	2.1	5	18	38000557	other

Mier1	Mesoderm induction early response 1 homolog (X	45	54	9.8E-02	1.2	41	81	1.3E-10	2.0	9	4	102837971	other
Supt5h	Suppressor of Ty 5 homolog (S. cerevisiae)	34	70	3.6E-10	2.0	38	74	8.9E-10	2.0	16	7	29100080	transcription regulator
Tln1	Tln1	28	39	2.1E-02	1.4	23	46	1.5E-06	2.0	8	4	43568612	other
Tie4	Transducin-like enhancer of split 4, homolog of Dr	32	37	2.6E-01	1.2	22	43	2.9E-06	2.0	9	19	14523055	transcription regulator
Cxcl4	Chemokine (C-X-C motif) ligand 4	157	279	3.5E-25	1.8	176	345	1.5E-39	2.0	1	5	91201607	
Igfbp5	Insulin-like growth factor binding protein 5	34	69	3.9E-10	2.1	59	115	2.4E-14	2.0	5	1	72905534	other
Ctnn	Cortactin	27	40	3.9E-03	1.5	31	61	3.1E-08	2.0	11	18	36366398	other
Znrf1	Zinc and ring finger 1	40	33	1.7E-01	0.8	31	61	3.1E-08	2.0	14	8	114145507	other
Srpk1	Serine/arginine-rich protein specific kinase 1	15	20	1.7E-01	1.3	14	27	2.1E-04	2.0	5	20	86000801	kinase
Foxp4	Forkhead box P4	18	22	2.1E-01	1.3	14	27	2.1E-04	2.0	5	17	48004142	transcription regulator
Fvt1	Follicular lymphoma variant translocation 1	7	8	4.2E-01	1.2	11	22	7.9E-04	2.0	2	1	108621322	enzyme
Tm4sf1	Transmembrane 4 superfamily member 1	442	403	2.0E-02	0.9	229	447	2.0E-50	2.0	25	3	57091538	other
Ly6c1	Lymphocyte antigen 6 complex, locus C1	288	289	9.5E-01	1.0	161	313	1.1E-35	2.0	118	15	74875500	
Vkorc1	Vitamin K epoxide reductase complex, subunit 1	94	110	4.5E-02	1.2	98	192	1.4E-22	2.0	7	7	135036641	enzyme
Calcr1	Calcitonin receptor-like	62	64	6.7E-01	1.0	61	120	1.3E-14	2.0	9	2	84171161	protein coupled receptor
Edem1	ER degradation enhancer, mannosidase alpha-like	41	56	6.3E-03	1.4	46	90	2.0E-11	2.0	3	6	108809187	enzyme
Acot9	Acyl-CoA thioesterase 9	73	71	8.4E-01	1.0	35	68	6.4E-09	1.9	23	20	151731893	enzyme
Stag2	Stag2	43	41	7.3E-01	1.0	31	60	6.1E-08	1.9	16	20	39629852	other
Ccdc49	Coiled-coil domain containing 49	18	28	1.1E-02	1.5	16	32	7.8E-05	1.9	2	9	67690420	other
Atad2	ATPase family, AAA domain containing 2	12	11	8.2E-01	0.9	14	28	2.1E-04	1.9	2	15	57925869	other
Sft2d1	SFT2 domain containing 1	18	36	2.6E-05	1.9	27	53	4.3E-07	1.9	5	17	8519957	other
Arc	Activity regulated cytoskeletal-associated protein	40	35	3.2E-01	0.9	27	51	5.9E-07	1.9	14	15	74499712	other
Nckap1	NCK associated protein 1 like	23	26	3.4E-01	1.2	15	28	2.1E-04	1.9	0	15	103329151	other
Ace	Ace	166	195	9.2E-03	1.2	115	221	7.6E-25	1.9	4	11	105851238	peptidase
Tspan4	Tetraspanin 4	70	91	4.1E-03	1.3	74	143	1.2E-16	1.9	17	7	148679236	other
Calr	Calreticulin	42	80	1.3E-09	1.9	66	127	7.7E-15	1.9	11	8	87368826	transcription regulator
Lox2	Lysyl oxidase-like 2	48	53	3.5E-01	1.1	60	115	9.5E-14	1.9	0	14	70093410	enzyme
Cap1	CAP, adenylate cyclase-associated protein 1 (yea	48	58	9.0E-02	1.2	45	86	1.4E-10	1.9	6	4	122536709	other
Cfdp1	Craniofacial development protein 1	56	54	7.0E-01	1.0	40	77	1.3E-09	1.9	28	8	114292506	other
Pcip1	PC4 and SFRS1 interacting protein 1	26	29	5.5E-01	1.1	27	51	8.2E-07	1.9	7	4	83101927	other
Tmcc3	Transmembrane and coiled coil domains 3	59	57	8.4E-01	1.0	21	40	1.1E-05	1.9	23	10	94053539	other
Ints8	Integrator complex subunit 8	26	29	4.6E-01	1.1	16	31	1.1E-04	1.9	5	4	11136419	other
Yes1	Yamaquchi sarcoma viral (v-yes) oncogene homo	31	30	9.7E-01	1.0	16	31	1.1E-04	1.9	11	5	32989894	kinase
Pkd2	Polycystic kidney disease 2	65	74	1.6E-01	1.1	65	124	2.0E-14	1.9	11	5	104934547	ion channel
Pecam1	Platelet/endothelial cell adhesion molecule 1	88	83	4.9E-01	0.9	48	92	4.1E-11	1.9	16	11	106515822	other
Nr4a2	Nuclear receptor subfamily 4, group A, member 2	19	45	3.2E-09	2.4	21	40	1.5E-05	1.9	0	2	56960037	d-dependent nuclear receptor
Traf3	Tnf receptor-associated factor 3	21	28	7.0E-02	1.3	17	33	7.9E-05	1.9	9	12	112505212	other
Zfyve1	Zinc finger, FYVE domain containing 1	14	15	6.5E-01	1.1	15	29	2.1E-04	1.9	7	12	84887885	other
Ergic3	ERGIC and golgi 3	45	74	2.8E-06	1.6	52	98	1.6E-11	1.9	19	2	155844015	other
Nucb1	Nucleobindin 1	41	71	4.7E-07	1.7	49	94	4.1E-11	1.9	19	7	52748324	other
Pdcd6ip	Programmed cell death 6 interacting protein	41	54	1.4E-02	1.3	38	72	6.7E-09	1.9	15	9	113564207	other
Snf1lk	SNF1-like kinase	41	42	8.0E-01	1.0	16	31	1.5E-04	1.9	10	17	31981294	kinase
Arid5b	AT rich interactive domain 5B (Mrf1 like)	20	22	5.6E-01	1.1	15	29	2.1E-04	1.9	5	10	67591589	transcription regulator
Rps18	Ribosomal protein S18	719	924	8.5E-19	1.3	627	1184	1.1E-119	1.9	234	13	28349714	other
Plac9	Placenta specific 9	41	41	9.3E-01	1.0	36	68	2.4E-08	1.9	1	14	27001746	other
Sap30	Sin3 associated polypeptide	47	29	9.4E-04	0.6	32	60	1.7E-07	1.9	15	8	59961792	transcription regulator
Api5	Apoptosis inhibitor 5	43	37	2.5E-01	0.9	28	54	6.1E-07	1.9	10	3	90565134	other
Rap2b	RAP2B, member of RAS oncogene family	44	56	3.4E-02	1.3	26	49	2.2E-06	1.9	3	3	61170591	enzyme
Parp12	Poly (ADP-ribose) polymerase family, member 12	21	26	1.9E-01	1.2	20	38	3.0E-05	1.9	2	6	39037455	other
Erf	Ets2 repressor factor	31	25	1.8E-01	0.8	19	36	5.8E-05	1.9	4	7	26028547	transcription regulator
Ctbp2	C-terminal binding protein 2	13	16	2.3E-01	1.3	15	29	3.0E-04	1.9	3	7	140186955	transcription regulator
Tmsb4x	Thymosin, beta 4, X chromosome	1826	1820	8.7E-01	1.0	1207	2262	3.2E-222	1.9	201	20	163645206	other
Scotin	Scotin gene	40	47	1.7E-01	1.2	45	84	1.0E-09	1.9	1	9	108959738	
Lasp1	LIM and SH3 protein 1	66	62	5.9E-01	0.9	45	84	1.0E-09	1.9	3	11	97699665	transporter
Tmem64	Transmembrane protein 64	67	64	7.1E-01	1.0	42	78	3.6E-09	1.9	15	4	15212282	other
Gnb4	Guanine nucleotide binding protein, beta 4	18	20	5.9E-01	1.1	22	42	1.6E-05	1.9	4	3	32483447	enzyme
Jarid1a	Jumonji, AT rich interactive domain 1A (Rbp2 like)	22	23	6.8E-01	1.1	19	35	8.0E-05	1.9	10	6	120391622	transcription regulator
Inoc1	INO80 complex homolog 1 (S. cerevisiae)	18	20	5.6E-01	1.1	17	32	1.6E-04	1.9	6	2	119199736	other
5830411G16Rik	RIKEN cDNA 5830411G16 gene	19	22	3.2E-01	1.2	16	29	3.0E-04	1.9	2	6	56711819	
Ifi30	Interferon gamma inducible protein 30	161	192	3.5E-03	1.2	171	319	2.1E-32	1.9	1	8	73286777	enzyme
Igf1	Insulin-like growth factor 1	68	93	5.8E-04	1.4	96	179	8.7E-19	1.9	1	10	87393804	growth factor
Ppp1r14b	Protein phosphatase 1, regulatory (inhibitor) subu	52	70	3.5E-03	1.4	54	101	2.2E-11	1.9	25	19	7051641	phosphatase
Tmem140	Transmembrane protein 140	77	64	5.1E-02	0.8	48	89	3.9E-10	1.9	12	6	34823738	other
Sept8	Septin 8	43	46	5.4E-01	1.1	33	61	2.3E-07	1.9	10	11	53357525	other
Ube2j2	Ubiquitin-conjugating enzyme E2, J2 homolog (ye	28	29	7.9E-01	1.0	23	43	1.6E-05	1.9	13	4	155331292	enzyme
Ube2l6	Ubiquitin-conjugating enzyme E2L 6	11	21	3.4E-03	1.8	14	27	5.8E-04	1.9	0	2	84649869	enzyme
Vps11	Vacuolar protein sorting 11 (yeast)	15	17	4.1E-01	1.2	14	26	8.2E-04	1.9	6	9	44156421	transporter
Icam1	Intercellular adhesion molecule	728	992	6.0E-29	1.4	607	1121	6.2E-107	1.9	2	9	20833107	transmembrane receptor
Daxx	Fas death domain-associated protein	52	92	2.9E-09	1.8	82	152	4.7E-16	1.9	4	17	34052355	transcription regulator

Vwf	Von Willebrand factor homolog	78	77	9.9E-01	1.0	32	60	3.2E-07	1.9	4	6	125636593	other
Cept1	Choline/ethanolaminephosphotransferase 1	41	48	2.3E-01	1.2	30	55	1.2E-06	1.9	14	3	106305963	enzyme
Pdgfrl	Platelet-derived growth factor receptor-like	14	23	5.7E-03	1.7	19	36	8.0E-05	1.9	0	8	42076072	kinase
Serping1	Serine (or cysteine) peptidase inhibitor, clade G, n	661	849	2.8E-17	1.3	484	889	4.4E-84	1.8	6	2	84605758	other
Id1	Inhibitor of DNA binding 1	83	98	4.2E-02	1.2	57	106	2.2E-11	1.8	17	2	152562712	transcription regulator
Trim28	Tripartite motif protein 28	53	59	2.8E-01	1.1	38	70	4.6E-08	1.8	14	7	13616091	transcription regulator
Furin	Furin (paired basic amino acid cleaving enzyme)	48	55	2.2E-01	1.2	36	66	1.2E-07	1.8	13	7	87534602	peptidase
Sec31a	SEC31 homolog A (S. cerevisiae)	20	45	1.7E-08	2.3	35	64	1.7E-07	1.8	9	5	100790990	other
Slc25a24	Solute carrier family 25 (mitochondrial carrier, pho	19	16	4.9E-01	0.9	16	29	4.2E-04	1.8	1	3	108971236	other
Wbp7	WW domain binding protein 7	13	22	2.7E-03	1.8	14	26	8.1E-04	1.8	5	7	31354068	
Aqp1	Aquaporin 1	199	189	3.8E-01	1.0	84	155	6.4E-16	1.8	78	6	55298301	transporter
Foxp1	Forkhead box P1	38	37	8.7E-01	1.0	27	49	5.8E-06	1.8	9	6	98879577	transcription regulator
Antxr1	Anthrax toxin receptor 1	24	28	2.8E-01	1.2	15	28	5.8E-04	1.8	0	6	87084187	other
Ctsa	Cathepsin A	61	117	7.1E-14	1.9	84	153	1.6E-15	1.8	16	2	164664752	peptidase
Gorasp2	Golgi reassembly stacking protein 2	68	88	5.1E-03	1.3	72	132	1.8E-13	1.8	34	2	70529578	other
0610031J06Rik	RIKEN cDNA 0610031J06 gene	91	112	1.1E-02	1.2	68	124	6.6E-13	1.8	17	3	88132525	
Sbno1	Sno, strawberry notch homolog 1 (Drosophila)	60	70	1.4E-01	1.2	48	86	2.5E-09	1.8	26	5	124823417	enzyme
Rnpep	Arginyl aminopeptidase (aminopeptidase B)	26	41	1.8E-03	1.5	32	57	1.1E-06	1.8	5	1	137159367	peptidase
Plxn1	Plexin A1	18	11	2.9E-02	0.6	15	27	8.1E-04	1.8	4	6	89266559	transmembrane receptor
Oaf	OAF homolog (Drosophila)	152	128	1.5E-02	0.8	114	207	4.7E-20	1.8	2	9	43030074	other
Bcl10	B-cell leukemia/lymphoma 10	101	114	1.1E-01	1.1	87	158	1.1E-15	1.8	6	3	145596990	transcription regulator
Hsp110	Heat shock protein 110	170	131	1.3E-04	0.8	83	149	7.5E-15	1.8	37	5	150419479	
Becn1	Beclin 1 (coiled-coil, myosin-like BCL2-interacting	24	44	9.1E-06	1.9	35	64	3.1E-07	1.8	7	11	101149920	other
Nucb2	Nucleobindin 2	23	27	3.4E-01	1.2	27	49	7.9E-06	1.8	1	7	123683592	other
Edg2	Endothelial differentiation, lysophosphatidic acid C	43	37	2.3E-01	0.9	25	45	2.1E-05	1.8	1	4	58448347	l-protein coupled receptor
Zfx	Zinc finger protein X-linked	25	28	4.4E-01	1.1	21	38	7.9E-05	1.8	10	20	91320081	transcription regulator
Slc6a6	Solute carrier family 6 (neurotransmitter transport	76	85	2.0E-01	1.1	69	125	1.2E-12	1.8	25	6	91708473	transporter
Dnajc3a	Dnaj (Hsp40) homolog, subfamily C, member 3A	93	76	2.2E-02	0.8	69	124	1.6E-12	1.8	16	14	119380835	
Gns	Glucosamine (N-acetyl)-6-sulfatase	47	59	3.9E-02	1.3	51	92	1.3E-09	1.8	20	10	120833810	enzyme
Cebpg	CCAAT/enhancer binding protein (C/EBP), gamma	56	64	1.9E-01	1.2	51	92	1.3E-09	1.8	11	7	35832691	transcription regulator
Ruvbl1	RuvB-like protein 1	49	63	1.6E-02	1.3	38	68	1.6E-07	1.8	15	6	88447487	transcription regulator
Vasp	Vasodilator-stimulated phosphoprotein	24	33	3.8E-02	1.4	30	54	3.0E-06	1.8	4	7	19842908	other
Snai1	Snail homolog 1 (Drosophila)	24	15	1.4E-02	0.6	17	30	5.7E-04	1.8	1	2	167368106	other
Hspa5	Heat shock protein 5	1573	2096	1.4E-51	1.3	1508	2696	3.3E-232	1.8	498	2	34631919	other
Cald1	Cald1	139	170	1.8E-03	1.2	189	338	6.7E-31	1.8	15	6	34725345	other
Bst2	Bone marrow stromal cell antigen 2	27	47	2.1E-05	1.8	41	73	8.2E-08	1.8	3	8	74058640	other
Golim4	Golgi integral membrane protein 4	39	49	5.5E-02	1.3	39	70	1.6E-07	1.8	13	3	75680682	other
1700047117Rik1	RIKEN cDNA 1700047117 gene 1	10	12	4.8E-01	1.2	16	29	7.9E-04	1.8	3	12	56376403	
Lyzs	Lysozyme	1718	2089	9.1E-26	1.2	1161	2066	7.9E-176	1.8	6	10	116725058	
Ccl21b	Chemokine (C-C motif) ligand 21b	343	712	4.2E-92	2.1	496	882	7.2E-76	1.8	3	4	42232107	
Klf6	Kruppel-like factor 6	403	458	9.5E-04	1.1	321	573	1.4E-50	1.8	39	13	5868865	transcription regulator
Aspn	Asporin	184	135	2.6E-06	0.7	78	139	2.2E-13	1.8	5	13	49662848	other
Zzz3	Zinc finger, ZZ domain containing 3	57	50	2.5E-01	0.9	43	76	5.8E-08	1.8	12	13	75465728	other
Tmem176b	Transmembrane protein 176B	55	87	2.1E-06	1.6	93	164	3.3E-15	1.8	7	6	48784599	other
Tmem184b	Transmembrane protein 184b	46	69	1.4E-04	1.5	51	91	4.3E-09	1.8	13	15	79191235	other
Gm2a	GM2 ganglioside activator protein	33	68	4.1E-10	2.1	41	72	1.5E-07	1.8	8	11	54924320	enzyme
Loh11cr2a	Loss of heterozygosity, 11, chromosomal region 2	31	34	5.0E-01	1.1	22	39	1.1E-04	1.8	14	9	38550514	other
Spire1	Spire homolog 1 (Drosophila)	19	24	1.6E-01	1.3	17	30	7.7E-04	1.8	2	18	67649684	other
Sgk	Serum/glucocorticoid regulated kinase	268	335	1.9E-06	1.3	322	566	8.2E-48	1.8	17	10	21719604	kinase
Lyve1	Lymphatic vessel endothelial hyaluronan receptor	338	325	4.1E-01	1.0	239	421	2.2E-36	1.8	2	7	117994421	transmembrane receptor
Tgfb1	Tgfb1	137	230	7.7E-18	1.7	177	310	5.8E-27	1.8	1	13	56740682	other
Pcnp	PEST proteolytic signal containing nuclear protein	104	88	4.9E-02	0.9	63	111	1.2E-10	1.8	46	16	56015820	other
Anxa7	Annexin A7	79	79	9.4E-01	1.0	59	104	4.4E-10	1.8	28	14	21275554	ion channel
Capn12	Calpain 12	63	52	8.9E-02	0.8	51	90	7.8E-09	1.8	15	7	29678285	peptidase
Ccnd3	Cyclin D3	50	43	2.1E-01	0.9	29	52	1.0E-05	1.8	22	17	47736608	other
Zbtb2	Zinc finger and BTB domain containing 2	44	40	4.6E-01	0.9	26	45	3.8E-05	1.8	4	10	5979237	other
5830415L20Rik	5830415L20Rik	34	19	4.8E-04	0.6	25	45	3.8E-05	1.8	8	5	3554644	
Rbm3	RNA binding motif protein 3	324	264	1.8E-05	0.8	266	465	7.3E-39	1.8	82	13	60743812	other
Atp6v0b	ATPase, H+ transporting, lysosomal V0 subunit B	118	157	2.7E-05	1.3	132	230	4.1E-20	1.8	35	4	117557889	transporter
Cygb	Cytoglobin	80	110	1.1E-04	1.4	90	157	2.8E-14	1.8	1	11	116507910	transporter
Actn1	Actinin, alpha 1	86	66	6.0E-03	0.8	72	127	8.8E-12	1.8	22	12	81268694	other
Scamp2	Secretory carrier membrane protein 2	72	71	9.0E-01	1.0	59	103	7.8E-10	1.8	25	9	57436561	transporter
Tpbp	Trophoblast glycoprotein	44	53	7.8E-02	1.2	37	64	1.0E-06	1.8	0	9	85739352	other
Plekfh2	Pleckstrin homology domain containing, family F (26	31	2.0E-01	1.2	25	44	5.2E-05	1.8	2	4	10915808	other
Iqgap1	IQ motif containing GTPase activating protein 1	138	189	9.8E-07	1.4	170	296	3.0E-25	1.7	18	7	87856735	other
Tbrg1	Transforming growth factor beta regulated ger	59	70	7.5E-02	1.2	66	114	1.1E-10	1.7	18	9	37457059	other
Yrdc	YrdC domain containing (E.coli)	41	59	1.6E-03	1.4	44	76	1.4E-07	1.7	6	4	124531813	other
Sec63	SEC63-like (S. cerevisiae)	36	58	7.4E-05	1.6	44	76	1.9E-07	1.7	17	10	42548706	transporter
Smap1	Stromal membrane-associated protein 1	41	45	4.3E-01	1.1	41	71	3.7E-07	1.7	11	1	23852643	other

Pias2	Protein inhibitor of activated STAT 2	48	49	9.3E-01	1.0	36	63	1.9E-06	1.7	12	18	77391720	transcription regulator
Samd8	Sterile alpha motif domain containing 8	38	37	9.0E-01	1.0	32	55	9.5E-06	1.7	19	14	22617788	other
Dtx2	Deltex 2 homolog (Drosophila)	17	26	1.7E-02	1.5	23	40	1.4E-04	1.7	1	5	136508734	other
Tie1	Tyrosine kinase receptor 1	33	37	3.6E-01	1.1	19	33	5.3E-04	1.7	14	4	118143866	kinase
LOC100039355	Similar to Rps16 protein	92	135	6.6E-07	1.5	88	153	1.6E-13	1.7	19	6	38234748	
1500003O03Rik	RIKEN cDNA 1500003O03 gene	89	95	4.1E-01	1.1	82	142	1.5E-12	1.7	40	16	32410923	
Toeb3	Transcription elongation factor B (SIII), polypeptide	33	51	6.3E-04	1.5	36	63	2.5E-06	1.7	8	4	135561394	transcription regulator
Col14a1	Collagen, type XIV, alpha 1	37	46	6.9E-02	1.3	30	52	1.8E-05	1.7	1	15	55351966	other
Cdc42se1	CDC42 small effector 1	33	33	9.4E-01	1.0	27	46	5.0E-05	1.7	2	3	95038740	other
Cbfb	Core binding factor beta	135	125	2.8E-01	0.9	121	208	1.8E-17	1.7	11	8	107741573	transcription regulator
Arhgdib	Rho, GDP dissociation inhibitor (GDI) beta	84	115	1.5E-04	1.4	82	141	2.0E-12	1.7	2	6	136872587	other
Hexa	Hexosaminidase A	35	98	9.3E-24	2.8	58	99	4.6E-09	1.7	9	9	59412912	enzyme
Ubp2l1	Ubiquitin associated protein 2-like	49	64	1.3E-02	1.3	45	78	1.8E-07	1.7	22	3	89810201	other
Atg12	Autophagy-related 12 (yeast)	34	31	6.6E-01	0.9	25	43	9.5E-05	1.7	13	18	46892363	other
Tmem189	Transmembrane protein 189	35	39	3.7E-01	1.1	24	42	1.3E-04	1.7	9	8	52963847	other
Rps23	Ribosomal protein S23	1221	1268	1.0E-01	1.0	874	1495	2.7E-113	1.7	280	13	91064184	translation regulator
Ptfr	Polymerase I and transcript release factor	85	96	1.6E-01	1.1	76	129	3.2E-11	1.7	39	11	100818362	transcription regulator
Bat1a	HLA-B-associated transcript 1A	50	88	9.3E-09	1.8	71	121	1.6E-10	1.7	20	17	35390020	
Pofut2	Protein O-fucosyltransferase 2	38	54	3.8E-03	1.4	43	74	4.4E-07	1.7	11	10	76732054	enzyme
BC013672	BC013672	35	48	1.0E-02	1.4	40	69	1.2E-06	1.7	2	8	64516444	enzyme
Cdc27	Cell division cycle 27 homolog (S. cerevisiae)	29	27	6.7E-01	0.9	26	45	9.0E-05	1.7	13	11	104364223	other
Cpsf2	Cleavage and polyadenylation specific factor 2	28	30	6.6E-01	1.1	25	43	1.3E-04	1.7	13	12	103241623	other
Rpe	Ribulose-5-phosphate-3-epimerase	29	24	2.6E-01	0.8	23	39	2.5E-04	1.7	9	1	66765989	enzyme
Car8	Carbonic anhydrase 8	31	41	4.1E-02	1.3	22	37	3.6E-04	1.7	6	4	8068639	
Ctgf	Connective tissue growth factor	1159	1187	3.1E-01	1.0	1483	2520	1.6E-185	1.7	307	10	24318435	growth factor
Rpl10a	Ribosomal protein L10A	1447	1643	8.2E-10	1.1	1456	2479	9.9E-184	1.7	548	17	28467918	other
Myl6	Myosin, light polypeptide 6, alkali, smooth muscle	276	263	3.4E-01	1.0	247	421	9.9E-33	1.7	42	4	14361431	other
Hpk1	Homeodomain interacting protein kinase 1	92	100	3.4E-01	1.1	81	137	1.5E-11	1.7	35	3	103544256	kinase
Sae2	SUMO1 activating enzyme subunit 2	40	37	6.5E-01	0.9	28	48	6.1E-05	1.7	19	7	34926122	enzyme
Olfm1	Olfactomedin 1	33	40	1.1E-01	1.2	27	46	8.7E-05	1.7	1	2	28069895	other
Mobkl2a	MOB1, Mps One Binder kinase activator-like 2A (y	15	19	2.2E-01	1.3	19	32	9.6E-04	1.7	1	10	80148324	other
ler3	Immediate early response 3	618	992	1.1E-60	1.6	652	1101	2.8E-80	1.7	27	17	35959776	other
Ube2j1	Ubiquitin-conjugating enzyme E2, J1	68	88	5.7E-03	1.3	58	99	1.0E-08	1.7	12	4	33136842	enzyme
Nupl1	Nucleoporin like 1	38	42	4.8E-01	1.1	30	51	4.2E-05	1.7	17	14	60837551	transporter
Sepp1	Selenoprotein P, plasma, 1	2944	3182	1.3E-07	1.1	1659	2794	3.5E-199	1.7	232	15	3230235	other
Cd164	CD164 antigen	223	231	5.2E-01	1.0	166	278	4.3E-21	1.7	79	10	41250408	other
Chic2	Cysteine-rich hydrophobic domain 2	132	110	1.6E-02	0.8	86	144	1.1E-11	1.7	13	5	75402595	other
Kctd10	Potassium channel tetramerisation domain contain	65	69	5.2E-01	1.1	68	115	9.4E-10	1.7	10	5	114813702	ion channel
Gdpd3	Glycerophosphodiester phosphodiesterase domain	108	101	4.6E-01	0.9	51	86	1.3E-07	1.7	22	7	133919036	enzyme
ler2	Immediate early response 2	113	126	1.3E-01	1.1	88	147	1.0E-11	1.7	57	8	87185643	other
Ssr1	Signal sequence receptor, alpha	71	63	2.4E-01	0.9	72	120	8.0E-10	1.7	22	13	38071064	other
Ids	Iduronate 2-sulfatase	54	65	7.2E-02	1.2	37	62	9.7E-06	1.7	23	20	67596375	enzyme
Tbpl1	TATA box binding protein-like 1	39	30	1.0E-01	0.8	25	41	3.1E-04	1.7	10	10	22425375	transcription regulator
Cytl1	Cytokine like 1	43	40	6.0E-01	0.9	21	35	8.6E-04	1.7	3	5	38130821	other
Coro1b	Coronin, actin binding protein 1B	21	25	2.8E-01	1.2	21	35	8.7E-04	1.7	4	19	4153701	other
Vat1	Vesicle amine transport protein 1 homolog (T calif	249	387	7.5E-22	1.6	256	425	1.4E-30	1.7	5	11	101320154	transporter
Stt3a	STT3, subunit of the oligosaccharyltransferase co	66	59	2.8E-01	0.9	68	114	2.8E-09	1.7	8	9	36540190	enzyme
Tmem176a	Transmembrane protein 176A	42	59	3.9E-03	1.4	64	107	7.8E-09	1.7	3	6	48795233	other
AA536749	Expressed sequence AA536749	57	74	9.6E-03	1.3	55	92	8.2E-08	1.7	28	11	59589437	other
Rab31	RAB31, member RAS oncogene family	40	42	7.2E-01	1.0	46	77	1.2E-06	1.7	4	17	66001341	enzyme
1500015O10Rik	RIKEN cDNA 1500015O10 gene	11	10	9.1E-01	1.0	22	36	8.4E-04	1.7	0	1	43799362	
Rpl22l1	Ribosomal protein L22 like 1	68	133	2.9E-16	2.0	100	165	1.4E-12	1.7	25	3	28706337	other
Fem1b	Feminization 1 homolog b (C. elegans)	90	132	7.1E-07	1.5	91	151	1.5E-11	1.7	10	20	35643755	transcription regulator
Crry	Complement receptor related protein	91	97	4.0E-01	1.1	78	128	4.4E-10	1.7	35	1	196930029	
Ap1g1	Adaptor protein complex AP-1, gamma 1 subunit	49	44	4.1E-01	0.9	38	63	1.2E-05	1.7	21	8	112388012	transporter
Cks2	CDC28 protein kinase regulatory subunit 2	36	31	3.8E-01	0.9	33	55	4.8E-05	1.7	0	13	51745867	kinase
Prpc	Prolylcarboxypeptidase (angiotensinase C)	40	36	4.4E-01	0.9	32	52	6.8E-05	1.7	5	7	100155276	peptidase
Aup1	Ancient ubiquitin protein	27	35	5.3E-02	1.3	32	52	6.9E-05	1.7	11	6	83007030	other
2610029G23Rik	RIKEN cDNA 2610029G23 gene	28	36	7.3E-02	1.3	29	48	1.4E-04	1.7	2	20	102276749	
Fasn	Fatty acid synthase	24	32	3.8E-02	1.4	25	42	3.9E-04	1.7	6	11	120668589	enzyme
Tegt	Testis enhanced gene transcript	141	181	9.8E-05	1.3	167	275	1.3E-19	1.6	40	15	99240191	other
Nr4a1	Nuclear receptor subfamily 4, group A, member 1	80	194	8.6E-36	2.4	91	149	2.6E-11	1.6	17	15	101105088	d-dependent nuclear receptor
9830115L13Rik	RIKEN cDNA 9830115L13 gene	79	87	2.7E-01	1.1	65	107	1.6E-08	1.6	3	6	38255678	
Pdcd10	Programmed cell death 10	59	78	5.7E-03	1.3	62	101	4.4E-08	1.6	9	3	75331629	other
Stag1	Stag1	65	62	6.8E-01	1.0	53	86	4.7E-07	1.6	21	9	100674014	other
Sp1	Trans-acting transcription factor 1	42	45	5.6E-01	1.1	33	55	6.2E-05	1.6	12	15	102262042	transcription regulator
Gak	Cyclin G associated kinase	15	28	6.4E-04	1.8	26	43	3.7E-04	1.6	7	5	108998548	kinase
Soat1	Sterol O-acyltransferase 1	33	25	6.0E-02	0.7	25	40	5.3E-04	1.6	0	1	158360797	enzyme
Atp6v1a	Atp6v1a	232	247	2.4E-01	1.1	173	282	1.5E-19	1.6	10	16	44086213	transporter

Lsm14a	LSM14 homolog A (SCD6, S. cerevisiae)	77	84	3.2E-01	1.1	85	138	3.0E-10	1.6	27	7	35130096	other
Carhsp1	Calcium regulated heat stable protein 1	78	88	1.7E-01	1.1	76	124	1.8E-09	1.6	2	16	8658962	other
Lass6	Longevity assurance homolog 6 (S. cerevisiae)	41	43	7.2E-01	1.0	59	97	1.1E-07	1.6	2	2	68952025	transcription regulator
Capn2	Calpain 2	64	72	1.9E-01	1.1	52	84	8.3E-07	1.6	9	1	184397722	peptidase
Fads1	Fatty acid desaturase 1	25	35	2.0E-02	1.4	27	44	3.5E-04	1.6	4	19	10271220	enzyme
Specc1	Specc1	29	44	2.0E-03	1.5	27	44	3.6E-04	1.6	1	11	61952964	other
Fbxo28	F-box protein 28	23	34	1.5E-02	1.4	26	42	5.0E-04	1.6	11	1	184246807	other
Ykt6	YKT6 homolog (S. Cerevisiae)	30	44	5.0E-03	1.5	25	41	5.1E-04	1.6	14	11	92656231	enzyme
Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)	399	561	5.4E-20	1.4	347	563	1.6E-36	1.6	13	17	29237536	kinase
Polr2b	Polymerase (RNA) II (DNA directed) polypeptide E	107	109	8.1E-01	1.0	99	161	1.6E-11	1.6	37	5	77778308	enzyme
Rin2	Ras and Rab interactor 2	45	82	5.9E-09	1.8	69	112	2.2E-08	1.6	10	2	145713246	other
Tmem45a	Transmembrane protein 45a	38	40	7.0E-01	1.1	49	79	2.2E-06	1.6	1	16	56806400	other
Fcgr2b	Fc receptor, IgG, low affinity IIb	71	67	5.8E-01	0.9	48	77	3.1E-06	1.6	0	1	172890721	transmembrane receptor
Lass2	Longevity assurance homolog 2 (S. cerevisiae)	45	55	6.9E-02	1.2	45	73	4.7E-06	1.6	15	3	95127259	transcription regulator
Prkcd	Protein kinase C, delta	69	53	1.2E-02	0.8	43	70	8.8E-06	1.6	4	14	31408736	kinase
Ppp1r10	Protein phosphatase 1, regulatory subunit 10	55	73	5.4E-03	1.3	42	68	1.3E-05	1.6	11	17	36090038	other
Copg	Coatomer protein complex, subunit gamma	16	29	3.8E-04	1.8	32	52	1.1E-04	1.6	8	6	87862475	transporter
Tm9sf4	Transmembrane 9 superfamily protein member 4	23	21	6.0E-01	0.9	25	41	6.8E-04	1.6	8	2	153035650	transporter
Pabpc1	Poly A binding protein, cytoplasmic 1	495	621	4.4E-11	1.3	532	856	1.8E-53	1.6	29	17	26407203	translation regulator
Ltbp3	Latent transforming growth factor beta binding pro	71	99	1.5E-04	1.4	74	119	9.6E-09	1.6	14	19	5758495	other
Abce1	ATP-binding cassette, sub-family E (OABP), mem	41	49	1.5E-01	1.2	44	71	8.5E-06	1.6	15	8	82208360	transporter
Msr2	Macrophage scavenger receptor 2	48	82	1.4E-07	1.7	44	70	1.1E-05	1.6	0	3	87054990	
Csf2rb2	Colony stimulating factor 2 receptor, beta 2, low-a	36	47	4.2E-02	1.3	41	66	1.7E-05	1.6	15	78113026	transmembrane receptor	
1300012G16Rik	RIKEN cDNA 1300012G16 gene	40	51	3.6E-02	1.3	36	58	5.2E-05	1.6	16	5	120933969	
Cdk11b	Cell division cycle 2-like 1	26	37	1.6E-02	1.4	31	49	2.1E-04	1.6	11	4	155023624	kinase
Lincr	Lung-inducible neuralized-related C3HC4 RING d	51	45	3.8E-01	0.9	30	49	2.2E-04	1.6	1	1	36322251	
Gnb21	Guanine nucleotide binding protein (G protein), be	1326	1194	6.1E-06	0.9	962	1540	6.9E-93	1.6	400	15	18315183	enzyme
Rpsa	Ribosomal protein SA	810	839	2.1E-01	1.0	850	1357	5.7E-81	1.6	301	11	22286817	transmembrane receptor
Emp3	Epithelial membrane protein 3	157	279	3.0E-25	1.8	194	310	5.2E-20	1.6	0	7	53174737	other
Btg1	B-cell translocation gene 1, anti-proliferative	124	180	1.3E-08	1.5	139	223	1.0E-14	1.6	9	20	14943511	transcription regulator
2410006H16Rik	RIKEN cDNA 2410006H16 gene	201	169	3.8E-03	0.8	132	212	2.7E-14	1.6	22	11	62418210	
Mtpn	Myotrophin	114	131	5.5E-02	1.2	124	199	1.6E-13	1.6	37	6	35459143	transcription regulator
Parp9	Poly (ADP-ribose) polymerase family, member 9	37	88	1.6E-16	2.4	62	99	2.6E-07	1.6	3	16	35972174	other
Gnaq	Guanine nucleotide binding protein, alpha q poly	80	69	1.3E-01	0.9	53	86	1.3E-06	1.6	21	19	16461690	enzyme
Stx3	Syntaxin 3	38	46	1.3E-01	1.2	44	71	1.1E-05	1.6	2	19	11853191	transporter
Prkcn	Protein kinase C, nu	49	53	4.1E-01	1.1	41	66	2.2E-05	1.6	14	17	79348866	kinase
5133401H06Rik	RIKEN cDNA 5133401H06 gene	37	30	2.0E-01	0.8	36	57	8.8E-05	1.6	0	3	131022271	
Cand1	Cullin associated and neddylation disassociated 1	30	41	2.3E-02	1.4	35	55	9.7E-05	1.6	5	1	5314122	transcription regulator
Ncf2	Neutrophil cytosolic factor 2	39	48	7.9E-02	1.2	27	43	6.0E-04	1.6	0	13	112672714	enzyme
Prdx1	Peroxiredoxin 1	829	840	6.4E-01	1.0	659	1048	3.9E-62	1.6	273	16	48219386	enzyme
Kbtbd2	Kelch repeat and BTB (POZ) domain containing 2	79	68	1.2E-01	0.9	64	101	2.3E-07	1.6	17	6	56727591	other
Tob2	Transducer of ERBB2, 2	62	55	3.1E-01	0.9	41	65	3.8E-05	1.6	28	15	81679434	other
Slu7	SLU7 splicing factor homolog (S. cerevisiae)	44	36	1.1E-01	0.8	34	54	1.7E-04	1.6	18	11	43260254	enzyme
Mbt1	Mbt domain containing 1	25	38	2.7E-03	1.5	28	45	5.5E-04	1.6	8	11	93806365	other
Tspo	Translocator protein	164	175	3.2E-01	1.1	173	273	5.7E-17	1.6	43	15	83404590	transmembrane receptor
Olfm13	Olfactomedin-like 3	126	180	3.5E-08	1.4	163	259	2.3E-16	1.6	2	3	103539870	other
Wwtr1	WW domain containing transcription regulator 1	136	184	2.3E-06	1.4	151	238	6.1E-15	1.6	34	3	57259932	transcription regulator
Cd34	CD34 antigen	152	170	8.1E-02	1.1	131	208	2.0E-13	1.6	8	1	196786727	other
Lgals9	Lectin, galactose binding, soluble 9	91	158	5.2E-14	1.7	103	163	7.1E-11	1.6	3	11	78776724	other
Twf1	Twinfilin, actin-binding protein, homolog 1 (Drosop	76	84	2.5E-01	1.1	74	117	3.3E-08	1.6	10	15	94408434	kinase
Zbtb7a	Zbtb7a	63	79	1.6E-02	1.3	69	109	1.3E-07	1.6	12	10	80614126	transcription regulator
Katna1	Katanin p60 (ATPase-containing) subunit A1	50	56	2.7E-01	1.1	49	78	7.5E-06	1.6	12	10	7482798	enzyme
Sertad1	SERTA domain containing 1	60	71	7.8E-02	1.2	47	74	1.2E-05	1.6	6	7	28274928	transcription regulator
Sreb2	Sterol regulatory element binding factor 2	28	48	5.3E-05	1.7	37	59	1.0E-04	1.6	4	15	82035762	transcription regulator
Gdf15	Growth differentiation factor 15	20	45	1.7E-08	2.3	36	56	1.5E-04	1.6	3	8	73153582	growth factor
Ube2h	Ubiquitin-conjugating enzyme E2H	35	40	2.8E-01	1.2	30	47	4.9E-04	1.6	13	7	46846931	enzyme
Mlixp	MLX interacting protein	27	40	2.9E-03	1.5	30	47	5.0E-04	1.6	12	5	123907660	other
Ptbp2	Polypyrimidine tract binding protein 2	39	43	4.2E-01	1.1	28	44	7.4E-04	1.6	14	3	119422006	other
Dnaja1	DnaJ (Hsp40) homolog, subfamily A, member 1	397	366	5.6E-02	0.9	232	364	1.2E-21	1.6	38	7	148077674	other
Atp1b3	ATPase, Na+/K+ transporting, beta 3 polypeptide	158	220	2.4E-08	1.4	176	276	9.6E-17	1.6	26	9	96233444	transporter
Axud1	AXIN1 up-regulated 1	273	272	9.5E-01	1.0	173	272	1.5E-16	1.6	13	9	119880603	other
Ppp2ca	Protein phosphatase 2 (formerly 2A), catalytic sub	261	227	9.2E-03	0.9	170	268	1.8E-16	1.6	103	11	51935828	phosphatase
Csf2rb	Colony stimulating factor 2 receptor, beta, low-affi	49	71	3.4E-04	1.5	65	102	3.6E-07	1.6	0	15	78181397	transmembrane receptor
Fcna	Ficolin A	51	64	3.0E-02	1.3	50	78	9.3E-06	1.6	0	2	25480316	
Npdc1	Neural proliferation, differentiation and control gen	47	47	9.6E-01	1.0	45	70	2.8E-05	1.6	9	2	25264959	other
Cldn5	Claudin 5	36	94	1.2E-20	2.6	31	49	4.5E-04	1.6	1	16	18777855	other
Mmrn2	Mmrn2	55	56	8.5E-01	1.0	31	48	4.6E-04	1.6	14	14	35217347	other
Nav1	Neuron navigator 1	26	41	1.3E-03	1.6	29	46	6.6E-04	1.6	3	1	137335871	enzyme
Rg9mtd1	RNA (guanine-9-) methyltransferase domain cont	37	43	2.9E-01	1.1	29	45	6.8E-04	1.6	19	16	56033972	other

Ctsl	Cathepsin L	931	826	1.6E-05	0.9	829	1293	1.0E-70	1.6	134	13	64465262	peptidase
Arcp1b	Actin related protein 2/3 complex, subunit 1B	346	415	1.2E-05	1.2	474	739	3.8E-41	1.6	12	15	40370224	other
Sep15	Selenoprotein	186	190	7.7E-01	1.0	172	269	6.4E-16	1.6	46	3	144260348	
Gpm6b	Glycoprotein m6b	101	121	1.8E-02	1.2	120	187	1.3E-11	1.6	4	20	162826548	other
Lgmn	Legumain	144	95	6.2E-08	0.7	102	158	5.3E-10	1.6	49	12	103632807	peptidase
Bax	Bcl2-associated X protein	47	68	6.3E-04	1.4	70	110	1.9E-07	1.6	10	7	52717302	other
RP23-285D3.2	Heat shock protein 1, alpha pseudogene	169	88	1.1E-17	0.5	63	98	1.0E-06	1.6	20	11	77108741	
Baiap2	Brain-specific angiogenesis inhibitor 1-associated	54	57	6.6E-01	1.1	61	95	1.6E-06	1.6	3	11	119868034	kinase
Lipa	Lipa	75	77	7.4E-01	1.0	61	95	1.6E-06	1.6	9	19	34567162	enzyme
Ncor2	Nuclear receptor co-repressor 2	45	61	5.0E-03	1.4	51	80	1.1E-05	1.6	21	5	125497524	transcription regulator
Gapvd1	GTPase activating protein and VPS9 domains 1	26	44	1.2E-04	1.7	33	51	3.9E-04	1.6	10	2	34532766	other
Mdm2	Transformed mouse 3T3 cell double minute 2	196	208	3.0E-01	1.1	147	229	1.1E-13	1.6	30	10	117126271	transcription regulator
Npc2	Niemann Pick type C2	115	175	3.8E-10	1.5	144	223	3.5E-13	1.6	7	12	86097389	other
Nap111	Nucleosome assembly protein 1-like 1	119	142	1.2E-02	1.2	117	181	6.7E-11	1.6	54	10	110933563	other
Ddx17	DEAD (Asp-Glu-Ala-Asp) box polypeptide 17	56	82	1.2E-04	1.5	70	109	3.0E-07	1.6	23	15	79358731	enzyme
C1r	Complement component 1, r subcomponent	42	84	8.3E-12	2.0	60	94	2.1E-06	1.6	0	6	124472736	peptidase
Impdh2	Inosine 5'-phosphate dehydrogenase 2	86	103	2.9E-02	1.2	58	90	4.0E-06	1.6	23	9	108467661	enzyme
Stx12	Syntaxin 12	49	59	1.0E-01	1.2	47	72	3.1E-05	1.6	19	4	132410042	other
Eif4e2	Eukaryotic translation initiation factor 4E member	37	57	3.1E-04	1.5	43	67	6.6E-05	1.6	12	1	89124562	translation regulator
Coro1c	Coronin, actin binding protein 1C	26	33	1.1E-01	1.3	36	55	2.5E-04	1.6	4	5	114292760	other
Ifi27	Interferon, alpha-inducible protein 27	65	99	3.0E-06	1.5	107	166	4.4E-10	1.5	1	12	104681163	other
B4galT1	UDP-Gal:betaGlcNAc beta 1,4-galactosyltrans	143	131	2.1E-01	0.9	95	146	7.2E-09	1.5	55	4	40751766	enzyme
Tmem16f	Transmembrane protein 16F	76	78	8.3E-01	1.0	80	123	8.9E-08	1.5	6	15	95805432	other
St3gal1	ST3 beta-galactoside alpha-2,3-sialyltransferase 1	83	99	4.4E-02	1.2	72	111	4.3E-07	1.5	5	15	66934738	enzyme
Itih5	Itih5	54	80	1.2E-04	1.5	65	100	1.5E-06	1.5	1	2	10178029	other
Slc7a11	Solute carrier family 7 (cationic amino acid transp	44	43	8.9E-01	1.0	59	91	3.8E-06	1.5	0	3	50169248	transporter
Brd1	Bromodomain containing 1	54	63	1.3E-01	1.2	54	83	1.1E-05	1.5	21	15	88517852	other
Bcor	Bcl6 interacting corepressor	66	66	9.7E-01	1.0	49	75	2.7E-05	1.5	8	20	11614513	transcription regulator
9130404D14Rik	RIKEN cDNA 9130404D14 gene	90	76	6.3E-02	0.8	43	67	8.3E-05	1.5	2	2	32780664	
Jhdm1d	Jumonji C domain-containing histone demethylase	51	60	1.3E-01	1.2	43	66	8.5E-05	1.5	11	6	39087085	other
Git2	G protein-coupled receptor kinase-interactor 2	61	61	9.7E-01	1.0	42	65	9.1E-05	1.5	12	5	115179646	other
Slc5a3	Slc5a3	26	26	8.8E-01	1.0	30	47	9.9E-04	1.5	3	16	92087531	transporter
Pcbp2	Poly(rC) binding protein 2	788	581	7.2E-22	0.7	530	811	6.4E-42	1.5	368	15	102329228	other
Tloc1	Translocation protein 1	149	206	1.4E-07	1.4	197	301	2.0E-16	1.5	35	3	30699130	transporter
Bhlhb2	Basic helix-loop-helix domain containing, class B2	86	226	3.9E-47	2.6	159	242	1.8E-13	1.5	20	6	108616099	transcription regulator
Vcam1	Vascular cell adhesion molecule 1	201	148	1.4E-06	0.7	148	227	7.9E-13	1.5	0	3	115826441	other
Rnf130	Ring finger protein 130	158	154	7.0E-01	1.0	114	173	4.3E-10	1.5	33	11	49918141	peptidase
Zdnhc20	Zinc finger, DHHC domain containing 20	86	85	9.6E-01	1.0	98	150	6.9E-09	1.5	11	14	58451890	other
2310008M10Rik	RIKEN cDNA 2310008M10 gene	60	59	8.4E-01	1.0	86	132	5.6E-08	1.5	29	3	130398877	
Phldb1	Pleckstrin homology-like domain, family B, membe	81	84	6.4E-01	1.0	72	110	6.8E-07	1.5	17	9	44494871	other
Cpt1a	Carnitine palmitoyltransferase 1a, liver	54	58	4.9E-01	1.1	58	89	6.3E-06	1.5	19	19	3385681	enzyme
Acsl4	Acyl-CoA synthetase long-chain family member 4	54	59	4.2E-01	1.1	54	83	1.4E-05	1.5	2	20	138752988	enzyme
Banf1	Barrier to autointegration factor 1	33	43	4.0E-02	1.3	52	80	2.1E-05	1.5	16	13	14134241	other
Ubn1	Ubinuclein 1	52	48	5.3E-01	0.9	42	64	1.5E-04	1.5	7	16	5086150	transcription regulator
Pscd2	Pleckstrin homology, Sec7 and coiled-coil domain	42	36	2.6E-01	0.9	31	48	9.2E-04	1.5	20	7	53062989	other
Junb	Jun-B oncogene	541	662	1.2E-09	1.2	341	518	9.7E-27	1.5	88	8	87501121	transcription regulator
Cybb	Cybb	273	305	1.9E-02	1.1	256	390	1.3E-20	1.5	0	20	9012735	enzyme
Scepe1	Serine carboxypeptidase 1	167	205	6.5E-04	1.2	177	270	9.1E-15	1.5	7	11	88785333	peptidase
Trex1	Three prime repair exonuclease 1	124	203	8.2E-15	1.6	171	261	2.8E-14	1.5	3	9	108960694	enzyme
Fabp5	Fatty acid binding protein 5, epidermal	130	194	4.3E-10	1.5	150	229	1.1E-12	1.5	35	9	57332332	transporter
Ptp4a2	Protein tyrosine phosphatase 4a2	153	162	3.3E-01	1.1	141	214	6.7E-12	1.5	74	4	129516865	phosphatase
Dlgap4	Discs, large homolog-associated protein 4 (Drosop	103	107	6.1E-01	1.0	104	158	4.4E-09	1.5	26	2	156587592	other
E130112L23Rik	RIKEN cDNA E130112L23 gene	51	47	4.5E-01	0.9	53	80	2.5E-05	1.5	7	14	52625192	
Adar	Adenosine deaminase, RNA-specific	56	65	1.4E-01	1.2	49	75	5.2E-05	1.5	2	3	89557162	enzyme
Atp6v0c	ATPase, H+ transporting, lysosomal V0 subunit C	609	846	1.4E-27	1.4	778	1176	6.3E-57	1.5	122	6	37756893	transporter
Ly6e	Lymphocyte antigen 6 complex, locus E	137	237	6.1E-20	1.7	186	281	1.3E-14	1.5	22	15	74789632	other
Fcer1g	Fc receptor, IgE, high affinity I, gamma polypeptid	140	214	2.4E-12	1.5	166	250	3.2E-13	1.5	0	1	173159702	transmembrane receptor
Lamc1	Laminin, gamma 1	150	140	2.8E-01	0.9	117	178	6.2E-10	1.5	10	1	155066235	other
Il33	Interleukin 33	78	52	1.2E-04	0.7	77	116	7.2E-07	1.5	0	19	30034829	other
Irf8	Interferon regulatory factor 8	67	88	2.9E-03	1.3	71	108	1.4E-06	1.5	1	8	123280482	transcription regulator
Sp3	Trans-acting transcription factor 3	79	87	3.2E-01	1.1	69	105	2.1E-06	1.5	29	2	72774860	transcription regulator
Nadk	NAD kinase	73	74	8.7E-01	1.0	63	95	5.4E-06	1.5	16	4	154964982	kinase
Twist1	Twist gene homolog 1 (Drosophila)	48	39	1.3E-01	0.8	58	88	1.3E-05	1.5	2	12	34644576	transcription regulator
Adss	Adenylosuccinate synthetase, non muscle	53	56	5.3E-01	1.1	53	80	3.8E-05	1.5	5	1	179693818	enzyme
Dclk1	Dclk1	33	42	5.5E-02	1.3	53	80	3.9E-05	1.5	0	3	55275216	kinase
Adam10	Adam10	38	44	2.2E-01	1.2	51	77	5.8E-05	1.5	17	9	70627801	peptidase
BC006779	CDNA sequence BC006779	34	53	2.3E-04	1.6	46	69	1.4E-04	1.5	3	2	180962602	transcription regulator
Spg21	Spastic paraplegia 21 homolog (human)	43	34	8.2E-02	0.8	42	63	2.4E-04	1.5	10	9	65335032	enzyme
Nedd9	Neural precursor cell expressed, developmentally	52	59	1.8E-01	1.2	36	54	6.3E-04	1.5	8	13	41405720	other

Cxcl1	Chemokine (C-X-C motif) ligand 1	7155	8316	2.8E-59	1.2	6564	9867	0.0E+00	1.5	4	5	91321900	cytokine
Dynll1	Dynein light chain LC8-type 1	333	310	1.3E-01	0.9	288	433	2.0E-21	1.5	38	19	28837644	other
Rhoa	Ras homolog gene family, member A	268	268	9.8E-01	1.0	236	354	1.4E-17	1.5	132	9	108239664	enzyme
3230401D17Rik	RIKEN cDNA 3230401D17 gene	83	113	1.4E-04	1.4	93	140	7.7E-08	1.5	9	20	7612560	
Gnb2	Guanine nucleotide binding protein, beta 2	65	87	1.9E-03	1.3	70	105	3.0E-06	1.5	29	5	137969482	enzyme
Enc1	Ectodermal-neural cortex 1	57	61	4.9E-01	1.1	57	86	2.1E-05	1.5	2	13	98022881	peptidase
Wdsof1	WD repeats and SOF domain containing 1	42	42	9.8E-01	1.0	35	53	8.5E-04	1.5	9	15	38976706	other
Trip12	Thyroid hormone receptor interactor 12	103	80	4.3E-03	0.8	63	94	1.3E-05	1.5	44	1	84721106	enzyme
Uhrf2	Ubiquitin-like, containing PHD and RING finger do	58	68	1.3E-01	1.2	62	93	1.7E-05	1.5	14	19	30167997	enzyme
Arf3	ADP-ribosylation factor 3	49	44	3.3E-01	0.9	45	67	2.4E-04	1.5	9	15	98568146	enzyme
Akr1a4	Aldo-keto reductase family 1, member A4 (aldehyd	94	161	1.2E-13	1.7	169	252	1.6E-12	1.5	38	4	116309114	
Adam9	A disintegrin and metallopeptidase domain 9 (met	80	78	8.3E-01	1.0	91	136	2.2E-07	1.5	17	8	26060482	peptidase
Slc39a6	Solute carrier family 39 (metal ion transporter), me	69	63	4.0E-01	0.9	54	80	8.5E-05	1.5	3	18	24738582	transporter
Atp6v0d1	ATPase, H+ transporting, lysosomal V0 subunit D	27	53	9.6E-08	2.0	40	60	6.8E-04	1.5	7	8	108048528	transporter
Sec61a1	Sec61 alpha 1 subunit (S. cerevisiae)	162	177	1.3E-01	1.1	207	304	3.2E-14	1.5	29	6	88453620	transporter
Myd116	Myeloid differentiation primary response gene 116	171	219	2.9E-05	1.3	131	193	1.4E-09	1.5	21	7	52778511	
Rhoj	Ras homolog gene family, member J	108	105	8.1E-01	1.0	106	155	5.3E-08	1.5	7	12	76502363	enzyme
Tbc1d9	Tbc1d9	75	82	3.5E-01	1.1	69	102	1.2E-05	1.5	29	8	85694748	other
Ifi44	Interferon-induced protein 44	41	63	9.5E-05	1.6	67	98	1.5E-05	1.5	0	3	151394735	other
Gprc5b	G protein-coupled receptor, family C, group 5, me	35	52	7.9E-04	1.5	46	68	3.4E-04	1.5	6	7	126115623	-protein coupled receptor
Id3	Inhibitor of DNA binding 3	854	712	7.1E-10	0.8	532	776	1.7E-32	1.5	58	4	135701239	transcription regulator
Mex3c	Mex3 homolog C (C. elegans)	132	106	5.2E-03	0.8	98	144	2.8E-07	1.5	11	18	73751876	other
H13	Histocompatibility C (C. elegans)	69	89	5.1E-03	1.3	91	134	6.4E-07	1.5	17	2	152530748	
Stx5a	Syntaxin 5A	42	51	8.7E-02	1.2	54	78	1.7E-04	1.5	16	19	8830085	transporter
Wdr40a	WD repeat domain 40A	43	46	5.6E-01	1.1	49	72	2.5E-04	1.5	12	4	41238744	
Phf3	PHD finger protein 3	54	56	6.4E-01	1.1	48	70	3.4E-04	1.5	13	1	30860038	other
Spin1	Spindlin 1	53	56	6.5E-01	1.1	41	60	9.7E-04	1.5	16	13	51247190	other
Rap1b	RAS related protein 1b	675	739	2.8E-03	1.1	489	710	1.7E-29	1.5	29	10	117251868	enzyme
Cstb	Cystatin B	509	562	4.5E-03	1.1	462	669	1.7E-27	1.5	17	10	77890110	other
S100a10	S100 calcium binding protein A10 (calpactin)	157	301	2.5E-33	1.9	321	464	1.9E-19	1.5	3	3	93368302	other
Syn3	Syn3	145	117	2.4E-03	0.8	117	170	3.0E-08	1.5	46	10	85812134	other
Zfp3612	Zinc finger protein 36, C3H type-like 2	121	87	5.4E-05	0.7	109	158	1.4E-07	1.5	9	17	84583572	transcription regulator
Ythdf2	YTH domain family 2	101	123	8.6E-03	1.2	93	136	8.0E-07	1.5	22	20	67773423	other
Srrm2	Serine/arginine repetitive matrix 2	105	92	1.1E-01	0.9	81	117	4.5E-06	1.5	38	17	23961256	other
Znfx1	Zinc finger, NFX1-type containing 1	80	65	3.9E-02	0.8	75	108	1.4E-05	1.5	7	2	166861437	transcription regulator
Rgs10	Regulator of G-protein signalling 10	72	98	4.1E-04	1.4	64	94	4.3E-05	1.5	1	7	135517203	other
Senp2	SUMO/sentrin specific peptidase 2	63	75	5.8E-02	1.2	59	85	1.1E-04	1.5	10	16	22047712	peptidase
Rps3	Ribosomal protein S3	663	801	3.1E-10	1.2	674	973	1.6E-38	1.4	155	3	51515950	other
Vim	Vimentin	1314	570	6.4E-189	0.4	509	735	1.7E-29	1.4	21	2	13501749	other
OTTMUSG0000C	Predicted gene, OTTMUSG00000000971	148	246	2.3E-18	1.7	218	314	2.1E-13	1.4	1	11	83519612	
Actn4	Actinin alpha 4	109	157	2.9E-07	1.4	133	192	7.7E-09	1.4	26	7	29678908	other
Mbd2	Methyl-CpG binding domain protein 2	108	113	5.2E-01	1.1	94	135	1.8E-06	1.4	53	18	70782339	transcription regulator
Rab5c	RAB5C, member RAS oncogene family	185	204	8.7E-02	1.1	190	271	2.6E-11	1.4	30	11	100576628	enzyme
Dek	DEK oncogene (DNA binding)	107	121	8.6E-02	1.1	105	150	6.5E-07	1.4	31	20	39037821	transcription regulator
Tor3a	Torsin family 3, member A	114	125	2.4E-01	1.1	104	149	8.5E-07	1.4	3	1	158585178	enzyme
Sept11	Septin 11	109	114	5.3E-01	1.1	93	133	2.8E-06	1.4	5	5	93603780	other
Folr2	Folate receptor 2 (fetal)	112	167	8.3E-09	1.5	76	109	1.9E-05	1.4	0	7	108988564	transporter
Sod3	Superoxide dismutase 3, extracellular	73	113	2.7E-07	1.5	75	108	2.4E-05	1.4	4	5	52760599	enzyme
Al314027	Expressed sequence Al314027	59	73	2.6E-02	1.3	66	94	8.4E-05	1.4	13	1	52220625	
Purb	Purine rich element binding protein B	68	70	7.9E-01	1.0	55	79	2.7E-04	1.4	14	11	6367967	transcription regulator
Rpl8	Ribosomal protein L8	808	795	5.8E-01	1.0	718	1022	8.5E-38	1.4	259	15	76736744	other
Eif4h	Eukaryotic translation initiation factor 4H	211	221	4.0E-01	1.1	197	280	2.8E-11	1.4	90	5	135095963	translation regulator
Copb1	Coatomer protein complex, subunit beta 1	84	98	5.7E-02	1.2	101	143	1.4E-06	1.4	26	7	121359277	transporter
Cpd	Carboxypeptidase D	84	96	1.2E-01	1.1	98	139	2.2E-06	1.4	23	11	76592093	peptidase
Nptrn	Neuroplastin	66	112	6.6E-10	1.7	82	117	1.3E-05	1.4	27	9	58500593	other
Ski	Sloan-Kettering viral oncogene homolog	109	106	7.4E-01	1.0	79	112	2.1E-05	1.4	19	4	154529727	other
Dnajb1	DnaJ (Hsp40) homolog, subfamily B, member 1	100	109	2.5E-01	1.1	78	111	2.4E-05	1.4	26	8	86133997	other
Aof2	Amine oxidase (flavin containing) domain 2	79	103	1.7E-03	1.3	79	111	2.7E-05	1.4	19	4	136106668	other
Bcl3	B-cell leukemia/lymphoma 3	79	90	1.5E-01	1.1	53	75	5.1E-04	1.4	0	7	20394082	transcription regulator
Rps3a	Ribosomal protein S3a	727	1335	1.0E-125	1.8	1050	1479	4.0E-51	1.4	255	13	109461490	other
Tmepai	Transmembrane, prostate androgen induced RNA	321	478	1.3E-22	1.5	412	580	3.5E-21	1.4	20	2	173053164	other
Isg15	ISG15 ubiquitin-like modifier	224	420	2.8E-43	1.9	367	516	1.1E-18	1.4	1	4	155573792	other
Pttg1ip	Pituitary tumor-transforming 1 interacting protein	203	229	3.1E-02	1.1	222	313	4.0E-12	1.4	61	10	77061394	other
Tmem50a	Transmembrane protein 50A	130	145	1.2E-01	1.1	116	163	6.8E-07	1.4	41	4	134454097	other
Slc44a1	Slc44a1	109	119	2.4E-01	1.1	111	156	1.0E-06	1.4	16	4	53580509	transporter
Foxc2	Forkhead box C2	90	75	4.4E-02	0.8	80	113	2.9E-05	1.4	0	8	123642651	transcription regulator
Ep300	E1A binding protein p300	62	62	9.8E-01	1.0	69	98	9.5E-05	1.4	18	15	81482395	transcription regulator
D11Wsu99e	DNA segment, Chr 11, Wayne State University 99	62	70	1.9E-01	1.1	67	95	1.1E-04	1.4	15	11	113524625	
Cd97	CD97 antigen	52	70	4.9E-03	1.3	56	79	4.6E-04	1.4	4	8	86247758	-protein coupled receptor

Eif2s2	Eukaryotic translation initiation factor 2, subunit 2	396	409	4.3E-01	1.0	413	577	4.0E-20	1.4	111	8	53282408	translation regulator
Map2k3	Mitogen activated protein kinase kinase 3	396	373	1.4E-01	0.9	328	459	1.7E-16	1.4	54	11	60766016	kinase
Lrp1	Low density lipoprotein receptor-related protein 1	230	232	8.6E-01	1.0	192	269	2.9E-10	1.4	2	10	126975491	transmembrane receptor
Map4k4	Mitogen-activated protein kinase kinase kinase 4	95	146	5.0E-09	1.5	148	208	2.5E-08	1.4	35	1	40082753	kinase
Actr2	ARP2 actin-related protein 2 homolog (yeast)	167	156	3.0E-01	0.9	140	196	6.3E-08	1.4	44	11	19962750	other
Tmod3	Tropomodulin 3	90	88	7.7E-01	1.0	73	102	1.2E-04	1.4	8	9	75346056	other
2810403A07Rik	RIKEN cDNA 2810403A07 gene	65	95	3.5E-05	1.5	71	99	1.4E-04	1.4	29	3	88516605	
Der1	Der1-like domain family, member 1	76	75	9.1E-01	1.0	67	95	1.6E-04	1.4	30	15	57701433	other
Smcr8	Smith-Magenis syndrome chromosome region, ca	73	62	1.1E-01	0.9	59	82	5.4E-04	1.4	9	11	60601542	other
Cnt1	Cyclin T1	59	57	6.9E-01	1.0	58	81	5.7E-04	1.4	12	15	98369517	transcription regulator
Arpc2	Actin related protein 2/3 complex, subunit 2	351	392	8.9E-03	1.1	333	463	4.7E-16	1.4	120	1	74314442	other
Sfrs7	Splicing factor, arginine/serine-rich 7	164	202	4.8E-04	1.2	160	222	2.2E-08	1.4	35	17	80604733	other
Ptpnc	Protein tyrosine phosphatase, receptor type, C	107	120	1.3E-01	1.1	117	163	1.2E-06	1.4	1	1	139960218	phosphatase
Zip703	Zinc finger protein 703	76	118	1.1E-07	1.6	93	129	1.9E-05	1.4	5	8	28091694	
Egfr	Epidermal growth factor receptor	49	44	3.3E-01	0.9	64	89	3.8E-04	1.4	1	11	16813700	kinase
Eef2	Eukaryotic translation elongation factor 2	1006	1259	1.4E-20	1.3	1077	1489	1.3E-46	1.4	452	10	80645110	translation regulator
Atf4	Activating transcription factor 4	442	559	8.3E-11	1.3	395	543	1.6E-17	1.4	59	15	80087454	transcription regulator
Lgals3bp	Lectin, galactoside-binding, soluble, 3 binding pro	96	155	3.0E-11	1.6	167	230	2.4E-08	1.4	4	11	118254154	transmembrane receptor
Cggbp1	Cggbp1	105	96	3.1E-01	0.9	100	137	1.8E-05	1.4	16	16	64855795	other
Jmjd1c	Jumonji domain containing 1C	71	97	4.1E-04	1.4	61	84	6.6E-04	1.4	8	10	66718250	other
Rcan1	Regulator of calcineurin 1	61	124	7.7E-17	2.0	62	85	7.2E-04	1.4	28	16	92392420	transcription regulator
Ralgds	Ral guanine nucleotide dissociation stimulator	63	89	1.5E-04	1.4	56	78	9.7E-04	1.4	3	2	28408221	other
Rpl18a	Ribosomal protein L18A	1320	1118	1.8E-12	0.9	965	1321	2.3E-39	1.4	406	1	97395575	other
Arf4	ADP-ribosylation factor 4	721	573	1.9E-12	0.8	577	792	1.4E-24	1.4	83	14	27476149	enzyme
Rpl18	Ribosomal protein L18	612	594	3.7E-01	1.0	556	763	1.1E-23	1.4	289	11	96110137	other
Rac1	RAS-related C3 botulinum substrate 1	393	438	5.7E-03	1.1	388	533	6.0E-17	1.4	176	5	144266376	enzyme
Hspa1a	Heat shock protein 1A	252	189	3.2E-07	0.8	213	292	6.8E-10	1.4	16	17	35106385	other
Capza1	Capping protein (actin filament) muscle Z-line, alp	155	161	6.1E-01	1.0	152	209	1.4E-07	1.4	19	1	107355415	other
Ythdf1	YTH domain family 1	77	100	3.1E-03	1.3	109	149	9.5E-06	1.4	16	2	180639331	other
Ar14c	ADP-ribosylation factor-like 4C	73	127	5.4E-12	1.8	108	147	1.2E-05	1.4	1	1	90596978	enzyme
Slc30a1	Solute carrier family 30 (zinc transporter), membe	141	121	3.4E-02	0.9	85	117	9.7E-05	1.4	16	1	193737016	transporter
Rhog	Ras homolog gene family, member G	68	82	3.8E-02	1.2	77	106	1.8E-04	1.4	4	7	109387735	enzyme
Ywhaz	Tyrosine 3-monooxygenase/tryptophan 5-monoox	389	378	5.0E-01	1.0	368	499	5.4E-15	1.4	95	3	92495067	enzyme
Hnrpab	Heterogeneous nuclear ribonucleoprotein A/B	363	380	2.7E-01	1.1	318	433	1.2E-13	1.4	94	11	51414801	enzyme
Esd	Esterase D/formylglutathione hydrolase	232	240	5.3E-01	1.0	244	332	1.0E-10	1.4	66	14	75149608	enzyme
Tra2a	Transformer 2 alpha homolog (Drosophila)	241	268	3.5E-02	1.1	206	282	2.0E-09	1.4	41	6	49193961	
Sf1	Splicing factor 1	124	212	1.6E-17	1.7	163	221	1.6E-07	1.4	39	19	6377049	transcription regulator
Casp4	Caspase 4, apoptosis-related cysteine peptidase	129	159	2.1E-03	1.2	146	199	4.6E-07	1.4	0	9	5324817	peptidase
Man2a1	Mannosidase 2, alpha 1	127	128	8.9E-01	1.0	121	164	6.2E-06	1.4	17	17	65104178	enzyme
Fbxo33	F-box protein 33	91	136	1.3E-07	1.5	101	138	3.7E-05	1.4	5	12	60301858	other
Rbbp6	Retinoblastoma binding protein 6	79	98	1.2E-02	1.2	90	123	8.6E-05	1.4	25	7	130145858	other
Centb2	Centaurin, beta 2	60	66	3.2E-01	1.1	66	91	6.7E-04	1.4	6	16	31093027	other
Spon1	Spondin 1, (f-spondin) extracellular matrix protein	93	90	7.0E-01	1.0	62	85	9.6E-04	1.4	2	7	121184667	other
Rpl7a	Ribosomal protein L7a	1008	1108	1.6E-04	1.1	1049	1421	1.2E-39	1.4	323	20	163292735	other
Ilgav	Integrin alpha V	218	172	5.4E-05	0.8	176	237	1.0E-07	1.4	25	2	83647007	other
Hspa1b	Hspa1b	681	187	7.6E-182	0.3	153	207	4.8E-07	1.4	16	17	35093476	other
Reep3	Receptor accessory protein 3	78	101	2.5E-03	1.3	88	118	1.9E-04	1.4	12	10	66474294	other
Kcne4	Potassium voltage-gated channel, Isk-related sub	73	127	9.5E-12	1.7	84	113	2.6E-04	1.4	0	1	78816418	ion channel
Dnajb6	DnaJ (Hsp40) homolog, subfamily B, member 6	113	88	3.2E-03	0.8	72	98	5.4E-04	1.4	28	12	65888539	transcription regulator
Il1m	Interleukin 1 receptor antagonist	1168	1214	9.7E-02	1.0	1050	1403	4.0E-36	1.3	0	2	24206310	cytokine
Calm1	Calmodulin 1	807	951	2.0E-09	1.2	784	1051	6.7E-28	1.3	166	12	101445374	other
Rpl3	Ribosomal protein L3	563	672	7.0E-08	1.2	577	773	8.4E-21	1.3	61	20	71417136	other
Marcks	Myristoylated alanine rich protein kinase C substr	488	588	8.7E-08	1.2	435	582	5.2E-16	1.3	16	10	36855007	
Odc1	Ornithine decarboxylase, structural 1	415	463	4.5E-03	1.1	349	467	3.0E-13	1.3	52	12	17557769	enzyme
C1s	Complement component 1, s subcomponent	160	196	1.1E-03	1.2	159	212	1.1E-06	1.3	6	6	124574790	peptidase
Efh2	EF hand domain containing 2	194	123	7.4E-12	0.6	94	126	1.4E-04	1.3	7	4	61401318	other
Plk3r5	Phosphoinositide-3-kinase, regulatory subunit 5, p	71	111	1.5E-07	1.6	85	113	3.5E-04	1.3	0	11	68311091	kinase
Ctsb	Cathepsin B	1007	837	1.1E-11	0.8	643	855	5.4E-22	1.3	157	14	63761832	peptidase
Pgam1	Phosphoglycerate mutase 1	147	178	2.1E-03	1.2	187	249	2.2E-07	1.3	73	19	41993048	phosphatase
Pde4b	Phosphodiesterase 4B, cAMP specific	221	250	1.9E-02	1.1	175	233	4.8E-07	1.3	39	4	102278114	enzyme
Golp3	Golgi phosphoprotein 3	181	180	8.9E-01	1.0	146	193	4.9E-06	1.3	47	15	12280856	other
Sox9	SRY-box containing gene 9	131	120	2.3E-01	0.9	127	168	2.3E-05	1.3	0	11	112647154	transcription regulator
Crk	V-crk sarcoma virus CT10 oncogene homolog (av	128	124	7.2E-01	1.0	105	140	8.4E-05	1.3	51	11	75519522	other
CD40	CD40 antigen	104	106	7.9E-01	1.0	92	123	2.4E-04	1.3	0	2	164897022	ransmembrane receptor
Slc25a37	Solute carrier family 25, member 37	76	87	1.3E-01	1.1	75	100	8.5E-04	1.3	5	14	69859974	transporter
Fth1	Ferritin heavy chain 1	7502	9191	4.8E-115	1.2	7381	9769	1.1E-225	1.3	2546	19	10059484	enzyme
Ywhaq	Tyrosine 3-monooxygenase/tryptophan 5-monoox	248	290	1.6E-03	1.2	225	298	2.0E-08	1.3	35	13	13323968	other
Rod1	RDD1 regulator of differentiation 1 (S. pombe)	153	152	9.6E-01	1.0	150	199	4.5E-06	1.3	8	20	125872024	other
Ifit1	Ifit1	918	1394	3.4E-68	1.5	1516	1988	9.3E-45	1.3	1	19	34724399	other

Rps9	Ribosomal protein S9	1207	1248	1.6E-01	1.0	1352	1770	1.7E-39	1.3	323	7	3657487	other
Anxa5	Annexin A5	486	618	5.0E-12	1.3	560	734	1.9E-17	1.3	48	3	36347846	other
Tpm3	Tropomyosin 3, gamma	557	560	8.9E-01	1.0	514	673	5.3E-16	1.3	24	14	113715491	other
Mrc1	Mrc1	423	471	4.9E-03	1.1	402	527	6.4E-13	1.3	1	2	14253324	transmembrane receptor
Eif5a	Eukaryotic translation initiation factor 5A	295	352	8.9E-05	1.2	384	501	4.2E-12	1.3	113	19	17767598	translation regulator
Rpl27a	Ribosomal protein L27a	219	334	7.4E-18	1.5	363	476	5.9E-12	1.3	60	13	99674289	other
Ssb	Sjogren syndrome antigen B	136	178	3.5E-05	1.3	171	225	2.0E-06	1.3	31	2	69708848	enzyme
Srgn	Seryglycin	778	782	8.7E-01	1.0	494	640	2.5E-14	1.3	11	10	61957583	other
Sgpl1	Sphingosine phosphatase 1	272	277	7.0E-01	1.0	216	280	3.7E-07	1.3	16	10	60561544	enzyme
Samd9l	Sterile alpha motif domain containing 9-like	66	135	3.6E-18	2.0	124	160	1.2E-04	1.3	2	6	3322877	other
Spred1	Sprouty protein with EVH-1 domain 1, related seq	109	143	1.5E-04	1.3	113	148	1.7E-04	1.3	13	2	117007922	other
U2af1	U2 small nuclear ribonucleoprotein auxiliary factor	74	88	4.5E-02	1.2	92	120	8.5E-04	1.3	14	18	64771589	other
Sh3pxd2b	SH3 and PX domains 2B	78	91	6.2E-02	1.2	88	115	9.1E-04	1.3	1	11	32327971	other
Rpl32	Ribosomal protein L32	449	663	1.4E-29	1.5	1167	771	1.6E-55	0.7	200	8	4392146	other
Kctd12	Potassium channel tetramerisation domain contain	467	448	2.6E-01	1.0	459	301	1.2E-23	0.7	5	14	103376008	ion channel
Tnf	Tumor necrosis factor	486	383	2.1E-09	0.8	459	301	1.9E-23	0.7	24	17	35336544	cytokine
Lhfp	Lipoma HMGIC fusion partner	201	145	3.3E-07	0.7	301	198	6.7E-16	0.7	24	3	53065507	other
Dpep1	Dipeptidase 1 (renal)	465	234	2.1E-50	0.5	275	183	4.7E-14	0.7	5	8	125725658	peptidase
Serpinb6a	Serine (or cysteine) peptidase inhibitor, clade B, m	266	157	1.6E-19	0.6	157	104	9.9E-09	0.7	70	13	34009870	
Rnf2	Ring finger protein 2	86	85	8.9E-01	1.0	146	96	2.2E-08	0.7	20	1	153316750	transcription regulator
Kpnb1	Karyopherin (importin) beta 1	67	69	7.6E-01	1.0	110	73	1.9E-06	0.7	34	11	97021144	transporter
Mettl2	Methyltransferase like 2	33	46	7.7E-03	1.4	77	51	4.3E-05	0.7	13	11	105002412	enzyme
Gpr133	Gpr133	50	49	9.1E-01	1.0	62	41	3.3E-04	0.7	1	5	129710434	γ-protein coupled receptor
Amtl2	Angiotensin II receptor type 2	47	41	3.1E-01	0.9	61	41	3.9E-04	0.7	16	9	102635655	other
Pml	Promyelocytic leukemia	24	35	1.1E-02	1.5	60	40	4.6E-04	0.7	1	9	58066824	transcription regulator
Scara5	Scavenger receptor class A, member 5 (putative)	181	183	8.5E-01	1.0	137	88	2.0E-08	0.7	3	14	66383568	other
H28	Histocompatibility 28	41	52	3.9E-02	1.3	127	82	5.3E-08	0.7	0	3	151421721	
Ecm2	Extracellular matrix protein 2, female organ and a	60	71	8.4E-02	1.2	67	43	8.3E-05	0.7	2	13	49628072	other
No14	Nucleolar protein 14	42	45	5.3E-01	1.1	65	42	1.2E-04	0.7	8	5	34981184	other
Cxcl5	Chemokine (C-X-C motif) ligand 5	495	444	3.9E-03	0.9	820	524	2.5E-45	0.6	0	5	91190472	cytokine
Tmem49	Transmembrane protein 49	236	289	5.9E-05	1.2	479	304	1.3E-27	0.6	30	11	86398404	other
Rpl22	Ribosomal protein L22	464	289	1.1E-27	0.6	285	183	2.1E-16	0.6	187	4	151708180	other
Pcsk6	Proprotein convertase subtilisin/kexin type 6	208	263	1.1E-05	1.3	157	100	4.9E-10	0.6	3	7	73195067	peptidase
Gas6	Growth arrest specific 6	50	89	3.9E-09	1.8	144	92	4.2E-09	0.6	13	8	13465428	growth factor
Crispld2	Cysteine-rich secretory protein LCCL domain cont	154	182	7.9E-03	1.2	139	89	4.9E-09	0.6	2	8	122575402	other
Scn7a	Sodium channel, voltage-gated, type VII, alpha	79	96	3.2E-02	1.2	105	67	4.3E-07	0.6	1	2	66512014	ion channel
Rbmxrt	RNA binding motif protein, X chromosome retroge	70	51	3.3E-03	0.7	79	50	1.2E-05	0.6	15	14	44292900	
Rps26	Ribosomal protein S26	448	300	1.5E-20	0.7	566	354	3.4E-34	0.6	149	12	48914233	other
Edg3	Endothelial differentiation, sphingolipid G-pro	117	172	1.1E-08	1.5	327	207	1.4E-19	0.6	2	13	51517205	protein coupled receptor
Hsd11b1	Hydroxysteroid 11-beta dehydrogenase 1	215	102	1.9E-27	0.5	155	97	1.9E-10	0.6	5	1	195048089	enzyme
Tmem33	Transmembrane protein 33	82	70	1.0E-01	0.9	117	74	4.4E-08	0.6	20	5	67677741	other
Eif3e	Eukaryotic translation initiation factor 3, subunit E	137	91	1.9E-07	0.7	109	69	1.3E-07	0.6	66	18	90480181	translation regulator
Prr13	Proline rich 13	36	51	3.7E-03	1.4	85	54	2.6E-06	0.6	8	15	102293032	other
B2m	Beta-2 microglobulin	1009	1282	2.4E-23	1.3	1675	1034	1.4E-102	0.6	40	2	121978818	transmembrane receptor
Rps29	Ribosomal protein S29	363	943	1.8E-187	2.6	1227	755	2.6E-76	0.6	133	20	48374259	other
Ifi204	Interferon activated gene 204	620	552	5.9E-04	0.9	730	449	2.6E-46	0.6	1	1	175677424	
Pdgfra	Platelet derived growth factor receptor, alpha poly	68	72	5.9E-01	1.1	130	81	3.5E-09	0.6	1	5	75594161	kinase
Gadd45g	Growth arrest and DNA-damage-inducible 45 gamma	88	74	8.1E-02	0.9	84	52	1.8E-06	0.6	32	13	51943254	other
Nlrp3	NLR family, pyrin domain containing 3	39	55	4.9E-03	1.4	62	38	3.4E-05	0.6	0	11	59380019	
H2-Q7	Histocompatibility 2, Q region locus 7	26	41	1.3E-03	1.6	61	38	4.4E-05	0.6	1	17	35580549	
Ubr1	Ubr1	46	30	3.4E-03	0.7	48	30	2.6E-04	0.6	21	2	120686136	enzyme
Ccl4	Chemokine (C-C motif) ligand 4	3460	3523	1.9E-01	1.0	4956	3044	1.0E-305	0.6	2	11	83478150	cytokine
Rpl34	Ribosomal protein L34	722	328	8.2E-96	0.5	351	215	2.2E-23	0.6	243	6	71074846	other
Mfsd1	Major facilitator superfamily domain containing 1	108	124	6.3E-02	1.2	261	161	1.1E-17	0.6	7	3	67408032	transporter
Socs3	Suppressor of cytokine signaling 3	452	256	3.0E-36	0.6	208	126	4.4E-15	0.6	54	11	117827721	other
Nmd3	NMD3 homolog (S. cerevisiae)	65	40	3.0E-05	0.6	47	29	2.5E-04	0.6	14	3	69552820	other
Tbk1	TANK-binding kinase 1	100	81	2.0E-02	0.8	129	77	2.4E-10	0.6	16	10	120983542	kinase
Hmgn1	High mobility group nucleosomal binding domain 1	138	66	3.9E-18	0.5	108	64	6.1E-09	0.6	49	16	96343257	transcription regulator
Il15	Interleukin 15	38	47	7.4E-02	1.3	77	46	1.5E-06	0.6	2	8	84855672	cytokine
Pdcd6	Programmed cell death 6	16	31	7.5E-05	1.9	59	35	2.0E-05	0.6	8	13	74441028	other
Gmeb2	Glucocorticoid modulatory element binding protein	21	21	9.6E-01	1.0	51	31	8.8E-05	0.6	4	2	180986268	transcription regulator
Ggh	Gamma-glutamyl hydrolase	41	20	6.7E-06	0.5	46	28	2.0E-04	0.6	9	4	19993203	peptidase
Cd74	CD74 antigen (invariant polypeptide of major histo	1098	1605	8.1E-66	1.5	1469	872	4.7E-103	0.6	5	18	60972270	transmembrane receptor
Leptn	Leptin receptor overlapping transcript	85	82	6.7E-01	1.0	170	100	1.4E-13	0.6	24	4	101331927	other
Sash1	SAM and SH3 domain containing 1	61	86	2.2E-04	1.4	134	78	2.9E-11	0.6	4	10	8442384	other
Tollip	Toll interacting protein	72	37	1.5E-08	0.5	54	32	2.8E-05	0.6	25	7	149067594	other
Senp6	SUMO/sentrin specific peptidase 6	22	38	1.3E-04	1.8	55	32	3.3E-05	0.6	11	9	79984569	peptidase
4631427C17Rik	RIKEN cDNA 4631427C17 gene	50	33	1.7E-03	0.7	48	28	1.0E-04	0.6	12	6	29861992	
Twistnb	Twistnb	25	28	4.4E-01	1.1	43	25	1.8E-04	0.6	4	12	34122746	other

Numb1	Numb-like	11	12	6.3E-01	1.1	35	20	9.1E-04	0.6	0	7	28067008	other
Trn9sf3	Transmembrane 9 superfamily member 3	145	152	5.1E-01	1.0	407	237	1.2E-31	0.6	54	13	88437293	transporter
Eif3s10	Eukaryotic translation initiation factor 3, subunit 10	92	168	4.9E-17	1.8	270	158	2.8E-21	0.6	22	19	60837789	translation regulator
Gstm1	Glutathione S-transferase, mu 1	199	221	7.2E-02	1.1	174	101	1.3E-14	0.6	50	3	107815398	enzyme
Ubiquin1	Ubiquilin 1	52	54	6.7E-01	1.1	154	89	6.2E-13	0.6	23	13	58279025	other
Pim1	Proviral integration site 1	69	107	4.0E-07	1.6	137	80	1.3E-11	0.6	4	17	29632244	kinase
Zochc6	Zinc finger, CCHC domain containing 6	65	81	2.3E-02	1.2	127	74	4.1E-11	0.6	10	13	59873660	other
Ccdc23	Coiled-coil domain containing 23	27	57	9.2E-09	2.1	121	70	1.4E-10	0.6	9	4	118873522	other
Dhx9	DEAH (Asp-Glu-Ala-His) box polypeptide 9	36	44	9.3E-02	1.2	94	54	1.2E-08	0.6	12	1	155303082	enzyme
Gvin1	GTPase, very large interferon inducible 1	56	45	6.9E-02	0.8	55	32	1.9E-05	0.6	1	7	113300402	other
Hmgcr	3-hydroxy-3-methylglutaryl-Coenzyme A reductase	17	19	6.6E-01	1.1	42	25	1.6E-04	0.6	2	13	97419485	enzyme
BC057170	CDNA sequence BC057170	15	26	3.8E-03	1.7	32	18	9.3E-04	0.6	2	5	105505724	other
Trnfap6	Tumor necrosis factor alpha induced protein 6	822	765	1.3E-02	0.9	1197	687	1.7E-93	0.6	0	2	51911794	other
Uap1	UDP-N-acetylglucosamine pyrophosphorylase 1	703	449	2.0E-37	0.6	788	449	7.7E-64	0.6	13	1	172072297	enzyme
Cebpd	CCAAT/enhancer binding protein (C/EBP), delta	616	431	9.4E-23	0.7	647	368	6.5E-53	0.6	30	16	15888502	transcription regulator
H2-Eb1	Histocompatibility 2, class II antigen E beta	358	488	4.8E-15	1.4	586	337	1.1E-46	0.6	2	17	34452889	other
Ilgp1	Interferon inducible GTPase 1	140	189	1.5E-06	1.4	250	141	8.8E-22	0.6	54	18	60552173	other
Ch25h	Cholesterol 25-hydroxylase	72	127	6.3E-12	1.8	237	135	1.9E-20	0.6	1	19	34548435	enzyme
Abca8a	ATP-binding cassette, sub-family A (ABC1), member 8	46	87	2.2E-10	1.9	76	44	2.3E-07	0.6	2	11	109886947	other
Nsmce2	Non-SMC element 2 homolog (MMS21, S. cerevisiae)	29	36	1.6E-01	1.2	58	33	7.4E-06	0.6	13	15	59432925	other
Rrp15	Ribosomal RNA processing 15 homolog (S. cerevisiae)	44	28	9.7E-04	0.6	44	25	7.8E-05	0.6	4	1	188545030	other
Thumpd1	THUMP domain containing 1	30	22	6.0E-02	0.7	36	21	3.1E-04	0.6	8	7	126858780	other
Bach1	BTB and CNC homology 1	196	164	3.8E-03	0.8	182	102	1.6E-16	0.6	14	16	87733264	transcription regulator
Ccl11	Small chemokine (C-C motif) ligand 11	101	82	1.9E-02	0.8	130	73	3.0E-12	0.6	1	11	81876390	cytokine
Birc3	Baculoviral IAP repeat-containing 3	67	80	7.0E-02	1.2	99	55	7.0E-10	0.6	3	9	7848823	enzyme
Eftud2	Elongation factor Tu GTP binding domain containing 2	26	30	2.6E-01	1.2	49	28	1.7E-05	0.6	9	11	102699852	enzyme
Utp11l	UTP11-like, U3 small nucleolar ribonucleoprotein, U3	38	32	3.0E-01	0.9	48	27	2.2E-05	0.6	17	4	124356007	other
Mrt4	MRT4, mRNA turnover 4, homolog (S. cerevisiae)	31	30	8.9E-01	1.0	37	21	2.0E-04	0.6	7	12	20424200	other
Iifi205	Iifi205	311	390	2.5E-07	1.3	507	280	1.2E-45	0.6	3	1	175942143	other
Jundm2	Jun dimerization protein 2	161	117	5.4E-06	0.7	120	66	4.1E-12	0.6	1	12	86980286	other
Mmp13	Matrix metalloproteinase 13	83	96	7.7E-02	1.2	119	65	5.4E-12	0.6	9	9	7283147	peptidase
Ets1	E26 avian leukemia oncogene 1, 5' domain	56	59	5.8E-01	1.1	67	37	2.6E-07	0.6	3	9	32565405	transcription regulator
Lcp2	Lymphocyte cytosolic protein 2	25	32	6.8E-02	1.3	51	28	6.9E-06	0.6	0	11	33991057	other
Thrap1	Thrap1	34	23	2.1E-02	0.7	43	23	4.1E-05	0.6	8	11	86083674	transcription regulator
E430028B21Rik	RIKEN cDNA E430028B21 gene	39	32	1.9E-01	0.8	36	20	1.8E-04	0.6	8	14	27484594	other
B4galt5	B4galt5	848	349	1.7E-134	0.4	502	271	5.6E-48	0.5	6	2	167124014	enzyme
Trim25	Tripartite motif protein 25	162	202	2.3E-04	1.3	498	267	6.0E-48	0.5	10	11	88881317	transcription regulator
Pde2a	Phosphodiesterase 2A, cGMP-stimulated	93	80	9.2E-02	0.9	112	61	1.0E-11	0.5	13	7	108661304	enzyme
Lrch3	Lrch3	36	32	5.2E-01	0.9	77	41	1.8E-08	0.5	18	16	33015699	other
Mtdh	Metadherin	104	130	3.1E-03	1.3	334	177	4.8E-34	0.5	28	15	34043839	other
Stk40	Serine/threonine kinase 40	88	106	2.2E-02	1.2	126	67	7.2E-14	0.5	5	4	125818004	kinase
Uaca	Uveal autoantigen with coiled-coil domains and ar	48	47	8.4E-01	1.0	47	25	7.0E-06	0.5	12	9	60727986	other
AK122525	CDNA sequence AK122525	45	35	6.1E-02	0.8	41	21	1.9E-05	0.5	7	19	44063597	other
BC063749	CDNA sequence BC063749	9	33	5.5E-12	3.6	42	22	2.3E-05	0.5	2	19	47969126	other
D4Ert22e	DNA segment, Chr 4, ERATO Doi 22, expressed	28	30	6.2E-01	1.1	40	21	4.0E-05	0.5	10	4	140671259	other
Mospd2	Motile sperm domain containing 2	21	17	3.4E-01	0.8	27	14	6.0E-04	0.5	8	15	64501599	other
Cd63	Cd63 antigen	580	463	4.9E-10	0.8	890	462	4.0E-92	0.5	95	10	128349820	other
Smoc2	SPARC related modular calcium binding 2	516	424	2.3E-07	0.8	424	222	7.5E-44	0.5	27	17	14541667	other
Igfbp3	Insulin-like growth factor binding protein 3	122	115	4.5E-01	0.9	278	144	4.9E-30	0.5	4	11	7106262	other
Gbp1	Guanylate nucleotide binding protein 1	56	47	1.7E-01	0.9	175	91	1.1E-19	0.5	0	3	142282052	enzyme
Mgst1	Microsomal glutathione S-transferase 1	65	100	1.6E-06	1.5	170	88	3.3E-19	0.5	30	6	138105250	enzyme
Elov1	Elongation of very long chain fatty acids (FEN1/Elo	43	51	1.4E-01	1.2	90	47	2.0E-10	0.5	5	4	118105124	other
Stam	Signal transducing adaptor molecule (SH3 domain)	55	50	3.5E-01	0.9	64	33	7.3E-08	0.5	14	2	14068984	other
LOC545592	Similar to heterogeneous nuclear ribonucleoprotein	27	43	1.2E-03	1.6	56	29	5.0E-07	0.5	10	4	12162928	other
Kctd11	Potassium channel tetramerisation domain co	44	21	6.1E-07	0.5	54	28	6.9E-07	0.5	0	11	69691838	other
Klf10	Kruppel-like factor 10	51	23	6.2E-08	0.5	43	22	1.1E-05	0.5	5	15	38224291	transcription regulator
Rps19bp1	Ribosomal protein S19 binding protein 1	21	20	9.0E-01	1.0	31	16	1.6E-04	0.5	5	15	80091760	other
Fbxl7	F-box and leucine-rich repeat protein 7	16	18	4.8E-01	1.1	30	16	2.0E-04	0.5	6	15	26470280	enzyme
Mbc2	Membrane bound C2 domain containing protein	27	13	2.8E-04	0.5	27	14	3.8E-04	0.5	4	10	127947358	other
Kdelc2	KDEL (Lys-Asp-Glu-Leu) containing 2	21	13	3.2E-02	0.6	26	14	6.4E-04	0.5	6	9	53209801	other
Cxcl2	Chemokine (C-X-C motif) ligand 2	2626	3199	2.9E-39	1.2	4126	2088	0.0E+00	0.5	1	5	91334925	cytokine
Csf1	Colony stimulating factor 1 (macrophage)	577	508	3.2E-04	0.9	815	417	8.6E-88	0.5	9	3	107544351	cytokine
Il1a	Interleukin 1 alpha	451	456	7.8E-01	1.0	399	204	6.7E-44	0.5	0	2	129125412	cytokine
Nol5	Nucleolar protein 5	349	337	4.3E-01	1.0	380	195	1.0E-41	0.5	14	1	59768200	other
Tsc22d2	TSC22 domain family 2	225	114	5.2E-25	0.5	163	83	2.2E-19	0.5	24	3	58265466	other
Bmp2	Bone morphogenetic protein 2	12	28	7.5E-06	2.3	32	16	9.6E-05	0.5	2	2	133387902	growth factor
Pcna	Proliferating cell nuclear antigen	334	335	9.3E-01	1.0	528	265	2.9E-60	0.5	30	19	9358872	other
Ogn	Osteoglycin	517	423	1.4E-07	0.8	373	187	9.3E-43	0.5	88	13	49719664	growth factor
Rtn4	Reticulon 4	80	125	1.9E-08	1.6	268	135	3.5E-31	0.5	15	11	29642916	other

F3	Coagulation factor III	154	145	4.0E-01	0.9	218	108	1.6E-26	0.5	15	3	121437645	transmembrane receptor
Myd88	Myeloid differentiation primary response gene 88	57	86	2.1E-05	1.5	174	87	7.8E-21	0.5	3	9	119245146	other
Bcl2a1d	B-cell leukemic/lymphoma 2 related protein A1d	173	152	4.1E-02	0.9	159	79	1.7E-19	0.5	9	9	89102589	
Smad7	MAD homolog 7 (Drosophila)	49	65	8.6E-03	1.3	101	51	5.5E-13	0.5	3	18	75555462	transcription regulator
Adm	Adrenomedullin	38	35	6.5E-01	0.9	57	29	7.9E-08	0.5	2	7	117772834	other
2410004B18Rik	RIKEN cDNA 2410004B18 gene	28	29	6.3E-01	1.1	49	24	5.6E-07	0.5	13	3	145607216	
Eef1e1	Eukaryotic translation elongation factor 1 epsi	16	22	5.3E-02	1.4	41	21	6.2E-06	0.5	5	13	38737984	translation regulator
Ccl2	Chemokine (C-C motif) ligand 2	3499	2752	3.1E-59	0.8	6737	3314	0.0E+00	0.5	1	11	81850752	cytokine
Atp6v1h	ATPase, H+ transporting, lysosomal V1 subunit H	125	151	6.4E-03	1.2	325	161	7.8E-39	0.5	15	1	5152276	transporter
Papola	Poly (A) polymerase alpha	125	84	9.9E-07	0.7	208	101	1.7E-26	0.5	58	12	107077035	enzyme
Fbn1	Fibulin 1	142	161	6.0E-02	1.1	204	101	4.2E-25	0.5	10	15	85082025	other
Gbp2	Guanylate nucleotide binding protein 2	117	118	8.7E-01	1.0	179	88	1.6E-22	0.5	4	3	142300901	enzyme
Smurf2	SMAD specific E3 ubiquitin protein ligase 2	49	68	2.2E-03	1.4	150	73	1.8E-19	0.5	13	11	106681436	enzyme
Ednrb	Endothelin receptor type B	204	107	6.5E-21	0.5	143	71	6.0E-18	0.5	5	14	104213965	-protein coupled receptor
Irf9	Interferon regulatory factor 9	63	76	4.9E-02	1.2	127	62	7.9E-17	0.5	4	14	56228808	transcription regulator
Ptx3	Pentraxin related gene	108	87	9.2E-03	0.8	127	62	1.0E-16	0.5	3	66028821	other	
Tnfsf9	Tnfsf9	82	64	1.3E-02	0.8	81	40	4.7E-11	0.5	0	17	57247006	cytokine
Vgll3	Vestigial like 3 (Drosophila)	21	29	6.2E-02	1.4	44	21	1.1E-06	0.5	0	16	65866540	other
Mm.393358	4 days neonate male adipose cDNA, RIKEN full-le	64	35	6.4E-07	0.5	44	22	1.7E-06	0.5	3	8	109543376	
Alg11	Asparagine-linked glycosylation 11 homolog (yeas	15	17	4.9E-01	1.1	25	12	3.3E-04	0.5	2	8	23182037	other
Errf1	ERBB receptor feedback inhibitor 1	1604	1445	7.1E-07	0.9	2512	1197	0.0E+00	0.5	14	4	150242862	other
Denr	Density-regulated protein	124	168	5.6E-06	1.4	266	128	6.6E-34	0.5	44	5	124377313	other
Tor1aip1	Torsin A interacting protein 1	75	77	7.1E-01	1.0	216	103	1.1E-28	0.5	22	1	157854151	other
Rgs5	Regulator of G-protein signaling 5	123	71	2.9E-10	0.6	82	40	2.2E-11	0.5	58	1	171625525	other
Cyp27a1	Cytochrome P450, family 27, subfamily a, polypep	28	29	8.5E-01	1.0	27	13	1.5E-04	0.5	4	1	74784310	enzyme
Pnp	Purine-nucleoside phosphorylase	112	216	6.8E-25	1.9	319	149	3.2E-43	0.5	1	14	51584845	
Wdr43	WD repeat domain 43	76	81	4.3E-01	1.1	169	79	1.7E-23	0.5	10	17	72008251	other
Por	P450 (cytochrome) oxidoreductase	236	116	9.4E-28	0.5	152	71	1.5E-21	0.5	21	5	136211129	enzyme
Clec3b	C-type lectin domain family 3, member b	84	124	1.4E-06	1.5	149	71	2.5E-20	0.5	0	9	123066094	other
1810029B16Rik	RIKEN cDNA 1810029B16 gene	33	27	1.5E-01	0.8	71	33	7.3E-11	0.5	8	18	17987722	
Gas7	Growth arrest specific 7	17	29	2.1E-03	1.7	69	32	2.7E-10	0.5	0	11	67498476	transcription regulator
Atp8b1	ATPase, class I, type 8B, member 1	51	31	1.5E-04	0.6	64	30	8.0E-10	0.5	2	18	64688921	transporter
Nol5a	Nucleolar protein 5A	18	34	1.4E-04	1.8	44	21	6.5E-07	0.5	2	20	153867596	other
Alkbh1	AlkB, alkylation repair homolog 1 (E. coli)	15	21	9.1E-02	1.4	44	21	6.5E-07	0.5	4	12	88769054	other
Rtnr4l2	Reticulon 4 receptor-like 2	17	13	2.1E-01	0.8	23	11	2.7E-04	0.5	0	2	84711534	other
Il1b	Interleukin 1 beta	208	210	8.8E-01	1.0	173	80	7.4E-25	0.5	0	2	129190624	cytokine
2500003M10Rik	RIKEN cDNA 2500003M10 gene	101	67	8.8E-06	0.7	101	46	4.0E-15	0.5	45	19	11951313	
Adora2b	Adenosine A2b receptor	51	22	1.3E-08	0.4	35	16	4.5E-06	0.5	0	11	62079380	-protein coupled receptor
Kctd6	Potassium channel tetramerisation domain contain	10	16	2.5E-02	1.6	35	16	4.5E-06	0.5	2	14	905935	ion channel
Hbegf	Heparin-binding EGF-like growth factor	274	242	1.7E-02	0.9	650	293	2.9E-92	0.5	62	18	36664667	growth factor
Gadd45b	Growth arrest and DNA-damage-inducible 45 beta	50	47	5.8E-01	0.9	250	113	1.7E-36	0.5	7	10	80393060	
Prep	Proline arginine-rich end leucine-rich repeat	176	103	8.5E-14	0.6	107	48	1.3E-16	0.5	2	1	135806961	other
Oasl2	2'-5' oligoadenylate synthetase-like 2	82	60	1.7E-03	0.7	82	37	8.1E-13	0.5	0	5	115362091	
Fas	Fas (TNF receptor superfamily member 6)	76	25	9.4E-18	0.3	55	25	2.4E-09	0.5	13	19	34402056	transmembrane receptor
Nmb	Neuremedin B	52	21	1.1E-09	0.4	33	15	4.5E-06	0.5	2	7	88049050	other
Adamtsl2	ADAMTS-like 2	2	3	4.5E-01	1.4	19	9	6.4E-04	0.5	2	2	26964467	other
Ccl7	Ccl7	5019	2281	0.0E+00	0.5	3519	1551	0.0E+00	0.4	2	11	81860822	cytokine
Timm8a1	Translocase of inner mitochondrial membrane 8 h	64	34	2.8E-07	0.5	70	31	1.1E-11	0.4	31	10	11330167	
Nrf1	Nuclear respiratory factor 1	12	13	7.2E-01	1.1	20	9	3.6E-04	0.4	5	6	30103391	transcription regulator
Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, m	1050	427	9.0E-169	0.4	892	381	2.1E-139	0.4	53	5	137537492	other
Mat2a	Methionine adenosyltransferase II, alpha	130	208	6.2E-14	1.6	455	195	9.5E-72	0.4	31	6	72382914	enzyme
Vasn	Vasorin	660	253	2.5E-117	0.4	415	180	2.4E-64	0.4	8	16	4650616	other
Tcf21	Transcription factor 21	217	149	1.2E-09	0.7	191	82	8.4E-31	0.4	1	10	22537316	transcription regulator
Abcb1b	ATP-binding cassette, sub-family B (MDR/TAP), m	52	33	3.7E-04	0.6	48	21	1.1E-08	0.4	4	5	8866142	
Peg10	Paternally expressed 10	15	15	9.4E-01	1.0	23	10	9.0E-05	0.4	0	6	4710008	other
AI552584	Expressed sequence AI552584	16	13	4.6E-01	0.8	19	8	2.7E-04	0.4	5	6	22206000	
Fgl2	Fibrinogen-like protein 2	260	308	4.9E-04	1.2	419	177	3.7E-68	0.4	78	5	20884092	peptidase
Areg	Amphiregulin	161	106	6.9E-09	0.7	143	60	7.4E-25	0.4	5	5	91577385	growth factor
Lrrc59	Lrrc59	21	48	3.6E-09	2.3	119	50	8.5E-21	0.4	4	11	94505075	other
1100001H23Rik	RIKEN cDNA 1100001H23 gene	62	44	2.6E-03	0.7	61	26	5.0E-11	0.4	31	6	136560717	
Pcdh9	Pcdh9	31	24	1.0E-01	0.8	48	20	4.8E-09	0.4	2	14	94284014	other
BC067047	CDNA sequence BC067047	21	22	7.0E-01	1.1	39	17	1.2E-07	0.4	1	2	166391883	other
Efh1	EF hand domain containing 1	26	36	3.3E-02	1.4	31	13	2.4E-06	0.4	1	1	89207392	other
Mgl2	Macrophage galactose N-acetyl-galactosamine sp	29	26	4.9E-01	0.9	25	11	2.9E-05	0.4	0	11	69950454	
BC013712	CDNA sequence BC013712	4	12	1.1E-04	3.3	31	12	1.3E-06	0.4	4	4	132337926	other
Zfp800	Zinc finger protein 800	10	15	5.1E-02	1.6	18	8	2.6E-04	0.4	0	6	28190292	
Hmx1	Heme oxygenase (decycling) 1	2430	827	0.0E+00	0.3	1456	576	2.9E-258	0.4	5	8	77624257	enzyme
Tlr2	Toll-like receptor 2	242	429	2.0E-37	1.8	1126	446	1.8E-199	0.4	0	3	83640720	transmembrane receptor
Etck1	Ethanolamine kinase 1	81	47	3.3E-07	0.6	79	32	5.4E-15	0.4	20	6	143156894	kinase

Larp6	La ribonucleoprotein domain family, member 6	24	15	1.8E-02	0.6	28	11	2.8E-06	0.4	9	60586279	other	
Mkl1	Mixed lineage kinase domain-like	10	6	8.5E-02	0.6	25	10	1.2E-05	0.4	1	113835795	kinase	
Nfx1	Nuclear transcription factor, X-box binding-like 1	18	10	1.4E-02	0.6	15	6	5.8E-04	0.4	4	72904815	transcription regulator	
Ngfb	Nerve growth factor, beta	480	346	1.5E-15	0.7	576	223	1.9E-107	0.4	1	10324866	growth factor	
Ifrd1	Interferon-related developmental regulator 1	453	253	7.0E-38	0.6	365	144	1.0E-66	0.4	72	40930527	other	
Krr1	KRR1, small subunit (SSU) processome compone	37	36	8.5E-01	1.0	83	32	9.1E-17	0.4	13	111423077	other	
Lamc2	Lamc2	12	15	3.3E-01	1.2	17	7	1.8E-04	0.4	4	154969921	other	
Traf3ip2	Traf3 interacting protein 2	16	8	1.6E-02	0.5	15	6	4.3E-04	0.4	4	39374598	other	
Erb2	ErbB2 interacting protein	60	90	1.1E-05	1.5	332	125	4.5E-65	0.4	16	104609399	cytokine	
Ell	Elongation factor RNA polymerase II	14	25	1.5E-03	1.8	50	19	6.8E-11	0.4	2	73116602	transcription regulator	
Rcl1	RNA terminal phosphate cyclase-like 1	66	24	4.3E-14	0.4	49	18	4.2E-11	0.4	4	29218276	enzyme	
Tsr1	TSR1, 20S rRNA accumulation, homolog (yeast)	62	33	4.4E-07	0.5	46	17	1.7E-10	0.4	13	74722724	other	
Srfbp1	Serum response factor binding protein 1	21	21	9.7E-01	1.0	46	17	2.3E-10	0.4	3	52650392	other	
Tspan13	Tetraspanin 13	22	18	3.1E-01	0.8	42	16	1.3E-09	0.4	9	36741484	other	
Ggta1	Gamma-glutamyltransferase-like activity 1	17	14	2.9E-01	0.8	19	7	3.9E-05	0.4	1	75077870	enzyme	
Psen1	Presenilin 1	16	8	5.5E-03	0.5	14	5	5.3E-04	0.4	3	85075929	peptidase	
Aldh1a1	Aldehyde dehydrogenase family 1, subfamily A1	5	3	1.9E-01	0.5	13	5	7.0E-04	0.4	0	20717881	enzyme	
Ninj1	Ninjurin 1	216	125	5.3E-17	0.6	160	58	8.6E-34	0.4	22	49291504	other	
Efemp1	Epidermal growth factor-containing fibulin-like extr	88	40	1.2E-12	0.5	60	21	9.9E-14	0.4	2	28826655	other	
Itga8	Integrin alpha 8	15	10	6.9E-02	0.6	17	6	8.5E-05	0.4	1	12028307	other	
Trip2	TNFAIP3 interacting protein 2	27	35	6.6E-02	1.3	66	23	2.2E-15	0.4	5	34838881	other	
Dph2	DPH2 homolog (S. cerevisiae)	13	7	2.0E-02	0.5	15	5	2.0E-04	0.4	3	117561674	other	
Thbd	Thrombomodulin	494	395	1.1E-08	0.8	498	158	5.1E-122	0.3	20	148230235	transmembrane receptor	
Nasp	Nuclear autoantigenic sperm protein (histone-bind	61	98	2.2E-07	1.6	242	77	7.2E-60	0.3	5	116274325	other	
Rap2a	RAS related protein 2a	31	37	1.8E-01	1.2	139	45	1.0E-34	0.3	10	120906331	enzyme	
Inmt	Indolethylamine N-methyltransferase	34	27	1.2E-01	0.8	15	5	6.5E-05	0.3	0	55120755	other	
Ccl3	Chemokine (C-C motif) ligand 3	456	514	1.2E-03	1.1	1172	363	2.4E-292	0.3	0	83461414	cytokine	
Ctds12	CTD (carboxy-terminal domain, RNA polymerase	13	10	3.2E-01	0.8	32	10	1.1E-09	0.3	4	121839113	other	
Sfrs10	Splicing factor, arginine/serine-rich 10 (transforme	342	362	1.9E-01	1.1	1346	390	0.0E+00	0.3	58	31619223	other	
Prkc1	Protein kinase C, iota	45	59	2.3E-02	1.3	250	74	1.1E-67	0.3	10	30951569	kinase	
Ms444d	Membrane-spanning 4-domains, subfamily A, mem	156	81	6.9E-17	0.5	162	48	1.6E-44	0.3	2	11632884	other	
Atp13a1	ATPase type 13A1	10	12	4.3E-01	1.2	77	23	7.7E-22	0.3	3	72331102	transporter	
Lrrc8a	Leucine rich repeat containing 8A	53	15	1.8E-15	0.3	35	10	1.0E-10	0.3	19	30119237	other	
LOC544988	LOC544988	5	9	3.2E-02	1.9	24	7	8.2E-08	0.3	1	6071396	other	
Sema3c	Sema domain, immunoglobulin domain (Ig), short	70	46	1.2E-04	0.7	62	17	6.1E-19	0.3	10	17236017	other	
Idi1	Isopentenyl-diphosphate delta isomerase	11	15	2.3E-01	1.3	47	13	1.5E-14	0.3	2	111268326	enzyme	
Eme1	Essential meiotic endonuclease 1 homolog 1 (S. p	9	10	5.7E-01	1.1	22	6	1.5E-07	0.3	2	94506516	other	
Fjx1	Four jointed box 1 (Drosophila)	5	4	5.4E-01	0.8	9	3	7.7E-04	0.3	2	102289677	other	
Msc	Musculin	15	36	1.4E-07	2.4	65	17	8.4E-21	0.3	0	14743469	transcription regulator	
Klhl15	Kelch-like 15 (Drosophila)	4	2	2.8E-01	0.6	10	3	2.4E-04	0.3	1	91499311	other	
Slc39a1	Slc39a1	41	92	2.0E-15	2.2	332	81	9.1E-107	0.3	8	90057332	transporter	
Csf3	Colony stimulating factor 3 (granulocyte)	184	179	6.5E-01	1.0	304	77	4.5E-95	0.3	0	98564857	other	
BB128963	BB128963	9	7	5.5E-01	0.8	12	3	4.2E-05	0.3	3	71485482	other	
Trhde	TRH-degrading enzyme	5	6	6.6E-01	1.1	12	3	4.2E-05	0.3	0	113836536	peptidase	
Evi1	Ecotropic viral integration site 1	4	4	7.2E-01	1.1	11	3	1.6E-04	0.3	0	29850314	other	
Ccdc137	Coiled-coil domain containing 137	18	19	7.9E-01	1.0	60	14	3.4E-21	0.2	3	120325641	other	
Sf3b3	Splicing factor 3b, subunit 3	14	27	1.7E-04	2.0	142	32	3.1E-50	0.2	7	113344736	other	
Utp3	UTP3, small subunit (SSU) processome compone	10	17	1.8E-02	1.7	106	25	1.2E-36	0.2	4	89894503	other	
Xab2	XPA binding protein 2	17	16	9.9E-01	1.0	81	18	4.1E-29	0.2	7	3610133	other	
BC011487	CDNA sequence BC011487	6	7	5.6E-01	1.2	13	3	1.3E-05	0.2	0	42573061	other	
Pomt2	Protein-O-mannosyltransferase 2	4	1	6.8E-02	0.3	10	2	1.9E-04	0.2	0	88449821	enzyme	
Tmem167	Transmembrane protein 167	22	24	5.5E-01	1.1	156	34	1.1E-55	0.2	8	90244148	other	
Cxcl3	Chemokine (C-X-C motif) ligand 3	166	67	2.4E-28	0.4	113	25	2.0E-41	0.2	5	91216932	other	
Ttf1	Ttf1	8	6	5.4E-01	0.8	34	8	3.2E-13	0.2	4	28943082	transcription regulator	
EG668139	Predicted gene, EG668139	15	12	3.2E-01	0.8	26	6	2.3E-10	0.2	0	113647919	other	
Aloxe3	Arachidonate lipoxygenase 3	4	2	4.6E-01	0.7	9	2	3.4E-04	0.2	11	68962464	enzyme	
Stk38l	Serine/threonine kinase 38 like	39	50	3.3E-02	1.3	333	70	1.4E-121	0.2	7	4643669	kinase	
Synj1	Synaptojanin 1	11	17	3.2E-02	1.6	70	15	1.2E-26	0.2	3	90937363	phosphatase	
E430025E21Rik	RIKEN cDNA E430025E21 gene	47	61	1.6E-02	1.3	346	69	8.0E-132	0.2	23	59163683	other	
Cdc42ep4	CDC42 effector protein (Rho GTPase binding) 4	21	32	7.7E-03	1.5	166	34	4.8E-63	0.2	3	113588210	other	
Fgf10	Fibroblast growth factor 10	5	2	1.3E-01	0.5	7	2	5.8E-04	0.2	0	13	119579634	growth factor
Chrd	Chordin	5	9	4.6E-02	1.8	34	6	6.2E-15	0.2	0	20742244	other	
Mm.441364	CDNA clone IMAGE:3667370	7	4	2.2E-01	0.6	11	2	4.6E-06	0.2	0	109124898	other	
Retnla	Resistin like alpha	17	23	1.0E-01	1.3	11	2	1.1E-05	0.2	16	48844491	other	
Ddx20	DEAD (Asp-Glu-Ala-Asp) box polypeptide 20	2	2	4.4E-01	1.5	7	1	6.3E-04	0.2	1	105481458	transcription regulator	
Slc7a8	Solute carrier family 7 (cationic amino acid transp	63	81	9.7E-03	1.3	385	61	1.1E-168	0.2	1	55341071	transporter	
Dtx4	Deltex 4 homolog (Drosophila)	24	41	1.4E-04	1.7	218	32	3.3E-101	0.2	0	12540863	other	
Ccbe1	Collagen and calcium binding EGF domains 1	15	5	1.1E-04	0.3	7	1	1.6E-04	0.2	3	66216573	other	
Rio1	RIO kinase 1 (yeast)	23	21	5.0E-01	0.9	202	28	2.4E-96	0.1	5	38152980	kinase	

Darc	Duffy blood group, chemokine receptor	8	2	1.8E-03	0.2	8	1	6.5E-05	0.1	1	175262052	γ-protein coupled receptor	
Sla	Src-like adaptor	3	8	1.2E-02	2.3	8	1	6.5E-05	0.1	15	66612470	other	
Ccl24	Chemokine (C-C motif) ligand 24	36	43	1.3E-01	1.2	29	4	1.7E-15	0.1	0	5	136046497	cytokine
Dnmt3l	DNA (cytosine-5-)-methyltransferase 3-like	4	1	5.5E-02	0.3	12	2	2.8E-07	0.1	0	10	77526299	
Tcf15	Transcription factor 15	13	5	1.5E-03	0.4	30	2	3.3E-19	0.1	4	2	151974553	transcription regulator
C130026I21Rik	RIKEN cDNA C130026I21 gene	9	22	9.1E-06	2.6	552	33	0.0E+00	0.1	1	1	87345248	
Colec10	Collectin sub-family member 10	1	4	1.6E-02	3.8	106	1	1.9E-88	0.0	0	15	54297713	other
Gm1381	Gm1381	0	0	9.8E-01	0.0	9	0	1.5E-08	0.0	0	5	93003863	
Mybphl	Myosin binding protein H-like	0	1	1.7E-01	4.7	4	0	5.2E-04	0.0	1	3	108177692	other

Supplemental Table 1. (Excel file)

Non-myocytes were isolated from hearts of untreated (No CsA) and cyclosporine (CsA)-treated wildtype (WT) and α MHC^{403/+} (403) mice. GeneID is the RefGene identification. RNA levels were assessed by DSAGE and tag counts per gene are expressed as tag counts per million total counts. P-values reflect the comparison of WT versus α MHC^{403/+} non-myocyte RNA tag counts. Fold change indicates the ratio of α MHC^{403/+} to WT non-myocyte RNA expression. Cell cycle-control genes are indicated in **bold**. Chr, chromosome number. Position, chromosomal position; Geneclass_ingen, gene class as determined by Ingenuity Pathway Analysis software.

Supplemental Table 2: Non-myocyte RNAs with ≥ 7 fold increased expression in the α MHC^{403/+} CsA heart

GeneID	Title	No CsA				CsA			
		WT	403	p-value	Fold	WT	403	p-Value	Fold
Cthrc1	Collagen triple helix repeat containing 1	1	6	6.5E-05	9.4	1	78	2.7E-74	141.2
Col11a1	Collagen, type XI, alpha 1	0	1	5.4E-02	10.0	0	38	3.9E-37	139.2
BC052328	CDNA sequence BC052328	8	9	4.7E-01	1.2	0	13	1.5E-12	47.8
Thoc4	THO complex 4	8	9	7.8E-01	1.1	0	12	4.3E-11	42.3
Adam8	A disintegrin and metallopeptidase domain 8	7	13	2.2E-02	1.8	2	49	1.8E-38	22.0
Spp1	Secreted phosphoprotein 1	43	105	3.0E-20	2.4	39	828	0.0E+00	21.1
Col16a1	Collagen, type XVI, alpha 1	7	13	1.2E-02	1.9	2	45	9.6E-34	17.9
Postn	Periostin, osteoblast specific factor (1)	108	391	3.8E-123	3.6	147	2498	0.0E+00	17.0
Eln	Elastin(2, 3)	14	48	2.5E-15	3.4	15	230	7.1E-162	15.4
B4galnt1	Beta-1,4-N-acetyl-galactosaminyl transferase 1	1	6	1.2E-03	4.7	1	17	3.5E-13	15.4
Ahsg	Alpha-2-HS-glycoprotein	7	11	8.6E-02	1.6	2	34	9.6E-25	15.2
0610007N19Rik	RIKEN cDNA 0610007N19 gene	5	5	9.4E-01	0.9	1	12	6.2E-10	15.0
Mfap2	Microfibrillar-associated protein 2	9	14	1.1E-01	1.5	5	71	1.9E-49	14.2
Crlf1	Cytokine receptor-like factor 1	8	29	2.8E-11	3.8	7	97	3.7E-67	14.0
Dusp4	Dual specificity phosphatase 4 (4)	36	26	4.6E-02	0.7	15	213	1.3E-145	14.0
5730596K20Rik	RIKEN cDNA 5730596K20 gene	7	4	1.2E-01	0.5	1	7	5.5E-06	13.0
Fxyd6	FXDY domain-containing ion transport regulator 6	7	13	1.3E-02	1.9	3	36	2.1E-24	11.8
Top2a	Topoisomerase (DNA) II alpha	3	3	1.0E+00	0.9	1	9	2.9E-07	11.4
Birc5	Baculoviral IAP repeat-containing 5	5	2	6.2E-02	0.4	1	9	6.2E-07	10.9
Serpina3a	Serine (or cysteine) peptidase inhibitor, clade A, member 3A	5	6	6.0E-01	1.2	2	17	5.1E-12	10.5
Tnfrsf11b	TNF receptor superfamily, member 11b (osteoprotegerin)	5	10	2.4E-02	1.9	7	69	1.2E-43	10.4
Tnc	Tenascin C (5, 6, 7)	22	92	2.7E-34	4.1	89	915	0.0E+00	10.2
Skp2	S-phase kinase-associated protein 2 (p45)	1	2	1.6E-01	2.3	1	6	1.2E-04	10.2
6330503K22Rik	RIKEN cDNA 6330503K22 gene	6	7	4.3E-01	1.3	0	13	1.7E-13	10.0
9430028L06Rik	RIKEN cDNA 9430028L06 gene	0	2	5.7E-02	4.7	0	11	1.2E-11	10.0
Zbtb46	Zinc finger and BTB domain containing 46	5	5	9.4E-01	1.0	0	7	1.6E-07	10.0
Sdc1	Syndecan 1	12	18	2.8E-02	1.6	13	127	4.1E-76	9.6
Vsig4	V-set and immunoglobulin domain containing 4	4	13	1.3E-05	3.6	1	13	3.7E-09	9.6
Timp1	Tissue inhibitor of metalloproteinase 1 (5,6)	123	175	1.2E-07	1.4	185	1587	0.0E+00	8.6
Col1a2	Collagen, type I, alpha 2 (6)	195	214	1.1E-01	1.1	102	865	0.0E+00	8.5
F10	Coagulation factor X	3	7	3.3E-02	2.2	2	21	6.0E-13	8.3

Col3a1	Collagen, type III, alpha 1 (6)	209	447	2.1E-62	2.1	336	2755	0.0E+00	8.2
Glpr2	GLI pathogenesis-related 2	4	4	7.8E-01	0.9	2	18	4.6E-11	8.0
Ldlrad3	Low density lipoprotein receptor class A domain containing 3	7	5	2.9E-01	0.7	1	11	5.9E-07	7.6
Col1a1	Collagen, type I, alpha 1 (6)	285	449	1.1E-26	1.6	274	2048	0.0E+00	7.5
Slpi	Secretory leukocyte peptidase inhibitor	3	7	1.5E-02	2.5	5	37	7.7E-21	7.4
Ltbp2	Latent transforming growth factor beta binding protein 2 (8, 9)	8	24	1.3E-07	3.1	9	66	8.1E-36	7.4
Fkhl18	Forkhead-like 18 (Drosophila)	4	7	7.0E-02	1.9	9	68	9.4E-37	7.4
Gdf6	Growth differentiation factor 6	6	5	4.9E-01	0.8	1	10	1.2E-06	7.4
Arg2	Arginase type II	12	12	9.2E-01	1.0	5	37	1.5E-20	7.4
Nnmt	Nicotinamide N-methyltransferase	8	5	1.9E-01	0.6	1	10	2.4E-06	7.1
Ttc9	Tetratricopeptide repeat domain 9	5	14	8.1E-05	2.9	6	41	1.8E-22	7.1
Trim59	Tripartite motif-containing 59	5	13	1.0E-03	2.4	2	15	3.1E-09	7.0
Sec61b	Sec61 beta subunit	10	9	6.6E-01	0.9	2	17	3.4E-10	7.0

Non-myocytes were isolated from hearts of untreated (No CsA) and cyclosporine-treated (CsA) wildtype (WT) and α MHC^{403/+} (403) mice. GeneID denotes the RefGene identification. RNA levels were assessed by DSAGE. Tag counts per million RNA tags are shown. P-values reflect the comparison of WT versus α MHC^{403/+} non-myocyte RNA tag counts. Fold change indicates the ratio of α MHC^{403/+} to WT non-myocyte RNA expression. Tgf β responsive genes are indicated in **bold**.

Supplemental Table 3. Gene Ontology (GO) analysis

Domain ^A	GO ID	GO Term	Count/ List Total	Pop Hits/ Pop Total	Fold Enrich- ment	p value	Bonferroni
BP	GO:0009611	Response to wounding	63/991	318/14977	3.0	7.0E-15	3.9E-11
BP	GO:0006954	Inflammatory response	48/991	227/14977	3.2	1.6E-12	8.0E-09
BP	GO:0048519	Negative regulation of biological process	128/991	1029/14977	1.9	2.3E-12	1.2E-08
MF	GO:0030020	ECM constituent conferring tensile strength	17/1067	29/16377	9.0	2.8E-12	7.6E-09
BP	GO:0048523	Negative regulation of cellular process	120/991	963/14977	1.9	1.1E-11	5.8E-08
BP	GO:0048518	Positive regulation of biological process	122/991	1024/14977	1.8	1.4E-10	7.3E-07
BP	GO:0048731	System development	182/991	1749/14977	1.6	2.1E-10	1.1E-06
BP	GO:0048513	Organ development	149/991	1416/14977	1.6	6.7E-09	3.5E-05
BP	GO:0008219	Cell death	88/991	725/14977	1.8	3.45E-08	1.7E-04
BP	GO:0043067	Regulation of programmed cell death	64/991	467/14977	2.1	4.4E-08	2.3E-04
BP	GO:0048522	Positive regulation of cellular process	102/991	896/14977	1.7	6.2E-08	3.2E-04
BP	GO:0030154	Cell differentiation	179/991	1847/14977	1.5	6.7E-08	3.5E-04
MF	GO:0030247	Polysaccharide binding	21/1067	89/16377	3.6	8.3E-07	0.0023
BP	GO:0006935	Chemotaxis	24/991	113/14977	3.2	1.1E-06	0.0056
BP	GO:0042330	Taxis	24/991	113/14977	3.2	1.1E-06	0.0056
BP	GO:0042127	Cell proliferation	50/991	374/14977	2.0	3.3E-06	0.017
MF	GO:0005102	Receptor binding	76/1067	677/16377	1.7	3.9E-06	0.011
BP	GO:0016477	Cell migration	42/991	302/14977	2.1	8.6E-06	0.044

^AHeadings: Domain, BP (Biological Process) and MF (Molecular Function); Count/List Total, number of involved genes in individual GO term/number of differentially expressed genes identified by DSAGE ($\leq 1,317$ genes); Pop Hits/Pop Total, number of involved genes in individual GO term/number of total genes in mouse genome background ($\sim 15,000$ - $16,500$)

genes); Fold Enrichment, ratio of gene enrichment compared to the mouse genome background (≥ 1.5); p value, Modified Fisher's Exact p value to reflect significance of gene enrichment in GO terms; Bonferroni, multiple testing correction of p value ($p < 0.05$).

Supplemental Methods:

Immunohistochemical detection of pSmad2. Cardiac tissues were harvested and processed as described in Methods. Sections were subsequently deparaffinized in xylene and rehydrated through ethanol gradient solutions. The sections were washed 5 minutes at RT in immunostain wash buffer (GeneTex Inc., GTX73344) and heat-induced antigen retrieval was performed in citric acid buffer, pH 6.0. The slides were cooled to RT for 20 minutes, rinsed in water for 3 minutes x 5 at RT and blocked with immunostain blocker solution (GeneTex Inc, GTX73323) for 2 minutes at 40°C. The sections were then washed with immunostain wash buffer for 1 minute x 5 at RT and incubated in 1% hydrogen peroxide/water solution for 2 minutes at 40°C. The sections were subsequently washed with immunostain wash buffer 1 minute x 4 at RT, blocked in 1.5% normal goat serum in PBS-0.1%TritonX-100 overnight at 4°C, and incubated with anti-pSmad2 rabbit polyclonal antibodies (Cell Signaling #3101, 1:100 dilution in PBS) for 30 minutes at 40°C. After washing the sections for 1 minute x 5, the sections were incubated with biotinylated anti-rabbit antibodies (VectaStain Elite Kit, 1:200 dilution in PBS) for 20 minutes at 40°C and incubated with ABC reagent for 10 minutes at 40°C. The slides was incubated with AEC chromogen (BD Elispot, #551951) for 10 minutes at 40°C, counterstained with hematoxylin and mounted with Aqua/Poly mount (Polysciences Inc., #18606).

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