

Gene ID	Symbol	Description	DEG/Set count	DEG Fold-Change						Literature-Mining (Aging-Cholesterol literature)		
				2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT			
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
14125	Fcεr1a	Fc receptor, IgE, high affinity I, alpha polypeptide	4		3.44	2.43		4.54	3.20			
73690	Glipr1	GLI pathogenesis-related 1 (glioma)	4		2.04	2.17		7.33	6.33			
217304	Cd300lb	CD300 antigen like family member B	4		1.91	2.09		4.08	4.06			
14528	Gch1	GTP cyclohydrolase 1	4			1.98	1.70	2.66	1.57			
15442	Hpse	heparanase	4		1.40	1.98		5.24	4.71			
56193	Plek	pleckstrin	4		1.68	1.90		7.26	5.33			
27384	Akr1c13	aldo-keto reductase family 1, member C13	4		1.63	1.84		2.12	1.69			
23890	Gpr34	G protein-coupled receptor 34	4		1.77	1.83		3.38	2.81			
217303	Cd300a	CD300A antigen	4		1.79	1.78		2.94	3.02			
13058	Cybb	cytochrome b-245, beta polypeptide	4		1.64	1.76		5.67	4.65	2	4.8	0.13
20321	Frrs1	ferric-chelate reductase 1	4		1.70	1.76		2.48	3.16			
18173	Slc11a1	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1	4		1.54	1.71		3.28	2.88			
107321	Lpxn	leupaxin	4		1.67	1.70		7.15	5.81			
11520	Plin2	perilipin 2	4		1.51	1.62		1.56	1.49			
19734	Rgs16	regulator of G-protein signaling 16	4		1.50	1.59		1.94	1.66			
15900	Irf8	interferon regulatory factor 8	4		1.52	1.58		3.90	3.69			
75345	Slamf7	SLAM family member 7	4		1.65	1.54		3.55	4.21			
13057	Cyba	cytochrome b-245, alpha polypeptide	4		1.31	1.54		2.26	1.94	4	15.1	1.15E-03
52855	Lair1	leukocyte-associated Ig-like receptor 1	4		1.66	1.53		4.14	3.32			
13025	Ctla2b	cytotoxic T lymphocyte-associated protein 2 beta	4		1.73	1.49		2.09	2.23			
100504230	LOC100504230	uncharacterized LOC100504230	4		1.31	1.42		2.81	2.71			
13051	Cx3cr1	chemokine (C-X3-C) receptor 1	4		1.38	1.41		2.00	1.80	1	8.2	0.19
227620	Uap111	UDP-N-actetylglucosamine pyrophosphorylase 1-like 1	4		1.34	1.28		1.40	1.25			
208748	Prrg3	proline rich Gla (G-carboxyglutamic acid) 3 (transmembrane)	4			-1.29	-1.30	-1.73	-1.33			
235293	Sc5d	sterol-C5-desaturase (fungal ERG3, delta-5-desaturase) homolog (S. cerevisiae)	4			-1.38	-1.53	-2.31	-1.51			
105785	Kdelr3	KDEL (Lys-Asp-Glu-Leu) endoplasmic reticulum protein retention receptor 3	4			-1.38	-1.49	-2.00	-1.34			
16835	Ldlr	low density lipoprotein receptor	4			-1.42	-1.26	-1.75	-1.38	97	48.9	1.30E-122
16948	Lox	lysyl oxidase	4			-1.43	-1.42	-3.07	-2.17			
107993	Bfsp2	beaded filament structural protein 2, phakinin	4		-1.69	-1.54		-2.69	-2.15			
74754	Dhcr24	24-dehydrocholesterol reductase	4			-1.79	-1.76	-2.77	-1.58	5	246.1	5.52E-10
12970	Crygs	crystallin, gamma S	4	-2.40	-3.10	-2.03			-2.41			
16840	Lect1	leukocyte cell derived chemotaxin 1	4			-2.49	-2.76	-5.42	-1.97	2	72.3	2.34E-03
21844	Tiam1	T-cell lymphoma invasion and metastasis 1	4	-1.40	-1.33			-1.49	-1.42			
16071	Igkc	immunoglobulin kappa constant	3			8.17	7.91	15.92				
12722	Clca1	chloride channel calcium activated 1	3			4.10		4.81	2.16			
109225	Ms4a7	membrane-spanning 4-domains, subfamily A, member 7	3		2.14	3.32	2.08					
12483	Cd22	CD22 antigen	3			3.23		15.95	9.71			
12523	Cd84	CD84 antigen	3		2.75	2.99		8.43				
21956	Tnnt2	troponin T2, cardiac	3			2.83		-2.40	-2.65	1	1.1	0.66
100034251	Gm11428	predicted gene 11428	3			2.73		4.62	2.65			
11813	Apoc2	apolipoprotein C-II	3		3.11	2.69		6.78		5	62.9	3.12E-07
57266	Cxcl14	chemokine (C-X-C motif) ligand 14	3		2.23	2.66		7.02				
64929	Scel	sciellin	3			2.60	2.77		-1.84			
12514	Cd68	CD68 antigen	3		1.97	2.59		5.18		2	1.7	0.40
74096	Hvcn1	hydrogen voltage-gated channel 1	3			2.38		3.46	2.96			
11303	Abca1	ATP-binding cassette, sub-family A (ABC1), member 1	3		1.38	2.22	1.82			54	157.4	5.86E-95
11865	Arntl	aryl hydrocarbon receptor nuclear translocator-like	3			2.13		-1.55	-2.04			
12931	Crif1	cytokine receptor-like factor 1	3			2.07		4.44	2.80			
21923	Tnc	tenascin C	3			2.06		5.20	3.06			
16369	Irs3	insulin receptor substrate 3	3			2.01		-1.81	-1.70			
12223	Btc	betacellulin, epidermal growth factor family member	3		1.88	1.94		5.04				
13040	Ctss	cathepsin S	3		1.54	1.84			2.02	1	10.1	0.17
16854	Lgals3	lectin, galactose binding, soluble 3	3		1.61	1.82		2.54				
15559	Htr2b	5-hydroxytryptamine (serotonin) receptor 2B	3			1.75		5.18	3.21	4	0.6	0.41
74202	Fblim1	filamin binding LIM protein 1	3			1.72		2.59	1.99			
231842	Amz1	archaelysin family metalloproteinase 1	3			1.69		3.49	3.06			
20787	Sreb1f	sterol regulatory element binding transcription factor 1	3			1.68		1.41	1.49	7	32.7	4.57E-08
16068	Il18bp	interleukin 18 binding protein	3			1.68		3.83	3.69			
54635	Pdgfc	platelet-derived growth factor, C polypeptide	3			1.64		2.08	1.69			
170743	Tlr7	toll-like receptor 7	3			1.62		4.11	3.51			
68279	Mcoln2	mucoilin 2	3			1.60		4.26	4.65			
234878	BC021891	cDNA sequence BC021891	3			1.57	1.68		-1.57			
12506	Cd48	CD48 antigen	3			1.55		4.15	3.75			
14131	Fcgr3	Fc receptor, IgG, low affinity III	3			1.54		2.94	2.66			
14130	Fcgr2b	Fc receptor, IgG, low affinity IIb	3			1.52		3.36	2.45			
20423	Shh	sonic hedgehog	3			1.52	1.54	1.63		2	3	0.22
12262	C1qc	complement component 1, q subcomponent, C chain	3		1.49	1.51		3.52				
18573	Pde1a	phosphodiesterase 1A, calmodulin-dependent	3			1.50		1.79	1.63			
223433	Fam105a	family with sequence similarity 105, member A	3			1.49		2.94	2.16			
67844	Rab32	RAB32, member RAS oncogene family	3			1.48		2.28	1.77			
246746	Cd300lf	CD300 antigen like family member F	3			1.45		2.01	1.94			
66102	Cxcl16	chemokine (C-X-C motif) ligand 16	3			1.44		3.05	2.57			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
22177	Tyrobp	TYRO protein tyrosine kinase binding protein	3			1.44		2.27				
74211	1700017B05Rik	RIKEN cDNA 1700017B05 gene	3			1.42		1.95	2.03			
12362	Casp1	caspase 1	3			1.42		2.43	2.02	1	1	0.67
11810	Apobec1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	3			1.41		2.56	2.10	1	15.7	0.13
18414	Osmr	oncostatin M receptor	3			1.38		1.82	1.44			
16658	Mafb	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein B (avian)	3			1.38		2.72	2.54			
18991	Pou3f1	POU domain, class 3, transcription factor 1	3			1.35		1.56	1.35			
70356	St13	suppression of tumorigenicity 13	3	1.27		1.33		1.24				
14860	Gsta4	glutathione S-transferase, alpha 4	3			1.32		-1.34	-1.50			
21937	Tnfrsf1a	tumor necrosis factor receptor superfamily, member 1a	3			1.31		1.53	1.47	2	1.9	0.35
12661	Ch1	cell adhesion molecule with homology to L1CAM	3			1.29		1.57	1.23			
11855	Arhgap5	Rho GTPase activating protein 5	3			1.22		-1.20	-1.31			
270097	Vat1l	vesicle amine transport protein 1 homolog-like (T. californica)	3			-1.13		-1.30	-1.14			
13199	Ddn	dendrin	3			-1.14		-1.45	-1.27			
243548	Prickle2	prickle homolog 2 (Drosophila)	3			-1.17		-1.46	-1.28			
14175	Fgf4	fibroblast growth factor 4	3			-1.20		-1.77	-1.60			
269116	Nfasc	neurofascin	3			-1.20		-1.49	-1.31			
20741	Spnb1	spectrin beta 1	3			-1.21		-1.58	-1.36			
12843	Col1a2	collagen, type I, alpha 2	3			-1.27	-1.25	-1.21		3	5.8	0.05
66985	Rassf7	Ras association (RalGDS/AF-6) domain family (N-terminal) member 7	3			-1.28		-1.84	-1.35			
237930	Tll6	tubulin tyrosine ligase-like family, member 6	3			-1.30		-1.58	-1.48			
76574	Mfsd2a	major facilitator superfamily domain containing 2A	3			-1.32		-1.91	-1.51			
72978	Cnih3	cornichon homolog 3 (Drosophila)	3			-1.35	-1.63	-1.68				
230899	Nppa	natriuretic peptide type A	3			-1.36		-1.68	-1.42	3	1.3	0.56
231858	Radil	Ras association and DIL domains	3			-1.36		-2.68	-1.93			
74438	Clvs1	clavesin 1	3		-1.46	-1.38			-1.32			
100689	Spon2	spondin 2, extracellular matrix protein	3			-1.41		-2.59	-1.81			
22402	Wisp1	WNT1 inducible signaling pathway protein 1	3			-1.41	-1.49	-1.61				
22431	Wt1	Wilms tumor 1 homolog	3			-1.43		-3.97	-4.00			
225742	St8sia5	ST8 alpha-N-acetyl-neuraminidase alpha-2,8-sialyltransferase 5	3			-1.45		-2.20	-1.48			
12960	Crybb1	crystallin, beta B1	3			-1.45		-2.03	-1.51			
21390	Tbxa2r	thromboxane A2 receptor	3			-1.47		-2.73	-1.59			
50782	Rgs11	regulator of G-protein signaling 11	3			-1.49		-2.19	-1.58			
72315	Ccdc74a	coiled-coil domain containing 74A	3		-1.39	-1.49		-1.71				
15160	Serpind1	serine (or cysteine) peptidase inhibitor, clade D, member 1	3			-1.52		-2.53	-1.82	1	5	0.26
320736	E130203B14Rik	RIKEN cDNA E130203B14 gene	3			-1.54	-1.51		-1.55			
319767	Atp10b	ATPase, class V, type 10B	3			-1.57	-2.52	-3.31				
14137	Fdft1	farnesyl diphosphate farnesyl transferase 1	3			-1.58	-1.39	-1.86		9	94	3.78E-14
407243	Tmem189	transmembrane protein 189	3			-1.59	-1.43	-1.70				
192156	Mvd	mevalonate (diphospho) decarboxylase	3			-1.66	-1.91	-2.33		1	4.4	0.28
66234	Sc4mol	sterol-C4-methyl oxidase-like	3			-1.75		-2.07	-1.53			
15490	Hsd17b7	hydroxysteroid (17-beta) dehydrogenase 7	3			-1.77		-2.18	-1.44	1	5.6	0.24
13121	Cyp51	cytochrome P450, family 51	3			-1.79	-1.67		-1.47			
237558	Gm239	predicted gene 239	3			-1.80	-1.87		-1.96			
20775	Sqle	squalene epoxidase	3			-1.84	-1.49	-2.09		1	16.5	0.12
230459	Cyp2j13	cytochrome P450, family 2, subfamily j, polypeptide 13	3			-2.12	-2.48	-4.27				
12587	Mia1	melanoma inhibitory activity 1	3			-2.15	-2.30	-2.87				
140709	Emid2	EMI domain containing 2	3			-2.24	-2.57	-3.80				
215772	9130014G24Rik	RIKEN cDNA 9130014G24 gene	3			-2.41	-1.63	-1.39				
15163	Hcls1	hematopoietic cell specific Lyn substrate 1	3		1.57			3.62	3.90			
16414	Itgb2	integrin beta 2	3		1.65			4.01	3.87			
105855	Nckap1l	NCK associated protein 1 like	3		1.62			3.68	3.84			
80719	Igsf6	immunoglobulin superfamily, member 6	3		1.65			3.81	3.61			
73656	Ms4a6c	membrane-spanning 4-domains, subfamily A, member 6C	3		1.51			3.84	3.48			
216445	Arhgap9	Rho GTPase activating protein 9	3		1.57			2.69	3.19			
23880	Fyb	FYN binding protein	3		1.71			4.08	3.15			
259277	Klk8	kallikrein related-peptidase 8	3	1.89				3.92	3.06			
226652	Arhgap30	Rho GTPase activating protein 30	3		1.51			2.80	2.94			
74191	P2ry13	purinergic receptor P2Y, G-protein coupled 13	3		1.67			3.14	2.93			
192187	Stab1	stabilin 1	3		1.41			2.43	2.48			
63913	Fam129a	family with sequence similarity 129, member A	3		1.38			2.09	2.10			
17133	Maff	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein F (avian)	3		1.70			1.99	2.06	1	107.5	0.03
170706	Tmem37	transmembrane protein 37	3		1.42			1.70	1.96			
17159	Man2b1	mannosidase 2, alpha B1	3		1.46			1.54	1.79			
59058	Bhlhe22	basic helix-loop-helix family, member e22	3		1.37			1.58	1.58			
16494	Kcna6	potassium voltage-gated channel, shaker-related, subfamily, member 6	3		1.49			1.33	1.31			
20198	S100a4	S100 calcium binding protein A4	3		1.20			1.19	1.28	1	5.6	0.24
12804	Cnfr	ciliary neurotrophic factor receptor	3		-1.31			-1.42	-1.51			
100503650	Gm11721	predicted gene 11721	3	-2.13				-1.59	-1.65			
12424	Cck	cholecystokinin	3		-1.51			-1.52	-1.93	2	0.8	1.03
76747	Dapl1	death associated protein-like 1	3		-1.55			-2.18	-2.08			
12655	Chi3l3	chitinase 3-like 3	2			16.55		14.45				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
17474	Clec4d	C-type lectin domain family 4, member d	2		3.88	8.63						
17381	Mmp12	matrix metalloproteinase 12	2		3.16	4.62						
83433	Trem2	triggering receptor expressed on myeloid cells 2	2		2.07	3.11						
16411	Ilgax	integrin alpha X	2		2.08	2.77				1	2.1	0.45
171285	Havcr2	hepatitis A virus cellular receptor 2	2		2.03	2.72						
67477	Abhd15	abhydrolase domain containing 15	2		2.43	2.42						
15483	Hsd11b1	hydroxysteroid 11-beta dehydrogenase 1	2		3.22	2.41				2	8.6	0.06
93695	Gpnm6	glycoprotein (transmembrane) nmb	2		2.00	2.39						
16197	Il7r	interleukin 7 receptor	2		1.73	2.31						
56644	Clec7a	C-type lectin domain family 7, member a	2		1.97	2.30						
68774	Ms4a6d	membrane-spanning 4-domains, subfamily A, member 6D	2		2.08	2.28						
279572	Tlr13	toll-like receptor 13	2		2.39	2.22						
21928	Tnfrsf25	tumor necrosis factor, alpha-induced protein 2	2			2.22		4.65				
71760	Agxt2l1	alanine-glyoxylate aminotransferase 2-like 1	2			2.20			-1.89			
12984	Csf2rb2	colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage)	2			2.16		2.00				
383787	Gm1337	predicted gene 1337	2		2.02	2.09						
15199	Hebp1	heme binding protein 1	2			1.99		2.20				
76408	Abcc3	ATP-binding cassette, sub-family C (CFTR/MRP), member 3	2		1.87	1.91						
232431	Gprc5a	G protein-coupled receptor, family C, group 5, member A	2			1.89			-2.01			
70358	Steap1	six transmembrane epithelial antigen of the prostate 1	2			1.81			-1.92			
69387	Dnajb13	DnaJ (Hsp40) related, subfamily B, member 13	2			1.77		2.64				
12267	C3ar1	complement component 3a receptor 1	2		1.85	1.75						
214547	She	src homology 2 domain-containing transforming protein E	2		1.38	1.74						
20249	Scd1	stearoyl-Coenzyme A desaturase 1	2		1.37	1.69				8	22.8	5.55E-08
12983	Csf2rb	colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage)	2			1.66		2.63				
20660	Sorl1	sortilin-related receptor, LDLR class A repeats-containing	2			1.66		2.31		1	41.7	0.07
56069	Il17b	interleukin 17B	2			1.64		1.52				
81879	Tfcpl2l1	transcription factor CP2-like 1	2			1.62		2.12				
17105	Lyz2	lysozyme 2	2			1.62	1.42					
140497	AF251705	cDNA sequence AF251705	2		1.72	1.62						
12522	Cd83	CD83 antigen	2			1.59		2.11				
22414	Wnt2b	wingless related MMTV integration site 2b	2			1.54			-1.91			
18143	Npas2	neuronal PAS domain protein 2	2			1.49			-1.43			
239691	AU021092	expressed sequence AU021092	2			1.47			-1.77			
11816	ApoE	apolipoprotein E	2			1.44			1.61	268	63.1	0
74365	Lonr3	LON peptidase N-terminal domain and ring finger 3	2			1.43		1.69				
68591	MocoS	molybdenum cofactor sulfurase	2		1.37	1.43						
239133	Dleu7	deleted in lymphocytic leukemia, 7	2			1.42		-2.76				
50528	Tmprss2	transmembrane protease, serine 2	2			1.42		-1.86				
30794	Pdlim4	PDZ and LIM domain 4	2			1.41		1.36				
381413	Gpr176	G protein-coupled receptor 176	2			1.39		1.61				
27965	Sppg21	spastic paraplegia 21 homolog (human)	2			1.34		1.42				
227937	Pkp4	plakophilin 4	2			1.32			-1.34			
21351	Taldo1	transaldolase 1	2		1.33	1.28						
20183	Rxrg	retinoid X receptor gamma	2		1.35	1.28						
20661	Sort1	sortilin 1	2		1.30	1.27				1	102.1	0.04
56456	Actl6a	actin-like 6A	2		1.25	1.27						
433375	Creg1	cellular repressor of E1A-stimulated genes 1	2		1.23	1.26						
17536	Meis2	Meis homeobox 2	2			1.24			-1.39			
55983	Pdzrn3	PDZ domain containing RING finger 3	2			1.23		-1.47				
15212	Hexb	hexosaminidase B	2			1.22			1.49			
13030	Ctsb	cathepsin B	2			1.20			1.45	3	3.5	0.12
59095	Fxyd6	FXYD domain-containing ion transport regulator 6	2			1.13			-1.16			
76893	Lass2	LAG1 homolog, ceramide synthase 2	2			-1.15		-1.45				
494448	Cbx6	chromobox homolog 6	2			-1.17		-1.30				
17528	Mpz	myelin protein zero	2			-1.18		-1.25		1	9.9	0.17
16525	Kcnk1	potassium channel, subfamily K, member 1	2			-1.21		-1.54				
216858	Kctd11	potassium channel tetramerisation domain containing 11	2			-1.22		-1.30				
72927	Hepacam	hepatocyte cell adhesion molecule	2			-1.23		-1.56				
74559	Elovl7	ELOVL family member 7, elongation of long chain fatty acids (yeast)	2			-1.24		-1.43				
195209	Gm22	predicted gene 22	2			-1.24			1.54			
12832	Col5a2	collagen, type V, alpha 2	2			-1.28			1.58			
218121	Mboat1	membrane bound O-acyltransferase domain containing 1	2			-1.29		-1.62				
13360	Dhcr7	7-dehydrocholesterol reductase	2			-1.30		-1.41		10	92.2	1.32E-15
67260	Lass4	LAG1 homolog, ceramide synthase 4	2			-1.32		-1.37				
22239	Ugt8a	UDP galactosyltransferase 8A	2			-1.37		-1.69				
432530	Adcy1	adenylate cyclase 1	2			-1.39			-1.74			
108116	Slico3a1	solute carrier organic anion transporter family, member 3a1	2			-1.40		-1.58				
101497	Plekha7	pleckstrin homology domain containing, family G (with RhoGef domain) member 2	2			-1.40		-1.69				

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
13116	Cyp46a1	cytochrome P450, family 46, subfamily a, polypeptide 1	2			-1.40		-1.88		15	806.4	1.50E-36
12825	Col3a1	collagen, type III, alpha 1	2			-1.41		-1.85		1	12.1	0.15
215814	Ccdc28a	coiled-coil domain containing 28A	2		-1.41	-1.44						
20356	Sema5a	sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A	2			-1.45			-1.85			
12818	Col14a1	collagen, type XIV, alpha 1	2			-1.46		-1.75				
207911	Mchr1	melanin-concentrating hormone receptor 1	2			-1.46		-1.72				
13603	Opn3	opsin 3	2			-1.47		-1.75				
52463	Tet1	tet oncogene 1	2			-1.49		-1.43				
22029	Traf1	TNF receptor-associated factor 1	2			-1.54	-1.63					
100503043	LOC100503043	armadillo repeat containing, X-linked 4	2		-1.52	-1.55						
54371	Chst2	carbohydrate sulfotransferase 2	2			-1.55	-1.64					
56066	Cxcl11	chemokine (C-X-C motif) ligand 11	2			-1.55		-1.64				
26456	Sema4g	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4G	2			-1.57		-1.67				
269344	Ell3	elongation factor RNA polymerase II-like 3	2		-1.83	-1.63						
56741	Igdcc4	immunoglobulin superfamily, DCC subclass, member 4	2		-1.74	-1.66						
66355	Gmpr	guanosine monophosphate reductase	2		-1.80	-1.66						
170459	Stard4	STAR-related lipid transfer (START) domain containing 4	2			-1.69		-2.32		1	240.3	0.02
14401	Gabrb2	gamma-aminobutyric acid (GABA) A receptor, subunit beta 2	2		-2.15	-1.69						
231293	Cwh43	cell wall biogenesis 43 C-terminal homolog (S. cerevisiae)	2			-1.76		1.64				
13170	Dbp	D site albumin promoter binding protein	2			-1.88			2.99	1	3.4	0.32
101883	Tmem149	transmembrane protein 149	2			-2.01		-2.27				
74770	Hhah1	hedgehog acyltransferase-like	2		-2.47	-2.08						
238988	Erc2	ELKS/RAB6-interacting/CAST family member 2	2		-2.12	-2.08						
227394	Slco4c1	solute carrier organic anion transporter family, member 4C1	2			-2.10	-2.92					
73166	Tm7sf2	transmembrane 7 superfamily member 2	2			-2.10		-1.70				
269784	Cntn4	contactin 4	2		-2.33	-2.19						
230235	6430704M03Rik	RIKEN cDNA 6430704M03 gene	2		-2.21	-2.42						
229599	Gm129	predicted gene 129	2			-2.48			2.40			
329217	Gm5101	predicted gene 5101	2			-2.50	-3.04					
114644	Slc13a3	solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 3	2		-2.02	-2.53				1	157.1	0.03
100503019	Gm16551	predicted gene 16551	2		-3.17	-3.50						
19215	Ptgd5	prostaglandin D2 synthase (brain)	2		-3.99	-5.42						
11656	Alas2	aminolevulinic acid synthase 2, erythroid	2					29.00	24.18			
328563	Apol11b	apolipoprotein L 11b	2					16.87	21.75			
56620	Clec4n	C-type lectin domain family 4, member n	2					13.93	9.41			
57349	Ppbb	pro-platelet basic protein	2					8.77	9.08	5	7.8	3.18E-03
433637	Gm5547	predicted gene 5547	2					10.43	8.76			
20210	Saa3	serum amyloid A 3	2					12.19	8.13	1	15.3	0.13
229499	Fcrl1	Fc receptor-like 1	2					7.79	7.71			
16175	Il1a	interleukin 1 alpha	2					9.62	7.36	6	1.1	0.70
12502	Cd3g	CD3 antigen, gamma polypeptide	2					9.16	7.01			
12493	Cd37	CD37 antigen	2					7.34	6.69			
622976	Gm6377	predicted gene 6377	2					6.94	6.61			
17972	Ncf4	neutrophil cytosolic factor 4	2					6.50	6.28			
50778	Rgs1	regulator of G-protein signaling 1	2					8.07	6.25			
17079	Cd180	CD180 antigen	2					6.18	5.84			
16019	Ighm	immunoglobulin heavy constant mu	2					15.85	5.54			
94176	Dock2	dedicator of cyto-kinesis 2	2					5.92	5.53			
18140	Uhrf1	ubiquitin-like, containing PHD and RING finger domains, 1	2					5.44	5.52			
433470	AA467197	expressed sequence AA467197	2					5.69	5.46			
56760	Clec1b	C-type lectin domain family 1, member b	2					6.87	5.25			
20209	Saa2	serum amyloid A 2	2					4.14	5.18			
13041	Ctsw	cathepsin W	2					4.91	4.93			
17060	Blink	B-cell linker	2					5.68	4.87			
21897	Tlr1	tolllike receptor 1	2					4.70	4.61			
20307	Ccl8	chemokine (C-C motif) ligand 8	2					11.64	4.59			
100043636	Al662270	expressed sequence Al662270	2					4.85	4.54			
242705	E2f2	E2F transcription factor 2	2					5.56	4.49			
12766	Cxcr3	chemokine (C-X-C motif) receptor 3	2					4.63	4.41			
320148	B430306N03Rik	RIKEN cDNA B430306N03 gene	2					5.24	4.36			
12487	Cd28	CD28 antigen	2					3.98	4.28	3	2.3	0.22
72054	Cyp4f18	cytochrome P450, family 4, subfamily f, polypeptide 18	2					3.78	4.22			
74131	Sash3	SAM and SH3 domain containing 3	2					3.81	4.15			
21973	Top2a	topoisomerase (DNA) II alpha	2					3.81	4.03			
14744	Gpr65	G-protein coupled receptor 65	2					5.07	4.01			
15170	Ptpn6	protein tyrosine phosphatase, non-receptor type 6	2					4.49	4.01			
12183	Bpgm	2,3-bisphosphoglycerate mutase	2					4.32	3.98			
15945	Cxcl10	chemokine (C-X-C motif) ligand 10	2					5.14	3.98	2	2.4	0.28
20302	Ccl3	chemokine (C-C motif) ligand 3	2					4.08	3.98	1	1.3	0.59
72925	March1	membrane-associated ring finger (C3HC4) 1	2					3.85	3.98			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
246256	Fcgr4	Fc receptor, IgG, low affinity IV	2					3.42	3.97	2	1.8	0.38
23845	Clec5a	C-type lectin domain family 5, member a	2					4.27	3.93			
14017	Evi2a	ecotropic viral integration site 2a	2					3.89	3.92			
268697	Ccnb1	cyclin B1	2					3.03	3.89			
20491	Sla	src-like adaptor	2					3.91	3.89			
16643	Klr1	killer cell lectin-like receptor, subfamily D, member 1	2					3.97	3.87			
278180	Vsig4	V-set and immunoglobulin domain containing 4	2					5.01	3.84			
209837	Slc38a5	solute carrier family 38, member 5	2					3.58	3.82	1	9.8	0.17
12501	Cd3e	CD3 antigen, epsilon polypeptide	2					3.80	3.81			
23900	Hcst	hematopoietic cell signal transducer	2					3.94	3.77			
56743	Lat2	linker for activation of T cells family, member 2	2					4.53	3.63			
22324	Vav1	vav 1 oncogene	2					3.57	3.62			
20345	Selplg	selectin, platelet (p-selectin) ligand	2					3.27	3.54			
212032	Hk3	hexokinase 3	2					3.07	3.53			
17476	Mpeg1	macrophage expressed gene 1	2		1.91				3.51			
18733	Lilrb3	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3	2					3.79	3.47			
108101	Fermt3	fermitin family homolog 3 (Drosophila)	2					3.10	3.46			
67712	Slc25a37	solute carrier family 25, member 37	2					3.83	3.44			
19264	Ptpnc	protein tyrosine phosphatase, receptor type, C	2					4.33	3.42	5	3.1	0.07
76459	Car12	carbonic anhydrase 12	2					3.30	3.40			
17951	Naip5	NLR family, apoptosis inhibitory protein 5	2					3.52	3.35			
16182	Il18r1	interleukin 18 receptor 1	2					3.03	3.30			
20135	Rrm2	ribonucleotide reductase M2	2					3.19	3.30			
12508	Cd53	CD53 antigen	2					3.60	3.29			
20288	Msr1	macrophage scavenger receptor 1	2					3.21	3.27	2	15.4	0.03
17969	Ncf1	neutrophil cytosolic factor 1	2					3.28	3.24			
17948	Naip2	NLR family, apoptosis inhibitory protein 2	2					4.29	3.23			
52033	Pbk	PDZ binding kinase	2					2.85	3.22			
66610	Abi3	ABI gene family, member 3	2					2.83	3.22			
14799	Gria1	glutamate receptor, ionotropic, AMPA1 (alpha 1)	2					3.51	3.18	1	0.4	0.78
57781	Cd200r1	CD200 receptor 1	2					2.81	3.17			
18557	Cdk18	cyclin-dependent kinase 18	2					3.55	3.16			
192188	Stab2	stabilin 2	2					2.81	3.13			
380732	Gm885	predicted gene 885	2					2.53	3.13			
80891	Fcrls	Fc receptor-like S, scavenger receptor	2					3.16	3.06			
11629	Aif1	allograft inflammatory factor 1	2					2.78	3.01	1	9.5	0.17
69769	Tnfrsf8l2	tumor necrosis factor, alpha-induced protein 8-like 2	2					3.27	2.97			
68662	Scgb3a1	secretoglobulin, family 3A, member 1	2					3.80	2.96			
12802	Cnr2	cannabinoid receptor 2 (macrophage)	2					2.78	2.95			
17394	Mmp8	matrix metalloproteinase 8	2					2.93	2.93			
20556	Slnf2	schlafen 2	2					3.47	2.91			
80901	Cxcr6	chemokine (C-X-C motif) receptor 6	2					3.44	2.88			
21990	Tph1	tryptophan hydroxylase 1	2		2.10				2.85			
15430	Hoxd10	homeobox D10	2					3.28	2.84			
232201	Arhgap25	Rho GTPase activating protein 25	2					3.32	2.84			
320207	Pik3r5	phosphoinositide-3-kinase, regulatory subunit 5, p101	2					2.95	2.76			
14281	Fos	FBJ osteosarcoma oncogene	2					3.87	2.71	11	1.7	0.15
15902	Id2	inhibitor of DNA binding 2	2					4.63	2.71			
21391	Tbxas1	thromboxane A synthase 1, platelet	2					2.51	2.69	23	4.6	4.61E-08
27052	Aoaah	acyloxyacyl hydrolase	2					3.03	2.68			
11846	Arg1	arginase, liver	2					3.02	2.68	1	30.3	0.08
14544	Gda	guanine deaminase	2					3.39	2.61			
11799	Birc5	baculoviral IAP repeat-containing 5	2					3.30	2.61	1	1.1	0.63
223838	Adamts20	a disintegrin-like and metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 20	2					3.18	2.60			
233406	Prc1	protein regulator of cytokinesis 1	2					2.77	2.60			
17085	Ly9	lymphocyte antigen 9	2					2.18	2.58			
24055	Sh3bp2	SH3-domain binding protein 2	2					2.51	2.57			
54445	Unc93b1	unc-93 homolog B1 (C. elegans)	2					2.29	2.56			
20375	Sfp1	SFFV proviral integration 1	2					2.57	2.55			
23833	Cd52	CD52 antigen	2					2.43	2.54			
217203	Tmem106a	transmembrane protein 106A	2					2.67	2.54			
64214	Rgs18	regulator of G-protein signaling 18	2					2.51	2.53			
20296	Ccl2	chemokine (C-C motif) ligand 2	2					2.37	2.52	14	4.6	3.61E-05
16154	Il10ra	interleukin 10 receptor, alpha	2					2.42	2.52			
15364	Hmga2	high mobility group AT-hook 2	2		1.74				2.51			
13733	Emr1	EGF-like module containing, mucin-like, hormone receptor-like sequence 1	2					2.87	2.51			
67749	4930583H14Rik	RIKEN cDNA 4930583H14 gene	2					3.02	2.49			
19141	Lgmn	legumain	2					3.38	2.45			
18793	Plaur	plasminogen activator, urokinase receptor	2					2.42	2.44			
21418	Tfap2a	transcription factor AP-2, alpha	2					2.98	2.44	2	4	0.16
21826	Thbs2	thrombospondin 2	2					2.02	2.44			
12767	Cxcr4	chemokine (C-X-C motif) receptor 4	2					2.39	2.42	4	3.5	0.07
29873	Cspg5	chondroitin sulfate proteoglycan 5	2					2.09	2.42			
233571	P2ry6	pyrimidinergic receptor P2Y, G-protein coupled, 6	2					1.90	2.37			
13036	Ctsh	cathepsin H	2					2.07	2.37			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
72119	Tpx2	TPX2, microtubule-associated protein homolog (<i>Xenopus laevis</i>)	2					2.01	2.37			
24088	Tlr2	toll-like receptor 2	2					2.76	2.33	1	1	1.04
20306	Ccl7	chemokine (C-C motif) ligand 7	2					2.39	2.32			
239743	Klhl6	kelch-like 6 (<i>Drosophila</i>)	2					2.42	2.32			
20305	Ccl6	chemokine (C-C motif) ligand 6	2					2.25	2.31			
20308	Ccl9	chemokine (C-C motif) ligand 9	2					2.11	2.31			
14129	Fcgr1	Fc receptor, IgG, high affinity I	2					2.38	2.31			
12051	Bcl3	B-cell leukemia/lymphoma 3	2					2.31	2.29			
54486	Hpgds	hematopoietic prostaglandin D synthase	2					2.82	2.29			
71398	5430427O19Rik	RIKEN cDNA 5430427O19 gene	2					3.08	2.27			
21803	Tgfb1	transforming growth factor, beta 1	2					2.22	2.24	12	1.4	0.31
226101	Myof	myoferlin	2					2.18	2.23			
18751	Prkcb	protein kinase C, beta	2					3.09	2.23			
23948	Mmp17	matrix metalloproteinase 17	2					1.94	2.20			
76438	Rftn1	raftlin lipid raft linker 1	2					1.99	2.19			
53945	Slc40a1	solute carrier family 40 (iron-regulated transporter), member 1	2					2.03	2.19			
11513	Adcy7	adenylate cyclase 7	2					2.18	2.18	3	1.5	0.51
27056	Irf5	interferon regulatory factor 5	2					2.10	2.17			
228482	Arhgap11a	Rho GTPase activating protein 11A	2					2.29	2.17			
16331	Inpp5d	inositol polyphosphate-5-phosphatase D	2					2.21	2.16			
19217	Ptger2	prostaglandin E receptor 2 (subtype EP2)	2					2.19	2.15			
12986	Csf3r	colony stimulating factor 3 receptor (granulocyte)	2					2.11	2.15			
21816	Tgm1	transglutaminase 1, K polypeptide	2					2.31	2.14	1	5.4	0.24
404710	Iqgap3	IQ motif containing GTPase activating protein 3	2					2.63	2.12			
72318	Cyth4	cytohesin 4	2					2.33	2.12			
18768	Pkib	protein kinase inhibitor beta, cAMP dependent, testis specific	2					2.62	2.10			
64136	Sdf2l1	stromal cell-derived factor 2-like 1	2					2.82	2.09			
74490	Mamstr	MEF2 activating motif and SAP domain containing transcriptional regulator	2					1.71	2.09			
106869	Tnfrsf8	tumor necrosis factor, alpha-induced protein 8	2					2.43	2.08			
26360	Angptl2	angiopoietin-like 2	2					1.86	2.08			
16822	Lcp2	lymphocyte cytosolic protein 2	2					2.02	2.08			
67220	Plekho1	pleckstrin homology domain containing, family O member 1	2					1.95	2.06			
329679	Fnip2	folliculin interacting protein 2	2					2.16	2.06			
13024	Ctla2a	cytotoxic T lymphocyte-associated protein 2 alpha	2					2.01	2.04			
20698	Sphk1	sphingosine kinase 1	2					1.88	2.04			
50917	Galns	galactosamine (N-acetyl)-6-sulfate sulfatase	2					1.71	2.04	1	2.1	0.45
19296	Pvt1	plasmacytoma variant translocation 1	2					2.30	2.03			
77209	8030453O22Rik	RIKEN cDNA 8030453O22 gene	2					2.48	2.03			
213068	Tmem71	transmembrane protein 71	2					2.30	2.02			
72042	Cotl1	coactosin-like 1 (<i>Dictyostelium</i>)	2					1.72	2.01			
11910	Atf3	activating transcription factor 3	2					1.46	1.98			
211550	Tifa	TRAF-interacting protein with forkhead-associated domain	2					2.17	1.97			
213696	Duoxa1	dual oxidase maturation factor 1	2					2.01	1.96			
574428	Zmynd15	zinc finger, MYND-type containing 15	2					2.14	1.96			
20674	Sox2	SRY-box containing gene 2	2					2.72	1.94			
216991	Adap2	ArfGAP with dual PH domains 2	2					1.59	1.94			
73112	3110003A17Rik	RIKEN cDNA 3110003A17 gene	2					2.05	1.94			
108911	Rcc2	regulator of chromosome condensation 2	2					2.38	1.94			
12971	Crym	crystallin, mu	2					2.08	1.93			
17304	Mfge8	milk fat globule-EGF factor 8 protein	2					1.76	1.93			
20652	Soat1	sterol O-acyltransferase 1	2					2.21	1.92	15	154	1.92E-26
16913	Psmb8	proteasome (prosome, macropain) subunit, beta type 8 (large multifunctional peptidase 7)	2					1.97	1.91			
94224	Srd5a2	steroid 5 alpha-reductase 2	2					2.24	1.91			
277360	Prex1	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 1	2					2.18	1.90			
14056	Ezh2	enhancer of zeste homolog 2 (<i>Drosophila</i>)	2		1.47				1.89			
226841	Vash2	vasohibin 2	2					1.81	1.88			
80982	9930013L23Rik	RIKEN cDNA 9930013L23 gene	2					1.91	1.87			
56470	Rgs19	regulator of G-protein signaling 19	2					2.04	1.87			
16978	Lrrrip1	leucine rich repeat (in FLII) interacting protein 1	2					1.99	1.87			
73230	Bmper	BMP-binding endothelial regulator	2					2.25	1.85			
12363	Casp4	caspase 4, apoptosis-related cysteine peptidase	2					2.12	1.84			
74732	Stx11	syntaxin 11	2					2.08	1.84			
57778	Fmn1	formin-like 1	2					2.11	1.83			
14537	Gcnt1	glucosaminyl (N-acetyl) transferase 1, core 2	2					1.62	1.83			
270198	Pfkfb4	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 4	2					1.87	1.83			
57914	Crif2	cytokine receptor-like factor 2	2					2.38	1.82			
229694	AI504432	expressed sequence AI504432	2					1.94	1.82			
57441	Gmnn	geminin	2					1.86	1.81			
110006	Gusb	glucuronidase, beta	2					1.85	1.80			
71706	Slc46a3	solute carrier family 46, member 3	2					1.74	1.80			
20292	Ccl11	chemokine (C-C motif) ligand 11	2					1.62	1.79			
12642	Ch25h	cholesterol 25-hydroxylase	2					1.70	1.79			
20677	Sox4	SRY-box containing gene 4	2					1.90	1.78			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
14469	Gbp2	guanylate binding protein 2	2					1.85	1.77			
20878	Aurka	aurora kinase A	2					1.63	1.77			
209760	Tmc7	transmembrane channel-like gene family 7	2					2.12	1.77			
16565	Kif21b	kinesin family member 21B	2					1.69	1.76			
14151	Fech	ferrochelatase	2					1.81	1.76	1	5.3	0.24
16426	Itih3	inter-alpha trypsin inhibitor, heavy chain 3	2					2.48	1.76			
320587	Tmem88b	transmembrane protein 88B	2					1.65	1.76			
74568	Mkl1	mixed lineage kinase domain-like	2					1.86	1.75			
12702	Socs3	suppressor of cytokine signaling 3	2					1.80	1.75	3	8.8	0.02
20911	Stxbp2	syntaxin binding protein 2	2		1.50				1.75			
14187	Akr1b8	aldo-keto reductase family 1, member B8	2					1.81	1.74			
12505	Cd44	CD44 antigen	2					2.54	1.73	3	1.4	0.54
212398	Frat2	frequently rearranged in advanced T-cell lymphomas 2	2					1.55	1.73			
74637	Shpk	sedoheptulokinase	2					1.67	1.72			
13803	Enc1	ectodermal-neural cortex 1	2					1.73	1.72			
217826	Kcnk13	potassium channel, subfamily K, member 13	2					1.42	1.71			
22350	Ezr	ezrin	2					1.96	1.69			
233979	Tpcn2	two pore segment channel 2	2					1.57	1.69			
27060	Tcirg1	T-cell, immune regulator 1, ATPase, H+ transporting, lysosomal V0 protein A3	2					1.67	1.68			
71436	Flrt3	fibronectin leucine rich transmembrane protein 3	2					2.36	1.68			
73649	Cybrd1	cytochrome b reductase 1	2					1.59	1.68			
109901	Cela1	chymotrypsin-like elastase family, member 1	2					2.56	1.67			
64540	Tspan4	tetraspanin 4	2					1.55	1.67			
215748	Cnksr3	Cnksr family member 3	2					1.57	1.67			
108150	Galnt7	UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminyltransferase 7	2					1.90	1.67			
18081	Ninj1	ninjurin 1	2					1.82	1.67			
93692	Glxr	glutaredoxin	2					2.56	1.67	1	5.7	0.23
210094	Igln5	IgLON family member 5	2					2.10	1.67			
11830	Aqp5	aquaporin 5	2					1.76	1.67			
107581	Col16a1	collagen, type XVI, alpha 1	2					1.56	1.66			
226421	5430435G22Rik	RIKEN cDNA 5430435G22 gene	2					1.38	1.66			
69069	1810011H11Rik	RIKEN cDNA 1810011H11 gene	2					1.58	1.66			
27279	Tnfrsf12a	tumor necrosis factor receptor superfamily, member 12a	2					2.25	1.66			
12018	Bak1	BCL2-antagonist/killer 1	2					2.05	1.66			
13618	EdnrB	endothelin receptor type B	2					1.60	1.66			
71797	Chst13	carbohydrate (chondroitin 4) sulfotransferase 13	2					2.01	1.65			
80859	Nfkbiz	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, zeta	2					2.02	1.65			
69309	Slc16a13	solute carrier family 16 (monocarboxylic acid transporters), member 13	2				-1.52		1.64			
19092	Prkg2	protein kinase, cGMP-dependent, type II	2					2.31	1.63			
384198	Fam47e	family with sequence similarity 47, member E	2	-1.87					1.62			
16513	Kcnj10	potassium inwardly-rectifying channel, subfamily J, member 10	2					2.37	1.61			
12273	C5ar1	complement component 5a receptor 1	2					1.67	1.61			
320840	Negr1	neuronal growth regulator 1	2					1.54	1.61			
23871	Ets1	E26 avian leukemia oncogene 1, 5' domain	2					1.98	1.60			
12125	Bcl2l1	BCL2-like 11 (apoptosis facilitator)	2					1.55	1.60			
104681	Slc16a6	solute carrier family 16 (monocarboxylic acid transporters), member 6	2					1.97	1.60			
12091	Glb1	galactosidase, beta 1	2		1.24				1.60			
71862	Gpr160	G protein-coupled receptor 160	2					1.42	1.60			
235283	Gramd1b	GRAM domain containing 1B	2					1.87	1.59			
16164	Il13ra1	interleukin 13 receptor, alpha 1	2					1.70	1.59			
12260	C1qb	complement component 1, q subcomponent, beta polypeptide	2					1.54	1.58			
69976	Galk2	galactokinase 2	2					1.40	1.57			
12443	Ccnd1	cyclin D1	2					1.76	1.57	1	0.4	0.77
20893	Bhlhe40	basic helix-loop-helix family, member e40	2					1.38	1.57			
68713	Ifitm1	interferon induced transmembrane protein 1	2					1.59	1.57			
16889	Lipa	lysosomal acid lipase A	2					1.49	1.57	8	49.2	1.95E-10
17768	Mthfd2	methylenetetrahydrofolate dehydrogenase (NAD+ dependent), methylenetetrahydrofolate cyclohydrolase	2					1.57	1.56			
54353	Skap2	src family associated phosphoprotein 2	2					1.66	1.55			
27756	Lsm2	LSM2 homolog, U6 small nuclear RNA associated (S. cerevisiae)	2					1.66	1.55			
17750	Mt2	metallothionein 2	2					1.72	1.55			
13175	Dclk1	doublecortin-like kinase 1	2					1.78	1.55			
69550	Bst2	bone marrow stromal cell antigen 2	2					1.99	1.54			
330812	Rnf150	ring finger protein 150	2					1.88	1.54			
23965	Odz3	odd Oz/ten-m homolog 3 (Drosophila)	2					1.52	1.54			
192654	Pla2g15	phospholipase A2, group XV	2					1.60	1.54			
67876	Coq10b	coenzyme Q10 homolog B (S. cerevisiae)	2					1.67	1.53			
20397	Sgpl1	sphingosine phosphate lyase 1	2					1.59	1.53			
100043272	5430417L22Rik	RIKEN cDNA 5430417L22 gene	2					1.90	1.52			
18301	Fxyd5	FXD domain-containing ion transport regulator 5	2					1.67	1.51			
11568	Aebp1	AE binding protein 1	2					1.57	1.51			
244864	Layn	layilin	2					1.49	1.51			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
14824	Gm	granulin	2					1.33	1.50			
574403	Fam196b	family with sequence similarity 196, member B	2					1.87	1.50			
239027	Arhgap22	Rho GTPase activating protein 22	2					1.46	1.49			
22287	Scgb1a1	secretoglobin, family 1A, member 1 (uteroglobin)	2					1.53	1.49			
67702	Rnf149	ring finger protein 149	2					1.89	1.49			
68089	Arpc4	actin related protein 2/3 complex, subunit 4	2					2.03	1.48			
20716	Serpina3n	serine (or cysteine) peptidase inhibitor, clade A, member 3N	2					1.84	1.48	2	4.3	0.15
433256	Acsi5	acyl-CoA synthetase long-chain family member 5	2					1.54	1.48			
100504422		NA	2					1.53	1.48			
67168	Lpar6	lysophosphatidic acid receptor 6	2					1.45	1.47			
16477	Junb	Jun-B oncogene	2					1.87	1.47			
212555	Pqhc2	PQ loop repeat containing 2	2					1.47	1.47			
12509	Cd59a	CD59a antigen	2					1.33	1.46			
101476	Plekha1	pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 1	2					1.64	1.46			
219140	Spata13	spermatogenesis associated 13	2					1.53	1.45			
57784	Bin3	bridging integrator 3	2					1.45	1.45			
74182	Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	2					1.60	1.45			
373864	Col27a1	collagen, type XXVII, alpha 1	2					1.48	1.45			
20908	Stx3	syntaxin 3	2					1.58	1.45			
76448	2310014H01Rik	protein phosphatase 1, regulatory subunit 18	2		1.30				1.45			
20349	Sema3e	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3E	2					1.61	1.45			
18438	P2rx4	purinergic receptor P2X, ligand-gated ion channel 4	2					1.59	1.44			
69399	1700025G04Rik	RIKEN cDNA 1700025G04 gene	2					1.42	1.44			
72293	Nkd2	naked cuticle 2 homolog (Drosophila)	2					1.44	1.43			
20017	Polr1b	polymerase (RNA) I polypeptide B	2		1.33				1.43			
218203	Myliip	myosin regulatory light chain interacting protein	2					1.92	1.43			
14766	Gpr56	G protein-coupled receptor 56	2					1.92	1.42			
231871	Daglb	diacylglycerol lipase, beta	2					1.40	1.42			
80752	Fam20c	family with sequence similarity 20, member C	2					1.29	1.42	1	14.1	0.14
67223	Rrp15	ribosomal RNA processing 15 homolog (S. cerevisiae)	2					1.77	1.42			
16188	Il3ra	interleukin 3 receptor, alpha chain	2		1.43				1.41			
23790	Coro1c	coronin, actin binding protein 1C	2					1.75	1.41			
66950	Tmem206	transmembrane protein 206	2					1.62	1.40			
16952	Anxa1	annexin A1	2					1.64	1.40			
21346	Tagln2	transgelin 2	2				1.28		1.40			
52552	Parp8	poly (ADP-ribose) polymerase family, member 8	2					1.55	1.40			
19171	Psmb10	proteasome (prosome, macropain) subunit, beta type 10	2					1.51	1.40			
14284	Fosl2	fos-like antigen 2	2					1.37	1.40			
216742	Fnip1	folliculin interacting protein 1	2					1.66	1.40			
64138	Ctsz	cathepsin Z	2					1.48	1.40			
72640	Mex3a	mex3 homolog A (C. elegans)	2					1.46	1.40			
58194	Sh3kbp1	SH3-domain kinase binding protein 1	2					1.62	1.40			
13008	Csrp2	cysteine and glycine-rich protein 2	2					1.53	1.39			
67603	Dusp6	dual specificity phosphatase 6	2					1.82	1.38			
16558	Kif16b	kinesin family member 16B	2					1.62	1.38			
66042	Sostdc1	sclerostin domain containing 1	2					1.43	1.37			
11307	Abcg1	ATP-binding cassette, sub-family G (WHITE), member 1	2					1.68	1.37	14	161.6	5.50E-25
11605	Gla	galactosidase, alpha	2					1.46	1.36	3	5.7	0.05
66249	Pno1	partner of NOB1 homolog (S. cerevisiae)	2					1.57	1.36			
330836	Slc7a6	solute carrier family 7 (cationic amino acid transporter, y+ system), member 6	2					1.41	1.35			
15211	Hexa	hexosaminidase A	2					1.37	1.35			
109778	Blvra	biliverdin reductase A	2					1.34	1.34	1	45.9	0.06
547253	Parp14	poly (ADP-ribose) polymerase family, member 14	2					1.35	1.34			
107702	Rnh1	ribonuclease/angiogenin inhibitor 1	2					1.36	1.33			
218454	Lhfp12	lipoma HMGIC fusion partner-like 2	2					1.45	1.33			
13732	Emp3	epithelial membrane protein 3	2					1.39	1.33			
83768	Dpp7	dipeptidylpeptidase 7	2					1.47	1.32			
54135	Lsr	lipolysis stimulated lipoprotein receptor	2					1.52	1.32	1	77.1	0.04
21887	Tle3	transducin-like enhancer of split 3, homolog of Drosophila E(spl)	2					1.38	1.32			
216869	Arrb2	arrestin, beta 2	2					1.31	1.32			
66912	Bzw2	basic leucine zipper and W2 domains 2	2					1.32	1.32			
103711	Pnpo	pyridoxine 5'-phosphate oxidase	2					1.37	1.31			
14457	Gas7	growth arrest specific 7	2					1.28	1.31			
239857	Cadm2	cell adhesion molecule 2	2					1.54	1.31			
192192	Shkbp1	Sh3kbp1 binding protein 1	2					1.35	1.30			
19156	Psap	prosaposin	2					1.55	1.30			
66988	Lap3	leucine aminopeptidase 3	2					1.47	1.30	2	5.7	0.11
270685	Mthfd1l	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like	2					1.47	1.30			
52530	Nhp2	NHP2 ribonucleoprotein homolog (yeast)	2					1.42	1.30			
54725	Cadm1	cell adhesion molecule 1	2					1.48	1.29	1	2.7	0.38
71839	Osgin1	oxidative stress induced growth inhibitor 1	2					1.40	1.29			
226351	Tmem185b	transmembrane protein 185B	2					1.35	1.29			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
67239	Rpf2	ribosome production factor 2 homolog (S. cerevisiae)	2					1.37	1.29			
331623	Bend3	BEN domain containing 3	2					1.34	1.28			
70396	Asnsd1	asparagine synthetase domain containing 1	2					1.31	1.28			
15369	Hmox2	heme oxygenase (decycling) 2	2					1.35	1.27	1	4	0.29
11306	Abcb7	ATP-binding cassette, sub-family B (MDR/TAP), member 7	2					1.38	1.27			
66440	Cdc26	cell division cycle 26	2					1.24	1.26			
13014	Cstb	cystatin B	2					1.26	1.26			
16476	Jun	Jun oncogene	2					1.66	1.26	11	2.2	0.06
20720	Serpine2	serine (or cysteine) peptidase inhibitor, clade E, member 2	2					1.35	1.26	2	4.6	0.14
13653	Egr1	early growth response 1	2					1.33	1.26	1	1.2	0.61
102162	Taf5l	TAF5-like RNA polymerase II, p300/CBP-associated factor (PCAF)-associated factor	2					1.45	1.25			
52705	Krr1	KRR1, small subunit (SSU) processome component, homolog (yeast)	2					1.28	1.25			
243914	Lgi4	leucine-rich repeat LGI family, member 4	2					1.39	1.25			
11977	Atp7a	ATPase, Cu++ transporting, alpha polypeptide	2					1.38	1.24			
27361	Sepx1	selenoprotein X 1	2					1.34	1.24	1	17.6	0.12
74315	Rnf145	ring finger protein 145	2					1.33	1.24			
13200	Ddost	dolichyl-di-phosphooligosaccharide-protein glycotransferase	2					1.28	1.23			
77889	Lbh	limb-bud and heart	2					1.30	1.23			
12751	Tpp1	tripeptidyl peptidase I	2					1.29	1.22	1	2.5	0.40
108682	Gpt2	glutamic pyruvate transaminase (alanine aminotransferase) 2	2					1.37	1.22			
211914	Asap2	ArfGAP with SH3 domain, ankyrin repeat and PH domain 2	2					1.32	1.22			
74919	4930471M23Rik	RIKEN cDNA 4930471M23 gene	2					1.21	1.22			
75612	Gns	glucosamine (N-acetyl)-6-sulfatase	2					1.24	1.22			
20971	Sdc4	syndecan 4	2					1.44	1.21			
12345	Capzb	capping protein (actin filament) muscle Z-line, beta	2					1.34	1.21			
66390	Slmo2	slowmo homolog 2 (Drosophila)	2					1.33	1.20			
27984	Efh2	EF hand domain containing 2	2					1.38	1.20			
19352	Rabggtb	RAB geranylgeranyl transferase, b subunit	2					1.25	1.19			
66125	Sf3b5	splicing factor 3b, subunit 5	2					1.27	1.16			
102462	Imp3	IMP3, U3 small nucleolar ribonucleoprotein, homolog (yeast)	2					1.16	1.16			
68479	Phf5a	PHD finger protein 5A	2					1.15	1.15			
67808	Tprgl	transformation related protein 63 regulated like	2					-1.16	-1.09			
22630	Ywhaq	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta polypeptide	2					-1.12	-1.10	3	9.7	0.02
20692	Sparc	secreted acidic cysteine rich glycoprotein	2					-1.12	-1.11			
18858	Pmp22	peripheral myelin protein 22	2					-1.22	-1.13	2	8.9	0.06
13179	Dcn	decorin	2					-1.14	-1.14	1	2	0.46
17196	Mbp	myelin basic protein	2					-1.17	-1.14	6	3.4	0.03
66915	Myeov2	myeloma overexpressed 2	2					-1.12	-1.14			
20655	Sod1	superoxide dismutase 1, soluble	2					-1.17	-1.14	46	5.2	2.24E-17
83493	Sacm1l	SAC1 (suppressor of actin mutations 1, homolog)-like (S. cerevisiae)	2					-1.16	-1.14			
56350	Arl3	ADP-ribosylation factor-like 3	2					-1.20	-1.15			
21807	Tsc22d1	TSC22 domain family, member 1	2					-1.15	-1.15			
11737	Anp32a	acidic (leucine-rich) nuclear phosphoprotein 32 family, member A	2					-1.18	-1.16			
69642	2310046A06Rik	RIKEN cDNA 2310046A06 gene	2					-1.24	-1.18			
12575	Cdkn1a	cyclin-dependent kinase inhibitor 1A (P21)	2					-1.23	-1.18	6	1.7	0.25
14677	Gnai1	guanine nucleotide binding protein (G protein), alpha inhibiting 1	2					-1.15	-1.18			
68721	1110032A03Rik	RIKEN cDNA 1110032A03 gene	2					-1.18	-1.18			
100532	Rel1	RELT-like 1	2					-1.25	-1.18			
106581	Itfg3	integrin alpha FG-GAP repeat containing 3	2					-1.45	-1.19			
229877	Rap1gds1	RAP1, GTP-GDP dissociation stimulator 1	2					-1.23	-1.19			
24100	Tpra1	transmembrane protein, adipocyte associated 1	2					-1.24	-1.19			
76267	Fads1	fatty acid desaturase 1	2					-1.37	-1.19	3	42.9	4.13E-04
109232	Sccpdh	saccharopine dehydrogenase (putative)	2					-1.17	-1.19			
57342	Parva	parvin, alpha	2					-1.25	-1.19			
18187	Nrp2	neuropilin 2	2					-1.21	-1.20			
68070	Pdz2	PDZ domain containing 2	2					-1.22	-1.20			
319939	Tns3	tensin 3	2					-1.20	-1.20			
18611	Pea15a	phosphoprotein enriched in astrocytes 15A	2					-1.27	-1.20			
75580	Zbtb4	zinc finger and BTB domain containing 4	2					-1.15	-1.20			
68972	Tatdn3	TatD DNase domain containing 3	2					-1.48	-1.21			
58521	Eid1	EP300 interacting inhibitor of differentiation 1	2					-1.26	-1.21			
246049	Slc36a2	solute carrier family 36 (proton/amino acid symporter), member 2	2					-1.28	-1.21			
224273	Crybg3	beta-gamma crystallin domain containing 3	2					-1.25	-1.21			
252864	Dusp15	dual specificity phosphatase-like 15	2					-1.31	-1.22			
54366	Cttna1	catenin (cadherin associated protein), alpha-like 1	2					-1.40	-1.22			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
23794	Adams5	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2)	2					-1.31	-1.22			
20525	Slc2a1	solute carrier family 2 (facilitated glucose transporter), member 1	2					-1.23	-1.22	5	5.5	0.01
74392	Specc1l	sperm antigen with calponin homology and coiled-coil domains 1-like	2					-1.25	-1.24			
20203	S100b	S100 protein, beta polypeptide, neural	2					-1.19	-1.24	1	1.3	0.59
68545	Ecsr	endothelial cell-specific chemotaxis regulator	2					-1.41	-1.24			
68652	Tab2	TGF-beta activated kinase 1/MAP3K7 binding protein 2	2					-1.20	-1.24			
245038	Dclk3	doublecortin-like kinase 3	2					-1.27	-1.25			
100503627	Gm17238	predicted gene, 17238	2					-1.56	-1.25			
78287	Zfyve20	zinc finger, FYVE domain containing 20	2					-1.18	-1.25			
237339	L3mbtl3	l(3)/mbt-like 3 (Drosophila)	2					-1.51	-1.25			
67812	Ubxn4	UBX domain protein 4	2					-1.28	-1.25			
226525	Rasal2	RAS protein activator like 2	2					-1.28	-1.26			
217692	Sipa1l1	signal-induced proliferation-associated 1 like 1	2					-1.35	-1.26			
21873	Tjp2	tight junction protein 2	2					-1.33	-1.26	1	16.8	0.12
230587	Glis1	GLIS family zinc finger 1	2					-1.34	-1.26			
76960	Bcas1	breast carcinoma amplified sequence 1	2					-1.31	-1.26			
65962	Slc9a3r2	solute carrier family 9 (sodium/hydrogen exchanger), member 3 regulator 2	2					-1.41	-1.26			
78689	Naa35	N(alpha)-acetyltransferase 35, NatC auxiliary subunit	2					-1.29	-1.27			
77569	Limch1	LIM and calponin homology domains 1	2					-1.25	-1.27			
103511	Fam26e	family with sequence similarity 26, member E	2					-1.52	-1.27			
140721	Caskin2	CASK-interacting protein 2	2					-1.52	-1.27			
24066	Spry4	sprouty homolog 4 (Drosophila)	2					-1.35	-1.27			
22288	Utrn	utrophin	2					-1.17	-1.27			
17828	Muted	muted	2					-1.41	-1.27			
72834	Z810468N07Rik	RIKEN cDNA 2810468N07 gene	2					-1.37	-1.28			
72634	Tdrkh	tudor and KH domain containing protein	2					-1.26	-1.28			
260305	Nphp4	nephronophthisis 4 (juvenile) homolog (human)	2					-1.38	-1.28			
17475	Mpdz	multiple PDZ domain protein	2					-1.30	-1.28			
83453	Chrdl1	chordin-like 1	2					-1.39	-1.28			
23879	Fxr2	fragile X mental retardation, autosomal homolog 2	2					-1.26	-1.28			
72287	Plekhf1	pleckstrin homology domain containing, family F (with FYVE domain) member 1	2					-1.56	-1.29			
23876	Fbln5	fibulin 5	2					-1.33	-1.29			
71529	Kazn	kazrin, periaplanin interacting protein	2					-1.43	-1.29			
50915	Grb14	growth factor receptor bound protein 14	2					-1.39	-1.29			
106369	Ypel1	yippee-like 1 (Drosophila)	2					-1.46	-1.29			
14164	Fgf1	fibroblast growth factor 1	2					-1.36	-1.29			
75744	Svip	small VCP/p97-interacting protein	2					-1.25	-1.29			
17532	Mras	muscle and microspikes RAS	2					-1.47	-1.30			
223649	Nrbp2	nuclear receptor binding protein 2	2					-1.34	-1.30			
13641	Efnb1	ephrin B1	2					-1.26	-1.30			
15468	Prmt2	protein arginine N-methyltransferase 2	2					-1.38	-1.30			
59049	Slc22a17	solute carrier family 22 (organic cation transporter), member 17	2					-1.48	-1.31			
69993	Chn2	chimerin (chimaerin) 2	2					-1.55	-1.31			
26936	Mrip	myosin phosphatase Rho interacting protein	2					-1.48	-1.31			
73182	Pear1	platelet endothelial aggregation receptor 1	2					-1.38	-1.31			
58178	Sorcs1	VPS10 domain receptor protein SORCS 1	2					-1.38	-1.32			
18797	Plcb3	phospholipase C, beta 3	2					-1.25	-1.32			
229658	Vangl1	vang-like 1 (van gogh, Drosophila)	2					-1.52	-1.32			
50530	Mfap5	microfibrillar associated protein 5	2					-1.52	-1.32			
22658	Pcgl2	polycomb group ring finger 2	2					-1.42	-1.33			
64291	Osbpl1a	oxysterol binding protein-like 1A	2					-1.33	-1.33			
94346	Tmem40	transmembrane protein 40	2					-1.62	-1.33			
70354	Secisbp2l	SECIS binding protein 2-like	2					-1.39	-1.33			
70461	Crtc3	CREB regulated transcription coactivator 3	2					-1.87	-1.33			
12389	Cav1	caveolin 1, caveolae protein	2					-1.34	-1.33	14	20.6	5.14E-13
13497	Drp2	dystrophin related protein 2	2					-1.37	-1.33			
224090	Tmem44	transmembrane protein 44	2					-1.40	-1.34			
55992	Trim3	tripartite motif-containing 3	2					-1.52	-1.34			
21802	Tgfa	transforming growth factor alpha	2					-1.51	-1.34	11	2.6	0.02
22051	Trip6	thyroid hormone receptor interactor 6	2					-1.56	-1.34			
79196	Osbpl5	oxysterol binding protein-like 5	2					-1.49	-1.34			
260409	Cdc42ep3	CDC42 effector protein (Rho GTPase binding) 3	2					-1.37	-1.35			
56175	Bace2	beta-site APP-cleaving enzyme 2	2					-1.64	-1.35			
77940	A930004D18Rik	RIKEN cDNA A930004D18 gene	2					-1.48	-1.35			
100380944	Gm11602	predicted gene 11602	2					-1.81	-1.35			
71184	I700112M01Rik	RIKEN cDNA 1700112M01 gene	2					-1.45	-1.35			
110596	Rgnef	Rho-guanine nucleotide exchange factor	2					-1.51	-1.35			
15248	Hic1	hypermethylated in cancer 1	2					-1.70	-1.35			
76898	B3gat1	beta-1,3-glucuronyltransferase 1 (glucuronosyltransferase P)	2					-1.52	-1.35			
50791	Magi2	membrane associated guanylate kinase, WW and PDZ domain containing 2	2					-1.40	-1.36			
226751	Cdc42bpa	CDC42 binding protein kinase alpha	2					-1.37	-1.36			
338367	Myo1d	myosin ID	2					-1.58	-1.36			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
21981	Ppp1r13b	protein phosphatase 1, regulatory (inhibitor) subunit 13B	2					-1.42	-1.36			
73852	D3Erd751e	DNA segment, Chr 3, ERATO Doi 751, expressed	2					-1.37	-1.36			
668253	Dleu2	deleted in lymphocytic leukemia, 2	2					-1.43	-1.36			
242653	Cldn19	claudin 19	2					-1.57	-1.37			
24050	Sept3	septin 3	2					-1.42	-1.37			
18821	Pln	phospholamban	2					-1.64	-1.37			
16529	Kcnk5	potassium channel, subfamily K, member 5	2					-1.66	-1.37			
233040	Fbxo27	F-box protein 27	2					-1.67	-1.37			
97761	Sgsm2	small G protein signaling modulator 2	2					-1.37	-1.37			
71213	Cage1	cancer antigen 1	2					-1.53	-1.38			
26427	Creb3l1	cAMP responsive element binding protein 3-like 1	2					-1.49	-1.38			
271849	Shc4	SHC (Src homology 2 domain containing) family, member 4	2					-1.44	-1.38			
21833	Thra	thyroid hormone receptor alpha	2					-1.65	-1.38			
217310	C630004H02Rik	RIKEN cDNA C630004H02 gene	2					-1.49	-1.38			
110606	Fntb	farnesyltransferase, CAAX box, beta	2					-1.55	-1.38			
108800	Ston2	stonin 2	2					-1.60	-1.38			
26968	Islr	immunoglobulin superfamily containing leucine-rich repeat	2					-1.38	-1.39			
18795	Plcb1	phospholipase C, beta 1	2					-1.35	-1.39	5	1.3	0.65
70827	Trak2	trafficking protein, kinesin binding 2	2					-1.30	-1.39			
19272	Ptprk	protein tyrosine phosphatase, receptor type, K	2					-1.43	-1.39			
64297	Gprc5b	G protein-coupled receptor, family C, group 5, member B	2					-1.46	-1.39			
19088	Prkar2b	protein kinase, cAMP dependent regulatory, type II beta	2					-1.36	-1.40			
94332	Cadm3	cell adhesion molecule 3	2					-1.57	-1.40			
241589	D430041D05Rik	RIKEN cDNA D430041D05 gene	2					-1.46	-1.40			
319899	Dock6	dedicator of cytokinesis 6	2					-1.44	-1.40			
11487	Adam10	a disintegrin and metallopeptidase domain 10	2					-1.39	-1.40	5	44.8	1.51E-06
19126	Prom1	prominin 1	2					-1.39	-1.40	1	3.1	0.35
237759	Col23a1	collagen, type XXIII, alpha 1	2					-1.68	-1.41			
234582	Ccdc102a	coiled-coil domain containing 102A	2					-1.78	-1.41			
58802	Kcnmb4	potassium large conductance calcium-activated channel, subfamily M, beta member 4	2					-1.99	-1.41			
329628	Fat4	FAT tumor suppressor homolog 4 (Drosophila)	2					-1.39	-1.41			
23873	Faim	Fas apoptotic inhibitory molecule	2					-1.70	-1.41			
57810	Cdon	cell adhesion molecule-related/down-regulated by oncogenes	2					-1.60	-1.41			
75116	4930520O04Rik	RIKEN cDNA 4930520O04 gene	2					-1.66	-1.41			
18605	Enpp1	ectonucleotide pyrophosphatase/phosphodiesterase 1	2					-1.63	-1.42			
269701	Wdr66	WD repeat domain 66	2					-1.53	-1.42			
14365	Fzd3	frizzled homolog 3 (Drosophila)	2					-1.50	-1.42			
12549	Arhgap31	Rho GTPase activating protein 31	2					-1.36	-1.42			
242466	Zfp462	zinc finger protein 462	2					-1.26	-1.42			
211429	Pla2g4b	phospholipase A2, group IVB (cytosolic)	2					-1.51	-1.42			
13665	Eif2s1	eukaryotic translation initiation factor 2, subunit 1 alpha	2					-1.64	-1.42			
436230	BC065397	cDNA sequence BC065397	2					-1.62	-1.43			
72469	Plcd3	phospholipase C, delta 3	2					-1.69	-1.43			
56788	Scube2	signal peptide, CUB domain, EGF-like 2	2					-2.07	-1.43			
13824	Epb4.114a	erythrocyte protein band 4.1-like 4a	2					-1.57	-1.43			
57277	Slurp1	secreted Ly6/Plaur domain containing 1	2					-1.64	-1.43	1	11.5	0.15
381404	Pabpc1l	poly(A) binding protein, cytoplasmic 1-like	2					-2.02	-1.43			
76455	2310067E19Rik	RIKEN cDNA 2310067E19 gene	2					-1.71	-1.43			
17309	Mgat3	mannoside acetylglucosaminyltransferase 3	2					-1.33	-1.43			
194309	Vps37d	vacuolar protein sorting 37D (yeast)	2					-1.56	-1.43			
14199	Fhl1	four and a half LIM domains 1	2					-1.62	-1.43			
105445	Dock9	dedicator of cytokinesis 9	2					-1.43	-1.44			
67374	Jam2	junction adhesion molecule 2	2					-1.48	-1.44			
100503351	Gm19651	predicted gene, 19651	2					-1.69	-1.44			
66338	Cdr4	CMT1A duplicated region transcript 4	2					-1.64	-1.44			
19273	Ptpru	protein tyrosine phosphatase, receptor type, U	2					-1.61	-1.45	1	2.1	0.44
22420	Wnt6	wingless-related MMTV integration site 6	2					-1.50	-1.45			
78004	Prr15	proline rich 15	2					-1.86	-1.45			
103012	6720401G13Rik	RIKEN cDNA 6720401G13 gene	2					-1.62	-1.45			
217410	Trib2	tribbles homolog 2 (Drosophila)	2					-1.34	-1.45			
226143	Cyp2c44	cytochrome P450, family 2, subfamily c, polypeptide 44	2				-1.95		-1.45			
20378	Frzb	frizzled-related protein	2					-1.36	-1.45			
109323	C1qtnf7	C1q and tumor necrosis factor related protein 7	2					-1.56	-1.45			
333088	Kcp	kielin/chordin-like protein	2					-2.54	-1.46			
269704	Zfp664	zinc finger protein 664	2					-1.55	-1.46			
15426	Hoxc8	homeobox C8	2					-1.67	-1.46			
68525	Evc2	Ellis van Creveld syndrome 2 homolog (human)	2					-1.34	-1.46			
20377	Sfrp1	secreted frizzled-related protein 1	2					-1.50	-1.46			
20475	Six5	sine oculis-related homeobox 5 homolog (Drosophila)	2					-1.78	-1.46			
83396	Glis2	GLIS family zinc finger 2	2					-1.55	-1.47			
16012	Igf6	insulin-like growth factor binding protein 6	2					-1.56	-1.47			
12663	Chml	choroideremia-like	2					-1.51	-1.47			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
223254	Farp1	FERM, RhoGEF (Arhgef) and pleckstrin domain protein 1 (chondrocyte-derived)	2					-1.49	-1.47			
19249	Ptpn13	protein tyrosine phosphatase, non-receptor type 13	2					-1.29	-1.47			
18671	Abcb1a	ATP-binding cassette, sub-family B (MDR/TAP), member 1A	2					-1.36	-1.48	1	0.5	1.02
18004	Nek1	NIMA (never in mitosis gene a)-related expressed kinase 1	2					-1.52	-1.48			
17936	Nab1	Ngfi-A binding protein 1	2					-1.37	-1.48			
214742	Rcor3	REST corepressor 3	2					-1.52	-1.48			
66259	Camk2n1	calcium/calmodulin-dependent protein kinase II inhibitor 1	2					-1.42	-1.48	1	7.2	0.20
68481	Mpz1	myelin protein zero-like 1	2					-1.53	-1.48			
320635	Cyb5r2	cytochrome b5 reductase 2	2					-1.61	-1.49			
72289	Malat1	metastasis associated lung adenocarcinoma transcript 1 (non-coding RNA)	2					-1.44	-1.49			
72350	Fam164c	family with sequence similarity 164, member C	2					-1.69	-1.49			
68178	Cgnl1	cingulin-like 1	2					-1.29	-1.49			
320965	4831440E17Rik	RIKEN cDNA 4831440E17 gene	2					-2.06	-1.49			
13838	Epha4	Eph receptor A4	2					-1.94	-1.49			
668303	Kif26a	kinesin family member 26A	2					-1.53	-1.50			
232237	Fgd5	FYVE, RhoGEF and PH domain containing 5	2					-1.68	-1.50			
20501	Slc16a1	solute carrier family 16 (monocarboxylic acid transporters), member 1	2					-1.67	-1.50			
14609	Gja1	gap junction protein, alpha 1	2					-1.46	-1.50	1	1	1.04
192897	Itgb4	integrin beta 4	2					-1.46	-1.51			
16886	Limk2	LIM motif-containing protein kinase 2	2					-1.67	-1.51			
109594	Lmo1	LIM domain only 1	2					-1.51	-1.51			
243382	Ppm1k	protein phosphatase 1K (PP2C domain containing)	2					-1.54	-1.51			
77794	Adamts12	ADAMTS-like 2	2					-2.03	-1.51			
654818	C030030A07Rik	RIKEN cDNA C030030A07 gene	2					-1.62	-1.51			
18552	Pcsk5	proprotein convertase subtilisin/kexin type 5	2					-1.91	-1.51			
216795	Wnt9a	wingless-type MMTV integration site 9A	2					-1.73	-1.52			
78892	Crispld2	cysteine-rich secretory protein LCCL domain containing 2	2					-1.95	-1.52			
74011	Slc25a27	solute carrier family 25, member 27	2					-1.46	-1.52			
20732	Spint1	serine protease inhibitor, Kunitz type 1	2					-1.93	-1.52			
239114	Il17d	interleukin 17D	2					-1.96	-1.52			
381110	Fam82a1	family with sequence similarity 82, member A1	2					-1.31	-1.53			
192167	Nlgn1	neuroligin 1	2					-1.97	-1.54			
70737	Cgn	cingulin	2					-1.84	-1.54			
230316	Megf9	multiple EGF-like-domains 9	2					-1.41	-1.54			
12724	Clcn2	chloride channel 2	2					-1.83	-1.54			
68939	Ras11b	RAS-like, family 11, member B	2					-1.82	-1.54			
50905	Il17rb	interleukin 17 receptor B	2					-1.81	-1.54			
214137	Arhgap29	Rho GTPase activating protein 29	2					-1.41	-1.54			
280668	Adam1a	a disintegrin and metalloproteinase domain 1a	2					-1.45	-1.55			
21809	Tgfb3	transforming growth factor, beta 3	2					-1.46	-1.55			
12395	Runx1t1	runt-related transcription factor 1; translocated to, 1 (cyclin D-related)	2					-1.46	-1.55			
327958	Pitpnm3	PITPNM family member 3	2					-1.44	-1.55			
73490	Mipol1	mirror-image polydactyly gene 1 homolog (human)	2					-1.39	-1.55			
207259	Zbtb7c	zinc finger and BTB domain containing 7C	2					-1.59	-1.56			
56089	Ramp3	receptor (calcitonin) activity modifying protein 3	2					-2.09	-1.56			
15465	Hrh1	histamine receptor H1	2					-1.53	-1.56			
69219	Ddah1	dimethylarginine dimethylaminohydrolase 1	2					-1.84	-1.56	1	15.4	0.13
23955	Nek4	NIMA (never in mitosis gene a)-related expressed kinase 4	2					-1.37	-1.57			
268759	9930012K11Rik	RIKEN cDNA 9930012K11 gene	2					-1.87	-1.57			
54612	Sfrp5	secreted frizzled-related sequence protein 5	2					-1.44	-1.57			
319832	Tmem229a	transmembrane protein 229A	2					-1.60	-1.57			
97114	Hist2h3c2-ps	histone cluster 2, H3c2, pseudogene	2					-1.77	-1.57			
67434	Ankrd33b	ankyrin repeat domain 33B	2					-1.59	-1.57			
54446	Nfat5	nuclear factor of activated T-cells 5	2					-1.49	-1.58			
11551	Adra2a	adrenergic receptor, alpha 2a	2					-2.08	-1.58			
53881	Slc5a3	solute carrier family 5 (inositol transporters), member 3	2					-1.37	-1.59			
117606	Boc	biregional cell adhesion molecule-related/down-regulated by oncogenes (Cdon) binding protein	2					-1.57	-1.60			
76640	1700113H08Rik	RIKEN cDNA 1700113H08 gene	2					-1.97	-1.60			
18511	Pax9	paired box gene 9	2					-1.82	-1.60			
70784	Ras112	RAS-like, family 12	2					-1.85	-1.60			
100042480	Nhsl2	NHS-like 2	2					-1.34	-1.60			
14178	Fgf7	fibroblast growth factor 7	2					-1.34	-1.60			
17301	Foxd2	forkhead box D2	2					-1.54	-1.61			
100504377	Gm20199	predicted gene, 20199	2					-1.59	-1.61			
75906	Fam184a	family with sequence similarity 184, member A	2					-1.46	-1.61			
16475	Jub	ajuba	2					-1.95	-1.61			
12654	Chi3l1	chitinase 3-like 1	2					-1.62	-1.61			
58237	Nkain4	Na+/K+ transporting ATPase interacting 4	2					-1.54	-1.62			
16764	Aff3	AF4/FMR2 family, member 3	2					-1.37	-1.62			
223864	Rapgef3	Rap guanine nucleotide exchange factor (GEF) 3	2					-1.51	-1.62			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
100039684	5031434O11Rik	RIKEN cDNA 5031434O11 gene	2									
108760	Galnt1	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase-like 1	2					-1.87	-1.62			
212391	Lcor	ligand dependent nuclear receptor corepressor	2					-1.63	-1.63			
78102	8430426J06Rik	RIKEN cDNA 8430426J06 gene	2					-1.95	-1.63			
74782	Gli8d2	glycosyltransferase 8 domain containing 2	2					-1.94	-1.63			
100039795	Ildr2	immunoglobulin-like domain containing receptor 2	2					-1.48	-1.63			
209645	Bend7	BEN domain containing 7	2					-2.19	-1.64			
233274	Siglech	sialic acid binding Ig-like lectin H	2					-1.93	-1.64			
12824	Col2a1	collagen, type II, alpha 1	2					-1.79	-1.64			
114142	Foxp2	forkhead box P2	2					-1.55	-1.64			
68235	2410066E13Rik	RIKEN cDNA 2410066E13 gene	2					-1.46	-1.64			
114249	Npnt	nephronectin	2					-1.82	-1.65			
12160	Bmp5	bone morphogenetic protein 5	2					-1.74	-1.66			
17965	Nbl1	neuroblastoma, suppression of tumorigenicity 1	2					-1.56	-1.66			
22351	Vill	villin-like	2					-1.71	-1.66			
63830	Kcnq1ot1	KCNQ1 overlapping transcript 1	2					-1.87	-1.67			
16456	F11r	F11 receptor	2					-1.59	-1.67	3	26.9	1.43E-03
106522	Pkdcc	protein kinase domain containing, cytoplasmic	2					-1.77	-1.67			
100504686	Sfpq	NA	2					-1.62	-1.67			
16526	Kcnk2	potassium channel, subfamily K, member 2	2					-1.58	-1.67			
241638	Prosapip1	ProSAPIP1 protein	2					-1.85	-1.68			
17057	Kirb1a	killer cell lectin-like receptor subfamily B member 1A	2					-1.91	-1.68			
268860	Abat	4-aminobutyrate aminotransferase	2					-1.53	-1.68			
237761	Ankrd43	ankyrin repeat domain 43	2					-1.63	-1.69			
68144	5031426D15Rik	RIKEN cDNA 5031426D15 gene	2					-1.66	-1.69			
320311	Rnf152	ring finger protein 152	2					-1.74	-1.70			
14200	Fhl2	four and a half LIM domains 2	2					-1.64	-1.71			
14632	Gli1	GLI-Kruppel family member GLI1	2					-1.68	-1.71			
12829	Col4a4	collagen, type IV, alpha 4	2					-2.01	-1.71			
66790	Grtp1	GH regulated TBC protein 1	2					-1.97	-1.72			
107587	Osr2	odd-skipped related 2 (Drosophila)	2					-1.84	-1.73			
93842	Igsf9	immunoglobulin superfamily, member 9	2					-2.35	-1.73			
242509	Bnc2	basonuclin 2	2					-1.65	-1.73			
60596	Gucy1a3	guanylate cyclase 1, soluble, alpha 3	2					-1.90	-1.73			
109978	Art4	ADP-ribosyltransferase 4	2					-2.28	-1.73			
240332	Slc6a7	solute carrier family 6 (neurotransmitter transporter, L-proline), member 7	2					-1.94	-1.73			
73296	Rhobtb3	Rho-related BTB domain containing 3	2					-1.78	-1.74			
269959	Adamts13	ADAMTS-like 3	2					-1.65	-1.74			
74134	Cyp2s1	cytochrome P450, family 2, subfamily s, polypeptide 1	2					-2.18	-1.74			
13052	Cxadr	coxsackie virus and adenovirus receptor	2					-1.48	-1.74	1	5.1	0.25
100502711	NA	NA	2					-1.59	-1.74			
13386	Dlk1	delta-like 1 homolog (Drosophila)	2					-2.77	-1.74			
12737	Cldn1	claudin 1	2					-1.65	-1.75			
106042	Prickle1	prickle homolog 1 (Drosophila)	2					-1.70	-1.75			
70598	Filip1	filamin A interacting protein 1	2					-1.70	-1.75			
20518	Slc22a2	solute carrier family 22 (organic cation transporter), member 2	2					-2.23	-1.75			
333182	Cox6b2	cytochrome c oxidase subunit VIb polypeptide 2	2					-2.18	-1.76			
320916	Wscd2	WSC domain containing 2	2					-1.84	-1.77			
17286	Meox2	mesenchyme homeobox 2	2					-1.91	-1.78			
21828	Thbs4	thrombospondin 4	2					-1.72	-1.78			
76365	Tbx18	T-box18	2					-1.81	-1.78			
14412	Slc6a13	solute carrier family 6 (neurotransmitter transporter, GABA), member 13	2					-1.57	-1.79			
320415	Gchfr	GTP cyclohydrolase I feedback regulator	2					-2.83	-1.79			
23964	Odz2	odd Oz/ten-m homolog 2 (Drosophila)	2					-1.92	-1.80			
60345	Nrip2	nuclear receptor interacting protein 2	2					-1.85	-1.80			
77132	2810433D01Rik	RIKEN cDNA 2810433D01 gene	2					-2.03	-1.81			
108096	Slco1a5	solute carrier organic anion transporter family, member 1a5	2					-2.53	-1.81			
12224	Klf5	Kruppel-like factor 5	2					-1.72	-1.83			
57265	Fzd2	frizzled homolog 2 (Drosophila)	2					-1.71	-1.83			
69239	2610034M16Rik	RIKEN cDNA 2610034M16 gene	2					-1.67	-1.84			
100043364	Gm4392	predicted gene 4392	2					-1.62	-1.84			
78303	Hist3h2ba	histone cluster 3, H2ba	2					-2.05	-1.84			
67198	Spats2l	spermatogenesis associated, serine-rich 2-like	2					-2.01	-1.85			
71951	Gpc2	glypican 2 (cerebroglycan)	2					-1.57	-1.86			
108105	B3gnt5	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 5	2				1.65		-1.86			
319819	4932435O22Rik	RIKEN cDNA 4932435O22 gene	2					-1.51	-1.87			
228413	Prrg4	proline rich Gla (G-carboxylglutamic acid) 4 (transmembrane)	2					-1.86	-1.87			
100503921	Gm19966	predicted gene, 19966	2					-2.36	-1.87			
23888	Gpc6	glypican 6	2					-1.97	-1.88			
14012	Mpzl2	myelin protein zero-like 2	2					-1.79	-1.89			
330096	Shisa3	shisa homolog 3 (Xenopus laevis)	2					-1.65	-1.90			
216033	Ctnna3	catenin (cadherin associated protein), alpha 3	2					-1.76	-1.90			
22284	Usp9x	ubiquitin specific peptidase 9, X chromosome	2				1.39		-1.90			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
64058	Perp	PERP, TP53 apoptosis effector	2					-1.95	-1.91			
57738	Slc15a2	solute carrier family 15 (H+/peptide transporter), member 2	2					-2.37	-1.92			
330166	Miat	myocardial infarction associated transcript (non-protein coding)	2					-2.00	-1.93			
24059	Slco2a1	solute carrier organic anion transporter family, member 2a1	2					-1.81	-1.95			
78267	Kihdc8b	kelch domain containing 8B	2					-2.26	-1.95			
68625	Wdr65	WD repeat domain 65	2					-1.83	-1.96			
209195	Clic6	chloride intracellular channel 6	2					-1.69	-1.96			
15229	Foxd1	forkhead box D1	2					-1.73	-1.96			
13884	Ces1c	carboxylesterase 1C	2					-2.33	-1.97			
69772	Bdh2	3-hydroxybutyrate dehydrogenase, type 2	2					-2.40	-1.98			
64074	Smoc2	SPARC related modular calcium binding 2	2					-2.06	-1.98			
74186	Ccdc3	coiled-coil domain containing 3	2					-1.95	-1.99			
16612	Klk1	kallikrein 1	2					-2.02	-2.00			
223272	Iitgb1	integrin, beta-like 1	2					-2.18	-2.00			
55987	Cpxm2	carboxypeptidase X 2 (M14 family)	2					-1.81	-2.00			
66859	Slc16a9	solute carrier family 16 (monocarboxylic acid transporters), member 9	2					-1.86	-2.03			
320856	Ppp1r12b	NA	2					-2.52	-2.05			
16763	Lad1	ladinin	2					-2.52	-2.07			
224833	Al661453	expressed sequence Al661453	2					-2.10	-2.09			
100040792	Gm11627	predicted gene 11627	2					-2.06	-2.09			
654812	Angptl7	angiopoietin-like 7	2					-2.24	-2.09			
20519	Slc22a3	solute carrier family 22 (organic cation transporter), member 3	2					-2.22	-2.09			
56047	Msln	mesothelin	2					-1.95	-2.10			
14275	Folr1	folate receptor 1 (adult)	2					-1.64	-2.11			
74103	Neb1	nebulette	2				1.88		-2.17			
100504147	LOC100504147	NA	2					-2.10	-2.17			
16782	Lamc2	laminin, gamma 2	2					-2.40	-2.18	2	3	0.22
12373	Casq2	calsequestrin 2	2					-2.29	-2.21			
14264	Fmod	fibromodulin	2					-2.82	-2.29			
319626	9530059O14Rik	RIKEN cDNA 9530059O14 gene	2					-1.82	-2.31			
192199	Rspo1	R-spondin homolog (Xenopus laevis)	2					-2.57	-2.35			
108151	Sema3d	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3D	2					-2.22	-2.36			
16780	Lamb3	laminin, beta 3	2					-2.38	-2.36			
18784	Pla2g5	phospholipase A2, group V	2					-2.16	-2.36			
14411	Slc6a12	solute carrier family 6 (neurotransmitter transporter, betaine/GABA), member 12	2					-2.52	-2.37			
399558	Flrt2	fibronectin leucine rich transmembrane protein 2	2					-2.02	-2.38			
75677	Cldn22	claudin 22	2					-2.91	-2.40			
338403	Cndp1	carnosine dipeptidase 1 (metallopeptidase M20 family)	2					-2.89	-2.41			
70008	Ace2	angiotensin I converting enzyme (peptidyl-dipeptidase A) 2	2					-3.80	-2.49			
16425	Itih2	inter-alpha trypsin inhibitor, heavy chain 2	2					-2.88	-2.52			
99681	Tchh	trichohyalin	2					-2.46	-2.55			
71664	Mettl7b	methyltransferase like 7B	2					-2.85	-2.60			
68311	Lypd2	Ly6/Plaur domain containing 2	2					-3.77	-2.91			
16669	Krt19	keratin 19	2					-3.20	-3.07			
54156	Egfl6	EGF-like-domain, multiple 6	2					-4.95	-3.22			
74071	Ifitd1	intermediate filament tail domain containing 1	2					-3.38	-3.24			
13643	Efnb3	ephrin B3	2					-4.71	-3.69			
665033	Col6a5	collagen, type VI, alpha 5	2					-5.42	-3.79			
20186	Nr1h4	nuclear receptor subfamily 1, group H, member 4	2		1.50			2.16		5	23.3	3.01E-05
58807	Slco1c1	solute carrier organic anion transporter family, member 1c1	2		-1.54			1.73				
56857	Slc37a2	solute carrier family 37 (glycerol-3-phosphate transporter), member 2	2		1.41			2.49				
65221	Slc15a3	solute carrier family 15, member 3	2		1.72			4.82				
93880	Pcdhb9	protocadherin beta 9	2				1.97	2.93				
17916	Myo1f	myosin IF	2		1.94			3.35				
214944	Mob3b	MOB kinase activator 3B	2		1.35			-1.56				
319387	Lphn3	latrophilin 3	2	1.88				1.73				
16792	Laptn5	lysosomal-associated protein transmembrane 5	2		1.48			3.39				
319765	Igf2bp2	insulin-like growth factor 2 mRNA binding protein 2	2				-1.47	-1.52				
100503148	Gm19575	NA	2					-1.57	-2.03			
338521	Fa2h	fatty acid 2-hydroxylase	2					-1.32	-1.41			
56405	Dusp14	dual specificity phosphatase 14	2		-1.58				-1.52			
12903	Crabp1	cellular retinoic acid binding protein I	2	-2.23	-2.60							
12834	Col6a2	collagen, type VI, alpha 2	2					-1.69	-2.14			
19378	Aldh1a2	aldehyde dehydrogenase family 1, subfamily A2	2		-2.26				2.50			
109934	Abr	active BCR-related gene	2				1.53	1.65				
100503029	NA	NA	2		1.40			-1.77				
20201	S100a8	S100 calcium binding protein A8 (calgranulin A)	1			9.40						
624219	Gm6484	predicted gene 6484	1			8.97						
20202	S100a9	S100 calcium binding protein A9 (calgranulin B)	1			7.38						
83379	Klb	klotho beta	1			6.67						
17200	Mc2r	melanocortin 2 receptor	1			4.38						
18406	Orm2	orosomucoid 2	1			3.90				3	5.1	0.06

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)			
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value	
22095	Tshr	thyroid stimulating hormone receptor	1			3.85							
226049	Dmrt2	doublesex and mab-3 related transcription factor 2	1			3.74							
116939	Pnpla3	patatin-like phospholipase domain containing 3	1			3.66				1	46.4	0.06	
21835	Thrsp	thyroid hormone responsive SPOT14 homolog (Rattus)	1			3.49				1	12.8	0.15	
69189	1810033B17Rik	RIKEN cDNA 1810033B17 gene	1			3.34							
69861	2010003K11Rik	RIKEN cDNA 2010003K11 gene	1			3.25							
244416	Ppp1r3b	protein phosphatase 1, regulatory (inhibitor) subunit 3B	1			3.04							
15203	Heph	hephaestin	1			2.98				1	25.9	0.09	
319743	9630013D21Rik	RIKEN cDNA 9630013D21 gene	1			2.95							
79456	Recq14	RecQ protein-like 4	1			2.87							
56078	Car5b	carbonic anhydrase 5b, mitochondrial	1			2.66							
17001	Ltc4s	leukotriene C4 synthase	1			2.62							
13809	Enpep	glutamyl aminopeptidase	1			2.44							
319942	A530016L24Rik	RIKEN cDNA A530016L24 gene	1			2.44							
56485	Slc2a5	solute carrier family 2 (facilitated glucose transporter), member 5	1			2.41				1	19.5	0.11	
14562	Gdf3	growth differentiation factor 3	1			2.40							
18639	Pfkfb1	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1	1			2.38							
18407	Orm3	orosomucoid 3	1			2.38							
67800	Dgat2	diacylglycerol O-acyltransferase 2	1			2.37				2	71.1	2.41E-03	
18631	Pex11a	peroxisomal biogenesis factor 11 alpha	1			2.31							
18030	Nfil3	nuclear factor, interleukin 3, regulated	1			2.22							
72121	Dennd2d	DENN/MADD domain containing 2D	1			2.21							
67468	Mmd	monocyte to macrophage differentiation-associated	1			2.16							
26358	Aldh1a7	aldehyde dehydrogenase family 1, subfamily A7	1			2.09							
14874	Gstz1	glutathione transferase zeta 1 (maleylacetoacetate isomerase)	1			2.00							
73699	Ppp2r1b	protein phosphatase 2 (formerly 2A), regulatory subunit A (PR 65), beta isoform	1			1.99							
245945	Rbm47	RNA binding motif protein 47	1			1.99							
20733	Spint2	serine protease inhibitor, Kunitz type 2	1			1.94							
330189	Tmem120b	transmembrane protein 120B	1			1.93							
11556	Adrb3	adrenergic receptor, beta 3	1			1.93				3	31.9	9.29E-04	
20962	Sycp3	synaptonemal complex protein 3	1			1.90							
112407	Egln3	EGL nine homolog 3 (C. elegans)	1			1.88							
192200	Wfdc12	WAP four-disulfide core domain 12	1			1.85							
21857	Timp1	tissue inhibitor of metalloproteinase 1	1			1.84				2	1.1	0.74	
494504	Apcdd1	adenomatosis polyposis coli down-regulated 1	1			1.83							
14257	Flt4	FMS-like tyrosine kinase 4	1			1.81							
118449	Synpo2	synaptopodin 2	1			1.80							
18563	Pcx	pyruvate carboxylase	1			1.80							
67182	Pdzk1ip1	PDZK1 interacting protein 1	1			1.79							
76041	Ccdc125	coiled-coil domain containing 125	1			1.79							
76282	Gpt	glutamic pyruvic transaminase, soluble	1			1.77				32	9.4	3.70E-19	
212862	Chpt1	choline phosphotransferase 1	1			1.77				3	19.5	3.22E-03	
14104	Fasn	fatty acid synthase	1			1.73				10	15.1	3.36E-08	
60525	Acss2	acyl-CoA synthetase short-chain family member 2	1			1.72							
54120	Gipc2	GIPC PDZ domain containing family, member 2	1			1.72							
14555	Gpd1	glycerol-3-phosphate dehydrogenase 1 (soluble)	1			1.71							
241694	Ralgapa2	Ral GTPase activating protein, alpha subunit 2 (catalytic)	1			1.69							
13609	S1pr1	sphingosine-1-phosphate receptor 1	1			1.68							
11637	Ak2	adenylate kinase 2	1			1.67							
277414	Trp53i11	transformation related protein 53 inducible protein 11	1			1.67							
13120	Cyp4b1	cytochrome P450, family 4, subfamily b, polypeptide 1	1			1.66							
72472	Slc16a10	solute carrier family 16 (monocarboxylic acid transporters), member 10	1			1.64							
19885	Rorc	RAR-related orphan receptor gamma	1			1.63							
235135	Tmem45b	transmembrane protein 45b	1			1.63							
14792	Lpcat3	lysophosphatidylcholine acyltransferase 3	1			1.61							
243374	Gimap8	GTPase, IMAP family member 8	1			1.60							
71693	Colec11	collectin sub-family member 11	1			1.59							
11861	Arl4a	ADP-ribosylation factor-like 4A	1			1.56							
240168	Rasgrp3	RAS, guanyl releasing protein 3	1			1.55							
19011	Endou	endonuclease, polyU-specific	1			1.54							
317758	Gimap9	GTPase, IMAP family member 9	1			1.54							
14396	Gabra3	gamma-aminobutyric acid (GABA) A receptor, subunit alpha 3	1			1.53							
22341	Vegfc	vascular endothelial growth factor C	1			1.50							
107476	Acaca	acetyl-Coenzyme A carboxylase alpha	1			1.49				3	9.1	0.02	
56738	Mocs1	molybdenum cofactor synthesis 1	1			1.49							
15064	Mr1	major histocompatibility complex, class I-related	1			1.48							
66307	Isoc1	isochorismatase domain containing 1	1			1.48							
110208	Pgd	phosphogluconate dehydrogenase	1			1.46							
228026	Pdk1	pyruvate dehydrogenase kinase, isoenzyme 1	1			1.46				2	4	0.16	
12580	Cdkn2c	cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)	1			1.45							

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
503610	Zdhc18	zinc finger, DHHC domain containing 18	1			1.44						
78088	Ankrd56	ankyrin repeat domain 56	1			1.42						
233789	Smg1	SMG1 homolog, phosphatidylinositol 3-kinase-related kinase (C. elegans)	1			1.42						
67384	Bag4	BCL2-associated athanogene 4	1			1.41						
14594	Ggta1	glycoprotein galactosyltransferase alpha 1, 3	1			1.41						
238799	Tnpo1	transportin 1	1			1.40				1	5.5	0.24
100087	Kti12	KTI12 homolog, chromatin associated (S. cerevisiae)	1			1.40						
67824	Nmral1	NmrA-like family domain containing 1	1			1.40						
11540	Adora2a	adenosine A2a receptor	1			1.39						
320302	Git28d2	glycosyltransferase 28 domain containing 2	1			1.38						
76306	1110021L09Rik	RIKEN cDNA 1110021L09 gene	1			1.38						
66949	Trim59	tripartite motif-containing 59	1			1.38						
317757	Gimap5	GTPase, IMAP family member 5	1			1.38						
240505	Cdc42bpg	CDC42 binding protein kinase gamma (DMPK-like)	1			1.38						
20969	Sdc1	syndecan 1	1			1.37						
193740	Hspa1a	heat shock protein 1A	1			1.37				13	3.2	1.93E-03
19205	Ptbp1	polypyrimidine tract binding protein 1	1			1.36						
15904	Id4	inhibitor of DNA binding 4	1			1.35						
18018	Nfatc1	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1	1			1.34						
21938	Tnfrsf1b	tumor necrosis factor receptor superfamily, member 1b	1			1.34				2	4.4	0.15
268291	Rnf217	ring finger protein 217	1			1.34						
214987	Chtf8	CTF8, chromosome transmission fidelity factor 8 homolog (S. cerevisiae)	1			1.34						
71683	Gypc	glycophorin C	1			1.33						
100040608	Fancl	Fanconi anemia, complementation group F	1			1.33						
17436	Me1	malic enzyme 1, NADP(+)-dependent, cytosolic	1			1.33				3	2.5	0.19
17064	Cd93	CD93 antigen	1			1.32						
69674	Mif4gd	MIF4G domain containing	1			1.32						
432572	Specc1	sperm antigen with calponin homology and coiled-coil domains 1	1			1.32						
140483	Hnmt	histamine N-methyltransferase	1			1.31						
20723	Serpinb9	serine (or cysteine) peptidase inhibitor, clade B, member 9	1			1.31						
17215	Mcm3	minichromosome maintenance deficient 3 (S. cerevisiae)	1			1.30						
11745	Anxa3	annexin A3	1			1.29				1	47	0.06
228889	Ddx27	DEAD (Asp-Glu-Ala-Asp) box polypeptide 27	1			1.28						
104112	Acly	ATP citrate lyase	1			1.28				1	4.7	0.27
18104	Nqo1	NAD(P)H dehydrogenase, quinone 1	1			1.27				2	2.3	0.30
66841	Etfdh	electron transferring flavoprotein, dehydrogenase	1			1.26						
230484	Usp1	ubiquitin specific peptidase 1	1			1.24						
17250	Abcc1	ATP-binding cassette, sub-family C (CFTR/MRP), member 1	1			1.23				2	2.5	0.27
66230	Mrps28	mitochondrial ribosomal protein S28	1			1.23						
68292	Stt3b	STT3, subunit of the oligosaccharyltransferase complex, homolog B (S. cerevisiae)	1			1.22						
73078	Pmpcb	peptidase (mitochondrial processing) beta	1			1.21						
17975	Ncl	nucleolin	1			1.20						
70508	Bbx	bobby sox homolog (Drosophila)	1			1.20						
13664	Eif1a	eukaryotic translation initiation factor 1A	1			1.19						
18813	Pa2g4	proliferation-associated 2G4	1			1.19						
66375	Dhrs7	dehydrogenase/reductase (SDR family) member 7	1			1.19						
13033	Ctsd	cathepsin D	1			1.17				2	2	0.33
12974	Cs	citrate synthase	1			1.17				1	1.2	0.60
68263	Pdhb	pyruvate dehydrogenase (lipoamide) beta	1			1.16				3	3	0.15
70564	5730469M10Rik	RIKEN cDNA 5730469M10 gene	1			1.16						
22333	Vdac1	voltage-dependent anion channel 1	1			-1.10				2	6.3	0.10
71765	Klhdc3	kelch domain containing 3	1			-1.19						
79566	Sh3bp5l	SH3 binding domain protein 5 like	1			-1.21						
209378	Itih5	inter-alpha (globulin) inhibitor H5	1			-1.24						
215008	Vezt	vezatin, adherens junctions transmembrane protein	1			-1.25						
18822	Plod1	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 1	1			-1.25						
14073	Faah	fatty acid amide hydrolase	1			-1.25						
67046	Tbc1d7	TBC1 domain family, member 7	1			-1.28						
667742	Fam38b	family with sequence similarity 38, member B	1			-1.28						
17207	Mcf2l	mcf.2 transforming sequence-like	1			-1.29						
192734	Al646023	expressed sequence Al646023	1			-1.29						
212919	Kctd7	potassium channel tetramerisation domain containing 7	1			-1.31						
319504	Nrcam	neuron-glia-CAM-related cell adhesion molecule	1			-1.32						
64339	Fndc4	fibronectin type III domain containing 4	1			-1.33						
16773	Lama2	laminin, alpha 2	1			-1.34						
18761	Prkcq	protein kinase C, theta	1			-1.36						
93734	Mpv17l	Mpv17 transgene, kidney disease mutant-like	1			-1.36						
12323	Camk2b	calcium/calmodulin-dependent protein kinase II, beta	1			-1.37						

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
77552	Shisa4	shisa homolog 4 (Xenopus laevis)	1			-1.37						
109264	Me3	malic enzyme 3, NADP(+)-dependent, mitochondrial	1			-1.38						
233724	Tmem41b	transmembrane protein 41B	1			-1.41						
73720	Cst6	cystatin E/M	1			-1.41						
268970	Arhgap28	Rho GTPase activating protein 28	1			-1.43						
215690	Nav1	neuron navigator 1	1			-1.44						
12842	Col1a1	collagen, type I, alpha 1	1			-1.46				47	1.9	6.44E-04
622675	Zfp827	zinc finger protein 827	1			-1.46						
14026	Evl	Ena-vasodilator stimulated phosphoprotein	1			-1.47						
100504154	Gm15050	predicted gene 15050	1			-1.50						
227541	Camk1d	calcium/calmodulin-dependent protein kinase ID	1			-1.50						
140492	Kcnn2	potassium intermediate/small conductance calcium-activated channel, subfamily N, member 2	1			-1.51						
100504135	Gm20081	predicted gene, 20081	1			-1.52						
99031	Osbpl6	oxysterol binding protein-like 6	1			-1.52						
14190	Fgl2	fibrinogen-like protein 2	1			-1.54						
65115	Bean1	brain expressed, associated with Nedd4, 1	1			-1.61						
17968	Ncam2	neural cell adhesion molecule 2	1			-1.61						
74166	Tmem38a	transmembrane protein 38A	1			-1.62						
235281	Scn3b	sodium channel, voltage-gated, type III, beta	1			-1.66						
78925	Srd5a1	steroid 5 alpha-reductase 1	1			-1.66				3	6.3	0.04
16816	Lcat	lecithin cholesterol acyltransferase	1			-1.70				31	84.4	2.21E-46
12830	Col4a5	collagen, type IV, alpha 5	1			-1.71						
381633	Gm1673	predicted gene 1673	1			-1.74						
73287	1700040L02Rik	RIKEN cDNA 1700040L02 gene	1			-1.74						
100504205	Kcnn8	NA	1			-1.74						
16322	Inha	inhibin alpha	1			-1.76						
15413	Hoxb5	homeobox B5	1			-1.79						
23937	Mab21l2	mab-21-like 2 (C. elegans)	1			-1.79						
384061	Fndc5	fibronectin type III domain containing 5	1			-1.82						
320460	Vwc2l	von Willebrand factor C domain-containing protein 2-like	1			-1.90						
17263	Meg3	maternally expressed 3	1			-1.92						
78977	Popdc3	popeye domain containing 3	1			-1.96						
18802	Plcd4	phospholipase C, delta 4	1			-2.03						
27281	Hrasls	HRAS-like suppressor	1			-2.09						
218624	Il31ra	interleukin 31 receptor A	1			-2.11						
330119	Adamts3	a disintegrin-like and metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 3	1			-2.12						
22771	Zic1	zinc finger protein of the cerebellum 1	1			-2.33						
545527	Fam194a	family with sequence similarity 194, member A	1			-2.41						
15357	Hmgcr	3-hydroxy-3-methylglutaryl-Coenzyme A reductase	1			-2.54				48	110.7	2.64E-77
67473	Slc47a1	solute carrier family 47, member 1	1			-2.60						
108907	Nusap1	nucleolar and spindle associated protein 1	1						5.71			
14191	Fgr	Gardner-Rasheed feline sarcoma viral (Fgr) oncogene homolog	1						4.35			
105418	E330034G19Rik	RIKEN cDNA E330034G19 gene	1						3.74			
64011	Nrgn	neurogranin	1						3.61			
12229	Btk	Bruton agammaglobulinemia tyrosine kinase	1						3.55			
19253	Ptpn18	protein tyrosine phosphatase, non-receptor type 18	1						3.23			
22376	Was	Wiskott-Aldrich syndrome homolog (human)	1						3.08			
216984	Evi2b	ecotropic viral integration site 2b	1						2.98			
78317	Ccdc88b	coiled-coil domain containing 88B	1						2.91			
16985	Lsp1	lymphocyte specific 1	1						2.90			
17096	Lyn	Yamaguchi sarcoma viral (v-yes-1) oncogene homolog	1						2.77	1	4.6	0.27
224860	Plcl2	phospholipase C-like 2	1						2.74			
12534	Cdk1	cyclin-dependent kinase 1	1						2.65			
66977	Nuf2	NUF2, NDC80 kinetochore complex component, homolog (S. cerevisiae)	1						2.60			
27405	Abcg3	ATP-binding cassette, sub-family G (WHITE), member 3	1						2.56			
30955	Pik3cg	phosphoinositide-3-kinase, catalytic, gamma polypeptide	1						2.52	1	1.2	0.62
69987	1700026L06Rik	RIKEN cDNA 1700026L06 gene	1						2.52			
67177	Cdt1	chromatin licensing and DNA replication factor 1	1						2.45			
15366	Hmnr	hyaluronan mediated motility receptor (RHAMM)	1						2.42			
106878	2010002N04Rik	RIKEN cDNA 2010002N04 gene	1						2.37			
66329	Susd3	sushi domain containing 3	1						2.32			
50931	Il27ra	interleukin 27 receptor, alpha	1						2.31			
14526	Gcg	glucagon	1						2.28			
66929	Asf1b	ASF1 anti-silencing function 1 homolog B (S. cerevisiae)	1						2.26	1	1	0.67
321019	Gpr183	G protein-coupled receptor 183	1						2.23			
22256	Ung	uracil DNA glycosylase	1						2.21			
217166	Nr1d1	nuclear receptor subfamily 1, group D, member 1	1						2.20			
56489	Ikbke	inhibitor of kappaB kinase epsilon	1						2.20			
74039	Nfam1	Nfat activating molecule with ITAM motif 1	1						2.13			
70719	Hmha1	histocompatibility (minor) HA-1	1						2.11			

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)			
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value	
320982	Arl4c	ADP-ribosylation factor-like 4C	1										
17095	Lyl1	lymphoblastic leukemia 1	1							2.07			
13197	Gadd45a	growth arrest and DNA-damage-inducible 45 alpha	1							2.06			
18627	Per2	period homolog 2 (Drosophila)	1							2.01			
74481	Batf2	basic leucine zipper transcription factor, ATF-like 2	1							1.97			
12904	Crabp2	cellular retinoic acid binding protein II	1							1.97			
100169874	Gm11110	predicted gene 11110	1							1.96			
12578	Cdkn2a	cyclin-dependent kinase inhibitor 2A	1							1.94	4	1.5	0.41
102626	Mapkapk3	mitogen-activated protein kinase-activated protein kinase 3	1							1.94			
14159	Fes	feline sarcoma oncogene	1							1.94			
12982	Csf2ra	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)	1							1.92			
237887	Slfn10-ps	schlafen 10, pseudogene	1							1.91			
67238	2810453106Rik	RIKEN cDNA 2810453106 gene	1							1.90			
85031	Pla1a	phospholipase A1 member A	1							1.90			
215387	Ncaph	non-SMC condensin I complex, subunit H	1							1.88			
107995	Cdc20	cell division cycle 20 homolog (S. cerevisiae)	1							1.87			
224109	Lrrc33	leucine rich repeat containing 33	1							1.86			
16534	Kcnn4	potassium intermediate/small conductance calcium-activated channel, subfamily N, member 4	1							1.86			
18491	Pappa	pregnancy-associated plasma protein A	1							1.84			
72514	Fgfbp3	fibroblast growth factor binding protein 3	1							1.83			
212937	Tifab	TRAF-interacting protein with forkhead-associated domain, family member B	1							1.83			
54199	Ccr12	chemokine (C-C motif) receptor-like 2	1							1.80			
74190	1200009106Rik	RIKEN cDNA 1200009106 gene	1							1.79			
19277	Ptpro	protein tyrosine phosphatase, receptor type, O	1							1.77			
80986	Ckap2	cytoskeleton associated protein 2	1							1.76			
74048	4632428N05Rik	RIKEN cDNA 4632428N05 gene	1							1.74			
319772	C130050O18Rik	RIKEN cDNA C130050O18 gene	1							1.67			
24014	Rnasel	ribonuclease L (2', 5'-oligoadenylate synthetase-dependent)	1							1.66			
106795	Tcf19	transcription factor 19	1							1.64			
211770	Trib1	tribbles homolog 1 (Drosophila)	1							1.63			
72461	Prpc	prolylcarboxypeptidase (angiotensinase C)	1							1.63			
66889	Rnf128	ring finger protein 128	1							1.63			
50706	Postn	periostin, osteoblast specific factor	1							1.63	1	10.2	0.17
217835	Rin3	Ras and Rab interactor 3	1							1.62			
270084	Lpcat2	lysophosphatidylcholine acyltransferase 2	1							1.60			
229541	Denn4b	DENN/MADD domain containing 4B	1							1.59			
19246	Ptpn1	protein tyrosine phosphatase, non-receptor type 1	1							1.59	2	7.7	0.07
12978	Csf1r	colony stimulating factor 1 receptor	1							1.58			
21906	Otop1	otopetrin 1	1							1.58			
20111	Rps6ka1	ribosomal protein S6 kinase polypeptide 1	1							1.58			
20448	St6galnac4	ST6 (alpha-N-acetylneuraminyl-2,3-beta-galactosyl-1,3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 4	1							1.57			
67951	Tubb6	tubulin, beta 6 class V	1							1.56			
71801	Plekhf2	pleckstrin homology domain containing, family F (with FYVE domain) member 2	1							1.56			
12489	Cd33	CD33 antigen	1							1.56	1	1.9	0.46
56427	Tubd1	tubulin, delta 1	1							1.56			
216881	Wscd1	WSC domain containing 1	1							1.56			
12495	Entpd1	ectonucleoside triphosphate diphosphohydrolase 1	1							1.56			
12822	Col18a1	collagen, type XVIII, alpha 1	1							1.55			
74153	Uba7	ubiquitin-like modifier activating enzyme 7	1							1.54			
208104	Mlxip	MLX interacting protein	1							1.54			
69136	Tusc1	tumor suppressor candidate 1	1							1.53			
14296	Frat1	frequently rearranged in advanced T-cell lymphomas	1							1.53			
72535	Aldh1b1	aldehyde dehydrogenase 1 family, member B1	1							1.50			
17242	Mdk	midkine	1							1.50			
110173	Manba	mannosidase, beta A, lysosomal	1							1.47			
230279	6330416G13Rik	RIKEN cDNA 6330416G13 gene	1							1.47			
75430	3200002M19Rik	RIKEN cDNA 3200002M19 gene	1							1.47			
18074	Nid2	nidogen 2	1							1.47			
19735	Rgs2	regulator of G-protein signaling 2	1							1.46			
74008	Arsg	arylsulfatase G	1							1.46			
14739	S1pr2	sphingosine-1-phosphate receptor 2	1							1.46			
217069	Trim25	tripartite motif-containing 25	1							1.45			
56473	Fads2	fatty acid desaturase 2	1							1.45	7	60.6	8.39E-10
58223	Mmp19	matrix metalloproteinase 19	1							1.44	1	39.7	0.07
27419	Naglu	alpha-N-acetylglucosaminidase (Sanfilippo disease IIIb)	1							1.44	1	5.7	0.23
69537	Dnase111	deoxyribonuclease 1-like 1	1							1.44			
17285	Meox1	mesenchyme homeobox 1	1							1.43			
72238	Tbc1d5	TBC1 domain family, member 5	1							1.43			
192656	Ripk2	receptor (TNFRSF)-interacting serine-threonine kinase 2	1							1.42			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value	
66164	Nip7	nuclear import 7 homolog (S. cerevisiae)	1							1.42			
19025	Ctsa	cathepsin A	1							1.41			
14806	Grik2	glutamate receptor, ionotropic, kainate 2 (beta 2)	1							1.41			
12266	C3	complement component 3	1							1.41			
56212	Rhog	ras homolog gene family, member G	1							1.41			
13435	Dnmt3a	DNA methyltransferase 3A	1							1.40			
11482	Acvrl1	activin A receptor, type II-like 1	1							1.39	1	5	0.26
15976	Ifnar2	interferon (alpha and beta) receptor 2	1							1.39			
21745	Tep1	telomerase associated protein 1	1							1.38			
102657	Cd276	CD276 antigen	1							1.38			
381903	Alg8	asparagine-linked glycosylation 8 homolog (yeast, alpha-1,3-glucosyltransferase)	1							1.37			
214855	Arid5a	AT rich interactive domain 5A (MRF1-like)	1							1.37			
98711	Rdh10	retinol dehydrogenase 10 (all-trans)	1							1.35			
70021	Nt5dc2	5'-nucleotidase domain containing 2	1							1.34			
225348	Wdr36	WD repeat domain 36	1							1.33			
75219	Dusp18	dual specificity phosphatase 18	1							1.31			
382639	Zbtb42	zinc finger and BTB domain containing 42	1							1.29			
78339	Tyh3	tweety homolog 3 (Drosophila)	1							1.29			
23789	Coro1b	coronin, actin binding protein 1B	1							1.29			
72400	Pinx1	PIN2/TERF1 interacting, telomerase inhibitor 1	1							1.29			
14791	Emg1	EMG1 nucleolar protein homolog (S. cerevisiae)	1							1.28			
22042	Tfrc	transferrin receptor	1							1.28	2	1.5	0.46
20529	Slc31a1	solute carrier family 31, member 1	1							1.28			
15374	Hn1	hematological and neurological expressed sequence 1	1							1.27			
12496	Entpd2	ectonucleoside triphosphate diphosphohydrolase 2	1							1.27			
59126	Nek6	NIMA (never in mitosis gene a)-related expressed kinase 6	1							1.26			
18830	Pltp	phospholipid transfer protein	1							1.26	9	78.9	1.71E-13
54357	Epb4.114b	erythrocyte protein band 4.1-like 4b	1							1.26			
57344	As3mt	arsenic (+3 oxidation state) methyltransferase	1							1.25			
68079	Pdcd2l	programmed cell death 2-like	1							1.25			
21853	Timeless	timeless homolog (Drosophila)	1							1.24			
57912	Cdc42se1	CDC42 small effector 1	1							1.24			
66054	Cndp2	CNDP dipeptidase 2 (metallopeptidase M20 family)	1							1.23			
56187	RabggtA	Rab geranylgeranyl transferase, a subunit	1							1.22			
26987	Eif4e2	eukaryotic translation initiation factor 4E member 2	1							1.22			
21848	Trim24	tripartite motif-containing 24	1							1.21			
107045	Lars	leucyl-tRNA synthetase	1							1.19			
14466	Gba	glucosidase, beta, acid	1							1.18			
67443	Map1c3b	microtubule-associated protein 1 light chain 3 beta	1							-1.12			
68024	Hist1h2bc	histone cluster 1, H2bc	1							-1.14			
68943	Pink1	PTEN induced putative kinase 1	1							-1.14			
12955	Cryab	crystallin, alpha B	1							-1.14			
13602	Sparcl1	SPARC-like 1	1							-1.15			
56044	Rala	v-ral simian leukemia viral oncogene homolog A (ras related)	1							-1.16			
11518	Add1	adducin 1 (alpha)	1							-1.16			
102866	Pls3	plastin 3 (T-isoform)	1							-1.16			
53328	Pgrmc1	progesterone receptor membrane component 1	1							-1.16	1	10.7	0.16
20742	Spnb2	spectrin beta 2	1							-1.17			
19247	Ptpn11	protein tyrosine phosphatase, non-receptor type 11	1							-1.18			
215114	Hip1	huntingtin interacting protein 1	1							-1.19			
432467	Hnrnp3	heterogeneous nuclear ribonucleoprotein H3	1							-1.19			
12741	Cldn5	claudin 5	1							-1.20			
18027	Nfia	nuclear factor I/A	1							-1.20			
17988	NdrG1	N-myc downstream regulated gene 1	1							-1.21			
15511	Hspa1b	heat shock protein 1B	1							-1.22			
16573	Kif5b	kinesin family member 5B	1							-1.23	1	8.2	0.19
54189	Rabep1	rabaptin, RAB GTPase binding effector protein 1	1							-1.23			
226352	Epb4.115	erythrocyte protein band 4.1-like 5	1							-1.23			
56248	Ak3	adenylate kinase 3	1							-1.23			
19285	Ptfr	polymerase I and transcript release factor	1							-1.23			
63985	Gmfb	glia maturation factor, beta	1							-1.23			
26400	Map2k7	mitogen-activated protein kinase kinase 7	1							-1.23			
22026	Nr2c2	nuclear receptor subfamily 2, group C, member 2	1							-1.23			
20362	Sept8	septin 8	1							-1.23			
207375	Fam120c	family with sequence similarity 120, member C	1							-1.24			
73569	Vgll3	vestigial like 3 (Drosophila)	1							-1.24			
15529	Sdc2	syndecan 2	1							-1.25			
319845	Bbs9	Bardet-Biedl syndrome 9 (human)	1							-1.25	1	7.8	0.19
67075	Magt1	magnesium transporter 1	1							-1.25			
77976	Nuak1	NUAK family, SNF1-like kinase, 1	1							-1.25			
74159	Acbd5	acyl-Coenzyme A binding domain containing 5	1							-1.25			
22253	Unc5c	unc-5 homolog C (C. elegans)	1							-1.26			
16974	Lrp6	low density lipoprotein receptor-related protein 6	1							-1.26			
24017	Rnf13	ring finger protein 13	1							-1.26			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
11490	Adam15	a disintegrin and metallopeptidase domain 15 (metargidin)	1						-1.26			
68121	Cep70	centrosomal protein 70	1						-1.27			
22720	Zfp62	zinc finger protein 62	1						-1.27			
13591	Ebf1	early B-cell factor 1	1						-1.27			
72145	Wdfy3	WD repeat and FYVE domain containing 3	1						-1.27			
50781	Dkk3	dickkopf homolog 3 (Xenopus laevis)	1						-1.27	1	29.2	0.08
21872	Tjp1	tight junction protein 1	1						-1.27	1	1.8	0.48
71069	Stox2	storkhead box 2	1						-1.27			
53814	Oaz3	ornithine decarboxylase antizyme 3	1						-1.27			
12305	Ddr1	discoidin domain receptor family, member 1	1						-1.28			
56274	Stk3	serine/threonine kinase 3 (Ste20, yeast homolog)	1						-1.28			
227399	Ppip5k2	diphosphoinositol pentakisphosphate kinase 2	1						-1.28			
114713	Rasa2	RAS p21 protein activator 2	1						-1.28			
18139	Zfml	zinc finger, matrin-like	1						-1.28			
270035	Letm2	leucine zipper-EF-hand containing transmembrane protein 2	1						-1.28			
106931	Kctd1	potassium channel tetramerisation domain containing 1	1						-1.29			
229542	Gatad2b	GATA zinc finger domain containing 2B	1						-1.29			
17311	Kitl	kit ligand	1						-1.29	1	0.6	1.01
227737	Fam129b	family with sequence similarity 129, member B	1						-1.29			
78619	Zfp449	zinc finger protein 449	1						-1.29			
270627	Taf1	TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated factor	1						-1.30			
319922	Vwc2	von Willebrand factor C domain containing 2	1						-1.30			
71389	Chd6	chromodomain helicase DNA binding protein 6	1						-1.30			
75415	Arhgap12	Rho GTPase activating protein 12	1						-1.30			
19317	Qk	quaking	1						-1.31			
109624	Cald1	caldesmon 1	1						-1.31			
215789	Phactr2	phosphatase and actin regulator 2	1						-1.31			
99929	Tiparp	TCDD-inducible poly(ADP-ribose) polymerase	1						-1.31	1	2.6	0.39
232813	Shisa7	shisa homolog 7 (Xenopus laevis)	1						-1.32			
14265	Fmr1	fragile X mental retardation syndrome 1 homolog	1						-1.33			
13844	Ephb2	Eph receptor B2	1						-1.33			
76594	Dnajc18	DnaJ (Hsp40) homolog, subfamily C, member 18	1						-1.34			
320234	Ccdc66	coiled-coil domain containing 66	1						-1.34			
54678	Zfp108	zinc finger protein 108	1						-1.34			
218214	Kdm1b	lysine (K)-specific demethylase 1B	1						-1.35			
23797	Akt3	thymoma viral proto-oncogene 3	1						-1.35			
97440	B3gnt9-ps	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9, pseudogene	1						-1.36			
67420	Far1	fatty acyl CoA reductase 1	1						-1.36			
19659	Rbp1	retinol binding protein 1, cellular	1						-1.36			
57276	Vsig2	V-set and immunoglobulin domain containing 2	1						-1.36			
76453	Prss23	protease, serine, 23	1						-1.37			
72599	Pdia5	protein disulfide isomerase associated 5	1						-1.37			
69601	Dab2ip	disabled homolog 2 (Drosophila) interacting protein	1						-1.37			
16779	Lamb2	laminin, beta 2	1						-1.37			
329152	Hecw2	HECT, C2 and WW domain containing E3 ubiquitin protein ligase 2	1						-1.37			
233863	Gtf3c1	general transcription factor III C 1	1						-1.37			
22141	Tub	tubby candidate gene	1						-1.38			
83486	Rbm5	RNA binding motif protein 5	1						-1.38			
11819	Nr2f2	nuclear receptor subfamily 2, group F, member 2	1						-1.38			
16011	Igfbp5	insulin-like growth factor binding protein 5	1						-1.38			
18008	Nes	nestin	1						-1.38	1	1.5	0.55
100503827	2010012P19Rik	RIKEN cDNA 2010012P19 gene	1						-1.39			
230959	Ajap1	adherens junction associated protein 1	1						-1.39			
12628	Cfh	complement component factor h	1						-1.40	2	4	0.16
18798	Plcb4	phospholipase C, beta 4	1						-1.40			
108897	Aif1l	allograft inflammatory factor 1-like	1						-1.41			
15424	Hoxc5	homeobox C5	1						-1.42			
18654	Pgf	placental growth factor	1						-1.43	1	2.6	0.39
73086	Rps6ka5	ribosomal protein S6 kinase, polypeptide 5	1						-1.43			
72656	Ints8	integrator complex subunit 8	1						-1.43			
381157	Greb1l	growth regulation by estrogen in breast cancer-like	1						-1.44			
71163	Zfp626	zinc finger protein 626	1						-1.44			
380928	Lmo7	LIM domain only 7	1						-1.44			
26568	Slc27a3	solute carrier family 27 (fatty acid transporter), member 3	1						-1.44			
14239	Foxs1	forkhead box S1	1						-1.44			
24001	Tiam2	T-cell lymphoma invasion and metastasis 2	1						-1.47			
16597	Klf12	Kruppel-like factor 12	1						-1.47			
227545	5430407P10Rik	RIKEN cDNA 5430407P10 gene	1						-1.47			
71355	Col24a1	collagen, type XXIV, alpha 1	1						-1.48			
69551	2310022B05Rik	RIKEN cDNA 2310022B05 gene	1						-1.49			
67573	Loxl4	lysyl oxidase-like 4	1						-1.49			
107250	Kazald1	Kazal-type serine peptidase inhibitor domain 1	1						-1.50			

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value	
170761	Pdzd3	PDZ domain containing 3	1							-1.50			
329739	Fam102b	family with sequence similarity 102, member B	1							-1.51			
100504017	LOC100504017	uncharacterized LOC100504017	1							-1.52			
207596	Thsd4	thrombospondin, type I, domain containing 4	1							-1.52			
66175	Mustn1	musculoskeletal, embryonic nuclear protein 1	1							-1.52			
80883	Ntng1	netrin G1	1							-1.52			
213556	Plekhh2	pleckstrin homology domain containing, family H (with MyTH4 domain) member 2	1							-1.55			
14234	Foxc2	forkhead box C2	1							-1.55			
233071	Arhgap33	Rho GTPase activating protein 33	1							-1.56			
19041	Ppl	periplakin	1							-1.56			
68097	Dynll2	dynein light chain LC8-type 2	1							-1.57			
13592	Ebf2	early B-cell factor 2	1							-1.58			
13616	Edn3	endothelin 3	1							-1.58	1	2.4	0.41
109135	Plekha5	pleckstrin homology domain containing, family A member 5	1							-1.59			
18049	Ngf	nerve growth factor	1							-1.60	5	1.5	0.46
234365	Yjefn3	Yjef N-terminal domain containing 3	1							-1.60			
216166	Plk5	polo-like kinase 5 (Drosophila)	1							-1.61			
217480	Dgkb	diacylglycerol kinase, beta	1							-1.63			
72168	Aifm3	apoptosis-inducing factor, mitochondrion-associated 3	1							-1.63			
218343	Ttc37	tetratricopeptide repeat domain 37	1							-1.64			
69479	1700029J07Rik	RIKEN cDNA 1700029J07 gene	1							-1.64			
279653	Pcdh19	protocadherin 19	1							-1.65			
75571	Spata9	spermatogenesis associated 9	1							-1.65			
15165	Hcn1	hyperpolarization-activated, cyclic nucleotide-gated K+ 1	1							-1.66			
243659	Styk1	serine/threonine/tyrosine kinase 1	1							-1.67			
12577	Cdkn1c	cyclin-dependent kinase inhibitor 1C (P57)	1							-1.68			
98845	Eps8l2	EPS8-like 2	1							-1.72			
105387	Akr1c14	aldo-keto reductase family 1, member C14	1							-1.72			
219149	Xkr6	X Kell blood group precursor related family member 6 homolog	1							-1.72			
67866	Wfdc1	WAP four-disulfide core domain 1	1							-1.73			
30785	Ctnnbp2	cortactin binding protein 2	1							-1.74			
320878	Mical2	microtubule associated monooxygenase, calponin and LIM domain containing 2	1							-1.75			
71406	5430416O09Rik	RIKEN cDNA 5430416O09 gene	1							-1.76			
103841	Cuedc1	CUE domain containing 1	1							-1.76			
396184	Flrt1	fibronectin leucine rich transmembrane protein 1	1							-1.76			
213019	Pdlim2	PDZ and LIM domain 2	1							-1.80			
70546	Zdhhc2	zinc finger, DHHC domain containing 2	1							-1.82			
97848	Serpinb6c	serine (or cysteine) peptidase inhibitor, clade B, member 6c	1							-1.86			
232599	Gm4876	predicted gene 4876	1							-1.90			
24084	Tekt2	tektin 2	1							-1.91			
76886	Fam81a	family with sequence similarity 81, member A	1							-1.94			
14428	Galr2	galanin receptor 2	1							-1.95			
110310	Krt7	keratin 7	1							-1.95			
71897	Lypd6b	LY6/PLAUR domain containing 6B	1							-2.00			
21954	Tnni3	troponin I, cardiac 3	1							-2.03			
13168	Ddil5	diazepam binding inhibitor-like 5	1							-2.25			
17898	Myl7	myosin, light polypeptide 7, regulatory	1							-2.29			
11807	Apoa2	apolipoprotein A-II	1							-2.49	22	253.9	3.59E-43
18979	Pon1	paraoxonase 1	1					-3.79			29	57.3	9.62E-39
13070	Cyp11a1	cytochrome P450, family 11, subfamily a, polypeptide 1	1		1.54						23	66.7	2.62E-32
22329	Vcam1	vascular cell adhesion molecule 1	1					2.37			12	6.7	4.25E-06
11815	Apod	apolipoprotein D	1					1.17			4	54.1	1.21E-05
22041	Trf	transferrin	1					1.55			16	4	4.30E-05
17187	Max	Max protein	1					1.51			3	54.7	2.15E-04
231162	Cyt11	cytokine-like 1	1					2.00			3	51.5	2.51E-04
11461	Actb	actin, beta	1					1.46			8	6.8	2.58E-04
15925	Ide	insulin degrading enzyme	1					1.77			3	24.1	1.86E-03
110460	Acat2	acetyl-Coenzyme A acetyltransferase 2	1					-1.30			2	75	2.20E-03
64383	Sirt2	sirtuin 2 (silent mating type information regulation 2, homolog) 2 (S. cerevisiae)	1					-1.15			3	19.6	3.18E-03
72061	201011101Rik	RIKEN cDNA 201011101 gene	1					1.56			2	58	3.45E-03
14580	Gfap	glial fibrillary acidic protein	1					6.59			10	3.6	3.76E-03
16987	Lss	lanosterol synthase	1					-2.75			2	45.6	0.01
21898	Tlr4	toll-like receptor 4	1					1.53			7	4.4	0.01
22122	Tsta3	tissue specific transplantation antigen P35B	1					1.25			1	680.9	0.01
13010	Cst3	cystatin C	1					1.14			4	7.7	0.01
17855	Mvk	mevalonate kinase	1					-1.43			2	27	0.01
16905	Lmna	lamin A	1					1.15			3	9.9	0.02
56742	Psrc1	proline/serine-rich coiled-coil 1	1					3.59			1	194.6	0.02
14812	Grin2b	glutamate receptor, ionotropic, NMDA2B (epsilon 2)	1					-1.64			3	7.8	0.03
20753	Sprr1a	small proline-rich protein 1A	1					3.75			1	131.8	0.03
20619	Snap23	synaptosomal-associated protein 23	1					1.81			2	14.4	0.03
54326	Elovl2	elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 2	1		-2.35						1	107.5	0.03

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value	
330064	Slc5a6	solute carrier family 5 (sodium-dependent vitamin transporter), member 6	1		1.42						1	104.8	0.03
19655	Rbmx	RNA binding motif protein, X chromosome	1					-1.28			1	80.1	0.04
20657	Sod3	superoxide dismutase 3, extracellular	1					-1.36			2	11	0.05
14751	Gpi1	glucose phosphate isomerase 1	1					1.25			4	4	0.06
15108	Hsd17b10	hydroxysteroid (17-beta) dehydrogenase 10	1					-1.18			1	48.1	0.06
26413	Mapk1	mitogen-activated protein kinase 1	1					1.42			19	1.7	0.06
12827	Col4a2	collagen, type IV, alpha 2	1					-1.32			1	44.4	0.06
18791	Plat	plasminogen activator, tissue	1					1.39			9	2.2	0.07
13139	Dgka	diacylglycerol kinase, alpha	1					-1.29			1	37.1	0.07
50798	Gne	glucosamine	1					-1.47			1	31	0.08
59056	Evc	Ellis van Creveld gene homolog (human)	1					-1.47			1	25.4	0.09
105787	Prkaa1	protein kinase, AMP-activated, alpha 1 catalytic subunit	1					2.03			3	4.1	0.09
17295	Met	met proto-oncogene	1	-1.40							6	2.4	0.09
18618	Pemt	phosphatidylethanolamine N-methyltransferase	1					-1.35			1	22.4	0.10
65969	Cubn	cubilin (intrinsic factor-cobalamin receptor)	1					-1.35			1	19.3	0.11
17873	Gadd45b	growth arrest and DNA-damage-inducible 45 beta	1					1.52			1	14.9	0.13
12476	Cd151	CD151 antigen	1					-1.14			1	14.5	0.14
232345	A2m	alpha-2-macroglobulin	1					1.47			3	3.1	0.15
19288	Ptx3	pentraxin related gene	1					1.82			1	12.5	0.15
15213	Hey1	hairy/enhancer-of-split related with YRPW motif 1	1					1.82			1	11.7	0.15
13875	Erf	Ets2 repressor factor	1					1.40			1	11	0.16
217944	Rapgef5	Rap guanine nucleotide exchange factor (GEF) 5	1		-1.61						1	10.7	0.16
12490	Cd34	CD34 antigen	1					-1.35			1	0.2	0.17
109672	Cyb5	cytochrome b-5	1					-1.16			2	3.7	0.18
15007	H2-Q10	histocompatibility 2, Q region locus 10	1		3.44						3	0.4	0.18
20544	Slc9a1	solute carrier family 9 (sodium/hydrogen exchanger), member 1	1					-1.36			1	8.3	0.19
12309	S100g	S100 calcium binding protein G	1					-1.74			1	7.7	0.19
16391	Irf9	interferon regulatory factor 9	1					1.58			1	7.4	0.20
27973	Vkorc1	vitamin K epoxide reductase complex, subunit 1	1					-1.22			1	7.1	0.20
13019	Ctf1	cardiotrophin 1	1					-1.37			1	5.9	0.23
20869	Stk11	serine/threonine kinase 11	1					1.32			1	5.6	0.24
22323	Vasp	vasodilator-stimulated phosphoprotein	1					1.82			1	5.6	0.24
12868	Cox8a	cytochrome c oxidase, subunit VIIIa	1					1.23			4	1.9	0.24
67126	Atp5e	ATP synthase, H+ transporting, mitochondrial F1 complex, epsilon subunit	1					1.10			1	5.3	0.25
16728	L1cam	L1 cell adhesion molecule	1					1.59			1	5	0.26
15901	Id1	inhibitor of DNA binding 1	1					1.33			1	4.9	0.26
15528	Hspe1	heat shock protein 1 (chaperonin 10)	1					1.61			1	4.6	0.27
12028	Bax	BCL2-associated X protein	1					1.37			1	0.3	0.35
21808	Tgfb2	transforming growth factor, beta 2	1					1.36			1	2.5	0.40
12995	Csnk2a1	casein kinase 2, alpha 1 polypeptide	1					1.30			1	2.3	0.42
13555	E2f1	E2F transcription factor 1	1					1.47			1	1.8	0.48
50873	Park2	Parkinson disease (autosomal recessive, juvenile) 2, parkin	1					-1.36			1	1.7	0.51
19229	Ptk2b	PTK2 protein tyrosine kinase 2 beta	1					1.46			1	1.5	0.55
14573	Gdnf	glial cell line derived neurotrophic factor	1					4.15			1	1.3	0.58
15452	Hprt	hypoxanthine guanine phosphoribosyl transferase	1					1.57			1	1.3	0.59
18591	Pdgfb	platelet derived growth factor, B polypeptide	1					1.45			4	1.2	0.63
15567	Slc6a4	solute carrier family 6 (neurotransmitter transporter, serotonin), member 4	1		2.77						1	1.1	0.65
12370	Casp8	caspase 8	1					2.63			1	0.4	0.78
109648	Npy	neuropeptide Y	1					3.60			3	1.2	0.78
13361	Dhfr	dihydrofolate reductase	1					-1.36			1	0.8	1.01
52696	Zwint	ZW10 interactor	1					1.53					
229937	Znhit6	zinc finger, HIT type 6	1					-1.18					
100177	Zmym6	zinc finger, MYM-type 6	1					-1.31					
67785	Zmym4	zinc finger, MYM-type 4	1					-1.26					
74149	Zfp946	zinc finger protein 946	1					1.84					
382019	Zfp882	zinc finger protein 882	1					-1.33					
408067	Zfp874b	zinc finger protein 874b	1					-1.40					
244216	Zfp771	zinc finger protein 771	1					-1.27					
233893	Zfp764	zinc finger protein 764	1					-1.48					
353310	Zfp703	zinc finger protein 703	1					1.25					
22704	Zfp46	zinc finger protein 46	1					-1.29					
22701	Zfp41	zinc finger protein 41	1					-1.41					
57247	Zfp276	zinc finger protein (C2H2 type) 276	1					-1.35					
232784	Zfp212	Zinc finger protein 212	1					-1.26					
22680	Zfp207	zinc finger protein 207	1					1.83					
230162	Zfp189	zinc finger protein 189	1					1.36					
72154	Zfp157	zinc finger protein 157	1					-1.31					
26465	Zfp146	zinc finger protein 146	1					1.47					
243906	Zfp14	zinc finger protein 14	1					-1.51					
27801	Zdhhc8	zinc finger, DHHC domain containing 8	1					-1.44					
72881	Zdhhc4	zinc finger, DHHC domain containing 4	1					-1.31					
69035	Zdhhc3	zinc finger, DHHC domain containing 3	1					-1.23					
20286	Zc3h7b	zinc finger CCCH type containing 7B	1					-1.30					
237256	Zc3h12d	zinc finger CCCH type containing 12D	1					7.43					

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
22627	Ywhae	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	1					-1.12				
229096	Ythdf3	YTH domain family 3	1					1.28				
213541	Ythdf2	YTH domain family 2	1					1.31				
66090	Ypel3	yippee-like 3 (Drosophila)	1					-1.25				
77254	Yif1b	Yip1 interacting factor homolog B (S. cerevisiae)	1					-1.32				
170745	Xpnpep2	X-prolyl aminopeptidase (aminopeptidase P) 2, membrane-bound	1					-2.00				
211652	Wwc1	WW, C2 and coiled-coil domain containing 1	1					-1.89				
68151	Wls	wntless homolog (Drosophila)	1					1.38				
215280	Wipf1	WAS/WASL interacting protein family, member 1	1					1.58				
269633	Wdr86	WD repeat domain 86	1					-1.66				
54636	Wdr45	WD repeat domain 45	1					-1.31				
218460	Wdr41	WD repeat domain 41	1					1.48				
244484	Wdr17	WD repeat domain 17	1					-1.39				
22381	Wbp5	WW domain binding protein 5	1					1.68				
233813	Wwa3a	von Willebrand factor A domain containing 3A	1					-1.60				
26950	Vsnl1	visinin-like 1	1		-3.10							
28084	Vps25	vacuolar protein sorting 25 (yeast)	1					1.28				
22361	Vnn1	vanin 1	1					-2.10				
74199	Vit	vitrin	1					-2.25				
53620	Vamp5	vesicle-associated membrane protein 5	1					-1.47				
252870	Usp7	ubiquitin specific peptidase 7	1					1.23				
78787	Usp54	ubiquitin specific peptidase 54	1					-1.50				
74841	Usp38	ubiquitin specific peptidase 38	1					1.65				
170822	Usp33	ubiquitin specific peptidase 33	1					1.48				
30940	Usp25	ubiquitin specific peptidase 25	1					1.36				
14479	Usp15	ubiquitin specific peptidase 15	1					1.34				
234395	Ushbp1	Usher syndrome 1C binding protein 1	1					-1.81				
67023	Use1	unconventional SNARE in the ER 1 homolog (S. cerevisiae)	1					1.24				
22249	Unc13b	unc-13 homolog B (C. elegans)	1					-1.63				
382018	Unc13a	unc-13 homolog A (C. elegans)	1		-1.70							
106840	Unc119b	unc-119 homolog B (C. elegans)	1					-1.26				
75089	Uhrf1bp11	UHRF1 (ICBP90) binding protein 1-like	1					1.37				
66155	Ufc1	ubiquitin-fold modifier conjugating enzyme 1	1					1.24				
212190	Ubxn10	UBX domain protein 10	1					-1.60				
68795	Ubr3	ubiquitin protein ligase E3 component n-recogin 3	1					1.31				
217342	Ube2o	ubiquitin-conjugating enzyme E2O	1					1.75				
93765	Ube2n	ubiquitin-conjugating enzyme E2N	1		-1.62							
56791	Ube2l6	ubiquitin-conjugating enzyme E2L 6	1					7.81				
56550	Ube2d2	ubiquitin-conjugating enzyme E2D 2	1		-1.16							
50493	Txnrd1	thioredoxin reductase 1	1					1.29				
52700	Txndc17	thioredoxin domain containing 17	1					1.13				
22160	Twist1	twist homolog 1 (Drosophila)	1					-1.53				
68842	Tulp4	tubby like protein 4	1					1.32				
74711	Tll9	tubulin tyrosine ligase-like family, member 9	1					-1.54				
67515	Ttc33	tetratricopeptide repeat domain 33	1					1.43				
56496	Tspan6	tetraspanin 6	1					-1.45				
74257	Tspan17	tetraspanin 17	1					-1.37				
78829	Tsc22d4	TSC22 domain family, member 4	1					-1.29				
72033	Tsc22d2	TSC22 domain family, member 2	1					1.30				
22368	Trpv2	transient receptor potential cation channel, subfamily V, member 2	1					1.93				
28240	Trpm2	transient receptor potential cation channel, subfamily M, member 2	1					1.48				
22065	Trpc3	transient receptor potential cation channel, subfamily C, member 3	1		-1.94							
229644	Trim45	tripartite motif-containing 45	1					-1.57				
20128	Trim30a	tripartite motif-containing 30A	1					2.34				
100123473	Trdc	T-cell receptor delta, constant region	1					4.99				
245828	Trappc1	trafficking protein particle complex 1	1					1.28				
229801	Tram1l1	translocation associated membrane protein 1-like 1	1		-2.12							
22031	Traf3	TNF receptor-associated factor 3	1					1.27				
101214	Tra2a	transformer 2 alpha homolog (Drosophila)	1					1.40				
17229	Tpsb2	tryptase beta 2	1					2.49				
97031	Tprn	taperin	1					-1.31				
244579	Tox3	TOX high mobility group box family member 3	1		-2.32							
235559	Topbp1	topoisomerase (DNA) II binding protein 1	1					1.87				
28185	Tomm70a	translocase of outer mitochondrial membrane 70 homolog A (yeast)	1		1.32							
66119	Tomm6	translocase of outer mitochondrial membrane 6 homolog (yeast)	1					1.15				
231861	Tnrc18	trinucleotide repeat containing 18	1					-1.32				
665113	Tnik	TRAF2 and NCK interacting kinase	1					1.99				
21944	Tnfsf12	tumor necrosis factor (ligand) superfamily, member 12	1					-1.23				
66443	Tnfaip8l1	tumor necrosis factor, alpha-induced protein 8-like 1	1					-1.51				
387314	Tmtc1	transmembrane and tetratricopeptide repeat containing 1	1		-1.33							

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
20776	Tmie	transmembrane inner ear	1									
433485	Tmem90b	transmembrane protein 90B	1		-1.46			-1.40				
66241	Tmem9	transmembrane protein 9	1					1.38				
70397	Tmem70	transmembrane protein 70	1					1.26				
96957	Tmem62	transmembrane protein 62	1					-1.43				
214359	Tmem51	transmembrane protein 51	1					1.67				
66079	Tmem42	transmembrane protein 42	1					-1.52				
68796	Tmem214	transmembrane protein 214	1					-1.36				
66320	Tmem208	transmembrane protein 208	1					1.19				
73893	Tmem202	transmembrane protein 202	1					1.58				
230917	Tmem201	transmembrane protein 201	1					-1.23				
240660	Tmem20	transmembrane protein 20	1					1.62				
83921	Tmem2	transmembrane protein 2	1					-1.25				
69094	Tmem160	transmembrane protein 160	1					-1.51				
66087	Tmem111	transmembrane protein 111	1					-1.12				
216821	Tmem11	transmembrane protein 11	1					1.40				
68212	Tmbim4	transmembrane BAX inhibitor motif containing 4	1					1.20				
69660	Tmbim1	transmembrane BAX inhibitor motif containing 1	1					-1.25				
68634	Tm2d3	TM2 domain containing 3	1					-1.23				
142980	Tlr3	toll-like receptor 3	1					1.52				
21886	Tle2	transducin-like enhancer of split 2, homolog of Drosophila E(spl)	1					-1.50				
57813	Tk2	thymidine kinase 2, mitochondrial	1					1.98				
21877	Tk1	thymidine kinase 1	1					2.24				
21855	Timm17b	translocase of inner mitochondrial membrane 17b	1					-1.44				
21854	Timm17a	translocase of inner mitochondrial membrane 17a	1					1.25				
14911	Thumpd3	THUMP domain containing 3	1					1.25				
233802	Thumpd1	THUMP domain containing 1	1					1.52				
331046	Tgm4	transglutaminase 4 (prostate)	1					-1.46				
224481	Tfb1m	transcription factor B1, mitochondrial	1					-1.27				
104271	Tex15	testis expressed gene 15	1	1.85								
21679	Tead4	TEA domain family member 4	1					-1.43				
104884	Tdp1	tyrosyl-DNA phosphodiesterase 1	1					-1.51				
102791	Tcta	T-cell leukemia translocation altered gene	1					-1.31				
21407	Tcf15	transcription factor 15	1					-2.47				
56070	Tcerg1	transcription elongation regulator 1 (CA150)	1					1.31				
21385	Tbx2	T-box 2	1					1.66				
56480	Tbk1	TANK-binding kinase 1	1					1.37				
70573	Tbccd1	TBCC domain containing 1	1					1.25				
57915	Tbc1d1	TBC1 domain family, member 1	1					1.54				
75812	Tasp1	taspace, threonine aspartase 1	1					1.74				
21353	Tank	TRAF family member-associated Nf-kappa B activator	1					1.80				
407786	Taf9b	TAF9B RNA polymerase II, TATA box binding protein (TBP)-associated factor	1					-1.23				
68776	Taf11	TAF11 RNA polymerase II, TATA box binding protein (TBP)-associated factor	1					1.25				
217031	Tada2a	transcriptional adaptor 2A	1					-1.23				
230676	Szt2	seizure threshold 2	1					-1.48				
71709	Syde1	synapse defective 1, Rho GTPase, homolog 1 (C. elegans)	1					-1.45				
72931	Swi5	SWI5 recombination repair homolog (yeast)	1					1.25				
225888	Suv420h1	suppressor of variegation 4-20 homolog 1 (Drosophila)	1					-1.27				
20937	Suv39h1	suppressor of variegation 3-9 homolog 1 (Drosophila)	1					-1.23				
20926	Supt6h	suppressor of Ty 6 homolog (S. cerevisiae)	1					1.17				
77053	Sun1	Sad1 and UNC84 domain containing 1	1					-1.20				
57429	Sult5a1	sulfotransferase family 5A, member 1	1					-1.95				
53331	Stx7	syntaxin 7	1					1.37				
58244	Stx6	syntaxin 6	1					-1.35				
20867	Stip1	stress-induced phosphoprotein 1	1					1.69				
52331	Stbd1	starch binding domain 1	1		-1.50							
99138	Stard7	START domain containing 7	1					-1.19				
243362	Stard13	STAR-related lipid transfer (START) domain containing 13	1					1.33				
217154	Stac2	SH3 and cysteine rich domain 2	1					2.67				
229681	Sti7l	suppression of tumorigenicity 7-like	1		1.29							
68991	Ssu72	Ssu72 RNA polymerase II CTD phosphatase homolog (yeast)	1					1.38				
14105	Srsf10	serine/arginine-rich splicing factor 10	1					1.42				
18412	Sqstm1	sequestosome 1	1					1.24				
20773	Sptlc2	serine palmitoyltransferase, long chain base subunit 2	1					-1.45				
24063	Spry1	sprouty homolog 1 (Drosophila)	1					-1.57				
20751	Spr	sepiapterin reductase	1					1.33				
66624	Spcs2	signal peptidase complex subunit 2 homolog (S. cerevisiae)	1					1.31				
71242	Spata24	spermatogenesis associated 24	1					-1.56				
216873	Spag7	sperm associated antigen 7	1					1.19				
75622	Spaca3	sperm acrosome associated 3	1					-1.46				
20668	Sox13	SRY-box containing gene 13	1		1.27							
20322	Sord	sorbitol dehydrogenase	1					-1.24				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
20410	Sorbs3	sorbin and SH3 domain containing 3	1					-1.34				
266781	Snx17	sorting nexin 17	1		1.12							
74718	Snx16	sorting nexin 16	1					1.48				
71982	Snx10	sorting nexin 10	1					1.79				
67332	Snrpd3	small nuclear ribonucleoprotein D3	1					1.34				
68981	Snrpa1	small nuclear ribonucleoprotein polypeptide A'	1					-1.19				
66618	Snmp27	small nuclear ribonucleoprotein 27 (U4/U6.U5)	1					1.37				
66835	Snord123	small nucleolar RNA, C/D box 123	1					-1.43				
69895	Snhg8	small nucleolar RNA host gene 8	1					-1.32				
72655	Snhg5	small nucleolar RNA host gene 5	1		1.28							
56463	Snd1	staphylococcal nuclease and tudor domain containing 1	1					1.25				
20603	Sms	spermine synthase	1		-2.05							
319757	Smo	smoothened homolog (Drosophila)	1					-1.77				
20595	Smn1	survival motor neuron 1	1					1.27				
225655	Slmo1	slowmo homolog 1 (Drosophila)	1					-1.27				
20874	Slk	STE20-like kinase (yeast)	1					1.28				
240726	Slco5a1	solute carrier organic anion transporter family, member 5A1	1		-2.37							
20540	Slc7a7	solute carrier family 7 (cationic amino acid transporter, y+ system), member 7	1					1.93				
106947	Slc39a3	solute carrier family 39 (zinc transporter), member 3	1					-1.41				
68427	Slc39a13	solute carrier family 39 (metal ion transporter), member 13	1					-1.74				
72144	Slc37a3	solute carrier family 37 (glycerol-3-phosphate transporter), member 3	1					-1.32				
270066	Slc35e1	solute carrier family 35, member E1	1					-1.16				
22232	Slc35a2	solute carrier family 35 (UDP-galactose transporter), member A2	1					-1.26				
69048	Slc30a5	solute carrier family 30 (zinc transporter), member 5	1					1.40				
56017	Slc2a8	solute carrier family 2, (facilitated glucose transporter), member 8	1					-1.43				
170441	Slc2a10	solute carrier family 2 (facilitated glucose transporter), member 10	1					-1.60				
104910	Slc25a47	solute carrier family 25, member 47	1					-1.65				
73132	Slc25a16	solute carrier family 25 (mitochondrial carrier, Graves disease autoantigen), member 16	1					1.73				
238384	Slc24a4	solute carrier family 24 (sodium/potassium/calcium exchanger), member 4	1					-1.42				
73102	Slc22a23	solute carrier family 22, member 23	1					1.39				
210463	Slc22a22	solute carrier family 22 (organic cation transporter), member 22	1					-3.78				
56517	Slc22a21	solute carrier family 22 (organic cation transporter), member 21	1					-1.52				
20516	Slc20a2	solute carrier family 20, member 2	1					-1.45				
214084	Slc18a2	solute carrier family 18 (vesicular monoamine), member 2	1					1.93				
20482	Skil	SKI-like	1					1.38				
20474	Six4	sine oculis-related homeobox 4 homolog (Drosophila)	1		-1.68							
30954	Siva1	SIVA1, apoptosis-inducing factor	1					-1.25				
19261	Sirpa	signal-regulatory protein alpha	1					1.36				
20467	Sin3b	transcriptional regulator, SIN3B (yeast)	1		1.30							
268281	Shprh	SNF2 histone linker PHD RING helicase	1					-1.36				
230126	Shb	src homology 2 domain-containing transforming protein B	1		1.50							
58234	Shank3	SH3/ankyrin domain gene 3	1					-1.38				
268396	Sh3pxd2b	SH3 and PX domains 2B	1					1.41				
20408	Sh3gl3	SH3-domain GRB2-like 3	1				-1.59					
98402	Sh3bp4	SH3-domain binding protein 4	1					-1.27				
94281	Sfxn4	sideroflexin 4	1					-1.39				
94279	Sfxn2	sideroflexin 2	1					-1.50				
108735	Sft2d2	SFT2 domain containing 2	1		1.24							
20379	Sfrp4	secreted frizzled-related protein 4	1					-2.68				
353282	Sfmbt2	Scm-like with four mbt domains 2	1					-2.86				
67956	Setd8	SET domain containing (lysine methyltransferase) 8	1					-1.15				
140742	Sesn1	sestrin 1	1					-1.35				
20317	Serpinf1	serine (or cysteine) peptidase inhibitor, clade F, member 1	1					-1.44				
72661	Serp2	stress-associated endoplasmic reticulum protein family member 2	1					-1.41				
218442	Serinc5	serine incorporator 5	1					1.98				
230779	Serinc2	serine incorporator 2	1		-2.26							
378702	Serf2	small EDRK-rich factor 2	1					-1.17				
20365	Serf1	small EDRK-rich factor 1	1					-1.70				
20361	Sema7a	sema domain, immunoglobulin domain (Ig), and GPI membrane anchor, (semaphorin) 7A	1					1.31				
20357	Sema5b	sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5B	1					-1.41				

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
20354	Sema4d	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D	1					1.60				
27054	Sec23b	SEC23B (<i>S. cerevisiae</i>)	1					1.24				
317717	Sec22a	SEC22 vesicle trafficking protein homologue A (<i>S. cerevisiae</i>)	1					-1.32				
330222	Sdk1	sidekick homolog 1 (chicken)	1					-1.37				
53378	Sdcbp	syndecan binding protein	1					1.51				
105782	Scrib	scribbled homolog (<i>Drosophila</i>)	1					-1.51				
20277	Scnn1b	sodium channel, nonvoltage-gated 1 beta	1					-1.48				
399548	Scn4b	sodium channel, type IV, beta	1		-2.30							
219151	Scara3	scavenger receptor class A, member 3	1					-1.60				
319934	Sbf2	SET binding factor 2	1					-1.27				
20230	Satb1	special AT-rich sequence binding protein 1	1					-1.35				
69215	Sat2	spermidine/spermine N1-acetyl transferase 2	1					-1.30				
192166	Sardh	sarcosine dehydrogenase	1		1.43							
20220	Sap18	Sin3-associated polypeptide 18	1					-1.33				
235636	Rtp3	receptor transporter protein 3	1					-1.96				
18114	Rrp1	ribosomal RNA processing 1 homolog (<i>S. cerevisiae</i>)	1					1.29				
20130	Rras	Harvey rat sarcoma oncogene, subgroup R	1					-1.33				
76846	Rps9	ribosomal protein S9	1					1.36				
57294	Rps27	ribosomal protein S27	1					1.76				
20054	Rps15	ribosomal protein S15	1					-1.15				
66646	Rpe	ribulose-5-phosphate-3-epimerase	1					1.41				
66049	Rogdi	rogdi homolog (<i>Drosophila</i>)	1					1.32				
71673	Rnf215	ring finger protein 215	1					-1.27				
75234	Rnf19b	ring finger protein 19B	1					1.71				
59044	Rnf130	ring finger protein 130	1					-1.20				
67845	Rnf115	ring finger protein 115	1					1.37				
50849	Rnf10	ring finger protein 10	1					1.36				
56532	Ripk3	receptor-interacting serine-threonine kinase 3	1		1.41							
66878	Rio3	RIO kinase 3 (yeast)	1					1.31				
78757	Rictor	RPTOR independent companion of MTOR, complex 2	1					1.49				
66611	Ribc1	RIB43A domain with coiled-coils 1	1					-1.42				
14787	Rhpn1	rhophilin, Rho GTPase binding protein 1	1					-1.55				
59040	Rhot1	ras homolog gene family, member T1	1					-1.34				
11853	Rhoc	ras homolog gene family, member C	1					1.52				
215160	Rhbdd2	rhomboid domain containing 2	1					-1.35				
76867	Rhbdd1	rhomboid domain containing 1	1					1.28				
319758	Rfx7	regulatory factor X, 7	1					1.58				
67830	Rer1	RER1 retention in endoplasmic reticulum 1 homolog (<i>S. cerevisiae</i>)	1					-1.12				
140743	Rem2	rad and gem related GTP binding protein 2	1		-2.66							
70335	Reep6	receptor accessory protein 6	1					-2.02				
13476	Reep5	receptor accessory protein 5	1					-1.10				
319817	Rc3h2	ring finger and CCCH-type zinc finger domains 2	1					1.30				
207181	Rbms3	RNA binding motif, single stranded interacting protein	1		-1.69							
71684	Rbm43	RNA binding motif protein 43	1					1.31				
66810	Rbm22	RNA binding motif protein 22	1					1.45				
19651	Rbl2	retinoblastoma-like 2	1					1.60				
320292	Rasgef1b	RasGEF domain family, member 1B	1					1.98				
19385	Ranbp1	RAN binding protein 1	1					1.48				
54409	Ramp2	receptor (calcitonin) activity modifying protein 2	1					-1.58				
75646	Rai14	retinoic acid induced 14	1					-1.34				
56715	Rabgef1	RAB guanine nucleotide exchange factor (GEF) 1	1					-1.17				
224624	Rab40c	Rab40c, member RAS oncogene family	1					-1.47				
76877	Rab36	RAB36, member RAS oncogene family	1					-1.31				
19376	Rab34	RAB34, member of RAS oncogene family	1		1.47							
59021	Rab2a	RAB2A, member RAS oncogene family	1					-1.24				
19332	Rab20	RAB20, member RAS oncogene family	1					1.79				
19330	Rab18	RAB18, member RAS oncogene family	1					1.30				
72135	Pygo1	pygopus 1	1					-1.56				
218699	Pxk	PX domain containing serine/threonine kinase	1					1.54				
103136	Pwp1	PWP1 homolog (<i>S. cerevisiae</i>)	1					1.49				
108705	Pttg1ip	pituitary tumor-transforming 1 interacting protein	1					-1.18				
329384	Ptrh1	peptidyl-tRNA hydrolase 1 homolog (<i>S. cerevisiae</i>)	1					2.31				
19267	Ptpre	protein tyrosine phosphatase, receptor type, E	1					-1.24				
19262	Ptpra	protein tyrosine phosphatase, receptor type, A	1					1.32				
19250	Ptpn14	protein tyrosine phosphatase, non-receptor type 14	1					-1.33				
66461	Ptpmt1	protein tyrosine phosphatase, mitochondrial 1	1					-1.36				
218232	Ptpdc1	protein tyrosine phosphatase domain containing 1	1					-1.32				
19219	Ptger4	prostaglandin E receptor 4 (subtype EP4)	1					1.53				
19218	Ptger3	prostaglandin E receptor 3 (subtype EP3)	1		2.89							
27388	Ptdss2	phosphatidylserine synthase 2	1					-1.40				
19210	Ptdss1	phosphatidylserine synthase 1	1					-1.16				
19200	Pstpip1	proline-serine-threonine phosphatase-interacting protein 1	1					2.35				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
100678	Psph	phosphoserine phosphatase	1						1.34			
66506	Psmg3	proteasome (prosome, macropain) assembly chaperone 3	1					1.42				
228769	Psmf1	proteasome (prosome, macropain) inhibitor subunit 1	1					-1.32				
19192	Psmc3	proteasome (prosome, macropain) 28 subunit, 3	1					1.62				
19186	Psmc1	proteasome (prosome, macropain) 28 subunit, alpha	1					1.49				
57296	Psmc8	proteasome (prosome, macropain) 26S subunit, non-ATPase, 8	1					1.17				
19185	Psmc4	proteasome (prosome, macropain) 26S subunit, non-ATPase, 4	1					1.42				
22123	Psmc3	proteasome (prosome, macropain) 26S subunit, non-ATPase, 3	1					1.22				
66997	Psmc12	proteasome (prosome, macropain) 26S subunit, non-ATPase, 12	1					1.28				
69077	Psmc11	proteasome (prosome, macropain) 26S subunit, non-ATPase, 11	1					1.78				
19175	Psmc6	proteasome (prosome, macropain) subunit, beta type 6	1					1.23				
19170	Psmc1	proteasome (prosome, macropain) subunit, beta type 1	1					1.14				
19153	Prx	periaxin	1					-1.18				
19142	Prss12	protease, serine, 12 neurotrypsin (motopsin)	1					-1.23				
227723	Prrc2b	proline-rich coiled-coil 2B	1					-1.16				
328099	Prps1l3	phosphoribosyl pyrophosphate synthetase 1-like 3	1					1.33				
19128	Pros1	protein S (alpha)	1					1.20				
109042	Prkcdp	protein kinase C, delta binding protein	1					-1.56				
18753	Prkcd	protein kinase C, delta	1					1.81				
19072	Prep	prolyl endopeptidase	1					1.54				
116847	Prelp	proline arginine-rich end leucine-rich repeat	1					-1.47				
53381	Prdx4	peroxiredoxin 4	1					-1.21				
11757	Prdx3	peroxiredoxin 3	1					1.44				
77630	Prdm8	PR domain containing 8	1		-1.59							
70779	Prdm5	PR domain containing 5	1					-1.28				
114604	Prdm15	PR domain containing 15	1					-1.36				
12142	Prdm1	PR domain containing 1, with ZNF domain	1					2.86				
217430	Pqlc3	PQ loop repeat containing	1					1.72				
52036	Ppp6r3	protein phosphatase 6, regulatory subunit 3	1					1.34				
72930	Ppp2r2b	protein phosphatase 2 (formerly 2A), regulatory subunit B (PR 52), beta isoform	1		-2.51							
71978	Ppp2r2a	protein phosphatase 2 (formerly 2A), regulatory subunit B (PR 52), alpha isoform	1					1.37				
228852	Ppp1r16b	protein phosphatase 1, regulatory (inhibitor) subunit 16B	1					-1.50				
242083	Ppm1l	protein phosphatase 1 (formerly 2C)-like	1					-1.26				
14208	Ppm1g	protein phosphatase 1G (formerly 2C), magnesium-dependent, gamma isoform	1					1.24				
19035	Ppib	peptidylprolyl isomerase B	1					1.15				
217734	Pomt2	protein-O-mannosyltransferase 2	1					-1.31				
66537	Pomp	proteasome maturation protein	1					1.14				
68273	Pomgnt1	protein O-linked mannose beta1,2-N-acetylglucosaminyltransferase	1					-1.26				
69920	Polr2i	polymerase (RNA) II (DNA directed) polypeptide I	1					-1.20				
69241	Polr2d	polymerase (RNA) II (DNA directed) polypeptide D	1					1.33				
64424	Polr1e	polymerase (RNA) I polypeptide E	1					1.59				
20018	Polr1d	polymerase (RNA) I polypeptide D	1					1.21				
26447	Poli	polymerase (DNA directed), iota	1					-1.34				
69745	Pold4	polymerase (DNA-directed), delta 4	1					1.46				
80294	Pofut2	protein O-fucosyltransferase 2	1					-1.36				
242608	Podn	podocan	1					-1.89				
68603	Pmvk	phosphomevalonate kinase	1					-1.60				
102502	Pls1	plastin 1 (I-isoform)	1					2.54				
18823	Plip1	proteolipid protein (myelin) 1	1					1.30				
67801	Plip	plasma membrane proteolipid	1					-1.25				
269608	Plekkg5	pleckstrin homology domain containing, family G (with RhoGef domain) member 5	1					-1.57				
263406	Plekkg3	pleckstrin homology domain containing, family G (with RhoGef domain) member 3	1					-1.48				
27276	Plekhh1	pleckstrin homology domain containing, family B (evectins) member 1	1					-1.17				
18807	Plid3	phospholipase D family, member 3	1					1.83				
18772	Pkp1	plakophilin 1	1					2.40				
56305	Pitpnb	phosphatidylinositol transfer protein, beta	1					-1.16				
236604	Pisd-ps1	phosphatidylserine decarboxylase, pseudogene 1	1					1.94				
216505	Pik3ip1	phosphoinositide-3-kinase interacting protein 1	1					-1.32				
74769	Pik3cb	phosphatidylinositol 3-kinase, catalytic, beta polypeptide	1					1.48				
14755	Pigq	phosphatidylinositol glycan anchor biosynthesis, class Q	1					-1.16				
244650	Phipp2	PH domain and leucine rich repeat protein phosphatase 2	1					-1.41				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
78246	Phf23	PHD finger protein 23	1					1.22				
230936	Phf13	PHD finger protein 13	1					-1.19				
13619	Phc1	polyhomeotic-like 1 (Drosophila)	1		1.31							
67078	Pgp	phosphoglycolate phosphatase	1					-1.27				
54381	Pgcp	plasma glutamate carboxypeptidase	1					1.35				
72542	Pgam5	phosphoglycerate mutase family member 5	1					1.35				
56612	Pfdn5	prefoldin 5	1					-1.12				
68559	Pdrg1	p53 and DNA damage regulated 1	1					-1.17				
68797	Pdgfrl	platelet-derived growth factor receptor-like	1					-1.45				
18596	Pdgfrb	platelet derived growth factor receptor, beta polypeptide	1					-1.32				
18595	Pdgfra	platelet derived growth factor receptor, alpha polypeptide	1					-1.71				
18585	Pde9a	phosphodiesterase 9A	1					-1.75				
18578	Pde4b	phosphodiesterase 4B, cAMP specific	1		-1.44							
211948	Pde12	phosphodiesterase 12	1					1.62				
18570	Pdcd6	programmed cell death 6	1					1.21				
18551	Pcsk4	proprotein convertase subtilisin/kexin type 4	1		1.31							
18546	Pcp4	Purkinje cell protein 4	1		-1.50							
93874	Pcdhb3	protocadherin beta 3	1					1.94				
23983	Pcbp1	poly(rC) binding protein 1	1					1.20				
72562	Pcbd2	pterin 4 alpha carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1) 2	1					-1.39				
18516	Pbx3	pre B-cell leukemia transcription factor 3	1					1.75				
66923	Pbrm1	polybromo 1	1					1.22				
243771	Parp12	poly (ADP-ribose) polymerase family, member 12	1					1.31				
101187	Parp11	poly (ADP-ribose) polymerase family, member 11	1					1.58				
93737	Pard6g	par-6 partitioning defective 6 homolog gamma (C. elegans)	1					-1.27				
71904	Paqr7	progesterin and adipoQ receptor family member VII	1					-1.49				
55991	Panx1	pannexin 1	1					2.01				
210622	Pamr1	peptidase domain containing associated with muscle regeneration 1	1					-1.87				
70584	Pak4	p21 protein (Cdc42/Rac)-activated kinase 4	1					-1.37				
18481	Pak3	p21 protein (Cdc42/Rac)-activated kinase 3	1		-1.74							
18451	P4ha1	procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase), alpha 1 polypeptide	1					-1.45				
14628	Ostm1	osteopetrosis associated transmembrane protein 1	1					1.28				
66844	Ormdl2	ORM1-like 2 (S. cerevisiae)	1					1.44				
227102	Ormdl1	ORM1-like 1 (S. cerevisiae)	1					1.79				
216157	ORF61	open reading frame 61	1					-1.25				
94190	Ophn1	oligophrenin 1	1					-1.39				
27047	Omd	osteonodulin	1					-2.63				
18263	Odc1	ornithine decarboxylase, structural 1	1					-1.73				
98733	Obsl1	obscurin-like 1	1					-1.38				
18242	Oat	ornithine aminotransferase	1					1.63				
18230	Nxn	nucleoredoxin	1					-1.51				
68051	Nuff2	nuclear transport factor 2	1		-1.28							
218210	Nup153	nucleoporin 153	1					1.84				
68564	Nufip2	nuclear fragile X mental retardation protein interacting protein 2	1					1.32				
18208	Ntn1	netrin 1	1					-1.32				
18203	Ntan1	N-terminal Asn amidase	1					-1.18				
103850	Nt5m	5',3'-nucleotidase, mitochondrial	1					-1.34				
18194	Nsdhl	NAD(P) dependent steroid dehydrogenase-like	1					-1.49				
106582	Nrm	nurim (nuclear envelope membrane protein)	1					2.22				
27206	Nrk	Nik related kinase	1					-4.80				
268903	Nrip1	nuclear receptor interacting protein 1	1					1.52				
18227	Nr4a2	nuclear receptor subfamily 4, group A, member 2	1					-1.22				
18159	Nppc	natriuretic peptide type C	1					-1.56				
108176	Npm3-ps1	nucleoplasm 3, pseudogene 1	1					1.54				
74091	Npl	N-acetylneuraminate pyruvate lyase	1					1.58				
54615	Npff	neuropeptide FF-amide peptide precursor	1					-1.72				
70769	Nolc1	nucleolar and coiled-body phosphoprotein 1	1					1.23				
226518	Nmnat2	nicotinamide nucleotide adenyltransferase 2	1		-1.75							
75533	Nme5	non-metastatic cells 5, protein expressed in (nucleoside-diphosphate kinase)	1					-1.39				
79059	Nme3	non-metastatic cells 3, protein expressed in	1					1.55				
70701	Nipa1	NIPA-like domain containing 1	1					-1.34				
93790	Nipa2	non imprinted in Prader-Willi/Angelman syndrome 2 homolog (human)	1					1.70				
105193	Nhlrc1	NHL repeat containing 1	1					-1.38				
56748	Nfu1	NFU1 iron-sulfur cluster scaffold homolog (S. cerevisiae)	1					1.24				
18037	Nfkbie	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon	1					2.38				
18007	Neo1	neogenin	1					-1.32				
54003	Nell2	NEL-like 2 (chicken)	1					-1.45				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
56876	Nelf	nasal embryonic LHRH factor	1									
104130	Ndufb11	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 11	1					1.35				
68202	Ndufa5	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5	1					-1.24				
67203	Nde1	nuclear distribution gene E homolog 1 (A nidulans)	1					-1.20				
320024	Nceh1	arylacetamide deacetylase-like 1	1					1.48				
68298	Ncapd2	non-SMC condensin I complex, subunit D2	1		1.42							
72560	Naalad2	N-acetylated alpha-linked acidic dipeptidase 2	1					-1.79				
72117	Naa50	N(alpha)-acetyltransferase 50, NatE catalytic subunit	1					1.31				
56292	Naa10	N(alpha)-acetyltransferase 10, NatA catalytic subunit	1					1.38				
245049	Myrip	myosin VIIA and Rab interacting protein	1					-1.62				
17926	Myoc	myocilin	1					-1.56				
17919	Myo5b	myosin VB	1					-1.89				
17918	Myo5a	myosin VA	1					2.10				
17909	Myo10	myosin X	1					1.35				
74761	Mxra8	matrix-remodelling associated 8	1					-1.37				
67622	Mxra7	matrix-remodelling associated 7	1					-1.35				
17122	Mxd4	Max dimerization protein 4	1					-1.54				
17772	Mtm1	X-linked myotubular myopathy gene 1	1					1.97				
108156	Mthfd1	methylenetetrahydrofolate dehydrogenase (NADP+ dependent), methylenetetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthase	1					-1.30				
23942	Mta2	metastasis-associated gene family, member 2	1					1.57				
17751	Mt3	metallothionein 3	1					-1.70				
545279	Ms4a15	membrane-spanning 4-domains, subfamily A, member 15	1					-1.38				
79044	Mrps34	mitochondrial ribosomal protein S34	1					1.26				
64660	Mrps24	mitochondrial ribosomal protein S24	1					-1.26				
68565	Mrps18a	mitochondrial ribosomal protein S18A	1					1.38				
67994	Mrps11	mitochondrial ribosomal protein S11	1					1.40				
94066	Mrpl36	mitochondrial ribosomal protein L36	1					1.16				
67707	Mrpl24	mitochondrial ribosomal protein L24	1					1.23				
66448	Mrpl20	mitochondrial ribosomal protein L20	1					1.52				
67681	Mrpl18	mitochondrial ribosomal protein L18	1					1.43				
246221	Mpst	mercaptopyruvate sulfurtransferase	1					1.97				
70380	Mospd1	motile sperm domain containing 1	1					1.41				
67247	Mosc2	MOCO sulphurase C-terminal domain containing 2	1					-1.32				
378462	Morn2	MORN repeat containing 2	1					-1.41				
77697	Mmab	methylmalonic aciduria (cobalamin deficiency) type B homolog (human)	1					-1.45				
210719	Mkx	mohawk homeobox	1		-2.05							
59090	Midn	midnolin	1					1.30				
76580	Mib2	mindbomb homolog 2 (Drosophila)	1					-1.45				
216864	Mgl2	macrophage galactose N-acetyl-galactosamine specific lectin 2	1					-2.23				
269181	Mgat4a	mannoside acetylglucosaminyltransferase 4, isoenzyme A	1					1.60				
217721	Mfsd7c	major facilitator superfamily domain containing 7C	1					-2.01				
69900	Mfsd11	major facilitator superfamily domain containing 11	1					1.51				
66868	Mfsd1	major facilitator superfamily domain containing 1	1					1.32				
30060	Mfi2	antigen p97 (melanoma associated) identified by monoclonal antibodies 133.2 and 96.5	1					-1.53				
76293	Mfap4	microfibrillar-associated protein 4	1					-4.69				
56335	Mettl3	methyltransferase like 3	1					-1.18				
17289	Mertk	c-mer proto-oncogene tyrosine kinase	1					1.94				
76890	Memo1	mediator of cell motility 1	1					1.48				
70417	Megf10	multiple EGF-like-domains 10	1					1.60				
20933	Med22	mediator complex subunit 22	1					-1.42				
17219	Mcm6	minichromosome maintenance deficient 6 (MIS5 homolog, S. pombe) (S. cerevisiae)	1		1.46							
230125	Mcart1	mitochondrial carrier triple repeat 1	1					1.23				
84004	Mcam	melanoma cell adhesion molecule	1					1.61				
77582	Mboat7	membrane bound O-acyltransferase domain containing 7	1					-1.17				
26390	Mapkbp1	mitogen-activated protein kinase binding protein 1	1					-1.52				
227743	Mapkap1	mitogen-activated protein kinase associated protein 1	1					-1.22				
23939	Mapk7	mitogen-activated protein kinase 7	1					-1.29				
69546	Mapk1ip1	mitogen-activated protein kinase 1 interacting protein 1	1					-1.35				
227619	Man1b1	mannosidase, alpha, class 1B, member 1	1					-1.38				
17153	Mal	myelin and lymphocyte protein, T-cell differentiation protein	1					-1.23				
75625	Mageh1	melanoma antigen, family H, 1	1					1.43				
80884	Maged2	melanoma antigen, family D, 2	1					-1.50				
18777	Lypla1	lysophospholipase 1	1					1.68				
17089	Lyar	Ly1 antibody reactive clone	1					-1.29				

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
17084	Ly86	lymphocyte antigen 86	1					1.66				
114654	Ly6g6d	lymphocyte antigen 6 complex, locus G6D	1					-1.37				
17069	Ly6e	lymphocyte antigen 6 complex, locus E	1					1.31				
16997	Ltbp2	latent transforming growth factor beta binding protein 2	1		2.30							
16981	Lrrn3	leucine rich repeat protein 3, neuronal	1					-1.51				
241568	Lrrc4c	leucine rich repeat containing 4C	1		-1.33							
102747	Lrrc49	leucine rich repeat containing 49	1		-2.00							
67867	Lrrc28	leucine rich repeat containing 28	1					-1.24				
64898	Lpin2	lipin 2	1					1.51				
99633	Lphn2	latrophilin 2	1					1.35				
100503890	LOC100503890	RIKEN cDNA 2900053A13 gene	1					-1.29				
100503337	LOC100503337	predicted gene 9895	1					-1.73				
100503057	LOC100503057	uncharacterized LOC100503057	1					-1.77				
381236	Lipo1	lipase, member O1	1					1.64				
225341	Lims2	LIM and senescent cell antigen like domains 2	1					-1.31				
16859	Lgals9	lectin, galactose binding, soluble 9	1					1.49				
56401	Lepre1	leprecan 1	1					-1.44				
69757	Leng1	leukocyte receptor cluster (LRC) member 1	1					-1.61				
223732	Ldoc1l	leucine zipper, down-regulated in cancer 1-like	1					-1.44				
18826	Lcp1	lymphocyte cytosolic protein 1	1					2.62				
329504	Lcmt2	leucine carboxyl methyltransferase 2	1					1.31				
225010	Lclat1	lysocardiolipin acyltransferase 1	1					1.40				
66344	Lce3b	late cornified envelope 3B	1					-1.41				
16803	Lbp	lipopolysaccharide binding protein	1					-1.74				
16796	Lasp1	LIM and SH3 protein 1	1					-1.30				
76130	Las1l	LAS1-like (S. cerevisiae)	1					-1.24				
217980	Larp4b	La ribonucleoprotein domain family, member 4B	1					1.21				
236285	Lancl3	LanC lantibiotic synthetase component C-like 3 (bacterial)	1		-2.07							
16777	Lamb1	laminin B1	1		1.26							
69815	Krtcap3	keratinocyte associated protein 3	1					-1.29				
68239	Krt42	keratin 42	1					-1.51				
16670	Krt32	keratin 32	1					-1.48				
66809	Krt20	keratin 20	1					-1.91				
16648	Kpna3	karyopherin (importin) alpha 3	1					1.38				
16646	Kpna1	karyopherin (importin) alpha 1	1					1.31				
16631	Klra13-ps	killer cell lectin-like receptor subfamily A, member 13, pseudogene	1					-1.67				
16604	Klk1b7-ps	kallikrein 1-related peptidase b7, pseudogene	1					-1.51				
234378	Klhl26	kelch-like 26 (Drosophila)	1					-1.23				
277396	Klhl23	kelch-like 23 (Drosophila)	1					-1.62				
231003	Klhl17	kelch-like 17 (Drosophila)	1					-1.31				
232943	Klc3	kinesin light chain 3	1					1.46				
16576	Kif7	kinesin family member 7	1					-1.33				
75605	Kdm5b	lysine (K)-specific demethylase 5B	1					-1.33				
67516	Kctd4	potassium channel tetramerisation domain containing 4	1					-1.38				
16511	Kcnh2	potassium voltage-gated channel, subfamily H (eag-related), member 2	1		-1.39							
16502	Kcnc1	potassium voltage gated channel, Shaw-related subfamily, member 1	1		-2.14							
242553	Kank4	KN motif and ankyrin repeat domains 4	1					-1.17				
235041	Kank2	KN motif and ankyrin repeat domains 2	1					-1.24				
338523	Jhdm1d	jumonji C domain-containing histone demethylase 1 homolog D (S. cerevisiae)	1					1.51				
16451	Jak1	Janus kinase 1	1					1.40				
67767	Jagn1	jagunal homolog 1 (Drosophila)	1					1.23				
16449	Jag1	jagged 1	1					-1.39				
16431	Itm2a	integral membrane protein 2A	1					-1.61				
16400	Itga3	integrin alpha 3	1					-1.34				
75847	Ispd	isoprenoid synthase domain containing	1					1.71				
15944	Irgm1	immunity-related GTPase family M member 1	1					1.87				
108960	Irak2	interleukin-1 receptor-associated kinase 2	1					2.31				
232227	Iqsec1	IQ motif and Sec7 domain 1	1					-1.19				
16190	Il4ra	interleukin 4 receptor, alpha	1					1.50				
16186	Il2rg	interleukin 2 receptor, gamma chain	1					5.29				
16172	Il17ra	interleukin 17 receptor A	1					2.12				
16170	Il16	interleukin 16	1					-1.36				
67454	Ikbip	IKKB interacting protein	1					-1.32				
16069	Igj	immunoglobulin joining chain	1					28.96				
18518	Igbbp1	immunoglobulin (CD79A) binding protein 1	1					1.46				
15939	Ier5	immediate early response 5	1					1.40				
15937	Ier3	immediate early response 3	1					1.82				
15903	Id3	inhibitor of DNA binding 3	1					1.43				
105148	Iars	isoleucine-tRNA synthetase	1					1.37				
67732	Iah1	isoamyl acetate-hydrolyzing esterase 1 homolog (S. cerevisiae)	1					1.23				
64704	Htra2	HtrA serine peptidase 2	1					-1.23				
15512	Hspa2	heat shock protein 2	1					1.36				
72630	Hspa12b	heat shock protein 12B	1					-1.71				
15473	Hrsp12	heat-responsive protein 12	1					1.53				
15446	Hpgd	hydroxyprostaglandin dehydrogenase 15 (NAD)	1					-1.45				
15438	Hoxd9	homeobox D9	1		-1.33							

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value		
15402	Hoxa5	homeobox A5	1											
26557	Homer2	homer homolog 2 (Drosophila)	1											
15384	Hnmpab	heterogeneous nuclear ribonucleoprotein A/B	1											
15273	Hivep2	human immunodeficiency virus type 1 enhancer binding protein 2	1											
319190	Hist2h2be	histone cluster 2, H2be	1											
71059	Hexim2	hexamethylene bis-acetamide inducible 2	1											
223658	Heatr7a	HEAT repeat containing 7A	1											
29877	Hdgfrp3	hepatoma-derived growth factor, related protein 3	1											
208727	Hdac4	histone deacetylase 4	1											
330790	Hapln4	hyaluronan and proteoglycan link protein 4	1											
56794	Hacl1	2-hydroxyacyl-CoA lyase 1	1											
77605	H2afv	H2A histone family, member V	1											
14955	H19	H19 fetal liver mRNA	1											
232493	Cys2	glycogen synthase 2	1											
107999	Gtpbp6	GTP binding protein 6 (putative)	1											
14894	Gt13	gene trap locus 3	1											
98053	Gtf2f1	general transcription factor IIF, polypeptide 1	1											
68153	Gtf2e2	general transcription factor II E, polypeptide 2 (beta subunit)	1											
235459	Gtf2a2	general transcription factor II A, 2	1											
68214	Gsto2	glutathione S-transferase omega 2	1											
68312	Gstm7	glutathione S-transferase, mu 7	1											
227753	Gsn	gelsolin	1											
382034	Gse1	genetic suppressor element 1	1											
231413	Grsf1	G-rich RNA sequence binding factor 1	1											
28015	Grin1a	polymerase (RNA) II (DNA directed) polypeptide M	1											
170483	Grin3b	glutamate receptor, ionotropic, NMDA3B	1											
14809	Grik5	glutamate receptor, ionotropic, kainate 5 (gamma 2)	1											
14790	Grcc10	gene rich cluster, C10 gene	1											
67839	Gpsm1	G-protein signalling modulator 1 (AGS3-like, C. elegans)	1											
64095	Gpr35	G protein-coupled receptor 35	1											
239530	Gpr20	G protein-coupled receptor 20	1											
58245	Gpr180	G protein-coupled receptor 180	1											
269053	Gpr152	G protein-coupled receptor 152	1											
100210	Gpn2	GPN-loop GTPase 2	1											
14733	Gpc1	glypican 1	1											
70231	Gorasp2	golgi reassembly stacking protein 2	1											
71146	Golga7b	golgi autoantigen, golgin subfamily a, 7B	1											
30877	Gnl3	guanine nucleotide binding protein-like 3 (nucleolar)	1											
14694	Gnb211	guanine nucleotide binding protein (G protein), beta polypeptide 2 like 1	1											
14674	Gna13	guanine nucleotide binding protein, alpha 13	1											
668339	Gm9112	predicted gene 9112	1											
546143	Gm5918	predicted gene 5918	1											
242037	Gm410	predicted gene 410	1											
241289	Gm347	protein phosphatase 1, regulatory subunit 26	1											
100040297	Gm2695	predicted gene 2695	1											
100504674	Gm20346	predicted gene, 20346	1											
100504048	Gm20033	predicted gene, 20033	1											
100503686	Gm19831	predicted gene, 19831	1											
100504345	Gm17456	predicted gene, 17456	1											
100503986	Gm17227	predicted gene 17227	1											
24083	Gm16515	predicted gene, Gm16515	1											
100503471	Gm15867	predicted gene 15867	1											
100042125	Gm15535	predicted gene 15535	1											
100044509	Gm14378	predicted gene 14378	1											
100036520	Gm14318	predicted gene 14318	1											
100503381	Gm14022	predicted gene 14022	1											
545681	Gm12992	predicted gene 12992	1											
629750	Gm11517	ubiquitin A-52 residue ribosomal protein fusion product 1 pseudogene	1											
226866	Gm106	predicted gene 106	1											
100038398	Gm10567	predicted gene 10567	1											
328186	Gm10336	predicted gene 10336	1											
68077	Gltscr2	glioma tumor suppressor candidate region gene 2	1											
109801	Glo1	glyoxalase 1	1											
170823	Glmn	glomulin, FKBP associated protein	1											
14622	Gjb5	gap junction protein, beta 5	1											
83408	Gimap3	GTPase, IMAP family member 3	1											
16205	Gimap1	GTPase, IMAP family member 1	1											
74105	Gga2	golgi associated, gamma adaptin ear containing, ARF binding protein 2	1											
233552	Gdpd5	glycerophosphodiester phosphodiesterase domain containing 5	1											
229900	Gbp7	guanylate binding protein 7	1											
55932	Gbp3	guanylate binding protein 3	1											
74185	Gbe1	glucan (1,4-alpha-), branching enzyme 1	1											

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
384281	Gatc	glutamyl-tRNA(Gln) amidotransferase, subunit C homolog (bacterial)	1					-1.20				
14456	Gas6	growth arrest specific 6	1					-1.39				
14451	Gas1	growth arrest specific 1	1					-1.73				
207839	Galnt6	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 6	1					2.63				
171212	Galnt10	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 10	1					-1.52				
14420	Galc	galactosylceramidase	1					1.59				
231580	Gak	cyclin G associated kinase	1					1.28				
14405	Gabrg1	gamma-aminobutyric acid (GABA) A receptor, subunit gamma 1	1		-2.75							
14086	Fscn1	fascin homolog 1, actin bundling protein (Strongylocentrotus purpuratus)	1					-1.44				
68655	Fndc1	fibronectin type III domain containing 1	1					-1.53				
14263	Fmo5	flavin containing monooxygenase 5	1					-1.42				
71409	Fmn12	formin-like 2	1					-1.16				
14255	Fit3	FMS-like tyrosine kinase 3	1		-1.67							
286940	Flnb	filamin, beta	1					-1.31				
14231	Fkbp7	FK506 binding protein 7	1					-1.25				
14229	Fkbp5	FK506 binding protein 5	1					1.61				
231997	Fkbp14	FK506 binding protein 14	1					-1.23				
60344	Fign	fidgetin	1					1.42				
58249	Fibp	fibroblast growth factor (acidic) intracellular binding protein	1					-1.28				
67529	Fgfr1op2	FGFR1 oncogene partner 2	1					1.48				
14172	Fgf18	fibroblast growth factor 18	1		-2.22							
59083	Fetub	fetuin beta	1		2.90							
207278	Fchsd2	FCH and double SH3 domains 2	1					1.74				
215384	Fcgbp	Fc fragment of IgG binding protein	1					-2.06				
14127	Fcer1g	Fc receptor, IgE, high affinity I, gamma polypeptide	1		1.38							
50753	Fbxo8	F-box protein 8	1					1.85				
69754	Fbxo7	F-box protein 7	1					1.23				
66822	Fbxo25	F-box protein 25	1					-1.40				
101358	Fbxl14	F-box and leucine-rich repeat protein 14	1					1.28				
14114	Fbln1	fibulin 1	1					-1.64				
14089	Fap	fibroblast activation protein	1					-1.70				
237211	Fancb	Fanconi anemia, complementation group B	1					-1.53				
385658	Fam55c	family with sequence similarity 55, member C	1		-1.56							
66294	Fam3a	family with sequence similarity 3, member A	1					-1.26				
381217	Fam189a2	family with sequence similarity 189, member A2	1					-1.43				
70638	Fam189a1	family with sequence similarity 189, member A1	1					-1.64				
381337	Fam178b	family with sequence similarity 178, member B	1					-1.27				
226151	Fam178a	family with sequence similarity 178, member A	1					1.49				
68675	Fam172a	family with sequence similarity 172, member A	1					1.57				
74349	Fam160a2	family with sequence similarity 160, member A2	1					-1.30				
230579	Fam151a	family with sequence similarity 151, member A	1					-1.37				
227298	Fam134a	family with sequence similarity 134, member A	1					-1.18				
218236	Fam120a	family with sequence similarity 120, member A	1					1.22				
72750	Fam117b	family with sequence similarity 117, member B	1					1.36				
68303	Fam114a1	family with sequence similarity 114, member A1	1					-1.31				
268709	Fam107a	family with sequence similarity 107, member A	1					-1.50				
14038	Expi	extracellular proteinase inhibitor	1		3.12							
211446	Exoc3	exocyst complex component 3	1					-1.24				
14011	Etv6	ets variant gene 6 (TEL oncogene)	1					1.45				
23943	Esy1	extended synaptotagmin-like protein 1	1					1.35				
207920	Esrp1	epithelial splicing regulatory protein 1	1					-2.52				
67397	Erp29	endoplasmic reticulum protein 29	1					1.40				
66366	Ergic3	ERGIC and golgi 3	1					-1.19				
22592	Ercc5	excision repair cross-complementing rodent repair deficiency, complementation group 5	1					-1.21				
111173	Erc1	ELKS/RAB6-interacting/CAST family member 1	1					-1.28				
59079	Erb2ip	Erb2 interacting protein	1					1.48				
13516	Epyc	epiphycan	1		1.84							
13848	Ephb6	Eph receptor B6	1					-1.46				
270190	Ephb1	Eph receptor B1	1		1.50							
18606	Enpp2	ectonucleotide pyrophosphatase/phosphodiesterase 2	1					-1.33				
67870	Enoph1	enolase-phosphatase 1	1					-1.22				
54325	Elovl1	elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 1	1					-1.17				
192170	Eif4a3	eukaryotic translation initiation factor 4A3	1		1.21							
54709	Eif3i	eukaryotic translation initiation factor 3, subunit I	1					1.17				
55944	Eif3d	eukaryotic translation initiation factor 3, subunit D	1					1.42				
66235	Eif1ax	eukaryotic translation initiation factor 1A, X-linked	1					1.32				
98878	Ehd4	EH-domain containing 4	1					1.19				
259300	Ehd2	EH-domain containing 2	1					-1.34				
112405	Egln1	EGL nine homolog 1 (C. elegans)	1					-1.30				
353156	Egfl7	EGF-like domain 7	1					-1.50				
71877	Efhc1	EF-hand domain (C-terminal) containing 1	1					-1.44				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value		
216238	Eea1	early endosome antigen 1	1											
107522	Ece2	endothelin converting enzyme 2	1											
55960	Ebag9	estrogen receptor-binding fragment-associated gene 9	1											
223593	E430025E21Rik	RIKEN cDNA E430025E21 gene	1											
66573	Dzip1	DAZ interacting protein 1	1											
80915	Dusp12	dual specificity phosphatase 12	1											
209200	Dtx3l	deltex 3-like (Drosophila)	1											
434423	Dppa5a	developmental pluripotency associated 5A	1											
13482	Dpp4	dipeptidylpeptidase 4	1											
238130	Dock4	dedicator of cytokinesis 4	1											
13421	Dnase1l3	deoxyribonuclease 1-like 3	1		-1.71									
13002	Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5	1											
69408	Dnajc17	DnaJ (Hsp40) homolog, subfamily C, member 17	1											
30045	Dnajc12	DnaJ (Hsp40) homolog, subfamily C, member 12	1											
106794	Dhx57	DEAH (Asp-Glu-Ala-Asp/His) box polypeptide 57	1											
20148	Dhrs3	dehydrogenase/reductase (SDR family) member 3	1											
52585	Dhrs1	dehydrogenase/reductase (SDR family) member 1	1											
116891	Derl2	Der1-like domain family, member 2	1											
232449	Dera	2-deoxyribose-5-phosphate aldolase homolog (C. elegans)	1		1.44									
211896	Depdc7	DEP domain containing 7	1											
54006	Deaf1	deformed epidermal autoregulatory factor 1 (Drosophila)	1											
53817	Ddx39b	DEAD (Asp-Glu-Ala-Asp) box polypeptide 39B	1											
56200	Ddx21	DEAD (Asp-Glu-Ala-Asp) box polypeptide 21	1											
67040	Ddx17	DEAD (Asp-Glu-Ala-Asp) box polypeptide 17	1											
114874	Ddhd1	DDHD domain containing 1	1											
69305	Dcps	decapping enzyme, scavenger	1											
73379	Dcbl2	discoidin, CUB and LCCL domain containing 2	1											
226414	Dars	aspartyl-tRNA synthetase	1											
57373	D930014E17Rik	RIKEN cDNA D930014E17 gene	1											
654810	D630032N06Rik	RIKEN cDNA D630032N06 gene	1											
52392	D1Ert622e	DNA segment, Chr 1, ERATO Doi 622, expressed	1											
52318	D1Ert448e	DNA segment, Chr 1, ERATO Doi 448, expressed	1											
27762	D17H6S56E-3	DNA segment, Chr 17, human D6S56E 3	1		-2.33									
100504016	D130020L05Rik	NA	1											
27528	D0H4S114	DNA segment, human D4S114	1											
225995	D030056L22Rik	RIKEN cDNA D030056L22 gene	1											
13113	Cyp3a13	cytochrome P450, family 3, subfamily a, polypeptide 13	1		1.69									
13107	Cyp2f2	cytochrome P450, family 2, subfamily f, polypeptide 2	1		-6.13									
56448	Cyp2d22	cytochrome P450, family 2, subfamily d, polypeptide 22	1											
66427	Cyb5b	cytochrome b5 type B	1											
319478	Cxxc4	CXXC finger 4	1		-2.14									
12778	Cxcr7	chemokine (C-X-C motif) receptor 7	1											
80744	Cwc22	CWC22 spliceosome-associated protein homolog (S. cerevisiae)	1											
66070	Cwc15	CWC15 homolog (S. cerevisiae)	1											
13043	Cttn	cortactin	1											
13039	Ctsl	cathepsin L	1											
13032	Ctsc	cathepsin C	1											
12385	Ctnna1	catenin (cadherin associated protein), alpha 1	1											
269037	Ctif	CBP80/20-dependent translation initiation factor	1		-1.42									
227292	Ctdsp1	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 1	1											
217615	Clage5	CTAGE family, member 5	1		1.24									
83691	Crispld1	cysteine-rich secretory protein LCCL domain containing 1	1											
208677	Creb3l3	cAMP responsive element binding protein 3-like 3	1											
12873	Cpa3	carboxypeptidase A3, mast cell	1		2.24									
20463	Cox7a2l	cytochrome c oxidase subunit VIIa polypeptide 2-like	1											
12864	Cox6c	cytochrome c oxidase, subunit VIc	1											
12721	Coro1a	coronin, actin binding protein 1A	1											
53419	Corin	corin	1											
56358	Copz2	coatamer protein complex, subunit zeta 2	1											
66200	Commf6	COMM domain containing 6	1											
66398	Commf5	COMM domain containing 5	1											
66199	Commf4	COMM domain containing 4	1											
69456	Commf10	COMM domain containing 10	1											
17846	Commf1	COMM domain containing 1	1											
12841	Col9a3	collagen, type IX, alpha 3	1		1.63									
12833	Col6a1	collagen, type VI, alpha 1	1											
53867	Col5a3	collagen, type V, alpha 3	1											

Gene ID	Symbol	Description	DEG/Set count	2mWT_2mKO	20mWT_20mKO	2mKO_20mKO	2mWT_20mWT	2mWT_30mWT	20mWT_30mWT	Literature-Mining (Aging-Cholesterol literature)		
				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
12826	Col4a1	collagen, type IV, alpha 1	1					-1.33				
12819	Col15a1	collagen, type XV, alpha 1	1					-1.28				
12810	Coch	coagulation factor C homolog (Limulus polyphemus)	1					1.86				
12801	Cnr1	cannabinoid receptor 1 (brain)	1		-1.71							
104625	Cnot6	CCR4-NOT transcription complex, subunit 6	1					1.60				
94218	Cnm3	cyclin M3	1					-1.33				
83674	Cnm1	cyclin M1	1		-2.11							
71994	Cnn3	calponin 3, acidic	1					-1.20				
98417	Cnih4	cornichon homolog 4 (Drosophila)	1					-1.35				
67213	Cmtm6	CKLF-like MARVEL transmembrane domain containing 6	1					-1.48				
69574	Cmb1	carboxymethylenebutenolidase-like (Pseudomonas)	1					-1.19				
17228	Cma1	chymase 1, mast cell	1		2.27							
74325	Cltb	clathrin, light polypeptide (Lcb)	1					-1.31				
12757	Clta	clathrin, light polypeptide (Lca)	1					1.20				
76524	Cln6	ceroid-lipofuscinosis, neuronal 6	1					1.21				
78785	Clip4	CAP-GLY domain containing linker protein family, member 4	1		-1.33							
29876	Clic4	chloride intracellular channel 4 (mitochondrial)	1					1.31				
69454	Clic3	chloride intracellular channel 3	1					-1.43				
114584	Clic1	chloride intracellular channel 1	1					1.57				
69810	Clec4b1	C-type lectin domain family 4, member b1	1					-1.91				
665180	Clec2l	C-type lectin domain family, member L	1		-1.95							
56173	Cldn14	claudin 14	1					-1.86				
18417	Cldn11	claudin 11	1					2.12				
58187	Cldn10	claudin 10	1					-2.19				
12728	Clcn5	chloride channel 5	1					-1.64				
12716	Ckmt1	creatine kinase, mitochondrial 1, ubiquitous	1		-2.28							
67006	Cisd2	CDGSH iron sulfur domain 2	1					1.20				
100910	Chpf2	chondroitin polymerizing factor 2	1					1.80				
246048	Chodl	chondrolectin	1		-2.65							
12662	Chm	choroideremia	1					1.28				
218865	Chdh	choline dehydrogenase	1					-1.41				
269610	Chd5	chromodomain helicase DNA binding protein 5	1					1.83				
214685	Chadl	chondroadherin-like	1					-1.55				
12633	Cflar	CASP8 and FADD-like apoptosis regulator	1					1.35				
234673	Ces2e	carboxylesterase 2E	1					-1.57				
223753	Cerk	ceramide kinase	1					1.49				
99151	Cercam	cerebral endothelial cell adhesion molecule	1					-1.58				
12609	Cebpd	CCAAT/enhancer binding protein (C/EBP), delta	1					1.38				
52626	Cdkn2aipnl	CDKN2A interacting protein N-terminal like	1					1.67				
237459	Cdk17	cyclin-dependent kinase 17	1					1.83				
12560	Cdh3	cadherin 3	1					-1.50				
214498	Cdc73	cell division cycle 73, Paf1/RNA polymerase II complex component, homolog (S. cerevisiae)	1					1.51				
56699	Cdc42ep4	CDC42 effector protein (Rho GTPase binding) 4	1					-1.24				
12517	Cd72	CD72 antigen	1					2.70				
12500	Cd3d	CD3 antigen, delta polypeptide	1					6.90				
235505	Cd109	CD109 antigen	1					1.39				
12469	Cct8	chaperonin containing Tcp1, subunit 8 (theta)	1					1.21				
12462	Cct3	chaperonin containing Tcp1, subunit 3 (gamma)	1					1.24				
227210	Ccny1	cyclin Y-like 1	1					-1.18				
17151	Ccndbp1	cyclin D-type binding-protein 1	1					1.89				
12425	Cckar	cholecystokinin A receptor	1		-2.95							
67200	Ccdc77	coiled-coil domain containing 77	1					-1.40				
208908	Ccdc62	coiled-coil domain containing 62	1					-1.63				
232933	Ccdc61	coiled-coil domain containing 61	1					-1.50				
52469	Ccdc56	coiled-coil domain containing 56	1					1.32				
76380	Ccdc46	coiled-coil domain containing 46	1					-1.48				
52715	Ccdc43	coiled-coil domain containing 43	1					1.39				
108811	Ccdc122	coiled-coil domain containing 122	1					1.39				
66815	Ccdc109b	coiled-coil domain containing 109B	1					1.30				
232821	Ccdc106	coiled-coil domain containing 106	1					-1.26				
12416	Cbx2	chromobox homolog 2 (Drosophila Pc class)	1					-1.38				
12390	Cav2	caveolin 2	1					-1.37				
12364	Casp12	caspase 12	1					1.61				
107239	Carns1	carnosine synthase 1	1					-1.63				
105844	Card10	caspase recruitment domain family, member 10	1					-1.54				
12351	Car4	carbonic anhydrase 4	1					-1.85				
71934	Car13	carbonic anhydrase 13	1		1.51							
12343	Capza2	capping protein (actin filament) muscle Z-line, alpha 2	1					1.26				
12338	Capn6	calpain 6	1					-1.68				
12332	Capg	capping protein (actin filament), gelsolin-like	1					1.15				
12331	Cap1	CAP, adenylate cyclase-associated protein 1 (yeast)	1					1.55				
12796	Camp	cathelicidin antimicrobial peptide	1					-2.03				
67488	Calcoco1	calcium binding and coiled coil domain 1	1					-1.29				
12308	Calb2	calbindin 2	1					-2.32				
320405	Cadps2	Ca2+-dependent activator protein for secretion 2	1		-1.80							
12289	Cacna1d	calcium channel, voltage-dependent, L type, alpha 1D subunit	1					-1.43				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
320508	Cachd1	cache domain containing 1	1									
12283	Cab39	calcium binding protein 39	1		1.54			1.25				
320295	C920006O11Rik	RIKEN cDNA C920006O11 gene	1					-1.43				
97402	C86187	expressed sequence C86187	1					-1.56				
12274	C6	complement component 6	1					2.19				
77644	C330007P06Rik	RIKEN cDNA C330007P06 gene	1					1.39				
101744	C330005M16Rik	RIKEN cDNA C330005M16 gene	1					-1.43				
101831	C230052I12Rik	RIKEN cDNA C230052I12 gene	1					1.50				
320842	C230035I16Rik	RIKEN cDNA C230035I16 gene	1					-1.34				
12263	C2	complement component 2 (within H-2S)	1					-1.56				
69183	C1qtnf2	C1q and tumor necrosis factor related protein 2	1					-1.74				
12261	C1qbp	complement component 1, q subcomponent binding protein	1					1.20				
109284	C030046I01Rik	RIKEN cDNA C030046I01 gene	1					1.69				
12215	Bsg	basigin	1					1.31				
114642	Brdt	bromodomain, testis-specific	1					-1.35				
109880	Braf	Braf transforming gene	1					1.24				
228802	Bpifb5	BPI fold containing family B, member 5	1					-1.38				
66162	Bola2	bolA-like 2 (E. coli)	1					1.21				
51800	Bok	BCL2-related ovarian killer protein	1					-1.51				
224630	Bnip1	BCL2/adenovirus E1B interacting protein 1	1					1.59				
12162	Bmp7	bone morphogenetic protein 7	1					-1.58				
12159	Bmp4	bone morphogenetic protein 4	1					-1.83				
12151	Bmi1	Bmi1 polycomb ring finger oncogene	1					1.23				
233016	Blvrb	biliverdin reductase B (flavin reductase (NADPH))	1					1.41				
30948	Bin1	bridging integrator 1	1					1.99				
24115	Best1	bestrophin 1	1					-1.37				
66165	Bccip	BRCA2 and CDKN1A interacting protein	1					1.37				
12035	Bcat1	branched chain aminotransferase 1, cytosolic	1		-2.10							
216292	BC067068	cDNA sequence BC067068	1					-1.39				
414077	BC056474	cDNA sequence BC056474	1					1.12				
408058	BC048507	cDNA sequence BC048507	1					-1.67				
270802	BC048403	cDNA sequence BC048403	1					1.29				
192976	BC046404	cDNA sequence BC046404	1					-1.32				
226527	BC026585	cDNA sequence BC026585	1					-1.38				
216152	BC005764	cDNA sequence BC005764	1					1.37				
23825	Banf1	barrier to autointegration factor 1	1					1.37				
228536	Bahd1	bromo adjacent homology domain containing 1	1					1.40				
56336	B4galt5	UDP-Gal:betaGlcNAc beta 1,4-galactosyltransferase, polypeptide 5	1					1.61				
26877	B3galt1	UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 1	1		-1.94							
319527	B230325K18Rik	RIKEN cDNA B230325K18 gene	1					-1.43				
54375	Azin1	antizyme inhibitor 1	1					1.53				
26362	Axl	AXL receptor tyrosine kinase	1					1.53				
11966	Atp6v1b2	ATPase, H+ transporting, lysosomal V1 subunit B2	1					1.56				
11964	Atp6v1a	ATPase, H+ transporting, lysosomal V1 subunit A	1					1.61				
242341	Atp6v0d2	ATPase, H+ transporting, lysosomal V0 subunit D2	1		3.66							
114143	Atp6v0b	ATPase, H+ transporting, lysosomal V0 subunit B	1					1.22				
67972	Atp2b1	ATPase, Ca++ transporting, plasma membrane 1	1					1.36				
11793	Atg5	autophagy-related 5 (yeast)	1					1.31				
54343	Atf7ip	activating transcription factor 7 interacting protein	1		1.43							
66695	Aspn	asporin	1					-2.52				
11484	Aspa	aspartoacylase	1					1.38				
56495	Asna1	arsA arsenite transporter, ATP-binding, homolog 1 (bacterial)	1					1.48				
11890	Asgr2	asialoglycoprotein receptor 2	1					-1.82				
230837	Asap3	ArfGAP with SH3 domain, ankyrin repeat and PH domain 3	1					-1.55				
76219	Arxes1	adipocyte-related X-chromosome expressed sequence 1	1					-1.97				
11877	Arvcf	armadillo repeat gene deleted in velo-cardio-facial syndrome	1					-1.33				
11881	Arsb	arylsulfatase B	1					1.22				
56378	Arpc3	actin related protein 2/3 complex, subunit 3	1					1.29				
56443	Arpc1a	actin related protein 2/3 complex, subunit 1A	1					1.38				
494468	Armcx5	armadillo repeat containing, X-linked 5	1					1.54				
80981	Arl4d	ADP-ribosylation factor-like 4D	1					-1.80				
68146	Arl13b	ADP-ribosylation factor-like 13B	1					1.52				
23806	Arih1	ariadne ubiquitin-conjugating enzyme E2 binding protein homolog 1 (Drosophila)	1					1.26				
58996	Arhgap23	Rho GTPase activating protein 23	1					-1.23				
73910	Arhgap18	Rho GTPase activating protein 18	1					-1.36				
99371	Arfgef2	ADP-ribosylation factor guanine nucleotide-exchange factor 2 (brefeldin A-inhibited)	1					1.28				
11843	Arf4	ADP-ribosylation factor 4	1					1.51				
11840	Arf1	ADP-ribosylation factor 1	1					1.89				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
212285	Arap2	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 2	1					1.53				
11821	Aprt	adenine phosphoribosyl transferase	1					1.27				
11425	Apoc4	apolipoprotein C-IV	1					3.76				
23796	Aplnr	apelin receptor	1					-2.66				
71770	Ap2b1	adaptor-related protein complex 2, beta 1 subunit	1					1.26				
11769	Ap1s1	adaptor protein complex AP-1, sigma 1	1					1.33				
71872	Aox4	aldehyde oxidase 4	1		-3.20							
11752	Anxa8	annexin A8	1					-2.00				
11747	Anxa5	annexin A5	1					1.36				
225187	Ankrd29	ankyrin repeat domain 29	1		-1.92							
232339	Ankrd26	ankyrin repeat domain 26	1					-1.38				
72713	Angptl1	angiotensin-like 1	1					-2.10				
66156	Anapc11	anaphase promoting complex subunit 11	1					-1.23				
11717	Ampd3	adenosine monophosphate deaminase 3	1					1.29				
72041	Alkbh4	alkB, alkylation repair homolog 4 (E. coli)	1					1.31				
56752	Aldh9a1	aldehyde dehydrogenase 9, subfamily A1	1					-1.34				
621603	Aldh3b2	aldehyde dehydrogenase 3 family, member B2	1		4.41							
11997	Akr1b7	aldo-keto reductase family 1, member B7	1					-1.85				
11641	Akap2	A kinase (PRKA) anchor protein 2	1					1.32				
100041194	Ahnak2	AHNAK nucleoprotein 2	1					1.44				
66395	Ahnak	AHNAK nucleoprotein (desmoyokin)	1		1.22							
52906	Ahi1	Abelson helper integration site 1	1					-1.26				
230793	Ahdc1	AT hook, DNA binding motif, containing 1	1					-1.48				
28169	Agpat3	1-acylglycerol-3-phosphate O-acyltransferase 3	1					-1.23				
216549	Aftph	atfiphiin	1					1.19				
11529	Adh7	alcohol dehydrogenase 7 (class IV), mu or sigma polypeptide	1					-1.54				
69117	Adh6a	alcohol dehydrogenase 6A (class V)	1					-2.13				
11532	Adh5	alcohol dehydrogenase 5 (class III), chi polypeptide	1		1.10							
11514	Adcy8	adenylate cyclase 8	1					-1.53				
268822	Adck5	aarF domain containing kinase 5	1					-1.38				
231821	Adap1	ArfGAP with dual PH domains 1	1					-1.61				
216725	Adamts2	a disintegrin-like and metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 2	1					-1.77				
11499	Adam5	a disintegrin and metalloproteinase domain 5	1					-1.55				
11496	Adam22	a disintegrin and metalloproteinase domain 22	1		-1.62							
11488	Adam11	a disintegrin and metalloproteinase domain 11	1					2.19				
66204	Acyp1	acylphosphatase 1, erythrocyte (common) type	1					1.47				
71670	Acy3	aspartoacylase (aminoacylase) 3	1					-1.74				
74117	Actr3	ARP3 actin-related protein 3 homolog (yeast)	1					1.38				
11468	Actg2	actin, gamma 2, smooth muscle, enteric	1					2.92				
11595	Acan	aggrecan	1					-1.59				
113868	Acaa1a	acetyl-Coenzyme A acyltransferase 1A	1					-1.32				
320712	Abi3bp	ABI gene family, member 3 (NESH) binding protein	1					-1.49				
19299	Abcd3	ATP-binding cassette, sub-family D (ALD), member 3	1					-1.12				
239273	Abcc4	ATP-binding cassette, sub-family C (CFTR/MRP), member 4	1					1.39				
18669	Abcb1b	ATP-binding cassette, sub-family B (MDR/TAP), member 1B	1					1.87				
27404	Abca8b	ATP-binding cassette, sub-family A (ABC1), member 8b	1		1.77							
76184	Abca6	ATP-binding cassette, sub-family A (ABC1), member 6	1		1.90							
30956	Aass	aminoacidopate-semialdehyde synthase	1					-1.90				
239435	Aard	alanine and arginine rich domain containing protein	1		-1.88							
68074	A930013F10Rik	RIKEN cDNA A930013F10 gene	1					-1.47				
100503044	A730020M07Rik	RIKEN cDNA A730020M07 gene	1					-1.85				
269855	A430110N23Rik	RIKEN cDNA A430110N23 gene	1					-1.67				
380977	A330009N23Rik	RIKEN cDNA A330009N23 gene	1					-1.51				
223267	A21d1	AI2-like domain 1	1					1.54				
319469	A230056J06Rik	RIKEN cDNA A230056J06 gene	1					-2.84				
212448	9330159F19Rik	RIKEN cDNA 9330159F19 gene	1	1.49								
229550	9130204L05Rik	RIKEN cDNA 9130204L05 gene	1		-2.65							
100043133	9130023H24Rik	RIKEN cDNA 9130023H24 gene	1					1.38				
229613	6330549D23Rik	RIKEN cDNA 6330549D23 gene	1					-1.80				
70717	6330406I15Rik	RIKEN cDNA 6330406I15 gene	1					-1.49				
109198	6030407O03Rik	RIKEN cDNA 6030407O03 gene	1					-3.06				
70617	5730508B09Rik	RIKEN cDNA 5730508B09 gene	1					1.32				
66648	5730494M16Rik	RIKEN cDNA 5730494M16 gene	1		-1.91							
329735	4933431E20Rik	RIKEN cDNA 4933431E20 gene	1					-1.52				
71101	4933407H18Rik	RIKEN cDNA 4933407H18 gene	1					-1.30				
229227	4932438A13Rik	RIKEN cDNA 4932438A13 gene	1				1.54					
69034	4930579G22Rik	RIKEN cDNA 4930579G22 gene	1					-1.35				
75269	4930564D02Rik	RIKEN cDNA 4930564D02 gene	1					-1.44				
75180	4930538K18Rik	RIKEN cDNA 4930538K18 gene	1					-1.79				
320163	4930525G20Rik	RIKEN cDNA 4930525G20 gene	1					-2.25				
78185	4930524L23Rik	RIKEN cDNA 4930524L23 gene	1					-1.70				

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				9	230	406	48	1904	1157	#Paper	Enrichment	BH P-value
74704	493051815Rik	RIKEN cDNA 493051815 gene	1									
71653	4930506M07Rik	RIKEN cDNA 4930506M07 gene	1									
66730	4921531C22Rik	RIKEN cDNA 4921531C22 gene	1									
97820	4833439L19Rik	RIKEN cDNA 4833439L19 gene	1									
74597	4833418N02Rik	RIKEN cDNA 4833418N02 gene	1									
320869	4732415M23Rik	RIKEN cDNA 4732415M23 gene	1									
100040322	3830408C21Rik	RIKEN cDNA 3830408C21 gene	1									
67290	3110040N11Rik	RIKEN cDNA 3110040N11 gene	1									
67289	3110021A11Rik	RIKEN cDNA 3110021A11 gene	1									
100502745	2900009J06Rik	RIKEN cDNA 2900009J06 gene	1									
70419	2810408A11Rik	RIKEN cDNA 2810408A11 gene	1									
69953	2810025M15Rik	RIKEN cDNA 2810025M15 gene	1									
100503178	2810013P06Rik	RIKEN cDNA 2810013P06 gene	1									
72146	2810001A02Rik	RIKEN cDNA 2810001A02 gene	1									
72658	2700097O09Rik	RIKEN cDNA 2700097O09 gene	1									
72657	2700094K13Rik	RIKEN cDNA 2700094K13 gene	1									
72203	2610507I01Rik	RIKEN cDNA 2610507I01 gene	1									
72128	2610008E11Rik	RIKEN cDNA 2610008E11 gene	1									
67513	2610002J02Rik	RIKEN cDNA 2610002J02 gene	1									
66520	2610001J05Rik	RIKEN cDNA 2610001J05 gene	1									
76799	2510006D16Rik	RIKEN cDNA 2510006D16 gene	1									
71970	2410018M08Rik	RIKEN cDNA 2410018M08 gene	1									
69221	2410006H16Rik	RIKEN cDNA 2410006H16 gene	1									
217732	2310044G17Rik	RIKEN cDNA 2310044G17 gene	1									
69573	2310016C08Rik	hypoxia inducible lipid droplet associated	1									
69548	2310015A10Rik	RIKEN cDNA 2310015A10 gene	1									
71885	2310003H01Rik	RIKEN cDNA 2310003H01 gene	1									
70134	2210011C24Rik	RIKEN cDNA 2210011C24 gene	1									
70261	2010110P09Rik	RIKEN cDNA 2010110P09 gene	1									
67892	1810063B05Rik	RIKEN cDNA 1810063B05 gene	1									
75602	1810062O18Rik	RIKEN cDNA 1810062O18 gene	1									
66291	1810030N24Rik	RIKEN cDNA 1810030N24 gene	1									
73467	1700066M21Rik	RIKEN cDNA 1700066M21 gene	1									
66337	1700025K23Rik	RIKEN cDNA 1700025K23 gene	1									
66602	1700020I14Rik	RIKEN cDNA 1700020I14 gene	1									
69351	1700008A04Rik	RIKEN cDNA 1700008A04 gene	1									
665268	1600029O15Rik	ribosomal protein L17 pseudogene	1									
68075	1520402A15Rik	RIKEN cDNA 1520402A15 gene	1									
78896	1500015O10Rik	RIKEN cDNA 1500015O10 gene	1									
223776	1300018J18Rik	RIKEN cDNA 1300018J18 gene	1									
74152	1300002K09Rik	RIKEN cDNA 1300002K09 gene	1									
66214	1190002H23Rik	RIKEN cDNA 1190002H23 gene	1									
68497	1110018G07Rik	RIKEN cDNA 1110018G07 gene	1									
56372	1110004F10Rik	RIKEN cDNA 1110004F10 gene	1									
68550	1110002N22Rik	RIKEN cDNA 1110002N22 gene	1									
68554	1110001A16Rik	RIKEN cDNA 1110001A16 gene	1									
66096	0910001L09Rik	RIKEN cDNA 0910001L09 gene	1									
66086	0610037P05Rik	RIKEN cDNA 0610037P05 gene	1									
78687	0610025J13Rik	RIKEN cDNA 0610025J13 gene	1									
57438	March7	membrane-associated ring finger (C3HC4) 7	1									
100503583		fibrinogen silencer-binding protein	1									
100504348		NA	1									