

Appendix files

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*Appendix Table S1 and S2 can also be found as excel spreadsheets
in the related Source Data file.

Appendix Figure legend

Appendix Figure S1. SIRT1 deficient mESCs have reduced expression of a pluripotency marker when cultured in ES cell maintenance media. WT and SIRT1 KO mESCs cultured in the complete M10 medium were fixed and stained for Nanog. The staining intensity was analyzed by FACS as described in Materials and Methods.

Appendix Figure S2. Sh-SIRT1 mESCs are sensitive to methionine restriction/depletion induced differentiation.

(A) Sh-SIRT1 mESCs display enhanced differentiation phenotypes in a methionine free M10 medium. Sh-Control and sh-SIRT1 mESCs were cultured in the complete M10 medium or modified M10 media depleted the indicated nutrients for 48 hours. Bars, 100 μm .

(B) Sh-SIRT1 mESCs are sensitive to methionine restriction induced differentiation and apoptosis. sh-Control and sh-SIRT1 mESCs were cultured in the complete M10 medium (contains 200 μM methionine) or M10 media containing indicated amount of methionine for 48 hours. Bars, 100 μm .

Appendix Figure S3. The dose effects of methionine on differentiation in WT and SIRT1 KO mESCs.

(A) WT and KO mESCs were cultured in the complete M10 medium (contains 200 μM methionine) or M10 media containing indicated amount of methionine for 48 hours. Cells were stained for the AP activities. Bars, 100 μm .

(B) SIRT1 KO mESCs displayed marked enhancement in expression of mESC differentiation makers when cultured in M10 media containing 3-6 μ M methionine. WT and KO mESCs were cultured in indicated M10 media for 48 hours. The mRNA abundance of three ES differentiation markers, *Nestin*, *Cdx1*, and *Cdx2*, were analyzed by qPCR. n=3 independent experiments.

(C) Methionine restriction alone fails to induce significant cell apoptosis in either WT or SIRT1 KO mESCs. WT and SIRT1 KO mESCs cultured in complete medium or methionine restricted medium for 48 hours. n=3 independent experiments.

Data Information: In (B and C), data are presented as mean \pm SEM.

Appendix Figure S4. Adding back methionine rescues methionine depletion induced loss of pluripotency and apoptosis in SIRT1 KO mESCs.

(A) WT and KO mESCs were cultured in the complete M10 medium (contains 200 μ M methionine) for 48 hours, or in M10 media containing no methionine for 24 hours, followed by adding back indicated amount of methionine for additional 24 hours. Cells were stained for the AP activities. Bars, 100 μ m.

(B) Adding back methionine rescues methionine depletion induced apoptosis in SIRT1 KO mESCs. WT and SIRT1 KO mESCs as in (A) and apoptosis were analyzed as described in Materials and Methods. n=3 independent experiments.

Data Information: In (B), data are presented as mean \pm SEM.

Appendix Figure S5. SIRT1 induces expression of Mat2a in part through Myc.

(A) Promoters of *Mat2a* and *Mat2b* genes contain multiple N-Myc and c-Myc binding sites. Promoters of mouse *Mat2a* and *Mat2b* genes were analyzed by software from Biobase, Germany.

(B) Overexpression of Myc but not CNOT3 induces expression of *Mat2a* promoter-driven luciferase activity. Luciferase reporters driven by mouse *Mat2a* promoters containing the putative Myc binding site 1 were co-transfected into HEK293T cells with constructs expressing N-Myc, c-Myc proteins, or CNOT3 (n=3 independent experiments).

(C) Knocking down of N-Myc protein in mESCs blunts the induction of *Mat2a* upon methionine restriction (n=3 independent experiments).

(D) Knocking down of N-Myc protein in mESCs blunts the induction of MAT2A protein upon methionine restriction in mESCs.

(E) Knocking down of N-Myc protein in mESCs induces differentiation morphology in mESCs cultured in M10 medium. Bars, 100 μ m.

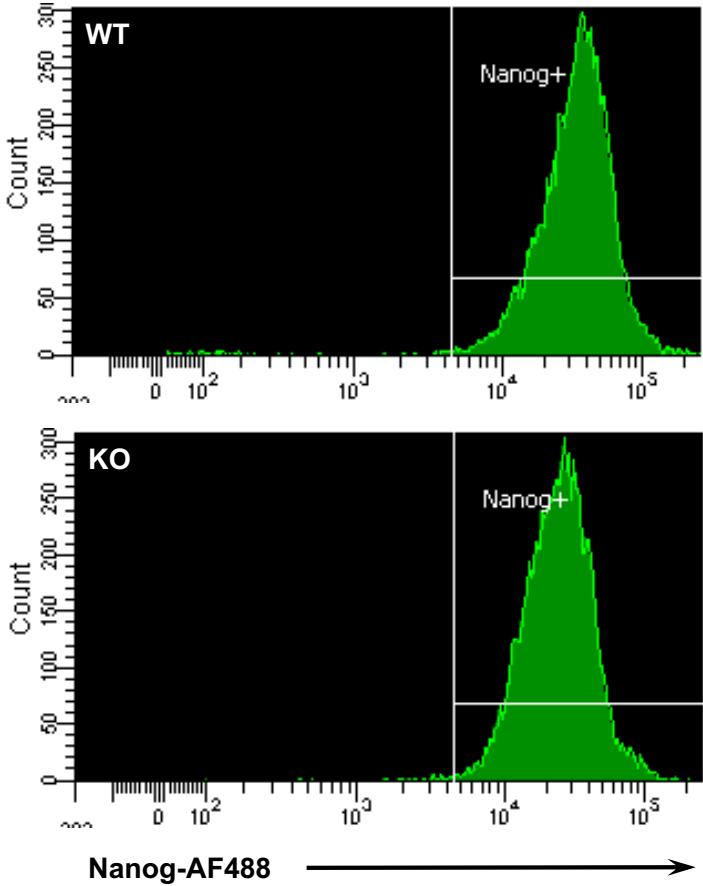
(F) Endogenous c-Myc protein is hyperacetylated in SIRT1 KO mESCs.

Data Information: In (B and C), data are presented as mean \pm SEM. *p<0.05 (Mann-Whitney test).

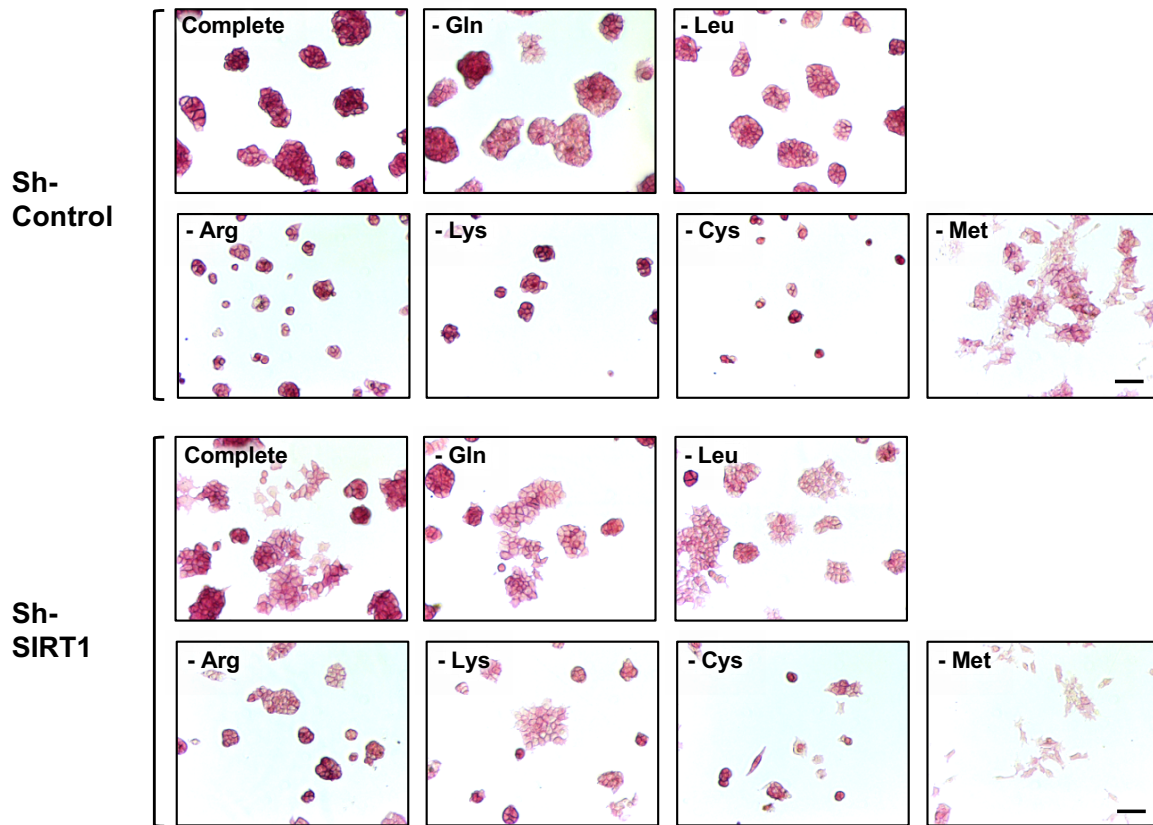
Appendix Figure S6. SIRT1 regulates methionine metabolism, thereby modulating pluripotency of mESCs and mouse embryogenesis.

Our data indicate that in WT mESCs, SIRT1 deacetylates N-Myc and c-Myc and promotes its recruitment to the promoters of *Mat2* genes, thereby stimulating *Mat2a* and *Mat2b* expression. Increased expression of MAT2 enzyme enhances the

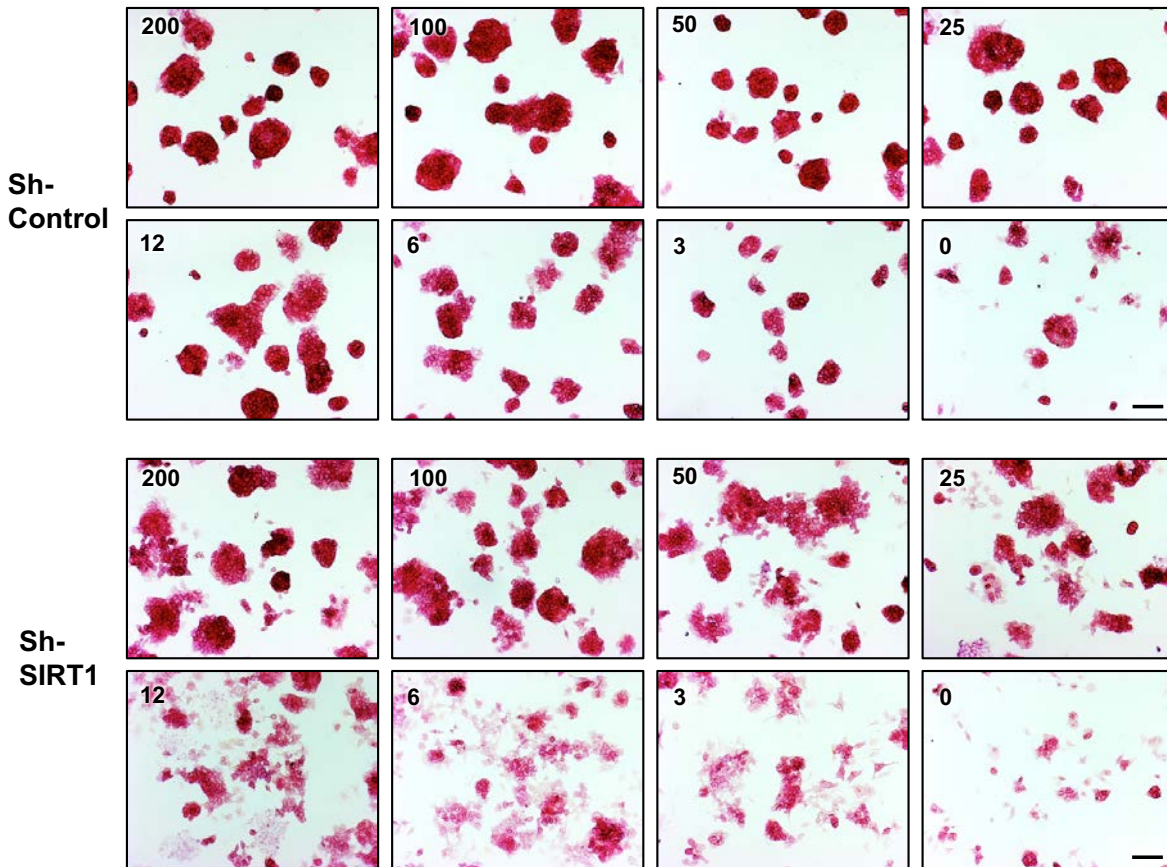
conversion of Met to SAM and increasing biosynthesis of glutathione, which in turn helps to maintain histone methylation, reduce oxidative stress, and inhibit apoptosis. These actions eventually lead to maintenance of mESC and normal embryogenesis. In the SIRT1 KO mESCs, on the other hand, N-Myc and c-Myc proteins are hyperacetylated, resulting in reduced recruitment of N- and c-Myc to the Mat2a and Mat2b promoters and reduced expression of MAT2 enzyme. The decreased conversion of Met to SAM and reduced production of glutathione further impair histone methylation, increase oxidative stress and enhance apoptosis, inducing differentiation and death of mESCs and causing defective embryogenesis.



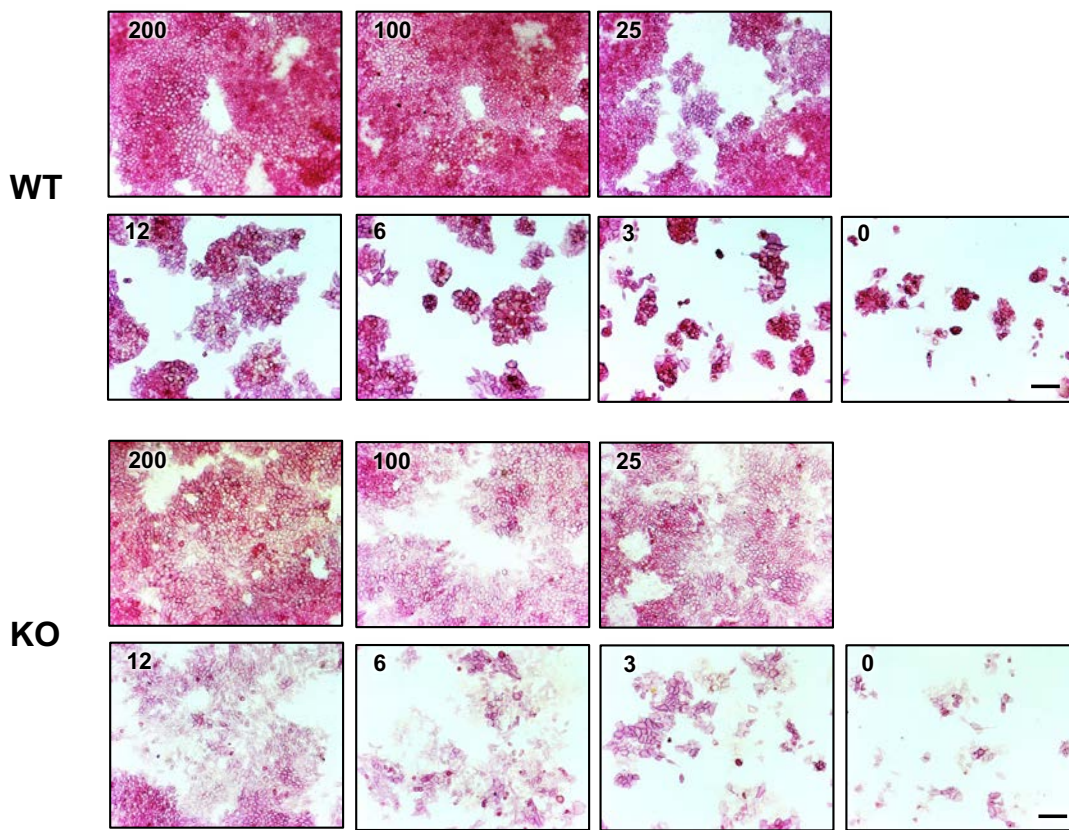
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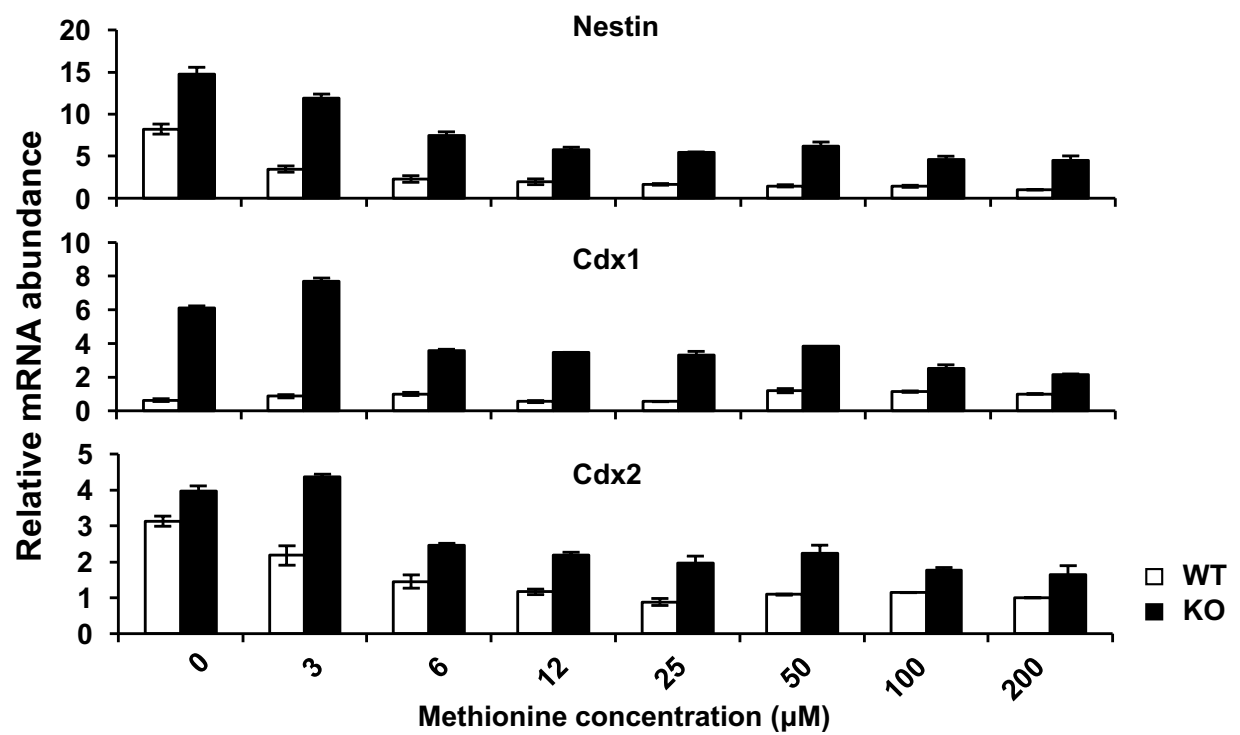
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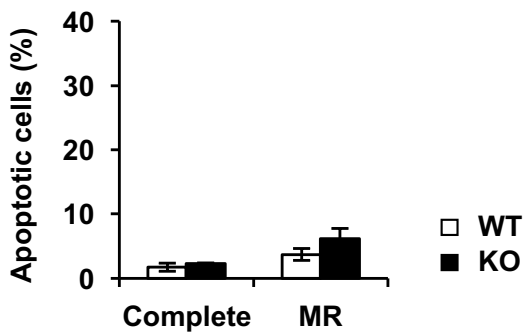
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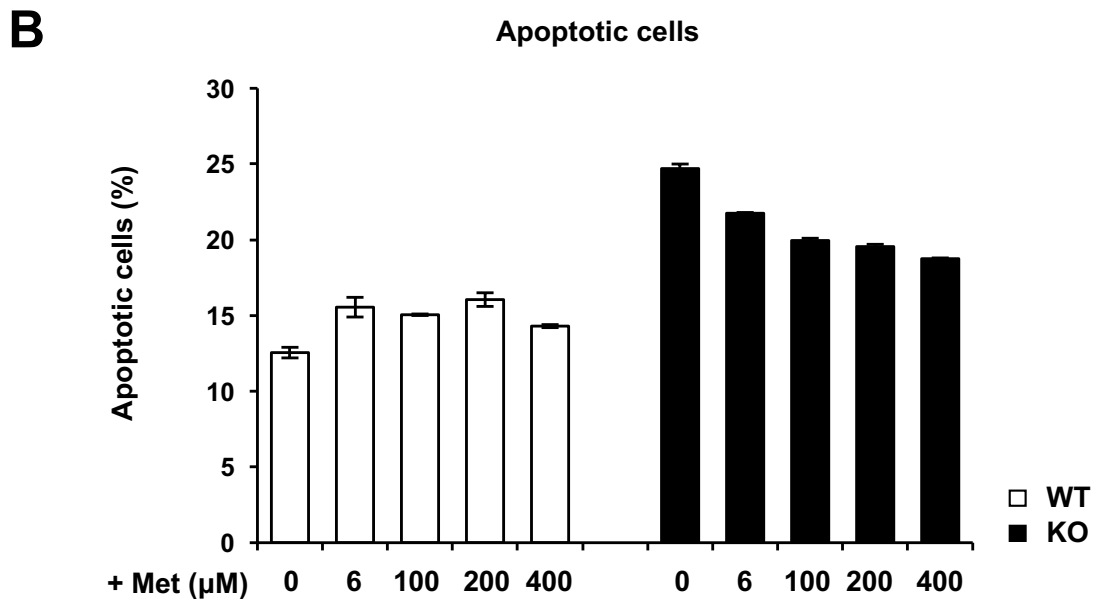
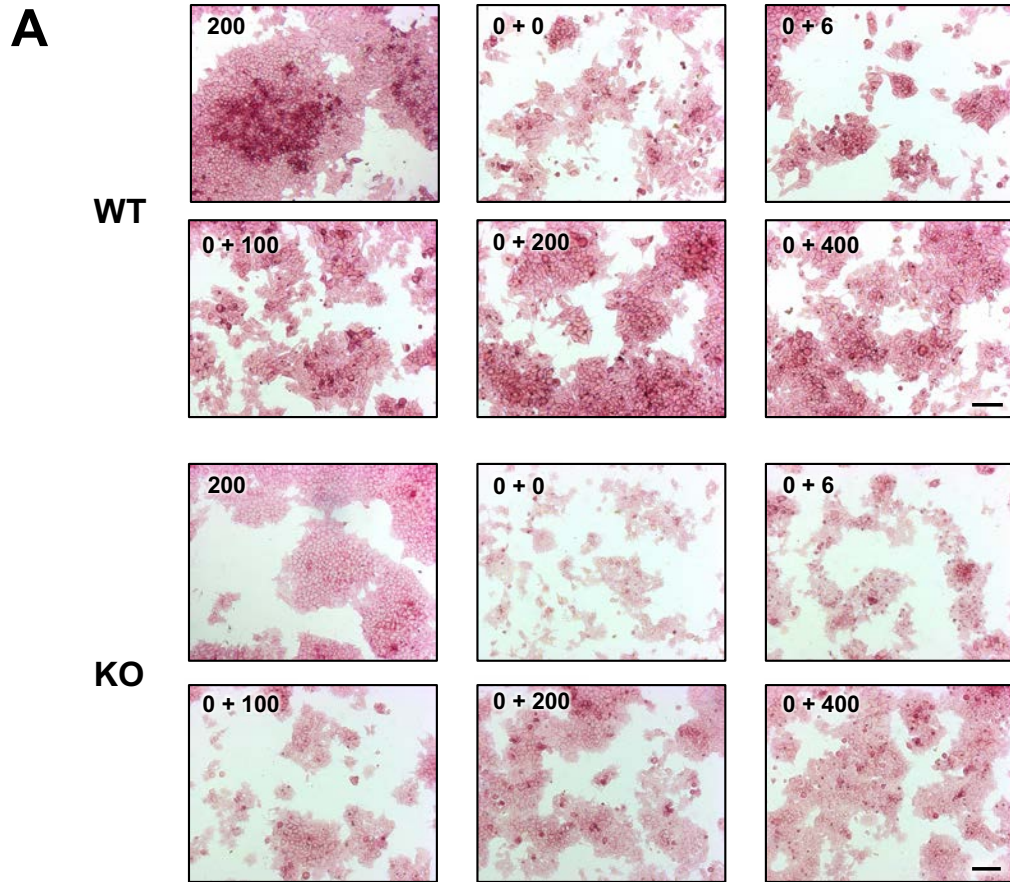


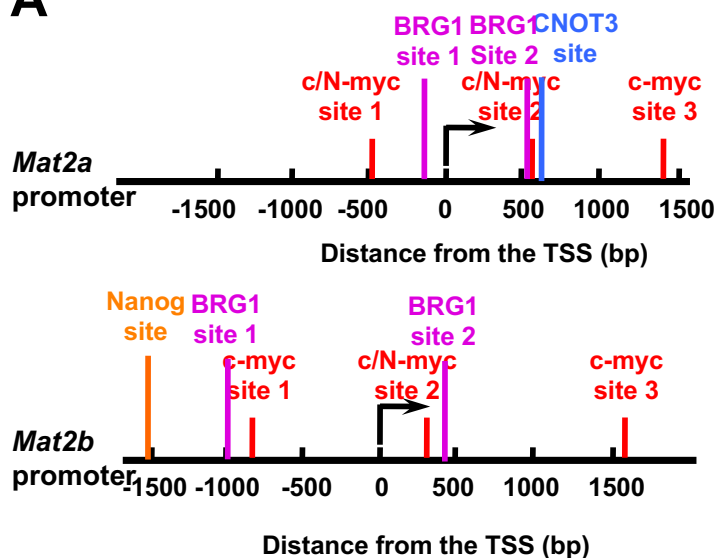
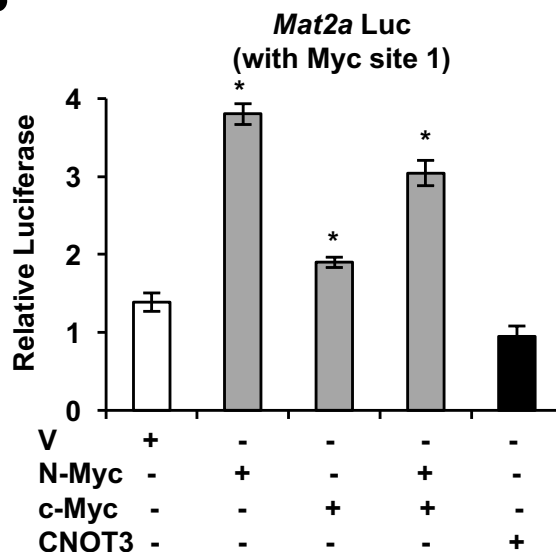
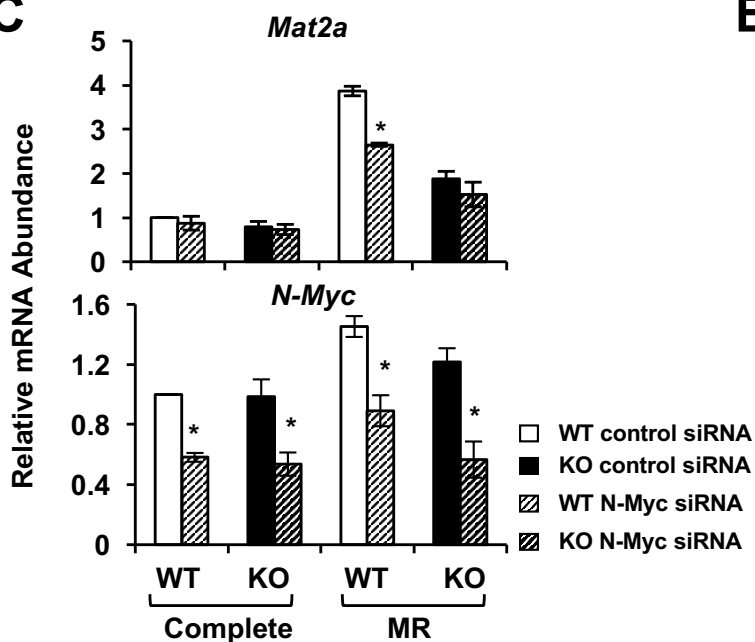
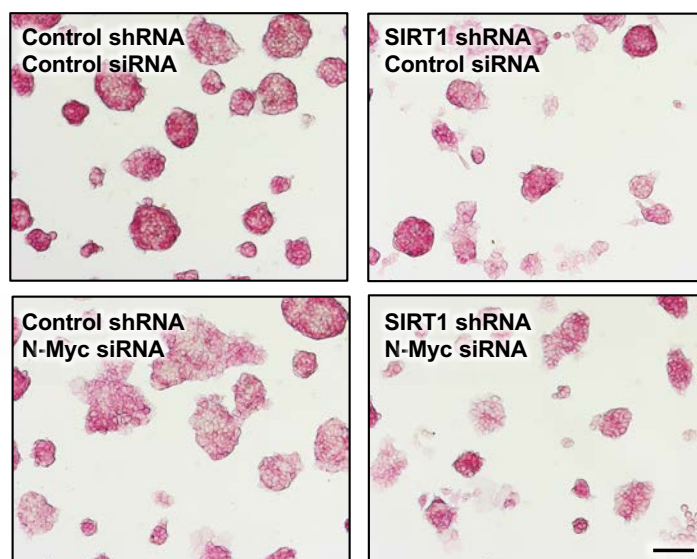
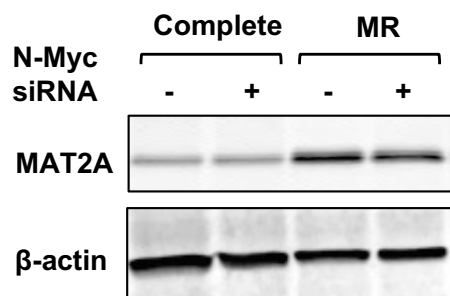
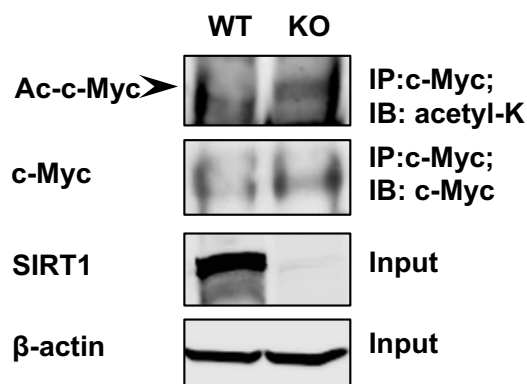
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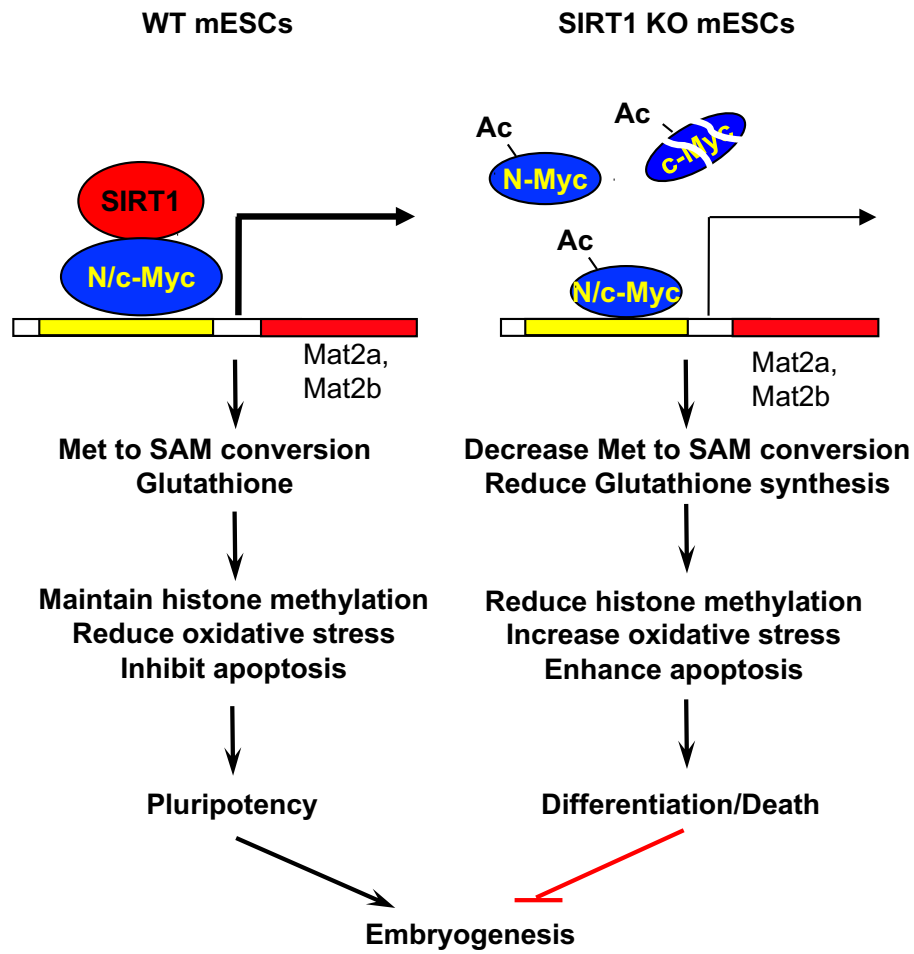


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A**B****C****E****D****F**



Appendix Table S1. Metabolomic Analysis of the Influence of SIRT1 Gene on Metabolism in mESCs Cultured in a Complete M10 Medium or a Methionine Rescricted M10 Medium for 6 hours (amino acids and peptides)

							Fold of Change						
							ANOVA Contrasts						
							SIRT1 KO WT		MR Complete				
Pathway Sort Order	Super Pathway	Sub Pathway	Biochemical Name	Platform	KEGG	HMDB	PubChem	Complete	MR	WT	SIRT1 KO		
1	Glycine, Serine and Threonine Metabolism		glycine	LC/MS pos early	C00037	HMDB00123	750	0.88	0.72	2.92	2.41		
2			N-acetylglycine	LC/MS pos early		HMDB00532	10972	1.20	0.96	1.97	1.58		
4			sarcosine	LC/MS pos early	C00213	HMDB00271	1088	1.07	0.33	2.93	0.91		
5			dimethylglycine	LC/MS pos early	C01026	HMDB00092	673	0.76	0.80	1.02	1.07		
6			betaine	LC/MS pos early	C00719	HMDB00043	247	1.64	1.21	1.28	0.94		
9			serine	LC/MS pos early	C00065	HMDB00187	5951	1.01	0.37	4.05	1.48		
10			N-acetylserine	LC/MS pos early		HMDB02931	65249	1.11	1.02	0.74	0.68		
14			threonine	LC/MS pos early	C00188	HMDB00167	6288	1.11	0.81	1.49	1.08		
15			N-acetylthreonine	LC/MS neg			152204	0.88	0.74	0.94	0.79		
27			Alanine and Aspartate Metabolism		alanine	LC/MS pos early	C00041	HMDB00161	5950	1.18	0.74	2.56	1.61
28					N-acetylaniline	LC/MS neg	C02847	HMDB00766	88064	1.02	1.11	0.76	0.82
30					aspartate	LC/MS pos early	C00049	HMDB00191	5960	0.90	0.45	5.93	2.96
32					asparagine	LC/MS pos early	C00152	HMDB00168	6267	1.15	0.68	1.74	1.02
33					N-acetylasparagine	LC/MS pos early		HMDB06028	99715	1.06	0.44	4.29	1.80
34					N-acetylaspartate (NAA)	LC/MS polar	C01042	HMDB00812	65065	1.57	1.15	1.06	0.78
39	3-sulfo-L-alanine	LC/MS polar			C00506	HMDB02757	72886	0.72	0.71	0.80	0.79		
41	Glutamate		glutamate	LC/MS pos early	C00025	HMDB00148	611	1.02	0.71	2.03	1.42		
42			glutamine	LC/MS pos early	C00064	HMDB00641	5961	1.04	0.56	2.21	1.20		
43			N-acetylglutamate	LC/MS polar	C00624	HMDB01138	70914	0.96	0.78	0.92	0.75		
44			N-acetylglutamine	LC/MS polar	C02716	HMDB06029	182230	0.72	0.52	1.94	1.40		
45			N-acetyl-aspartyl-glutamate (NAAG)	LC/MS polar	C12270	HMDB01067	5255	0.53	0.54	1.18	1.19		

46	Metabolism	gamma-aminobutyrate (GABA)	LC/MS pos early	C00334	HMDB00112	119	1.11	0.86	1.60	1.25
47		carboxyethyl-GABA	LC/MS pos early		HMDB02201	2572	0.88	1.02	1.10	1.27
52		glutamate, gamma-methyl ester	LC/MS pos early			68662	0.55	0.61	1.47	1.63
53		pyroglutamine*	LC/MS pos early			134508	1.15	0.66	1.47	0.85
55		N-methyl-GABA	LC/MS pos early			1550042;70703	1.13	0.65	2.24	1.27
58	Histidine Metabolism	histidine	LC/MS pos early	C00135	HMDB00177	6274	1.05	0.95	1.21	1.10
59		N-acetylhistidine	LC/MS pos early	C02997	HMDB32055	75619	1.10	0.59	1.74	0.93
60		1-methylhistidine	LC/MS pos early	C01152	HMDB00001	92105	1.11	0.76	1.65	1.13
61		3-methylhistidine	LC/MS pos early	C01152	HMDB00479	64969	1.10	0.68	1.46	0.91
69		imidazole propionate	LC/MS pos early		HMDB02271	70630	1.04	0.67	0.87	0.56
70		imidazole lactate	LC/MS pos early	C05568	HMDB02320	440129	2.63	1.04	0.98	0.39
76		1-methylimidazoleacetate	LC/MS pos early	C05828	HMDB02820	75810	0.80	1.18	0.87	1.28
77	4-imidazoleacetate	LC/MS pos early	C02835	HMDB02024	96215	1.06	1.00	1.14	1.08	
80	Lysine Metabolism	lysine	LC/MS pos early	C00047	HMDB00182	5962	1.10	1.02	1.14	1.07
83		N2-acetyllysine/N6-acetyllysine	LC/MS pos early				0.73	0.67	1.19	1.10
84		N6,N6,N6-trimethyllysine	LC/MS pos early	C03793	HMDB01325	440120	1.15	0.87	1.40	1.06
85		5-hydroxylysine	LC/MS pos early	C16741	HMDB00450	1029	0.54	0.34	1.46	0.91
87		2-aminoadipate	LC/MS pos early	C00956	HMDB00510	469	2.07	1.63	3.25	2.56
90		glutarate (pentanedioate)	LC/MS polar	C00489	HMDB00661	743	0.93	1.12	0.59	0.71
98		pipecolate	LC/MS pos early	C00408	HMDB00070	849	1.30	0.95	1.71	1.25
101	5-aminovalerate	LC/MS pos early	C00431	HMDB03355	138	1.07	0.77	1.74	1.24	
108	Phenylalanine and Tyrosine Metabolism	phenylalanine	LC/MS pos early	C00079	HMDB00159	6140	1.06	0.93	1.27	1.11
109		N-acetylphenylalanine	LC/MS neg	C03519	HMDB00512	74839	0.86	0.67	1.59	1.25
113		phenyllactate (PLA)	LC/MS polar	C05607	HMDB00779	3848	1.51	3.37	0.38	0.84
120		phenylacetyl glycine	LC/MS neg	C05598	HMDB00821	68144	1.04	1.23	0.85	1.00
123		tyrosine	LC/MS pos early	C00082	HMDB00158	6057	1.15	0.90	1.34	1.05
134		3-(4-hydroxyphenyl)lactate	LC/MS neg	C03672	HMDB00755	9378	0.96	1.61	0.45	0.76
139		phenol sulfate	LC/MS neg	C02180	HMDB60015	74426	1.05	1.31	0.73	0.91
142		p-cresol sulfate	LC/MS neg	C01468	HMDB11635	4615423	1.00	1.31	0.74	0.98
177	O-methyltyrosine	LC/MS pos early			76957	0.48	0.86	2.31	4.12	
217	Tryptophan	tryptophan	LC/MS pos early	C00078	HMDB00929	6305	1.06	0.95	1.22	1.09
221		indolelactate	LC/MS neg	C02043	HMDB00671	92904	1.10	2.19	0.36	0.71
227		kynurenine	LC/MS pos early	C00328	HMDB00684	161166	1.06	0.90	1.43	1.20

242	Metabolism	5-hydroxyindoleacetate	LC/MS pos early	C05635	HMDB00763	1826	2.16	1.22	1.56	0.88		
258		C-glycosyltryptophan	LC/MS pos early			10981970	1.10	0.62	1.80	1.02		
263		thioproline	LC/MS pos early			93176;6973609	0.60	0.69	0.95	1.09		
265	Amino Acid	leucine	LC/MS pos early	C00123	HMDB00687	6106	1.04	0.92	1.24	1.09		
273		isovalerylcarnitine	LC/MS pos early		HMDB00688	6426851	0.46	0.34	1.18	0.89		
276		beta-hydroxyisovalerate	LC/MS polar		HMDB00754	69362	0.56	0.82	0.63	0.91		
277		beta-hydroxyisovaleroylcarnitine	LC/MS pos early				1.10	0.80	1.60	1.17		
280		3-methylglutaconate	LC/MS polar		HMDB00522	1551553	0.94	0.89	0.58	0.55		
283		alpha-hydroxyisovalerate	LC/MS polar		HMDB00407	99823	1.46	2.21	0.38	0.57		
285		methylsuccinate	LC/MS polar		HMDB01844	10349	0.91	0.78	0.76	0.65		
293		isoleucine	LC/MS pos early	C00407	HMDB00172	6306	1.07	0.92	1.34	1.14		
296		Leucine, Isoleucine and Valine	3-methyl-2-oxobutyrate	LC/MS polar	C00141	HMDB00019	49	1.07	1.43	0.92	1.22	
299			2-methylbutyrylcarnitine (C5)	LC/MS pos early		HMDB00378	6426901	0.53	0.35	1.40	0.93	
300			2-methylbutyrylglycine	LC/MS pos early		HMDB00339	193872	1.12	0.98	0.97	0.85	
301		Metabolism	tiglylcarnitine	LC/MS pos early		HMDB02366	22833596	0.87	0.54	1.29	0.80	
304			2-hydroxy-3-methylvalerate	LC/MS neg		HMDB00317	164623	1.37	2.13	0.44	0.68	
306			ethylmalonate	LC/MS polar		HMDB00622	11756	0.48	0.34	0.86	0.62	
307			valine	LC/MS pos early	C00183	HMDB00883	6287	1.10	0.90	1.27	1.05	
308			N-acetylvaline	LC/MS neg		HMDB11757	66789	0.85	1.38	0.51	0.83	
310			isobutyrylcarnitine	LC/MS pos early		HMDB00736	168379	0.84	0.56	1.29	0.87	
312			3-hydroxyisobutyrate	LC/MS polar	C06001	HMDB00336	87	0.77	0.85	0.68	0.75	
313			alpha-hydroxyisocaproate	LC/MS neg	C03264	HMDB00746	83697	1.36	2.22	0.39	0.64	
324			Methionine, Cysteine, SAM and Taurine	methionine	LC/MS pos early	C00073	HMDB00696	6137	1.21	1.44	0.67	0.80
325				N-acetylmethionine	LC/MS neg	C02712	HMDB11745	448580	1.11	1.26	0.97	1.10
326		N-formylmethionine		LC/MS neg	C03145	HMDB01015	439750	0.70	0.91	0.96	1.25	
328		methionine sulfone		LC/MS pos early			69961	1.00	0.60	2.00	1.19	
329		methionine sulfoxide		LC/MS pos early	C02989	HMDB02005	158980	1.60	1.56	0.55	0.53	
330		N-acetylmethionine sulfoxide		LC/MS pos early			193368	1.74	2.11	0.39	0.47	
331		S-adenosylmethionine (SAM)		LC/MS pos early	C00019	HMDB01185	34755	0.50	0.27	0.50	0.27	
332		S-adenosylhomocysteine (SAH)		LC/MS neg	C00021	HMDB00939	439155	0.89	0.87	1.62	1.58	
333	homocysteine	LC/MS pos early		C00155	HMDB00742	778	0.49	0.74	1.63	2.44		
336	cystathionine	LC/MS pos early		C02291	HMDB00099	439258	0.26	0.19	0.60	0.43		
339	2-aminobutyrate	LC/MS pos early		C02261	HMDB00650	439691	1.31	0.88	1.61	1.08		

341		cysteine	LC/MS pos early	C00097	HMDB00574	5862	0.24	0.23	1.70	1.62	
342		N-acetylcysteine	LC/MS pos early	C06809	HMDB01890	12035	0.24	0.14	3.77	2.20	
343		cystine	LC/MS pos early	C00491	HMDB00192	67678	0.03	0.04	0.48	0.66	
349		cysteine sulfinic acid	LC/MS pos early	C00606	HMDB00996	109	0.39	0.49	0.90	1.12	
351		hypotaurine	LC/MS polar	C00519	HMDB00965	107812	1.08	0.70	3.11	2.00	
352		taurine	LC/MS neg	C00245	HMDB00251	1123	1.33	0.85	3.19	2.02	
353		N-acetyltaurine	LC/MS neg			159864	1.42	1.10	1.32	1.02	
359		2-hydroxybutyrate/2-hydroxyisobutyra	LC/MS polar				1.42	1.12	0.52	0.41	
360	Urea cycle; Arginine and Proline Metabolism	arginine	LC/MS pos early	C00062	HMDB00517	232	1.06	0.98	1.18	1.10	
363		ornithine	LC/MS pos early	C00077	HMDB03374	6262	1.03	0.66	2.91	1.89	
364		proline	LC/MS pos early	C00148	HMDB00162	145742	1.42	1.19	1.84	1.54	
365		citrulline	LC/MS pos early	C00327	HMDB00904	9750	1.13	0.83	1.12	0.83	
366		argininosuccinate	LC/MS pos early	C03406	HMDB00052	16950;828	1.37	1.01	1.12	0.83	
368		homocitrulline	LC/MS pos early	C02427	HMDB00679	65072	1.31	0.78	1.61	0.96	
372		dimethylarginine (SDMA + ADMA)	LC/MS pos early	C03626	HMDB01539	123831	0.96	0.83	0.75	0.64	
373		N-acetylarginine	LC/MS pos early	C02562	HMDB04620	67427	0.68	0.45	3.44	2.29	
376		N-delta-acetylornithine	LC/MS pos early			9920500	1.18	0.83	2.16	1.52	
380		N-methylproline	LC/MS pos early			557	1.04	0.82	1.47	1.16	
382		trans-4-hydroxyproline	LC/MS pos early	C01157	HMDB00725	5810	0.82	0.45	3.66	2.01	
384		pro-hydroxy-pro	LC/MS pos early		HMDB06695	11673055	2.59	1.30	3.18	1.60	
385		N-monomethylarginine	LC/MS pos early	C03884	HMDB29416	132862	1.03	0.91	1.06	0.95	
389		Creatine Metabolism	creatine	LC/MS pos early	C00300	HMDB00064	586	1.22	1.01	1.70	1.41
390			creatinine	LC/MS pos early	C00791	HMDB00562	588	1.09	1.02	1.50	1.40
395	guanidinoacetate		LC/MS pos early	C00581	HMDB00128	763	1.03	0.70	2.47	1.68	
399	Polyamine Metabolism	putrescine	LC/MS pos early	C00134	HMDB01414	1045	5.13	0.83	382.51	61.57	
400		spermine	LC/MS pos late	C00750	HMDB01256	1103	0.75	1.24	0.79	1.30	
402		spermidine	LC/MS pos early	C00315	HMDB01257	1102	1.93	1.28	1.82	1.21	
403		5-methylthioadenosine (MTA)	LC/MS pos early	C00170	HMDB01173	439176	0.67	0.47	1.14	0.80	
405		N(4)-acetylspermidine	LC/MS pos early			128317	2.77	0.88	1.72	0.55	
406		N-acetylputrescine	LC/MS pos early	C02714	HMDB02064	122356	2.97	0.38	232.32	29.92	
407		4-acetamidobutanoate	LC/MS polar	C02946	HMDB03681	18189	2.22	0.82	3.38	1.25	
412	Guanidino and Acetamido	4-guanidinobutanoate	LC/MS pos early	C01035	HMDB03464	500	0.72	0.60	1.39	1.15	
414		glutathione, reduced (GSH)	LC/MS pos early	C00051	HMDB00125	124886	0.95	0.88	4.54	4.21	

415	Glutathione Metabolism	glutathione, oxidized (GSSG)	LC/MS pos early	C00127	HMDB03337	65359	1.58	1.34	2.10	1.79
417		cysteine-glutathione disulfide	LC/MS pos early		HMDB00656	4247235	0.24	0.20	1.18	0.95
418		S-methylglutathione	LC/MS pos early	C11347		3605667	0.77	1.00	0.61	0.80
420		cysteinylglycine	LC/MS pos early	C01419	HMDB00078	439498	0.45	0.53	2.51	2.95
422		5-oxoproline	LC/MS neg	C01879	HMDB00267	7405	0.76	0.65	1.28	1.09
423		ophthalmate	LC/MS pos early		HMDB05765	7018721	0.94	0.56	9.87	5.86
430	Gamma-glutamyl Amino Acid	gamma-glutamylalanine	LC/MS pos early		HMDB29142	440103	1.04	0.56	4.09	2.19
431		gamma-glutamylcysteine	LC/MS pos early	C00669	HMDB01049	842	0.48	0.57	1.70	2.00
432		gamma-glutamylglutamate	LC/MS pos early	C05282	HMDB11737	92865	0.83	0.59	2.19	1.55
433		gamma-glutamylglutamine	LC/MS pos early	C05283	HMDB11738	150914	0.93	0.49	2.52	1.33
434		gamma-glutamylglycine	LC/MS pos early		HMDB11667	165527	0.69	0.48	3.09	2.15
435		gamma-glutamylhistidine	LC/MS pos early			7017195	0.53	0.49	0.93	0.86
436		gamma-glutamylisoleucine*	LC/MS pos early		HMDB11170	14253342	0.71	0.76	1.37	1.47
437		gamma-glutamylleucine	LC/MS pos early		HMDB11171	151023	0.63	0.66	1.13	1.17
438		gamma-glutamyl-epsilon-lysine	LC/MS pos early		HMDB03869	65254;14284565	2.48	2.44	1.06	1.04
439		gamma-glutamylmethionine	LC/MS pos early		HMDB29155	7009567	0.94	1.20	0.66	0.85
440		gamma-glutamylphenylalanine	LC/MS pos early		HMDB00594	111299	0.54	0.51	1.00	0.95
441		gamma-glutamylthreonine*	LC/MS pos early		HMDB29159		0.89	0.48	1.76	0.94
442		gamma-glutamyltryptophan	LC/MS pos early		HMDB29160	3989307	0.53	0.46	1.12	0.97
443		gamma-glutamyltyrosine	LC/MS pos early		HMDB11741	94340	0.41	0.36	0.96	0.83
444	gamma-glutamylvaline	LC/MS pos early		HMDB11172	7015683	0.85	0.99	1.22	1.41	
446	Dipeptide Derivative	carosine	LC/MS pos early	C00386	HMDB00033	439224	1.16	0.79	2.25	1.54
460	Peptide	alanylleucine	LC/MS pos early		HMDB28691	259583	0.82	1.42	0.90	1.56
559		glutaminylleucine	LC/MS pos early				0.60	1.25	0.58	1.20
571		glycylisoleucine	LC/MS pos early		HMDB28844	88079	0.92	1.56	1.49	2.52
572		glycylleucine	LC/MS pos early	C02155	HMDB00759	92843	1.00	1.37	0.92	1.26
582		glycylvaline	LC/MS pos early		HMDB28854	97417	0.99	1.33	0.88	1.18
587		histidylalanine	LC/MS pos early			351667	0.75	1.41	0.44	0.82
606		isoleucylglycine	LC/MS pos early			342532	1.12	1.76	0.94	1.49
619		leucylalanine	LC/MS pos early			259321	0.82	1.01	0.93	1.15
624		leucylglycine	LC/MS pos early			79070	0.85	1.34	0.88	1.39
672		phenylalanylalanine	LC/MS pos early			6993123;5488196	0.69	1.41	0.76	1.55

676	phenylalanylglycine	LC/MS pos early		98207	0.77	1.63	0.86	1.82
693	prolylglycine	LC/MS pos early		7408076;6426709	1.40	1.18	0.96	0.81
757	tyrosylglycine	LC/MS pos early		259323	1.03	1.64	0.80	1.27
771	valylglutamine	LC/MS pos early		5253209	0.98	1.24	0.93	1.18
772	valylglycine	LC/MS pos early	HMDB29127	136487	1.27	2.02	1.20	1.91
775	valylleucine	LC/MS pos early	HMDB29131	352039	0.72	1.28	0.93	1.64
785	leucylglutamine*	LC/MS pos early		4305457	1.02	1.35	0.87	1.16

Appendix Table S2. Significantly overlapped gene probes in KO/WT mESCs in complete medium and WT mESCs cultured in methionine restriction medium/complete medium

Probe	Symbol	Entrez Gene name	FC (KO/WT)	p value	FC (6uM WT/200u M WT)	p value
A_52_P277415	Mirg	miRNA containing gene	-571.219	1.20E-15	-3.42287	0.00427517
A_51_P455997	Meg3	maternally expressed 3	-521.794	8.18E-21	-2.33001	0.00196411
A_52_P391505	Meg3	maternally expressed 3	-417.658	1.83E-23	-2.05989	0.00073635
A_52_P145433	Snhg14	small nucleolar RNA host gene 14	-146.298	1.50E-18	-6.18824	2.85E-08
A_52_P244	Rian	RNA imprinted and accumulated in nucleus	-102.338	1.71E-24	-2.09156	7.01E-06
A_51_P178828	MBL2	mannose-binding lectin (protein C) 2, soluble	-91.2646	2.68E-15	-3.89778	6.57E-05
A_52_P354390	SNRPN	small nuclear ribonucleoprotein polypeptide N	-75.9979	1.07E-27	-1.79797	1.35E-06
A_52_P196568	Meg3	maternally expressed 3	-65.6855	2.82E-13	-5.41817	1.63E-05
A_52_P54176	AXIN2	axin 2	-64.6377	2.94E-20	-3.35685	1.31E-07
A_52_P262080	SNURF	SNRPN upstream reading frame	-58.709	9.97E-23	-1.78798	0.00021825
A_51_P232128	PDCL2	phosducin-like 2	-50.2107	7.81E-17	-4.57863	1.54E-07
A_52_P619388	KCNQ1OT1	KCNQ1 opposite strand/antisense transcript 1 (non-protein c	-47.5091	1.10E-13	-2.36711	0.00582826
A_51_P499623	MLANA	melan-A	-44.5414	8.83E-14	7.47254	8.79E-08
A_51_P501710	GNA13	guanine nucleotide binding protein (G protein), alpha 13	-42.8906	5.09E-15	2.50569	0.00092771
A_52_P571780	CALB2	calbindin 2	-38.232	2.11E-15	1.82352	0.0151714
A_52_P449084	Fmr1nb	fragile X mental retardation 1 neighbor	-34.3661	3.31E-20	-1.69576	0.00127865
A_51_P333594			-33.6974	3.88E-27	-2.37567	2.64E-11
A_51_P512293	Gm7207	predicted gene 7207	-33.2945	1.13E-26	-2.37166	6.08E-11
A_51_P490070	Xlr3c (includes otheX-linked lymphocyte-regulated 3C		-32.6984	2.44E-25	1.68334	6.46E-06
A_51_P286563	GNA13	guanine nucleotide binding protein (G protein), alpha 13	-32.1113	1.66E-17	1.85309	0.00220874
A_52_P465718	AURKC	aurora kinase C	-30.8221	5.52E-26	-2.28628	3.42E-10
A_52_P102630	Rian	RNA imprinted and accumulated in nucleus	-30.4912	3.75E-09	-4.14704	0.00156676
A_51_P258359	HUS1B	HUS1 checkpoint clamp component B	-28.9856	7.93E-17	1.67105	0.0110653
A_51_P171107	TMEM35	transmembrane protein 35	-27.4677	9.82E-13	9.65927	4.28E-09
A_51_P457244	Xlr4a (includes otheX-linked lymphocyte-regulated 4A		-24.8907	6.63E-17	1.81169	0.00250141
A_52_P1013441	Gm7789	predicted pseudogene 7789	-24.8046	1.12E-23	-2.17076	1.79E-08
A_51_P515883	PLAC8	placenta-specific 8	-18.9026	4.22E-15	-1.72141	0.0087118
A_51_P109649	Meg3	maternally expressed 3	-18.5268	7.23E-15	-4.55399	1.89E-08
A_52_P476086	NXF3	nuclear RNA export factor 3	-18.1308	4.72E-10	2.68893	0.00364763
A_52_P119947	FAM20A	family with sequence similarity 20, member A	-16.5935	5.93E-14	4.10797	1.68E-07
A_51_P514405	SLC2A5	solute carrier family 2 (facilitated glucose/fructose transport	-16.4261	3.48E-19	-2.1829	1.32E-06
A_52_P308669	CPN1	carboxypeptidase N, polypeptide 1	-16.1988	1.90E-11	2.85508	0.00036787
A_51_P278464	Fam183b	family with sequence similarity 183, member B	-15.3472	6.00E-13	-5.70388	1.17E-08
A_51_P260850	CNTNAP2	contactin associated protein-like 2	-14.785	1.09E-13	-4.04366	1.51E-07
A_51_P457237	Xlr4a (includes otheX-linked lymphocyte-regulated 4A		-14.2994	1.09E-08	2.66922	0.00644359
A_52_P310511	CA6	carbonic anhydrase VI	-14.2429	2.67E-16	-3.12035	6.14E-08
A_52_P338266	REC114	REC114 meiotic recombination protein	-13.4352	4.39E-15	2.86533	1.14E-06
A_52_P533731			-13.2042	1.05E-07	-3.55196	0.00166467
A_52_P681456	RFTN2	raftlin family member 2	-13.1489	2.68E-08	-4.81205	7.31E-05
A_51_P115953	CTXN3	cortixin 3	-13.0949	4.48E-06	-26.1875	7.85E-08
A_52_P62534	SAMD7	sterile alpha motif domain containing 7	-12.6358	1.36E-18	2.24036	3.41E-07
A_52_P113190	MYO1F	myosin IF	-12.5741	4.04E-22	-2.8431	2.94E-12
A_52_P675039	FHAD1	forkhead-associated (FHA) phosphopeptide binding domain	-12.5409	5.28E-14	-2.77781	5.87E-06
A_51_P153423	Fndc1	fibronectin type III domain containing 1	-12.5089	5.56E-14	5.95268	1.82E-10
A_51_P294095	PRKAR1A	protein kinase, cAMP-dependent, regulatory, type I, alpha	-12.2583	7.18E-21	1.96473	1.97E-07

A_51_P416295	IRGM	immunity-related GTPase family, M	-12.2482	2.14E-18	-2.27428	2.70E-07
A_52_P836118	Defb42	defensin beta 42	-11.6457	6.95E-16	1.7487	0.00085859
A_51_P267796	DDR2	discoidin domain receptor tyrosine kinase 2	-11.3955	3.09E-11	1.91703	0.00884242
A_51_P125679	REC114	REC114 meiotic recombination protein	-11.0764	2.50E-23	3.24743	3.82E-15
A_51_P504538	CELA2A	chymotrypsin-like elastase family, member 2A	-10.7904	5.02E-16	-5.11595	5.01E-12
A_52_P579933	SLC16A6	solute carrier family 16, member 6	-10.6579	1.93E-11	6.44568	3.37E-09
A_51_P332217	USHBP1	Usher syndrome 1C binding protein 1	-10.5954	2.73E-15	-3.56853	4.18E-09
A_51_P143200	Tcstv3	2-cell-stage, variable group, member 3	-10.4662	2.05E-15	7.25832	1.37E-13
A_51_P451377	KNG1	kininogen 1	-10.4204	3.42E-17	-2.65165	2.36E-08
A_52_P86693	Ifi27	interferon, alpha-inducible protein 27	-10.2865	8.41E-17	4.70688	2.08E-12
A_51_P280893	PLA2G1B	phospholipase A2, group IB (pancreas)	-9.81757	1.47E-25	-6.58127	2.85E-23
A_51_P311199	SNAP91	synaptosomal-associated protein, 91kDa	-9.45967	2.80E-16	2.99693	4.99E-09
A_52_P302671	Zscan4c (includes o	zinc finger and SCAN domain containing 4C	-9.27628	3.24E-12	11.7743	2.90E-13
A_52_P247953	MYH3	myosin, heavy chain 3, skeletal muscle, embryonic	-9.1389	3.16E-13	-1.72336	0.00385715
A_51_P130374	TEK	TEK tyrosine kinase, endothelial	-9.10873	1.71E-06	12.0412	2.26E-07
A_52_P1045316	B020004C17Rik (inc	RIKEN cDNA B020004C17 gene	-9.098	8.72E-12	2.53518	6.53E-05
A_51_P167668	MYH3	myosin, heavy chain 3, skeletal muscle, embryonic	-8.97632	5.78E-14	-1.62497	0.00510601
A_51_P209782	Cyp2c44	cytochrome P450, family 2, subfamily c, polypeptide 44	-8.94396	3.55E-11	2.46446	0.00018437
A_52_P408391	NEUROD1	neuronal differentiation 1	-8.76984	2.33E-08	10.1324	6.57E-09
A_51_P359424	SMTNL1	smoothelin-like 1	-8.68914	3.58E-17	7.51582	2.14E-16
A_51_P161323	EDA2R	ectodysplasin A2 receptor	-8.6643	2.53E-09	5.13914	4.77E-07
A_51_P279841	BLNK	B-cell linker	-8.64047	4.17E-15	-2.58524	2.65E-07
A_52_P436393	DMRT1	doublesex and mab-3 related transcription factor 1	-8.57401	8.92E-10	-2.5109	0.00060357
A_51_P220343	WISP1	WNT1 inducible signaling pathway protein 1	-8.43807	5.14E-12	5.00057	2.47E-09
A_52_P354844	EDA2R	ectodysplasin A2 receptor	-8.1789	7.41E-16	4.50131	2.67E-12
A_51_P145360	SDK1	sidekick cell adhesion molecule 1	-8.14437	1.76E-10	-16.4052	2.29E-13
A_52_P306007	1700016D06Rik	RIKEN cDNA 1700016D06 gene	-8.11946	2.80E-05	-10.2238	6.25E-06
A_51_P483438	SEMA3E	sema domain, immunoglobulin domain (Ig), short basic dom	-8.09739	1.78E-11	-1.86227	0.00335812
A_51_P265489	Slc5a4a	solute carrier family 5, member 4a	-7.98467	6.19E-07	2.64988	0.00555274
A_52_P115763	C330024D21Rik	RIKEN cDNA C330024D21 gene	-7.98191	1.07E-11	-2.18459	0.00028229
A_51_P267441	THEM5	thioesterase superfamily member 5	-7.89413	1.36E-18	18.3871	1.38E-22
A_52_P377160	GALNT6	polypeptide N-acetylgalactosaminyltransferase 6	-7.80595	4.63E-12	5.97351	1.09E-10
A_52_P439407	SEMA3E	sema domain, immunoglobulin domain (Ig), short basic dom	-7.75792	0.0001884	-4.62134	0.00331314
A_52_P369562	PSTPIP2	proline-serine-threonine phosphatase interacting protein 2	-7.71477	9.93E-10	-8.94567	2.23E-10
A_52_P948095	Rian	RNA imprinted and accumulated in nucleus	-7.66047	2.24E-05	-4.11967	0.001456
A_52_P262201	ATCAY	ataxia, cerebellar, Cayman type	-7.5957	3.27E-06	-3.46354	0.00140481
A_51_P463060	TMEM40	transmembrane protein 40	-7.59123	6.90E-20	-1.87185	7.46E-08
A_51_P259029	DUSP26	dual specificity phosphatase 26 (putative)	-7.58071	3.64E-18	3.46462	7.98E-13
A_52_P111715	GALNT6	polypeptide N-acetylgalactosaminyltransferase 6	-7.54618	6.38E-20	5.8105	2.50E-18
A_51_P191726	EFCAB6	EF-hand calcium binding domain 6	-7.48556	1.40E-13	14.872	8.86E-17
A_52_P487303	RASGRP1	RAS guanyl releasing protein 1 (calcium and DAG-regulated)	-7.47248	1.85E-15	-2.0885	3.36E-06
A_51_P277745	ABCC2	ATP-binding cassette, sub-family C (CFTR/MRP), member 2	-7.40723	7.67E-18	3.5951	5.96E-13
A_52_P555957	IL7R	interleukin 7 receptor	-7.40179	0.0072643	-11.4583	0.00146764
A_51_P354354	GAL3ST1	galactose-3-O-sulfotransferase 1	-7.33005	1.07E-18	2.24006	2.92E-09
A_51_P322000	LRP2	low density lipoprotein receptor-related protein 2	-7.31545	1.11E-15	-1.64996	0.0003679
A_51_P319351			-7.28011	0.0002308	-7.25288	0.00023578
A_51_P299149	GPX6	glutathione peroxidase 6	-7.23483	1.35E-09	75.119	1.03E-17
A_52_P462657	Gm11545	predicted gene 11545	-7.20521	9.54E-16	7.81701	3.41E-16
A_52_P387884	COL6A5	collagen, type VI, alpha 5	-7.17703	1.45E-09	3.20756	1.56E-05
A_51_P432180	SLC16A6	solute carrier family 16, member 6	-7.16765	5.23E-18	3.57365	3.16E-13
A_52_P176026	Xlr4a (includes othe	X-linked lymphocyte-regulated 4A	-7.11934	4.39E-07	2.29323	0.00999354
A_52_P596592	RASSF9	Ras association (RalGDS/AF-6) domain family (N-terminal) m	-7.06621	2.06E-07	-4.05831	3.77E-05
A_51_P362328	GRHL2	grainyhead-like transcription factor 2	-7.0479	1.14E-14	-2.90889	9.81E-09

A_51_P497741	Wdr95	WD40 repeat domain 95	-7.03498	8.10E-15	6.80782	1.24E-14
A_52_P207163	EDA2R	ectodysplasin A2 receptor	-6.955	2.22E-07	5.66049	1.50E-06
A_51_P468249	PHEX	phosphate regulating endopeptidase homolog, X-linked	-6.87929	3.96E-11	-1.68798	0.00861383
A_52_P115565	Platr14	pluripotency associated transcript 14	-6.87136	7.79E-19	-1.6024	1.57E-05
A_51_P432641	CXCL10	chemokine (C-X-C motif) ligand 10	-6.86427	6.26E-08	14.2084	8.92E-11
A_51_P490323	Pzp	pregnancy zone protein	-6.75134	3.39E-08	2.1766	0.00478533
A_51_P177071	NRG3	neuregulin 3	-6.73923	0.0005092	-6.77015	0.00049656
A_52_P506995	PLET1	placenta expressed transcript 1	-6.67828	2.92E-10	7.10608	1.45E-10
A_52_P368690	AMICA1	adhesion molecule, interacts with CXADR antigen 1	-6.60667	2.14E-07	6.5408	2.35E-07
A_52_P401877	CFAP54	cilia and flagella associated 54	-6.59005	0.0011304	-4.0313	0.01214
A_51_P489289	RHOH	ras homolog family member H	-6.57776	1.47E-13	5.40122	2.06E-12
A_52_P367520	NEXN	nexilin (F actin binding protein)	-6.56335	5.25E-06	-4.20836	0.00019472
A_51_P162474	Scml2	sex comb on midleg-like 2 (Drosophila)	-6.55996	3.33E-13	1.89129	0.00017274
A_51_P495331	NEB	nebulin	-6.54391	4.51E-05	11.6506	8.14E-07
A_52_P542570	BHLHE23	basic helix-loop-helix family, member e23	-6.51614	2.85E-12	-1.86124	0.00059647
A_52_P618427	PDGFB	platelet-derived growth factor beta polypeptide	-6.46165	5.63E-07	-3.11009	0.00052454
A_51_P517878	NKX2-8	NK2 homeobox 8	-6.42417	8.59E-07	32.9765	2.18E-12
A_51_P402160	ZNF750	zinc finger protein 750	-6.42383	1.18E-05	11.4461	1.43E-07
A_52_P550325	KCNJ16	potassium channel, inwardly rectifying subfamily J, member	-6.38757	0.0011495	-4.12665	0.00989172
A_51_P345340	UPK3BL	uroplakin 3B-like	-6.36076	8.24E-14	-3.83718	1.37E-10
A_51_P402144	C6orf15	chromosome 6 open reading frame 15	-6.34985	4.44E-07	-3.91778	4.48E-05
A_52_P137193	Al662270	expressed sequence Al662270	-6.32777	3.41E-09	7.20224	8.36E-10
A_52_P448749	TC2N	tandem C2 domains, nuclear	-6.20564	6.49E-05	-6.46147	4.89E-05
A_51_P315904	GADD45G	growth arrest and DNA-damage-inducible, gamma	-6.19239	1.85E-15	9.24944	1.11E-17
A_51_P496569	SLIT2	slit guidance ligand 2	-6.14637	2.26E-14	-2.58813	3.87E-08
A_52_P384465	MOBP	myelin-associated oligodendrocyte basic protein	-6.13344	4.73E-12	-2.34749	9.99E-06
A_52_P363843	Zscan4c (includes o	zinc finger and SCAN domain containing 4C	-6.08767	4.51E-13	9.35264	2.37E-15
A_51_P497724	Apol7e (includes ot	apolipoprotein L 7e	-6.06298	0.0008504	-4.90446	0.00266893
A_52_P100909	CELF2	CUGBP, Elav-like family member 2	-6.01101	7.69E-07	3.01193	0.00056788
A_52_P619287	Lincenc1	long intergenic non-coding RNA, embryonic stem cells expre	-6.00326	4.22E-18	-1.99769	2.13E-08
A_52_P655120	GRIK2	glutamate receptor, ionotropic, kainate 2	-5.99338	0.0037111	-6.26579	0.00304152
A_51_P201709	GGT5	gamma-glutamyltransferase 5	-5.98195	1.12E-08	24.1848	2.60E-14
A_51_P282538	GAD1	glutamate decarboxylase 1 (brain, 67kDa)	-5.97963	3.11E-06	2.29239	0.0118488
A_51_P251129	STARD8	StAR-related lipid transfer (START) domain containing 8	-5.97453	5.16E-10	1.69582	0.0107014
A_52_P673458	WT1	Wilms tumor 1	-5.88978	1.11E-10	-9.6118	4.02E-13
A_51_P267447	ADAM19	ADAM metalloproteinase domain 19	-5.84774	4.92E-17	-2.06623	3.91E-08
A_51_P497875	HORMAD1	HORMA domain containing 1	-5.8303	1.95E-10	2.59695	1.43E-05
A_51_P247421	FAM217A	family with sequence similarity 217, member A	-5.82346	7.66E-10	-2.85	9.29E-06
A_51_P262171	Irgm1	immunity-related GTPase family M member 1	-5.81062	7.34E-10	-8.5944	8.63E-12
A_51_P479330	MARCH3	membrane-associated ring finger (C3HC4) 3, E3 ubiquitin prc	-5.7688	0.0021876	-6.33107	0.00137529
A_51_P309158	SNX20	sorting nexin 20	-5.74032	2.00E-05	18.3236	2.92E-09
A_51_P514161	Gm5662 (includes cp	predicted gene 5662	-5.72864	5.03E-11	12.4142	8.27E-15
A_51_P474701	FBP1	fructose-1,6-bisphosphatase 1	-5.69296	9.52E-07	8.72201	1.81E-08
A_51_P519857	Pdha2	pyruvate dehydrogenase E1 alpha 2	-5.68764	4.26E-06	14.2428	1.94E-09
A_51_P499551	CD276	CD276 molecule	-5.58718	7.10E-16	-2.07129	1.55E-07
A_52_P134598	Scml2	sex comb on midleg-like 2 (Drosophila)	-5.49217	3.26E-11	2.01035	0.00018515
A_51_P245533	Tex19.1	testis expressed gene 19.1	-5.45155	5.52E-18	2.44545	3.83E-11
A_51_P489488	PDE4DIP	phosphodiesterase 4D interacting protein	-5.44687	8.42E-11	1.60277	0.00915794
A_51_P366306	ZCCHC12	zinc finger, CCHC domain containing 12	-5.39919	6.28E-09	2.63742	6.00E-05
A_51_P404992	EFHC2	EF-hand domain (C-terminal) containing 2	-5.38743	1.32E-09	2.73516	1.26E-05
A_51_P145693	CUBN	cubilin (intrinsic factor-cobalamin receptor)	-5.3441	1.52E-06	7.64484	5.07E-08
A_51_P131561	PLET1	placenta expressed transcript 1	-5.33743	7.54E-13	6.0599	1.30E-13
A_51_P189814	CLDN5	claudin 5	-5.30782	1.19E-13	-2.80943	5.57E-09

A_51_P508289	EPHX1	epoxide hydrolase 1, microsomal (xenobiotic)	-5.29406	0.0002217	7.64477	1.74E-05
A_52_P39654	Rhox2a (includes otrepoductive homeobox 2A		-5.27735	1.66E-05	25.2907	8.18E-11
A_52_P637988	SLC1A1	solute carrier family 1 (neuronal/epithelial high affinity gluta	-5.25997	1.26E-09	8.79817	3.15E-12
A_51_P352452	DBX2	developing brain homeobox 2	-5.22173	5.14E-16	9.30526	2.07E-19
A_51_P166648	EVA1C	eva-1 homolog C (C. elegans)	-5.16853	8.57E-12	13.1015	1.43E-16
A_51_P401974	ENPP2	ectonucleotide pyrophosphatase/phosphodiesterase 2	-5.15959	2.02E-06	-3.05853	0.00035518
A_51_P167360	PTPN7	protein tyrosine phosphatase, non-receptor type 7	-5.14834	4.65E-15	3.0787	3.74E-11
A_52_P20727	NHLRC1	NHL repeat containing E3 ubiquitin protein ligase 1	-5.14573	1.65E-15	4.22201	4.09E-14
A_52_P79821	ESRP1	epithelial splicing regulatory protein 1	-5.09525	1.82E-06	-3.46144	8.79E-05
A_52_P438188	ITSN1	intersectin 1 (SH3 domain protein)	-5.0808	1.22E-10	-2.39277	1.19E-05
A_52_P514391	CCND2	cyclin D2	-5.0266	2.77E-12	-5.17815	1.81E-12
A_51_P461368	SYTL3	synaptotagmin-like 3	-4.99435	5.67E-08	-2.50544	0.00025771
A_52_P350344	Timm8a2	translocase of inner mitochondrial membrane 8A2	-4.98999	1.77E-16	3.48089	1.02E-13
A_51_P328889	TEKT1	tektin 1	-4.95113	2.20E-14	-1.87887	4.95E-06
A_52_P876147	CROCC2	ciliary rootlet coiled-coil, rootletin family member 2	-4.92507	4.33E-12	-19.6476	6.70E-19
A_51_P499838	BST1	bone marrow stromal cell antigen 1	-4.90098	1.69E-07	3.8383	2.84E-06
A_51_P263993	LIPC	lipase, hepatic	-4.89334	0.000233	-4.19789	0.00069477
A_52_P631889	TFPI	tissue factor pathway inhibitor (lipoprotein-associated coagu	-4.88878	1.20E-10	-1.73763	0.00180941
A_51_P377557	CPSF4L	cleavage and polyadenylation specific factor 4-like	-4.87736	1.29E-15	-15.6101	6.55E-22
A_51_P521304	KLHL13	kelch-like family member 13	-4.8368	6.45E-14	-4.49207	2.07E-13
A_52_P8587	CD109	CD109 molecule	-4.8354	4.68E-08	7.38972	3.80E-10
A_51_P487004	DMRTC2	DMRT-like family C2	-4.83062	2.60E-16	-2.58747	5.19E-11
A_52_P337388	Fam205c	family with sequence similarity 205, member C	-4.82875	1.02E-06	5.00204	7.02E-07
A_52_P764117	SEC14L5	SEC14-like lipid binding 5	-4.82187	3.77E-08	24.4145	4.69E-15
A_52_P176634	TAF9B	TAF9B RNA polymerase II, TATA box binding protein (TBP)-a:	-4.81636	2.43E-09	3.82632	5.47E-08
A_52_P554451	1300017J02Rik	RIKEN cDNA 1300017J02 gene	-4.79994	9.98E-10	1.75445	0.00327674
A_51_P433228	CCND2	cyclin D2	-4.79169	3.18E-18	-5.47478	3.69E-19
A_52_P53906	CCND2	cyclin D2	-4.79079	3.85E-16	-5.14534	1.23E-16
A_52_P280044	ADAM19	ADAM metallopeptidase domain 19	-4.78759	1.34E-14	-2.31646	1.62E-08
A_52_P306744	TSPAN8	tetraspanin 8	-4.78548	1.46E-06	5.29787	5.10E-07
A_52_P194990	PKD1L2	polycystic kidney disease 1-like 2 (gene/pseudogene)	-4.78294	0.0003698	-3.84464	0.00164849
A_51_P328890	TEKT1	tektin 1	-4.74989	1.03E-18	-1.93298	1.15E-09
A_51_P110759	SLC1A1	solute carrier family 1 (neuronal/epithelial high affinity gluta	-4.74474	4.94E-08	10.182	1.14E-11
A_51_P199475	SIGLEC8	sialic acid binding Ig-like lectin 8	-4.70612	4.19E-07	2.51785	0.00053971
A_52_P124183	C030005K06Rik	RIKEN cDNA C030005K06 gene	-4.67268	0.000894	-3.37241	0.00666927
A_51_P110341	SCGB3A1	secretoglobin, family 3A, member 1	-4.63678	1.33E-12	-2.822	7.05E-09
A_51_P520802	CCM2L	cerebral cavernous malformation 2-like	-4.6324	1.29E-09	-1.95917	0.00056828
A_51_P399106	C14orf159	chromosome 14 open reading frame 159	-4.62255	1.25E-16	4.09794	1.02E-15
A_52_P389874	LDB3	LIM domain binding 3	-4.61406	6.15E-07	1.98885	0.00751725
A_51_P450549	PADI3	peptidyl arginine deiminase, type III	-4.60549	7.08E-13	4.44416	1.24E-12
A_52_P256476	Gm6346 (includes cuncharacterized LOC620639		-4.5987	1.62E-05	8.4242	6.66E-08
A_52_P619991	THEM4	thioesterase superfamily member 4	-4.59723	0.0013324	-4.83104	0.00098292
A_52_P533161	ABLIM1	actin binding LIM protein 1	-4.55901	1.41E-07	1.9483	0.00478902
A_52_P165773	PRMT8	protein arginine methyltransferase 8	-4.52147	1.35E-06	-4.41413	1.76E-06
A_51_P481482	DRAM1	DNA-damage regulated autophagy modulator 1	-4.50594	9.79E-07	1.93132	0.0109484
A_51_P135732	CCDC136	coiled-coil domain containing 136	-4.50423	3.56E-14	-4.26421	8.84E-14
A_52_P188172	SYNJ2	synaptojanin 2	-4.49822	0.0003886	-3.00882	0.00632953
A_51_P381297	PAX8	paired box 8	-4.48764	3.97E-05	-5.27874	9.41E-06
A_51_P345344	UPK3BL	uroplakin 3B-like	-4.48679	2.29E-11	-2.68499	1.25E-07
A_52_P126158	Irgm1	immunity-related GTPase family M member 1	-4.46654	3.33E-13	-6.57913	1.12E-15
A_51_P302273	Usp17la (includes o ubiquitin specific peptidase 17-like A		-4.45296	1.29E-08	13.1758	6.66E-14
A_51_P244950	DPYS	dihydropyrimidinase	-4.4427	5.54E-20	1.62252	2.57E-08
A_51_P187018	MAGOHB	mago homolog B, exon junction complex core component	-4.4364	3.51E-14	1.64612	6.48E-05

A_51_P167489	LAMA3	laminin, alpha 3	-4.43334	1.11E-10	2.5245	1.14E-06
A_51_P458451	ADIPOQ	adiponectin, C1Q and collagen domain containing	-4.41707	5.59E-05	-2.87166	0.00221411
A_52_P95544	SCARF1	scavenger receptor class F, member 1	-4.39198	1.80E-19	-1.78959	1.32E-09
A_52_P263763	MAP7D3	MAP7 domain containing 3	-4.38726	5.25E-12	-2.29819	6.30E-07
A_52_P590535	FBLN2	fibulin 2	-4.36612	2.61E-08	3.15338	2.13E-06
A_51_P496562	SLIT2	slit guidance ligand 2	-4.35462	1.91E-08	-2.29842	0.00014822
A_52_P510310	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activ	-4.33562	8.39E-09	9.26596	8.78E-13
A_51_P106114	A230070E04Rik	RIKEN cDNA A230070E04 gene	-4.32745	7.56E-07	3.06161	4.36E-05
A_51_P511000	CWH43	cell wall biogenesis 43 C-terminal homolog	-4.32115	1.03E-05	-2.16627	0.00848183
A_52_P14778	PIWIL4	piwi-like RNA-mediated gene silencing 4	-4.27917	0.0002442	3.51513	0.00111303
A_51_P512210	MYH6	myosin, heavy chain 6, cardiac muscle, alpha	-4.25406	2.43E-05	3.07269	0.0005285
A_51_P428529	Oas1d (includes oth	2'-5' oligoadenylate synthetase 1D	-4.24485	5.80E-17	-3.72849	6.47E-16
A_51_P226453	ACOT11	acyl-CoA thioesterase 11	-4.2333	1.28E-14	-3.39193	7.41E-13
A_51_P317141	COL2A1	collagen, type II, alpha 1	-4.22431	2.29E-11	5.47552	4.83E-13
A_51_P108645	ITSN1	intersectin 1 (SH3 domain protein)	-4.21846	2.05E-14	-2.03476	1.09E-07
A_51_P326631	DNAH8	dynein, axonemal, heavy chain 8	-4.19615	4.63E-15	-10.2284	1.57E-20
A_52_P803532			-4.19321	0.0030724	-3.36054	0.0105692
A_52_P231729	HLA-A	major histocompatibility complex, class I, A	-4.12307	5.00E-08	-5.69261	8.31E-10
A_51_P268068	SIX1	SIX homeobox 1	-4.11859	4.53E-14	-2.33346	4.91E-09
A_51_P100768	4833413E03Rik	RIKEN cDNA 4833413E03 gene	-4.10793	6.24E-05	-2.33167	0.00876148
A_51_P362292	MS4A10	membrane-spanning 4-domains, subfamily A, member 10	-4.10457	1.73E-08	10.884	1.60E-13
A_51_P318933	CAMK2B	calcium/calmodulin-dependent protein kinase II beta	-4.0954	3.48E-18	-1.52594	1.69E-06
A_52_P662911	1700020N01Rik	RIKEN cDNA 1700020N01 gene	-4.08273	0.0001798	2.62403	0.00621813
A_51_P481777	Tcstv1	2-cell-stage, variable group, member 1	-4.07499	7.34E-09	9.76301	1.52E-13
A_52_P1156957	ACOT1	acyl-CoA thioesterase 1	-4.06892	1.72E-08	-2.10685	0.00028873
A_51_P147766	CPNE9	copine family member IX	-4.06794	1.67E-16	-3.51256	2.77E-15
A_52_P54280	ADCK3	aarF domain containing kinase 3	-4.06698	5.22E-09	1.7672	0.00226384
A_51_P337897	PRRC1	proline-rich coiled-coil 1	-4.06673	2.23E-15	-1.66532	4.21E-06
A_52_P298112	Neb1	nebulette	-4.06269	4.70E-06	-7.51193	7.53E-09
A_51_P348857	POU6F1	POU class 6 homeobox 1	-4.04561	6.10E-13	-1.77172	2.12E-05
A_52_P149017	RIMKLB	ribosomal modification protein rimK-like family member B	-4.00842	6.84E-13	-2.22726	8.78E-08
A_51_P499020	FBP2	fructose-1,6-bisphosphatase 2	-3.98074	1.24E-19	4.24097	3.75E-20
A_52_P418494	PRRC1	proline-rich coiled-coil 1	-3.96824	1.61E-20	-2.2839	9.74E-15
A_51_P112355	Igtp	interferon gamma induced GTPase	-3.96488	1.00E-13	2.68957	2.12E-10
A_52_P604735	FBXL2	F-box and leucine-rich repeat protein 2	-3.94475	0.0022056	-3.91915	0.00229811
A_51_P162481	Scml2	sex comb on midleg-like 2 (Drosophila)	-3.94219	0.000668	2.53171	0.0150254
A_51_P366811	APOD	apolipoprotein D	-3.93907	4.39E-10	2.05173	3.76E-05
A_51_P200599	TCP11X2	t-complex 11 family, X-linked 2	-3.93755	9.02E-06	1.94896	0.0135669
A_51_P418820	TFAP2C	transcription factor AP-2 gamma (activating enhancer bindir	-3.93588	1.71E-14	1.93898	1.39E-07
A_52_P244005	CD80	CD80 molecule	-3.93315	1.44E-07	11.6401	5.92E-13
A_51_P146149	NAPSA	napsin A aspartic peptidase	-3.92863	5.65E-18	-1.79829	3.29E-09
A_52_P423222	NFE2L3	nuclear factor, erythroid 2-like 3	-3.92559	1.74E-06	-10.5764	4.20E-11
A_52_P168575	Fam169b	family with sequence similarity 169, member B	-3.92333	7.90E-12	-1.51129	0.00217894
A_51_P296090	ACSF3	acyl-CoA synthetase family member 3	-3.91187	2.45E-14	-1.82509	8.79E-07
A_52_P181748	FLVCR1	feline leukemia virus subgroup C cellular receptor 1	-3.90994	4.69E-16	1.67136	8.85E-07
A_51_P352357	LDHAL6B	lactate dehydrogenase A-like 6B	-3.90068	1.67E-15	3.32326	3.81E-14
A_51_P161890	FCGRT	Fc fragment of IgG, receptor, transporter, alpha	-3.89831	6.09E-11	-3.19073	1.87E-09
A_51_P238165	SSTR2	somatostatin receptor 2	-3.88341	4.82E-10	-3.28139	7.46E-09
A_52_P413826			-3.86968	0.0004323	-3.38519	0.00123003
A_52_P220176	DKK3	dickkopf WNT signaling pathway inhibitor 3	-3.86419	1.07E-16	-2.56911	8.15E-13
A_51_P214747	PARP12	poly (ADP-ribose) polymerase family, member 12	-3.86209	4.74E-10	-1.55272	0.00526589
A_51_P143296	MYH8	myosin, heavy chain 8, skeletal muscle, perinatal	-3.8551	1.10E-12	2.30679	3.35E-08
A_51_P340653	SLC16A4	solute carrier family 16, member 4	-3.84764	8.93E-06	-11.9488	1.03E-10

A_51_P410576	CCDC113	coiled-coil domain containing 113	-3.84379	1.25E-10	3.48086	6.51E-10
A_51_P198511			-3.82765	0.0046028	-3.11674	0.0144216
A_51_P463562	GBP6	guanylate binding protein family, member 6	-3.82137	8.00E-08	-4.38186	1.25E-08
A_52_P552401			-3.81817	8.27E-07	18.0629	7.36E-14
A_52_P72007	Defb10/Defb11	defensin beta 11	-3.81297	0.0014952	-4.89462	0.00026086
A_51_P271930	C16orf95	chromosome 16 open reading frame 95	-3.80474	4.63E-08	2.64823	9.44E-06
A_51_P322273	PTP4A3	protein tyrosine phosphatase type IVA, member 3	-3.79833	1.94E-13	3.75983	2.33E-13
A_51_P402908			-3.79783	3.44E-10	2.64508	1.80E-07
A_51_P455157	MYBPC2	myosin binding protein C, fast type	-3.79475	1.08E-15	2.51061	8.75E-12
A_51_P389885	SPIC	Spi-C transcription factor (Spi-1/PU.1 related)	-3.79184	5.61E-13	-2.1668	6.76E-08
A_51_P111532	UBASH3A	ubiquitin associated and SH3 domain containing A	-3.78702	1.32E-10	-1.50257	0.00542832
A_51_P100063	LNK1	ligand of numb-protein X 1, E3 ubiquitin protein ligase	-3.78374	0.0031743	-3.24608	0.00799642
A_52_P122154			-3.78315	0.0089919	-3.73262	0.00962724
A_51_P521052	Ly6k	lymphocyte antigen 6 complex, locus K	-3.77977	1.74E-08	8.8633	3.31E-13
A_51_P268094	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activ	-3.77458	1.91E-06	12.2051	6.43E-12
A_52_P629112	PAK3	p21 protein (Cdc42/Rac)-activated kinase 3	-3.77045	2.12E-08	2.39214	2.31E-05
A_51_P519420	P2RX5	purinergic receptor P2X, ligand gated ion channel, 5	-3.77002	7.05E-11	2.64326	4.33E-08
A_51_P254656	HDC	histidine decarboxylase	-3.76498	9.70E-05	2.16745	0.0130866
A_52_P492189			-3.74866	3.31E-05	4.49334	5.23E-06
A_52_P408315	VWA3B	von Willebrand factor A domain containing 3B	-3.73242	1.49E-06	3.15005	1.24E-05
A_51_P307589	TDRD9	tudor domain containing 9	-3.73123	2.80E-07	4.01495	1.06E-07
A_51_P268069	SIX1	SIX homeobox 1	-3.72048	7.07E-14	-2.21987	5.36E-09
A_51_P232763	KCNQ10T1	KCNQ1 opposite strand/antisense transcript 1 (non-protein c	-3.71277	2.07E-06	-1.78643	0.0136064
A_51_P326769	GNAS	GNAS complex locus	-3.70876	2.03E-05	-4.21751	5.18E-06
A_52_P481988	DDR2	discoidin domain receptor tyrosine kinase 2	-3.70843	1.02E-05	2.005	0.00812837
A_51_P484842	ASGR2	asialoglycoprotein receptor 2	-3.70431	1.35E-14	2.0567	9.80E-09
A_52_P450934	PAQR9	progesterin and adipoQ receptor family member IX	-3.697	1.23E-10	2.16151	2.90E-06
A_51_P430929	FAM20A	family with sequence similarity 20, member A	-3.69527	1.28E-10	4.14414	1.96E-11
A_51_P514351	3830403N18Rik/Xlr	X-linked lymphocyte-regulated	-3.68716	6.18E-09	1.614	0.00545384
A_52_P150236	APOM	apolipoprotein M	-3.68624	1.31E-08	2.98249	3.51E-07
A_52_P372151	CTNNA1	catenin (cadherin-associated protein), alpha-like 1	-3.67743	1.41E-15	-2.69285	1.16E-12
A_52_P621588	IFNLR1	interferon, lambda receptor 1	-3.67733	2.12E-16	-1.52133	6.48E-06
A_51_P460279	SAXO1	stabilizer of axonemal microtubules 1	-3.6769	1.34E-05	-2.60391	0.00059304
A_52_P5855	EGFR	epidermal growth factor receptor	-3.66969	0.0071075	-3.17441	0.0154029
A_51_P501145	LEF1	lymphoid enhancer-binding factor 1	-3.66808	6.48E-13	-7.66217	8.16E-18
A_51_P474029	Rhox13	reproductive homeobox 13	-3.65921	6.01E-10	9.22793	1.94E-15
A_52_P569499	STAT3	signal transducer and activator of transcription 3 (acute-pha	-3.65026	0.0071454	-4.10241	0.00373027
A_51_P197596	AFAP1L2	actin filament associated protein 1-like 2	-3.64964	1.07E-12	8.61583	2.96E-18
A_51_P227353	CREG2	cellular repressor of E1A-stimulated genes 2	-3.6422	4.52E-15	-2.22877	3.40E-10
A_52_P361323	SPIC	Spi-C transcription factor (Spi-1/PU.1 related)	-3.63867	2.79E-15	-2.25744	1.56E-10
A_51_P125965	RYR3	ryanodine receptor 3	-3.62389	0.0003427	-3.87645	0.00019268
A_51_P420400	LEF1	lymphoid enhancer-binding factor 1	-3.60276	9.31E-10	-7.24596	4.25E-14
A_51_P227845	4930502E18Rik	RIKEN cDNA 4930502E18 gene	-3.58185	1.08E-11	-2.18575	2.46E-07
A_52_P300344	PM20D1	peptidase M20 domain containing 1	-3.57786	9.38E-12	7.09325	2.58E-16
A_52_P512274	DNAH2	dynein, axonemal, heavy chain 2	-3.56526	4.18E-11	2.83338	3.02E-09
A_51_P273596	SORD	sorbitol dehydrogenase	-3.56382	1.13E-14	5.97226	1.78E-18
A_52_P488501	GTSF1L	gametocyte specific factor 1-like	-3.5636	6.05E-18	-2.09517	4.34E-12
A_52_P66226	RAB33A	RAB33A, member RAS oncogene family	-3.53738	3.06E-12	-2.14664	1.18E-07
A_52_P271166	DAZ2	deleted in azoospermia 2	-3.53673	5.33E-11	1.86184	2.40E-05
A_52_P70888	Snhg11	small nucleolar RNA host gene 11	-3.53191	2.90E-10	-2.37972	4.42E-07
A_52_P204331	C9orf152	chromosome 9 open reading frame 152	-3.52916	2.37E-14	-4.7017	1.34E-16
A_52_P569276	MASP2	mannan-binding lectin serine peptidase 2	-3.52502	0.0011432	-3.14976	0.00264515
A_51_P409729	ZNF112	zinc finger protein 112	-3.5201	3.25E-05	4.48885	2.42E-06

A_51_P247168	CFAP43	cilia and flagella associated protein 43	-3.51555	2.55E-06	2.71139	6.97E-05
A_52_P77234	Usp17la (includes o	ubiquitin specific peptidase 17-like A	-3.51266	6.62E-05	13.7968	1.57E-10
A_51_P483241	CNPY1	canopy FGF signaling regulator 1	-3.51096	4.07E-10	-3.96241	5.45E-11
A_52_P611787	SLC47A1	solute carrier family 47 (multidrug and toxin extrusion), men	-3.50904	5.66E-15	-2.75067	1.09E-12
A_51_P420731	THY1	Thy-1 cell surface antigen	-3.50004	5.19E-13	-2.55597	3.73E-10
A_52_P510527	PIRT	phosphoinositide-interacting regulator of transient receptor	-3.49912	1.42E-06	-4.07307	2.00E-07
A_51_P514623	CD302	CD302 molecule	-3.49491	9.47E-17	1.61451	2.29E-07
A_51_P105124	P2RY6	pyrimidinergic receptor P2Y, G-protein coupled, 6	-3.49258	7.34E-10	17.5917	1.32E-18
A_51_P439645	1700001C19Rik	RIKEN cDNA 1700001C19 gene	-3.49007	0.0020373	3.08116	0.00481675
A_51_P463765	TIMP3	TIMP metalloproteinase inhibitor 3	-3.48711	3.51E-11	-2.13303	7.25E-07
A_51_P145220	Nefm	neurofilament, medium polypeptide	-3.48611	4.30E-08	3.30983	9.47E-08
A_52_P323797	IFNE	interferon, epsilon	-3.46849	0.0083579	-5.47938	0.00057754
A_51_P276787	1700018B24Rik	enhancer of rudimentary homolog pseudogene	-3.46512	5.74E-08	2.34096	2.71E-05
A_52_P88033	MYH7	myosin, heavy chain 7, cardiac muscle, beta	-3.46405	1.15E-09	12.2217	6.76E-17
A_52_P670263	TFPI	tissue factor pathway inhibitor (lipoprotein-associated coagu	-3.45678	2.03E-09	3.37731	2.99E-09
A_52_P141306	Ott (includes others	ovary testis transcribed	-3.44702	3.18E-07	5.41056	7.70E-10
A_51_P139184	FANK1	fibronectin type III and ankyrin repeat domains 1	-3.4439	1.60E-08	2.04825	9.84E-05
A_51_P262841	STAMBPL1	STAM binding protein-like 1	-3.44015	2.50E-05	-3.23544	4.96E-05
A_51_P407028	CA4	carbonic anhydrase IV	-3.43479	0.0013735	-3.76773	0.00068075
A_51_P510485	SFI1	SFI1 centrin binding protein	-3.4264	9.49E-12	1.62222	0.00016168
A_51_P384230	SGK2	serum/glucocorticoid regulated kinase 2	-3.42401	9.91E-16	-1.88817	4.41E-09
A_51_P194853	SEC14L4	SEC14-like lipid binding 4	-3.42361	7.54E-11	-1.83064	3.03E-05
A_52_P479249	THY1	Thy-1 cell surface antigen	-3.42285	1.95E-10	-2.46348	1.02E-07
A_51_P497768	GPAT2	glycerol-3-phosphate acyltransferase 2, mitochondrial	-3.42262	4.73E-15	1.83083	3.91E-08
A_51_P338664	HIST1H2BD	histone cluster 1, H2bd	-3.41477	1.88E-08	3.78162	3.85E-09
A_52_P101399	TMEM130	transmembrane protein 130	-3.40596	4.89E-13	2.3444	1.71E-09
A_51_P511927	SLC47A1	solute carrier family 47 (multidrug and toxin extrusion), men	-3.40424	8.33E-20	-2.49273	1.83E-16
A_51_P399305	TNFRSF19	tumor necrosis factor receptor superfamily, member 19	-3.40081	5.10E-09	-1.6563	0.00195688
A_51_P468073	GGT1	gamma-glutamyltransferase 1	-3.4	2.19E-10	-2.23844	7.34E-07
A_51_P173141	2410024N13Rik	RIKEN cDNA 2410024N13 gene	-3.39923	1.69E-06	2.13315	0.00085447
A_52_P312595			-3.3953	4.22E-09	-2.20513	9.00E-06
A_51_P380844	Pramel3 (includes c	preferentially expressed antigen in melanoma-like 3	-3.38572	1.44E-06	11.0652	1.48E-12
A_51_P431046	ST8SIA3	ST8 alpha-N-acetyl-neuraminidase alpha-2,8-sialyltransferase :	-3.38205	1.21E-07	-2.40367	2.36E-05
A_51_P384318	C1R	complement component 1, r subcomponent	-3.37695	4.73E-08	9.51836	6.27E-14
A_51_P220806	GDF9	growth differentiation factor 9	-3.3748	7.80E-10	-2.30423	9.89E-07
A_51_P183571	SERPINE1	serpin peptidase inhibitor, clade E (nexin, plasminogen activ	-3.36988	7.33E-13	1.64473	2.33E-05
A_51_P235687	ALOX5AP	arachidonate 5-lipoxygenase-activating protein	-3.36948	1.40E-11	-2.67648	1.39E-09
A_51_P452768	CYP4F12	cytochrome P450, family 4, subfamily F, polypeptide 12	-3.36915	0.0001414	10.5756	2.71E-09
A_51_P270904	PLEKHS1	pleckstrin homology domain containing, family S member 1	-3.36378	8.87E-08	2.79218	1.60E-06
A_52_P433450			-3.35818	9.25E-11	1.5593	0.00100027
A_52_P515247	ARHGDI3	Rho GDP dissociation inhibitor (GDI) beta	-3.356	9.79E-15	3.46065	5.23E-15
A_51_P334072	Cyct	cytochrome c, testis	-3.35524	1.60E-09	1.57604	0.0026674
A_51_P224493			-3.35001	0.0018173	-3.86527	0.0006225
A_51_P258901	PIFO	primary cilia formation	-3.34962	1.76E-05	-2.88189	0.00010179
A_51_P471659	Alox12e	arachidonate lipoxygenase, epidermal	-3.34803	8.72E-07	-3.65221	2.64E-07
A_51_P405912	LMCD1	LIM and cysteine-rich domains 1	-3.3441	9.83E-05	-2.0153	0.0136028
A_51_P282616	MAATS1	MYCBP-associated, testis expressed 1	-3.34122	3.67E-09	1.66171	0.00139788
A_51_P150653	Ptpv	protein tyrosine phosphatase, receptor type, V	-3.33895	2.41E-10	12.343	4.12E-18
A_51_P286798	MAGEL2	melanoma antigen family L2	-3.33852	2.80E-06	-1.72489	0.0133404
A_52_P607060	Neb1	nebulin	-3.3244	0.0002636	-3.27446	0.00030373
A_51_P293736	TSGA10IP	testis specific, 10 interacting protein	-3.32268	1.94E-12	-2.40191	2.09E-09
A_52_P100156	KRT12	keratin 12, type I	-3.31887	0.0077381	4.1024	0.00217037
A_52_P430194	SMOX	spermine oxidase	-3.31329	1.07E-06	3.02707	3.77E-06

A_52_P194531	Gm7972	predicted gene 7972	-3.31279	3.92E-13	1.98353	6.69E-08
A_51_P352076	ITGAE	integrin, alpha E (antigen CD103, human mucosal lymphocyt	-3.3111	7.15E-08	-2.01709	0.00022111
A_52_P214042	ZBTB46	zinc finger and BTB domain containing 46	-3.30891	2.31E-08	-1.92706	0.00023933
A_52_P192462	RIMS1	regulating synaptic membrane exocytosis 1	-3.30866	0.0008864	2.98225	0.0020596
A_51_P160536	CFAP161	cilia and flagella associated protein 161	-3.30489	2.32E-05	-4.22916	1.36E-06
A_52_P236813	UBE2W	ubiquitin-conjugating enzyme E2W (putative)	-3.29746	0.0001046	-2.37068	0.00288228
A_51_P478419	UNC45B	unc-45 myosin chaperone B	-3.29714	4.24E-09	7.5683	2.60E-14
A_51_P506328	CYP2J2	cytochrome P450, family 2, subfamily J, polypeptide 2	-3.29544	1.69E-07	2.64354	5.07E-06
A_52_P545010	SLC39A11	solute carrier family 39, member 11	-3.28994	1.08E-14	-2.93891	1.26E-13
A_51_P283766	PLXDC1	plexin domain containing 1	-3.28379	3.36E-14	-4.86986	2.36E-17
A_52_P625215	WFIKKN2	WAP, follistatin/kazal, immunoglobulin, kunitz and netrin do	-3.28363	0.0021335	3.69858	0.00088154
A_52_P259537	GCK	glucokinase (hexokinase 4)	-3.27946	7.49E-11	-4.47117	3.49E-13
A_51_P274461	Ott (includes others:ovary testis transcribed		-3.27758	3.62E-07	6.84892	2.07E-11
A_52_P654118	UTRN	utrophin	-3.27166	3.72E-06	-4.92545	2.08E-08
A_51_P514319	SLC13A4	solute carrier family 13 (sodium/sulfate symporter), membe	-3.26889	4.15E-14	-1.77346	2.60E-07
A_52_P117510	MYH6	myosin, heavy chain 6, cardiac muscle, alpha	-3.26314	0.0003563	3.51114	0.00018065
A_51_P420489	ACOT1	acyl-CoA thioesterase 1	-3.26272	1.57E-12	-1.56936	9.15E-05
A_51_P280117	PADI2	peptidyl arginine deiminase, type II	-3.25159	8.87E-07	-2.15951	0.00032654
A_51_P222467	ABCG1	ATP-binding cassette, sub-family G (WHITE), member 1	-3.23109	9.43E-12	1.53684	0.00035578
A_52_P399204	AMDHD1	amidohydrolase domain containing 1	-3.22966	0.0037522	-2.60923	0.0151941
A_52_P66524	CCDC63	coiled-coil domain containing 63	-3.22532	3.84E-05	1.95226	0.00941305
A_52_P883821	A730011C13Rik	RIKEN cDNA A730011C13 gene	-3.2226	0.0050527	-3.7516	0.00185187
A_52_P435561	PRR15L	proline rich 15-like	-3.22171	1.74E-07	5.9547	3.21E-11
A_52_P639452	MMS19	MMS19 homolog, cytosolic iron-sulfur assembly component	-3.21966	0.0016351	-2.88691	0.00376011
A_51_P114616	BATF	basic leucine zipper transcription factor, ATF-like	-3.21942	1.73E-08	1.69012	0.00158725
A_52_P577819	ST6GALNAC2	ST6 (alpha-N-acetyl-neuraminyl-2,3-beta-galactosyl-1,3)-N-a	-3.20575	8.22E-05	-2.71589	0.00048406
A_52_P198473	PCGF5	polycomb group ring finger 5	-3.20574	0.0003241	-2.33989	0.00576544
A_52_P154741	Lgals6	lectin, galactose binding, soluble 6	-3.19379	3.11E-08	3.76306	2.25E-09
A_52_P646858	CA12	carbonic anhydrase XII	-3.1917	0.001402	7.02798	2.06E-06
A_51_P318755	TMC5	transmembrane channel-like 5	-3.18155	4.14E-09	-2.45439	4.86E-07
A_52_P616544	Ptprv	protein tyrosine phosphatase, receptor type, V	-3.18068	5.97E-05	14.6745	1.24E-11
A_51_P378051	AOC3	amine oxidase, copper containing 3	-3.1792	4.34E-07	-17.6598	8.91E-16
A_52_P557360	MTUS2	microtubule associated tumor suppressor candidate 2	-3.17344	7.10E-05	1.92851	0.0131487
A_51_P485400	GTSF1	gametocyte specific factor 1	-3.17103	1.48E-08	1.87613	0.00019589
A_51_P494751	MAEL	maelstrom spermatogenic transposon silencer	-3.17028	4.77E-14	1.62001	3.24E-06
A_51_P228971	Slc5a4b	solute carrier family 5 (neutral amino acid transporters, syst	-3.17024	7.42E-10	-1.76184	0.00011917
A_51_P188126	GCA	grancalcin, EF-hand calcium binding protein	-3.1672	1.45E-11	2.40461	5.21E-09
A_51_P313320	CD6	CD6 molecule	-3.16321	1.06E-09	-2.7696	1.28E-08
A_52_P407946			-3.16202	2.97E-05	-2.92618	7.42E-05
A_52_P334562	VDR	vitamin D (1,25- dihydroxyvitamin D3) receptor	-3.15669	0.0040667	5.50619	7.33E-05
A_51_P450406	Muc3	mucin 3, intestinal	-3.1523	1.51E-08	5.51901	2.84E-12
A_52_P247185	Masp1	mannan-binding lectin serine peptidase 1	-3.1516	3.69E-05	3.56534	8.76E-06
A_51_P186476	SLC11A1	solute carrier family 11 (proton-coupled divalent metal ion t	-3.14782	4.27E-13	-2.61244	2.67E-11
A_51_P420276	PLXDC2	plexin domain containing 2	-3.14723	1.31E-11	6.77669	4.50E-17
A_51_P471619	ACTL7B	actin-like 7B	-3.14377	5.22E-06	2.18382	0.00066641
A_51_P449325	HLA-DOA	major histocompatibility complex, class II, DO alpha	-3.12804	5.25E-09	-1.89886	7.14E-05
A_51_P408172	Col6a4	collagen, type VI, alpha 4	-3.12245	3.24E-14	7.26465	1.88E-20
A_51_P454873	NPY	neuropeptide Y	-3.11777	1.38E-06	-2.63599	1.59E-05
A_52_P229278	LIMCH1	LIM and calponin homology domains 1	-3.11583	7.18E-06	10.9486	3.50E-12
A_52_P175757			-3.11441	5.37E-05	2.02769	0.0061869
A_52_P586679	SIX1	SIX homeobox 1	-3.11149	6.01E-12	-2.36159	2.66E-09
A_51_P113322	Nlrp4a	NLR family, pyrin domain containing 4A	-3.10847	2.43E-06	-4.07733	5.93E-08
A_52_P85040	MOG	myelin oligodendrocyte glycoprotein	-3.10773	0.0016959	-3.80486	0.00032856

A_51_P165304	9630041G16Rik	RIKEN cDNA 9630041G16 gene	-3.10732	0.000592	3.51747	0.00018956
A_51_P402909	NCF2	neutrophil cytosolic factor 2	-3.1069	1.41E-11	3.18904	8.34E-12
A_51_P185593	SYNM	synemin, intermediate filament protein	-3.09703	2.92E-06	13.7542	8.64E-14
A_51_P490286	Cngb1	cyclic nucleotide gated channel beta 1	-3.09564	2.06E-08	-1.94188	9.87E-05
A_52_P220783	TMEM229B	transmembrane protein 229B	-3.09396	3.69E-14	1.57613	4.91E-06
A_51_P335051	BHMT	betaine--homocysteine S-methyltransferase	-3.08779	2.78E-06	2.01453	0.00111925
A_51_P124315	HMCN2	hemicentin 2	-3.08417	2.05E-08	5.2702	4.96E-12
A_51_P463536	MEOX1	mesenchyme homeobox 1	-3.06406	0.0003137	-10.832	1.71E-09
A_52_P543869	SHPK	sedoheptulokinase	-3.05393	0.0080781	14.2909	2.23E-07
A_52_P237871	EZH1	enhancer of zeste 1 polycomb repressive complex 2 subunit	-3.05346	1.19E-09	-1.7235	0.00016863
A_51_P202801	ABCB9	ATP-binding cassette, sub-family B (MDR/TAP), member 9	-3.05232	2.33E-12	-1.62516	1.98E-05
A_51_P322658	Plcx1	phosphatidylinositol-specific phospholipase C, X domain con	-3.05185	1.73E-09	2.24739	7.32E-07
A_51_P414889	IFI35	interferon-induced protein 35	-3.04426	4.54E-13	-1.71035	1.47E-06
A_51_P338072	MYH4	myosin, heavy chain 4, skeletal muscle	-3.04134	3.90E-07	2.40761	1.62E-05
A_52_P631189	VPS13A	vacuolar protein sorting 13 homolog A (S. cerevisiae)	-3.03958	2.40E-07	-6.5076	4.97E-12
A_51_P249930	TCEAL1	transcription elongation factor A (SII)-like 1	-3.02916	1.10E-07	1.59715	0.00583948
A_51_P448664	TBXAS1	thromboxane A synthase 1 (platelet)	-3.02823	0.0001955	-3.0028	0.00021349
A_52_P310548	Nlrp4a	NLR family, pyrin domain containing 4A	-3.01613	1.63E-07	-2.89071	3.26E-07
A_52_P955235			-3.01537	3.73E-06	-1.8482	0.00347095
A_52_P90805	LRRC15	leucine rich repeat containing 15	-3.01376	9.84E-08	2.34688	7.16E-06
A_51_P465449	MYBPC3	myosin binding protein C, cardiac	-2.99871	1.51E-09	-2.92789	2.39E-09
A_51_P220422	PACSN1	protein kinase C and casein kinase substrate in neurons 1	-2.99307	5.61E-11	-1.81972	5.47E-06
A_51_P244127	TKTL1	transketolase-like 1	-2.99103	0.0089746	5.84943	0.00010083
A_51_P480311	F2	coagulation factor II (thrombin)	-2.98747	1.86E-12	-1.59576	2.25E-05
A_52_P65408	CTNNA1	catenin (cadherin-associated protein), alpha-like 1	-2.98531	1.12E-07	-2.98385	1.13E-07
A_52_P274084	C330024D21Rik	RIKEN cDNA C330024D21 gene	-2.96046	7.13E-06	2.14258	0.0006114
A_52_P99848	PIK3CD	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic sul	-2.95761	8.72E-11	-4.11599	1.81E-13
A_51_P289058	Cryge/Crygf	crystallin, gamma F	-2.94983	1.14E-11	5.26491	3.27E-16
A_51_P278893	HDAC5	histone deacetylase 5	-2.94364	1.39E-12	-1.64775	5.89E-06
A_51_P148828	FGF1	fibroblast growth factor 1 (acidic)	-2.94352	0.0082926	2.79363	0.0115343
A_51_P487404	MYBPC1	myosin binding protein C, slow type	-2.94344	9.95E-05	2.19785	0.00260022
A_51_P385849	CYP4F22	cytochrome P450, family 4, subfamily F, polypeptide 22	-2.9321	0.0002602	5.7192	2.35E-07
A_51_P118012	PRKCA	protein kinase C, alpha	-2.93117	3.65E-05	-2.08574	0.002326
A_52_P549827	MGST1	microsomal glutathione S-transferase 1	-2.92895	1.55E-07	-2.46642	2.94E-06
A_52_P577084	SRD5A1	steroid-5-alpha-reductase, alpha polypeptide 1 (3-oxo-5 alp	-2.92192	6.40E-09	-3.80058	6.14E-11
A_51_P481768	Tcstv1	2-cell-stage, variable group, member 1	-2.9217	0.0004253	7.82283	2.38E-08
A_52_P1163607	4930433E05Rik	RIKEN cDNA 4930433E05 gene	-2.91841	0.0055005	-3.51969	0.00144025
A_51_P457196	SFRP4	secreted frizzled-related protein 4	-2.91813	4.36E-13	-1.79899	1.56E-07
A_51_P218345	PAK3	p21 protein (Cdc42/Rac)-activated kinase 3	-2.91478	4.74E-05	3.13233	1.96E-05
A_52_P220824	D030068K23Rik	RIKEN cDNA D030068K23 gene	-2.91029	3.53E-05	-3.08366	1.70E-05
A_51_P119387	TM4SF5	transmembrane 4 L six family member 5	-2.91013	2.84E-12	-3.09683	7.48E-13
A_52_P407198	A430060F13Rik	RIKEN cDNA A430060F13 gene	-2.90099	7.36E-05	9.11711	2.17E-10
A_52_P569324	ACSS1	acyl-CoA synthetase short-chain family member 1	-2.89866	0.0001703	-2.90837	0.00016414
A_51_P508919	TAS1R1	taste receptor, type 1, member 1	-2.89781	1.88E-11	4.51643	4.37E-15
A_51_P364592	ZIC2	Zic family member 2	-2.89418	2.01E-07	-4.42917	2.52E-10
A_51_P495825	APOF	apolipoprotein F	-2.88401	3.44E-10	-4.34982	1.86E-13
A_51_P182106	UNC5CL	unc-5 family C-terminal like	-2.8811	1.58E-10	-2.10078	1.88E-07
A_51_P403705	2610100L16Rik	RIKEN cDNA 2610100L16 gene	-2.87829	7.91E-06	-3.21641	1.67E-06
A_52_P413034	ITGA7	integrin, alpha 7	-2.87401	0.0003901	-2.42781	0.00212835
A_52_P281186	MEP1B	mepripin A, beta	-2.8726	7.11E-06	-1.74705	0.00705702
A_51_P332136	ZMAT5	zinc finger, matrin-type 5	-2.87129	3.90E-12	-1.51652	9.56E-05
A_52_P215798	TEX12	testis expressed 12	-2.86972	4.42E-05	2.43703	0.00033799
A_52_P586928	PDYN	prodynorphin	-2.86841	5.61E-09	-2.15351	1.81E-06

A_52_P326713	CCL25	chemokine (C-C motif) ligand 25	-2.86735	1.14E-06	-3.41365	7.77E-08
A_51_P108020	ZMYND15	zinc finger, MYND-type containing 15	-2.86505	6.53E-09	1.81271	7.69E-05
A_51_P249274	1300017J02Rik	RIKEN cDNA 1300017J02 gene	-2.8647	3.18E-06	2.0488	0.00048114
A_52_P432969	PCDH19	protocadherin 19	-2.86364	9.41E-11	1.61636	9.01E-05
A_52_P1052029			-2.86061	0.0018978	-2.74168	0.00270922
A_51_P305770	EMILIN2	elastin microfibril interfacier 2	-2.85262	1.97E-11	3.05481	4.61E-12
A_52_P6070	EVA1C	eva-1 homolog C (C. elegans)	-2.84867	0.0059237	10.2207	3.57E-07
A_52_P386544	Rpl39l	ribosomal protein L39-like	-2.84593	1.25E-10	2.13811	8.19E-08
A_51_P210510	SPARCL1	SPARC-like 1 (hevin)	-2.83872	0.0001601	2.93087	0.00011139
A_51_P442894	Aldh3b2	aldehyde dehydrogenase 3 family, member B2	-2.83733	2.36E-05	-1.94378	0.00320614
A_52_P779182	Gm4349	SET domain, bifurcated 1 pseudogene	-2.83576	4.41E-09	-3.3479	1.97E-10
A_52_P544052	BAZ2B	bromodomain adjacent to zinc finger domain, 2B	-2.83356	9.50E-08	-1.64208	0.00209013
A_52_P614517	RHOBTB1	Rho-related BTB domain containing 1	-2.83053	6.87E-09	-1.82797	5.73E-05
A_51_P335491	SGCA	sarcoglycan, alpha (50kDa dystrophin-associated glycoprote	-2.82128	8.40E-06	2.66744	1.87E-05
A_52_P643674	EDARADD	EDAR-associated death domain	-2.80875	8.80E-05	8.75981	2.25E-10
A_52_P10793	PTN	pleiotrophin	-2.80565	1.97E-05	-2.03796	0.00143161
A_51_P172502	CXCL12	chemokine (C-X-C motif) ligand 12	-2.80351	0.0067726	-5.44155	4.72E-05
A_51_P114917	DOCK2	dedicator of cytokinesis 2	-2.8	0.0009755	-5.0562	3.16E-06
A_52_P508962	KCNAB2	potassium channel, voltage gated subfamily A regulatory be	-2.79979	5.29E-05	1.92596	0.00518099
A_52_P148069	CAP2	CAP, adenylate cyclase-associated protein, 2 (yeast)	-2.79003	0.0014885	-2.76834	0.00159593
A_51_P153581	Dmrtc1c1/Dmrtc1c	DMRT-like family C1c2	-2.78515	2.10E-12	10.4296	1.27E-21
A_52_P235880	Gm5134	predicted gene 5134	-2.77504	0.0018285	-2.79421	0.00172178
A_51_P363947	CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	-2.77443	1.35E-11	8.2224	1.74E-19
A_52_P29151	ANKRD44	ankyrin repeat domain 44	-2.77355	7.07E-09	-1.56881	0.00121582
A_51_P355906	KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene hom	-2.77246	7.98E-10	-2.50707	6.76E-09
A_51_P202714	CTNNA1	catenin (cadherin-associated protein), alpha-like 1	-2.76266	4.43E-10	-2.7574	4.61E-10
A_52_P778581	1700043A12Rik	RIKEN cDNA 1700043A12 gene	-2.76248	0.0006717	-3.21196	0.00014589
A_51_P337883	TRPT1	tRNA phosphotransferase 1	-2.76148	0.0047733	-3.85331	0.00034722
A_51_P500981	MAP7	microtubule-associated protein 7	-2.76055	2.07E-12	-1.91587	2.98E-08
A_52_P193555	TP73	tumor protein p73	-2.75875	9.87E-07	17.1267	1.42E-16
A_51_P324450	Pbp2	phosphatidylethanolamine binding protein 2	-2.75838	0.0005234	2.10048	0.00780696
A_51_P450752	PLA2G4B	phospholipase A2, group IVB (cytosolic)	-2.75743	9.51E-10	2.85691	4.59E-10
A_52_P258116	WNT3	wingless-type MMTV integration site family, member 3	-2.7571	0.005453	45.948	5.29E-12
A_52_P629748	Notumos	notum pectinacetyltransferase homolog (Drosophila), opposite	-2.75212	2.68E-13	-5.01072	2.05E-18
A_51_P340987	GARNL3	GTPase activating Rap/RanGAP domain-like 3	-2.74828	1.51E-14	-2.73081	1.76E-14
A_51_P342031	MKRN3	makorin ring finger protein 3	-2.7426	3.12E-09	1.70001	0.0001192
A_51_P440238	GGT6	gamma-glutamyltransferase 6	-2.73991	2.51E-11	2.54861	1.32E-10
A_51_P161265	CCL25	chemokine (C-C motif) ligand 25	-2.73964	1.25E-06	-3.36034	4.82E-08
A_51_P448479	SLC10A4	solute carrier family 10, member 4	-2.73872	0.001525	2.52289	0.00318354
A_51_P503247	IQCF5	IQ motif containing F5	-2.73391	1.15E-07	-1.66023	0.00137395
A_52_P271859	FIGNL1	fidgetin-like 1	-2.73126	0.0041332	-2.88083	0.00271684
A_52_P541118	Snhg11	small nucleolar RNA host gene 11	-2.7218	3.49E-06	-1.98023	0.00050552
A_51_P502580	TRIM16	tripartite motif containing 16	-2.71983	2.13E-12	-1.9343	1.73E-08
A_52_P232763	MAP7	microtubule-associated protein 7	-2.71911	1.33E-12	-2.36209	4.37E-11
A_52_P53144	GCNT3	glucosaminyl (N-acetyl) transferase 3, mucin type	-2.71119	0.0015581	-2.13012	0.0128745
A_52_P109548	MAP7	microtubule-associated protein 7	-2.70969	5.89E-09	-1.87674	1.62E-05
A_52_P292937	SLC4A8	solute carrier family 4, sodium bicarbonate cotransporter, m	-2.70882	1.71E-08	4.96479	5.25E-13
A_52_P93910	NRP2	neuropilin 2	-2.70432	5.89E-08	-2.93284	1.31E-08
A_52_P666268	Rbfox3	RNA binding protein, fox-1 homolog (C. elegans) 3	-2.70285	5.74E-05	-1.93059	0.00404216
A_51_P500643	CREB3L2	cAMP responsive element binding protein 3-like 2	-2.70225	1.94E-10	-4.31872	2.33E-14
A_51_P265219	PPM1K	protein phosphatase, Mg2+/Mn2+ dependent, 1K	-2.69922	2.03E-05	-4.40342	2.57E-08
A_51_P387528	AK7	adenylate kinase 7	-2.69652	1.63E-13	-2.41764	2.62E-12
A_52_P360308	OSBPL3	oxysterol binding protein-like 3	-2.69625	2.34E-05	-2.06312	0.00094213

A_52_P391151	ASIC2	acid sensing (proton gated) ion channel 2	-2.69565	0.0002392	-7.93804	1.52E-09
A_51_P298259	Gm6551 (includes c	predicted gene 6551	-2.69267	7.34E-12	-4.42009	3.63E-16
A_52_P602147	MYH4	myosin, heavy chain 4, skeletal muscle	-2.69202	3.47E-09	2.38208	4.61E-08
A_52_P572765	DTNA	dystrobrevin, alpha	-2.68873	0.0062628	-2.90747	0.0034953
A_52_P345417	BCL2L10	BCL2-like 10 (apoptosis facilitator)	-2.68777	0.0002135	7.5592	1.91E-09
A_52_P305539	KNG1	kininogen 1	-2.68619	0.0001655	-2.72648	0.0001385
A_52_P125485	Slc25a48	solute carrier family 25, member 48	-2.6858	0.0021556	-2.78856	0.00154595
A_51_P349988	Ggta1	glycoprotein galactosyltransferase alpha 1, 3	-2.68154	1.66E-16	1.69091	5.45E-10
A_52_P556134	IARS2	isoleucyl-tRNA synthetase 2, mitochondrial	-2.67988	2.24E-05	-5.21648	2.98E-09
A_52_P344949	GBP6	guanylate binding protein family, member 6	-2.67913	5.98E-05	-2.80157	3.33E-05
A_51_P123745	SPNS2	spinster homolog 2 (Drosophila)	-2.6739	9.32E-09	3.35758	1.19E-10
A_51_P281778	IGSF23	immunoglobulin superfamily, member 23	-2.6738	5.75E-08	-2.51566	1.85E-07
A_51_P152765	STAT5A	signal transducer and activator of transcription 5A	-2.66594	1.04E-07	2.69285	8.64E-08
A_52_P257502	IGFBP4	insulin-like growth factor binding protein 4	-2.66482	0.0022726	-8.51124	5.45E-08
A_51_P487389	DRC3	dynein regulatory complex subunit 3	-2.65718	1.00E-05	-5.91342	1.61E-10
A_52_P996384			-2.64563	0.0015798	-2.41479	0.0036655
A_51_P108266	ACTN2	actinin, alpha 2	-2.64526	0.0001095	2.4897	0.00023436
A_51_P245631	RFTN2	raftlin family member 2	-2.64093	0.002537	-2.48686	0.00426716
A_51_P128973	APOA2	apolipoprotein A-II	-2.64078	0.0018888	-2.43053	0.00398931
A_51_P287810	MGST1	microsomal glutathione S-transferase 1	-2.63872	6.40E-08	-2.55872	1.16E-07
A_52_P369761	Nrg1	neuregulin 1	-2.6377	8.92E-12	-2.68949	5.64E-12
A_52_P362161	RAB3B	RAB3B, member RAS oncogene family	-2.63037	1.83E-07	-1.53747	0.00490342
A_52_P380114	CEP112	centrosomal protein 112kDa	-2.62791	0.0022082	-5.78536	1.32E-06
A_51_P383524	ART3	ADP-ribosyltransferase 3	-2.62704	1.90E-06	33.2941	4.60E-19
A_51_P343954	PRRG4	proline rich Gla (G-carboxyglutamic acid) 4 (transmembrane	-2.6263	0.0003345	4.90866	2.62E-07
A_52_P330245	MYO3B	myosin IIIB	-2.62388	0.0001514	-2.67362	0.00012011
A_51_P497100	LGALS4	lectin, galactoside-binding, soluble, 4	-2.62142	5.01E-09	2.31149	7.51E-08
A_51_P380750	CBFA2T3	core-binding factor, runt domain, alpha subunit 2; translocat	-2.61593	6.58E-05	2.0202	0.00191351
A_51_P232393	MYO5C	myosin VC	-2.61298	7.78E-10	-2.20842	3.72E-08
A_51_P143162	MYH7	myosin, heavy chain 7, cardiac muscle, beta	-2.61288	8.98E-07	11.6547	1.25E-15
A_52_P393314	P2RX7	purinergic receptor P2X, ligand gated ion channel, 7	-2.6127	7.23E-06	6.31532	2.98E-11
A_51_P517215	GRB14	growth factor receptor-bound protein 14	-2.60912	1.17E-11	-1.50277	6.94E-05
A_52_P1169238	Gm364	predicted gene 364	-2.60848	0.0010055	5.11073	9.42E-07
A_52_P353417	GM2A	GM2 ganglioside activator	-2.60342	6.98E-07	-3.3485	9.52E-09
A_51_P103298	ZKSCAN2	zinc finger with KRAB and SCAN domains 2	-2.59825	8.84E-06	1.88612	0.00121099
A_51_P437068	CNNM1	cyclin and CBS domain divalent metal cation transport medi	-2.59757	5.45E-06	-1.65938	0.00606297
A_51_P234847	C5orf49	chromosome 5 open reading frame 49	-2.59728	9.04E-06	-1.76499	0.00323231
A_51_P267751	Hrc	histidine rich calcium binding protein	-2.58912	0.0002964	-3.52685	7.65E-06
A_51_P149373	FBXL20	F-box and leucine-rich repeat protein 20	-2.58407	6.59E-07	2.71756	2.70E-07
A_52_P515495	SEMA4D	sema domain, immunoglobulin domain (Ig), transmembrane	-2.58393	2.29E-05	-1.69284	0.00890134
A_51_P141413	CLEC10A	C-type lectin domain family 10, member A	-2.58331	0.000208	17.6745	2.68E-13
A_51_P106294	GCK	glucokinase (hexokinase 4)	-2.57402	8.85E-07	-3.24533	1.66E-08
A_51_P461191	GOT1L1	glutamic-oxaloacetic transaminase 1-like 1	-2.56989	3.33E-09	1.85068	6.71E-06
A_51_P190106	RALGPS2	Ral GEF with PH domain and SH3 binding motif 2	-2.56797	3.31E-10	-2.71525	9.47E-11
A_51_P400217	VPREB1	pre-B lymphocyte 1	-2.56646	1.96E-07	3.99587	8.49E-11
A_52_P437488	CCDC172	coiled-coil domain containing 172	-2.56461	0.0011606	2.3408	0.0028758
A_51_P493771	C18orf25	chromosome 18 open reading frame 25	-2.56187	0.0001133	2.24028	0.0006353
A_52_P262462	ANKRD34A	ankyrin repeat domain 34A	-2.56137	0.00124	-7.31332	2.81E-08
A_52_P598885	SLC16A4	solute carrier family 16, member 4	-2.56031	7.20E-08	-2.62129	4.54E-08
A_51_P442032	CASK	calcium/calmodulin-dependent serine protein kinase (MAGL	-2.56016	2.42E-05	-5.79074	3.43E-10
A_52_P416072	EPHX1	epoxide hydrolase 1, microsomal (xenobiotic)	-2.55922	1.54E-12	6.72017	2.34E-20
A_52_P424970	ITGAL	integrin, alpha L (antigen CD11A (p180), lymphocyte functio	-2.55866	1.55E-07	1.66947	0.00075203
A_51_P441426	PF4	platelet factor 4	-2.55668	5.76E-07	5.94196	9.85E-13

A_52_P1036159	Tip3	transcribed intergenic polycomb 3	-2.55635	0.0001807	19.7648	6.03E-14
A_51_P415395	C2CD4B	C2 calcium-dependent domain containing 4B	-2.55243	9.39E-08	1.89579	4.02E-05
A_51_P161786	SARM1	sterile alpha and TIR motif containing 1	-2.55009	6.90E-07	1.59596	0.00359674
A_51_P248629	ARHGAP25	Rho GTPase activating protein 25	-2.54866	0.0023561	2.67391	0.00151227
A_51_P294610			-2.54512	0.0045465	-5.07178	1.03E-05
A_51_P349546	CD109	CD109 molecule	-2.54142	6.64E-07	6.12964	6.85E-13
A_52_P666855	KSR1	kinase suppressor of ras 1	-2.53973	2.11E-08	-3.27822	1.42E-10
A_52_P12707	PKD1L3	polycystic kidney disease 1-like 3	-2.53799	7.60E-05	-1.69739	0.0136875
A_51_P231946	1700029P11Rik	RIKEN cDNA 1700029P11 gene	-2.53596	2.49E-14	3.81504	2.26E-18
A_52_P510821	CNPY1	canopy FGF signaling regulator 1	-2.53582	1.85E-13	-1.90537	7.91E-10
A_51_P248999	TULP4	tubby like protein 4	-2.53474	1.39E-12	1.70657	1.62E-07
A_52_P346256	PTCD3	pentatricopeptide repeat domain 3	-2.53397	2.78E-07	-2.72153	7.29E-08
A_52_P367147	Dgkeos	diacylglycerol kinase, epsilon, opposite strand	-2.53189	4.31E-06	-2.41116	9.71E-06
A_51_P151214	C8B	complement component 8, beta polypeptide	-2.52524	0.0001504	2.6262	9.08E-05
A_52_P679860	HERC6	HECT and RLD domain containing E3 ubiquitin protein ligase	-2.5235	0.0001122	-2.75089	3.58E-05
A_52_P601446	TRIM27	tripartite motif containing 27	-2.51796	1.53E-09	1.66964	3.85E-05
A_52_P604130	CDC37L1	cell division cycle 37-like 1	-2.51127	1.20E-09	-4.91757	3.46E-15
A_51_P445677	HHAT	hedgehog acyltransferase	-2.51121	0.0011074	-2.00903	0.0102177
A_51_P112627	ST6GALNAC2	ST6 (alpha-N-acetyl-neuraminy-2,3-beta-galactosyl-1,3)-N-a	-2.5102	1.02E-10	-1.6924	4.09E-06
A_52_P543079	DHTKD1	dehydrogenase E1 and transketolase domain containing 1	-2.5013	0.000103	-1.89064	0.00396286
A_51_P261991	BDNF	brain-derived neurotrophic factor	-2.4986	2.51E-07	2.11935	6.46E-06
A_51_P268563	ENG	endoglin	-2.49796	4.82E-11	3.79645	6.18E-15
A_51_P257982	USP29	ubiquitin specific peptidase 29	-2.49697	0.0003907	2.24738	0.00133526
A_51_P353934	NKX2-4	NK2 homeobox 4	-2.49582	4.36E-08	-3.79782	1.60E-11
A_52_P547273	DOCK4	dedicator of cytokinesis 4	-2.49499	0.0013381	-2.57795	0.00095763
A_52_P167382	TMEM8A	transmembrane protein 8A	-2.4947	9.02E-14	-3.57697	2.03E-17
A_51_P487048	Rhox6/Rhox9	reproductive homeobox 9	-2.49159	3.42E-07	4.48623	1.39E-11
A_51_P130727	FKBP11	FK506 binding protein 11, 19 kDa	-2.49069	0.000273	-8.00871	3.05E-10
A_51_P515026	MDFIC	MyoD family inhibitor domain containing	-2.48825	8.60E-09	2.12295	3.09E-07
A_51_P315785	TNFAIP6	tumor necrosis factor, alpha-induced protein 6	-2.48588	0.0004271	10.9342	3.31E-11
A_51_P271107	MCF2	MCF.2 cell line derived transforming sequence	-2.48162	1.38E-06	-3.23802	1.35E-08
A_52_P369769	Nrg1	neuregulin 1	-2.47771	6.93E-12	-2.8383	2.57E-13
A_52_P164797	LCT	lactase	-2.47745	8.58E-05	9.74715	3.94E-12
A_51_P461779	PPP2R2C	protein phosphatase 2, regulatory subunit B, gamma	-2.4769	2.36E-12	4.52366	7.04E-18
A_52_P660100	BCL2L14	BCL2-like 14 (apoptosis facilitator)	-2.47544	1.40E-09	-2.15521	3.82E-08
A_52_P375312	AMICA1	adhesion molecule, interacts with CXADR antigen 1	-2.47508	0.0003215	4.6324	1.54E-07
A_52_P308843	SKIDA1	SKI/DACH domain containing 1	-2.47191	1.00E-07	1.63913	0.00058378
A_51_P137991	WNT5B	wingless-type MMTV integration site family, member 5B	-2.47161	8.85E-08	-3.80211	2.90E-11
A_52_P216436	COL2A1	collagen, type II, alpha 1	-2.47065	0.001691	3.52159	4.37E-05
A_51_P419226	S100A14	S100 calcium binding protein A14	-2.46713	0.00024	5.60785	9.50E-09
A_51_P448632	TMEM116	transmembrane protein 116	-2.46633	0.0003643	-2.68684	0.00012872
A_52_P363013	Lrrc31	leucine rich repeat containing 31	-2.46394	4.99E-07	-1.59738	0.00221093
A_51_P476538	Inafm2	InaF motif containing 2	-2.46166	1.49E-10	2.26197	1.23E-09
A_51_P291417	THBD	thrombomodulin	-2.46014	6.77E-05	-1.77647	0.00585331
A_52_P187677			-2.45951	1.69E-11	5.21354	5.07E-18
A_51_P487791	ADRB2	adrenoceptor beta 2, surface	-2.45857	5.43E-05	20.6818	1.27E-15
A_51_P412468	SLC4A11	solute carrier family 4, sodium borate transporter, member	-2.45653	7.76E-07	4.6685	1.59E-11
A_51_P279437	MFS2A	major facilitator superfamily domain containing 2A	-2.45046	8.11E-10	-2.98532	1.00E-11
A_52_P277205	ADAM23	ADAM metallopeptidase domain 23	-2.44806	1.03E-06	-5.45131	2.34E-12
A_51_P381178	ZBTB46	zinc finger and BTB domain containing 46	-2.44795	4.63E-06	-10.9881	5.14E-15
A_52_P578359	PLD1	phospholipase D1, phosphatidylcholine-specific	-2.43603	1.26E-06	1.55706	0.00492213
A_52_P338349	C230035116Rik	RIKEN cDNA C230035116 gene	-2.43549	0.0011583	-4.9434	4.88E-07
A_52_P460957	CREM	cAMP responsive element modulator	-2.43541	4.23E-10	-1.57465	5.27E-05

A_52_P343402	Slc5a4b	solute carrier family 5 (neutral amino acid transporters, syst	-2.43429	1.35E-06	-1.64536	0.00192815
A_51_P293278	Tcte2	t-complex-associated testis expressed 2	-2.43326	0.0069849	-3.36122	0.00045634
A_52_P590661	EEF2K	eukaryotic elongation factor 2 kinase	-2.43238	5.81E-08	-6.32699	4.86E-15
A_51_P457187	TNFRSF13C	tumor necrosis factor receptor superfamily, member 13C	-2.43046	1.88E-05	1.6044	0.0106445
A_51_P180307	GEMIN8	gem (nuclear organelle) associated protein 8	-2.43029	1.81E-07	-1.79529	0.00010042
A_52_P559557	BC026585	cDNA sequence BC026585	-2.4278	3.55E-08	2.46449	2.58E-08
A_52_P225370	2610201A13Rik	RIKEN cDNA 2610201A13 gene	-2.42673	4.15E-08	-2.29818	1.34E-07
A_52_P12840	MAB21L3	mab-21-like 3 (C. elegans)	-2.42502	5.85E-10	4.03772	1.53E-14
A_52_P512575	HOPX	HOP homeobox	-2.4238	5.66E-11	-4.74994	6.08E-17
A_52_P429364	Ccdc69	coiled-coil domain containing 69	-2.42263	0.0004086	-6.35684	4.06E-09
A_51_P511707	NTPCR	nucleoside-triphosphatase, cancer-related	-2.42021	3.11E-11	-1.68892	9.67E-07
A_51_P382214	RAB17	RAB17, member RAS oncogene family	-2.41911	0.0066665	3.22505	0.00057244
A_52_P194382	FANK1	fibronectin type III and ankyrin repeat domains 1	-2.4161	1.80E-06	1.69303	0.0012646
A_51_P167803	PDE1B	phosphodiesterase 1B, calmodulin-dependent	-2.41454	1.17E-11	2.33998	2.67E-11
A_51_P116946	ATP6V0A4	ATPase, H+ transporting, lysosomal V0 subunit a4	-2.40841	0.0003459	-3.55964	2.51E-06
A_51_P325318	SERINC2	serine incorporator 2	-2.40478	3.26E-07	2.42418	2.78E-07
A_51_P352216	ZNF365	zinc finger protein 365	-2.40426	0.0001716	17.2213	3.29E-14
A_52_P81324	B230311B06Rik	RIKEN cDNA B230311B06 gene	-2.40322	4.57E-10	-3.49405	1.31E-13
A_51_P152550	IQCG	IQ motif containing G	-2.40299	4.28E-12	-2.14865	9.47E-11
A_52_P527800	EMILIN2	elastin microfibril interfacier 2	-2.40245	4.70E-06	2.95223	1.37E-07
A_52_P391098	CREM	cAMP responsive element modulator	-2.40129	1.75E-11	-1.62186	2.05E-06
A_51_P293538	PPP1R1A	protein phosphatase 1, regulatory (inhibitor) subunit 1A	-2.39989	1.66E-10	-1.75621	8.74E-07
A_52_P286528	NUDT11	nudix (nucleoside diphosphate linked moiety X)-type motif 1	-2.39931	0.0002056	2.12593	0.00099547
A_51_P104162	GFOD1	glucose-fructose oxidoreductase domain containing 1	-2.39866	1.06E-05	-3.22698	8.43E-08
A_52_P470150	DDC	dopa decarboxylase (aromatic L-amino acid decarboxylase)	-2.39623	3.19E-12	-1.90497	2.60E-09
A_51_P318580	MYH14	myosin, heavy chain 14, non-muscle	-2.39335	1.23E-11	-2.06141	7.68E-10
A_52_P523459	CD44	CD44 molecule (Indian blood group)	-2.39289	0.0027631	6.67372	9.04E-08
A_52_P74381	A630012P03Rik	RIKEN cDNA A630012P03 gene	-2.39013	4.17E-07	-2.13642	4.00E-06
A_51_P451574	Acot1	acyl-CoA thioesterase 1	-2.38993	4.07E-15	1.75755	1.22E-10
A_52_P613688	ELMO1	engulfment and cell motility 1	-2.38958	4.45E-05	-2.84079	3.27E-06
A_51_P201982	ANGPT2	angiopoietin 2	-2.38938	3.86E-08	7.81486	1.06E-16
A_52_P1093529	PIK3R5	phosphoinositide-3-kinase, regulatory subunit 5	-2.38146	0.0004313	-2.11523	0.0018177
A_51_P372992	C10orf54	chromosome 10 open reading frame 54	-2.37751	1.14E-06	1.86821	0.00012211
A_51_P516125			-2.37612	3.83E-07	2.87249	9.59E-09
A_52_P621064	NMT1	N-myristoyltransferase 1	-2.37452	1.20E-07	1.76822	7.53E-05
A_51_P353162	Svs5	seminal vesicle secretory protein 5	-2.37278	0.0063632	3.51158	0.00019352
A_52_P481316	WDR93	WD repeat domain 93	-2.37051	0.0028396	-5.06525	1.22E-06
A_52_P541802	Ifitm1	interferon induced transmembrane protein 1	-2.36865	1.35E-08	-1.67675	5.79E-05
A_51_P175262	PDGFB	platelet-derived growth factor beta polypeptide	-2.3615	0.0002521	-2.27563	0.00040991
A_52_P527917	SLC16A10	solute carrier family 16 (aromatic amino acid transporter), nr	-2.36103	0.0005652	-6.51258	3.19E-09
A_51_P356642	KRT19	keratin 19, type I	-2.36027	1.67E-12	6.32074	5.50E-21
A_51_P272283	CMBL	carboxymethylenebutenolidase homolog (Pseudomonas)	-2.3587	1.75E-05	-3.61437	1.98E-08
A_52_P1098820	1700016G22Rik	RIKEN cDNA 1700016G22 gene	-2.35626	0.0013769	2.20519	0.00279769
A_52_P502754	AMPD3	adenosine monophosphate deaminase 3	-2.35385	1.99E-05	1.83538	0.00111251
A_51_P516133	HIST1H1C	histone cluster 1, H1c	-2.3533	6.98E-11	3.08972	1.11E-13
A_52_P399175	RFFL	ring finger and FYVE-like domain containing E3 ubiquitin pro	-2.34951	1.94E-08	1.5785	0.00028869
A_51_P214269	EPHA1	EPH receptor A1	-2.34773	1.85E-08	-2.32736	2.26E-08
A_52_P46085	MVP	major vault protein	-2.34566	0.0002302	1.99651	0.00191442
A_52_P1092227			-2.34412	1.99E-05	-1.59745	0.00881909
A_52_P383577	SP6	Sp6 transcription factor	-2.34306	2.70E-12	6.49883	5.07E-21
A_52_P221630	AKT3	v-akt murine thymoma viral oncogene homolog 3	-2.34062	1.89E-11	-2.02804	1.07E-09
A_52_P229536	CD44	CD44 molecule (Indian blood group)	-2.33998	0.0033064	24.4309	1.29E-12
A_52_P298213	RECQL	RecQ helicase-like	-2.33789	0.0082679	-2.36248	0.00759361

A_52_P85805	WNT5B	wingless-type MMTV integration site family, member 5B	-2.33336	2.11E-06	-2.06119	2.25E-05
A_51_P175988	HTR3A	5-hydroxytryptamine (serotonin) receptor 3A, ionotropic	-2.32642	0.0035269	-2.5785	0.00129869
A_51_P172005	Rpl39l	ribosomal protein L39-like	-2.32163	1.63E-10	4.33117	2.78E-16
A_51_P111164	RND1	Rho family GTPase 1	-2.31691	9.00E-09	-2.51984	1.29E-09
A_51_P485918	HSPB11	heat shock protein family B (small), member 11	-2.31622	8.15E-05	-2.40156	4.74E-05
A_51_P450052	SMARCA2	SWI/SNF related, matrix associated, actin dependent regulat	-2.31604	3.09E-05	4.58876	9.34E-10
A_51_P312348	KRT7	keratin 7, type II	-2.31582	0.0022961	49.644	2.44E-15
A_51_P157100			-2.31578	0.002884	-2.05955	0.00894924
A_51_P466371	PITPNA	phosphatidylinositol transfer protein, alpha	-2.31375	5.79E-10	-3.10638	6.36E-13
A_52_P1069478	Gm11744	predicted gene 11744	-2.31204	2.23E-08	-3.17664	2.58E-11
A_51_P286610	RABGAP1L	RAB GTPase activating protein 1-like	-2.30973	0.000482	2.81475	3.83E-05
A_51_P438278	MTUS2	microtubule associated tumor suppressor candidate 2	-2.30893	7.28E-13	1.65846	3.82E-08
A_52_P924212			-2.30706	0.0027552	15.31	2.04E-11
A_51_P277994	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa	-2.30659	6.59E-11	-2.58205	3.68E-12
A_52_P649724	SMYD3	SET and MYND domain containing 3	-2.30657	0.0002301	-2.50977	7.21E-05
A_51_P137707			-2.30639	4.53E-07	-2.34971	3.09E-07
A_52_P656699	Actn3	actinin alpha 3	-2.30491	6.02E-10	-5.03747	8.51E-17
A_51_P413785	COMMD3	COMM domain containing 3	-2.29956	1.06E-08	5.4967	7.41E-16
A_52_P58283	KCNA5	potassium channel, voltage gated shaker related subfamily 4	-2.29917	0.0039631	-2.03926	0.01198
A_51_P120680	Zfp640	zinc finger protein 640	-2.2939	3.26E-15	-2.30218	2.92E-15
A_52_P61691	CD59	CD59 molecule, complement regulatory protein	-2.29267	4.41E-05	-2.95229	8.14E-07
A_51_P154842	Oas1f	2'-5'-oligoadenylate synthetase 1F	-2.29088	5.04E-13	-1.99972	3.24E-11
A_51_P485405	GTSF1	gametocyte specific factor 1	-2.28806	1.94E-05	1.76266	0.00151953
A_51_P394847	Gm11346	X-linked lymphocyte-regulated 5 pseudogene	-2.28782	0.0043368	-2.02582	0.0131566
A_52_P214506	SPATA45	spermatogenesis associated 45	-2.28744	0.0012533	-3.03939	4.53E-05
A_51_P154637	Nlrp4f	NLR family, pyrin domain containing 4F	-2.28517	0.0001177	1.65741	0.0107465
A_52_P672761	TEC	tec protein tyrosine kinase	-2.27958	6.72E-05	3.8809	2.20E-08
A_51_P101347	PLS1	plastin 1	-2.2795	2.08E-07	-1.82891	2.80E-05
A_51_P126702	DDIT4L	DNA-damage-inducible transcript 4-like	-2.27893	3.49E-09	8.33202	4.52E-19
A_51_P333253	MYO1G	myosin IG	-2.27763	8.13E-08	-2.73929	1.52E-09
A_51_P404755	ARMCX3	armadillo repeat containing, X-linked 3	-2.27351	8.45E-05	-3.06511	9.05E-07
A_52_P66425	Tcstv1	2-cell-stage, variable group, member 1	-2.26956	3.38E-05	7.93483	6.18E-13
A_52_P593037	ACSL5	acyl-CoA synthetase long-chain family member 5	-2.2683	1.45E-09	-2.31973	8.25E-10
A_51_P111655	Snhg11	small nucleolar RNA host gene 11	-2.26601	0.0057385	-3.48342	9.13E-05
A_51_P454422	UNC79	unc-79 homolog (C. elegans)	-2.26278	0.0006515	6.86443	8.34E-10
A_51_P144052	AIM1	absent in melanoma 1	-2.26106	1.57E-06	9.15314	6.51E-16
A_51_P449867	NYX	nyctalopin	-2.25728	0.0033869	2.38046	0.00198477
A_51_P357533	TMEM44	transmembrane protein 44	-2.25722	1.33E-05	-2.23091	1.63E-05
A_52_P474961	FSIP1	fibrous sheath interacting protein 1	-2.25604	0.0006167	-2.26899	0.00057366
A_52_P1662	ZRSR2	zinc finger (CCCH type), RNA-binding motif and serine/argini	-2.25528	1.98E-09	-1.88183	2.50E-07
A_51_P378589	MYOF	myoferlin	-2.25428	2.60E-11	-1.66455	3.27E-07
A_52_P434306			-2.25333	2.67E-09	5.79137	3.11E-17
A_51_P128356	5730433N10Rik	RIKEN cDNA 5730433N10 gene	-2.25054	0.0004475	3.36457	2.11E-06
A_51_P410715	HS3ST3B1	heparan sulfate (glucosamine) 3-O-sulfotransferase 3B1	-2.2499	0.0008969	2.29911	0.00068982
A_51_P128491	TCN2	transcobalamin II	-2.24607	2.51E-10	1.91903	2.13E-08
A_51_P423880	SMARCD3	SWI/SNF related, matrix associated, actin dependent regulat	-2.24482	7.48E-14	-2.50192	3.30E-15
A_52_P674196	BBS9	Bardet-Biedl syndrome 9	-2.24415	1.68E-07	-2.52787	1.27E-08
A_52_P660422	MIP	major intrinsic protein of lens fiber	-2.24252	8.35E-06	-4.82567	2.61E-11
A_52_P195018	ARAP3	ArfGAP with RhoGAP domain, ankyrin repeat and PH domair	-2.23922	3.70E-08	-5.43715	1.97E-15
A_51_P116940	EPHX2	epoxide hydrolase 2, cytoplasmic	-2.23824	4.32E-09	-1.89059	3.64E-07
A_52_P211185	GNAT1	guanine nucleotide binding protein (G protein), alpha transd	-2.23276	0.0046399	-2.57794	0.00112956
A_52_P337357	OAS1	2'-5'-oligoadenylate synthetase 1, 40/46kDa	-2.2322	1.06E-11	-1.84378	3.86E-09
A_51_P412846	EFHD1	EF-hand domain family, member D1	-2.23108	9.17E-12	-3.65098	7.16E-17

A_52_P85152	ACAD11	acyl-CoA dehydrogenase family, member 11	-2.22571	7.59E-07	3.12466	9.07E-10
A_52_P93284	MYCL	v-myc avian myelocytomatosis viral oncogene lung carcinom	-2.2237	1.41E-07	-2.86629	6.12E-10
A_52_P957260			-2.22312	0.0001613	-3.08361	1.26E-06
A_52_P384100	BDNF	brain-derived neurotrophic factor	-2.22148	9.05E-05	4.50399	2.34E-09
A_51_P388325	CLGN	calmegin	-2.22046	2.37E-11	-2.71016	1.25E-13
A_51_P437050	HEG1	heart development protein with EGF-like domains 1	-2.2199	0.0011297	-2.55633	0.00020328
A_51_P415369	ZBTB32	zinc finger and BTB domain containing 32	-2.2175	1.73E-10	-2.35121	3.59E-11
A_51_P186798	Gm2881	predicted gene 2881	-2.21265	8.69E-08	1.65496	9.76E-05
A_51_P503736	TEX19	testis expressed 19	-2.21231	1.57E-13	11.6968	1.70E-26
A_51_P466180	GM2A	GM2 ganglioside activator	-2.21142	5.35E-06	-2.82356	5.59E-08
A_51_P160754	APOBEC1	apolipoprotein B mRNA editing enzyme, catalytic polypeptid	-2.21038	1.99E-08	2.90194	4.10E-11
A_51_P381618	PLA1A	phospholipase A1 member A	-2.2084	1.14E-08	-1.89365	6.02E-07
A_51_P126626	ZNF503	zinc finger protein 503	-2.20808	0.0024748	2.77197	0.00019747
A_51_P277431	CCDC3	coiled-coil domain containing 3	-2.20651	1.82E-07	-6.61169	6.88E-16
A_51_P398647	ZNF446	zinc finger protein 446	-2.20613	1.90E-10	-2.12839	5.17E-10
A_52_P544043	PCSK5	proprotein convertase subtilisin/kexin type 5	-2.20611	0.0035361	1.93326	0.0129768
A_52_P379277	ENPP3	ectonucleotide pyrophosphatase/phosphodiesterase 3	-2.20462	3.21E-09	-12.8699	9.14E-22
A_52_P13109	ALDH2	aldehyde dehydrogenase 2 family (mitochondrial)	-2.20346	0.002935	-2.80044	0.00021575
A_51_P148509	TTN	titin	-2.20299	0.0032649	4.54202	1.18E-06
A_51_P410260	PIP5K1B	phosphatidylinositol-4-phosphate 5-kinase, type I, beta	-2.20297	3.22E-08	-2.07048	1.47E-07
A_51_P316311	Ppfia4	protein tyrosine phosphatase, receptor type, f polypeptide (-2.20283	2.09E-08	1.61377	6.72E-05
A_51_P400269	SLC38A5	solute carrier family 38, member 5	-2.20183	1.29E-08	-7.52209	3.02E-18
A_51_P116755	CAP2	CAP, adenylate cyclase-associated protein, 2 (yeast)	-2.1998	0.0034414	-2.37016	0.00158391
A_51_P492047	FAM3B	family with sequence similarity 3, member B	-2.19761	0.0061721	6.28797	1.62E-07
A_52_P612803	CCNG1	cyclin G1	-2.19685	1.81E-07	4.48011	1.85E-13
A_51_P206965	SYPL2	synaptophysin-like 2	-2.18765	0.0025676	-2.38701	0.0009846
A_52_P366251	DOCK5	dedicator of cytokinesis 5	-2.18492	0.006746	-2.61444	0.0012224
A_52_P450918	RAB3IL1	RAB3A interacting protein (rabin3)-like 1	-2.18234	0.0030359	2.08861	0.0048073
A_52_P584154	MANBA	mannosidase, beta A, lysosomal	-2.18217	1.45E-08	-2.02431	9.85E-08
A_51_P258671	RSU1	Ras suppressor protein 1	-2.18041	7.40E-05	-1.58271	0.0107382
A_51_P376445	Rhox5	reproductive homeobox 5	-2.17865	2.00E-11	2.15104	2.91E-11
A_51_P214083	2310039H08Rik	RIKEN cDNA 2310039H08 gene	-2.17729	3.08E-06	2.8204	1.98E-08
A_51_P416074	RYR1	ryanodine receptor 1 (skeletal)	-2.17683	2.48E-07	-1.52698	0.00099812
A_51_P200667	CLMN	calmin (calponin-like, transmembrane)	-2.17665	1.33E-05	-7.09507	1.33E-13
A_51_P218774	RGS10	regulator of G-protein signaling 10	-2.17574	0.0014033	1.89348	0.00699102
A_51_P450750	PLA2G4B	phospholipase A2, group IVB (cytosolic)	-2.17335	2.31E-08	2.56641	4.43E-10
A_51_P392577	CCBL2	cysteine conjugate-beta lyase 2	-2.17302	1.16E-11	-1.91543	5.88E-10
A_51_P234728	LPAR6	lysophosphatidic acid receptor 6	-2.17279	2.05E-06	1.70047	0.0003431
A_52_P361611	ZNF652	zinc finger protein 652	-2.17242	1.48E-06	2.15518	1.75E-06
A_52_P158476	PROK2	prokineticin 2	-2.1689	0.0011902	2.01629	0.0028676
A_52_P541752	DDIT4L	DNA-damage-inducible transcript 4-like	-2.16578	8.27E-10	9.10778	4.29E-21
A_51_P356512	ARMCX2	armadillo repeat containing, X-linked 2	-2.1655	2.39E-10	-1.9929	2.64E-09
A_52_P141141	FGGY	FGGY carbohydrate kinase domain containing	-2.16512	0.0002092	1.61235	0.0136013
A_52_P465971	DMRT3	doublesex and mab-3 related transcription factor 3	-2.16276	4.39E-06	2.02676	1.61E-05
A_52_P50063	TRIM5	tripartite motif containing 5	-2.15941	0.0026709	-3.96437	2.42E-06
A_52_P235319	PTPRE	protein tyrosine phosphatase, receptor type, E	-2.15567	0.0092993	12.9663	4.46E-10
A_51_P438083	SLC6A13	solute carrier family 6 (neurotransmitter transporter), meml	-2.15456	0.0026746	11.2338	4.17E-11
A_52_P523399	C14orf39	chromosome 14 open reading frame 39	-2.15434	0.0003937	-2.19654	0.0002995
A_51_P442359			-2.15329	0.0017787	-2.05134	0.00311498
A_51_P386899	FLVCR2	feline leukemia virus subgroup C cellular receptor family, me	-2.15272	2.15E-05	6.57914	5.50E-13
A_52_P572537	MREG	melanoregulin	-2.1488	0.000139	1.78553	0.00237196
A_52_P132028	TAF3	TAF3 RNA polymerase II, TATA box binding protein (TBP)-ass	-2.1437	9.48E-08	2.27999	2.19E-08
A_52_P244702	Tcf7	transcription factor 7, T cell specific	-2.14168	2.02E-07	-1.69075	6.12E-05

A_51_P327920	ST7L	suppression of tumorigenicity 7 like	-2.13965	9.07E-08	3.53994	1.94E-12
A_52_P62617	Gm9895	predicted gene 9895	-2.1369	7.87E-09	-4.71648	5.31E-16
A_52_P28775	ENGASE	endo-beta-N-acetylglucosaminidase	-2.13624	2.77E-07	2.55289	5.13E-09
A_51_P369971	FRA10AC1	fragile site, folic acid type, rare, fra(10)(q23.3) or fra(10)(q24	-2.13357	2.30E-11	-1.55837	9.58E-07
A_52_P382854	RHBDP2	rhomboid 5 homolog 2 (Drosophila)	-2.13037	7.97E-05	1.77744	0.00154154
A_51_P244303	SMC1B	structural maintenance of chromosomes 1B	-2.13006	5.68E-05	1.53244	0.012352
A_51_P206203	MRGPRF	MAS-related GPR, member F	-2.1264	2.74E-06	-1.68763	0.00035926
A_52_P284889	PRKCZ	protein kinase C, zeta	-2.12625	2.12E-13	-2.57206	7.94E-16
A_51_P345649	PDGFRA	platelet-derived growth factor receptor, alpha polypeptide	-2.12589	2.48E-05	3.56627	3.07E-09
A_52_P601148	LPAR6	lysophosphatidic acid receptor 6	-2.12557	8.00E-12	2.49838	7.94E-14
A_51_P165244	GBP4	guanylate binding protein 4	-2.12516	0.0004992	14.601	3.63E-14
A_51_P119776	SYNPO2	synaptopodin 2	-2.12098	4.11E-05	1.58801	0.005798
A_52_P265358	IGSF1	immunoglobulin superfamily, member 1	-2.11875	0.0064269	-6.26875	7.75E-08
A_52_P299713	TCFL5	transcription factor-like 5 (basic helix-loop-helix)	-2.1185	1.81E-08	-2.72676	4.13E-11
A_52_P422172	DAPP1	dual adaptor of phosphotyrosine and 3-phosphoinositides	-2.11691	1.56E-08	-1.83487	7.35E-07
A_52_P121502	PLLP	plasmolipin	-2.11689	6.91E-07	1.64576	0.0002274
A_51_P292008	GPX3	glutathione peroxidase 3	-2.11416	3.12E-07	12.8035	1.43E-19
A_52_P22474	FUT9	fucosyltransferase 9 (alpha (1,3) fucosyltransferase)	-2.11303	0.0062304	-2.99818	0.00016721
A_52_P306089	1700061G19Rik	RIKEN cDNA 1700061G19 gene	-2.112	0.0007706	2.83603	1.36E-05
A_52_P1196751	SLC25A12	solute carrier family 25 (aspartate/glutamate carrier), memt	-2.10934	0.0089457	-2.81882	0.00054754
A_52_P151905	H2afb1 (includes ot	H2A histone family, member B1	-2.10544	0.0017286	1.97867	0.00362202
A_51_P373901	RSPH1	radial spoke head 1 homolog (Chlamydomonas)	-2.10379	6.18E-07	-2.67695	3.19E-09
A_51_P427926	SMAD6	SMAD family member 6	-2.10006	1.41E-09	-2.2577	1.94E-10
A_51_P174696	CASQ2	calsequestrin 2 (cardiac muscle)	-2.10001	2.84E-05	-2.07853	3.44E-05
A_51_P161429	SNX11	sorting nexin 11	-2.09998	2.77E-05	1.75431	0.00073935
A_52_P499128	SYNJ2	synaptojanin 2	-2.09875	0.0004986	1.69778	0.00892852
A_51_P159503	RNF213	ring finger protein 213	-2.09783	1.49E-06	-2.06675	2.07E-06
A_51_P499599	OSR2	odd-skipped related transciption factor 2	-2.09741	2.40E-05	-3.32136	6.48E-09
A_51_P234359	Sct	secretin	-2.09737	0.0042665	18.0373	1.12E-12
A_52_P584236	AP3S2	adaptor-related protein complex 3, sigma 2 subunit	-2.09687	0.0003089	-2.35273	5.43E-05
A_51_P126327	OTUD7A	OTU deubiquitinase 7A	-2.0965	4.09E-07	16.8428	1.05E-20
A_52_P154800	PLA2G16	phospholipase A2, group XVI	-2.09355	3.88E-06	1.60195	0.00106764
A_52_P432715	Gm14410	predicted gene 14410	-2.09232	1.42E-06	-2.11049	1.17E-06
A_51_P193536	CCS	copper chaperone for superoxide dismutase	-2.09106	1.24E-05	-1.52651	0.00514405
A_51_P234330	RTKN	rhotekin	-2.09096	3.88E-12	5.67977	1.20E-21
A_51_P143915	RNF181	ring finger protein 181	-2.08889	1.68E-12	1.68043	3.78E-09
A_51_P229134	CNGA3	cyclic nucleotide gated channel alpha 3	-2.08714	0.0018146	14.6113	5.05E-13
A_51_P363763	MCM3AP	minichromosome maintenance complex component 3 assoc	-2.08639	5.17E-07	2.43551	1.56E-08
A_52_P505930	SP6	Sp6 transcription factor	-2.08542	0.0010413	3.58269	7.13E-07
A_52_P326399	FKBP11	FK506 binding protein 11, 19 kDa	-2.08406	4.67E-07	-4.55537	9.70E-14
A_51_P489503	NOTUM	notum pectinacetylerase homolog (Drosophila)	-2.08204	2.13E-06	-6.45398	5.42E-15
A_52_P732433			-2.08165	0.0088435	-2.57307	0.00112852
A_52_P30497	DNMT3A	DNA (cytosine-5-)-methyltransferase 3 alpha	-2.08053	2.06E-08	-2.05532	2.84E-08
A_51_P263473	SEPT3	septin 3	-2.0767	5.54E-05	-1.64997	0.0029776
A_51_P458008	WSCD1	WSC domain containing 1	-2.07316	2.12E-07	4.67805	1.75E-14
A_52_P86704	ARL4A	ADP-ribosylation factor-like 4A	-2.07224	0.0001151	4.45412	6.11E-10
A_51_P399071	Anp32a	acidic (leucine-rich) nuclear phosphoprotein 32 family, mem	-2.07082	1.01E-05	-4.59169	6.85E-12
A_51_P198453	Obox6	oocyte specific homeobox 6	-2.06912	0.0021594	2.02252	0.0028319
A_52_P603540	Gm3383 (includes c	predicted gene 3383	-2.06639	9.64E-07	1.63427	0.00023082
A_51_P315315	ABCB5	ATP-binding cassette, sub-family B (MDR/TAP), member 5	-2.06474	0.0011194	-2.48662	9.17E-05
A_52_P592749	TAF9B	TAF9B RNA polymerase II, TATA box binding protein (TBP)-a:	-2.06046	0.004206	2.0788	0.00382108
A_52_P656634	RPN1	ribophorin I	-2.05987	0.0066614	-2.05743	0.00674069
A_52_P534361	DUOXA1	dual oxidase maturation factor 1	-2.05709	3.42E-06	2.06426	3.17E-06

A_51_P113144	AP1S2	adaptor-related protein complex 1, sigma 2 subunit	-2.05689	7.87E-09	-3.22538	1.61E-13
A_51_P275016	SLC7A3	solute carrier family 7 (cationic amino acid transporter, y+ s)	-2.05518	0.0035137	-2.55915	0.00027469
A_51_P129694	LRTM2	leucine-rich repeats and transmembrane domains 2	-2.05501	0.0012107	-5.12	6.89E-09
A_51_P306731	GPAT3	glycerol-3-phosphate acyltransferase 3	-2.05202	8.82E-07	2.01597	1.33E-06
A_52_P119060	ACPP	acid phosphatase, prostate	-2.05202	0.0081261	3.1924	8.25E-05
A_52_P625321	CABP4	calcium binding protein 4	-2.04845	6.22E-08	-2.68836	8.64E-11
A_51_P433584	BCAS3	breast carcinoma amplified sequence 3	-2.04757	1.52E-08	-1.52053	8.58E-05
A_51_P434041	NKAIN4	Na ⁺ /K ⁺ transporting ATPase interacting 4	-2.04379	8.59E-06	-6.19344	4.71E-14
A_51_P175424	CA14	carbonic anhydrase XIV	-2.04139	1.65E-05	-6.63561	5.51E-14
A_52_P303904	CARD6	caspase recruitment domain family, member 6	-2.04114	4.30E-07	1.87425	3.49E-06
A_51_P435317	AP1S2	adaptor-related protein complex 1, sigma 2 subunit	-2.03995	7.04E-11	-1.81592	3.15E-09
A_52_P292632	Wdr20rt	WD repeat domain 20, retrogene	-2.03937	4.87E-08	2.93133	8.41E-12
A_52_P284441	CEP112	centrosomal protein 112kDa	-2.0379	1.46E-09	-2.86077	2.18E-13
A_51_P517430	CD1D	CD1d molecule	-2.03722	1.11E-07	-2.01899	1.40E-07
A_51_P225564	B3GNT4	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 4	-2.03679	0.0024316	4.28279	2.11E-07
A_51_P465512	NMT2	N-myristoyltransferase 2	-2.03673	0.0058158	-3.26327	3.05E-05
A_51_P121652	ASPSCR1	alveolar soft part sarcoma chromosome region, candidate 1	-2.03548	1.77E-06	-1.50132	0.00185241
A_51_P195506	CSF1	colony stimulating factor 1 (macrophage)	-2.03545	0.0016236	6.81331	3.55E-10
A_51_P183197	CYSRT1	cysteine-rich tail protein 1	-2.03492	5.17E-06	-1.64698	0.00048832
A_51_P488910	SYNE3	spectrin repeat containing, nuclear envelope family member 3	-2.03448	0.0044607	2.68329	0.00018812
A_51_P421958	SGMS1	sphingomyelin synthase 1	-2.0285	3.95E-07	-1.62087	0.00011173
A_51_P414126	RAB19	RAB19, member RAS oncogene family	-2.02832	4.19E-07	-1.63248	9.71E-05
A_51_P279100	PTGS1	prostaglandin-endoperoxide synthase 1 (prostaglandin G/H/H synthase 1)	-2.02782	0.0058248	-5.23807	1.33E-07
A_52_P516296	OAS3	2'-5'-oligoadenylate synthetase 3, 100kDa	-2.0261	2.89E-06	-2.08484	1.53E-06
A_52_P258557	SLC26A9	solute carrier family 26 (anion exchanger), member 9	-2.0259	0.0021034	13.1233	7.45E-13
A_52_P418952	KRT79	keratin 79, type II	-2.02415	2.72E-05	1.62548	0.00179756
A_51_P236412	CDKL2	cyclin-dependent kinase-like 2 (CDC2-related kinase)	-2.02295	1.44E-08	-2.33574	3.14E-10
A_51_P230269	HLA-A	major histocompatibility complex, class I, A	-2.02292	1.61E-07	-6.19253	7.23E-17
A_51_P316103	LIMA1	LIM domain and actin binding 1	-2.0224	2.05E-08	-2.30191	6.68E-10
A_51_P135012	RHPN2	rhophilin, Rho GTPase binding protein 2	-2.01892	2.13E-08	-1.66904	5.10E-06
A_52_P932234			-2.01671	6.52E-05	-2.45603	1.81E-06
A_51_P151070	KLF9	Kruppel-like factor 9	-2.01563	8.05E-08	1.71804	6.22E-06
A_52_P425651	CFAP43	cilia and flagella associated protein 43	-2.01414	1.06E-06	1.89595	4.49E-06
A_52_P599264	MDFIC	MyoD family inhibitor domain containing	-2.01353	0.0002512	1.89617	0.00065891
A_52_P127069	C8orf44-SGK3/SGK3	serum/glucocorticoid regulated kinase family, member 3	-2.00911	1.08E-06	-1.56941	0.00041588
A_52_P669128	SLC5A1	solute carrier family 5 (sodium/glucose cotransporter), member 1	-2.00801	0.0074059	3.85014	5.64E-06
A_51_P234763	NLRP4	NLR family, pyrin domain containing 4	-2.00292	0.0042646	3.71962	2.51E-06
A_51_P181691	NOD2	nucleotide-binding oligomerization domain containing 2	-2.0026	1.31E-05	2.17531	2.38E-06
A_52_P439420	WSCD1	WSC domain containing 1	-2.00242	8.27E-05	3.03881	5.11E-08
A_52_P598420	MATN1	matrilin 1, cartilage matrix protein	-2.00202	0.0083483	17.4524	2.75E-12
A_52_P628521	B130052P14Rik	RIKEN cDNA B130052P14 gene	-2.00123	0.0019379	6.38373	6.75E-10
A_52_P746802	MARS2	methionyl-tRNA synthetase 2, mitochondrial	-2.00049	0.0001173	2.57419	1.41E-06
A_52_P586851	EF5	embryonal Fyn-associated substrate	-1.99845	1.07E-08	7.59902	6.40E-20
A_52_P603654	STX8	syntaxin 8	-1.99716	5.72E-13	-2.63602	1.29E-16
A_52_P327146			-1.99412	8.95E-07	-1.86097	4.85E-06
A_51_P436727	ARRB1	arrestin, beta 1	-1.99103	8.35E-07	-2.87255	2.14E-10
A_51_P164998	STMN2	stathmin 2	-1.98968	1.36E-10	-1.70244	2.71E-08
A_52_P493112	PSRC1	proline/serine-rich coiled-coil 1	-1.97881	7.01E-07	2.45235	4.31E-09
A_52_P467718	AP3M2	adaptor-related protein complex 3, mu 2 subunit	-1.9786	9.91E-07	-2.81741	3.27E-10
A_51_P209183	CXCL14	chemokine (C-X-C motif) ligand 14	-1.97637	0.000173	1.73235	0.00161128
A_51_P130079	LRMP	lymphoid-restricted membrane protein	-1.97589	2.08E-12	-2.06924	4.39E-13
A_51_P412914	EF5	embryonal Fyn-associated substrate	-1.97396	4.82E-09	5.95804	4.12E-19
A_52_P311853	DDIT4L	DNA-damage-inducible transcript 4-like	-1.97372	4.71E-07	14.0695	7.79E-21

A_52_P42269	FGF10	fibroblast growth factor 10	-1.97336	0.0004173	-3.6788	2.35E-08
A_52_P29583	HIPK2	homeodomain interacting protein kinase 2	-1.97299	1.16E-09	1.78186	3.01E-08
A_52_P570330	KCNH3	potassium channel, voltage gated eag related subfamily H, n	-1.97195	0.0015907	-2.30397	0.00018821
A_51_P452876	AK1	adenylate kinase 1	-1.97064	7.23E-12	3.35776	3.93E-18
A_52_P657360	TNNI1	troponin I type 1 (skeletal, slow)	-1.97016	2.46E-05	-1.74464	0.00028872
A_51_P134262	1700052K11Rik	RIKEN cDNA 1700052K11 gene	-1.96743	2.43E-07	5.00842	1.11E-15
A_51_P440047	LGALS1	lectin, galactoside-binding-like	-1.96714	1.29E-07	1.59126	4.69E-05
A_52_P374825	DUSP16	dual specificity phosphatase 16	-1.966	0.0014124	-3.15448	1.74E-06
A_52_P633300	MORC1	MORC family CW-type zinc finger 1	-1.96437	6.99E-12	-2.24996	9.00E-14
A_51_P177904	IL17A	interleukin 17A	-1.96405	0.0006399	-1.74346	0.00372596
A_51_P432511	LACE1	lactation elevated 1	-1.96306	7.14E-07	1.83054	4.19E-06
A_51_P358344	Col17a1	collagen, type XVII, alpha 1	-1.95955	1.32E-05	1.5139	0.00300283
A_52_P458177	Mettl7a2/Mettl7a3	methyltransferase like 7A3	-1.95767	0.0002164	7.25549	5.37E-13
A_51_P195244	MFAP4	microfibrillar-associated protein 4	-1.95582	8.07E-07	9.7079	7.12E-19
A_52_P105736	PAPOLG	poly(A) polymerase gamma	-1.95413	1.02E-05	-2.82561	4.71E-09
A_51_P209697	ATCAY	ataxia, cerebellar, Cayman type	-1.95384	2.08E-09	-1.50265	1.34E-05
A_51_P421780	MYO18B	myosin XVIIIIB	-1.95289	8.97E-06	-1.60163	0.00069838
A_52_P820923	1700001L05Rik	RIKEN cDNA 1700001L05 gene	-1.9517	1.03E-08	-2.45837	1.84E-11
A_51_P378277	HOXC13	homeobox C13	-1.95131	0.000569	6.56581	1.27E-11
A_52_P572045	PFKP	phosphofructokinase, platelet	-1.94824	0.0039641	-2.39177	0.00031661
A_51_P175580	TP53INP1	tumor protein p53 inducible nuclear protein 1	-1.94823	1.28E-08	5.75108	1.53E-18
A_52_P357177	MTUS1	microtubule associated tumor suppressor 1	-1.94769	2.04E-11	-1.51652	2.88E-07
A_52_P372400	Platr25	pluripotency associated transcript 25	-1.94682	0.0001403	-1.62378	0.0033539
A_52_P587738	P2RY2	purinergic receptor P2Y, G-protein coupled, 2	-1.94618	3.98E-05	2.87627	2.06E-08
A_51_P362423	MTL5	metallothionein-like 5, testis-specific (tesmin)	-1.94533	0.0006423	-5.23774	2.58E-10
A_51_P493709			-1.94483	5.64E-07	2.03721	1.73E-07
A_52_P663600	PAK1	p21 protein (Cdc42/Rac)-activated kinase 1	-1.94418	3.78E-09	-2.51738	2.81E-12
A_52_P504787	EPHA7	EPH receptor A7	-1.94389	8.57E-07	-2.24048	2.63E-08
A_52_P39157	COMMD3-BMI1	COMMD3-BMI1 readthrough	-1.94304	0.0001018	6.3675	4.60E-13
A_51_P448563	MYO7A	myosin VIIA	-1.94116	2.65E-05	8.64139	7.87E-16
A_52_P642662	EFHD1	EF-hand domain family, member D1	-1.93939	7.51E-05	-2.27736	3.50E-06
A_51_P245718	KDM7A	lysine (K)-specific demethylase 7A	-1.93834	0.0017382	2.27109	0.00019161
A_51_P508341	REEP1	receptor accessory protein 1	-1.93818	2.54E-10	1.63131	1.07E-07
A_51_P454103	MANBA	mannosidase, beta A, lysosomal	-1.93737	1.40E-08	-2.0858	1.65E-09
A_52_P368214	SPIRE1	spire-type actin nucleation factor 1	-1.93723	1.01E-06	-1.56353	0.00024107
A_52_P579531	Pdlim3	PDZ and LIM domain 3	-1.93586	1.31E-05	2.20373	7.97E-07
A_51_P385114	Snhg11	small nucleolar RNA host gene 11	-1.93565	0.0008987	-1.83627	0.00194992
A_52_P635278	ECE1	endothelin converting enzyme 1	-1.93554	4.07E-08	3.29764	9.39E-14
A_52_P144791	NKX1-2	NK1 homeobox 2	-1.9355	0.001677	-7.19345	4.14E-11
A_51_P376238	SERPING1	serpin peptidase inhibitor, clade G (C1 inhibitor), member 1	-1.93221	1.43E-08	2.30029	1.07E-10
A_51_P495560	TGM3	transglutaminase 3	-1.92973	0.0015984	-2.00363	0.00094732
A_52_P23225	GPC3	glypican 3	-1.92918	2.07E-05	-2.7606	1.35E-08
A_52_P638903	CAST	calpastatin	-1.92802	0.0013913	-3.63892	1.37E-07
A_52_P276935	DNAJB6	DnaJ (Hsp40) homolog, subfamily B, member 6	-1.92799	5.83E-08	-4.16457	1.53E-15
A_52_P291428	Gm3383 (includes c	predicted gene 3383	-1.92546	2.95E-05	1.51817	0.00365835
A_51_P187679	SLC9B1	solute carrier family 9, subfamily B (NHA1, cation proton ant	-1.92332	8.88E-08	-3.14382	5.47E-13
A_51_P337195	PIPOX	pipecolic acid oxidase	-1.92323	2.32E-10	-3.9504	3.21E-18
A_51_P306017	DLL1	delta-like 1 (Drosophila)	-1.92066	1.21E-05	7.35241	9.22E-16
A_51_P186735	TESK2	testis-specific kinase 2	-1.91932	0.0001793	-1.64916	0.00256335
A_51_P135075	PRR23A	proline rich 23A	-1.91911	6.67E-08	3.02707	7.77E-13
A_52_P340894	BOLL	boule-like RNA-binding protein	-1.9184	0.0003217	-2.59621	1.81E-06
A_51_P343598	1500009L16Rik	RIKEN cDNA 1500009L16 gene	-1.91774	1.83E-07	2.88066	8.08E-12
A_52_P214770	ANKRD45	ankyrin repeat domain 45	-1.91291	1.34E-06	-2.9752	5.21E-11

A_52_P569218	UTRN	utrophin	-1.91277	2.72E-09	-1.78546	2.53E-08
A_51_P187121	GJB4	gap junction protein, beta 4, 30.3kDa	-1.91199	2.39E-06	-3.61044	2.76E-12
A_51_P451292	PHACTR3	phosphatase and actin regulator 3	-1.91174	2.51E-06	-2.20761	7.97E-08
A_51_P295525	CMSS1	cms1 ribosomal small subunit homolog (yeast)	-1.91161	0.0021709	2.44631	6.99E-05
A_51_P475138	DUOX1	dual oxidase 1	-1.91031	7.44E-13	2.42477	3.15E-16
A_51_P221972	EEF2KMT	eukaryotic elongation factor 2 lysine methyltransferase	-1.9102	6.34E-10	-2.24836	4.25E-12
A_52_P471535	CCDC116	coiled-coil domain containing 116	-1.91009	0.0065118	-3.34347	7.41E-06
A_51_P465473	BTF3L4	basic transcription factor 3-like 4	-1.90871	2.18E-09	-1.69364	1.16E-07
A_52_P195809	BDH2	3-hydroxybutyrate dehydrogenase, type 2	-1.90501	6.63E-07	-9.0405	4.21E-19
A_51_P140237	FHL2	four and a half LIM domains 2	-1.90263	0.0021641	4.3218	2.26E-08
A_52_P451644	NDN	necdin, melanoma antigen (MAGE) family member	-1.90254	2.64E-06	2.66402	1.09E-09
A_51_P362959	FBXO36	F-box protein 36	-1.90221	6.16E-10	-1.58979	3.53E-07
A_51_P518001	CREB3L3	cAMP responsive element binding protein 3-like 3	-1.89984	0.0012752	-2.19293	0.00014982
A_52_P16419	GPD1	glycerol-3-phosphate dehydrogenase 1 (soluble)	-1.89765	4.20E-08	-6.3255	6.63E-19
A_51_P331827	SLC25A41	solute carrier family 25, member 41	-1.89669	2.54E-05	-5.88451	4.08E-14
A_52_P518213	HELZ	helicase with zinc finger	-1.89466	0.0053721	2.15606	0.00112709
A_51_P249215	PTGER2	prostaglandin E receptor 2 (subtype EP2), 53kDa	-1.89274	1.15E-08	-4.24628	6.04E-17
A_52_P592230	DNAJA4	DnaJ (Hsp40) homolog, subfamily A, member 4	-1.89154	0.0028356	1.79112	0.00572931
A_52_P327923	MEOX1	mesenchyme homeobox 1	-1.89143	0.0005452	-4.64929	3.62E-10
A_51_P488368	MYOT	myotilin	-1.89112	3.69E-06	2.31087	3.21E-08
A_52_P424767	RBBP4	retinoblastoma binding protein 4	-1.88915	3.29E-08	-1.64611	2.36E-06
A_52_P130570	D1Pas1	DNA segment, Chr 1, Pasteur Institute 1	-1.88831	4.76E-08	5.79548	2.32E-18
A_52_P69281	NUSAP1	nucleolar and spindle associated protein 1	-1.88829	0.0058408	-4.28517	2.02E-07
A_52_P101972	SEN2	SUMO1/sentrin/SMT3 specific peptidase 2	-1.88795	0.0003873	-2.57309	1.86E-06
A_52_P780			-1.88586	0.0009766	-1.67084	0.00590055
A_52_P471395	IFNGR2	interferon gamma receptor 2 (interferon gamma transducer	-1.88544	9.09E-08	-2.87454	1.87E-12
A_51_P134228	HLF	hepatic leukemia factor	-1.88526	1.82E-06	-1.58899	0.00014879
A_51_P429567	LMOD1	leiomodion 1 (smooth muscle)	-1.88459	0.004809	2.94452	1.52E-05
A_51_P438461	WDR34	WD repeat domain 34	-1.88444	4.07E-07	-1.84237	7.57E-07
A_51_P410346	PTCH2	patched 2	-1.88342	3.65E-06	-1.87231	4.22E-06
A_51_P418147	FN3KRP	fructosamine 3 kinase related protein	-1.88182	1.30E-06	-2.24249	1.60E-08
A_52_P330956	FKBP6	FK506 binding protein 6, 36kDa	-1.88135	1.23E-06	3.33664	2.58E-12
A_52_P61188	ARNTL2	aryl hydrocarbon receptor nuclear translocator-like 2	-1.87933	0.0049315	7.16606	2.77E-10
A_51_P161582	DDR1	discoidin domain receptor tyrosine kinase 1	-1.8787	5.98E-05	2.05504	9.56E-06
A_51_P314045	CAMSAP3	calmodulin regulated spectrin-associated protein family, me	-1.8777	4.26E-09	3.37441	1.03E-15
A_52_P199922			-1.87612	0.0047851	-2.32169	0.00031911
A_52_P165705	Cd1d2	CD1d2 antigen	-1.87491	0.0043361	-2.13626	0.00082144
A_51_P319070	RETSAT	retinol saturase (all-trans-retinol 13,14-reductase)	-1.87484	4.54E-13	1.81366	1.65E-12
A_51_P130057	PPM1K	protein phosphatase, Mg2+/Mn2+ dependent, 1K	-1.87302	4.02E-05	-1.99304	1.08E-05
A_52_P609913	SYNRG	synergin, gamma	-1.86563	8.99E-07	3.79002	1.08E-13
A_52_P468103			-1.86517	0.0002804	-1.97534	9.95E-05
A_51_P286488	IER3	immediate early response 3	-1.86367	5.50E-07	-4.51319	2.38E-15
A_51_P427009	NMT2	N-myristoyltransferase 2	-1.86186	1.35E-05	-2.01414	2.22E-06
A_51_P185757	CASZ1	castor zinc finger 1	-1.8562	9.90E-05	1.54328	0.00357329
A_52_P1171614	POU4F1	POU class 4 homeobox 1	-1.85556	0.0047173	2.19765	0.00053366
A_51_P269852	S100A13	S100 calcium binding protein A13	-1.85547	0.0004048	-1.62966	0.00366143
A_51_P290840	FRMD4A	FERM domain containing 4A	-1.85518	5.64E-09	-1.55085	2.70E-06
A_52_P145415	PTCH2	patched 2	-1.85518	6.98E-07	-2.11567	2.11E-08
A_52_P1076565	1110002J07Rik	RIKEN cDNA 1110002J07 gene	-1.85464	4.37E-06	-2.13027	1.48E-07
A_51_P424999	ICT1	immature colon carcinoma transcript 1	-1.85048	9.26E-06	-2.29029	6.43E-08
A_52_P522372	AARD	alanine and arginine rich domain containing protein	-1.84948	1.46E-08	-1.91328	5.02E-09
A_51_P290576	PLK2	polo-like kinase 2	-1.84925	6.19E-05	13.7049	3.85E-18
A_52_P271528	PSRC1	proline/serine-rich coiled-coil 1	-1.84574	4.48E-06	2.03877	3.81E-07

A_51_P478569	ADAMTSL1	ADAMTS-like 1	-1.84557	0.0023599	-1.66983	0.00920355
A_51_P161612	CCNG1	cyclin G1	-1.8454	1.04E-10	3.46167	3.12E-18
A_51_P168395	TTC30A	tetratricopeptide repeat domain 30A	-1.8452	0.0001837	1.54903	0.00464196
A_52_P214772	ANKRD45	ankyrin repeat domain 45	-1.84513	0.0001193	-2.77068	4.32E-08
A_51_P275496			-1.84455	0.0001444	-1.86056	0.00012194
A_51_P211573	WDR47	WD repeat domain 47	-1.8438	0.0001377	-1.52796	0.00486675
A_52_P322941	C7orf57	chromosome 7 open reading frame 57	-1.84335	0.0086609	-2.77121	6.21E-05
A_51_P519251	NUPR1	nuclear protein, transcriptional regulator, 1	-1.84246	3.65E-05	2.68806	1.23E-08
A_51_P200776	GRSF1	G-rich RNA sequence binding factor 1	-1.83991	3.52E-06	-1.52954	0.00040578
A_51_P131281	EXD1	exonuclease 3'-5' domain containing 1	-1.83986	5.02E-05	-1.92109	1.99E-05
A_51_P392687	VIM	vimentin	-1.83927	1.22E-09	-3.60034	2.41E-17
A_52_P480532	GPC4	glypican 4	-1.83876	1.44E-06	1.56484	0.00011598
A_52_P661982	Obsl1	obscurin-like 1	-1.83848	1.15E-05	1.54136	0.00075435
A_51_P471672	ACBD7	acyl-CoA binding domain containing 7	-1.83771	0.0009777	-6.21076	1.01E-11
A_51_P479321	ACSS1	acyl-CoA synthetase short-chain family member 1	-1.83647	5.38E-08	-2.3875	3.15E-11
A_51_P346815	Arxes1/Arxes2	adipocyte-related X-chromosome expressed sequence 2	-1.83524	9.59E-08	1.99165	8.56E-09
A_51_P192979	DCUN1D3	DCN1, defective in cullin neddylation 1, domain containing 3	-1.83431	4.48E-08	2.05646	1.45E-09
A_52_P722921			-1.8279	0.0017878	-3.30443	1.97E-07
A_52_P1036456			-1.82765	0.0021801	-1.84541	0.00189595
A_52_P260069	MAGEB2	melanoma antigen family B2	-1.82639	0.0010655	4.88215	2.31E-10
A_51_P311785	MAN2B2	mannosidase, alpha, class 2B, member 2	-1.82567	0.0001127	2.58638	1.05E-07
A_51_P215922	CASP6	caspase 6, apoptosis-related cysteine peptidase	-1.82509	7.67E-13	-1.98307	3.35E-14
A_51_P248122	BBC3	BCL2 binding component 3	-1.82239	1.36E-07	4.39511	1.95E-16
A_52_P240036	PLCH1	phospholipase C, eta 1	-1.82198	3.04E-05	-1.52905	0.00151416
A_52_P311566	MAPK9	mitogen-activated protein kinase 9	-1.82161	1.57E-07	1.51416	4.89E-05
A_52_P682745	DOCK4	dedicator of cytokinesis 4	-1.82105	0.0001117	-1.93932	3.08E-05
A_51_P253642	EIF2AK3	eukaryotic translation initiation factor 2-alpha kinase 3	-1.82075	0.0001423	1.66871	0.00079587
A_52_P36900	UBE2Z	ubiquitin-conjugating enzyme E2Z	-1.81959	9.20E-06	-1.82144	8.98E-06
A_51_P437176	TRIM47	tripartite motif containing 47	-1.81922	3.60E-06	4.22849	4.69E-14
A_51_P430620	SLC25A12	solute carrier family 25 (aspartate/glutamate carrier), memt	-1.81525	5.58E-09	-1.81319	5.80E-09
A_51_P206197	GTF2A1L	general transcription factor IIA, 1-like	-1.81503	0.000326	2.38298	2.01E-06
A_51_P303089	TTC28	tetratricopeptide repeat domain 28	-1.81444	0.0015334	2.45377	1.26E-05
A_51_P166818	RBM43	RNA binding motif protein 43	-1.81396	1.47E-06	2.79105	3.38E-11
A_51_P444669	TMEM106A	transmembrane protein 106A	-1.81121	2.06E-09	-4.48699	3.72E-19
A_51_P291749	PECR	peroxisomal trans-2-enoyl-CoA reductase	-1.8111	0.0001516	-2.38744	6.05E-07
A_52_P675857			-1.81062	6.26E-05	1.87527	2.93E-05
A_52_P297062	LNX1	ligand of numb-protein X 1, E3 ubiquitin protein ligase	-1.81	7.89E-08	-2.46962	1.22E-11
A_52_P199299	URGCP	upregulator of cell proliferation	-1.80639	2.64E-08	1.71569	1.44E-07
A_52_P202895	MTUS1	microtubule associated tumor suppressor 1	-1.80592	0.00041	-1.93028	0.00012085
A_51_P479696	CDS1	CDP-diacylglycerol synthase (phosphatidate cytidyltransfer	-1.80513	5.68E-08	1.52635	1.43E-05
A_51_P233727	SAPCD1	suppressor APC domain containing 1	-1.80466	5.95E-10	-2.87119	6.60E-16
A_52_P664280	UPF2	UPF2 regulator of nonsense transcripts homolog (yeast)	-1.80257	0.0041144	1.88088	0.00232013
A_51_P201730	MPDU1	mannose-P-dolichol utilization defect 1	-1.8025	2.92E-08	-2.48136	2.71E-12
A_51_P274223	FGF17	fibroblast growth factor 17	-1.80233	2.88E-05	-4.19296	1.15E-12
A_51_P175567	DACT1	dishevelled-binding antagonist of beta-catenin 1	-1.80206	0.000714	-2.47955	2.66E-06
A_52_P548227	MRPL38	mitochondrial ribosomal protein L38	-1.80059	2.79E-06	-1.56121	0.00013267
A_51_P200564			-1.79949	0.0009848	-1.53664	0.0118866
A_51_P295192	NFKBIA	nuclear factor of kappa light polypeptide gene enhancer in E	-1.79838	1.13E-07	-1.85914	4.05E-08
A_51_P475613	FAHD2B	fumarylacetoacetate hydrolase domain containing 2B	-1.79589	2.68E-07	-1.90146	4.92E-08
A_51_P406188	ASB10	ankyrin repeat and SOCS box containing 10	-1.79575	0.0060393	4.12036	8.06E-08
A_52_P344427	2610036A22Rik	RIKEN cDNA 2610036A22 gene	-1.79527	1.56E-07	-1.53078	2.47E-05
A_52_P381484	SPON2	spondin 2, extracellular matrix protein	-1.79411	2.30E-05	9.46647	7.98E-18
A_51_P199974	SLC4A8	solute carrier family 4, sodium bicarbonate cotransporter, m	-1.79381	9.43E-05	4.14903	9.46E-12

A_52_P30632	C9orf116	chromosome 9 open reading frame 116	-1.79042	3.90E-10	6.87186	3.13E-23
A_51_P260433	PTPN14	protein tyrosine phosphatase, non-receptor type 14	-1.78945	0.0004905	5.07528	1.12E-11
A_52_P227974	NKAIN4	Na ⁺ /K ⁺ transporting ATPase interacting 4	-1.78921	3.92E-07	-3.81568	5.16E-15
A_51_P431179	4833419E13Rik	RIKEN cDNA 4833419E13 gene	-1.78619	0.0056539	-1.71647	0.00934092
A_51_P288558	CFAP52	cilia and flagella associated protein 52	-1.78505	6.57E-05	-2.81515	4.21E-09
A_51_P236464	METAP1D	methionyl aminopeptidase type 1D (mitochondrial)	-1.78405	2.24E-08	-1.66979	2.13E-07
A_52_P57296	PTPN14	protein tyrosine phosphatase, non-receptor type 14	-1.7832	4.33E-07	5.30505	1.86E-17
A_51_P209451	ZBTB24	zinc finger and BTB domain containing 24	-1.78288	5.05E-05	1.55681	0.00103814
A_51_P137481	Sp3os	trans-acting transcription factor 3, opposite strand	-1.78145	0.0020666	-1.86408	0.00103165
A_51_P302738	UPP1	uridine phosphorylase 1	-1.77989	0.0002594	-5.05216	2.49E-12
A_51_P254262	NXPH3	neurexophilin 3	-1.77838	2.49E-06	-1.88997	4.72E-07
A_52_P18068	TXLNG	taxilin gamma	-1.77824	0.0019317	-4.11123	3.86E-09
A_51_P378856	PFKP	phosphofructokinase, platelet	-1.77773	1.09E-06	-1.68191	5.42E-06
A_52_P240671	DDX27	DEAD (Asp-Glu-Ala-Asp) box polypeptide 27	-1.77662	9.93E-05	2.1372	1.88E-06
A_52_P772950	CYSRT1	cysteine-rich tail protein 1	-1.77244	0.0006886	-1.54289	0.0073517
A_52_P3723	NFIB	nuclear factor I/B	-1.77241	5.74E-05	-4.98648	1.29E-13
A_52_P395149	SMTNL2	smoothelin-like 2	-1.77231	4.37E-06	-2.60714	2.90E-10
A_52_P611771	Platr20	pluripotency associated transcript 20	-1.77212	0.0021089	-6.56414	8.43E-12
A_51_P338040	VOPP1	vesicular, overexpressed in cancer, prosurvival protein 1	-1.77122	4.06E-05	9.51065	1.26E-17
A_52_P597323	SSH1	slingshot protein phosphatase 1	-1.77019	8.85E-05	-1.74396	0.00012257
A_51_P466285	HOXA10	homeobox A10	-1.76966	0.0062373	-2.73827	1.52E-05
A_52_P384394	BMF	Bcl2 modifying factor	-1.76892	0.0001553	-2.758	1.83E-08
A_51_P277006	CHST8	carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 8	-1.76879	1.91E-06	-2.59754	9.30E-11
A_51_P407351	LY75	lymphocyte antigen 75	-1.76855	2.80E-06	-3.05838	4.43E-12
A_52_P219473	CDC6	cell division cycle 6	-1.76822	0.0014259	-1.68419	0.00310613
A_51_P514177	LRRC2	leucine rich repeat containing 2	-1.7676	2.16E-07	-3.5769	4.50E-15
A_52_P679380	TMPPE	transmembrane protein with metallophosphoesterase domain	-1.76754	1.01E-07	4.98753	3.95E-18
A_52_P279845	SORCS2	sortilin-related VPS10 domain containing receptor 2	-1.76581	0.0013682	1.71445	0.00220744
A_51_P321385	AMOT	angiomin	-1.76512	0.0003552	-1.81663	0.00020391
A_51_P335849	CTNNBIP1	catenin, beta interacting protein 1	-1.76504	9.90E-11	-1.51754	5.54E-08
A_51_P475155	RNF19B	ring finger protein 19B	-1.76494	0.0001048	-4.49992	1.65E-12
A_51_P451409	Ttll13	tubulin tyrosine ligase-like family, member 13	-1.76415	0.0013027	-5.01619	6.91E-11
A_52_P169048	DNMT3A	DNA (cytosine-5-)-methyltransferase 3 alpha	-1.76373	2.24E-09	-2.38623	1.45E-13
A_52_P15073	METTL20	methyltransferase like 20	-1.76316	7.03E-05	-15.0404	2.37E-19
A_51_P492897	C9orf43	chromosome 9 open reading frame 43	-1.76302	0.0014314	-1.74412	0.0017048
A_51_P295967	PROC	protein C (inactivator of coagulation factors Va and VIIIa)	-1.76154	1.58E-05	-1.54907	0.00039315
A_51_P308298	MYL9	myosin, light chain 9, regulatory	-1.76147	1.35E-05	2.66957	6.95E-10
A_51_P500996	FBXL20	F-box and leucine-rich repeat protein 20	-1.76112	2.32E-06	2.15173	1.02E-08
A_51_P224311	POPDC2	popeye domain containing 2	-1.7608	0.0002825	1.90584	5.84E-05
A_52_P652968	STEAP3	STEAP family member 3, metalloreductase	-1.76019	0.0004639	1.7331	0.00062008
A_51_P244824	DAPP1	dual adaptor of phosphotyrosine and 3-phosphoinositides	-1.75924	1.72E-05	-2.43853	6.88E-09
A_52_P254667			-1.75915	2.39E-05	1.64167	0.00012947
A_52_P877156	LOC102634683	uncharacterized LOC102634683	-1.75823	0.0004133	1.7474	0.00046482
A_51_P367866	EGR1	early growth response 1	-1.75795	8.03E-07	5.80367	6.34E-18
A_51_P264634	STRBP	spermatid perinuclear RNA binding protein	-1.75789	0.0060526	-2.04092	0.00080578
A_52_P328350	RYR3	ryanodine receptor 3	-1.7569	6.10E-05	-4.41925	6.54E-13
A_52_P249672	4833417J20Rik	RIKEN cDNA 4833417J20 gene	-1.75678	0.0040938	-2.92968	2.01E-06
A_51_P340402	EEFSEC	eukaryotic elongation factor, selenocysteine-tRNA-specific	-1.75605	7.35E-09	-1.534	1.12E-06
A_51_P131480	RPTOR	regulatory associated protein of MTOR, complex 1	-1.7545	0.00116	1.66667	0.00272964
A_51_P492482	CSTF2T	cleavage stimulation factor, 3' pre-RNA, subunit 2, 64kDa, ta	-1.75354	2.37E-12	1.85845	2.27E-13
A_52_P283378	ZNF442	zinc finger protein 442	-1.75335	0.0004805	-1.60999	0.0023235
A_52_P373251	ATP11A	ATPase, class VI, type 11A	-1.75292	4.08E-06	-3.08075	4.63E-12
A_51_P181400	EFCAB2	EF-hand calcium binding domain 2	-1.75283	2.29E-07	-1.61075	3.48E-06

A_51_P216527	RNF185	ring finger protein 185	-1.75217	1.85E-08	1.52413	2.86E-06
A_51_P369381	SLC18B1	solute carrier family 18, subfamily B, member 1	-1.75211	6.77E-05	-3.1218	3.04E-10
A_52_P324986	SRPRB	signal recognition particle receptor, B subunit	-1.75167	1.19E-05	-1.50964	0.0005474
A_52_P555629	Zfp862-ps	zinc finger protein 862, pseudogene	-1.74988	7.44E-06	-3.76484	2.25E-13
A_51_P437144	DYNLL2	dynein, light chain, LC8-type 2	-1.74731	2.96E-06	1.81634	1.00E-06
A_52_P19159	MTUS1	microtubule associated tumor suppressor 1	-1.74713	0.0083125	2.4775	7.88E-05
A_51_P160363	UTRN	utrophin	-1.74546	0.0018678	-1.54764	0.0118246
A_52_P223618	RCN3	reticulocalbin 3, EF-hand calcium binding domain	-1.74533	4.73E-08	-1.6555	2.90E-07
A_52_P230688	REP15	RAB15 effector protein	-1.74462	8.00E-05	-1.93853	7.37E-06
A_52_P547491	LURAP1	leucine rich adaptor protein 1	-1.7442	0.0008148	-2.04752	4.38E-05
A_51_P265999	GEMIN8	gem (nuclear organelle) associated protein 8	-1.74336	1.68E-07	-1.55045	8.24E-06
A_51_P514712	PARP14	poly (ADP-ribose) polymerase family, member 14	-1.74145	3.73E-05	-4.28492	3.02E-13
A_51_P177451	GPA33	glycoprotein A33 (transmembrane)	-1.74123	5.29E-06	-2.85227	2.63E-11
A_51_P339344	TMEM81	transmembrane protein 81	-1.73985	0.0007439	-1.59561	0.00345505
A_52_P640686	CIT	citron rho-interacting serine/threonine kinase	-1.73962	0.0001086	-1.77008	7.39E-05
A_52_P577729	RNF169	ring finger protein 169	-1.73961	4.84E-06	4.13848	1.60E-14
A_52_P572808	GPAT3	glycerol-3-phosphate acyltransferase 3	-1.73917	1.32E-06	1.70868	2.23E-06
A_52_P202276	FOCAD	focadhesin	-1.73893	0.0010868	1.72947	0.00119422
A_51_P312069	E130104P22Rik	RIKEN cDNA E130104P22 gene	-1.73818	0.0024867	-1.81221	0.00129911
A_51_P175205	RPS6KB1	ribosomal protein S6 kinase, 70kDa, polypeptide 1	-1.73812	3.54E-05	-1.53473	0.0007066
A_51_P236469	METAP1D	methionyl aminopeptidase type 1D (mitochondrial)	-1.73808	5.62E-08	-1.59436	1.12E-06
A_52_P431872	PTCD3	pentatricopeptide repeat domain 3	-1.73789	5.49E-11	-1.6221	9.87E-10
A_52_P358860	GSS	glutathione synthetase	-1.73756	0.0001155	1.6634	0.00030112
A_51_P482121	EDN2	endothelin 2	-1.73652	4.14E-05	-4.16656	5.13E-13
A_51_P378699	CCDC169-SOHLH2	CCDC169-SOHLH2 readthrough	-1.73588	4.37E-06	1.96639	1.44E-07
A_52_P678717	CSNK1G3	casein kinase 1, gamma 3	-1.7345	0.0041235	-1.60191	0.0123987
A_51_P425798	MTUS2	microtubule associated tumor suppressor candidate 2	-1.73408	7.86E-05	3.01567	5.09E-10
A_51_P138502	TTC28	tetratricopeptide repeat domain 28	-1.73386	0.0010153	2.59195	7.21E-07
A_52_P1026777	ECSCR	endothelial cell surface expressed chemotaxis and apoptosis	-1.73305	0.0002714	-2.76316	2.21E-08
A_52_P362144	CEP41	centrosomal protein 41kDa	-1.73293	0.0019888	-1.91953	0.00037273
A_51_P342466	NUFIP2	nuclear fragile X mental retardation protein interacting prot	-1.73282	1.56E-05	-1.90415	1.38E-06
A_51_P222773	FOXA2	forkhead box A2	-1.73036	6.59E-06	2.06314	6.02E-08
A_52_P478420	Cyp2d22	cytochrome P450, family 2, subfamily d, polypeptide 22	-1.73013	0.0081765	-1.79286	0.0051927
A_51_P141223			-1.72766	0.0088992	-3.08715	3.17E-06
A_51_P226472	AKAP2	A kinase (PRKA) anchor protein 2	-1.72725	0.0001718	1.6691	0.00035768
A_51_P515002	RALY	RALY heterogeneous nuclear ribonucleoprotein	-1.72567	0.0009896	-4.59179	5.27E-11
A_51_P352562	MRPL38	mitochondrial ribosomal protein L38	-1.72449	6.56E-09	-1.76626	2.75E-09
A_52_P277654	PDK1	pyruvate dehydrogenase kinase, isozyme 1	-1.72297	4.62E-09	-3.59195	7.12E-18
A_52_P551184	PTPN13	protein tyrosine phosphatase, non-receptor type 13 (APO-1/	-1.72258	1.01E-06	-3.24597	9.32E-14
A_52_P467449	ALOX12	arachidonate 12-lipoxygenase	-1.7225	1.13E-06	1.76694	5.23E-07
A_51_P493117	SLC16A9	solute carrier family 16, member 9	-1.72159	0.0013404	10.1943	4.50E-15
A_51_P488991	OAF	out at first homolog	-1.71968	1.84E-05	1.77905	7.65E-06
A_52_P193429	ZFH3	zinc finger homeobox 3	-1.71929	0.0009388	2.95216	4.81E-08
A_51_P318488	AKT3	v-akt murine thymoma viral oncogene homolog 3	-1.71925	0.0055976	-1.74778	0.00446162
A_52_P463518	CD200R1	CD200 receptor 1	-1.7184	0.0053494	2.05062	0.00041397
A_51_P214516	NIPSNAP1	nipsnap homolog 1 (C. elegans)	-1.71761	4.67E-12	-2.14856	1.00E-15
A_51_P376127	AIRE	autoimmune regulator	-1.71646	1.36E-05	-28.7434	7.52E-24
A_52_P859333			-1.71625	0.0014014	-5.06159	2.39E-11
A_52_P1019763	Panct2	pluripotency-associated noncoding transcript 2	-1.71595	0.0038189	-1.77718	0.00226766
A_52_P419059	FCGBP	Fc fragment of IgG binding protein	-1.71594	0.000191	15.8623	3.40E-19
A_52_P546135	ANKRD40	ankyrin repeat domain 40	-1.71501	5.37E-06	1.74793	3.15E-06
A_51_P396385	MARS2	methionyl-tRNA synthetase 2, mitochondrial	-1.71482	9.91E-06	-2.6271	2.20E-10
A_52_P70064	SAPCD1	suppressor APC domain containing 1	-1.71356	1.56E-08	-2.56959	5.87E-14

A_51_P412817	DNAH2	dynein, axonemal, heavy chain 2	-1.7128	0.0001827	-4.36666	2.20E-12
A_52_P31246	SCMH1	sex comb on midleg homolog 1 (Drosophila)	-1.71264	0.0002773	3.07475	2.02E-09
A_52_P58024	Gm20765 (includes predicted gene 8764		-1.7123	0.0001271	3.51397	4.19E-11
A_51_P488704	ASB16	ankyrin repeat and SOCS box containing 16	-1.71225	6.23E-05	1.77139	2.77E-05
A_51_P242634	DUSP16	dual specificity phosphatase 16	-1.70961	0.0002811	-1.73908	0.00019662
A_51_P136803	KIF9	kinesin family member 9	-1.70863	0.004229	-5.18345	2.54E-10
A_51_P311038	ADAMTS15	ADAM metalloproteinase with thrombospondin type 1 motif,	-1.70749	0.0085243	-3.6809	1.72E-07
A_52_P570690	ATP1B2	ATPase, Na+/K+ transporting, beta 2 polypeptide	-1.70735	1.24E-05	1.71954	1.02E-05
A_51_P484551	SLC27A2	solute carrier family 27 (fatty acid transporter), member 2	-1.70621	0.0085401	-6.77039	7.29E-11
A_52_P473419	EPB41L4A	erythrocyte membrane protein band 4.1 like 4A	-1.7054	1.16E-05	-2.57331	3.57E-10
A_52_P458319	ACAP1	ArfGAP with coiled-coil, ankyrin repeat and PH domains 1	-1.70439	5.07E-07	-1.84743	3.99E-08
A_51_P192847	GHDC	GH3 domain containing	-1.70388	0.0051882	2.20276	0.00011069
A_51_P304397	CPM	carboxypeptidase M	-1.70206	0.0003664	2.30442	7.00E-07
A_52_P26746	UNC13B	unc-13 homolog B (C. elegans)	-1.70205	0.0044669	-1.90129	0.00084944
A_51_P159612	HEBP2	heme binding protein 2	-1.70121	7.71E-09	2.69311	5.19E-15
A_51_P468054	SMYD1	SET and MYND domain containing 1	-1.69972	0.0002397	-1.57611	0.00118479
A_52_P505277	UBXN10	UBX domain protein 10	-1.69736	0.0003617	-1.62719	0.00085752
A_52_P342836	Gm3383 (includes predicted gene 3383		-1.69598	5.47E-06	1.59983	2.95E-05
A_51_P511015	FZD9	frizzled class receptor 9	-1.69503	7.44E-07	1.74436	2.99E-07
A_52_P287246	HPCA	hippocalcin	-1.69449	0.0030441	1.6288	0.00560399
A_51_P369371	UBTD1	ubiquitin domain containing 1	-1.69206	4.95E-05	2.04524	4.64E-07
A_51_P505521	HIST4H4	histone cluster 4, H4	-1.69068	0.0032844	4.21189	1.49E-09
A_51_P433091	PURB	purine-rich element binding protein B	-1.6904	1.25E-05	2.10429	3.63E-08
A_52_P540462	LYRM9	LYR motif containing 9	-1.69009	1.93E-07	-1.7092	1.32E-07
A_51_P385054	PAK1	p21 protein (Cdc42/Rac)-activated kinase 1	-1.68872	4.49E-10	-2.90328	1.66E-17
A_51_P204387	TMEM63C	transmembrane protein 63C	-1.6886	1.07E-05	-1.63141	2.80E-05
A_51_P233825	AKAP1	A kinase (PRKA) anchor protein 1	-1.68853	0.0028406	2.03153	0.00013281
A_51_P323770	Wfdc15a	WAP four-disulfide core domain 15A	-1.68818	0.0007044	11.1899	1.20E-16
A_51_P337696	UBE2G1	ubiquitin-conjugating enzyme E2G 1	-1.68798	0.0001131	-1.63165	0.00024901
A_51_P163252	SCHIP1	schwannomin interacting protein 1	-1.68771	9.52E-06	-2.4579	5.06E-10
A_51_P162222	Tsx	testis specific X-linked gene	-1.68717	0.0032598	-2.08056	0.00010679
A_51_P174943	LAMC2	laminin, gamma 2	-1.68665	0.0019862	4.45229	1.70E-10
A_52_P365265	GPATCH2	G patch domain containing 2	-1.68531	0.0002324	-1.78846	6.29E-05
A_51_P356303	STX8	syntaxin 8	-1.6851	0.0001067	-2.84942	8.44E-10
A_52_P269158	PID1	phosphotyrosine interaction domain containing 1	-1.68459	4.71E-06	6.42766	3.30E-18
A_52_P205695	METTL7A	methyltransferase like 7A	-1.68429	1.45E-07	2.66012	1.99E-13
A_52_P226407	SMIM14	small integral membrane protein 14	-1.6841	0.0046292	-1.64105	0.00675745
A_52_P676861	LIN28B	lin-28 homolog B (C. elegans)	-1.68396	8.79E-08	-1.51771	3.84E-06
A_52_P409746	SERPINC1	serpin peptidase inhibitor, clade C (antithrombin), member 1	-1.6822	0.0004396	3.46267	2.87E-10
A_52_P597277			-1.68208	0.0013888	1.79728	0.00041945
A_51_P513898	EPB41L4A	erythrocyte membrane protein band 4.1 like 4A	-1.68199	7.91E-10	-3.89791	4.36E-20
A_52_P266320	Akap17b	A kinase (PRKA) anchor protein 17B	-1.68184	5.76E-06	-2.04368	2.37E-08
A_52_P850143	5730480H06Rik	RIKEN cDNA 5730480H06 gene	-1.6817	5.61E-05	-2.39765	1.09E-08
A_52_P392485	RASA2	RAS p21 protein activator 2	-1.68081	0.0006668	1.69409	0.00057146
A_52_P329054	CEP70	centrosomal protein 70kDa	-1.68012	0.0020923	-3.848	1.47E-09
A_51_P362638	TF	transferrin	-1.67996	1.24E-08	-1.63457	3.55E-08
A_52_P238479	MARCH11	membrane-associated ring finger (C3HC4) 11	-1.67784	1.27E-09	-2.04578	8.84E-13
A_51_P467505	TEC	tec protein tyrosine kinase	-1.67767	0.0009905	4.03109	1.18E-10
A_52_P88983	DOCK5	dedicator of cytokinesis 5	-1.67719	3.17E-06	-3.14737	2.90E-13
A_51_P286946	LHPP	phospholysine phosphohistidine inorganic pyrophosphate pl	-1.67609	6.53E-08	-3.59718	6.19E-17
A_51_P406126	Particl	promoter of Mat2a antisense radiation induced circulating l	-1.67577	8.21E-06	2.53017	1.53E-10
A_52_P597634	FZD1	frizzled class receptor 1	-1.67522	0.0051008	7.90318	1.06E-12
A_52_P129443	WDPCP	WD repeat containing planar cell polarity effector	-1.67412	2.21E-06	-1.85785	9.34E-08

A_51_P138673	HECTD3	HECT domain containing E3 ubiquitin protein ligase 3	-1.674	6.27E-07	-4.21728	7.51E-17
A_52_P355751	Gm3383 (includes c	predicted gene 3383	-1.67327	9.20E-06	1.69901	5.95E-06
A_51_P464146	SOWAHB	sosondowah ankyrin repeat domain family member B	-1.67231	0.0069589	10.1104	1.81E-13
A_52_P441937	AOC2	amine oxidase, copper containing 2 (retina-specific)	-1.67176	0.0002804	-3.43258	1.05E-10
A_52_P347796	ZNF442	zinc finger protein 442	-1.67106	0.0041156	-2.23702	3.65E-05
A_52_P177599	Zfp773	zinc finger protein 773	-1.67	0.0016695	-2.13266	1.91E-05
A_51_P343356	Isoc2b	isochorismatase domain containing 2b	-1.66866	0.0020695	-1.67868	0.00186792
A_51_P401527	RNMTL1	RNA methyltransferase like 1	-1.66863	8.45E-10	1.84272	1.73E-11
A_52_P63680	ACER1	alkaline ceramidase 1	-1.66859	0.0002706	-1.80804	4.58E-05
A_52_P663440	ASCC2	activating signal cointegrator 1 complex subunit 2	-1.6679	0.0007973	-2.06919	1.08E-05
A_51_P208145	PMEL	premelanosome protein	-1.66763	1.53E-07	-2.83092	2.94E-14
A_52_P650387	Ccnj1	cyclin J-like	-1.66744	1.53E-05	-2.52895	3.16E-10
A_52_P134381	PSMD12	proteasome 26S subunit, non-ATPase 12	-1.66736	0.0023304	-1.65711	0.00258468
A_51_P468381	PURB	purine-rich element binding protein B	-1.66705	0.0056588	1.74606	0.00286103
A_51_P307721	CBLN1	cerebellin 1 precursor	-1.66678	2.37E-07	-3.73484	1.38E-16
A_52_P549418	STXBP4	syntaxin binding protein 4	-1.66582	0.0036944	-2.41213	7.78E-06
A_52_P623809			-1.66569	0.0031482	-1.63262	0.00433652
A_51_P515684	1700001L05Rik	RIKEN cDNA 1700001L05 gene	-1.66261	1.39E-06	-1.96769	7.58E-09
A_51_P309854	Kcnn2	potassium intermediate/small conductance calcium-activate	-1.66011	1.01E-06	-1.50757	2.49E-05
A_52_P534203	PIAS2	protein inhibitor of activated STAT, 2	-1.65975	2.90E-07	-2.0698	2.30E-10
A_51_P402393	KLHL8	kelch-like family member 8	-1.65891	1.03E-09	1.81903	2.69E-11
A_51_P311904	PTK2B	protein tyrosine kinase 2 beta	-1.65884	5.70E-05	3.0412	3.95E-11
A_52_P334677	CLOCK	clock circadian regulator	-1.65874	0.0010324	-1.83837	0.0001404
A_52_P577338	LRIG2	leucine-rich repeats and immunoglobulin-like domains 2	-1.65809	0.0030484	1.53798	0.0100481
A_52_P189377	STON2	stonin 2	-1.65695	5.39E-07	-1.7506	8.58E-08
A_52_P213220	METTL4	methyltransferase like 4	-1.65592	0.0012448	-2.33398	1.67E-06
A_51_P284608	CD74	CD74 molecule, major histocompatibility complex, class II in	-1.65549	1.65E-06	-3.26945	2.59E-14
A_51_P333923	TSPAN1	tetraspanin 1	-1.6554	0.002848	-3.89347	1.43E-09
A_51_P476579			-1.65533	2.05E-05	-1.55632	0.00011334
A_51_P173114	CDHR1	cadherin-related family member 1	-1.65486	0.0001913	-1.75981	4.59E-05
A_51_P486810	GPX2	glutathione peroxidase 2	-1.65263	2.33E-05	3.54242	3.53E-13
A_51_P401504	COL9A2	collagen, type IX, alpha 2	-1.65098	4.33E-10	1.69388	1.47E-10
A_51_P174720	CCDC43	coiled-coil domain containing 43	-1.65072	0.0001047	1.51544	0.00083218
A_51_P395856	SLC22A7	solute carrier family 22 (organic anion transporter), member	-1.65072	1.57E-07	3.81082	3.14E-17
A_51_P332917	ENPP3	ectonucleotide pyrophosphatase/phosphodiesterase 3	-1.65026	1.22E-05	-8.61125	1.29E-19
A_51_P294535	UNC5B	unc-5 netrin receptor B	-1.65005	0.0056486	1.90113	0.00063473
A_52_P76146	DNMT3A	DNA (cytosine-5-)-methyltransferase 3 alpha	-1.64958	0.0042538	-2.3794	9.58E-06
A_52_P234039	ZNRF3	zinc and ring finger 3	-1.64916	0.0005041	-1.53555	0.00220097
A_52_P329408	SIPA1L1	signal-induced proliferation-associated 1 like 1	-1.6482	0.0056913	-3.7309	1.35E-08
A_52_P47276	LOC102641693	cyclin-related protein FAM58A-like	-1.64798	0.0012374	1.55817	0.00349448
A_51_P116298	SLC17A9	solute carrier family 17 (vesicular nucleotide transporter), m	-1.64787	2.62E-05	-2.04495	7.94E-08
A_51_P259902	ARL6IP5	ADP-ribosylation factor-like 6 interacting protein 5	-1.64764	0.0001485	-1.67966	9.38E-05
A_52_P61752	TSPAN1	tetraspanin 1	-1.64722	0.0004205	-2.31573	2.63E-07
A_51_P247157	HN1	hematological and neurological expressed 1	-1.64669	0.0004075	-1.55955	0.001299
A_51_P464387	HSPB8	heat shock 22kDa protein 8	-1.64636	4.70E-09	2.95309	5.67E-17
A_51_P349825	C6orf203	chromosome 6 open reading frame 203	-1.64528	1.28E-08	-1.55909	1.12E-07
A_52_P80806	SYNCRIP	synaptotagmin binding, cytoplasmic RNA interacting protein	-1.64391	0.0001099	-2.11252	2.40E-07
A_52_P371154	SGMS1	sphingomyelin synthase 1	-1.64286	1.69E-07	-1.63536	1.99E-07
A_52_P181533	Gm3383 (includes c	predicted gene 3383	-1.64241	0.0022072	1.7369	0.00081832
A_52_P565847	AU018091	expressed sequence AU018091	-1.64213	0.001975	-1.67003	0.00146194
A_51_P254181	FAHD2B	fumarylacetoacetate hydrolase domain containing 2B	-1.64185	0.0043575	-1.96466	0.0002292
A_51_P333850	SENPF	SUMO1/sentrin specific peptidase 7	-1.64165	7.96E-06	-3.20942	2.98E-13
A_52_P519105			-1.64164	0.0015453	2.31221	2.20E-06

A_51_P346132	Rhox6/Rhox9	reproductive homeobox 9	-1.6375	4.21E-06	4.20218	5.30E-16
A_52_P27332	Ppp2r5c	protein phosphatase 2, regulatory subunit B', gamma	-1.63732	3.68E-07	-4.23974	9.73E-18
A_52_P37774	4930429B21Rik	RIKEN cDNA 4930429B21 gene	-1.63651	0.0002659	2.14723	5.22E-07
A_52_P454703	HNRNPU	heterogeneous nuclear ribonucleoprotein U (scaffold attach	-1.63644	4.29E-05	-2.38444	2.78E-09
A_52_P502141	HECTD2	HECT domain containing E3 ubiquitin protein ligase 2	-1.63617	0.0024663	2.70988	2.59E-07
A_52_P505143	JRK	Jrk helix-turn-helix protein	-1.63452	3.67E-05	1.81199	2.24E-06
A_52_P299903	KIF5C	kinesin family member 5C	-1.63437	7.95E-05	-3.39443	4.21E-12
A_52_P295950	IGF2BP1	insulin-like growth factor 2 mRNA binding protein 1	-1.63384	0.0001815	-1.74779	3.61E-05
A_51_P430033	CCDC13	coiled-coil domain containing 13	-1.63251	1.25E-05	1.97827	5.07E-08
A_51_P318577	SULT6B1	sulfotransferase family, cytosolic, 6B, member 1	-1.63229	0.0055586	-3.99849	3.07E-09
A_51_P328883	Zfp810	zinc finger protein 810	-1.63218	8.57E-05	-1.51078	0.00060552
A_52_P472725	PEX13	peroxisomal biogenesis factor 13	-1.63199	0.0062442	-1.98361	0.00029219
A_51_P517388	PLBD1	phospholipase B domain containing 1	-1.63087	0.0027711	6.50301	5.05E-13
A_52_P520466	KIF18B	kinesin family member 18B	-1.63056	2.92E-11	2.63719	1.24E-18
A_52_P241676	SLC9A3R2	solute carrier family 9, subfamily A (NHE3, cation proton ant	-1.63048	1.21E-06	-1.61978	1.51E-06
A_51_P488333	A130022F02Rik	RIKEN cDNA A130022F02 gene	-1.62929	0.0015277	-1.58261	0.00262082
A_52_P196388	TMEM8A	transmembrane protein 8A	-1.62845	3.35E-05	-2.82856	3.14E-11
A_52_P420005	WDR62	WD repeat domain 62	-1.62806	0.0005551	-1.67382	0.00030639
A_52_P249283	Gm38685	predicted gene, 38685	-1.62754	0.0012628	1.50921	0.00522238
A_51_P115817	RALGPS2	Ral GEF with PH domain and SH3 binding motif 2	-1.62706	1.17E-09	-2.29623	4.65E-15
A_51_P318365	IGF1R	insulin-like growth factor 1 receptor	-1.62675	0.0002065	-2.2336	1.17E-07
A_52_P665326	MED13	mediator complex subunit 13	-1.62647	7.74E-06	-1.61405	9.79E-06
A_51_P305508	RERG	RAS-like, estrogen-regulated, growth inhibitor	-1.62601	1.93E-05	-3.91723	1.76E-14
A_51_P101719	TTC14	tetratricopeptide repeat domain 14	-1.62596	0.005974	1.77969	0.00146571
A_51_P323450	CDC42EP4	CDC42 effector protein (Rho GTPase binding) 4	-1.62488	1.83E-06	-1.51989	1.72E-05
A_52_P651948	FAM229B	family with sequence similarity 229, member B	-1.62309	7.13E-05	1.90273	1.12E-06
A_52_P488596	AP1S2	adaptor-related protein complex 1, sigma 2 subunit	-1.6227	0.0019593	-2.43046	8.95E-07
A_51_P418357	MOV10L1	Mov10 RISC complex RNA helicase like 1	-1.62242	0.0069993	2.5298	5.66E-06
A_51_P415220	ZMAT3	zinc finger, matrin-type 3	-1.62199	1.79E-06	1.96978	3.68E-09
A_52_P370392	MAPK8IP2	mitogen-activated protein kinase 8 interacting protein 2	-1.62082	7.13E-08	1.9488	9.77E-11
A_52_P136808	DTYMK	deoxythymidylate kinase (thymidylate kinase)	-1.62064	5.91E-07	-1.61332	6.94E-07
A_51_P517157	TMEM43	transmembrane protein 43	-1.62027	4.41E-07	3.79351	5.86E-17
A_52_P357611	NEU3	sialidase 3 (membrane sialidase)	-1.6194	0.0004316	4.30208	1.28E-12
A_51_P394984	LPIN1	lipin 1	-1.61904	9.85E-06	5.97318	4.31E-18
A_52_P422976	AP2M1	adaptor-related protein complex 2, mu 1 subunit	-1.61895	0.0090141	-2.64387	4.54E-06
A_52_P462432	COPG1	coatomer protein complex, subunit gamma 1	-1.61797	0.0045465	-2.21569	2.11E-05
A_51_P213666	PSMA8	proteasome subunit alpha 8	-1.61634	2.62E-05	-1.93822	1.60E-07
A_51_P413122	STRADA	STE20-related kinase adaptor alpha	-1.61623	1.62E-09	-1.51019	3.38E-08
A_52_P1114640	2410003L11Rik	RIKEN cDNA 2410003L11 gene	-1.61601	0.0010484	-3.99153	2.95E-11
A_51_P268234	IL34	interleukin 34	-1.61576	0.0004386	3.77233	1.07E-11
A_51_P338615	ADPRH	ADP-ribosylarginine hydrolase	-1.61507	1.02E-05	1.73612	1.14E-06
A_52_P412037			-1.61429	0.0065612	2.09267	0.00010049
A_51_P196687	IFNGR2	interferon gamma receptor 2 (interferon gamma transducer	-1.61229	0.0002139	-2.91904	2.74E-10
A_51_P289742	SLC27A5	solute carrier family 27 (fatty acid transporter), member 5	-1.61228	3.14E-05	-2.09382	2.38E-08
A_51_P372826	SMOX	spermine oxidase	-1.61161	3.11E-08	2.07657	3.48E-12
A_52_P85983	MRPL45	mitochondrial ribosomal protein L45	-1.61101	0.0001068	-1.74848	1.29E-05
A_52_P715388			-1.60996	0.0042876	1.5868	0.00542721
A_52_P276537	RALGPS2	Ral GEF with PH domain and SH3 binding motif 2	-1.60995	0.0002794	-2.3678	3.48E-08
A_52_P126045	PHTF2	putative homeodomain transcription factor 2	-1.60929	4.13E-06	-1.72459	4.48E-07
A_51_P123345	Arf2	ADP-ribosylation factor 2	-1.60912	0.0046839	3.80322	2.24E-09
A_51_P292582	ELOVL2	ELOVL fatty acid elongase 2	-1.60806	0.0005746	3.13408	4.27E-10
A_52_P599549	RRAGB	Ras-related GTP binding B	-1.60522	0.0001488	-1.70112	3.43E-05
A_51_P216595	USP28	ubiquitin specific peptidase 28	-1.60499	7.36E-06	-2.88439	8.57E-13

A_52_P321325	ZHX3	zinc fingers and homeoboxes 3	-1.60377	0.0042063	3.12442	3.47E-08
A_51_P398191	AUTS2	autism susceptibility candidate 2	-1.60311	1.86E-05	-2.2164	1.99E-09
A_52_P420734	RASGRP2	RAS guanyl releasing protein 2 (calcium and DAG-regulated)	-1.60303	0.0004333	-1.67683	0.00015516
A_52_P576041	RGL1	ral guanine nucleotide dissociation stimulator-like 1	-1.60275	1.02E-05	2.16793	1.50E-09
A_52_P574190	PSMD12	proteasome 26S subunit, non-ATPase 12	-1.60262	1.32E-12	-1.67365	1.61E-13
A_51_P245368	Abcb1b	ATP-binding cassette, sub-family B (MDR/TAP), member 1B	-1.60244	0.0004827	7.9042	1.73E-16
A_51_P465445	MAP4	microtubule-associated protein 4	-1.60184	1.57E-05	-1.71939	1.88E-06
A_51_P394354	FAM213A	family with sequence similarity 213, member A	-1.60162	0.0001473	2.05794	2.67E-07
A_51_P429472	FAM188A	family with sequence similarity 188, member A	-1.60144	4.38E-07	-2.62097	1.11E-13
A_52_P241519	MYO1C	myosin 1C	-1.60077	0.000373	-2.82802	1.08E-09
A_51_P520310	ALOX12	arachidonate 12-lipoxygenase	-1.60062	0.0008116	2.03053	4.70E-06
A_52_P640694	RIMS3	regulating synaptic membrane exocytosis 3	-1.60039	6.39E-05	-5.40652	3.45E-16
A_52_P483105	LPIN1	lipin 1	-1.59971	3.23E-06	6.87583	4.25E-20
A_52_P143477	Tgoln1	trans-golgi network protein	-1.59929	7.13E-05	1.59376	7.83E-05
A_52_P560728	SERHL2	serine hydrolase-like 2	-1.59848	7.09E-09	-2.48209	1.76E-15
A_52_P233801	DYSF	dysferlin	-1.59805	0.0019388	-2.23688	2.57E-06
A_52_P421220	DZIP1	DAZ interacting zinc finger protein 1	-1.59709	0.0002455	2.87865	3.06E-10
A_52_P274028	SSR1	signal sequence receptor, alpha	-1.59574	0.0012031	-1.5628	0.00182921
A_52_P716154	EARS2	glutamyl-tRNA synthetase 2, mitochondrial	-1.59541	5.76E-05	-3.55848	2.86E-13
A_52_P663149	UTP18	UTP18 small subunit (SSU) processome component homolog	-1.59324	0.0003482	-2.05509	8.32E-07
A_52_P116704	SLC25A39	solute carrier family 25, member 39	-1.59006	0.0001641	-1.57569	0.00020671
A_52_P324866	ARNT	aryl hydrocarbon receptor nuclear translocator	-1.58729	0.0005231	-1.79851	2.95E-05
A_52_P568781	SEC63	SEC63 homolog, protein translocation regulator	-1.58685	0.0002106	-1.97232	9.10E-07
A_52_P589509	SCAPER	S-phase cyclin A-associated protein in the ER	-1.58631	1.91E-09	-2.04622	8.92E-14
A_52_P401795	Btn1	butyrophilin-like 1	-1.58607	0.0005962	-1.52854	0.00135109
A_51_P483473	ST3GAL5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5	-1.58572	1.60E-06	1.74828	5.56E-08
A_52_P653367	SLC26A2	solute carrier family 26 (anion exchanger), member 2	-1.58497	7.27E-06	2.24974	2.03E-10
A_52_P621109			-1.58403	7.51E-07	2.13278	3.79E-11
A_52_P561260	C20orf194	chromosome 20 open reading frame 194	-1.58312	0.0035234	1.82221	0.00027167
A_52_P34031	1700019G17Rik	RIKEN cDNA 1700019G17 gene	-1.58273	0.0073375	1.91853	0.0003187
A_52_P170339	NF2	neurofibromin 2 (merlin)	-1.58136	3.35E-08	-1.89435	3.27E-11
A_51_P240986	PLEKHG6	pleckstrin homology domain containing, family G (with RhoC)	-1.58104	1.34E-07	2.42911	8.20E-14
A_51_P106059	TRAF4	TNF receptor-associated factor 4	-1.58092	1.00E-06	2.94051	1.16E-14
A_52_P639025	TMEM57	transmembrane protein 57	-1.58081	0.0014915	-1.85543	5.45E-05
A_51_P479177	NOSIP	nitric oxide synthase interacting protein	-1.5807	1.34E-07	-2.88839	9.50E-16
A_51_P144957	TRAM11L1	translocation associated membrane protein 1-like 1	-1.58055	0.0088787	19.0003	5.53E-17
A_52_P226127	DIDO1	death inducer-obliterator 1	-1.57899	2.07E-06	2.66321	3.40E-13
A_51_P262515	PHF11	PHD finger protein 11	-1.57888	4.50E-09	-1.99465	4.59E-13
A_52_P154971	SLC27A2	solute carrier family 27 (fatty acid transporter), member 2	-1.57793	4.34E-06	-6.08756	1.82E-19
A_52_P488305	NDEL1	nudE neurodevelopment protein 1-like 1	-1.5779	0.0017455	2.038	9.24E-06
A_52_P348704	DNAJB5	DnaJ (Hsp40) homolog, subfamily B, member 5	-1.57767	1.27E-05	2.68863	4.35E-12
A_51_P430055	TSPAN7	tetraspanin 7	-1.57759	1.29E-05	2.24738	3.91E-10
A_51_P336114	WDR62	WD repeat domain 62	-1.57727	2.12E-07	-1.80079	1.52E-09
A_52_P483101	LPIN1	lipin 1	-1.57596	0.0001118	6.03179	9.22E-17
A_51_P462516	SENP7	SUMO1/sentrin specific peptidase 7	-1.57583	0.0004408	-3.17126	7.63E-11
A_51_P480861	Pga5	pepsinogen 5, group I	-1.572	0.0052876	1.80236	0.00049515
A_51_P207591	ANXA8/ANXA8L1	annexin A8-like 1	-1.57192	3.68E-07	50.8329	1.40E-30
A_51_P178592	MRPL1	mitochondrial ribosomal protein L1	-1.57142	0.0057991	-2.07738	4.39E-05
A_51_P444994	TMEM203	transmembrane protein 203	-1.57011	0.0052095	4.58928	5.75E-11
A_52_P438084	PRKCZ	protein kinase C, zeta	-1.56935	4.51E-06	-2.32398	2.60E-11
A_52_P578268	SEC63	SEC63 homolog, protein translocation regulator	-1.56922	3.43E-05	-1.66226	6.16E-06
A_52_P201655	STRADA	STE20-related kinase adaptor alpha	-1.5688	0.0010536	-1.77051	7.51E-05
A_52_P300500	GPHN	gephyrin	-1.56786	0.0043799	3.39548	3.65E-09

A_52_P213550	CHRNA5	cholinergic receptor, nicotinic, alpha 5 (neuronal)	-1.56608	0.0001689	-2.14284	5.03E-08
A_52_P590396	SORT1	sortilin 1	-1.56571	0.000775	-2.98519	5.90E-10
A_51_P149503	DIRAS1	DIRAS family, GTP-binding RAS-like 1	-1.56482	3.06E-06	-1.76075	5.42E-08
A_52_P116204	CADM1	cell adhesion molecule 1	-1.5639	3.58E-06	1.93327	3.21E-09
A_52_P290221	ZNF182	zinc finger protein 182	-1.56347	0.002664	-1.95886	3.10E-05
A_51_P306689	RCOR2	REST corepressor 2	-1.56103	1.05E-05	-2.81155	6.41E-13
A_51_P142923	CHKA	choline kinase alpha	-1.56049	9.05E-07	-1.59372	4.12E-07
A_51_P474538	IGF1R	insulin-like growth factor 1 receptor	-1.55866	0.0038479	-3.61695	6.91E-10
A_51_P429295	PUS10	pseudouridylate synthase 10	-1.55682	6.35E-09	-1.73015	6.87E-11
A_51_P342259	TMEM57	transmembrane protein 57	-1.55678	0.0017705	-1.57018	0.00148791
A_51_P320668	ACTR3B	ARP3 actin-related protein 3 homolog B (yeast)	-1.55639	1.51E-10	-1.50588	8.02E-10
A_52_P23413	SGK223	homolog of rat pragma of Rnd2	-1.55361	0.0068131	-2.00352	8.09E-05
A_52_P1180449	RTN4	reticulon 4	-1.55319	0.0047943	-1.9859	5.15E-05
A_51_P100174	MNS1	meiosis-specific nuclear structural 1	-1.55297	2.40E-08	-1.68993	6.86E-10
A_51_P361099	ADSS	adenylosuccinate synthase	-1.55294	0.0005448	-1.83439	9.83E-06
A_51_P470935	BDH2	3-hydroxybutyrate dehydrogenase, type 2	-1.55294	0.0060902	-7.42328	8.59E-14
A_51_P303095	TTC28	tetratricopeptide repeat domain 28	-1.5529	0.0013954	2.06358	2.83E-06
A_51_P234853	SDHB	succinate dehydrogenase complex, subunit B, iron sulfur (lp)	-1.55279	0.0010207	-2.08094	1.38E-06
A_51_P144438	ZNFX1	zinc finger, NFX1-type containing 1	-1.55249	0.0004166	-1.54193	0.00049201
A_51_P518926	BORCS6	BLOC-1 related complex subunit 6	-1.55197	0.0007592	1.5971	0.00039338
A_51_P209914	RPGR	retinitis pigmentosa GTPase regulator	-1.5518	0.0005247	-1.60306	0.00024088
A_52_P513041	FRY	furry homolog (Drosophila)	-1.55155	0.0002784	-2.31909	1.16E-08
A_52_P595908	RNF138	ring finger protein 138, E3 ubiquitin protein ligase	-1.55129	0.0004389	-1.68799	5.49E-05
A_51_P432724	WDR31	WD repeat domain 31	-1.55086	0.0001076	-3.39339	5.24E-13
A_51_P313444	FKBP6	FK506 binding protein 6, 36kDa	-1.54981	0.0002042	3.10109	1.07E-11
A_52_P479001	DDX58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58	-1.54911	0.0055607	-3.19411	1.11E-08
A_51_P432420	CEP131	centrosomal protein 131kDa	-1.54828	1.43E-05	-2.80085	7.54E-13
A_52_P533779	ANKRD40	ankyrin repeat domain 40	-1.54748	4.29E-08	1.98781	2.73E-12
A_52_P313933	1700057H21Rik	RIKEN cDNA 1700057H21 gene	-1.54691	0.0040561	-15.2981	7.13E-18
A_52_P483104	LPIN1	lipin 1	-1.54618	9.00E-05	7.85848	5.24E-19
A_51_P153973	ZNF676	zinc finger protein 676	-1.54533	0.0002407	-1.6996	1.96E-05
A_52_P67088	NME4	NME/NM23 nucleoside diphosphate kinase 4	-1.54514	2.69E-08	1.55183	2.22E-08
A_51_P510567	ZFYVE28	zinc finger, FYVE domain containing 28	-1.54422	0.0009117	-2.64188	5.05E-09
A_51_P502107	SBNO1	strawberry notch homolog 1 (Drosophila)	-1.5441	2.25E-07	-2.34237	1.26E-13
A_51_P220262	RNF165	ring finger protein 165	-1.54395	0.0008556	-4.71273	1.21E-13
A_52_P573377	SMS	spermine synthase	-1.54369	0.0008412	-1.80309	2.25E-05
A_51_P511315	PSTPIP1	proline-serine-threonine phosphatase interacting protein 1	-1.54361	6.62E-06	1.6204	1.25E-06
A_51_P302358	LTB	lymphotoxin beta (TNF superfamily, member 3)	-1.54296	9.13E-07	-8.98327	1.78E-23
A_51_P359454	C6orf89	chromosome 6 open reading frame 89	-1.53904	1.46E-07	1.59071	3.73E-08
A_51_P152336	USP49	ubiquitin specific peptidase 49	-1.5389	0.0047979	-1.64503	0.00142992
A_52_P91152	SEMA3E	sema domain, immunoglobulin domain (lg), short basic dom	-1.53873	0.0076726	-1.61161	0.00356839
A_51_P468055	SMYD1	SET and MYND domain containing 1	-1.53854	0.0004696	-1.61806	0.00013453
A_52_P401614	D930048N14Rik	RIKEN cDNA D930048N14 gene	-1.53831	0.0014745	-3.07044	6.10E-10
A_52_P245059	SGSM2	small G protein signaling modulator 2	-1.53819	6.15E-07	1.72552	7.73E-09
A_51_P419169	SUV39H2	suppressor of variegation 3-9 homolog 2 (Drosophila)	-1.53815	5.25E-07	-1.50402	1.29E-06
A_52_P439263	UGT8	UDP glycosyltransferase 8	-1.5381	0.0018405	1.79485	6.76E-05
A_51_P444666	TMEM106A	transmembrane protein 106A	-1.53722	8.38E-05	-3.76139	2.74E-14
A_51_P230347	Srsf12	serine/arginine-rich splicing factor 12	-1.53626	0.0022584	5.75106	6.22E-14
A_51_P417077	VILL	villin-like	-1.53563	0.0033423	-1.60714	0.00139224
A_51_P341255	AI842136	expressed sequence AI842136	-1.53513	0.0002017	-2.36112	2.62E-09
A_52_P649786	ASB3/GPR75-ASB3	ankyrin repeat and SOCS box containing 3	-1.5343	0.0086749	3.17246	2.72E-08
A_51_P376857	DET1	de-etiolated homolog 1 (Arabidopsis)	-1.53429	9.24E-08	1.65933	3.55E-09
A_51_P308681	MCUR1	mitochondrial calcium uniporter regulator 1	-1.53338	3.76E-06	-2.3891	2.80E-12

A_52_P312473	9230114K14Rik	RIKEN cDNA 9230114K14 gene	-1.53172	0.0010851	2.99236	4.02E-10
A_51_P450248	Esx1	extraembryonic, spermatogenesis, homeobox 1	-1.53078	0.0074778	-2.62648	4.34E-07
A_52_P682099	FAM149B1	family with sequence similarity 149, member B1	-1.53072	0.0010577	-1.52485	0.00115326
A_52_P182298	RLN1	relaxin 1	-1.52975	0.0036628	21.7314	1.05E-19
A_51_P120948	CUL4B	cullin 4B	-1.52951	4.19E-05	-1.66044	3.26E-06
A_51_P246345	MYL7	myosin, light chain 7, regulatory	-1.52951	0.0020776	-3.7936	2.37E-11
A_51_P489779	CDK6	cyclin-dependent kinase 6	-1.52937	0.0005386	-2.13224	1.43E-07
A_51_P114287	CPSF6	cleavage and polyadenylation specific factor 6, 68kDa	-1.52771	4.90E-06	-2.76032	8.77E-14
A_52_P59801	FRY	furry homolog (Drosophila)	-1.5257	0.0045664	-3.45988	8.13E-10
A_51_P276063	PHYH	phytanoyl-CoA 2-hydroxylase	-1.52545	3.34E-05	-1.70421	9.99E-07
A_51_P329928	PHLDA3	pleckstrin homology-like domain, family A, member 3	-1.5246	3.82E-06	5.51515	8.12E-20
A_51_P337089	GIN51	GIN5 complex subunit 1 (Psf1 homolog)	-1.52362	5.13E-05	-1.55984	2.48E-05
A_52_P6404	BPTF	bromodomain PHD finger transcription factor	-1.52326	0.0076663	-3.3108	6.75E-09
A_52_P617817	HSPA4	heat shock 70kDa protein 4	-1.52246	0.0006172	-1.52221	0.00061966
A_52_P1053544			-1.52208	0.0055489	-2.29559	2.13E-06
A_51_P191046	Platr10	pluripotency associated transcript 10	-1.51971	6.13E-07	-1.98609	3.19E-11
A_52_P81231	ACPP	acid phosphatase, prostate	-1.5194	0.0074787	4.48333	4.56E-11
A_52_P433817	GAB3	GRB2-associated binding protein 3	-1.51907	0.0067103	-1.70068	0.00088874
A_52_P652671	HPS1	Hermansky-Pudlak syndrome 1	-1.51825	0.0062574	-2.08986	1.53E-05
A_51_P250459	METTL5	methyltransferase like 5	-1.51813	0.0052464	-4.1257	5.24E-11
A_51_P262533	CXXC1	CXXC finger protein 1	-1.51807	0.000202	-1.74223	4.33E-06
A_51_P112223	Gsta4	glutathione S-transferase, alpha 4	-1.51792	1.64E-08	-3.25036	3.03E-19
A_51_P341369	PQLC1	PQ loop repeat containing 1	-1.51768	6.28E-06	1.95139	1.22E-09
A_51_P130409	PPP1R13B	protein phosphatase 1, regulatory subunit 13B	-1.51711	0.0003486	2.64254	3.03E-10
A_52_P222135	LRCH1	leucine-rich repeats and calponin homology (CH) domain coi	-1.51704	0.0005295	-1.63213	8.27E-05
A_52_P403443	TNS3	tensin 3	-1.51544	1.92E-05	-1.71257	3.29E-07
A_52_P385801	SPOCK2	sparc/osteonectin, cwcv and kazal-like domains proteoglyca	-1.51436	0.0006748	-1.98458	7.91E-07
A_51_P229325	SMYD3	SET and MYND domain containing 3	-1.51414	1.48E-06	-1.76186	4.98E-09
A_52_P390448			-1.51385	0.0001039	-1.52838	7.82E-05
A_51_P230267	HLA-A	major histocompatibility complex, class I, A	-1.51371	0.0007328	-3.43397	6.28E-12
A_52_P402960	PTPN4	protein tyrosine phosphatase, non-receptor type 4 (megaka	-1.51305	0.0005303	-1.85492	2.83E-06
A_51_P153977	ZNF676	zinc finger protein 676	-1.51287	0.0013513	-1.83116	1.60E-05
A_51_P348652	SPAST	spastin	-1.51208	1.18E-05	-3.17429	8.55E-15
A_52_P338951	D630045M09Rik	RIKEN cDNA D630045M09 gene	-1.51124	8.92E-05	2.27048	7.75E-10
A_52_P420045	CHKA	choline kinase alpha	-1.51023	7.34E-05	-2.43284	9.33E-11
A_52_P508317	ERLEC1	endoplasmic reticulum lectin 1	-1.51	0.0031701	-1.80661	7.56E-05
A_52_P307961	ABCA5	ATP-binding cassette, sub-family A (ABC1), member 5	-1.50999	0.0005758	1.54153	0.00034178
A_52_P557129	SLC12A5	solute carrier family 12 (potassium/chloride transporter), m	-1.50991	0.0016971	2.52543	1.68E-08
A_52_P470046	CYFIP2	cytoplasmic FMR1 interacting protein 2	-1.50968	0.0001848	3.92729	2.16E-14
A_51_P151756	UTP6	UTP6, small subunit (SSU) processome component, homolog	-1.5095	0.0049866	-1.53993	0.00344178
A_52_P590756	SLC25A35	solute carrier family 25, member 35	-1.50812	0.0035716	-3.41868	2.83E-10
A_51_P269546	TREM2	triggering receptor expressed on myeloid cells 2	-1.50681	0.0079176	-4.38477	4.87E-11
A_52_P391058	Zfp952	zinc finger protein 952	-1.50582	0.0009914	1.61272	0.00019056
A_52_P290202	BAIAP2	BAI1-associated protein 2	-1.50412	0.0039078	2.39948	2.53E-07
A_52_P125354	SLC2A8	solute carrier family 2 (facilitated glucose transporter), mem	-1.50382	0.0053222	-1.63425	0.00109956
A_52_P498241	CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)	-1.50346	2.24E-05	6.31902	1.05E-19
A_52_P497208	CAMKV	CaM kinase-like vesicle-associated	-1.50324	3.58E-05	-5.11658	6.43E-18
A_52_P299684	ZDHHC9	zinc finger, DHHC-type containing 9	-1.50315	0.0001219	-1.64035	8.97E-06
A_51_P116609	TEX12	testis expressed 12	-1.50302	0.0009401	2.26188	4.58E-08
A_51_P162671	FOLR2	folate receptor 2 (fetal)	-1.50172	0.0010191	4.08387	3.95E-13
A_52_P18577	CCDC138	coiled-coil domain containing 138	1.5001	0.0014628	-2.30341	6.64E-08
A_52_P135175	TMEM128	transmembrane protein 128	1.50025	5.11E-07	1.66371	7.51E-09
A_51_P190254	SCRN1	secernin 1	1.50033	7.40E-05	3.30205	6.55E-14

A_52_P76216	GAREM	GRB2 associated, regulator of MAPK1	1.50098	1.84E-05	-2.16204	1.57E-10
A_52_P378765	PRIMPOL	primase and polymerase (DNA-directed)	1.50141	0.0009261	-1.52355	0.00065034
A_51_P493627	TBC1D2B	TBC1 domain family, member 2B	1.50205	0.0034538	1.78116	9.94E-05
A_51_P186487	PIK3C2B	phosphatidylinositol-4-phosphate 3-kinase, catalytic subunit	1.50244	4.21E-05	1.95972	1.01E-08
A_51_P165342	ANXA2	annexin A2	1.50275	0.0008076	-3.14106	2.90E-11
A_51_P199968	FRMD6	FERM domain containing 6	1.50279	7.55E-06	2.3456	4.35E-12
A_52_P430179	Plekha6	pleckstrin homology domain containing, family A member 6	1.50308	6.81E-06	3.79424	5.92E-17
A_51_P268734	KPTN	kaptin (actin binding protein)	1.50347	0.0013199	-1.67842	9.98E-05
A_51_P311048	TGFBRAP1	transforming growth factor, beta receptor associated protei	1.50369	0.0002142	1.56081	7.45E-05
A_51_P495049	CKMT1A/CKMT1B	creatine kinase, mitochondrial 1B	1.50372	2.29E-07	4.61736	6.80E-21
A_51_P440790	DPP7	dipeptidyl-peptidase 7	1.504	1.70E-06	1.54953	5.25E-07
A_52_P110257	WDR83	WD repeat domain 83	1.50452	0.0002169	-1.62838	2.30E-05
A_51_P191393	POM121/POM121C	POM121 transmembrane nucleoporin	1.50504	0.0069591	1.89992	8.90E-05
A_51_P453088	Coa6	cytochrome c oxidase assembly factor 6	1.5065	0.0050572	1.58744	0.00188594
A_51_P380581	FUBP1	far upstream element (FUSE) binding protein 1	1.50667	0.0008078	-1.77098	1.46E-05
A_52_P530979	HBS1L	HBS1-like translational GTPase	1.50745	0.0014261	-1.85344	1.16E-05
A_52_P91978	LMBRD2	LMBR1 domain containing 2	1.50753	0.0012372	1.56676	0.00050658
A_51_P211131	TRAF3IP2	TRAF3 interacting protein 2	1.50898	4.95E-08	3.22353	1.15E-18
A_51_P138879	ZGPAT	zinc finger, CCCH-type with G patch domain	1.5096	1.43E-09	2.66315	1.16E-18
A_51_P450561	TEF	thyrotrophic embryonic factor	1.50975	6.44E-05	5.6622	5.66E-18
A_52_P139740	MDP1	magnesium-dependent phosphatase 1	1.51149	0.0016086	2.64561	5.95E-09
A_51_P229886	FPGT	fucose-1-phosphate guanylyltransferase	1.51177	0.0001109	2.00166	3.23E-08
A_51_P234539	NFXL1	nuclear transcription factor, X-box binding-like 1	1.51289	3.97E-05	-1.5007	5.15E-05
A_51_P293127	ZBTB5	zinc finger and BTB domain containing 5	1.5134	0.0014744	2.59248	7.97E-09
A_51_P382925	FADD	Fas (TNFRSF6)-associated via death domain	1.51346	4.94E-08	1.90712	4.10E-12
A_51_P474158	NOP16	NOP16 nucleolar protein	1.51368	9.62E-05	1.95503	5.29E-08
A_52_P159951	ZNF777	zinc finger protein 777	1.51385	0.0085256	2.308	4.03E-06
A_52_P310530	RBFOX2	RNA binding protein, fox-1 homolog (C. elegans) 2	1.51463	0.000141	1.88452	2.68E-07
A_51_P326242	NT5DC1	5'-nucleotidase domain containing 1	1.51464	8.50E-06	-1.58256	1.80E-06
A_52_P446011	ETNK1	ethanolamine kinase 1	1.51497	0.0068277	1.58784	0.00299137
A_51_P179498	FAM92A1	family with sequence similarity 92, member A1	1.51582	6.68E-06	-1.6109	7.58E-07
A_51_P135340	PANX1	pannexin 1	1.51621	0.0002673	1.6265	3.94E-05
A_52_P483768	DCUN1D4	DCN1, defective in cullin neddylation 1, domain containing 4	1.51631	1.25E-05	-2.74859	2.91E-13
A_51_P227090	RAMP3	receptor (G protein-coupled) activity modifying protein 3	1.51712	2.01E-10	1.62774	6.03E-12
A_52_P516059	TIA1	TIA1 cytotoxic granule-associated RNA binding protein	1.51763	0.0005857	-2.26075	2.96E-08
A_51_P220813	GNG2	guanine nucleotide binding protein (G protein), gamma 2	1.51771	0.0054939	-1.76343	0.00032889
A_52_P489240	REXO2	RNA exonuclease 2	1.51793	0.0064457	3.49536	1.40E-09
A_51_P159113	HR	hair growth associated	1.51806	0.0007941	2.04672	5.45E-07
A_51_P494825	MFHAS1	malignant fibrous histiocytoma amplified sequence 1	1.51809	0.0002504	2.12137	3.16E-08
A_52_P464315	CTSA	cathepsin A	1.51852	1.28E-05	1.51121	1.51E-05
A_52_P381303	GINS2	GINS complex subunit 2 (Psf2 homolog)	1.51866	0.002178	-1.99709	5.59E-06
A_52_P217986	ACAP2	ArfGAP with coiled-coil, ankyrin repeat and PH domains 2	1.51919	0.0021016	1.75501	9.27E-05
A_51_P469261			1.51936	8.36E-05	-1.72281	1.95E-06
A_51_P310676	GALR2	galanin receptor 2	1.5196	0.0089114	1.81345	0.00042151
A_52_P253167	TOR1AIP2	torsin A interacting protein 2	1.52042	2.34E-08	1.66524	4.26E-10
A_51_P191331	SIPA1	signal-induced proliferation-associated 1	1.52045	2.44E-06	-2.11117	3.17E-11
A_52_P306065	NUAK1	NUAK family, SNF1-like kinase, 1	1.52065	0.0004579	-2.1567	6.38E-08
A_52_P346581	COLGALT1	collagen beta(1-O)galactosyltransferase 1	1.5207	3.07E-05	2.23235	2.89E-10
A_52_P206925	PARP16	poly (ADP-ribose) polymerase family, member 16	1.5213	2.01E-06	-3.49957	8.28E-17
A_52_P90747	PTPRS	protein tyrosine phosphatase, receptor type, S	1.52132	3.23E-05	2.0276	4.62E-09
A_51_P400166	TREX1	three prime repair exonuclease 1	1.52153	0.0005498	2.70511	5.28E-10
A_52_P422675	HOOK3	hook microtubule-tethering protein 3	1.52289	0.0001123	-1.67554	6.94E-06
A_51_P442016	CAMKK2	calcium/calmodulin-dependent protein kinase kinase 2, beta	1.52294	0.0058681	-3.32632	2.90E-09

A_51_P432460	PPP1R14A	protein phosphatase 1, regulatory (inhibitor) subunit 14A	1.52366	0.0026	3.96399	1.67E-11
A_52_P683146	CDH11	cadherin 11, type 2, OB-cadherin (osteoblast)	1.52376	2.01E-06	1.77822	7.11E-09
A_52_P632617	SMCR8	Smith-Magenis syndrome chromosome region, candidate 8	1.52424	0.0001218	2.78085	1.65E-11
A_51_P507290	KLF5	Kruppel-like factor 5 (intestinal)	1.52457	0.0014423	1.65558	0.00022921
A_51_P167562	Erdr1	erythroid differentiation regulator 1	1.5246	4.65E-07	1.77855	1.20E-09
A_52_P361664	VTI1A	vesicle transport through interaction with t-SNAREs 1A	1.52467	6.93E-07	-1.63375	4.59E-08
A_51_P209150	PCDH10	protocadherin 10	1.52522	0.0050462	1.5542	0.00359139
A_52_P617080	TMX2	thioredoxin-related transmembrane protein 2	1.52531	2.26E-08	1.55818	8.62E-09
A_51_P464158	TMEM128	transmembrane protein 128	1.52552	0.0006302	1.77641	1.46E-05
A_52_P73214	GTF3C4	general transcription factor IIIC, polypeptide 4, 90kDa	1.52577	1.53E-05	-1.51218	2.07E-05
A_51_P219061	OXA1L	oxidase (cytochrome c) assembly 1-like	1.52585	0.000103	1.50487	0.00015414
A_52_P224125	FZD5	frizzled class receptor 5	1.52634	0.0076086	2.2516	6.69E-06
A_52_P637338	ALKBH7	alkB homolog 7	1.52707	5.45E-06	2.33788	7.05E-12
A_51_P378550	OPLAH	5-oxoprolinase (ATP-hydrolysing)	1.52765	0.0002855	-1.60253	8.01E-05
A_52_P221887	REPIN1	replication initiator 1	1.52884	0.0007137	2.82543	4.65E-10
A_52_P57889	MPP7	membrane protein, palmitoylated 7 (MAGUK p55 subfamily)	1.52894	0.0025006	1.92957	1.88E-05
A_51_P385961	SIDT2	SID1 transmembrane family, member 2	1.5299	2.92E-05	2.10045	1.92E-09
A_52_P107674	RBM4B	RNA binding motif protein 4B	1.52991	0.0001659	2.92168	1.24E-11
A_51_P208801	NDUFAB1	NADH dehydrogenase (ubiquinone) 1, alpha/beta subcompl	1.5306	0.0056758	-1.75983	0.00044573
A_52_P331227			1.53086	0.0008927	3.83123	2.57E-12
A_51_P256759	ATRAID	all-trans retinoic acid-induced differentiation factor	1.53174	0.0001973	2.24799	7.48E-09
A_52_P676108	RNASEH2A	ribonuclease H2, subunit A	1.53181	4.21E-06	-2.09706	1.24E-10
A_52_P577123	CLIP1	CAP-GLY domain containing linker protein 1	1.53239	0.0008367	1.75971	3.15E-05
A_51_P495492	STX4	syntaxin 4	1.53273	3.29E-06	-2.37767	2.56E-12
A_51_P336161	MAN2B1	mannosidase, alpha, class 2B, member 1	1.53308	1.16E-06	2.03609	5.38E-11
A_52_P475889	Uba52	ubiquitin A-52 residue ribosomal protein fusion product 1	1.53411	2.97E-05	1.55578	1.90E-05
A_52_P418056	SEC24B	SEC24 homolog B, COPII coat complex component	1.53432	6.39E-06	1.89343	5.49E-09
A_52_P214740	UBE2L6	ubiquitin-conjugating enzyme E2L 6	1.53474	0.0008329	2.05541	8.29E-07
A_51_P279851	DHPS	deoxyhypusine synthase	1.53535	1.15E-07	-1.54939	7.82E-08
A_51_P237548	DZANK1	double zinc ribbon and ankyrin repeat domains 1	1.53561	0.004991	-1.5449	0.00448521
A_52_P602669	Serpib6d	serine (or cysteine) peptidase inhibitor, clade B, member 6d	1.53681	0.0006504	1.6714	8.60E-05
A_51_P464478	IL4R	interleukin 4 receptor	1.5377	0.0015742	1.68322	0.00022241
A_51_P399896	MATK	megakaryocyte-associated tyrosine kinase	1.53827	0.0007424	-1.573	0.00043989
A_51_P513979	C9orf9	chromosome 9 open reading frame 9	1.53878	0.0033264	-1.8744	6.68E-05
A_52_P147633	RWDD4	RWD domain containing 4	1.53972	0.0007327	-2.04753	8.29E-07
A_51_P173459	NIM1K	NIM1 serine/threonine protein kinase	1.54005	0.000778	-1.57668	0.00045042
A_52_P628162	ZNF592	zinc finger protein 592	1.54026	0.0027708	1.59116	0.00146535
A_51_P495232	GPX8	glutathione peroxidase 8 (putative)	1.54032	0.0001517	2.06157	5.55E-08
A_52_P126070	CENPW	centromere protein W	1.5414	0.0006439	2.08558	4.53E-07
A_51_P437737	DHODH	dihydroorotate dehydrogenase (quinone)	1.54168	8.14E-06	-1.749	1.18E-07
A_51_P177659	ABHD18	abhydrolase domain containing 18	1.54175	0.0010735	-1.56156	0.00080825
A_52_P164161	CYP51A1	cytochrome P450, family 51, subfamily A, polypeptide 1	1.54199	5.86E-07	-2.94957	1.19E-15
A_51_P373428	SLC16A13	solute carrier family 16, member 13	1.54216	8.42E-05	2.40101	4.79E-10
A_52_P574653	BID	BH3 interacting domain death agonist	1.54282	8.37E-07	-1.5345	1.03E-06
A_52_P391081	HINFP	histone H4 transcription factor	1.54342	7.54E-10	1.58824	1.91E-10
A_52_P206526	Gtf2ird2	GTF2I repeat domain containing 2	1.54346	1.17E-07	-1.65637	6.52E-09
A_52_P516091	PLA2G15	phospholipase A2, group XV	1.54435	1.63E-06	1.61217	3.32E-07
A_52_P236088	GDPD1	glycerophosphodiester phosphodiesterase domain containir	1.54497	0.0028655	1.79266	0.00014855
A_52_P598478	CHCHD3	coiled-coil-helix-coiled-coil-helix domain containing 3	1.545	8.71E-05	1.56249	6.30E-05
A_51_P483488	ABCB8	ATP-binding cassette, sub-family B (MDR/TAP), member 8	1.54549	6.32E-05	-1.8255	4.88E-07
A_52_P644226	PHTF1	putative homeodomain transcription factor 1	1.54553	5.02E-06	1.77535	4.44E-08
A_51_P202033	WLS	wntless Wnt ligand secretion mediator	1.54667	0.0005626	11.2329	5.47E-19
A_51_P275976	DOK1	docking protein 1, 62kDa (downstream of tyrosine kinase 1)	1.5471	9.33E-05	5.48402	8.83E-17

A_51_P288978			1.54879	0.0017591	-2.09957	2.65E-06
A_52_P93933	MCL1	myeloid cell leukemia 1	1.54885	1.47E-05	2.13396	8.04E-10
A_51_P459679	F8A1 (includes other	coagulation factor VIII-associated 1	1.55065	2.02E-05	8.23227	1.70E-20
A_51_P477941	FBXW4	F-box and WD repeat domain containing 4	1.55079	2.23E-05	3.02936	3.02E-13
A_51_P309740	USP40	ubiquitin specific peptidase 40	1.55084	0.0006407	1.71118	6.24E-05
A_52_P62037	ANXA2	annexin A2	1.55215	1.46E-05	-3.03603	1.46E-13
A_52_P135707	CREB3	cAMP responsive element binding protein 3	1.55224	2.63E-05	2.03278	8.10E-09
A_52_P7105	2610005L07Rik	cadherin 11 pseudogene	1.5531	0.0010621	3.29876	1.21E-10
A_52_P228964	SHPRH	SNF2 histone linker PHD RING helicase, E3 ubiquitin protein	1.55315	0.0008328	1.89355	8.62E-06
A_52_P500622	ABHD18	abhydrolase domain containing 18	1.55339	0.0053753	-2.78016	1.28E-07
A_51_P408410	CTSA	cathepsin A	1.55348	6.04E-05	1.58718	3.22E-05
A_51_P441286	TTC5	tetratricopeptide repeat domain 5	1.55428	4.95E-05	3.56791	5.06E-14
A_51_P290207	INSIG1	insulin induced gene 1	1.55505	0.0005169	-2.60061	3.12E-09
A_52_P341708	1810015C11Rik	RIKEN cDNA 1810015C11 gene	1.55592	0.0010208	1.54199	0.00124153
A_51_P463452	ACSL1	acyl-CoA synthetase long-chain family member 1	1.55686	0.0012416	-2.01667	4.22E-06
A_52_P522023	ALKBH1	alkB homolog 1, histone H2A dioxygenase	1.55739	1.27E-07	1.64126	1.54E-08
A_52_P668984	TMEM243	transmembrane protein 243, mitochondrial	1.55945	0.0001099	-2.38226	1.55E-09
A_51_P364153	OBFC1	oligonucleotide/oligosaccharide-binding fold containing 1	1.55975	0.0013409	-1.78312	7.53E-05
A_51_P504354	NRARP	NOTCH-regulated ankyrin repeat protein	1.5598	0.0072492	1.8891	0.00028521
A_51_P290986	DHCR7	7-dehydrocholesterol reductase	1.56027	3.86E-07	-2.37825	3.08E-13
A_52_P471175	DENND5B	DENN/MADD domain containing 5B	1.56056	0.0013869	1.78597	7.72E-05
A_52_P570266	PSMB10	proteasome subunit beta 10	1.56121	0.0003659	-1.94954	1.51E-06
A_51_P144825	TPP1	tripeptidyl peptidase I	1.56125	0.0078827	1.6976	0.00204386
A_51_P482571	WNT6	wingless-type MMTV integration site family, member 6	1.56318	2.05E-06	6.88982	4.95E-21
A_52_P600600	MYO5B	myosin VB	1.56324	0.0010469	-1.92569	1.03E-05
A_51_P212038	ATP6V0E2	ATPase, H+ transporting V0 subunit e2	1.5637	1.39E-06	2.2965	5.49E-12
A_52_P661102	Xpnpep3	X-prolyl aminopeptidase (aminopeptidase P) 3, putative	1.5643	0.0006346	1.69251	0.00010215
A_52_P18559	SBNO2	strawberry notch homolog 2 (Drosophila)	1.56665	0.0004563	3.52871	8.29E-12
A_51_P133252	SLC27A3	solute carrier family 27 (fatty acid transporter), member 3	1.56785	0.0017793	4.77007	1.50E-12
A_51_P359122	TMEM238	transmembrane protein 238	1.56918	0.0022095	-2.00357	1.62E-05
A_52_P285277	ST7	suppression of tumorigenicity 7	1.56983	0.0075911	1.90012	0.00032497
A_51_P461475	ATN1	atrophin 1	1.56988	7.03E-10	1.76396	4.21E-12
A_52_P325161	ZBTB10	zinc finger and BTB domain containing 10	1.56998	1.21E-05	2.43569	3.48E-11
A_51_P137953	UGDH	UDP-glucose 6-dehydrogenase	1.57051	4.80E-07	-1.9934	1.11E-10
A_51_P245090	AQP3	aquaporin 3 (Gill blood group)	1.57363	3.99E-05	3.27986	3.52E-13
A_52_P43727	KIAA0930	KIAA0930	1.57369	1.45E-06	1.57294	1.48E-06
A_52_P655925	SFMBT2	Scm-like with four mbt domains 2	1.57422	0.0004255	-1.78469	2.11E-05
A_52_P515907	C18orf54	chromosome 18 open reading frame 54	1.57485	0.0002967	2.02401	6.10E-07
A_51_P407417	ADAMTS9	ADAM metalloproteinase with thrombospondin type 1 motif,	1.57513	0.0018559	-1.78426	0.0001505
A_52_P46419	GRK6	G protein-coupled receptor kinase 6	1.57527	6.45E-08	1.60807	2.79E-08
A_52_P82704	BCL11A	B-cell CLL/lymphoma 11A (zinc finger protein)	1.57558	0.0063302	-16.5993	4.48E-17
A_51_P354724	WDR83	WD repeat domain 83	1.5756	6.68E-05	-1.5047	0.00024214
A_52_P580145	ZNF526	zinc finger protein 526	1.57562	3.63E-05	4.57303	7.00E-16
A_51_P236769	DNASE1L1	deoxyribonuclease I-like 1	1.57573	1.41E-06	-3.91698	4.08E-17
A_52_P579519	TMEM144	transmembrane protein 144	1.57601	2.51E-05	3.13644	4.20E-13
A_52_P571715	TROAP	trophinin associated protein	1.57613	0.0002859	2.81264	3.56E-10
A_51_P345836	PRKRA	protein kinase, interferon-inducible double stranded RNA de	1.57677	3.49E-06	-3.15311	1.45E-14
A_51_P416974	PBX3	pre-B-cell leukemia homeobox 3	1.57711	0.0002324	-2.27209	2.79E-08
A_52_P215539	C8orf82	chromosome 8 open reading frame 82	1.57713	3.78E-06	1.52993	1.07E-05
A_52_P195922	EXOSC6	exosome component 6	1.5772	7.52E-08	1.83842	2.16E-10
A_51_P259773	SLC37A2	solute carrier family 37 (glucose-6-phosphate transporter), r	1.57815	6.76E-05	6.99996	4.42E-18
A_52_P571444	WWTR1	WW domain containing transcription regulator 1	1.57823	0.0033652	-1.54267	0.00502886
A_52_P29765	CMC1	C-x(9)-C motif containing 1	1.57905	0.0001089	1.50981	0.00036003

A_52_P226476	KIF7	kinesin family member 7	1.57982	2.82E-06	1.61429	1.34E-06
A_52_P4666	CENPK	centromere protein K	1.58058	0.0010018	-2.53541	3.95E-08
A_52_P319181	EFCAB11	EF-hand calcium binding domain 11	1.58185	0.0001869	-1.69114	3.39E-05
A_51_P383369	TENM3	teneurin transmembrane protein 3	1.58246	1.90E-05	-3.31457	1.03E-13
A_51_P140721	CHST14	carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 1	1.58265	7.92E-05	2.5867	2.60E-10
A_52_P65268	THNSL1	threonine synthase-like 1	1.5828	8.94E-05	2.43691	1.27E-09
A_51_P145507	FOXO3	forkhead box O3	1.58371	0.0005553	3.43847	3.50E-11
A_51_P177502	DDX19B	DEAD (Asp-Glu-Ala-Asp) box polypeptide 19B	1.5839	2.53E-06	2.15963	1.36E-10
A_51_P356705	PLEKHB2	pleckstrin homology domain containing, family B (evectins) 1	1.58426	0.0015332	4.20724	1.22E-11
A_51_P242608	9130019O22Rik/ZfRRIKEN cDNA 9130019O22 gene		1.58458	5.92E-09	1.64977	1.06E-09
A_51_P350252	FAT1	FAT atypical cadherin 1	1.58465	0.001065	2.32694	2.87E-07
A_52_P325428	ANKZF1	ankyrin repeat and zinc finger domain containing 1	1.5847	0.000702	1.52132	0.00170367
A_52_P416756	D17H6S56E-5	DNA segment, Chr 17, human D6S56E 5	1.5855	6.26E-07	-1.84183	3.18E-09
A_52_P287328	ARMC6	armadillo repeat containing 6	1.5858	0.0089834	1.94286	0.00037292
A_52_P542710	C4orf27	chromosome 4 open reading frame 27	1.58595	0.0022398	-2.21399	3.16E-06
A_51_P427736	GOPC	golgi-associated PDZ and coiled-coil motif containing	1.58712	0.0023705	1.67701	0.00083832
A_51_P291585	MPHOSPH9	M-phase phosphoprotein 9	1.58724	8.40E-05	2.43788	1.29E-09
A_51_P494430	ID4	inhibitor of DNA binding 4, dominant negative helix-loop-helix	1.58733	0.0020732	1.88713	6.93E-05
A_52_P31543	BTG2	BTG family, member 2	1.58869	5.18E-08	15.5808	2.69E-27
A_52_P271244	POLD3	polymerase (DNA-directed), delta 3, accessory subunit	1.5888	4.67E-05	-1.55448	8.68E-05
A_51_P192501	GRAMD3	GRAM domain containing 3	1.58898	0.0017836	-2.27125	1.34E-06
A_51_P503004	CPNE7	copine VII	1.58958	0.0092472	3.0542	2.59E-07
A_51_P361201	ATP6V0D1	ATPase, H+ transporting, lysosomal 38kDa, V0 subunit d1	1.59019	0.0078466	1.87008	0.00060331
A_52_P412417	TNFAIP3	tumor necrosis factor, alpha-induced protein 3	1.5903	0.0001051	1.73083	1.11E-05
A_51_P471760	ZNF780B	zinc finger protein 780B	1.59134	0.0021293	-1.61662	0.00158193
A_52_P531829	OXA1L	oxidase (cytochrome c) assembly 1-like	1.59164	0.0004003	1.73392	5.37E-05
A_51_P114297	KIFC3	kinesin family member C3	1.59196	5.60E-06	-2.11805	8.97E-10
A_51_P368543	ABHD8	abhydrolase domain containing 8	1.59205	7.56E-05	-1.69635	1.34E-05
A_51_P389895	SLC35F5	solute carrier family 35, member F5	1.59207	7.40E-06	-3.40779	1.63E-14
A_51_P234881	ELOVL4	ELOVL fatty acid elongase 4	1.59211	1.50E-06	2.44566	2.82E-12
A_51_P388847	STAP2	signal transducing adaptor family member 2	1.59297	0.0001019	-3.50692	1.03E-12
A_51_P220934	VSTM5	V-set and transmembrane domain containing 5	1.59306	6.94E-07	-7.91096	3.97E-22
A_51_P234692	Neat1	nuclear paraspeckle assembly transcript 1 (non-protein coding)	1.59339	0.0007527	2.22931	4.73E-07
A_51_P367060	IFRD1	interferon-related developmental regulator 1	1.59361	1.33E-06	1.85819	7.40E-09
A_52_P301724	NAB1	NGFI-A binding protein 1 (EGR1 binding protein 1)	1.5949	0.0003157	2.0801	5.61E-07
A_51_P113068	AGO3	argonaute RISC catalytic component 3	1.59564	0.0044652	2.06924	4.63E-05
A_52_P308875	APOBEC3B	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 3	1.59892	0.0029774	-10.8213	5.83E-16
A_51_P485410	ZSCAN22	zinc finger and SCAN domain containing 22	1.60003	4.82E-08	3.56486	4.19E-18
A_51_P488646	BMP1	bone morphogenetic protein 1	1.60037	0.000196	2.12142	1.92E-07
A_52_P516130	TMEM164	transmembrane protein 164	1.60093	6.49E-08	-2.27113	4.08E-13
A_51_P225889	TIA1	TIA1 cytotoxic granule-associated RNA binding protein	1.60118	0.0018035	-1.93927	4.16E-05
A_52_P468378	Pdxk-ps	pyridoxal (pyridoxine, vitamin B6) kinase, pseudogene	1.60242	9.31E-05	-2.12379	6.34E-08
A_52_P462013	CLN8	ceroid-lipofuscinosis, neuronal 8	1.60287	2.29E-06	2.38779	1.35E-11
A_51_P300618	CRB2	crumbs family member 2	1.60377	0.009255	2.34624	2.44E-05
A_51_P108573	TMEM62	transmembrane protein 62	1.60509	0.0009322	2.58551	4.32E-08
A_51_P372550	CGREF1	cell growth regulator with EF-hand domain 1	1.60666	5.36E-05	7.69133	2.18E-18
A_51_P373911	C1QTNF5	C1q and tumor necrosis factor related protein 5	1.60671	7.36E-06	2.84664	1.22E-12
A_51_P473272	TSPAN6	tetraspanin 6	1.60673	0.0038205	5.00832	2.04E-11
A_51_P323642	Vmn1r49 (includes)	vomer nasal 1, receptor 49	1.60712	0.0031401	4.33568	9.79E-11
A_52_P414464	RCAN2	regulator of calcineurin 2	1.60719	0.0003353	-1.97155	2.80E-06
A_52_P337550	FAF2	Fas associated factor family member 2	1.60769	0.000957	2.12951	2.56E-06
A_51_P448814	ZFP90	ZFP90 zinc finger protein	1.60799	5.78E-05	-1.74531	6.22E-06
A_52_P186785	LOC102642189	uncharacterized LOC102642189	1.60812	2.74E-06	2.48925	7.00E-12

A_51_P171999	APOE	apolipoprotein E	1.60856	2.34E-08	1.74913	8.85E-10
A_52_P686091	PHF2	PHD finger protein 2	1.60884	0.0002732	1.6061	0.00028439
A_52_P59400	C8orf34	chromosome 8 open reading frame 34	1.6095	4.60E-05	1.60166	5.27E-05
A_51_P165027	PYGO1	pygopus family PHD finger 1	1.6097	0.0067498	-1.55742	0.0110217
A_51_P334730	SRD5A3	steroid 5 alpha-reductase 3	1.60999	0.0007152	-2.05632	3.56E-06
A_51_P481489	ROBO3	roundabout guidance receptor 3	1.61012	9.70E-05	21.0357	1.89E-22
A_51_P124719	CCDC93	coiled-coil domain containing 93	1.61016	1.26E-06	-1.50478	1.34E-05
A_51_P331798	PIP5KL1	phosphatidylinositol-4-phosphate 5-kinase-like 1	1.6103	0.0088441	-4.7008	6.70E-10
A_52_P159490	PPP1R9A	protein phosphatase 1, regulatory subunit 9A	1.61099	0.0005032	-1.83958	2.58E-05
A_51_P183515	2210416O15Rik	RIKEN cDNA 2210416O15 gene	1.61136	0.0004058	2.55176	1.39E-08
A_51_P305537	ST3GAL2	ST3 beta-galactoside alpha-2,3-sialyltransferase 2	1.61189	0.0006172	1.54147	0.00159579
A_51_P171288	GLI3	GLI family zinc finger 3	1.61216	5.15E-07	1.53135	3.34E-06
A_52_P455089	EIF3C	eukaryotic translation initiation factor 3, subunit C	1.61291	3.72E-10	1.7376	1.50E-11
A_51_P520894	SLC4A3	solute carrier family 4 (anion exchanger), member 3	1.61308	0.0001601	2.43144	8.14E-09
A_52_P10017	TMEM64	transmembrane protein 64	1.61343	0.0010511	1.55959	0.00206565
A_51_P266640	NOB1	NIN1/RPN12 binding protein 1 homolog	1.61395	2.74E-05	2.56412	1.36E-10
A_51_P516756	HIPK3	homeodomain interacting protein kinase 3	1.6145	0.0001228	1.92409	1.45E-06
A_52_P337427	IZUMO4	IZUMO family member 4	1.61451	6.00E-07	2.67307	1.60E-13
A_52_P515057	SLC25A24	solute carrier family 25 (mitochondrial carrier; phosphate ca	1.61461	0.0065727	2.45841	6.84E-06
A_51_P367763	PELI2	pellino E3 ubiquitin protein ligase family member 2	1.61463	1.05E-05	2.49615	5.88E-11
A_51_P327322	CENPK	centromere protein K	1.6153	0.0011663	-2.53521	1.25E-07
A_51_P274091	PPP1R15B	protein phosphatase 1, regulatory subunit 15B	1.61548	6.64E-06	1.76773	4.10E-07
A_51_P506284	PDLIM7	PDZ and LIM domain 7 (enigma)	1.61596	0.0076398	-2.64155	2.99E-06
A_52_P375455	PRKCE	protein kinase C, epsilon	1.61597	0.0019815	2.99023	1.76E-08
A_52_P18262	PLCB1	phospholipase C, beta 1 (phosphoinositide-specific)	1.61603	0.0065362	1.77746	0.00149092
A_51_P382849	EMB	embigin	1.61616	2.87E-07	-2.79975	1.93E-14
A_51_P357433	AP1G2	adaptor-related protein complex 1, gamma 2 subunit	1.61695	0.0001549	-4.45822	7.47E-14
A_51_P320888	CLN5	ceroid-lipofuscinosis, neuronal 5	1.61705	0.0006323	1.74557	0.00012142
A_51_P157042	CTGF	connective tissue growth factor	1.61799	8.20E-05	6.95142	2.90E-17
A_52_P145349	STRADB	STE20-related kinase adaptor beta	1.61926	3.84E-07	-1.58609	8.13E-07
A_52_P200286	DNAH17	dynein, axonemal, heavy chain 17	1.61973	0.0038389	3.3315	1.44E-08
A_51_P297579	GCH1	GTP cyclohydrolase 1	1.62029	7.07E-06	-1.55155	2.72E-05
A_51_P175736	YIF1A	Yip1 interacting factor homolog A (S. cerevisiae)	1.62077	8.72E-06	4.88538	8.23E-17
A_52_P278354	BMP7	bone morphogenetic protein 7	1.62098	1.91E-05	2.28385	1.56E-09
A_51_P251754	C15orf61	chromosome 15 open reading frame 61	1.62177	0.0065482	1.69561	0.00333427
A_51_P215356	PDE4DIP	phosphodiesterase 4D interacting protein	1.62327	1.23E-05	1.84409	2.89E-07
A_52_P129697	STRADB	STE20-related kinase adaptor beta	1.62374	0.004461	-1.51089	0.0136193
A_51_P205170	ZNF282	zinc finger protein 282	1.62396	0.0001729	2.22311	9.22E-08
A_52_P281935	PPP6R3	protein phosphatase 6, regulatory subunit 3	1.62416	0.0005671	3.54682	6.94E-11
A_52_P322141	CCDC88B	coiled-coil domain containing 88B	1.6242	9.09E-05	4.65259	1.59E-14
A_52_P566605	HSD17B7	hydroxysteroid (17-beta) dehydrogenase 7	1.62523	9.00E-07	-1.54921	4.75E-06
A_51_P119544	AGA	aspartylglucosaminidase	1.62575	2.07E-07	4.44826	1.20E-18
A_51_P310862	Rsl1 (includes otherregulator of sex limited protein 1		1.62597	0.0001134	2.8877	1.56E-10
A_52_P625873	HELQ	helicase, POLQ-like	1.62695	0.0069736	1.9702	0.00036013
A_51_P129929	Zfp866	zinc finger protein 866	1.6274	0.0001835	1.70318	6.13E-05
A_51_P484158	STEAP1	six transmembrane epithelial antigen of the prostate 1	1.62777	0.00012	1.53418	0.00051899
A_51_P487360	HPCAL1	hippocalcin-like 1	1.62792	3.29E-07	2.25085	9.88E-12
A_52_P201482	PRICKLE2	prickle homolog 2	1.62792	0.0032115	-4.53166	9.74E-11
A_51_P427080	ASAP2	ArfGAP with SH3 domain, ankyrin repeat and PH domain 2	1.62877	2.14E-06	-3.22919	2.22E-14
A_51_P150530	TM2D1	TM2 domain containing 1	1.62898	8.03E-06	2.7765	4.81E-12
A_52_P390700			1.62898	0.0008084	-1.71689	0.00027404
A_52_P361338	Rab10os	RAB10, member RAS oncogene family, opposite strand	1.62982	0.0007692	1.87667	4.04E-05
A_52_P528963	EPS15L1	epidermal growth factor receptor pathway substrate 15-like	1.63018	0.0001166	2.07288	3.05E-07

A_51_P328439	ZNF423	zinc finger protein 423	1.63041	0.0039813	-3.16881	4.61E-08
A_52_P177021	PTS	6-pyruvoyltetrahydropterin synthase	1.63091	7.79E-06	-2.37199	2.10E-10
A_51_P114551	C1orf123	chromosome 1 open reading frame 123	1.63124	3.01E-05	2.1663	1.49E-08
A_51_P157524	E2F4	E2F transcription factor 4, p107/p130-binding	1.63135	0.0003777	-2.20124	4.66E-07
A_52_P597618	ACSL1	acyl-CoA synthetase long-chain family member 1	1.63168	3.51E-05	-2.48358	6.89E-10
A_51_P280401	TCTA	T-cell leukemia translocation altered	1.63208	4.57E-05	2.9466	2.47E-11
A_51_P433824	TPI1	triosephosphate isomerase 1	1.63267	9.16E-08	-3.91234	4.90E-18
A_52_P321875	RPL31	ribosomal protein L31	1.6349	1.25E-05	1.65803	8.31E-06
A_51_P296517	ESRP2	epithelial splicing regulatory protein 2	1.63546	4.18E-09	-1.79347	1.10E-10
A_52_P75034	C8orf58	chromosome 8 open reading frame 58	1.63546	5.89E-07	-2.93531	3.24E-14
A_52_P271572	ECE2	endothelin converting enzyme 2	1.63601	0.0033869	-2.28977	9.58E-06
A_52_P183071	RNF146	ring finger protein 146	1.63624	1.31E-06	1.64585	1.08E-06
A_51_P213030	MACROD1	MACRO domain containing 1	1.63695	1.41E-06	2.3243	3.73E-11
A_51_P244586	ZNF618	zinc finger protein 618	1.63986	0.0001439	-1.53279	0.00072288
A_51_P439824	GIPC1	GIPC PDZ domain containing family, member 1	1.64046	9.21E-07	-2.15589	1.84E-10
A_51_P435027	TMEM186	transmembrane protein 186	1.64062	0.001502	2.51524	4.16E-07
A_51_P425944	KPNA6	karyopherin alpha 6 (importin alpha 7)	1.6425	0.0083437	2.22123	9.10E-05
A_52_P78730	C11orf1	chromosome 11 open reading frame 1	1.64262	3.83E-07	2.61162	3.58E-13
A_52_P56488	ZNF558	zinc finger protein 558	1.64274	0.0090044	-1.6201	0.0108692
A_51_P427934	MEGF8	multiple EGF-like-domains 8	1.64323	0.0001977	1.52972	0.00102952
A_52_P131418	SNX9	sorting nexin 9	1.64557	9.01E-06	-1.55343	4.99E-05
A_52_P223269	ZFP37	ZFP37 zinc finger protein	1.64738	0.0013158	2.97539	1.71E-08
A_51_P268697	SLC1A3	solute carrier family 1 (glial high affinity glutamate transport	1.64808	1.10E-05	-3.2692	4.19E-13
A_51_P324410	VTI1A	vesicle transport through interaction with t-SNAREs 1A	1.64933	6.38E-06	-2.44591	1.20E-10
A_51_P502545	GLCE	glucuronic acid epimerase	1.64936	0.0051191	1.5322	0.0150569
A_51_P451799	ESPN	espin	1.64939	0.00231	1.57989	0.00479451
A_51_P339380	Setmar	SET domain without mariner transposase fusion	1.64976	0.001335	1.67985	0.00095225
A_51_P385993	RELA	v-rel avian reticuloendotheliosis viral oncogene homolog A	1.65023	5.69E-07	1.9292	3.49E-09
A_51_P293530	RRP8	ribosomal RNA processing 8, methyltransferase, homolog (y	1.65103	7.51E-07	1.68857	3.54E-07
A_52_P490272	NUP98	nucleoporin 98kDa	1.65183	1.50E-05	1.68537	8.47E-06
A_51_P173043	EGR2	early growth response 2	1.65184	0.0002449	1.7655	5.38E-05
A_51_P424959	BCL6B	B-cell CLL/lymphoma 6, member B	1.65321	2.12E-06	-2.20732	4.03E-10
A_52_P338956	ASPG	asparaginase	1.6535	7.50E-05	-2.16596	9.42E-08
A_51_P323812	SLC6A12	solute carrier family 6 (neurotransmitter transporter), meml	1.65413	0.0010983	1.84392	0.00013382
A_52_P142191	APH1B	APH1B gamma secretase subunit	1.65525	0.0001801	-3.39364	3.53E-11
A_52_P17194	MED22	mediator complex subunit 22	1.65576	0.0001013	2.37065	1.94E-08
A_51_P150521	MGAT2	mannosyl (alpha-1,6-)-glycoprotein beta-1,2-N-acetylglucos:	1.65626	0.0033466	2.22027	2.29E-05
A_51_P235775	MASTL	microtubule associated serine/threonine kinase-like	1.65775	0.0001391	-1.53913	0.00079332
A_51_P105879	MYO5B	myosin VB	1.65793	0.0013483	-2.63764	2.03E-07
A_51_P137800	PAPL	iron/zinc purple acid phosphatase-like protein	1.65825	1.25E-07	2.58591	1.59E-13
A_51_P304437	PFKFB4	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4	1.65932	8.74E-08	1.66935	7.02E-08
A_52_P421713	C8orf58	chromosome 8 open reading frame 58	1.65956	1.84E-07	-3.06421	4.84E-15
A_51_P465161	HOGA1	4-hydroxy-2-oxoglutarate aldolase 1	1.6597	0.0015032	2.7872	9.58E-08
A_51_P477019	RNASET2	ribonuclease T2	1.66029	0.004851	4.48954	8.10E-10
A_51_P160576	BRSK2	BR serine/threonine kinase 2	1.66206	0.000713	-1.89222	5.17E-05
A_51_P120254	FBXL8	F-box and leucine-rich repeat protein 8	1.66251	1.26E-05	-1.66137	1.28E-05
A_51_P251736	REEP5	receptor accessory protein 5	1.6628	0.000612	2.17846	2.34E-06
A_51_P228974	OGFOD2	2-oxoglutarate and iron-dependent oxygenase domain cont:	1.66422	1.98E-07	1.85259	5.24E-09
A_52_P449199	DYRK1B	dual-specificity tyrosine-(Y)-phosphorylation regulated kinas	1.66434	0.0016268	2.1801	1.11E-05
A_51_P505472	ECE2	endothelin converting enzyme 2	1.66439	0.0068875	-2.74101	3.37E-06
A_51_P300266	FEM1C	fem-1 homolog c (C. elegans)	1.66488	0.0004283	-1.54336	0.00204675
A_51_P277536	RAMP2	receptor (G protein-coupled) activity modifying protein 2	1.66494	0.0001474	-2.15954	3.45E-07
A_51_P433237	CDH3	cadherin 3, type 1, P-cadherin (placental)	1.66633	0.0027025	1.51398	0.0123981

A_52_P584058	IVNS1ABP	influenza virus NS1A binding protein	1.66784	0.0043673	-1.55924	0.011825
A_52_P244030	ZNF516	zinc finger protein 516	1.66826	5.18E-06	1.52115	8.22E-05
A_51_P444447	CEBPD	CCAAT/enhancer binding protein (C/EBP), delta	1.66863	5.06E-05	2.62764	8.92E-10
A_51_P176071	CMTR2	cap methyltransferase 2	1.66886	7.98E-06	4.41741	1.69E-15
A_51_P130203	PBX1	pre-B-cell leukemia homeobox 1	1.66927	0.0001767	-2.33336	8.93E-08
A_52_P664506	ABHD2	abhydrolase domain containing 2	1.66993	3.98E-05	4.85689	6.50E-15
A_52_P622614	NFATC4	nuclear factor of activated T-cells, cytoplasmic, calcineurin-d	1.6703	0.0045308	-1.65979	0.00498123
A_51_P249544	HAUS8	HAUS augmin-like complex, subunit 8	1.67102	1.40E-05	-2.5549	2.41E-10
A_51_P190454	ZFP37	ZFP37 zinc finger protein	1.67157	4.74E-05	1.63389	8.48E-05
A_51_P246317	Mt2	metallothionein 2	1.67157	0.0005997	1.71166	0.00037206
A_51_P371152	SOS2	son of sevenless homolog 2 (Drosophila)	1.67162	0.0001772	2.65663	6.10E-09
A_51_P506915	PKP3	plakophilin 3	1.67253	2.07E-07	1.93759	1.60E-09
A_51_P195066	SEMA4A	sema domain, immunoglobulin domain (Ig), transmembrane	1.67261	4.31E-09	-2.62139	2.22E-15
A_52_P502771	RAD54B	RAD54 homolog B (S. cerevisiae)	1.67319	3.08E-06	-1.59074	1.45E-05
A_51_P263568	PRSS27	protease, serine 27	1.67372	6.73E-06	-1.59174	2.92E-05
A_51_P452820	RPL31	ribosomal protein L31	1.67381	7.09E-08	1.60351	3.40E-07
A_51_P237865	IL4	interleukin 4	1.67393	0.0053235	1.64346	0.00694244
A_51_P414320	C1orf74	chromosome 1 open reading frame 74	1.67489	3.14E-06	1.59435	1.42E-05
A_51_P373142	AI854703	expressed sequence AI854703	1.67688	2.31E-05	2.9116	3.43E-11
A_51_P390285	LARP6	La ribonucleoprotein domain family, member 6	1.677	0.0081613	7.19409	1.48E-11
A_51_P422639	HIVEP3	human immunodeficiency virus type I enhancer binding prot	1.67741	4.13E-06	2.35912	3.26E-10
A_52_P489193	PDLIM7	PDZ and LIM domain 7 (enigma)	1.67923	0.0001304	-3.34295	4.76E-11
A_52_P46742	DFFB	DNA fragmentation factor, 40kDa, beta polypeptide (caspas	1.67941	1.14E-06	4.06219	4.33E-16
A_51_P366344	TGFB111	transforming growth factor beta 1 induced transcript 1	1.67954	0.0023123	4.06488	8.02E-10
A_51_P265151	ARHGEF10	Rho guanine nucleotide exchange factor (GEF) 10	1.67981	0.0001395	-2.22167	2.28E-07
A_52_P477286	RAB8B	RAB8B, member RAS oncogene family	1.67988	0.0048741	-1.62509	0.00788422
A_52_P599317	HS6ST2	heparan sulfate 6-O-sulfotransferase 2	1.68121	0.0032609	1.79265	0.00116884
A_52_P379631	STEAP2	STEAP family member 2, metalloredutase	1.68125	1.11E-07	-2.91729	1.39E-14
A_51_P435339	EPOR	erythropoietin receptor	1.68177	6.66E-05	-2.71418	9.61E-10
A_52_P183432	POFUT1	protein O-fucosyltransferase 1	1.6818	1.24E-06	1.66576	1.68E-06
A_51_P295449	MFSD5	major facilitator superfamily domain containing 5	1.68331	8.50E-05	1.94293	2.71E-06
A_52_P590258	C1orf21	chromosome 1 open reading frame 21	1.68371	0.0013304	-2.80148	1.15E-07
A_52_P252305	1700047117Rik2/Fa	family with sequence similarity 177, member A	1.68498	8.42E-07	1.54492	1.42E-05
A_52_P289854	ZCCHC24	zinc finger, CCHC domain containing 24	1.68547	2.55E-05	-3.00844	2.54E-11
A_51_P503751	ING2	inhibitor of growth family, member 2	1.68662	1.13E-09	-2.36286	1.14E-14
A_52_P408728	PLP1	proteolipid protein 1	1.68719	0.00017	-2.27315	2.15E-07
A_52_P106294	CDC14B	cell division cycle 14B	1.68764	0.0021885	-1.62726	0.00397776
A_51_P346630			1.68773	4.27E-05	1.59546	0.0001763
A_51_P492366	BMP7	bone morphogenetic protein 7	1.68776	8.13E-08	2.20189	1.61E-11
A_51_P468464	GDPD5	glycerophosphodiester phosphodiesterase domain containir	1.68834	1.14E-07	4.55208	2.40E-18
A_51_P491355	SUV420H1	suppressor of variegation 4-20 homolog 1 (Drosophila)	1.68857	8.47E-05	-1.70676	6.56E-05
A_52_P403484	PTPN2	protein tyrosine phosphatase, non-receptor type 2	1.68866	0.0003792	1.70053	0.00032794
A_52_P107234	PRPF39	pre-mRNA processing factor 39	1.68895	5.91E-05	2.51433	4.85E-09
A_51_P315027	KIAA1024	KIAA1024	1.689	0.00449	-2.56247	6.23E-06
A_52_P472936	YTHDC1	YTH domain containing 1	1.69001	8.65E-05	1.9118	4.58E-06
A_52_P488666	SUSD2	sushi domain containing 2	1.69019	2.02E-05	2.07034	1.02E-07
A_51_P355943	MVD	mevalonate (diphospho) decarboxylase	1.6904	3.30E-07	-1.66721	5.24E-07
A_51_P249051	PYCR2	pyrroline-5-carboxylate reductase family, member 2	1.69087	1.14E-06	-1.5593	1.51E-05
A_52_P307180			1.69104	0.0007366	-1.54655	0.00390959
A_52_P517508	KLHL23/PHOSPHO2	kelch-like family member 23	1.69129	8.13E-05	-1.61546	0.00024242
A_51_P458086	TERF2	telomeric repeat binding factor 2	1.69216	0.0002942	1.62335	0.00070437
A_52_P464193	ILKAP	integrin-linked kinase-associated serine/threonine phosphat	1.69299	0.0010913	-1.83184	0.00025486
A_51_P293688	RAB32	RAB32, member RAS oncogene family	1.69682	0.0005963	4.95474	2.65E-12

A_51_P179492	FAM92A1	family with sequence similarity 92, member A1	1.69984	2.11E-06	-1.50653	8.40E-05
A_51_P205106	MLF1	myeloid leukemia factor 1	1.70003	0.0001841	-1.58226	0.00087774
A_52_P283055	SLC5A3	solute carrier family 5 (sodium/myo-inositol cotransporter),	1.7001	0.0042816	3.54418	4.50E-08
A_52_P8953	RP2	retinitis pigmentosa 2 (X-linked recessive)	1.70053	0.0001352	-1.65871	0.0002372
A_51_P354913	FNDC5	fibronectin type III domain containing 5	1.70078	1.26E-05	1.87588	9.00E-07
A_51_P216965	FKBP10	FK506 binding protein 10, 65 kDa	1.70118	9.66E-06	5.73754	9.59E-17
A_51_P256623	PHTF1	putative homeodomain transcription factor 1	1.70141	2.57E-10	1.72899	1.34E-10
A_51_P452280	CMC4	C-x(9)-C motif containing 4	1.70241	8.78E-05	-1.8603	1.09E-05
A_51_P325624	HSBP1	heat shock factor binding protein 1	1.70271	4.17E-06	4.04947	6.90E-15
A_51_P287606	C16orf90	chromosome 16 open reading frame 90	1.70505	4.21E-07	2.04033	1.66E-09
A_52_P348720	RHOBTB3	Rho-related BTB domain containing 3	1.70528	4.09E-06	-2.12834	8.69E-09
A_52_P361081	ARHGEF16	Rho guanine nucleotide exchange factor (GEF) 16	1.70709	0.0001377	4.46404	7.61E-13
A_51_P290399	AI661453	expressed sequence AI661453	1.70822	1.00E-05	1.50851	0.00030001
A_52_P80404	ENDOV	endonuclease V	1.70886	0.0001532	1.6907	0.00019409
A_51_P278266	GLTPD2	glycolipid transfer protein domain containing 2	1.70961	1.79E-06	-2.84408	2.65E-12
A_51_P350453	PDK4	pyruvate dehydrogenase kinase, isozyme 4	1.70962	6.14E-05	3.73629	3.47E-12
A_52_P559957	MACROD1	MACRO domain containing 1	1.71036	1.46E-06	2.37981	1.41E-10
A_51_P179258	KIF26B	kinesin family member 26B	1.71107	0.0077441	2.57098	2.46E-05
A_52_P683517			1.71155	0.0002474	4.50779	2.40E-12
A_52_P212336	2610005L07Rik	cadherin 11 pseudogene	1.71159	2.47E-09	1.5153	3.31E-07
A_51_P140742	ISLR	immunoglobulin superfamily containing leucine-rich repeat	1.71189	0.0026719	2.54086	3.94E-06
A_52_P123665	VPS33A	vacuolar protein sorting 33 homolog A (S. cerevisiae)	1.71277	2.41E-09	1.85253	1.34E-10
A_51_P106488	SPEG	SPEG complex locus	1.71296	3.37E-05	-2.6321	1.29E-09
A_51_P434101	HERPUD1	homocysteine-inducible, endoplasmic reticulum stress-induc	1.71333	6.11E-06	1.71432	6.01E-06
A_51_P346668	IRF5	interferon regulatory factor 5	1.71342	5.21E-07	2.06568	1.82E-09
A_52_P377326	PLEKHB2	pleckstrin homology domain containing, family B (evectins) i	1.71531	2.20E-07	4.83897	4.85E-18
A_51_P168792	XYLB	xylulokinase homolog (H. influenzae)	1.71543	3.61E-05	-1.607	0.00018217
A_52_P220229	PLEKHB2	pleckstrin homology domain containing, family B (evectins) i	1.71566	0.0003943	4.01886	4.30E-11
A_51_P162894	C16orf86	chromosome 16 open reading frame 86	1.71659	0.0009292	-1.64912	0.00190469
A_51_P406334	DNLZ	DNL-type zinc finger	1.71718	2.60E-05	1.7717	1.19E-05
A_52_P539632	PLXNA3	plexin A3	1.71882	0.0002165	-3.06074	1.61E-09
A_52_P421196	LIPT2	lipoyl(octanoyl) transferase 2 (putative)	1.71884	3.38E-07	-1.67501	7.82E-07
A_51_P329733	CSNK1G1	casein kinase 1, gamma 1	1.71891	3.77E-05	1.5417	0.00054058
A_51_P211488	CPTP	ceramide-1-phosphate transfer protein	1.71982	1.15E-08	1.80095	2.22E-09
A_52_P635250	LRRC16A	leucine rich repeat containing 16A	1.72009	0.0053174	-2.78516	4.03E-06
A_52_P184257	STEAP1	six transmembrane epithelial antigen of the prostate 1	1.72032	2.06E-07	1.50192	2.02E-05
A_52_P987564	WDFY3	WD repeat and FYVE domain containing 3	1.72047	0.0003398	-1.77191	0.0001868
A_51_P304170	RTP4	receptor (chemosensory) transporter protein 4	1.72053	1.48E-05	-3.38241	2.46E-12
A_51_P223569	DDX4	DEAD (Asp-Glu-Ala-Asp) box polypeptide 4	1.72063	0.000129	2.18395	6.51E-07
A_52_P594656			1.72079	0.0011272	9.78748	4.32E-15
A_51_P309850	EPHB6	EPH receptor B6	1.72406	0.0004327	1.82779	0.00013621
A_52_P262096	CCDC93	coiled-coil domain containing 93	1.72494	0.0027951	-1.70863	0.00323195
A_52_P1124470			1.72495	5.62E-05	-3.71962	4.71E-12
A_52_P134341	2010110K18Rik	RIKEN cDNA 2010110K18 gene	1.72508	0.0002309	-2.38217	2.69E-07
A_51_P400366	RHBG	Rh family, B glycoprotein (gene/pseudogene)	1.72917	7.18E-10	5.07042	1.35E-21
A_51_P236846	F3	coagulation factor III (thromboplastin, tissue factor)	1.72973	2.13E-05	-1.72919	2.15E-05
A_52_P297212	ZKSCAN3	zinc finger with KRAB and SCAN domains 3	1.73058	6.97E-05	3.05834	2.93E-10
A_51_P141850	HS1BP3	HCLS1 binding protein 3	1.73121	0.0026419	1.6177	0.00732367
A_52_P544556	HSBP1	heat shock factor binding protein 1	1.73123	2.65E-09	1.91893	6.70E-11
A_51_P340947	SELO	selenoprotein O	1.73228	1.52E-05	3.01788	3.28E-11
A_51_P503494	ARC	activity-regulated cytoskeleton-associated protein	1.73251	9.53E-10	4.79069	5.54E-21
A_52_P216874	MMGT1	membrane magnesium transporter 1	1.73308	0.0009226	1.6563	0.00204678
A_51_P484500	PMFBP1	polyamine modulated factor 1 binding protein 1	1.7338	3.03E-05	-2.3016	3.39E-08

A_52_P488092	KIAA1217	KIAA1217	1.73496	2.36E-06	-1.82235	5.77E-07
A_52_P324530	ING2	inhibitor of growth family, member 2	1.73628	1.57E-09	-2.11951	1.63E-12
A_51_P321374	PLPP7	phospholipid phosphatase 7 (inactive)	1.73721	5.31E-07	1.53525	2.65E-05
A_52_P434375	DOCK1	dedicator of cytokinesis 1	1.73859	1.40E-06	5.13461	5.94E-17
A_51_P296027	RAB12	RAB12, member RAS oncogene family	1.73885	0.0013264	2.23396	1.69E-05
A_52_P574685	MED14	mediator complex subunit 14	1.73927	0.0060905	2.30235	0.00011762
A_52_P257026			1.73955	0.007231	-1.96607	0.00142841
A_51_P508580	TCF15	transcription factor 15 (basic helix-loop-helix)	1.74002	2.35E-07	-1.76308	1.54E-07
A_51_P248935	TERC	telomerase RNA component	1.74047	0.0033232	3.74146	2.52E-08
A_51_P157976	MMAB	methylmalonic aciduria (cobalamin deficiency) cblB type	1.74132	1.67E-06	-2.10554	8.04E-09
A_52_P240499			1.74265	0.0049863	-1.73833	0.00515806
A_52_P672960	CAMK4	calcium/calmodulin-dependent protein kinase IV	1.74343	4.28E-05	9.39632	7.75E-18
A_52_P460584	TNFRSF25	tumor necrosis factor receptor superfamily, member 25	1.7442	0.0001986	-4.17476	1.15E-11
A_52_P185255	KCNIP3	Kv channel interacting protein 3, calsenuin	1.74439	4.36E-06	2.50546	3.93E-10
A_51_P167105	B3GALT4	UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypep	1.74498	1.36E-09	2.14044	1.27E-12
A_52_P71869	PLEC	plectin	1.74573	0.0005056	2.22543	4.79E-06
A_51_P162760	ZNF623	zinc finger protein 623	1.74684	8.26E-09	3.36666	1.11E-16
A_52_P108447	GLIS2	GLIS family zinc finger 2	1.74715	2.07E-07	-1.62113	2.36E-06
A_51_P473277	TSPAN6	tetraspanin 6	1.74751	6.98E-06	5.34009	5.68E-16
A_52_P535782	MRI1	methylthioribose-1-phosphate isomerase 1	1.7481	1.63E-07	-2.02409	1.77E-09
A_52_P117197	EPC1	enhancer of polycomb homolog 1 (Drosophila)	1.75117	0.0013566	1.60533	0.00554148
A_52_P663585	SEPT10	septin 10	1.75164	0.0006147	-3.01063	2.91E-08
A_52_P244109	XIRP2	xin actin binding repeat containing 2	1.75246	0.0056487	6.89347	4.82E-11
A_52_P306351	ASPH	aspartate beta-hydroxylase	1.75247	7.68E-08	-3.7804	2.45E-16
A_52_P251036			1.7532	1.86E-07	2.52429	5.87E-12
A_52_P638798	MIPOL1	mirror-image polydactyly 1	1.75444	0.0017131	-1.66038	0.00408192
A_52_P323975	FARSA	phenylalanyl-tRNA synthetase, alpha subunit	1.75455	1.05E-07	1.5787	3.59E-06
A_51_P326091	CFLAR	CASP8 and FADD-like apoptosis regulator	1.75469	0.0012281	-2.09492	5.82E-05
A_52_P510107	NUDT15	nudix (nucleoside diphosphate linked moiety X)-type motif 1	1.75506	0.0003629	-1.72745	0.00049302
A_51_P519404	1110065P20Rik	RIKEN cDNA 1110065P20 gene	1.75587	9.06E-05	1.69254	0.00020358
A_51_P204295	PTS	6-pyruvoyltetrahydropterin synthase	1.75632	9.03E-10	-2.12884	1.24E-12
A_52_P514488	EXOC3L1	exocyst complex component 3-like 1	1.75632	2.74E-07	-5.24076	5.67E-18
A_52_P137361	TMC4	transmembrane channel-like 4	1.75717	7.29E-06	-2.11126	6.37E-08
A_52_P21574	PDLIM7	PDZ and LIM domain 7 (enigma)	1.7572	2.49E-06	-1.96825	1.08E-07
A_51_P150175	UBE4A	ubiquitination factor E4A	1.75745	5.27E-06	-1.52808	0.00023385
A_51_P439520	PACS2	phosphofurin acidic cluster sorting protein 2	1.75768	3.39E-12	1.54255	1.17E-09
A_52_P238816	PPT2	palmitoyl-protein thioesterase 2	1.75816	2.02E-07	1.57658	6.88E-06
A_51_P305320	B4GAT1	beta-1,4-glucuronyltransferase 1	1.76036	2.05E-06	2.79226	1.64E-11
A_52_P20906	TWIST1	twist family bHLH transcription factor 1	1.76051	0.0004848	1.94484	7.39E-05
A_51_P257419	LHX2	LIM homeobox 2	1.76095	3.40E-05	-1.72537	5.53E-05
A_51_P256344	ANXA4	annexin A4	1.76097	7.39E-06	-1.8895	1.17E-06
A_51_P434036	GSAP	gamma-secretase activating protein	1.76115	0.0075291	1.82474	0.00482495
A_51_P243435	HSD17B1	hydroxysteroid (17-beta) dehydrogenase 1	1.7613	1.37E-05	15.8925	5.22E-21
A_52_P58359	TLX1	T-cell leukemia homeobox 1	1.76212	0.0023322	-2.33661	2.65E-05
A_51_P340226	SH3YL1	SH3 and SYLF domain containing 1	1.76246	4.90E-09	2.31816	7.97E-13
A_51_P317673	ZNF764	zinc finger protein 764	1.76263	4.29E-13	1.53869	2.28E-10
A_52_P653585	GNAI1	guanine nucleotide binding protein (G protein), alpha inhibit	1.76531	0.0075387	1.8489	0.00422179
A_52_P42221	SGPP1	sphingosine-1-phosphate phosphatase 1	1.76551	0.0018235	2.22491	4.24E-05
A_51_P515768	PDLIM7	PDZ and LIM domain 7 (enigma)	1.76583	5.02E-07	-2.1386	2.04E-09
A_51_P451032	ANXA3	annexin A3	1.76888	2.44E-06	4.74985	1.10E-15
A_52_P561293	9430037G07Rik	RIKEN cDNA 9430037G07 gene	1.76952	8.92E-05	-2.417	1.08E-07
A_52_P147816	MORC4	MORC family CW-type zinc finger 4	1.7704	0.0052263	2.86317	5.72E-06
A_51_P408644	EIF2AK4	eukaryotic translation initiation factor 2 alpha kinase 4	1.77122	0.0023719	-2.40665	1.92E-05

A_51_P145041	LRP8	low density lipoprotein receptor-related protein 8, apolipop	1.77134	3.14E-05	-3.43135	2.19E-11
A_52_P544555	HSBP1	heat shock factor binding protein 1	1.77227	1.42E-08	2.00578	2.48E-10
A_52_P586141	ADCY7	adenylate cyclase 7	1.77248	4.26E-05	3.71952	8.90E-12
A_51_P188381	LRRC58	leucine rich repeat containing 58	1.77299	1.38E-08	-1.79044	9.89E-09
A_52_P1036902			1.77317	0.0010797	-2.37319	7.09E-06
A_52_P421918	HELQ	helicase, POLQ-like	1.77471	0.0002087	2.29893	1.12E-06
A_51_P348592	SLC38A7	solute carrier family 38, member 7	1.77544	8.59E-08	1.5009	2.32E-05
A_51_P416408	TMC4	transmembrane channel-like 4	1.77607	5.41E-06	-2.23997	1.46E-08
A_52_P576280	POM121/POM121C	POM121 transmembrane nucleoporin	1.7767	0.0001128	2.01264	7.91E-06
A_52_P147733			1.77815	0.0064403	2.97763	5.67E-06
A_51_P294765	FAM174A	family with sequence similarity 174, member A	1.77842	6.57E-08	1.79745	4.66E-08
A_51_P299107	CHST6	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 6	1.78002	5.59E-05	2.30938	1.75E-07
A_52_P21822	TIA1	TIA1 cytotoxic granule-associated RNA binding protein	1.78022	9.04E-05	-2.47822	8.02E-08
A_52_P500673			1.7811	2.99E-07	1.66125	2.57E-06
A_51_P423743	CLDN6	claudin 6	1.78128	0.0042015	1.68182	0.00901473
A_52_P149391	USP40	ubiquitin specific peptidase 40	1.78175	7.81E-05	1.86018	3.05E-05
A_51_P195215	FAM149A	family with sequence similarity 149, member A	1.78444	0.0014074	1.73322	0.00223316
A_52_P366653	HNRNPH3	heterogeneous nuclear ribonucleoprotein H3 (2H9)	1.78544	1.91E-05	-1.67505	8.95E-05
A_51_P283563	ZBTB26	zinc finger and BTB domain containing 26	1.78564	4.10E-05	1.69076	0.00014282
A_52_P337126	BVES	blood vessel epicardial substance	1.78789	0.0007681	2.25612	1.27E-05
A_52_P429749	Tmem115	transmembrane protein 115	1.78918	2.43E-09	2.44924	1.43E-13
A_52_P260747	ZC3HAV1L	zinc finger CCCH-type, antiviral 1-like	1.78931	3.47E-05	-1.78526	3.65E-05
A_51_P220407	RNPEPL1	arginyl aminopeptidase (aminopeptidase B)-like 1	1.79001	1.47E-12	2.17714	1.20E-15
A_51_P278103	STAMPB	STAM binding protein	1.79013	0.0003758	-1.54015	0.00565017
A_51_P454993	TMCC2	transmembrane and coiled-coil domain family 2	1.79213	0.0051366	2.42017	8.28E-05
A_52_P80021	CMTM7	CKLF-like MARVEL transmembrane domain containing 7	1.79309	1.66E-05	-1.57643	0.00037299
A_51_P488928	CYTH3	cytohesin 3	1.79356	1.42E-06	1.74196	3.23E-06
A_52_P590936	MTHFR	methylenetetrahydrofolate reductase (NAD(P)H)	1.79361	0.000594	3.8054	1.32E-09
A_52_P482715	LRRC58	leucine rich repeat containing 58	1.79414	3.46E-08	-2.07351	3.90E-10
A_52_P342963	THEM6	thioesterase superfamily member 6	1.79423	7.47E-05	1.50533	0.00303959
A_52_P643165	SAMD4A	sterile alpha motif domain containing 4A	1.79456	0.0031805	-4.07335	1.92E-08
A_52_P543460	PBX1	pre-B-cell leukemia homeobox 1	1.79559	2.82E-05	-1.83869	1.62E-05
A_51_P126177	MAP1LC3B	microtubule-associated protein 1 light chain 3 beta	1.79647	1.39E-09	1.66444	2.29E-08
A_51_P345685	HSPB11	heat shock protein family B (small), member 11	1.79877	2.80E-07	2.09636	3.41E-09
A_52_P625672	LYSMD4	LysM, putative peptidoglycan-binding, domain containing 4	1.80072	2.88E-05	2.29048	1.22E-07
A_51_P359549	FEM1C	fem-1 homolog c (C. elegans)	1.80084	1.25E-11	-1.80613	1.12E-11
A_51_P357744	JUND	jun D proto-oncogene	1.80175	2.00E-05	1.62379	0.00023543
A_52_P86534	INPP5E	inositol polyphosphate-5-phosphatase E	1.80218	6.91E-11	2.4532	3.03E-15
A_51_P381387	POMT2	protein-O-mannosyltransferase 2	1.80224	2.53E-06	2.83175	4.10E-11
A_52_P532982	GDF15	growth differentiation factor 15	1.80244	1.06E-06	10.2805	1.79E-20
A_52_P491569	C15orf39	chromosome 15 open reading frame 39	1.80296	2.06E-07	2.00602	8.92E-09
A_51_P294288	RHBDD2	rhomboid domain containing 2	1.804	5.27E-06	2.90416	7.15E-11
A_51_P300216	CBFB	core-binding factor, beta subunit	1.80413	3.90E-05	1.74211	8.58E-05
A_51_P400498	WHSC1	Wolf-Hirschhorn syndrome candidate 1	1.80448	2.16E-07	-2.68469	5.09E-12
A_51_P406306	HECW2	HECT, C2 and WW domain containing E3 ubiquitin protein liq	1.80647	0.0002087	5.36222	1.23E-12
A_51_P287617	PLEKHH1	pleckstrin homology domain containing, family H (with MyTI	1.80755	1.44E-08	-2.42634	2.32E-12
A_51_P333859	CLVS2	clavesin 2	1.80954	0.0081319	2.87943	2.23E-05
A_51_P157953	SOGA3	SOGA family member 3	1.81085	3.07E-05	-2.61164	9.74E-09
A_51_P497263	MAP6	microtubule-associated protein 6	1.81207	0.0088672	2.05101	0.00204565
A_51_P363801	PGPEP1	pyroglutamyl-peptidase I	1.81407	7.04E-11	2.39872	7.72E-15
A_51_P150845	TCERG1L	transcription elongation regulator 1-like	1.8146	3.31E-06	-3.04858	1.67E-11
A_52_P74637	Gm4983	predicted gene 4983	1.81474	1.35E-05	1.6201	0.00020814
A_52_P389784	ITFG1	integrin alpha FG-GAP repeat containing 1	1.81566	0.0028783	-1.64593	0.0108599

A_52_P58066	Gm13791	predicted gene 13791	1.81608	1.02E-06	1.77489	1.93E-06
A_52_P635271	BTBD6	BTB (POZ) domain containing 6	1.81701	1.70E-12	2.28284	5.96E-16
A_51_P381784	EXOSC7	exosome component 7	1.81743	9.51E-06	-1.54921	0.00047961
A_51_P368074	PGM1	phosphoglucomutase 1	1.8184	5.41E-12	-3.0629	8.13E-19
A_52_P256569	DBNDD2	dysbindin (dystrobrevin binding protein 1) domain containin	1.82109	1.50E-05	2.16193	2.69E-07
A_51_P454152	ERCC6	excision repair cross-complementation group 6	1.8211	3.16E-06	2.07964	1.05E-07
A_51_P359822	SFTPD	surfactant protein D	1.82136	2.32E-06	1.9309	4.97E-07
A_52_P218440	4930486L24Rik	RIKEN cDNA 4930486L24 gene	1.82233	0.0089367	19.2448	4.74E-14
A_52_P325265	NDUFAF4	NADH dehydrogenase (ubiquinone) complex I, assembly fact	1.82295	0.0063819	1.84535	0.0055042
A_51_P416660	CDC14B	cell division cycle 14B	1.82357	4.57E-10	-1.76855	1.38E-09
A_52_P622244	C15orf59	chromosome 15 open reading frame 59	1.8248	6.12E-05	3.96635	1.75E-11
A_51_P257371	ITGB3BP	integrin beta 3 binding protein (beta3-endonexin)	1.82496	0.0004284	1.74692	0.00092682
A_51_P441469	JMY	junction mediating and regulatory protein, p53 cofactor	1.82626	0.0003875	1.93629	0.00013448
A_52_P507169			1.82628	0.0031936	2.18933	0.00024773
A_51_P159194	JUNB	jun B proto-oncogene	1.82804	1.91E-08	1.67508	3.42E-07
A_51_P312748	OXSM	3-oxoacyl-ACP synthase, mitochondrial	1.82903	8.96E-07	2.37897	9.45E-10
A_51_P392223	PCNXL4	pecanex-like 4 (Drosophila)	1.82969	1.07E-05	2.878	4.07E-10
A_52_P427544	TERF2	telomeric repeat binding factor 2	1.83285	0.0013385	2.2015	7.41E-05
A_52_P323936	TBC1D12	TBC1 domain family, member 12	1.83325	0.000644	2.10272	6.14E-05
A_51_P285065	TOLLIP	toll interacting protein	1.83502	4.94E-05	1.5412	0.0019787
A_52_P359819	NTF4	neurotrophin 4	1.83508	1.47E-06	2.65513	1.56E-10
A_52_P683413	F3	coagulation factor III (thromboplastin, tissue factor)	1.83555	3.99E-05	-1.51184	0.00255818
A_51_P385010	RGP1	RGP1 homolog, RAB6A GEF complex partner 1	1.83561	0.0033888	1.91765	0.00187866
A_52_P322181	ADRB1	adrenoceptor beta 1	1.83649	0.0002099	3.10532	1.21E-08
A_52_P656860	SLC25A30	solute carrier family 25, member 30	1.83652	0.0002119	-1.61167	0.00238281
A_52_P415155	WNT6	wingless-type MMTV integration site family, member 6	1.83931	8.99E-05	13.7483	6.41E-18
A_51_P123623	PTPDC1	protein tyrosine phosphatase domain containing 1	1.84006	0.0069798	11.7034	2.46E-12
A_51_P265465	ABHD3	abhydrolase domain containing 3	1.84072	0.0001605	-1.60421	0.00218039
A_51_P490955	ZNF784	zinc finger protein 784	1.84259	0.0003623	1.52195	0.00945232
A_51_P476601	LY96	lymphocyte antigen 96	1.84407	0.0009258	1.94858	0.00038075
A_52_P417694	IKBIP	IKBKB interacting protein	1.84608	6.88E-05	3.59022	1.75E-10
A_51_P368142	ANKRD11	ankyrin repeat domain 11	1.84651	5.14E-07	2.27958	1.89E-09
A_52_P429723	MME	membrane metallo-endopeptidase	1.84667	6.77E-05	-1.60903	0.00114028
A_51_P424905	ZNF384	zinc finger protein 384	1.84733	6.97E-05	-1.62617	0.00094878
A_52_P618187	MRS2	MRS2 magnesium transporter	1.84743	7.12E-05	2.78326	1.86E-08
A_51_P397296	MARVELD3	MARVEL domain containing 3	1.84778	5.86E-05	1.51116	0.00359781
A_51_P420726	MBLAC2	metallo-beta-lactamase domain containing 2	1.85073	2.83E-08	-1.78641	8.60E-08
A_52_P119350	4732419C18Rik	RIKEN cDNA 4732419C18 gene	1.85151	0.0015449	-3.73329	3.60E-08
A_52_P451355	ST6GALNAC3	ST6 (alpha-N-acetyl-neuraminyl-2,3-beta-galactosyl-1,3)-N-a	1.85153	3.48E-09	-4.4842	1.93E-18
A_51_P387473	RAB13	RAB13, member RAS oncogene family	1.85206	3.83E-05	-3.84461	2.27E-11
A_51_P334490	KIAA0513	KIAA0513	1.85383	0.0010423	2.36491	2.10E-05
A_51_P368285	FAM101A/ZNF664	family with sequence similarity 101, member A	1.85389	0.0003751	26.8943	5.63E-19
A_52_P121978	TMEM47	transmembrane protein 47	1.85545	4.31E-05	-1.64993	0.00052111
A_51_P381247	PDZD11	PDZ domain containing 11	1.85639	8.76E-07	2.20519	9.80E-09
A_51_P252947	MAPK8IP1	mitogen-activated protein kinase 8 interacting protein 1	1.85786	0.000357	-1.92696	0.00018704
A_51_P178022	PLEKHG2	pleckstrin homology domain containing, family G (with RhoC	1.86064	4.10E-09	-2.05104	1.91E-10
A_52_P85200	CLCN4	chloride channel, voltage-sensitive 4	1.86117	4.94E-08	1.80448	1.27E-07
A_51_P333949	INTS7	integrator complex subunit 7	1.86146	5.47E-11	-1.85995	5.63E-11
A_52_P159077	SIAE	sialic acid acetyltransferase	1.86146	1.97E-06	-1.53938	0.00028377
A_52_P495553	ZBTB10	zinc finger and BTB domain containing 10	1.86177	2.89E-06	4.53663	2.61E-14
A_51_P218216	CNOT1	CCR4-NOT transcription complex, subunit 1	1.86202	1.24E-09	1.60418	2.50E-07
A_51_P171616	WNT10A	wingless-type MMTV integration site family, member 10A	1.86206	0.0047644	40.4357	4.43E-17
A_51_P465582	HDHD3	haloacid dehalogenase-like hydrolase domain containing 3	1.86228	1.93E-05	2.14099	8.56E-07

A_51_P212030	ATP6V0E2	ATPase, H ⁺ transporting V0 subunit e2	1.8625	2.38E-06	3.24695	7.80E-12
A_51_P405089	LPCAT1	lysophosphatidylcholine acyltransferase 1	1.86292	2.37E-08	-1.61043	2.58E-06
A_52_P559034	KLHL42	kelch-like family member 42	1.86322	9.87E-12	1.52756	3.33E-08
A_51_P514379	ZIK1	zinc finger protein interacting with K protein 1	1.86596	8.95E-05	1.79134	0.00020174
A_52_P151116	KCNAB3	potassium channel, voltage gated subfamily A regulatory be	1.8667	8.08E-06	-4.0379	1.03E-12
A_51_P169516	PPP1R3D	protein phosphatase 1, regulatory subunit 3D	1.86799	0.0042267	19.8862	7.69E-15
A_51_P497295	QPCT	glutaminyl-peptide cyclotransferase	1.8707	7.26E-06	6.59659	5.54E-16
A_51_P213205	FAM131A	family with sequence similarity 131, member A	1.87142	1.73E-05	2.50114	3.06E-08
A_51_P359800	CLEC11A	C-type lectin domain family 11, member A	1.87221	0.0002605	2.12855	2.54E-05
A_51_P425490	AGPAT3	1-acylglycerol-3-phosphate O-acyltransferase 3	1.8728	2.71E-14	2.0805	5.54E-16
A_51_P231001	SFT2D3	SFT2 domain containing 3	1.87294	0.0075538	3.48548	3.80E-06
A_51_P282883	RAB4A	RAB4A, member RAS oncogene family	1.87419	2.77E-09	-1.62638	3.58E-07
A_51_P170807			1.87514	5.79E-09	1.69791	1.54E-07
A_52_P92905	CD99L2	CD99 molecule-like 2	1.87544	3.81E-06	1.80609	9.69E-06
A_51_P449171	BIRC3	baculoviral IAP repeat containing 3	1.87633	1.78E-06	-1.64738	5.25E-05
A_52_P49321	ADAMTS9	ADAM metalloproteinase with thrombospondin type 1 motif,	1.87695	3.08E-05	-6.10712	2.30E-14
A_51_P222453	Tmem254a (includet	transmembrane protein 254a	1.87796	6.84E-07	-1.89003	5.76E-07
A_51_P318012	RAB12	RAB12, member RAS oncogene family	1.87986	0.0037524	2.15954	0.00061696
A_51_P352381	DHRS4	dehydrogenase/reductase (SDR family) member 4	1.87991	1.67E-07	-2.30987	6.48E-10
A_52_P818995	NEK1	NIMA-related kinase 1	1.87995	0.0011587	-3.12898	4.36E-07
A_51_P317076	USE1	unconventional SNARE in the ER 1 homolog (<i>S. cerevisiae</i>)	1.88018	3.95E-07	-1.9607	1.26E-07
A_51_P511899	MTHFSD	methenyltetrahydrofolate synthetase domain containing	1.88076	6.55E-06	5.62484	5.37E-15
A_52_P553673	TTC17	tetratricopeptide repeat domain 17	1.8812	0.0005443	7.85971	3.62E-13
A_51_P432538	H2-T22	histocompatibility 2, T region locus 22	1.88213	3.20E-06	-2.91576	1.49E-10
A_52_P447985	PGPEP1	pyroglutamyl-peptidase I	1.88252	1.05E-10	2.07916	3.82E-12
A_51_P249250	UBXN1	UBX domain protein 1	1.88501	5.07E-08	3.64885	6.10E-15
A_52_P234729	PKD2	polycystic kidney disease 2 (autosomal dominant)	1.88531	3.17E-08	-1.52587	2.54E-05
A_52_P16320	TMEM106B	transmembrane protein 106B	1.88732	0.0003437	1.7078	0.00187288
A_51_P377948	Gimap9	GTPase, IMAP family member 9	1.88898	1.39E-05	1.94314	7.35E-06
A_51_P346045	Gtf2ird2	GTF2I repeat domain containing 2	1.89024	2.64E-10	-1.91245	1.78E-10
A_51_P149714	MS4A6A	membrane-spanning 4-domains, subfamily A, member 6A	1.89062	0.0004983	1.69322	0.00296304
A_52_P153957	BLOC1S6	biogenesis of lysosomal organelles complex-1, subunit 6, pal	1.89311	1.29E-07	2.76055	8.42E-12
A_51_P356620	RAB39B	RAB39B, member RAS oncogene family	1.8942	0.005552	10.1759	1.35E-11
A_52_P1067757	NUDT6	nudix (nucleoside diphosphate linked moiety X)-type motif 6	1.8946	0.0011006	3.28228	2.39E-07
A_51_P464300	GDF1	growth differentiation factor 1	1.89474	1.64E-05	-2.41273	8.72E-08
A_51_P282667	HEXA	hexosaminidase A (alpha polypeptide)	1.89522	5.78E-05	1.94136	3.55E-05
A_52_P265666	FYCO1	FYVE and coiled-coil domain containing 1	1.89543	0.0002515	-2.56893	1.12E-06
A_51_P466448	CSRNP2	cysteine-serine-rich nuclear protein 2	1.8975	3.36E-08	1.97547	1.03E-08
A_52_P554594	TFAP2E	transcription factor AP-2 epsilon (activating enhancer bindin	1.89785	0.0034869	4.74276	1.92E-08
A_51_P181785	AI413194	expressed sequence AI413194	1.90051	1.54E-05	3.30508	1.84E-10
A_51_P456366	PARD6A	par-6 family cell polarity regulator alpha	1.90066	2.06E-05	1.63135	0.00055808
A_51_P281835	INF2	inverted formin, FH2 and WH2 domain containing	1.9013	1.20E-06	4.92696	4.11E-15
A_51_P392214	PCNXL4	pecanex-like 4 (<i>Drosophila</i>)	1.90132	1.49E-07	2.87561	4.73E-12
A_51_P348804	AMOTL2	angiominin like 2	1.9023	5.93E-08	3.47564	2.77E-14
A_51_P146701	NSDHL	NAD(P) dependent steroid dehydrogenase-like	1.90388	7.33E-05	-1.90495	7.24E-05
A_51_P392209	ZBTB6	zinc finger and BTB domain containing 6	1.90404	4.77E-05	-2.0614	9.46E-06
A_51_P276479	4930486L24Rik	RIKEN cDNA 4930486L24 gene	1.90409	0.0003242	17.9074	3.81E-17
A_51_P381029	LRRFIP1	leucine rich repeat (in FLII) interacting protein 1	1.9042	4.99E-06	2.76827	1.18E-09
A_52_P365011	FES	FES proto-oncogene, tyrosine kinase	1.90471	1.62E-06	-1.58112	0.00018798
A_52_P318438	NAB1	NGFI-A binding protein 1 (EGR1 binding protein 1)	1.90661	3.98E-05	2.55491	1.07E-07
A_52_P21550	GCNT1	glucosaminyl (N-acetyl) transferase 1, core 2	1.90662	1.99E-06	2.47431	4.08E-09
A_51_P288618	DUSP11	dual specificity phosphatase 11 (RNA/RNP complex 1-interac	1.90827	5.58E-08	1.58089	1.63E-05
A_51_P258435	ZDHHC3	zinc finger, DHHC-type containing 3	1.90854	1.27E-06	-1.67441	3.72E-05

A_51_P205286	PCSK4	proprotein convertase subtilisin/kexin type 4	1.9094	9.28E-05	-2.22658	4.83E-06
A_52_P51429	DENND1C	DENN/MADD domain containing 1C	1.90945	7.11E-09	-2.88943	1.11E-13
A_52_P294948	TRAM2	translocation associated membrane protein 2	1.91547	0.0007882	-1.56663	0.0147233
A_51_P285669	PIGZ	phosphatidylinositol glycan anchor biosynthesis, class Z	1.9194	0.0051294	2.52105	0.00018382
A_52_P32500	HERPUD2	HERPUD family member 2	1.91965	1.39E-05	1.61102	0.00064102
A_52_P508506	PCED1A	PC-esterase domain containing 1A	1.91973	0.0001392	1.56102	0.00547152
A_52_P421897	MORC4	MORC family CW-type zinc finger 4	1.91993	0.0001869	1.68658	0.00181315
A_51_P287691	KREMEN2	kringle containing transmembrane protein 2	1.92235	0.0003049	2.28558	1.56E-05
A_52_P544540	FAM208B	family with sequence similarity 208, member B	1.92258	0.0002754	-1.5631	0.00829864
A_51_P188911	GALNT12	polypeptide N-acetylgalactosaminyltransferase 12	1.92443	2.05E-11	-2.53164	4.65E-15
A_52_P658513	SLC50A1	solute carrier family 50 (sugar efflux transporter), member 1	1.92466	2.94E-06	1.95058	2.13E-06
A_51_P362857	C14orf80	chromosome 14 open reading frame 80	1.92658	1.72E-07	1.87075	3.87E-07
A_52_P354373	1190002F15Rik	RIKEN cDNA 1190002F15 gene	1.92946	8.04E-05	-1.7961	0.00031414
A_52_P188423	LRRFP1	leucine rich repeat (in FLII) interacting protein 1	1.9336	0.0010705	5.10205	9.00E-10
A_52_P1037027	Apela	apelin receptor early endogenous ligand	1.93402	1.04E-07	-2.04689	2.21E-08
A_51_P518470	TTC14	tetratricopeptide repeat domain 14	1.93491	7.13E-06	1.63531	0.00032418
A_52_P340700	CDC42SE1	CDC42 small effector 1	1.93554	5.52E-12	1.65715	2.00E-09
A_52_P579654	OSBPL10	oxysterol binding protein-like 10	1.9357	0.0005219	-1.93535	0.00052345
A_52_P507498	PLXNC1	plexin C1	1.93947	0.0059289	-3.42427	6.46E-06
A_52_P406141	WWOX	WW domain containing oxidoreductase	1.93988	0.0005738	-2.2091	7.31E-05
A_52_P611728	C9orf64	chromosome 9 open reading frame 64	1.94044	2.16E-10	2.18868	5.08E-12
A_51_P437683	Ube2dnl1/Ube2dnl	ubiquitin-conjugating enzyme E2D N-terminal like 1	1.94175	0.0010447	2.25542	0.00011393
A_51_P389636	KCNN4	potassium channel, calcium activated intermediate/small co	1.94239	0.0017586	3.73914	1.83E-07
A_52_P647069	ANKRD52	ankyrin repeat domain 52	1.94462	1.49E-05	2.36858	2.33E-07
A_51_P206635	SCLT1	sodium channel and clathrin linker 1	1.94487	0.0019576	-1.6794	0.0127013
A_52_P290944	MAMDC4	MAM domain containing 4	1.94502	0.0061205	-2.92627	4.98E-05
A_52_P885499	MAP6	microtubule-associated protein 6	1.9451	6.28E-09	1.617	2.24E-06
A_52_P17115	ZNRF1	zinc and ring finger 1, E3 ubiquitin protein ligase	1.94931	5.47E-13	1.56107	4.37E-09
A_52_P477489	EEF1D	eukaryotic translation elongation factor 1 delta (guanine nu	1.94981	5.67E-07	1.81504	3.61E-06
A_51_P482585	1700049E17Rik1	RIKEN cDNA 1700049E17 gene, gene 1	1.95033	1.83E-05	12.6114	7.39E-18
A_52_P608322	MAFF	v-maf avian musculoaponeurotic fibrosarcoma oncogene ho	1.95218	1.28E-08	-2.49857	1.60E-11
A_51_P425642	GRASP	GRP1 (general receptor for phosphoinositides 1)-associated	1.95537	1.26E-10	1.55338	4.96E-07
A_52_P181235	USE1	unconventional SNARE in the ER 1 homolog (<i>S. cerevisiae</i>)	1.96002	1.48E-08	-1.89886	3.76E-08
A_51_P151484	ATP1B1	ATPase, Na ⁺ /K ⁺ transporting, beta 1 polypeptide	1.96328	4.52E-05	1.68892	0.00082776
A_52_P624572	BMPRI1A	bone morphogenetic protein receptor, type IA	1.96407	1.13E-05	1.6982	0.0002582
A_51_P374651	BAZ1A	bromodomain adjacent to zinc finger domain, 1A	1.9646	1.08E-05	1.76802	0.00010573
A_52_P320553	2900097C17Rik	RIKEN cDNA 2900097C17 gene	1.96521	0.0034329	3.20818	6.78E-06
A_52_P470560	DPYS	dihydropyrimidinase	1.96572	0.0015343	-2.80991	1.02E-05
A_51_P273684	GBE1	glucan (1,4-alpha-), branching enzyme 1	1.96737	2.38E-07	-1.53055	0.00021012
A_52_P645862	AGTR1	angiotensin II receptor, type 1	1.96751	0.0002469	-2.69342	1.24E-06
A_51_P175146	CPNE3	copine III	1.96823	1.90E-08	-1.60764	8.41E-06
A_52_P538995	CORO2B	coronin, actin binding protein, 2B	1.96903	1.54E-05	-3.3254	5.22E-10
A_52_P585424	ISPD	isoprenoid synthase domain containing	1.96935	0.0035826	2.97975	1.98E-05
A_51_P416910	SLC36A4	solute carrier family 36 (proton/amino acid symporter), mer	1.97047	1.15E-07	1.53611	0.00012136
A_51_P110088	SLC9A7	solute carrier family 9, subfamily A (NHE7, cation proton ant	1.97191	0.0043538	2.84168	5.17E-05
A_51_P256665	PON3	paraoxonase 3	1.97343	1.41E-07	-2.18833	9.61E-09
A_52_P661672	UHRF1BP1	UHRF1 binding protein 1	1.97345	5.65E-09	1.7539	2.10E-07
A_52_P381806	TERF2IP	telomeric repeat binding factor 2, interacting protein	1.97383	1.49E-10	1.69267	2.89E-08
A_52_P222775	MAP3K6	mitogen-activated protein kinase kinase kinase 6	1.97564	4.61E-10	1.88878	1.94E-09
A_51_P195958	PHLDA1	pleckstrin homology-like domain, family A, member 1	1.97572	0.0006464	5.956	8.44E-11
A_51_P251915	IRGQ	immunity-related GTPase family, Q	1.97651	6.02E-08	2.53092	1.08E-10
A_51_P365980	C1orf198	chromosome 1 open reading frame 198	1.97688	3.47E-09	-1.57231	5.27E-06
A_51_P448545	KLHL35	kelch-like family member 35	1.97956	0.0014101	2.0798	0.00071827

A_51_P271021	TMEM168	transmembrane protein 168	1.97981	0.0033143	1.88306	0.00597318
A_52_P145033	Nisch	nischarin	1.98014	2.05E-09	2.89469	9.09E-14
A_51_P196353	SNCAIP	synuclein, alpha interacting protein	1.9802	0.004799	18.6156	1.79E-13
A_51_P505823	ENDOD1	endonuclease domain containing 1	1.98071	2.21E-05	5.22957	8.25E-13
A_52_P328497	CDK10	cyclin-dependent kinase 10	1.98087	7.09E-09	-2.19305	4.00E-10
A_52_P28806	FOXM1	forkhead box M1	1.98123	4.38E-08	1.84033	3.49E-07
A_52_P249920	ZSCAN29	zinc finger and SCAN domain containing 29	1.98446	4.59E-07	1.56523	0.00020774
A_52_P422557	ZNF362	zinc finger protein 362	1.98624	1.93E-08	7.03212	3.18E-19
A_51_P507359	WBSCR27	Williams Beuren syndrome chromosome region 27	1.98697	1.62E-09	-1.50919	1.38E-05
A_51_P151307	FAM184A	family with sequence similarity 184, member A	1.98704	0.0062565	2.19882	0.00208312
A_52_P504268	B3GALNT1	beta-1,3-N-acetylgalactosaminyltransferase 1 (globoside blo	1.99133	5.26E-09	-2.93114	2.56E-13
A_51_P206824	HFE2	hemochromatosis type 2 (juvenile)	1.99143	0.0003374	-1.93691	0.00052436
A_51_P152102	ATOH7	atonal bHLH transcription factor 7	1.99237	0.0032459	-2.53008	0.00017034
A_51_P318637	B3GALNT1	beta-1,3-N-acetylgalactosaminyltransferase 1 (globoside blo	1.99465	6.38E-05	-2.0926	2.62E-05
A_51_P381821	FST	follistatin	1.99612	0.0030403	2.46192	0.00022662
A_52_P32561	A030010E16Rik	RIKEN cDNA A030010E16 gene	2.00136	4.86E-06	-3.02807	9.26E-10
A_51_P357759	PLD2	phospholipase D2	2.00332	2.33E-08	-2.14854	3.48E-09
A_52_P5263			2.00421	1.90E-09	-1.66911	6.12E-07
A_52_P8324	TMEM178A	transmembrane protein 178A	2.00581	0.0001607	4.61409	2.52E-10
A_52_P69857	2610028E06Rik	RIKEN cDNA 2610028E06 gene	2.00604	0.0030253	-1.82926	0.00879966
A_52_P428654	ZIC1	Zic family member 1	2.00622	0.0019516	3.97374	2.35E-07
A_51_P101075	CNPPD1	cyclin Pas1/PHO80 domain containing 1	2.0069	1.01E-08	2.06289	4.65E-09
A_51_P488175	PHF20L1	PHD finger protein 20-like 1	2.00913	0.000143	1.65774	0.00351976
A_52_P925197	BTG2	BTG family, member 2	2.0094	0.0008598	13.6236	3.85E-14
A_51_P234488	TMOD2	tropomodulin 2 (neuronal)	2.01078	8.41E-10	1.58537	2.00E-06
A_51_P166740	KCNJ4	potassium channel, inwardly rectifying subfamily J, member	2.01118	8.94E-10	7.13373	7.37E-21
A_51_P160581	BRSK2	BR serine/threonine kinase 2	2.01396	3.77E-05	-1.97521	5.47E-05
A_51_P288505	TRADD	TNFRSF1A-associated via death domain	2.01461	1.36E-11	-1.7966	6.98E-10
A_51_P140042	ADAD2	adenosine deaminase domain containing 2	2.01584	2.16E-07	1.94062	5.72E-07
A_51_P482552	VEGFA	vascular endothelial growth factor A	2.01641	1.48E-12	1.74451	2.79E-10
A_51_P394889	4930573O21Rik	RIKEN cDNA 4930573O21 gene	2.01777	6.90E-05	-1.71385	0.00127488
A_51_P453043	AACS	acetoacetyl-CoA synthetase	2.0182	4.90E-13	1.64338	1.19E-09
A_52_P675617	AGBL3	ATP/GTP binding protein-like 3	2.01855	0.0017281	2.25449	0.00040919
A_51_P442206	ANKRD42	ankyrin repeat domain 42	2.01904	0.0009492	2.29191	0.00015896
A_52_P477533	ZSWIM8	zinc finger, SWIM-type containing 8	2.0229	2.42E-09	3.50598	3.92E-15
A_52_P123400	DNAAF2	dynein, axonemal, assembly factor 2	2.02389	1.32E-13	1.83308	4.83E-12
A_52_P190873	EXOG	endo/exonuclease (5'-3'), endonuclease G-like	2.02418	1.58E-07	2.09903	6.28E-08
A_52_P113672	CHML	choroideremia-like (Rab escort protein 2)	2.02709	2.19E-06	-1.67802	0.00016497
A_51_P208769	METRN	meteorin, glial cell differentiation regulator	2.02773	3.29E-06	-1.64575	0.00034296
A_52_P368262	BCL7C	B-cell CLL/lymphoma 7C	2.03058	6.74E-08	-1.50245	0.00026623
A_51_P401471	EEF1G	eukaryotic translation elongation factor 1 gamma	2.03148	1.05E-11	-2.43052	4.94E-14
A_52_P382325	AHNAK	AHNAK nucleoprotein	2.03156	6.77E-08	6.51534	1.21E-17
A_52_P567359	SMAD5	SMAD family member 5	2.03219	3.80E-09	1.86507	4.75E-08
A_52_P571938	ARV1	ARV1 homolog, fatty acid homeostasis modulator	2.03348	3.64E-12	-1.81472	1.88E-10
A_51_P248959	STXBP5	syntaxin binding protein 5 (tomosyn)	2.03828	1.89E-07	-1.51827	0.00039833
A_51_P297984	ZSWIM8	zinc finger, SWIM-type containing 8	2.03979	2.78E-10	3.7554	9.99E-17
A_51_P221176	TTC21B	tetratricopeptide repeat domain 21B	2.04094	2.79E-06	1.66737	0.00025376
A_51_P252859	CYR61	cysteine-rich, angiogenic inducer, 61	2.04182	8.90E-12	9.87221	7.07E-25
A_51_P145596	Gm3383 (includes cpredicted gene 3383		2.0434	1.48E-05	4.70264	5.69E-12
A_52_P374511	Gm3383 (includes cpredicted gene 3383		2.04425	0.0004553	9.75463	4.28E-13
A_52_P254237	TMEM229A	transmembrane protein 229A	2.04644	0.0027292	9.26099	5.98E-11
A_51_P138895	CCDC102A	coiled-coil domain containing 102A	2.04911	8.47E-06	-1.90426	3.86E-05
A_52_P406864	FAM179B	family with sequence similarity 179, member B	2.04949	2.90E-09	1.53351	2.24E-05

A_51_P421300	CALY	calcyon neuron-specific vesicular protein	2.05243	4.30E-06	5.43843	1.08E-13
A_52_P597134	INPP5E	inositol polyphosphate-5-phosphatase E	2.05395	4.36E-06	2.01464	6.59E-06
A_52_P550884	SAMD12	sterile alpha motif domain containing 12	2.05509	4.78E-05	7.15059	1.80E-13
A_52_P535946	DHCR7	7-dehydrocholesterol reductase	2.05649	1.31E-06	-2.54618	1.20E-08
A_52_P343839	RND3	Rho family GTPase 3	2.05953	7.03E-08	1.50518	0.00032396
A_52_P284927	CACFD1	calcium channel flower domain containing 1	2.06091	4.07E-06	2.90936	3.67E-09
A_52_P549881	1700030C10Rik	RIKEN cDNA 1700030C10 gene	2.0627	1.39E-07	-2.29953	9.78E-09
A_52_P375931	CMTR2	cap methyltransferase 2	2.0642	1.26E-07	4.53772	1.21E-14
A_52_P465828	IQCE	IQ motif containing E	2.06456	2.14E-06	-2.78842	3.85E-09
A_52_P521324	A930024E05Rik	RIKEN cDNA A930024E05 gene	2.06556	0.0033152	-2.32315	0.0008608
A_51_P257885	MMD2	monocyte to macrophage differentiation-associated 2	2.06585	3.45E-08	2.31508	1.91E-09
A_52_P173108	TET3	tet methylcytosine dioxygenase 3	2.06815	0.0001124	1.57081	0.00940259
A_51_P429087	RP2	retinitis pigmentosa 2 (X-linked recessive)	2.06843	1.61E-06	-1.87107	1.55E-05
A_51_P175018	APCDD1	adenomatosis polyposis coli down-regulated 1	2.06877	4.21E-09	1.93206	2.94E-08
A_51_P117581	CABLES1	Cdk5 and Abl enzyme substrate 1	2.06943	1.79E-11	-5.98975	2.19E-21
A_51_P297778	SH3TC1	SH3 domain and tetratricopeptide repeats 1	2.06981	8.40E-06	-1.59165	0.00168704
A_51_P188704	UNC13A	unc-13 homolog A (C. elegans)	2.07069	3.72E-08	1.76033	2.99E-06
A_51_P404785	CDK10	cyclin-dependent kinase 10	2.07426	5.19E-12	-2.04486	8.19E-12
A_52_P636752	CYP51A1	cytochrome P450, family 51, subfamily A, polypeptide 1	2.07598	4.18E-09	-1.52774	4.11E-05
A_52_P428851	CDK12	cyclin-dependent kinase 12	2.07821	3.23E-08	1.72838	4.80E-06
A_52_P635312	IRX2	iroquois homeobox 2	2.08096	5.82E-06	1.82091	9.30E-05
A_52_P551903	SLC33A1	solute carrier family 33 (acetyl-CoA transporter), member 1	2.08127	5.10E-05	3.94758	1.05E-09
A_52_P899620	Zfp882	zinc finger protein 882	2.0814	8.40E-07	1.66323	0.00015646
A_51_P465082	TOX3	TOX high mobility group box family member 3	2.0834	0.0029966	-2.39722	0.0005921
A_51_P396978	KCNIP4	Kv channel interacting protein 4	2.08412	0.0081885	2.26255	0.00372408
A_51_P228658	ISYNA1	inositol-3-phosphate synthase 1	2.08729	2.93E-10	-2.06871	3.81E-10
A_52_P220370	ANKLE1	ankyrin repeat and LEM domain containing 1	2.08976	7.60E-06	1.66536	0.00073916
A_51_P219444	PLCL2	phospholipase C-like 2	2.09325	2.39E-09	3.93895	1.36E-15
A_51_P127320	CABS1	calcium-binding protein, spermatid-specific 1	2.09438	4.07E-06	-1.77864	0.00012683
A_52_P347248	ZNF362	zinc finger protein 362	2.09549	0.0005056	2.4267	6.12E-05
A_51_P115666	FAM83H	family with sequence similarity 83, member H	2.09717	1.06E-06	13.0736	5.81E-19
A_52_P633612	PARD3	par-3 family cell polarity regulator	2.09783	1.95E-08	1.62987	2.08E-05
A_51_P116906	RAPGEF3	Rap guanine nucleotide exchange factor (GEF) 3	2.09793	1.23E-07	-2.28649	1.55E-08
A_51_P370380	RDH14	retinol dehydrogenase 14 (all-trans/9-cis/11-cis)	2.10129	2.74E-11	2.12104	2.06E-11
A_52_P122822	WDFY2	WD repeat and FYVE domain containing 2	2.1015	1.51E-09	-2.06525	2.46E-09
A_51_P377390	NDST2	N-deacetylase/N-sulfotransferase (heparan glucosaminyl) 2	2.10183	1.12E-12	1.63393	9.61E-09
A_52_P310040	FAM208B	family with sequence similarity 208, member B	2.10926	1.23E-06	-1.59051	0.00067525
A_51_P147064	1600014C23Rik	RIKEN cDNA 1600014C23 gene	2.11025	0.0001194	-2.68384	2.38E-06
A_52_P145993	Ccdc74a	coiled-coil domain containing 74A	2.11149	3.81E-08	-2.23902	8.80E-09
A_51_P248962	STXBPS	syntaxin binding protein 5 (tomosyn)	2.11407	1.45E-08	-1.73073	3.49E-06
A_51_P456098	TMEM175	transmembrane protein 175	2.11575	2.93E-11	-1.78545	7.01E-09
A_51_P212427	LAMA4	laminin, alpha 4	2.11593	0.0004734	1.87094	0.00259982
A_51_P217878			2.11849	0.0026909	-2.31102	0.00099945
A_52_P89267	GATSL2	GATS protein-like 2	2.11851	6.32E-09	-1.64363	8.62E-06
A_52_P641849	KHNYN	KH and NYN domain containing	2.11952	3.47E-13	1.54517	4.77E-08
A_51_P148783	DNAAF2	dynein, axonemal, assembly factor 2	2.11991	4.21E-10	1.59398	3.15E-06
A_51_P226016	SLC30A4	solute carrier family 30 (zinc transporter), member 4	2.12135	2.16E-06	4.43651	2.38E-12
A_51_P335770	AFAP1	actin filament associated protein 1	2.12192	2.32E-10	1.98504	1.66E-09
A_52_P817975	KLF12	Kruppel-like factor 12	2.1243	2.09E-06	-3.22348	5.29E-10
A_51_P457813	ERMARD	ER membrane-associated RNA degradation	2.12622	7.55E-10	1.77903	1.51E-07
A_52_P288177	EPHA4	EPH receptor A4	2.12869	1.08E-08	1.85275	4.62E-07
A_52_P171663	DNAJB1	DnaJ (Hsp40) homolog, subfamily B, member 1	2.13204	2.18E-13	1.99382	1.99E-12
A_52_P225377	Pvr	poliovirus receptor	2.13247	3.78E-07	2.75977	1.37E-09

A_52_P570240	KBTBD11	kelch repeat and BTB (POZ) domain containing 11	2.13331	2.97E-09	11.7015	7.29E-22
A_51_P137778	5730507C01Rik/GrrRIKEN cDNA 5730507C01 gene		2.13406	6.94E-07	-2.54674	1.51E-08
A_51_P334344	PHF20L1	PHD finger protein 20-like 1	2.13546	4.33E-06	2.27113	1.25E-06
A_52_P586391			2.14039	5.59E-05	2.58755	2.23E-06
A_51_P450952	P3H4	prolyl 3-hydroxylase family member 4 (non-enzymatic)	2.14082	1.62E-09	-1.62466	5.56E-06
A_52_P33927	UTP6	UTP6, small subunit (SSU) processome component, homolog	2.14306	7.04E-05	-2.56643	3.49E-06
A_51_P280918	ITFG1	integrin alpha FG-GAP repeat containing 1	2.14343	5.01E-10	1.69709	5.80E-07
A_52_P470438	DPYSL4	dihydropyrimidinase-like 4	2.14409	1.35E-06	-2.05854	3.26E-06
A_51_P270997	IGFBPL1	insulin-like growth factor binding protein-like 1	2.14684	1.12E-07	-7.34903	3.47E-17
A_51_P301603	AI854517	expressed sequence AI854517	2.14687	3.50E-07	2.50962	1.10E-08
A_51_P292447	KLHL36	kelch-like family member 36	2.14787	1.88E-09	-2.50298	3.65E-11
A_52_P546175			2.15075	1.08E-09	-1.93739	2.08E-08
A_51_P395473	TNS2	tensin 2	2.15232	2.30E-11	-4.4198	1.71E-18
A_51_P176068	PRAMEF7/PRAMEF:PRAME family member 8		2.15239	3.43E-08	4.86646	2.76E-15
A_52_P236705	RIPPLY3	rippy transcriptional repressor 3	2.15254	6.39E-07	-4.26685	1.23E-12
A_52_P605319	BC051665	cDNA sequence BC051665	2.15328	1.27E-08	4.78371	1.00E-15
A_52_P208703	Ubp2l	ubiquitin-associated protein 2-like	2.15351	2.20E-06	3.06712	2.05E-09
A_51_P309988	GPRC5C	G protein-coupled receptor, class C, group 5, member C	2.15588	4.83E-08	2.52002	1.22E-09
A_52_P582969	NFKB1	nuclear factor of kappa light polypeptide gene enhancer in B	2.15749	3.29E-07	5.2211	2.21E-14
A_52_P315421			2.15845	9.44E-12	-2.00063	9.81E-11
A_52_P273787	WDR37	WD repeat domain 37	2.15881	3.65E-08	1.64017	4.54E-05
A_52_P1053160	FAM129C	family with sequence similarity 129, member C	2.16126	9.30E-05	-1.54678	0.0154518
A_51_P112762	SLC5A3	solute carrier family 5 (sodium/myo-inositol cotransporter),	2.16318	0.0081019	3.45959	8.61E-05
A_51_P201945	CFAP97	cilia and flagella associated protein 97	2.16333	2.56E-10	2.15954	2.69E-10
A_51_P516012	NTRK2	neurotrophic tyrosine kinase, receptor, type 2	2.16333	7.73E-08	3.63522	1.36E-12
A_52_P683225	TAOK3	TAO kinase 3	2.16483	3.18E-06	-2.17564	2.87E-06
A_52_P31093	Gm3383 (includes cpredicted gene 3383		2.16775	2.90E-06	11.9571	2.37E-17
A_51_P422030	OCEL1	occludin/ELL domain containing 1	2.17181	1.17E-10	-4.45186	1.38E-17
A_52_P134317	PURG	purine-rich element binding protein G	2.17333	0.0026144	-1.86225	0.0131988
A_52_P241987	GSKIP	GSK3B interacting protein	2.17727	1.58E-12	1.6361	2.99E-08
A_52_P625508	CPT1B	carnitine palmitoyltransferase 1B (muscle)	2.18122	3.34E-10	-1.72758	3.50E-07
A_51_P439248	MRC1	mannose receptor, C type 1	2.18202	0.0049251	10.0262	8.92E-10
A_51_P169886	NSMF	NMDA receptor synaptonuclear signaling and neuronal migr	2.18309	8.62E-07	-1.9007	1.76E-05
A_51_P485791	CYP51A1	cytochrome P450, family 51, subfamily A, polypeptide 1	2.18311	6.50E-07	-1.6433	0.00035433
A_51_P433870	VEGFC	vascular endothelial growth factor C	2.18328	3.13E-10	2.08657	1.11E-09
A_52_P647408	GSPT2	G1 to S phase transition 2	2.19194	7.02E-09	-1.92353	2.19E-07
A_51_P414243	POMGNT2	protein O-linked mannanose N-acetylglucosaminyltransferase	2.19269	7.92E-10	2.76913	2.36E-12
A_52_P569375	FGF5	fibroblast growth factor 5	2.20078	4.76E-05	-6.26146	7.97E-12
A_52_P172145	PDF	peptide deformylase (mitochondrial)	2.20111	2.15E-11	2.08705	1.02E-10
A_52_P635338	FES	FES proto-oncogene, tyrosine kinase	2.20179	3.06E-08	-1.64764	4.97E-05
A_52_P264136	POMT2	protein-O-mannosyltransferase 2	2.20777	0.000246	3.5077	3.21E-07
A_52_P590665	TMEM161A	transmembrane protein 161A	2.20804	2.16E-08	1.80338	3.74E-06
A_51_P418737	Rbm33	RNA binding motif protein 33	2.20821	3.59E-06	6.08403	1.81E-13
A_51_P153765	CA13	carbonic anhydrase XIII	2.20852	4.17E-08	1.84574	3.52E-06
A_52_P465669			2.21195	1.94E-09	-1.96826	4.52E-08
A_51_P101588	ADAMTSL5	ADAMTS-like 5	2.21866	2.61E-05	1.90033	0.00037096
A_51_P207601	AQP5	aquaporin 5	2.22234	1.22E-09	-1.60146	1.44E-05
A_51_P435023	RASSF1	Ras association (RalGDS/AF-6) domain family member 1	2.22237	9.48E-14	2.14127	3.01E-13
A_52_P622850	HES5	hes family bHLH transcription factor 5	2.22981	0.0005383	-2.20677	0.0006161
A_52_P565015			2.23336	2.83E-09	-1.77604	1.40E-06
A_52_P239536	PPP1R9A	protein phosphatase 1, regulatory subunit 9A	2.23347	6.61E-10	-8.32079	2.82E-20
A_51_P112405	PLAUR	plasminogen activator, urokinase receptor	2.23363	2.14E-12	1.72265	1.04E-08
A_52_P440723	ZKSCAN1	zinc finger with KRAB and SCAN domains 1	2.23666	0.0006893	2.23403	0.00069956

A_51_P498212	UBE2J1	ubiquitin-conjugating enzyme E2, J1	2.23727	0.0006444	2.08087	0.00159981
A_52_P334259			2.23845	1.05E-09	-2.02013	1.66E-08
A_51_P483159	GCHFR	GTP cyclohydrolase I feedback regulator	2.2399	1.44E-05	-2.08098	5.33E-05
A_51_P156800	MOB2	MOB kinase activator 2	2.24124	1.46E-09	2.1179	6.45E-09
A_52_P134075	OSBPL5	oxysterol binding protein-like 5	2.24275	5.47E-05	3.03691	4.40E-07
A_51_P365202	ZNF560	zinc finger protein 560	2.2436	0.0010382	2.32646	0.00067245
A_52_P220810	TRIB2	tribbles pseudokinase 2	2.24392	1.25E-09	1.58326	2.44E-05
A_51_P272023	RNF186	ring finger protein 186	2.24433	0.0042154	3.51505	4.25E-05
A_52_P1021832			2.24446	1.56E-08	-1.55927	0.00018483
A_52_P153302	TTC39B	tetratricopeptide repeat domain 39B	2.24591	1.20E-13	-1.7195	1.10E-09
A_52_P544302	Gm7008	predicted gene 7008	2.24669	3.17E-05	2.03345	0.00016728
A_52_P651034	TMX1	thioredoxin-related transmembrane protein 1	2.24888	8.09E-09	1.50494	0.00033441
A_51_P160160	5730437C12Rik	RIKEN cDNA 5730437C12 gene	2.25137	0.0001134	2.04913	0.00046244
A_52_P662226	PON3	paraoxonase 3	2.25163	1.32E-07	-3.56973	1.21E-11
A_51_P409825	FNDC4	fibronectin type III domain containing 4	2.25446	9.43E-07	-2.04066	7.45E-06
A_52_P201206	SCRN1	secernin 1	2.25499	3.01E-10	3.4924	1.29E-14
A_51_P364321	KIF13B	kinesin family member 13B	2.25692	1.95E-09	-2.27169	1.65E-09
A_51_P461108	OSBPL10	oxysterol binding protein-like 10	2.25741	1.23E-13	-2.03609	3.11E-12
A_52_P994399	Defa4	defensin, alpha, 4	2.26015	2.71E-05	3.79831	6.37E-09
A_52_P52653			2.26063	0.0034214	-2.07068	0.00803468
A_51_P147822	PON2	paraoxonase 2	2.26172	0.0001564	1.76101	0.00525019
A_52_P627816	TGM1	transglutaminase 1	2.26205	1.92E-09	4.93175	2.76E-16
A_51_P417651	ARRDC2	arrestin domain containing 2	2.26595	5.11E-09	-3.78329	9.13E-14
A_52_P486464	ZNF827	zinc finger protein 827	2.26702	5.32E-08	-2.70705	1.07E-09
A_51_P455416	MAPK12	mitogen-activated protein kinase 12	2.26908	7.39E-07	-1.79607	1.00E-04
A_51_P477121	Pmaip1	phorbol-12-myristate-13-acetate-induced protein 1	2.26927	3.23E-06	5.39316	1.80E-12
A_52_P747842	9130204L05Rik	(inc RIKEN cDNA 9130204L05 gene	2.27034	0.000111	3.67488	9.27E-08
A_51_P311159	PLA2G2E	phospholipase A2, group IIE	2.27047	1.97E-05	2.00252	0.00016803
A_51_P411874	ANKHD1/ANKHD1-lankyrin repeat and KH domain containing 1		2.27477	0.0017024	-2.09922	0.00404931
A_51_P458794	ZNF438	zinc finger protein 438	2.27878	4.60E-11	1.50554	1.92E-05
A_51_P237383	RNASE4	ribonuclease, RNase A family, 4	2.27937	1.20E-05	4.82944	7.03E-11
A_51_P472372	TTC17	tetratricopeptide repeat domain 17	2.28308	6.86E-13	1.86546	4.01E-10
A_52_P590701	DZIP3	DAZ interacting zinc finger protein 3	2.28387	5.83E-09	2.2055	1.37E-08
A_51_P311227	DROSHA	drosha, ribonuclease type III	2.28443	1.14E-07	3.6943	8.18E-12
A_51_P160544	EFEMP2	EGF containing fibulin-like extracellular matrix protein 2	2.28892	3.01E-12	1.8764	1.33E-09
A_52_P249336	Defa3	(includes oth defensin, alpha, 3	2.29249	1.62E-05	3.60905	9.41E-09
A_52_P591166	DPYSL2	dihydropyrimidinase-like 2	2.29582	3.62E-07	-3.13816	7.51E-10
A_52_P843431			2.29741	5.41E-10	3.82495	7.78E-15
A_51_P463034	C19orf57	chromosome 19 open reading frame 57	2.30272	9.06E-13	1.58292	2.51E-07
A_52_P326664	UNC93A	unc-93 homolog A (C. elegans)	2.30275	0.0024438	2.2421	0.00320686
A_52_P550147	SNED1	sushi, nidogen and EGF-like domains 1	2.30323	3.11E-11	-5.62638	4.27E-19
A_52_P180101	FYCO1	FYVE and coiled-coil domain containing 1	2.30378	1.23E-06	-1.69944	0.00053872
A_52_P228389	HMG20A	high mobility group 20A	2.30804	3.81E-10	2.07552	6.39E-09
A_52_P455379	Pramel6	preferentially expressed antigen in melanoma like 6	2.31193	0.0020864	11.2179	1.56E-10
A_51_P443618	C16orf13	chromosome 16 open reading frame 13	2.31637	3.66E-15	1.60392	2.22E-09
A_51_P260300	IKBKG	inhibitor of kappa light polypeptide gene enhancer in B-cells	2.3179	3.40E-08	1.68867	6.49E-05
A_52_P65108	SMAD1	SMAD family member 1	2.32004	1.15E-08	1.52754	0.00041387
A_51_P473229	ZBTB7B	zinc finger and BTB domain containing 7B	2.32233	3.87E-07	3.88554	2.60E-11
A_52_P279687	LRP8	low density lipoprotein receptor-related protein 8, apolipop	2.32568	3.66E-05	-1.95618	0.00055724
A_51_P314397	Crip2	cysteine rich protein 2	2.32624	5.03E-11	3.04991	7.36E-14
A_52_P401504	THBS4	thrombospondin 4	2.32649	0.0017771	2.01681	0.00773666
A_52_P19519	PLCE1	phospholipase C, epsilon 1	2.32869	1.39E-06	-1.73826	0.00043046
A_51_P312693	KIAA0754	KIAA0754	2.33004	0.0088338	2.92031	0.00132654

A_52_P646663	CCDC53	coiled-coil domain containing 53	2.33014	2.78E-08	1.52375	0.00074484
A_52_P217710	FZD6	frizzled class receptor 6	2.33428	3.50E-05	1.60346	0.0106292
A_51_P146560	MSLN	mesothelin	2.3352	4.83E-09	2.74764	1.19E-10
A_52_P399814	CCSAP	centriole, cilia and spindle-associated protein	2.34229	2.96E-09	1.5491	0.00015137
A_52_P252258	MAPK12	mitogen-activated protein kinase 12	2.34499	7.55E-08	-2.19828	3.12E-07
A_51_P217498	SLC2A4	solute carrier family 2 (facilitated glucose transporter), mem	2.34634	3.71E-09	2.98282	1.76E-11
A_51_P111488	GFOD2	glucose-fructose oxidoreductase domain containing 2	2.34827	1.06E-10	-1.94803	1.80E-08
A_52_P299964	Maml2	mastermind like 2 (Drosophila)	2.34827	0.0020483	2.07867	0.00695224
A_51_P171832	Nrgn	neurogranin	2.34846	2.36E-08	-2.02325	7.58E-07
A_52_P884550	Gm36839	predicted gene, 36839	2.35054	0.0082057	3.55649	0.00022983
A_52_P255724	1810009N02Rik	RIKEN cDNA 1810009N02 gene	2.35348	1.01E-10	1.56968	1.38E-05
A_52_P43549	CD38	CD38 molecule	2.35696	6.69E-10	1.52916	0.00010028
A_52_P119792	ZNF443	zinc finger protein 443	2.35735	9.57E-07	1.57426	0.00262008
A_51_P274593	PSMF1	proteasome inhibitor subunit 1	2.35777	1.47E-06	3.56471	9.04E-10
A_52_P641341	FUT11	fucosyltransferase 11 (alpha (1,3) fucosyltransferase)	2.35956	5.70E-08	-1.50968	0.0015264
A_51_P122075	DOCK1	dedicator of cytokinesis 1	2.36304	7.89E-11	7.50693	4.77E-20
A_52_P240542	ID2	inhibitor of DNA binding 2, dominant negative helix-loop-he	2.36663	5.60E-07	4.04527	3.59E-11
A_51_P187151	GRB10	growth factor receptor-bound protein 10	2.37034	2.28E-06	1.65199	0.00183122
A_52_P577208	SCFD2	sec1 family domain containing 2	2.37306	6.72E-09	3.48516	2.17E-12
A_52_P555664	B3GNT5	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransfer:	2.37655	2.87E-06	1.71604	0.00109693
A_51_P187421	RPGRIP1L	RPGRIP1-like	2.38389	0.0004165	1.99646	0.00352783
A_52_P26794	BASP1	brain abundant, membrane attached signal protein 1	2.39103	9.94E-06	-1.53453	0.0133776
A_51_P273538	SYCE2	synaptonemal complex central element protein 2	2.39192	4.03E-10	-1.94945	8.44E-08
A_52_P547662	P2RY1	purinergic receptor P2Y, G-protein coupled, 1	2.39321	0.0003555	1.81659	0.00962976
A_51_P162553	PREX2	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exc	2.39338	0.0033092	2.29778	0.00482439
A_52_P49457	FBXL16	F-box and leucine-rich repeat protein 16	2.39914	9.67E-09	-1.87216	3.57E-06
A_51_P296036	Nrbp2	nuclear receptor binding protein 2	2.4	3.41E-10	-3.5441	6.89E-14
A_52_P785927	3110035C09Rik	RIKEN cDNA 3110035C09 gene	2.40219	0.0015949	2.11832	0.00570213
A_51_P506899	HSPA12A	heat shock 70kDa protein 12A	2.40274	0.0012336	-2.13397	0.00429703
A_51_P168203	AIG1	androgen-induced 1	2.40326	2.11E-07	4.07897	1.32E-11
A_52_P181605	Ccdc50	coiled-coil domain containing 50	2.40787	7.30E-09	1.63487	9.37E-05
A_51_P114634	AMZ1	archaelysin family metallopeptidase 1	2.40835	7.46E-13	1.67695	6.53E-08
A_52_P301035	RCCD1	RCC1 domain containing 1	2.40924	3.34E-10	-1.5322	8.66E-05
A_52_P144964	CEP83	centrosomal protein 83kDa	2.41098	6.49E-10	3.46059	2.57E-13
A_52_P671769	ARHGAP18	Rho GTPase activating protein 18	2.41118	3.45E-05	-1.71842	0.00525556
A_52_P349477	MAPK8IP1	mitogen-activated protein kinase 8 interacting protein 1	2.41525	1.67E-09	-4.14188	2.99E-14
A_52_P212756	TOR1AIP2	torsin A interacting protein 2	2.41729	6.76E-06	1.58206	0.00777927
A_52_P242544	DSP	desmoplakin	2.42383	2.77E-05	1.88393	0.00128874
A_52_P446625	CEP170B	centrosomal protein 170B	2.43089	5.89E-07	5.00655	2.99E-12
A_52_P418477	Tpm2	tropomyosin 2, beta	2.43728	1.22E-09	-2.43089	1.29E-09
A_51_P234044	C16orf74	chromosome 16 open reading frame 74	2.43738	1.98E-08	-2.66106	3.05E-09
A_51_P512969	CILP2	cartilage intermediate layer protein 2	2.43818	1.33E-07	2.68953	1.88E-08
A_52_P209383	TGFB111	transforming growth factor beta 1 induced transcript 1	2.44022	0.0059917	6.72647	7.10E-07
A_52_P341489	C5orf28	chromosome 5 open reading frame 28	2.44143	2.48E-12	1.71377	1.04E-07
A_51_P502964	TMEM63A	transmembrane protein 63A	2.44175	8.82E-10	2.25896	5.77E-09
A_52_P613596	VAV3	vav 3 guanine nucleotide exchange factor	2.44762	0.0052836	2.26454	0.0100299
A_52_P452689	ATF3	activating transcription factor 3	2.44824	5.39E-12	19.6188	1.46E-25
A_51_P440535	MLKL	mixed lineage kinase domain-like	2.4508	0.0006626	3.09551	4.45E-05
A_51_P263004	BCL11A	B-cell CLL/lymphoma 11A (zinc finger protein)	2.45096	3.23E-08	-2.41618	4.38E-08
A_51_P467953	LRFN4	leucine rich repeat and fibronectin type III domain containin	2.45734	2.52E-12	1.54203	4.68E-06
A_52_P151320	TNFAIP8L1	tumor necrosis factor, alpha-induced protein 8-like 1	2.4738	6.72E-14	-3.83846	2.85E-18
A_52_P561690	KIAA1614	KIAA1614	2.47402	0.0002532	5.30074	2.12E-08
A_52_P602406	ZDHHC3	zinc finger, DHHC-type containing 3	2.47527	8.25E-05	-4.9221	8.26E-09

A_51_P240476	DNAH11	dynein, axonemal, heavy chain 11	2.47682	4.29E-05	2.08312	0.00052562
A_51_P189198	PARD3	par-3 family cell polarity regulator	2.47751	0.0002251	1.86295	0.00714802
A_51_P159201	JUNB	jun B proto-oncogene	2.48022	3.40E-11	2.27773	2.98E-10
A_52_P532559	THRB	thyroid hormone receptor, beta	2.48114	1.98E-05	3.26538	3.06E-07
A_52_P681310	PLAUR	plasminogen activator, urokinase receptor	2.48167	2.48E-14	1.86591	1.66E-10
A_51_P168894	ANO1	anoctamin 1, calcium activated chloride channel	2.48216	0.0001139	-3.16878	4.26E-06
A_52_P5891	FAM101B	family with sequence similarity 101, member B	2.48255	3.13E-05	1.75247	0.00486436
A_51_P389864	B3GNT9	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase	2.48541	0.0002935	3.46588	4.80E-06
A_52_P196105	TTYH3	tweety family member 3	2.48749	1.19E-09	-1.7741	5.45E-06
A_52_P569539	NFKB1	nuclear factor of kappa light polypeptide gene enhancer in B	2.48835	1.56E-07	5.4157	2.97E-13
A_51_P271984	TMEM45B	transmembrane protein 45B	2.501	9.65E-05	6.85901	2.67E-10
A_52_P35217	BTG2	BTG family, member 2	2.50152	7.79E-07	18.8237	3.01E-18
A_52_P290211	MEIS2	Meis homeobox 2	2.50555	4.59E-07	-1.59119	0.00266565
A_52_P64687	CAMK2N1	calcium/calmodulin-dependent protein kinase II inhibitor 1	2.509	3.45E-07	-2.08682	1.22E-05
A_51_P206405	PTPRZ1	protein tyrosine phosphatase, receptor-type, Z polypeptide	2.50975	5.52E-06	-3.89778	5.37E-09
A_52_P127335	RPGRIP1L	RPGRIP1-like	2.51064	0.0028701	2.55647	0.00243573
A_51_P101460	DSP	desmoplakin	2.51148	5.18E-08	1.61343	0.00067552
A_51_P332309	EOMES	eomesodermin	2.51314	1.83E-07	-7.17078	1.11E-14
A_52_P994653			2.51321	6.25E-05	-1.71092	0.0105604
A_51_P258766	SMO	smoothened, frizzled class receptor	2.51362	2.07E-12	1.61198	1.29E-06
A_51_P428595	CSPP1	centrosome and spindle pole associated protein 1	2.51372	5.87E-10	2.49619	6.90E-10
A_52_P486774	COBLL1	cordon-bleu WH2 repeat protein-like 1	2.51461	0.0001187	3.88856	3.91E-07
A_51_P266224	LIMD1	LIM domains containing 1	2.51647	3.84E-10	-1.51934	0.00021226
A_51_P195783	NEIL3	nei-like DNA glycosylase 3	2.51682	0.0002056	-2.1447	0.00147384
A_52_P603668	AIG1	androgen-induced 1	2.52196	3.04E-09	2.24731	4.18E-08
A_51_P320281	IRX2	iroquois homeobox 2	2.52271	3.12E-08	1.78117	6.05E-05
A_51_P340699	RASL11A	RAS-like, family 11, member A	2.53056	2.54E-08	1.63165	0.00038957
A_52_P521583	ZC3H4	zinc finger CCCH-type containing 4	2.5322	4.24E-07	1.70409	0.00080309
A_52_P121491	MSRB3	methionine sulfoxide reductase B3	2.53831	5.61E-05	1.96399	0.00185904
A_52_P524426	EPB41L1	erythrocyte membrane protein band 4.1-like 1	2.54565	5.27E-11	2.22011	1.60E-09
A_51_P188054	EBF1	early B-cell factor 1	2.55395	3.34E-06	-3.35183	4.08E-08
A_51_P204913	BAG2	BCL2-associated athanogene 2	2.56356	7.11E-12	-1.81296	1.02E-07
A_51_P102987	PENK	proenkephalin	2.56535	4.72E-10	2.27252	8.11E-09
A_52_P650180	NIPAL2	NIPA-like domain containing 2	2.56885	0.0004339	4.18321	1.60E-06
A_51_P276418	RAB6B	RAB6B, member RAS oncogene family	2.57054	1.81E-11	-5.27186	1.61E-17
A_51_P157840	CHST1	carbohydrate (keratan sulfate Gal-6) sulfotransferase 1	2.57404	7.30E-09	1.8188	1.84E-05
A_51_P215106	FSTL1	follistatin-like 1	2.57541	1.64E-09	-2.39618	8.23E-09
A_52_P213696	FNDC5	fibronectin type III domain containing 5	2.57694	6.77E-07	1.99829	7.03E-05
A_51_P309874			2.5819	0.0056005	7.1278	1.03E-06
A_52_P139727	ATF4	activating transcription factor 4	2.58596	1.61E-14	4.57446	8.45E-20
A_52_P593110	PTBP2	polypyrimidine tract binding protein 2	2.58677	1.17E-05	3.99265	1.95E-08
A_51_P372186	ZNF467	zinc finger protein 467	2.59483	2.69E-07	2.69163	1.37E-07
A_52_P56471	EGFR	epidermal growth factor receptor	2.59587	3.04E-06	6.52192	4.70E-12
A_52_P315976	Tpm2	tropomyosin 2, beta	2.60078	2.67E-10	-2.52175	5.40E-10
A_51_P196925	CX3CL1	chemokine (C-X3-C motif) ligand 1	2.6067	2.32E-08	1.86571	2.81E-05
A_52_P373912			2.61103	2.82E-06	10.4607	2.20E-14
A_51_P420841	LRRRC8B	leucine rich repeat containing 8 family, member B	2.61556	6.57E-08	3.25837	1.11E-09
A_51_P415475	DOK4	docking protein 4	2.6196	9.60E-14	-1.61087	3.16E-07
A_51_P424569	TBC1D12	TBC1 domain family, member 12	2.62123	0.0001623	1.89534	0.00739802
A_51_P497280	DBNDD1	dysbindin (dystrobrevin binding protein 1) domain containin	2.62577	1.64E-07	-2.13227	8.80E-06
A_51_P225592	Tpm4	tropomyosin 4	2.62764	2.70E-14	-1.62027	1.07E-07
A_51_P120137	RMDN2	regulator of microtubule dynamics 2	2.62908	2.52E-09	1.51058	0.00103346
A_51_P507602	Clca3b	chloride channel accessory 3B	2.63098	4.63E-06	5.19938	2.15E-10

A_52_P635388	MS4A6A	membrane-spanning 4-domains, subfamily A, member 6A	2.63114	0.0002121	2.10168	0.00288109
A_51_P210885	SNED1	sushi, nidogen and EGF-like domains 1	2.63646	0.006927	-3.82195	0.00038635
A_52_P666026	GATSL2	GATS protein-like 2	2.64327	0.0014018	-2.202	0.0075618
A_51_P233101	LTBP3	latent transforming growth factor beta binding protein 3	2.64646	2.43E-10	-2.61509	3.17E-10
A_51_P302346	OR8D4	olfactory receptor, family 8, subfamily D, member 4	2.64938	1.34E-09	-4.12819	2.79E-13
A_51_P188046	DYNC111	dynein, cytoplasmic 1, intermediate chain 1	2.66061	0.0009125	2.30638	0.00369951
A_51_P269216	ATF5	activating transcription factor 5	2.66506	1.64E-14	2.50307	8.37E-14
A_51_P250378	SLC30A1	solute carrier family 30 (zinc transporter), member 1	2.68167	2.20E-13	1.80179	1.87E-08
A_51_P255657	2210011C24Rik	RIKEN cDNA 2210011C24 gene	2.69827	8.94E-14	-3.77998	5.67E-17
A_52_P628445	PTPRR	protein tyrosine phosphatase, receptor type, R	2.70267	0.0059627	4.44874	0.00011869
A_51_P172952	C8orf34	chromosome 8 open reading frame 34	2.70959	5.15E-08	3.92337	7.84E-11
A_51_P219074	ID2	inhibitor of DNA binding 2, dominant negative helix-loop-he	2.71259	3.55E-08	5.67874	1.96E-13
A_52_P671525	ZMAT1	zinc finger, matrin-type 1	2.71477	0.0001094	8.48227	2.21E-10
A_51_P250797	GLRB	glycine receptor, beta	2.73293	8.19E-05	10.3169	2.18E-11
A_52_P257919	SOGA1	suppressor of glucose, autophagy associated 1	2.73898	2.48E-12	4.40244	1.83E-16
A_51_P134812	CHAC1	ChaC glutathione-specific gamma-glutamylcyclotransferase	2.7415	1.50E-13	2.4673	2.09E-12
A_51_P247098	RALGAPB	Ral GTPase activating protein, beta subunit (non-catalytic)	2.74238	6.13E-05	1.7494	0.0143449
A_51_P179881	LCA5L	Leber congenital amaurosis 5-like	2.74333	7.28E-09	12.3229	2.88E-18
A_52_P100341	ZNF334	zinc finger protein 334	2.74807	2.70E-05	3.40986	1.48E-06
A_52_P637282	WIPF1	WAS/WASL interacting protein family, member 1	2.74924	1.02E-07	-1.62763	0.00195791
A_52_P513477	DZIP3	DAZ interacting zinc finger protein 3	2.74939	2.49E-05	2.24703	0.000383
A_51_P246066	SLAMF9	SLAM family member 9	2.74955	1.89E-05	4.07276	9.13E-08
A_51_P513991	SPAG4	sperm associated antigen 4	2.75873	3.51E-14	2.16572	2.23E-11
A_52_P305230	IGSF21	immunoglobulin superfamily, member 21	2.76172	4.09E-15	-5.55705	4.64E-21
A_52_P841	ZBTB10	zinc finger and BTB domain containing 10	2.76736	6.35E-05	6.80427	1.33E-09
A_51_P364639	KRT71	keratin 71, type II	2.76764	6.84E-09	3.03807	1.14E-09
A_52_P453374	LRRN4CL	LRRN4 C-terminal like	2.77486	2.47E-09	2.66437	5.64E-09
A_51_P285020	A730049H05Rik	RIKEN cDNA A730049H05 gene	2.77512	1.84E-06	-3.45352	6.28E-08
A_51_P152203	ZNF519	zinc finger protein 519	2.79479	0.0004014	2.14448	0.00587482
A_51_P262998	BCL11A	B-cell CLL/lymphoma 11A (zinc finger protein)	2.79659	2.12E-12	-3.99426	1.46E-15
A_51_P118300	SNCG	synuclein, gamma (breast cancer-specific protein 1)	2.79973	8.53E-13	8.31758	8.03E-21
A_51_P178692	ENC1	ectodermal-neural cortex 1 (with BTB domain)	2.80296	1.74E-10	1.73723	1.54E-05
A_52_P1155947			2.80402	4.69E-05	-1.94098	0.00446093
A_52_P384264	Zfp185	zinc finger protein 185	2.80824	5.47E-09	-2.11482	1.88E-06
A_52_P113295	TENM1	teneurin transmembrane protein 1	2.82063	0.0030976	-2.86482	0.00273755
A_51_P284476	GPM6B	glycoprotein M6B	2.82154	0.0001336	-3.74267	4.99E-06
A_51_P143805	TMEM42	transmembrane protein 42	2.82161	2.17E-08	2.07572	8.74E-06
A_51_P160439	CRYBG3	beta-gamma crystallin domain containing 3	2.82612	3.41E-08	-5.0477	2.58E-12
A_52_P384049	TTPAL	tocopherol (alpha) transfer protein-like	2.82788	4.19E-07	1.81201	0.00082451
A_51_P392242	EGFR	epidermal growth factor receptor	2.83209	0.0081174	5.57134	6.26E-05
A_52_P58208	Muc1	mucin 1, transmembrane	2.83278	0.0002119	2.30215	0.00200774
A_52_P300730	Hmga2	high mobility group AT-hook 2	2.8332	1.05E-08	-2.2535	9.72E-07
A_52_P432881	SLC19A3	solute carrier family 19 (thiamine transporter), member 3	2.83528	7.98E-05	1.87008	0.00981689
A_52_P473966	KDELRL3	KDEL (Lys-Asp-Glu-Leu) endoplasmic reticulum protein reten	2.84383	3.67E-13	1.8884	1.96E-08
A_51_P381015	EVX1	even-skipped homeobox 1	2.84713	6.10E-05	-2.00045	0.00414158
A_51_P288315	Hmga2	high mobility group AT-hook 2	2.84835	4.72E-06	-1.70218	0.00771103
A_51_P442097	SLC41A3	solute carrier family 41, member 3	2.85984	4.66E-10	-2.95009	2.49E-10
A_52_P237048	PRMT6	protein arginine methyltransferase 6	2.8613	1.41E-09	1.93487	6.34E-06
A_52_P372165	RPSA	ribosomal protein SA	2.86943	1.73E-11	2.58632	1.75E-10
A_52_P418884	NEDD9	neural precursor cell expressed, developmentally down-regu	2.87607	0.0036911	4.42611	0.00012087
A_52_P477668	SRGAP1	SLIT-ROBO Rho GTPase activating protein 1	2.87778	1.23E-09	1.76094	5.41E-05
A_51_P435410	GRID2IP	glutamate receptor, ionotropic, delta 2 (Grid2) interacting pr	2.8788	0.0013487	2.61624	0.00309325
A_51_P221762	EPHA4	EPH receptor A4	2.88628	2.02E-13	1.69513	4.87E-07

A_52_P600808	SMCR8	Smith-Magenis syndrome chromosome region, candidate 8	2.88726	4.10E-12	6.13558	6.34E-18
A_52_P498193	ALDH1L2	aldehyde dehydrogenase 1 family, member L2	2.88752	2.14E-10	-1.77119	1.61E-05
A_51_P448325	ESAM	endothelial cell adhesion molecule	2.88904	2.20E-10	-3.7106	1.81E-12
A_51_P177371	PRND	prion protein 2 (duplet)	2.89159	3.33E-05	2.82975	4.38E-05
A_52_P1100724			2.89256	9.26E-08	10.1167	2.70E-15
A_51_P278334	VLDLR	very low density lipoprotein receptor	2.90694	4.07E-08	2.19591	7.21E-06
A_51_P312795	KCNJ8	potassium channel, inwardly rectifying subfamily J, member	2.91409	1.16E-05	-1.84456	0.00502132
A_51_P427540	4930422N03Rik	RIKEN cDNA 4930422N03 gene	2.915	0.0014754	4.8428	1.61E-05
A_52_P553316	SNRK	SNF related kinase	2.91548	3.92E-14	1.85746	8.59E-09
A_51_P493987	MOXD1	monooxygenase, DBH-like 1	2.92819	4.05E-12	2.7111	2.24E-11
A_52_P590781	FAM13C	family with sequence similarity 13, member C	2.93181	3.37E-08	2.44636	9.10E-07
A_51_P219109	IL12RB1	interleukin 12 receptor, beta 1	2.94473	6.50E-10	-2.14841	5.04E-07
A_51_P513992	SPAG4	sperm associated antigen 4	2.94865	6.58E-10	1.94667	4.89E-06
A_52_P218584	PHF20L1	PHD finger protein 20-like 1	2.97477	9.61E-10	2.76921	3.92E-09
A_52_P459929	ITGA1	integrin, alpha 1	2.98077	4.00E-05	-3.83332	1.90E-06
A_51_P422257	EMX1	empty spiracles homeobox 1	2.98103	1.07E-08	2.12982	6.59E-06
A_51_P402617	NKX6-2	NK6 homeobox 2	2.98645	5.12E-12	2.52818	2.10E-10
A_52_P620898	AJAP1	adherens junctions associated protein 1	2.98988	1.55E-06	-1.89496	0.00143028
A_52_P648433	TEX13B	testis expressed 13B	3.01786	6.11E-07	9.79673	1.40E-13
A_52_P140005	NIPAL1	NIPA-like domain containing 1	3.021	1.33E-05	-2.88337	2.45E-05
A_51_P448178	KCTD8	potassium channel tetramerization domain containing 8	3.0216	4.36E-05	19.5217	2.24E-13
A_52_P488437	PLEK2	pleckstrin 2	3.02695	2.15E-16	4.76107	2.64E-20
A_52_P230938	Ly6a (includes othe	lymphocyte antigen 6 complex, locus A	3.03674	0.0001209	3.36402	3.94E-05
A_52_P402897	CDH4	cadherin 4, type 1, R-cadherin (retinal)	3.03966	1.48E-08	-5.47608	1.45E-12
A_51_P467224	FBN1	fibrillin 1	3.04166	2.69E-06	2.62073	2.27E-05
A_51_P424893	XIAP	X-linked inhibitor of apoptosis, E3 ubiquitin protein ligase	3.04417	0.0002432	4.24924	7.85E-06
A_51_P165882	SLC22A18	solute carrier family 22, member 18	3.04982	3.84E-11	-2.42064	5.43E-09
A_52_P575505	PEX2	peroxisomal biogenesis factor 2	3.05266	9.41E-10	3.04039	1.02E-09
A_52_P490910	FNDC4	fibronectin type III domain containing 4	3.06865	1.66E-11	-2.19891	2.79E-08
A_51_P424338	NQO1	NAD(P)H dehydrogenase, quinone 1	3.0757	4.13E-11	-2.19542	6.48E-08
A_52_P398122	IRX2	iroquois homeobox 2	3.08095	4.13E-10	1.9764	4.56E-06
A_52_P584293	ATRNL1	attractin-like 1	3.08939	1.99E-11	-1.6885	2.91E-05
A_51_P321531	PURG	purine-rich element binding protein G	3.09313	2.44E-14	-2.4503	6.20E-12
A_51_P358152	SEPN1	selenoprotein N, 1	3.09977	2.81E-06	2.04681	0.00093821
A_52_P521937	ZNF519	zinc finger protein 519	3.10423	2.12E-11	1.97679	5.69E-07
A_52_P461922	ISLR2	immunoglobulin superfamily containing leucine-rich repeat	3.10859	0.0041087	3.17002	0.00358708
A_52_P659312	SPSB4	splA/ryanodine receptor domain and SOCS box containing 4	3.11092	4.70E-16	-3.47131	4.39E-17
A_52_P478444	Gm9885	predicted gene 9885	3.1131	1.28E-12	-2.64301	4.61E-11
A_51_P478555	CITED2	Cbp/p300-interacting transactivator, with Glu/Asp-rich carb	3.11425	1.15E-07	1.64512	0.00451624
A_51_P407165	ABHD5	abhydrolase domain containing 5	3.1307	1.82E-11	8.48619	3.20E-18
A_51_P250422	SPRY4	sprouty RTK signaling antagonist 4	3.13892	8.76E-10	-4.5217	1.79E-12
A_51_P308362	UGT1A6	UDP glucuronosyltransferase 1 family, polypeptide A6	3.16556	3.43E-06	13.8361	1.67E-13
A_52_P678837	RTTN	rotatin	3.17161	7.23E-08	-3.33131	3.30E-08
A_51_P328613	FCGR2A	Fc fragment of IgG, low affinity IIa, receptor (CD32)	3.17688	7.52E-07	2.78701	5.18E-06
A_52_P649623	SEMA3D	sema domain, immunoglobulin domain (Ig), short basic dom	3.18361	0.0010154	2.30275	0.0133339
A_51_P156274	LTBR	lymphotoxin beta receptor (TNFR superfamily, member 3)	3.20924	8.45E-09	1.66591	0.00143041
A_52_P143757	MON1B	MON1 secretory trafficking family member B	3.2156	1.21E-11	1.71472	2.33E-05
A_52_P195839	CTSC	cathepsin C	3.25173	2.38E-15	1.68308	1.71E-07
A_52_P477836	CAPZA2	capping protein (actin filament) muscle Z-line, alpha 2	3.26682	0.0005794	3.98331	0.00010021
A_52_P478103	NDNF	neuron-derived neurotrophic factor	3.28678	4.92E-06	-2.3555	0.0003611
A_51_P155445	ABCB1	ATP-binding cassette, sub-family B (MDR/TAP), member 1	3.29413	1.46E-07	9.29913	2.16E-13
A_51_P501897	PITX2	paired-like homeodomain 2	3.29684	7.88E-06	3.79615	1.37E-06
A_52_P256421	FAM129A	family with sequence similarity 129, member A	3.30419	1.33E-14	-1.57154	6.82E-06

A_51_P509669	UAP1L1	UDP-N-acetylglucosamine pyrophosphorylase 1 like 1	3.30518	6.72E-15	3.61767	1.07E-15
A_52_P273821	ABHD5	abhydrolase domain containing 5	3.30848	9.70E-11	5.87183	9.29E-15
A_51_P309917	ITGA8	integrin, alpha 8	3.37669	3.35E-09	9.38077	2.57E-15
A_52_P496608	PSD3	pleckstrin and Sec7 domain containing 3	3.37893	8.06E-07	2.21441	0.00030629
A_51_P411225	WIPF1	WAS/WASL interacting protein family, member 1	3.40019	1.35E-12	-1.59318	8.59E-05
A_51_P209921	KIAA0408	KIAA0408	3.40217	2.55E-14	-3.86204	2.18E-15
A_51_P150876	LYPD3	LY6/PLAUR domain containing 3	3.41595	1.27E-06	-2.12114	0.00080486
A_51_P467086	Defa3 (includes oth	defensin, alpha, 3	3.42191	6.71E-12	6.11927	5.31E-16
A_51_P385786	ID1	inhibitor of DNA binding 1, dominant negative helix-loop-he	3.43934	3.43E-11	2.69596	3.80E-09
A_52_P533809	ID1	inhibitor of DNA binding 1, dominant negative helix-loop-he	3.44491	3.39E-11	2.42643	3.52E-08
A_51_P447835	PLA2G7	phospholipase A2, group VII (platelet-activating factor acety	3.45028	3.80E-14	2.01062	1.39E-08
A_51_P494822	STAG3	stromal antigen 3	3.47441	1.09E-14	-1.72023	6.27E-07
A_51_P170178	B3GNT8	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransfer:	3.47772	1.62E-08	10.9836	6.15E-15
A_51_P501664	PREX2	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exc	3.48542	2.92E-08	6.24551	8.68E-12
A_51_P184991	WDR64	WD repeat domain 64	3.48736	5.66E-08	11.0604	3.09E-14
A_51_P152211	ZNF519	zinc finger protein 519	3.51161	2.67E-09	2.83695	9.95E-08
A_52_P678833	DCP2	decapping mRNA 2	3.52927	4.66E-16	1.8076	1.63E-08
A_51_P510441	SUV39H1	suppressor of variegation 3-9 homolog 1 (Drosophila)	3.54128	7.70E-16	4.24725	2.43E-17
A_52_P392517	BMP2K	BMP2 inducible kinase	3.57574	7.65E-07	1.84727	0.00500133
A_52_P860172	NBN	nibrin	3.57888	0.0001255	7.80605	8.45E-08
A_51_P211436	GPR83	G protein-coupled receptor 83	3.58929	9.56E-13	-4.20434	5.72E-14
A_51_P171772	BCL11B	B-cell CLL/lymphoma 11B (zinc finger protein)	3.59518	2.06E-13	3.07249	4.60E-12
A_51_P271503	IL1R1	interleukin 1 receptor, type I	3.61413	7.00E-10	3.72077	4.35E-10
A_52_P370268	Crisp1/Crisp3	cysteine-rich secretory protein 1	3.63196	9.81E-12	5.4608	1.36E-14
A_51_P119429	NCKAP1L	NCK-associated protein 1-like	3.64765	5.25E-11	4.40326	2.34E-12
A_51_P454196	SH2D4A	SH2 domain containing 4A	3.66273	1.40E-07	3.46383	3.06E-07
A_51_P272553	BHLHE40	basic helix-loop-helix family, member e40	3.66349	1.32E-11	-1.93536	6.11E-06
A_52_P311263	LONRF2	LON peptidase N-terminal domain and ring finger 2	3.69278	1.55E-11	-7.31694	5.66E-16
A_52_P860288	PPIA	peptidylprolyl isomerase A (cyclophilin A)	3.70557	0.0001917	4.16755	6.72E-05
A_51_P452714	KCNMB4	potassium channel subfamily M regulatory beta subunit 4	3.73155	5.19E-05	2.25023	0.00653695
A_52_P373852	FOXO3	forkhead box O3	3.74222	0.0007571	3.59544	0.00102467
A_52_P106259	EGFR	epidermal growth factor receptor	3.75464	3.68E-13	20.3429	2.01E-22
A_52_P296864	3110045C21Rik	RIKEN cDNA 3110045C21 gene	3.7773	1.29E-05	-2.09087	0.00667485
A_51_P380432	SCX	scleraxis bHLH transcription factor	3.77814	2.01E-11	16.7041	1.40E-19
A_51_P143682	ZNF318	zinc finger protein 318	3.78676	4.12E-12	-1.59072	0.000414
A_52_P302544	COL8A2	collagen, type VIII, alpha 2	3.82095	8.71E-07	-3.56327	2.09E-06
A_51_P394394	TSPAN2	tetraspanin 2	3.83619	5.04E-13	1.67432	4.60E-05
A_51_P450623	PHLDA2	pleckstrin homology-like domain, family A, member 2	3.93174	2.06E-11	-2.03953	5.76E-06
A_52_P350786	PHLDA2	pleckstrin homology-like domain, family A, member 2	3.93546	1.19E-12	-2.33631	3.59E-08
A_52_P1174	GAL3ST4	galactose-3-O-sulfotransferase 4	3.93764	1.07E-08	4.29258	3.15E-09
A_51_P516006	NTRK2	neurotrophic tyrosine kinase, receptor, type 2	3.93808	2.11E-07	7.14132	1.60E-10
A_52_P167357	RAB40B	RAB40B, member RAS oncogene family	3.94838	0.006804	4.5695	0.00313161
A_51_P240374	COL13A1	collagen, type XIII, alpha 1	4.01405	3.67E-11	-1.65938	0.00070635
A_52_P54609	EML1	echinoderm microtubule associated protein like 1	4.02665	1.93E-07	2.32629	0.0002799
A_51_P416669	KRT1	keratin 1, type II	4.03974	7.42E-06	3.10108	0.00012639
A_52_P233279	VWC2	von Willebrand factor C domain containing 2	4.05672	6.46E-09	3.09971	3.54E-07
A_52_P277378	THAP2	THAP domain containing, apoptosis associated protein 2	4.12503	1.18E-05	10.1403	1.96E-09
A_52_P55706	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	4.1322	1.11E-07	-1.72803	0.0110238
A_52_P180728	KBTBD11	kelch repeat and BTB (POZ) domain containing 11	4.13331	1.15E-13	4.33939	5.04E-14
A_51_P235345	SOGA1	suppressor of glucose, autophagy associated 1	4.15229	1.44E-15	3.00729	8.02E-13
A_52_P221057	LRRC8B	leucine rich repeat containing 8 family, member B	4.16749	2.12E-06	3.37985	2.27E-05
A_51_P437240	EMP2	epithelial membrane protein 2	4.21244	6.78E-14	1.54339	0.00030596
A_52_P366994	ZNF287	zinc finger protein 287	4.2148	5.31E-05	3.58597	0.00022778

A_52_P637573	EIF4G3	eukaryotic translation initiation factor 4 gamma, 3	4.25417	1.39E-17	2.42293	2.91E-12
A_52_P287338	EIF4E3	eukaryotic translation initiation factor 4E family member 3	4.2645	3.08E-05	5.19882	4.85E-06
A_51_P511142	Abca14	ATP-binding cassette, sub-family A (ABC1), member 14	4.28623	4.94E-10	1.86355	0.00045958
A_51_P280928	PON2	paraoxonase 2	4.29169	5.56E-15	3.60292	1.31E-13
A_51_P351975	HOXA1	homeobox A1	4.34155	3.83E-13	1.88174	7.68E-06
A_51_P288916	TMTC2	transmembrane and tetratricopeptide repeat containing 2	4.35858	1.98E-10	1.55101	0.00745764
A_51_P127475	C1QTNF9B	C1q and tumor necrosis factor related protein 9B	4.41812	7.14E-08	2.19054	0.0006842
A_51_P455647	CA2	carbonic anhydrase II	4.43039	1.51E-14	3.2738	3.61E-12
A_52_P515629	GPR83	G protein-coupled receptor 83	4.44653	2.49E-10	-4.9364	5.63E-11
A_51_P137388	ZADH2	zinc binding alcohol dehydrogenase domain containing 2	4.4735	4.60E-12	2.13005	3.39E-06
A_52_P126055	PON2	paraoxonase 2	4.54074	9.13E-15	3.24071	4.03E-12
A_52_P7554	LAMA4	laminin, alpha 4	4.56952	7.50E-09	3.2579	7.77E-07
A_52_P609778	MGLL	monoglyceride lipase	4.65147	4.78E-16	1.60193	2.11E-05
A_51_P365152	HS3ST1	heparan sulfate (glucosamine) 3-O-sulfotransferase 1	4.74106	2.91E-08	3.86448	3.81E-07
A_51_P310348	VAX2	ventral anterior homeobox 2	4.74563	9.40E-23	-4.3978	3.66E-22
A_52_P517928	Lemd1	LEM domain containing 1	4.77097	3.37E-11	-2.56413	7.83E-07
A_52_P1033349	Gm38499	predicted gene, 38499	4.81333	6.48E-09	9.26776	3.27E-12
A_51_P103000	PITPNM1	phosphatidylinositol transfer protein, membrane-associated	4.93443	1.48E-16	1.55887	4.25E-05
A_52_P102060	ADAM32	ADAM metallopeptidase domain 32	5.05634	3.56E-07	-5.99382	5.87E-08
A_51_P311137	SGCE	sarcoglycan, epsilon	5.06061	7.79E-18	2.10313	1.06E-09
A_51_P427383	SAMD9L	sterile alpha motif domain containing 9-like	5.34142	2.94E-06	3.09286	0.00051435
A_52_P500274	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	5.37684	1.17E-13	-4.05253	9.15E-12
A_52_P27864	SGCE	sarcoglycan, epsilon	5.40568	2.82E-11	2.27238	1.89E-05
A_51_P476018	SOX7	SRY (sex determining region Y)-box 7	5.4529	3.20E-14	-3.55855	3.04E-11
A_52_P94983	PLA2G5	phospholipase A2, group V	5.4935	6.11E-19	1.81498	3.44E-08
A_52_P644005	SOX7	SRY (sex determining region Y)-box 7	5.54188	2.58E-08	-3.02017	3.38E-05
A_51_P214985	ZNF521	zinc finger protein 521	5.65895	7.57E-13	1.94539	5.63E-05
A_51_P187842	EIF4E3	eukaryotic translation initiation factor 4E family member 3	5.71491	2.97E-06	5.18323	7.19E-06
A_52_P188295	FAM159B	family with sequence similarity 159, member B	5.80841	2.87E-12	4.93355	2.69E-11
A_51_P354706	LEFTY1	left-right determination factor 1	6.05749	2.82E-19	2.36349	2.81E-11
A_51_P502872	2200002D01Rik	RIKEN cDNA 2200002D01 gene	6.10989	1.80E-18	2.10897	3.02E-09
A_52_P314370	MGAT4C	MGAT4 family, member C	6.11719	8.86E-08	5.68367	1.88E-07
A_52_P206002	Defa3 (includes oth	defensin, alpha, 3	6.13258	7.39E-11	10.2236	2.32E-13
A_52_P641195	C4orf47	chromosome 4 open reading frame 47	6.25371	3.10E-11	13.0101	1.04E-14
A_51_P354681	MGAT4C	MGAT4 family, member C	6.6208	8.61E-09	3.81186	3.94E-06
A_51_P209261	SQRDL	sulfide quinone reductase-like (yeast)	6.64398	9.71E-11	8.6496	5.06E-12
A_51_P313157	ARHGEF5	Rho guanine nucleotide exchange factor (GEF) 5	6.98616	7.74E-22	2.20737	6.99E-12
A_52_P215176	OPN3	opsin 3	7.00333	2.59E-15	-1.60149	0.00078469
A_51_P139920	MGLL	monoglyceride lipase	7.05523	1.08E-16	1.71956	3.74E-05
A_52_P78417	CPE	carboxypeptidase E	7.18295	2.57E-18	1.70821	6.60E-06
A_52_P578763	Defa1	defensin, alpha 1	7.37257	3.57E-16	14.3098	2.01E-19
A_51_P307316	SYDE1	synapse defective 1, Rho GTPase, homolog 1 (C. elegans)	7.38784	1.49E-12	5.61463	4.45E-11
A_51_P302377	FGFBP1	fibroblast growth factor binding protein 1	7.58071	2.22E-17	5.71674	1.05E-15
A_51_P309920	ITGA8	integrin, alpha 8	7.58712	2.34E-06	23.7432	5.40E-10
A_51_P394833	TSHZ1	teashirt zinc finger homeobox 1	7.65361	1.16E-12	6.689	5.75E-12
A_51_P516833	IGF2	insulin-like growth factor 2	7.8242	5.58E-17	1.61451	0.00023789
A_52_P630964	TSPAN2	tetraspanin 2	7.89008	7.90E-09	4.0402	7.45E-06
A_51_P183746	PRRX2	paired related homeobox 2	8.03405	6.47E-19	-1.63699	2.28E-05
A_52_P115787	GRB10	growth factor receptor-bound protein 10	8.16368	8.15E-19	2.32789	2.68E-09
A_51_P516826	IGF2	insulin-like growth factor 2	8.70455	9.20E-20	1.7827	1.17E-06
A_52_P638041	Ube2dnl1/Ube2dnl	ubiquitin-conjugating enzyme E2D N-terminal like 1	8.82394	5.06E-10	9.38931	2.77E-10
A_51_P389624	POU4F2	POU class 4 homeobox 2	8.95754	2.32E-12	-4.30328	1.54E-08
A_51_P212420	LAMA4	laminin, alpha 4	9.03675	2.06E-12	5.57457	5.37E-10

A_52_P139569	MFAP3L	microfibrillar-associated protein 3-like	9.16425	6.53E-10	2.56206	0.00056779
A_51_P456114	CEMIP	cell migration inducing protein, hyaluronan binding	9.64992	6.02E-17	9.82611	4.90E-17
A_52_P40363	GRB10	growth factor receptor-bound protein 10	9.65311	7.39E-12	2.29928	0.000309
A_52_P476535	Defa3 (includes oth	defensin, alpha, 3	9.67953	3.93E-12	13.8213	1.22E-13
A_52_P514200	Defa6	defensin, alpha, 6	9.72681	1.97E-14	18.315	3.88E-17
A_51_P246001	CPE	carboxypeptidase E	9.73693	4.01E-22	1.89716	1.17E-08
A_51_P339540	Cdkn1c	cyclin-dependent kinase inhibitor 1C (P57)	11.7559	3.53E-15	1.67406	0.00328735
A_52_P665675	ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1	12.8682	1.89E-17	6.01804	1.40E-13
A_51_P456113	CEMIP	cell migration inducing protein, hyaluronan binding	17.2368	1.89E-20	16.5852	2.72E-20

Appendix Table S3. Increased embryonic lethality of SIRT1 KO embryos (E8.5-E14.5) under the methionine-restricted (MR) diet

		WT	Het	KO
Animal number	Chow diet	12	40	17
	MR diet	17	40	9

Ratio	Chow diet	0.17	0.58	0.25
	MR diet	0.26	0.61	0.14

Appendix Table S4. Neonatal death of SIRT1 KO mice on C57BL/6 background under different maternal diets

		WT	Het	KO
Chow diet	Total pups (survived pups)	14 (14)	25 (25)	0 (0)
Met Supplemented diet from E0.5	Total pups (survived pups)	17 (17)	37 (37)	6 (0)
Met Supplemented diet pre-feeding	Total pups (survived pups)	18 (18)	49 (49)	7 (7)

Newborn pups from mom fed on chow diet (8 litters), Met Supplement diet from E0.5 (10 litters), and Met Supplemented diet pre-feeding (12 litters) were analyzed for their survival from P1.5 to P10.5.