Animal Biology

Regulation mechanisms of positive cold tolerance in Mongolian sheep

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Supplementary material

Table S1.

Protein-coding genes with differential expression in adipose tissue retrieved by RNA-seq.

Gene ID	Gene Name	Length	MfatW FPKM	DfatW FPKM	log2(fold change)	P value
ENSOARG00000010026	ADAM28	2370	1.309	13.6593	-3.38335	0.00587
ENSOARG00000008077	-	258	214.445	6.1755	5.11791	0.00091
ENSOARG00000019343	-	552	0.215412	4.53741	-4.3967	0.00968
ENSOARG00000004980	MATN4	1793	1.71119	0.236717	2.85376	0.0367
ENSOARG00000010631	DOK2	2134	1.08684	7.21248	-2.73036	0.02746
ENSOARG00000000980	-	624	0.392734	4.16466	-3.40658	0.02924
ENSOARG00000018390	-	1416	0.0883537	0.79175	-3.16368	0.04809
ENSOARG00000016684	SCEL	2123	0.0352608	0.561283	-3.99259	0.02859
XLOC_4890562	-	622	19.8285	1.6096	3.6228	0.00544
XLOC_3308896	-	3989	0.0176913	0.277646	-3.97214	0.02018
ENSOARG00000000229	-	1989	0.0379734	0.560434	-3.88348	0.0234
ENSOARG00000014623	TCF21	790	0.607172	4.57701	-2.91423	0.03603
XLOC_1046584	-	3319	0.0215466	0.258545	-3.58489	0.03745
ENSOARG00000015117	-	1041	0.332672	2.60594	-2.96963	0.03936
ENSOARG00000020324	-	627	0.346359	5.87822	-4.08504	0.01557
XLOC_329094	-	1084	0.104782	1.4533	-3.79388	0.03346
ENSOARG00000007112	VMO1	591	0.191171	2.10298	-3.4595	0.0455
ENSOARG00000003620	KCP	4647	0.0902829	0.625168	-2.79172	0.04078
ENSOARG00000010394	LEPR	2749	10.3851	79.4262	-2.9351	0.03978
XLOC_4742524	-	2094	2.75795	0.198249	3.79821	0.00536
XLOC_3913176	-	2567	0.0304285	1.31439	-5.43283	0.03025
ENSOARG00000007405	C4BPA	1869	7.38128	47.1281	-2.67464	0.03785
XLOC_814382	-	1083	0.0790024	1.01852	-3.68844	0.03182
ENSOARG00000008426	KMO	1416	0.282732	4.2217	-3.90032	0.00497
ENSOARG00000010070	-	1111	14.9078	80.4764	-2.4325	0.04841
XLOC_3583351	-	1317	7.16498	1.02454	2.80599	0.0264
ENSOARG00000014819	-	2737	0.292354	5.53492	-4.24277	0.00106
ENSOARG00000007625	IL10RA	1746	4.10298	0		0.04932
XLOC_420767	-	431	8.53318	0.64654	3.72227	0.0284
ENSOARG00000012307	LRRC25	796	0.72068	8.94448	-3.63357	0.00773
XLOC_2375705	-	3524	0.406121	0.0186459	4.44498	0.00911
ENSOARG00000009636	BLZF1	1218	0.453997	16.3853	-5.17357	0.00094
ENSOARG00000008046	RDH16	1055	30.9763	3.61231	3.10017	0.01158
ENSOARG00000007872	HMCN2	16137	1.06293	0.0962553	3.46503	0.00536
XLOC_4448929	-	3074	21.5469	2.1776	3.30667	0.00973
XLOC_406096	-	644	2.32135	0.152156	3.93134	0.02213
ENSOARG00000007114	ELOVL7	879	1.10586	8.50959	-2.94393	0.04104

ENSOARG00000007110	PLA2R1	4395	3.62311	35.8516	-3.30674	0.0092
ENSOARG00000020511	CAPG	1191	11.5481	75.757	-2.71372	0.02793
ENSOARG00000020515	-	447	13.4057	96.5932	-2.84908	0.02056
ENSOARG00000017856	MEGF10	3536	0.322017	2.00642	-2.63942	0.03789
ENSOARG00000016359	-	3906	0.578954	5.7121	-3.3025	0.00753
ENSOARG00000009779	CFD	780	41.4402	239.584	-2.53143	0.04406
ENSOARG00000019496	-	3658	0.0194068	0.214975	-3.46953	0.04488
ENSOARG00000004254	TDRD12	4024	1.96308	11.6341	-2.56717	0.03645
ENSOARG00000009911	PROM1	2844	0.28032	19.2966	-6.10513	3.43E-06
XLOC_2725009	-	5809	0.155013	1.92376	-3.63347	0.00455
XLOC_1811601	-	2048	0.0367311	0.711542	-4.27587	0.01201
ENSOARG00000014779	PECAM1	2442	2.54737	37.3354	-3.87346	0.00313
ENSOARG00000002559	-	5712	0.0121162	0.212569	-4.13293	0.01543
ENSOARG00000006238	TBATA	1122	1.35884	0.0695282	4.28864	0.01203
ENSOARG00000009210	FABP9	405	3.29631	32.2069	-3.28845	0.01347
ENSOARG00000002163	ADAM18	2229	0.033381	0.492749	-3.88375	0.02339
ENSOARG00000010231	MX2	2413	1.37469	11.0493	-3.00678	0.01437
ENSOARG00000012936	CD83	600	2.79497	28.5312	-3.35163	0.00839
XLOC_1928868	-	2373	0.186736	3.53206	-4.24144	0.00187
ENSOARG00000008952	PLCXD3	1657	3.81459	0.484863	2.97588	0.03826
ENSOARG00000006592	-	1653	0.0470318	0.650502	-3.78984	0.02713
XLOC_062421	-	213	9.74124	262.492	-4.75203	0.00498
ENSOARG00000008943	CPVL	1947	0.913197	5.41181	-2.56711	0.04005
ENSOARG00000006828	FCRL5	2931	0.172609	1.79785	-3.38069	0.01232
XLOC_1587048	-	976	0.0905581	1.00025	-3.46537	0.04513
ENSOARG00000015357	GABRG1	1459	0.436355	2.76532	-2.66387	0.04524
ENSOARG00000004176	STC2	909	0.199377	2.38483	-3.58031	0.03475
ENSOARG00000013482	MYRF	3441	0.0207242	0.612149	-4.88449	0.00389
ENSOARG00000006194	PRG4	3587	34.5841	4.5554	2.92446	0.01905
ENSOARG00000016020	-	4868	0.0143279	0.224892	-3.97233	0.02018
XLOC_2053548	-	3441	0.146744	2.10064	-3.83946	0.01251
ENSOARG00000001097	TMA7	195	8596.56	41.9041	7.68053	4.93E-06
ENSOARG00000002839	-	991	0.177477	4.08467	-4.52452	0.0073
ENSOARG00000014648	RSAD2	1092	1.25062	7.48607	-2.58157	0.04231
ENSOARG00000014461	COL24A1	6520	0.717819	0.0877319	3.03245	0.02144
ENSOARG00000004513	EYA1	1857	7.06593	0.0757769	6.54298	0.00012
ENSOARG00000008375	-	7392	0.11122	0.00855918	3.6998	0.03244
ENSOARG00000010002	ADAMDEC1	1983	2.89594	22.0025	-2.92557	0.01706
ENSOARG00000012051	MTUS2	4089	33.7191	4.30994	2.96783	0.02568
XLOC_4482217	-	6305	0.120237	0.898002	-2.90084	0.02574
ENSOARG00000012641	-	1161	0.86242	6.84485	-2.98856	0.03682
ENSOARG00000007291	-	5840	0.248619	2.05522	-3.04729	0.01505
ENSOARG00000003473	ANGPTL7	1035	2.09498	0.231462	3.17809	0.04098
ENSOARG00000020849	HORMAD1	1182	8.83249	0.325456	4.76229	0.0006

XLOC_2034022	-	3611	0.177099	4.35947	-4.62152	0.00044
ENSOARG00000020103	BCAT1	1161	0.289116	4.12785	-3.83567	0.00756
XLOC_4344111	-	6515	3.93047	0.507299	2.95379	0.01784
XLOC_4773956	-	767	1.39458	0.116523	3.58114	0.03901
ENSOARG00000001478	DRP2	2883	4.97119	0.509765	3.28569	0.00866
ENSOARG00000005907	CD180	1986	0.532543	4.59644	-3.10955	0.01491
XLOC_3462607	-	364	14.3124	0.996027	3.84494	0.02337
ENSOARG00000012815	MS4A7	1900	0.200074	3.80143	-4.24794	0.00222
XLOC_4819472	-	1808	0.0423693	0.664275	-3.97069	0.02023
ENSOARG00000000864	-	568	9.41896	0		0.04934
ENSOARG00000015262	SERPINE1	1210	8.57635	126.544	-3.88313	0.00205
ENSOARG00000010363	VIPR2	1275	0.0642832	1.48081	-4.5258	0.00766
ENSOARG00000007947	TMEM178A	570	0.814009	7.83134	-3.26614	0.02309
XLOC_255925	-	787	9.67988	0.673491	3.84526	0.00482
ENSOARG00000004374	MBP	540	30.7095	1.43651	4.41805	0.00106
ENSOARG00000006454	DPP4	3005	1.41585	7.70753	-2.4446	0.04648
ENSOARG00000002640	NLRP1	4173	0.337254	4.0476	-3.58516	0.00424
ENSOARG00000019630	ADORA3	954	5.32186	33.2544	-2.64354	0.03124
ENSOARG00000016505	CPT1A	2370	0.34117	5.14404	-3.91434	0.00658
ENSOARG00000016361	PHEX	2556	7.88116	0.132226	5.89733	2.02E-05
ENSOARG00000009805	-	1389	1.44761	9.44231	-2.70547	0.02999
XLOC_4922741	-	649	0.163761	19.9883	-6.93142	3.93E-05
XLOC_2912716	-	946	0.502141	4.55098	-3.18001	0.0477
ENSOARG00000009983	FOSB	900	1.61691	26.1269	-4.01422	0.00152
ENSOARG00000005056	CDH19	2419	9.77905	1.43357	2.77008	0.02413
ENSOARG00000013174	SNAI1	1078	0.317905	4.09845	-3.68841	0.01021
XLOC_2966363	-	545	0.881713	7.87146	-3.15825	0.02815
ENSOARG00000013777	-	876	10.28	61.9509	-2.59129	0.03468
ENSOARG00000020542	CDC20	1515	0.0521402	0.865209	-4.05258	0.01764
ENSOARG00000003888	TYR	3663	0.11627	1.00175	-3.10697	0.02271
ENSOARG00000009137	PRL	1175	2.42051	0.196738	3.62096	0.01929
ENSOARG00000008709	SORCS1	2934	1.9951	0.207663	3.26415	0.01322
XLOC_1270833	-	1059	0.162911	2.0995	-3.6879	0.02932
XLOC_2516763	-	2214	0.336353	0.031031	3.43819	0.0478
ENSOARG00000000308	-	556	18.2876	100.305	-2.45546	0.04534
ENSOARG00000006015	GAS2L2	2638	0.442831	4.94472	-3.48106	0.00604
ENSOARG00000018860	KLHL30	1725	0.49219	0.0412616	3.57634	0.03928
XLOC_2302443	-	1905	0.917569	0.0367961	4.64019	0.00632
ENSOARG00000000812	-	1886	0.363204	3.98268	-3.45489	0.0088
ENSOARG00000001657	-	2240	0.863122	13.9048	-4.00987	0.00122
ENSOARG00000008437	CACNB4	1576	19.9619	1.76519	3.49936	0.00627
ENSOARG00000020743	KIAA0101	475	1.14927	8.65857	-2.91341	0.04331
XLOC_5136775	-	8689	0.141669	31.6014	-7.80132	6.44E-07
ENSOARG00000014723	CXCL14	345	39.6328	6.44733	2.61992	0.04388

ENSOARG00000018367	KIF1A	4805	0.726292	0.107293	2.759	0.03814
XLOC_2537937	-	3270	0.071958	1.02122	-3.827	0.0119
ENSOARG00000012021	IL6	720	0	11.6457		0.04931
ENSOARG00000001169	-	814	6.04849	0		0.0492
ENSOARG00000010990	OOEP	3986	0.0354109	0.392285	-3.46963	0.04103
XLOC_722730	-	1040	0.0832727	1.45674	-4.12876	0.01554
ENSOARG00000000623	S100A5	339	0.688353	18.6103	-4.75681	0.00495
ENSOARG00000014202	TNR	4208	0.0167138	0.308606	-4.20666	0.01356
ENSOARG00000014200	-	7704	0.00888065	0.12302	-3.79208	0.02704
ENSOARG00000007618	IL3RA	1065	1.3725	8.47519	-2.62644	0.03815
ENSOARG00000020094	-	5196	2.50184	21.6221	-3.11144	0.01276
ENSOARG00000012510	UCP1	918	19.3762	0.362013	5.7421	6.17E-05
ENSOARG00000002173	PLAC8	363	0.554976	6.52618	-3.55574	0.03903
ENSOARG00000001333	MDM1	6267	0.0106669	0.308739	-4.85517	0.03504
ENSOARG00000014843	-	2175	0.0686295	1.56204	-4.50846	0.00751
ENSOARG00000014847	-	1746	0.0441188	0.895083	-4.34256	0.01069
ENSOARG00000007908	MMP9	2284	0.0324808	16.9915	-9.03101	7.66E-08
ENSOARG00000019401	RIBC2	4672	0.0149622	0.26247	-4.13276	0.01544
ENSOARG00000016231	-	4008	0.105612	0.909984	-3.10707	0.02271
ENSOARG00000015843	PHACTR3	1683	0.0921019	1.74103	-4.24056	0.01198
XLOC_3078413	-	3522	4.19541	0.592326	2.82435	0.02935
ENSOARG00000001457	REL	2591	0.0379455	0.680693	-4.165	0.04666
ENSOARG00000011304	-	2004	3.68969	0.454272	3.02187	0.01869
ENSOARG00000017942	CHGB	1938	2.5426	0.288642	3.13895	0.0183
XLOC_3905256	-	1723	0.169277	1.40605	-3.0542	0.03458
ENSOARG00000012417	CD300E	912	3.6719	30.3161	-3.04549	0.01343
XLOC_008055	-	3915	0.018048	0.208713	-3.53161	0.04089
XLOC_622010	-	3826	0.831195	0.0512245	4.02028	0.01312
ENSOARG00000013071	-	1879	0.162116	3.32686	-4.35907	0.00241
ENSOARG00000013067	MUC16	14350	0.0422678	1.02374	-4.59815	0.00047
ENSOARG00000001637	FMOD	1491	4.03895	32.4318	-3.00536	0.01428
ENSOARG00000006050	-	609	79.7799	7.49962	3.41114	0.00546
ENSOARG00000019721	RNASE1	2771	9.4392	59.3799	-2.65324	0.03642
ENSOARG00000019717	ADAMTS20	5812	1.22555	0.208753	2.55356	0.04307
XLOC_3319707	-	1568	2.65277	0.0922925	4.84514	0.00406
ENSOARG00000006045	SERTM1	321	2.50282	20.98	-3.06739	0.04804
ENSOARG00000003405	-	636	0.169199	2.01817	-3.57626	0.03791
ENSOARG00000017787	FAM186A	9439	0.0115507	0.299313	-4.6956	0.0086
ENSOARG00000011146	PADI2	2245	0.827851	5.71301	-2.78681	0.02537
XLOC_1038584	-	1613	0.82291	5.53435	-2.74961	0.02992
XLOC_3319723	-	2652	19.839	0.253919	6.28783	1.23E-06
ENSOARG00000012537	-	705	0.143848	2.1139	-3.8773	0.02362
ENSOARG00000010746	PMEL	2124	0.634425	12.7458	-4.32843	0.00057
ENSOARG00000006594	SLC4A10	3471	0.701996	0.0758078	3.21105	0.02729

ENSOARG00000020992	HDC	1977	0.0382364	0.493771	-3.69082	0.03171
ENSOARG00000018618	PAQR5	1361	3.73791	0.601491	2.63562	0.04264
XLOC_4562417	-	4619	1.08958	8.86568	-3.02445	0.01725
XLOC_3143407	-	839	0.111426	1.6396	-3.87919	0.02356
XLOC_5075816	-	1125	1.05328	0.069292	3.92605	0.02231
ENSOARG00000018440	LRRN4	2019	0.223988	2.23833	-3.32093	0.01489
XLOC_1470247	-	4152	9.32432	1.23645	2.91479	0.01747
ENSOARG00000006806	SERPINB11	5502	0.0630006	0.558456	-3.14801	0.02338
ENSOARG00000016081	-	991	0.88985	7.26997	-3.03032	0.02068
ENSOARG00000018205	UGT8	1902	3.91672	0.184313	4.40941	0.0015
ENSOARG00000009116	PMP2	405	111.663	2.6215	5.41261	5.76E-05
XLOC_3262116	-	1889	12.7695	0.780224	4.03267	0.00126
ENSOARG00000017107	-	237	4.06354	49.8708	-3.61739	0.03526
ENSOARG00000009112	-	933	0.0962136	1.15101	-3.58052	0.03768
ENSOARG00000013791	CPNE5	2147	0.243738	2.47342	-3.3431	0.01331
ENSOARG00000009104	CEACAM20	1797	0.0426695	0.629622	-3.88321	0.02341
XLOC_1134233	-	1066	0.0806372	1.03953	-3.68834	0.03182
ENSOARG00000014638	SMARCA1	3042	0.663354	6.72044	-3.34071	0.01089
ENSOARG00000010154	FJX1	492	6.42249	58.2071	-3.17999	0.01071
ENSOARG00000005646	GLYCTK	1637	7.80184	1.14047	2.77419	0.02592
ENSOARG00000000208	CLDN11	624	5.411	0.320236	4.07869	0.01593
XLOC_2694065	-	984	0.29939	2.47218	-3.04569	0.04348
ENSOARG00000004489	EGR2	1383	0.194033	2.01636	-3.37738	0.0267
ENSOARG00000018708	ADAM23	2491	1.62184	0.272094	2.57545	0.04812
XLOC_102656	-	3236	0.0925911	1.018	-3.45872	0.03525
ENSOARG00000015253	-	984	81.3372	12.4508	2.70768	0.02755
ENSOARG00000014173	ANO4	3477	1.36954	0.196389	2.8019	0.04352
ENSOARG00000000585	NPTX1	1183	0.282339	2.92599	-3.37343	0.01889
XLOC_330895	-	2503	0.377732	2.54785	-2.75384	0.04546
ENSOARG00000014548	-	5034	1.88106	0.332038	2.50212	0.04476
ENSOARG00000002901	-	1679	2.26279	0.212911	3.40978	0.01407
XLOC_2686429	-	4413	2.25664	0.278767	3.01704	0.01671
ENSOARG00000006214	RASL10B	5430	1.31583	8.58032	-2.70506	0.02755
ENSOARG00000005481	-	5889	0.0352087	0.368465	-3.38752	0.0286
ENSOARG00000011904	CA9	1401	0.171839	2.27015	-3.72366	0.01589
ENSOARG00000012689	-	1565	0.050166	0.55501	-3.46773	0.04499
ENSOARG00000001249	SCD5	780	2.72144	0.227417	3.58096	0.0353
XLOC_795165	-	2458	0.0299276	0.461522	-3.94685	0.02114
ENSOARG00000021157	RAB15	639	0.335824	4.93028	-3.87589	0.02196
ENSOARG00000016430	ACACB	7378	1.29086	0.0218047	5.88755	0.01276
ENSOARG00000000888	XAF1	1895	0.0718311	0.917399	-3.67487	0.02789
ENSOARG00000018816	LBP	1623	12.7347	1.24064	3.3596	0.00674
ENSOARG00000006452	SLC46A2	1893	0.0803694	1.40841	-4.13128	0.01442
ENSOARG00000009812	FREM2	9450	0.0719627	0.538345	-2.90321	0.02594

ENSOARG00000010943	MMP19	3603	3.58987	28.1673	-2.97202	0.01686
XLOC_3963840	-	1533	0.504229	3.68442	-2.86929	0.04865
ENSOARG00000011033	MED7	843	0.664586	4.55632	-2.77734	0.04333
ENSOARG00000011377	-	315	4.47996	284.507	-5.98884	1.48E-05
ENSOARG00000011034	PADI3	1359	0	3.1224		0.04909
ENSOARG00000012748	GPNMB	5311	9.23104	58.2878	-2.65863	0.04768
ENSOARG00000003142	USH1C	1620	3.37101	0		0.04916
ENSOARG00000004852	SCN1A	6006	8.12902	0.516729	3.9756	0.0012
ENSOARG00000009683	P4HA3	1644	0.33134	3.27338	-3.3044	0.01442
ENSOARG00000009902	LAMP5	6102	0.0339284	0.281969	-3.05497	0.0492
ENSOARG00000010820	-	3999	0.0176442	0.407216	-4.52853	0.00763
ENSOARG00000010695	-	9004	0.0227795	0.189688	-3.05782	0.04835
XLOC_3863135	-	2035	0.0739108	3.6911	-5.64212	0.00227
ENSOARG00000010704	ADRA2A	1176	9.24496	49.7215	-2.42713	0.04791
XLOC_1545507	-	730	2.3195	0.125354	4.20974	0.01382
ENSOARG00000016917	DDI1	1191	4.6892	0.773689	2.59952	0.04439
XLOC_3319711	-	1152	1.02194	0.0672366	3.92592	0.02232
ENSOARG00000021012	OLR1	4711	0.207927	3.64253	-4.13079	0.00121
ENSOARG00000004607	-	847	0.109946	2.62913	-4.57971	0.00692
XLOC_5136775	-	29137	0.286504	30.3611	-6.72752	0.00035
ENSOARG00000020126	BUB1B	3952	0.428828	4.04127	-3.23634	0.00939
ENSOARG00000018410	RTN4R	2048	0.183656	1.66026	-3.17634	0.02218
ENSOARG00000008961	DKK2	780	7.54582	0.909667	3.05227	0.02176
ENSOARG00000005037	THBS2	3093	8.65125	49.0035	-2.5019	0.0475
XLOC_1532379	-	708	0.142917	2.23157	-3.96481	0.02041
ENSOARG00000000300	-	883	7.78108	48.3897	-2.63666	0.03158
ENSOARG00000019053	-	1292	16.4073	0.0240613	9.41341	0.00909
ENSOARG00000014989	TUBB3	1524	0.0517735	0.620487	-3.58312	0.03754
ENSOARG00000017739	CAPN6	2169	36.5559	2.06411	4.14651	0.00078
ENSOARG00000006999	-	1428	0.299088	3.11206	-3.37923	0.01494
XLOC_2308694	-	4423	0.222258	1.28172	-2.52777	0.04853
XLOC_2725009	-	1172	0.142844	1.84215	-3.68888	0.02944
ENSOARG00000001744	TREM2	705	0.431543	58.1324	-7.07369	4.18E-06
ENSOARG00000014101	MCOLN3	1664	0.280004	3.14129	-3.48784	0.01056
ENSOARG00000003232	SGK2	1414	18.9754	0.678713	4.80519	0.00017
ENSOARG00000010493	ATF3	1451	8.45553	54.7613	-2.69519	0.02878
ENSOARG00000004467	SCN7A	5103	4.60859	0.339915	3.76108	0.00244
ENSOARG00000014667	PITX1	612	2.34322	0.165308	3.82527	0.02639
ENSOARG00000002796	-	1197	1.02058	18.0782	-4.1468	0.00111
ENSOARG00000005756	BRINP1	2286	0.227143	1.52684	-2.74888	0.0418
ENSOARG00000017673	PTGER2	1476	0.0537914	1.04131	-4.27487	0.01203
XLOC_4940349	-	1225	0.0675612	0.809179	-3.58219	0.03759
ENSOARG00000014290	KLK6	2977	0.0242433	0.290873	-3.58473	0.03746
ENSOARG00000000175	SOCS3	690	4.16334	36.4563	-3.13035	0.01158

ENSOARG00000007307	CD1E	3317	2.37167	33.1949	-3.80699	0.00233
ENSOARG00000013999	MSLN	1176	0.0711151	1.57222	-4.46651	0.00853
ENSOARG00000014848	ST14	2586	0.113166	3.26335	-4.84984	0.00073
ENSOARG00000011498	ST8SIA6	997	0.352124	2.9173	-3.05048	0.03413
ENSOARG00000011284	SDHAF1	219	98.7761	6.61764	3.89977	0.0236
XLOC_4435781	-	4406	1.78288	11.8308	-2.73027	0.02624
ENSOARG00000011671	CADPS	8453	0.0564923	0.499366	-3.14397	0.01989
ENSOARG00000007145	HOXB1	3694	0.0192042	0.23046	-3.58502	0.03744
ENSOARG00000018779	TRAF3IP1	1830	0.232655	2.85294	-3.61619	0.02606
XLOC_4436476	-	1157	9.59004	1.08912	3.13837	0.02728
ENSOARG00000007065	MAP1LC3C	1003	0.0873346	1.20596	-3.78749	0.02722
ENSOARG00000005893	-	375	5.05245	0.457745	3.46437	0.04613
ENSOARG00000019787	-	351	29.1076	4.44224	2.71204	0.04155
ENSOARG00000011339	-	348	29.2776	4.56246	2.68191	0.04389
XLOC_1129030	-	1649	0.990481	0.0869801	3.50937	0.03925
XLOC_370997	-	900	0.607491	4.22575	-2.79827	0.04009
XLOC_1071327	-	640	0.167488	2.61263	-3.96338	0.02046
ENSOARG00000011075	SELE	1518	1.82061	19.3255	-3.40801	0.0057
XLOC_1701832	-	1457	2.02147	0.201445	3.32695	0.02081
XLOC_532676	-	5319	3.15236	0.473867	2.73388	0.03136
XLOC_002094	-	3396	0.322308	2.2809	-2.82309	0.03564
ENSOARG00000013124	TFCP2L1	1440	1.93939	0.255379	2.92489	0.03575
ENSOARG00000009680	HOXA9	819	6.34176	0.848205	2.9024	0.02913
XLOC_605167	-	16484	12.1046	1.76257	2.77981	0.04783
ENSOARG00000009675	HOXA10	4252	7.3725	0.518874	3.8287	0.0019
ENSOARG00000001377	-	420	4.52507	29.4595	-2.70272	0.03667
ENSOARG00000004644	PM20D1	5800	32.3674	4.47158	2.85569	0.02526
XLOC_2766489	-	4861	0.110205	1.21627	-3.4642	0.02231
XLOC_4993384	-	3068	0.0469239	0.627977	-3.74232	0.02713
XLOC_3207961	-	1035	1.00559	0.077154	3.70416	0.03224
ENSOARG00000006690	CDX1	6141	0.0112347	0.176362	-3.97251	0.02017
XLOC_920957	-	5166	2.78631	0.45985	2.59912	0.03523
ENSOARG00000015724	EDIL3	1452	104.893	11.4792	3.19182	0.01085
ENSOARG00000015726	DCSTAMP	2503	0.0586626	1.05554	-4.16939	0.01353
ENSOARG00000006792	MLIP	4191	3.81037	0.247948	3.94182	0.00186
ENSOARG00000020556	IGF2BP2	1826	3.60229	0.38631	3.22108	0.01348
XLOC_4263086	-	912	2.58025	0.0913135	4.82054	0.00447
ENSOARG00000003867	CYP11A1	2430	1.0912	0.027968	5.28599	0.00175
ENSOARG00000014185	BNC1	3171	0.0452724	0.814825	-4.16978	0.01352
ENSOARG00000014456	KLK12	4786	0.0145866	0.309756	-4.40842	0.00948
XLOC_2680595	-	830	0.113139	1.24852	-3.46405	0.04521
XLOC_944625	-	575	3.00636	0.183663	4.03289	0.0187
ENSOARG00000014451	-	704	3.89234	0.529619	2.87761	0.04678
ENSOARG00000010572	-	846	2.75438	0.101288	4.76519	0.00499

ENSOARG00000005724	SPN	1143	1.03218	6.45126	-2.64389	0.0386
XLOC_2743804	-	1072	0.0800525	0.958302	-3.58146	0.03763
XLOC_3262137	-	2459	1.55553	0.138011	3.49456	0.01184
ENSOARG00000016714	CCDC73	3805	0.0558166	0.515264	-3.20655	0.03858
ENSOARG00000015123	COLQ	1616	0.144902	1.20243	-3.0528	0.04936
XLOC_1986303	-	1331	0.552714	3.92506	-2.82811	0.04857
ENSOARG00000016909	-	5347	0.0389486	0.347644	-3.15797	0.04175
ENSOARG00000001494	-	2966	0.0865469	0.658999	-2.92872	0.04344
ENSOARG00000011490	-	972	1.73006	0.167621	3.36755	0.04843
ENSOARG00000000586	UNC5D	2622	2.84205	0.102848	4.78835	0.00086
ENSOARG00000015536	CEMIP	4086	0.18969	3.43872	-4.18015	0.00126
ENSOARG00000015540	KRT23	1248	7.78951	1.09479	2.83088	0.02509
XLOC_2245464	-	2839	0.280861	2.16786	-2.94834	0.02341
ENSOARG00000007578	SCIN	2142	7.40124	61.7083	-3.05962	0.01465
XLOC_1261656	-	10968	1.53963	0.217435	2.82393	0.02906
ENSOARG00000019673	UPK1B	802	0.356462	4.47897	-3.65135	0.01807
ENSOARG00000014238	WDR63	2694	0.0540884	1.02324	-4.24168	0.01195
ENSOARG00000020077	HIST1H1T	633	9.54907	0.782334	3.6095	0.0093
ENSOARG00000007322	-	1603	7.55823	129.484	-4.09858	0.00145
ENSOARG00000002590	SPP1	988	7.6623	371.439	-5.5992	2.98E-05
ENSOARG00000019205	-	4853	0.0287491	0.318527	-3.46983	0.04102
ENSOARG00000017394	NRG2	1575	1.19494	0.0918079	3.70217	0.02924
ENSOARG00000017398	-	833	0.225124	5.27978	-4.55169	0.00694
ENSOARG00000011748	ADGRF2	2069	0.254158	6.79919	-4.74156	0.00043
ENSOARG00000009627	CCL2	348	32.8579	216.717	-2.7215	0.02665
ENSOARG00000007969	CNTN5	6150	0.0112175	0.176094	-3.97251	0.02017
XLOC_3193330	-	1444	12.2568	0.638865	4.26193	0.00233
ENSOARG00000015922	ICAM3	1605	2.1354	11.8071	-2.46707	0.04497
XLOC_1965425	-	2083	0.432382	3.45684	-2.99907	0.02043
XLOC_2715592	-	3161	0.0227138	0.293503	-3.69173	0.03166
XLOC_3057620	-	1627	9.58326	0.57435	4.06051	0.00152
ENSOARG00000000504	HEATR4	3412	0.273009	2.20353	-3.0128	0.01914
XLOC_3977033	-	5101	1.3532	0.0569073	4.57162	0.00685
ENSOARG00000002328	TNMD	2639	0.110662	5.15698	-5.5423	0.00011
ENSOARG00000020402	-	1198	4.09898	0.128004	5.001	0.00301
ENSOARG00000005161	DNAH1	12785	0.221865	0.0292748	2.92195	0.03235
XLOC_1300001	-	768	1.51845	0.116301	3.70666	0.03212
ENSOARG00000009995	MPZ	1101	44.7038	0.925957	5.59331	1.17E-05
ENSOARG00000000464	IL20RA	1755	6.35911	0.768428	3.04884	0.01559
ENSOARG00000017897	PFKFB4	1410	70.7678	9.78523	2.85442	0.0265
ENSOARG00000017092	NPHS2	2742	0.23872	2.69256	-3.49559	0.00803
ENSOARG00000016543	CXCL9	378	5.92951	40.7529	-2.78092	0.03159
XLOC_4200731	-	498	2.87402	0.238843	3.58893	0.03859
ENSOARG00000004930	MMP12	1807	0.0847928	11.4954	-7.0829	2.54E-05

ENSOARG00000000253	CHRNA1	5076	0.0411333	0.367133	-3.15792	0.04176
ENSOARG00000002532	-	1403	0.578927	23.2773	-5.3294	3.88E-05
ENSOARG00000018252	SLC18A2	1612	2.13144	0.178658	3.57656	0.01282
ENSOARG00000013929	ABCG4	4714	0.0148216	0.164214	-3.4698	0.04486
XLOC_1931091	-	3275	0.159449	1.47059	-3.20523	0.03668
ENSOARG00000001752	HTRA4	1431	1.22829	7.20473	-2.55229	0.04181
XLOC_1615974	-	9901	2.45594	0.437178	2.48998	0.04257
XLOC_3303863	-	4351	1.85515	0.193613	3.26029	0.01111
ENSOARG00000008702	-	1575	0.647257	3.90184	-2.59174	0.0436
XLOC_1390418	-	2767	0.663277	5.74763	-3.11528	0.01817
ENSOARG00000013402	PTGFR	1159	3.47698	0.400341	3.11853	0.02225
ENSOARG00000013491	GRIA3	2705	1.05001	6.80768	-2.69676	0.02859
ENSOARG00000001090	FBXO44	828	0.655753	9.06356	-3.78885	0.01655
ENSOARG00000006630	PRX	3852	9.98954	1.86471	2.42147	0.04835
ENSOARG00000008809	CADM4	1167	2.94416	0.463026	2.66869	0.04842
ENSOARG00000014066	IL17F	2562	0.0264912	0.685057	-4.69264	0.00891
XLOC_5042619	-	755	6.99273	0.694926	3.33092	0.02435
XLOC_4904903	-	1099	0.310093	2.42739	-2.96863	0.03941
XLOC_2108154	-	559	3.15928	0.192926	4.03348	0.01869
ENSOARG00000007889	CRHR2	1242	4.38305	0.36712	3.57761	0.00871
ENSOARG00000007405	C4BPA	4926	0.523493	3.57898	-2.77331	0.02897
ENSOARG00000004394	FAM169A	2175	3.22559	0.31657	3.34896	0.01021
ENSOARG00000018764	-	225	296.536	23.7778	3.64052	0.01533
ENSOARG00000003857	AADACL2	2920	0.0247598	0.297063	-3.5847	0.03746
ENSOARG00000014009	DUSP2	606	0.916195	14.7867	-4.0125	0.00386
XLOC_2237940	-	984	1.52283	8.82274	-2.53447	0.04546
XLOC_3334607	-	5855	3.52706	0.590043	2.57957	0.0434
XLOC_3782740	-	476	0.286079	3.13514	-3.45404	0.04584
ENSOARG00000019555	-	2833	0.153552	1.20453	-2.97167	0.02935
XLOC_3973030	-	2540	1.8033	32.7252	-4.18169	0.00132
ENSOARG00000010797	-	5131	0.0272151	0.36377	-3.74055	0.02677
ENSOARG00000005894	CDH20	2624	1.67039	0.205523	3.02281	0.02307
ENSOARG00000002217	-	1432	0	2.1596		0.04961
ENSOARG00000020030	SPRED1	1338	18.0935	0.0491412	8.52433	0.0006
ENSOARG00000020030	SPRED1	1332	0.202881	23.0786	-6.82977	0.00029
XLOC_2528200	-	2794	0.0259835	0.431624	-4.05411	0.0176
ENSOARG00000012824	GRPR	4852	0.0143777	0.212398	-3.88487	0.02335
ENSOARG00000009392	SLITRK2	2535	0.202451	1.46781	-2.85802	0.03431
ENSOARG00000012438	TCN1	1493	0.356027	3.0797	-3.11273	0.03179
ENSOARG00000000553	GPC5	1194	0.139534	1.41396	-3.34105	0.04954
ENSOARG00000004381	TMEM26	1107	0.230412	4.10255	-4.15423	0.00708
ENSOARG00000002859	-	1897	0.0801748	0.887777	-3.46898	0.04104
XLOC_4911720	-	1399	0.057379	0.846167	-3.88235	0.02344
ENSOARG00000016789	NIPAL1	1236	0.0443198	6.74395	-7.2495	0.02336

ENSOARG00000016789	NIPAL1	1239	8.81547	0.0276869	8.31469	0.01213
XLOC_5170401	-	3099	0.159844	2.76789	-4.11405	0.0063
ENSOARG00000016979	SLC6A14	1926	0.0393961	0.799421	-4.34283	0.01069
XLOC_1203570	-	6321	0.300216	2.81792	-3.23056	0.01934
XLOC_1079596	-	1258	1.81195	0.183251	3.30565	0.03294
ENSOARG00000020976	GLDN	1656	5.20943	35.3555	-2.76274	0.02453
XLOC_1584514	-	995	1.14745	0.0812513	3.8199	0.02661
XLOC_1513644	-	6010	0.238629	4.55336	-4.25409	0.00108
ENSOARG00000006802	PROP1	3610	0.0196835	0.236208	-3.585	0.03744

MfatW and DfatW indicate adipose tissue of Mongolian sheep and of Dorper sheep sampled in winter, respectively.

Table S2.

Protein-coding genes with differential expression in skeletal muscle retrieved by RNA-seq.

Gene ID	Gene Name	Length	MmuscleW FPKM	DmuscleW FPKM	log2(foldchange)	P value
XLOC_3090206	-	350	0.591969	8.41705	-3.82972	0.0258179
ENSOARG00000010025	SULT1E1	4667	3.82665	0.215537	4.15007	0.00104195
ENSOARG00000008077	-	258	338.264	4.99872	6.08045	0.000308818
ENSOARG00000008718	-	1751	43.5221	5.43759	3.00071	0.0149901
ENSOARG00000020373	MFI2	2217	0.0305808	0.544932	-4.15538	0.0149654
ENSOARG00000008705	MICAL2	5993	19.2401	2.04077	3.23693	0.00970404
ENSOARG00000009128	C7	7006	5.56451	75.978	-3.77126	0.00898095
ENSOARG00000001692	RGS22	3930	0.212489	1.94052	-3.19098	0.0129429
XLOC_4789367	-	1313	0.392884	3.93316	-3.32351	0.0314225
XLOC_4890562	-	622	18.5999	0.805327	4.52957	0.00110441
XLOC_4688680	-	588	0.178012	2.48363	-3.80241	0.0268947
ENSOARG00000005711	COL13A1	1992	0.897803	0.102572	3.12977	0.0439342
XLOC_518689	-	400	2.9313	31.3064	-3.41685	0.0264753
XLOC_518689	-	616	5.31316	34.9198	-2.7164	0.0415183
ENSOARG00000011077	-	1572	4.68673	0.360608	3.70008	0.00543167
ENSOARG00000015118	BDNF	756	26.8707	2.71799	3.30542	0.00808948
ENSOARG00000000674	S100A2	297	46.7472	508.878	-3.44437	0.00505278
ENSOARG00000000831	SERPINA7	2061	2.09256	0.197315	3.40669	0.0124914
ENSOARG00000011552	DRD1	1341	0.66165	4.75409	-2.84503	0.0278562
ENSOARG00000019474	TDRD15	5844	0.268816	0.0212706	3.65969	0.0310632
ENSOARG00000014405	CFHR5	2731	2.18204	0.311933	2.80637	0.0288896
ENSOARG00000014571	BBOX1	1279	2.98146	0.347677	3.1002	0.0230269
ENSOARG00000000747	TNFRSF12A	390	836.438	39.2899	4.41203	0.000457267
ENSOARG00000020893	PRTG	3587	3.15446	0.303188	3.37911	0.0075227
ENSOARG00000010449	-	666	7.61417	1.05284	2.8544	0.0339379
XLOC_2375688	-	6165	0.498286	0.0402314	3.63058	0.0114952
ENSOARG00000010057	LRP1B	13863	0.0662781	0.672837	-3.34365	0.00857875
XLOC_4682084	-	4775	0.0797576	1.36753	-4.09981	0.00265521
ENSOARG00000000742	DNAJA4	1654	227.804	9.84564	4.53217	0.000856951
ENSOARG00000000606	-	261	1494.88	160.307	3.22112	0.00863626
XLOC_2375705	-	3524	0.587915	0.0727122	3.01534	0.0366112
ENSOARG00000002407	LEP	615	0.164841	3.61192	-4.45362	0.00884713
ENSOARG00000008046	RDH16	1055	18.3088	2.29793	2.99413	0.0155569
ENSOARG00000019402	AMN1	923	6.52654	0		0.0492093
ENSOARG00000015278	PDLIM4	981	0.0556955	4.94777	-6.47307	0.039346
XLOC_4448929	-	3074	22.2692	1.16176	4.26066	0.000865251

XLOC_3089359	-	13179	0.200049	0.0276016	2.85753	0.0363477
ENSOARG00000008121	C8B	2448	5.41861	0.785559	2.78613	0.0247846
ENSOARG00000016365	DEPTOR	3029	0.021645	0.385546	-4.1548	0.0149794
ENSOARG00000009466	HSD17B2	1167	0.721612	0.0650454	3.4717	0.045395
ENSOARG00000007452	-	1740	787.889	5.03799	7.289	9.53E-06
XLOC_4080518	-	2560	29.7635	2.93815	3.34056	0.0068694
ENSOARG00000009911	PROM1	2844	0.0927044	1.07239	-3.53205	0.0207688
ENSOARG00000006711	DIO1	636	5.45546	0.620723	3.13568	0.0295189
XLOC_4725722	-	3518	3.21686	0.25496	3.65731	0.00476657
ENSOARG00000003744	-	1248	703.724	63.4558	3.47119	0.0219786
ENSOARG00000007817	CRP	754	154.463	16.4917	3.22746	0.00917118
ENSOARG00000004210	NOS1	3580	1.34881	0.112862	3.57906	0.0252923
ENSOARG00000007808	-	792	7.32631	0.55831	3.71395	0.00830114
XLOC_4394755	-	320	9.77715	0.835353	3.54896	0.0401951
ENSOARG00000014779	PECAM1	2442	0.521198	6.60322	-3.66326	0.00657479
XLOC_1066185	-	4389	0.868281	0.0431295	4.33142	0.00512787
ENSOARG00000002559	-	5712	0.022025	0.250526	-3.50775	0.039007
ENSOARG00000010231	MX2	2413	0.862096	5.31274	-2.62353	0.0342647
XLOC_2602007	-	1049	0.108042	1.16385	-3.42924	0.0448236
ENSOARG00000018263	-	5031	1.5349	0.124449	3.62452	0.00541109
ENSOARG00000008545	FGF10	642	1.38135	11.3063	-3.03298	0.0214329
ENSOARG00000006825	IQCF1	633	1.8851	0.156405	3.59128	0.0378748
XLOC_1506874	-	2005	0.239926	1.52716	-2.67019	0.048128
ENSOARG00000013372	CPN1	4662	1.14521	0.0539454	4.40796	0.00215179
ENSOARG00000005049	CP	3186	86.5222	6.81165	3.66699	0.0138095
ENSOARG00000001097	TMA7	195	3470.65	30.5266	6.829	5.09E-05
ENSOARG00000002839	-	991	0.649478	9.022	-3.7961	0.00433299
XLOC_2375492	-	6168	0.72164	0.0603165	3.58065	0.00865811
ENSOARG00000013004	ABCC2	4635	2.57886	0.393514	2.71225	0.0289232
ENSOARG00000013019	TRH	4447	0.243641	0.0141777	4.10306	0.0164178
ENSOARG00000010135	F5	6201	6.48605	0.773333	3.06818	0.0149336
XLOC_1212723	-	3805	0.991881	0.123723	3.00305	0.0459402
XLOC_2959331	-	1710	0.228818	2.01875	-3.1412	0.0233101
ENSOARG00000019925	HGD	1338	18.4114	1.04112	4.14439	0.000966166
ENSOARG00000010000	ASGR2	1154	6.32173	1.12172	2.4946	0.0489971
ENSOARG00000010002	ADAMDEC1	1983	0.694205	3.88363	-2.48397	0.0484459
ENSOARG00000002295	IDO2	2026	1.28705	0.0670699	4.26226	0.0115939
XLOC_4567024	-	2947	3.43468	0.37521	3.19441	0.0115731
ENSOARG00000001268	SSC5D	4530	0.0702694	0.472687	-2.74992	0.0484361
ENSOARG00000012346	ARMC12	1032	9.15439	1.44998	2.65843	0.0351243
ENSOARG00000008842	ROS1	7053	0.963745	0.0787	3.61422	0.00613087
XLOC_2034022	-	3611	0.0178968	0.230193	-3.68507	0.0324375
ENSOARG00000020789	-	729	1.38161	28.9708	-4.39018	0.000705558
ENSOARG00000018283	CYP3A24	1512	7.08946	0.741661	3.25684	0.011629

ENSOARG00000020356	SPAG17	6453	0.164848	0.00959066	4.10336	0.0164099
XLOC_4241398	-	3207	0.176668	1.9121	-3.43604	0.0164433
ENSOARG00000014258	F13B	1986	3.25712	0.446016	2.86843	0.0255415
ENSOARG00000008476	FAM184A	3639	0	1.12218		0.0491371
ENSOARG00000011692	LOXL4	2432	8.49076	1.11877	2.92398	0.0174794
XLOC_2672590	-	514	0.227912	2.50413	-3.45776	0.0462683
XLOC_3348053	-	450	4.39905	0.301401	3.86744	0.0242723
ENSOARG00000009286	-	3116	46.5302	3.80065	3.61385	0.00424872
ENSOARG00000011756	HSPH1	3185	192.771	23.423	3.04089	0.0385314
ENSOARG00000015661	APOH	1038	83.6706	9.39074	3.15541	0.0105758
ENSOARG00000002637	-	4407	0.358596	0.0247393	3.85748	0.0248212
XLOC_4887391	-	2019	0.0680076	0.875365	-3.68612	0.0297297
ENSOARG00000014888	LECT2	456	56.9414	5.26547	3.43484	0.00643108
XLOC_4922741	-	649	9.34901	158.194	-4.08074	0.000937004
XLOC_605167	-	10093	0.43385	0.0640235	2.76053	0.0498795
ENSOARG00000009742	UGT2A3	1671	4.9105	0.628941	2.96487	0.0199223
ENSOARG00000000678	OTC	1995	2.68878	0.307185	3.12977	0.0176161
XLOC_571787	-	1472	2.21518	0.0487732	5.50519	0.00109918
ENSOARG00000020531	PIK3C2G	4584	1.06867	0.0686461	3.96049	0.00433732
ENSOARG00000017973	AZGP1	939	6.89771	1.0399	2.72968	0.0348232
ENSOARG00000008913	CSRP3	585	3048.1	116.89	4.70469	0.00331735
ENSOARG00000002444	-	3697	1.13427	0.10359	3.4528	0.0113529
ENSOARG00000016924	ZNF385B	1164	21.0612	3.13246	2.74922	0.0252485
XLOC_041966	-	2016	0.204631	1.68626	-3.04273	0.0256115
ENSOARG00000002515	APOC3	330	52.2466	4.44752	3.55426	0.00916787
ENSOARG00000018312	HPX	1383	155.245	12.4696	3.63806	0.0046607
ENSOARG00000012929	SERPINC1	1398	30.4442	4.72516	2.68773	0.0284506
XLOC_1826986	-	652	3.44229	0.148961	4.53036	0.00767905
ENSOARG00000016657	PCSK6	2664	2.92006	0.347856	3.06943	0.0263618
ENSOARG00000016664	FGG	4785	226.171	15.3377	3.88226	0.0159521
XLOC_2516763	-	2214	1.43949	0.0303203	5.56913	0.000959923
ENSOARG00000017915	PHTF2	2605	11.7369	0.0263691	8.79799	0.000577822
ENSOARG00000010176	MAT1A	1620	4.30297	0.434935	3.30646	0.011207
ENSOARG00000020462	IL1RAP	1714	10.8884	1.95338	2.47875	0.0437733
ENSOARG00000017694	CLDND1	1313	25.7682	2.95474	3.12449	0.0143951
ENSOARG00000014611	ADTRP	780	8.39989	1.01514	3.04868	0.0207676
ENSOARG00000010551	PLEKHM1	3162	11.2577	2.044	2.46145	0.0448009
ENSOARG00000001064	ITIH3	2750	20.7162	2.7146	2.93195	0.0170774
ENSOARG00000020279	AHSA2	939	30.4722	5.45945	2.48066	0.0433584
ENSOARG00000018860	KLHL30	1725	24.5916	2.94857	3.06007	0.0125824
ENSOARG00000000812	-	1886	0.0735367	2.40304	-5.03025	0.00285136
ENSOARG00000011468	SULT2A1	858	18.7437	2.03772	3.20138	0.018143
ENSOARG00000011468	SULT2A1	858	4.68804	0.226854	4.36915	0.0278835
ENSOARG00000010930	CDCP1	5243	0.144563	0.0119154	3.60081	0.0373773

ENSOARG00000003341	IFI6	417	18.3522	101.615	-2.46908	0.0445074
ENSOARG00000007612	SEC14L3	1203	0.0631227	0.750972	-3.57253	0.0388883
ENSOARG00000011602	UCK2	783	63.3217	4.14976	3.9316	0.00138975
ENSOARG00000015963	MKRN2OS	726	6.19322	51.9	-3.06697	0.0124815
ENSOARG00000012147	NPR3	1554	5.95082	0.731193	3.02476	0.0172886
ENSOARG00000017583	SALL1	7467	0.191693	0.00824263	4.53955	0.00755644
ENSOARG00000012673	RCAN1	594	535.038	42.6993	3.64736	0.00469315
XLOC_775492	-	501	31.2146	2.06737	3.91635	0.0029784
ENSOARG00000020765	SLC2A2	1569	10.159	0.951117	3.41699	0.00717324
ENSOARG00000002063	SRRM4	2495	0.535875	0.0265204	4.33672	0.0109256
ENSOARG00000008250	KLKB1	1914	0.759142	0.0357959	4.4065	0.00963843
ENSOARG00000015844	-	1059	4.1455	26.9815	-2.70235	0.0330568
ENSOARG00000013672	GLDC	3078	1.29747	0.0631432	4.36092	0.00470316
ENSOARG00000018068	-	1524	5.80766	0.514559	3.49655	0.00715628
XLOC_4464018	-	1074	0.219018	1.88271	-3.10369	0.0457243
ENSOARG00000004055	-	282	22.7956	1.49194	3.9335	0.0216763
ENSOARG00000007128	-	1485	7.25749	1.10995	2.70898	0.0303646
ENSOARG00000017942	CHGB	1938	1.4967	0.176431	3.08461	0.026447
ENSOARG00000017938	-	765	11.9155	1.50926	2.98093	0.0202962
ENSOARG00000020420	-	2266	14.0833	1.59501	3.14235	0.0104084
XLOC_4182812	-	4534	0.0643976	2.5918	-5.33081	0.00022893
XLOC_766134	-	2452	1.78161	0.243583	2.8707	0.0293466
XLOC_622010	-	3826	0.846447	0.0166417	5.66855	0.000786954
ENSOARG00000006050	-	609	40.8935	4.00665	3.3514	0.00714618
XLOC_3412974	-	624	8.89613	1.03365	3.10544	0.03753
ENSOARG00000019817	NR1I2	1705	1.24028	0.0409477	4.92074	0.00364942
ENSOARG00000014749	ALDH8A1	1464	3.66674	0.294572	3.63781	0.00765423
XLOC_2420043	-	1513	3.14743	0.191326	4.04007	0.00455067
ENSOARG00000018283	CYP3A24	1524	38.1988	3.69627	3.36939	0.00701563
ENSOARG00000012900	IGFBP1	825	7.63775	0.831385	3.19956	0.0161805
ENSOARG00000009050	APOF	977	7.1991	0.328443	4.4541	0.00193154
ENSOARG00000017329	ENAH	4602	180.366	13.307	3.76067	0.014586
ENSOARG00000020994	SLC27A2	2387	4.08145	0.390075	3.38726	0.007973
ENSOARG00000013288	PKHD1	12240	0.998313	0.153779	2.69863	0.0294097
ENSOARG00000009865	-	390	252.545	30.223	3.06282	0.0124899
ENSOARG00000021189	SLC10A1	1093	2.08409	0.144291	3.85236	0.0220275
ENSOARG00000021189	SLC10A1	1117	2.21027	0.272888	3.01784	0.0391018
ENSOARG00000018004	VTN	1428	40.7499	2.98536	3.77082	0.00213158
XLOC_1443013	-	7160	0.204643	0.00860898	4.57112	0.00851887
ENSOARG00000019026	PVALB	438	31.9874	0.641708	5.63944	0.000826383
ENSOARG00000017037	SHISA2	561	7.15837	47.2709	-2.72325	0.0272262
ENSOARG00000013599	RUNX1	1506	4.07095	0.52195	2.96338	0.0227043
ENSOARG00000004841	TM4SF4	612	13.9614	1.15885	3.59068	0.00785747
ENSOARG00000004851	HSD17B13	903	9.39697	1.00602	3.22354	0.0132022

XLOC_5170041	-	5139	0.0290674	0.693678	-4.57679	0.0379418
XLOC_2264763	-	6496	0.244596	2.76139	-3.49693	0.0120354
ENSOARG00000013791	CPNE5	2147	0.0634186	0.722034	-3.50909	0.0389322
ENSOARG00000016733	FGA	5987	184.791	15.5136	3.57429	0.0279714
ENSOARG00000005582	C5	5043	16.1012	1.86205	3.1122	0.0119319
XLOC_1478119	-	1241	2.67089	0.240698	3.47202	0.015692
XLOC_1978380	-	2856	0.12811	1.14319	-3.15761	0.0431313
ENSOARG00000019993	ACTC1	1306	1432.5	27.8351	5.68549	0.000930017
ENSOARG00000010045	AKR1D1	4373	3.34089	0.432969	2.9479	0.0173444
XLOC_4656690	-	3668	0.643642	0.0665021	3.27479	0.0223745
ENSOARG00000020577	RNF115	1260	186.959	30.9957	2.59258	0.0443841
ENSOARG00000015253	-	984	137.036	8.13247	4.07471	0.00111997
ENSOARG00000014081	SERPINF2	1476	14.8178	1.89594	2.96635	0.0160093
ENSOARG00000017475	INHBA	1435	1.67519	0.150899	3.47267	0.0248886
ENSOARG00000014548	-	5034	2.09973	0.248741	3.07749	0.0143137
ENSOARG00000007804	CPB2	1272	7.41642	1.16688	2.66806	0.0339673
ENSOARG00000006212	CRABP2	417	54.6967	3.61618	3.91892	0.00261068
ENSOARG00000007567	TTC39C	1638	20.6724	3.263	2.66344	0.0299251
ENSOARG00000001345	TPH1	1525	0.943595	0.0467413	4.3354	0.0109499
ENSOARG00000017250	BHMT	1488	13.7024	1.20354	3.50907	0.00478925
ENSOARG00000014177	DOT1L	5166	13.7651	2.05749	2.74205	0.0261546
ENSOARG00000002655	CES4A	5032	0.796984	0.0921712	3.11216	0.0263632
XLOC_1944721	-	3075	2.26182	0.0798278	4.82445	0.00259838
ENSOARG00000019217	UGT1A1	1741	4.17727	0.499299	3.06458	0.0244753
ENSOARG00000018751	KDM8	3776	1.51231	0.0133523	6.82353	0.0124073
ENSOARG00000002419	APOA4	1113	4.3915	0.138257	4.98929	0.00308505
ENSOARG00000011317	CCDC180	1857	0.786071	0.0741357	3.40642	0.0453866
XLOC_760828	-	4386	0.0307974	0.320732	-3.38049	0.0385255
XLOC_3771879	-	1407	1.82922	0.0988009	4.21056	0.0200667
XLOC_3208836	-	9322	1.23679	0.114488	3.43333	0.00654423
ENSOARG00000002137	-	1530	1.97381	0		0.0496103
XLOC_3863135	-	2034	0.0168738	1.03567	-5.93964	0.0488782
ENSOARG00000012542	CFAP54	3342	0.40853	3.15684	-2.94997	0.018684
ENSOARG00000016285	GDF-8	1128	11.7846	66.4491	-2.49534	0.0423861
ENSOARG00000012835	GC	1447	92.7194	11.9506	2.95578	0.0180974
XLOC_571683	-	1846	5.38966	0.895771	2.58899	0.0382786
ENSOARG00000018816	LBP	1623	19.4087	1.34535	3.85065	0.00182194
ENSOARG00000013695	A1CF	2018	5.06944	0.572678	3.14603	0.0129126
ENSOARG00000008337	CAMK2G	4009	0.287473	3.41792	-3.57162	0.00836656
ENSOARG00000014917	SERPINA11	1272	1.64809	0.116688	3.82007	0.024135
XLOC_906509	-	3984	1.69148	0.286866	2.55984	0.0428657
XLOC_3461959	-	321	4.02497	30.5254	-2.92296	0.0356832
XLOC_4049204	-	1940	0.0355934	0.387688	-3.44521	0.047066
XLOC_4161984	-	6002	0.164052	0.00982403	4.06169	0.0223464

ENSOARG00000016916	NPM3	540	55.1898	2.89866	4.25094	0.000837135
ENSOARG00000003890	TAT	1715	10.7989	1.13869	3.24543	0.00886119
ENSOARG00000017069	-	1419	20.3774	3.36533	2.59815	0.0342736
ENSOARG00000013347	CHGA	1635	2.64937	0.344172	2.94445	0.0268612
XLOC_176932	-	505	1.41572	11.081	-2.96848	0.029585
ENSOARG00000013943	ARG1	1158	17.6891	1.44523	3.61349	0.0038324
ENSOARG00000004726	LPA	2451	29.953	3.73308	3.00426	0.0148857
ENSOARG00000000954	-	4092	1.95701	0.139398	3.81137	0.00383535
XLOC_5136775	-	29137	0.0104111	12.9482	-10.2804	6.89E-11
ENSOARG00000013841	-	993	14.331	1.20504	3.57199	0.00495415
XLOC_234432	-	1409	0.882338	0.0514309	4.10063	0.0164818
ENSOARG00000013883	ARID5A	1850	8.98538	0.930757	3.2711	0.00859538
ENSOARG00000010560	F9	1924	6.68366	0.81838	3.0298	0.0153166
ENSOARG00000013390	GIPC2	997	23.1684	1.51198	3.93765	0.00272293
ENSOARG00000001026	SLC13A5	2569	1.45257	0.102693	3.8222	0.00777508
ENSOARG00000006779	INHBE	1047	2.56631	0.0748735	5.09909	0.00255679
ENSOARG00000008800	-	1932	1725.66	106.201	4.02227	0.0452657
ENSOARG00000012369	SLC4A5	3429	0.0189214	0.205939	-3.44413	0.0471353
ENSOARG00000001533	ITIH1	5249	8.01363	1.3092	2.61377	0.0331263
XLOC_2121555	-	3248	0.0698649	0.634943	-3.18399	0.0310105
XLOC_2546901	-	4275	0.448328	0.0295679	3.92245	0.0204914
ENSOARG00000016105	PROC	2789	2.01374	0.281354	2.83942	0.0281667
XLOC_1942313	-	1038	153.217	16.6407	3.20278	0.0168302
ENSOARG00000014043	CYP8B1	1500	2.64679	0.333748	2.98741	0.0269508
ENSOARG00000002620	CES2	1678	9.01462	1.50204	2.58534	0.0362796
ENSOARG00000017209	DMGDH	2631	3.25896	0.150023	4.44116	0.00112596
XLOC_4722789	-	744	1.34258	9.09812	-2.76056	0.0335486
XLOC_2375686	-	3523	0.441071	0.0363672	3.6003	0.0339904
ENSOARG00000015292	-	1254	42.061	3.74177	3.49069	0.00443146
XLOC_4394022	-	1085	0.0720442	2.42946	-5.07561	0.00267644
ENSOARG00000011507	-	1763	1.79725	11.2594	-2.64726	0.0395593
ENSOARG00000018173	-	540	1.45236	13.8722	-3.25572	0.0159025
ENSOARG00000004059	G6PC	1074	8.61471	0.868941	3.30947	0.0104965
ENSOARG00000007511	ALDOB	1380	22.4649	3.80268	2.56259	0.0367783
ENSOARG00000019783	SCG2	1842	2.00259	0.0748354	4.742	0.00491834
ENSOARG00000012794	-	1742	23.5856	1.99652	3.56235	0.00367908
XLOC_1832196	-	1338	0.995212	0.0547958	4.18287	0.0143129
ENSOARG00000006881	TDO2	1221	9.78848	0.307088	4.99436	0.000316537
XLOC_4816721	-	1968	2.276	0.0693379	5.03671	0.00281525
XLOC_3325331	-	2618	0.228618	3.24322	-3.82642	0.00369517
XLOC_713067	-	987	0.244876	2.1868	-3.15869	0.0419906
XLOC_605167	-	16484	0.395822	0.0444236	3.15545	0.0196653
XLOC_1268328	-	1766	2.22966	0		0.0491213
XLOC_1267501	-	1016	0.314139	3.42871	-3.44819	0.016416

ENSOARG00000002109	-	417	8.99991	54.2433	-2.59146	0.037824
ENSOARG00000004099	CDHR3	2658	0.04996	0.667525	-3.73998	0.027406
XLOC_2516199	-	4673	0.0951964	1.13003	-3.56932	0.00823413
ENSOARG00000009674	-	987	13.1417	1.21489	3.43526	0.00691284
XLOC_3943714	-	2703	0.784694	0.0242691	5.01494	0.00303254
ENSOARG00000010881	ANKRD2	999	1790.6	171.652	3.38288	0.0476074
ENSOARG00000003389	SLC7A6	1635	10.3803	1.59179	2.70513	0.0282864
ENSOARG00000015023	-	681	0.139592	4.72166	-5.08001	0.00265366
ENSOARG00000009961	-	1204	12.296	0.750182	4.03481	0.00176304
ENSOARG00000001872	HSPB8	578	1127.06	143.177	2.97669	0.0310895
ENSOARG00000001551	BCHE	1932	8.55975	51.4706	-2.58811	0.0460042
ENSOARG00000005256	IER5	336	92.5026	13.1756	2.81162	0.0257762
ENSOARG00000015723	PLCL1	2880	0.290372	3.48905	-3.58686	0.0107112
ENSOARG00000013155	-	225	136.036	6.98679	4.28322	0.011811
XLOC_4894998	-	591	7.58715	0.351658	4.43132	0.00863067
XLOC_3506483	-	3267	0.202395	1.48966	-2.87974	0.0277181
ENSOARG00000000053	HAO1	1134	5.07261	0.492846	3.36352	0.0165045
ENSOARG00000006786	TTLL6	2577	0.982282	0.0255848	5.26278	0.00182816
ENSOARG00000016073	DNAL4	347	0.609042	6.80926	-3.48288	0.044705
ENSOARG00000014882	SERPINA1	1292	74.2993	8.52598	3.12341	0.011641
ENSOARG00000003867	CYP11A1	2430	1.43482	0.0546244	4.71518	0.00516967
ENSOARG00000019347	NGEF	1791	0.74167	0.0386583	4.26193	0.0125004
ENSOARG00000020383	BDH1	2398	22.403	3.49267	2.68129	0.0289709
ENSOARG00000010572	-	846	10.9015	0.300732	5.1799	0.000789173
ENSOARG00000015390	-	1137	45.1004	8.07042	2.48242	0.0429637
ENSOARG00000016710	GJB1	960	6.5242	0.840846	2.95589	0.0233353
XLOC_2929172	-	1448	0.126773	1.49258	-3.55749	0.0423083
ENSOARG00000018751	KDM8	3772	0.0573945	1.25414	-4.44965	0.0149355
ENSOARG00000004506	OTUD1	771	452.54	11.3605	5.31594	5.83E-05
ENSOARG00000003304	PLCH1	5091	0.372756	0.024581	3.92261	0.0204861
ENSOARG00000007280	SEC14L2	1398	3.56317	0.363474	3.29324	0.0147383
XLOC_2641300	-	1681	1.0509	0.124907	3.0727	0.0481565
ENSOARG00000014563	ANKS4B	1520	4.92601	0.750812	2.7139	0.0327979
ENSOARG00000008416	-	2490	0.456511	0.0265797	4.10225	0.0164391
XLOC_1944721	-	1836	10.1693	0.536428	4.24469	0.00150512
ENSOARG00000002913	PON1	1068	22.2096	3.64724	2.60631	0.0339343
ENSOARG00000014738	MTTP	2685	5.31114	0.513423	3.3708	0.00711514
ENSOARG00000014074	UPB1	1155	3.32595	0.461924	2.84804	0.0348501
ENSOARG00000007993	C8A	1914	8.78436	0.426286	4.36505	0.00209008
ENSOARG00000006134	AMBP	1317	73.2912	8.43753	3.11875	0.0117823
XLOC_2446508	-	1421	0.719184	0.0509025	3.82055	0.0261752
XLOC_2306547	-	2199	0.101281	1.27229	-3.65098	0.0230182
ENSOARG00000019210	CPS1	4521	70.3752	6.06036	3.53759	0.00866444
ENSOARG00000002586	APOA1	782	82.2129	14.608	2.49261	0.0421455

ENSOARG00000001222	-	2066	1.64289	17.4299	-3.40725	0.00546799
ENSOARG00000012678	-	4128	0.279194	2.20965	-2.98448	0.0180941
ENSOARG00000002590	SPP1	988	1.05969	31.2205	-4.88078	0.000133059
ENSOARG00000017398	-	833	0.515954	29.2098	-5.82307	2.56E-05
ENSOARG00000012206	CA5A	1899	0.656613	0.0361221	4.18409	0.0142845
ENSOARG00000015788	FAM178A	3596	14.659	0.52559	4.80171	0.000237513
ENSOARG00000000083	-	1876	12.9481	1.35546	3.25589	0.0082079
ENSOARG00000011739	SIM1	2298	1.14548	0		0.049973
ENSOARG00000012230	SLC6A11	1671	1.73561	0.167718	3.37134	0.0190384
ENSOARG00000005434	ZIC1	1164	3.02755	0.326298	3.21389	0.0206628
ENSOARG00000012554	HABP2	1932	2.03848	0.177061	3.52517	0.0110948
XLOC_4182812	-	752	0.172844	6.64692	-5.26514	0.00165893
ENSOARG00000008148	KY	1851	3.00578	22.1754	-2.88315	0.0187411
XLOC_4060226	-	2587	0.128695	1.24828	-3.27792	0.0182519
ENSOARG00000020402	-	1198	4.69572	0		0.0492035
ENSOARG00000009847	-	521	356.871	37.9123	3.23466	0.00942376
ENSOARG00000011108	-	1578	3.75962	0.403848	3.21871	0.0146555
XLOC_1057992	-	1963	1.43974	0.104311	3.78684	0.0142092
ENSOARG00000002676	-	489	0	16.362		0.0491516
ENSOARG00000003815	-	1613	7.45855	40.9631	-2.45736	0.0454873
ENSOARG00000008517	-	2118	5.82849	0.828902	2.81385	0.0237906
ENSOARG00000020519	KNG1	1860	6.6361	0.816795	3.02229	0.0302617
ENSOARG00000009541	-	1509	4.22476	0.364492	3.53491	0.00807829
XLOC_023357	-	915	0.216356	3.25205	-3.90987	0.0430114
ENSOARG00000009066	-	1608	4.20811	0.263272	3.99855	0.00338314
ENSOARG00000010604	-	387	81.8082	11.0303	2.89077	0.0203899
XLOC_2998697	-	1654	8.0585	0.794747	3.34194	0.0131495
XLOC_903297	-	3764	6.36771	0.474195	3.74722	0.00248266
XLOC_1132400	-	3296	0.236971	0.01954	3.60021	0.0373999
ENSOARG00000008807	E2F8	3306	0.275562	0.019476	3.82261	0.0260947
ENSOARG00000001766	SLC17A2	1523	1.13409	0.0468149	4.59843	0.00676953
ENSOARG00000011449	PRLR	1850	1.61662	0.111691	3.85539	0.0125311
ENSOARG00000009159	-	2321	63.1439	4.51401	3.80616	0.0025961
ENSOARG00000004038	F2	2650	6.84227	0.694558	3.30031	0.00776768
ENSOARG00000012053	ACOX2	2167	7.43669	0.776619	3.25938	0.00883882
XLOC_1944721	-	2976	5.44269	0.0906519	5.90784	0.000182138
ENSOARG00000006162	-	2882	1.11984	0.0904672	3.62976	0.011514
ENSOARG00000013748	HSPB1	556	341.352	45.1084	2.91979	0.0192595
ENSOARG00000008179	SLC25A21	810	0.966868	7.6839	-2.99045	0.0233269
ENSOARG00000011501	GRIK2	2610	0.0254881	1.2361	-5.59983	0.000898809
ENSOARG00000011508	ENAM	3522	4.59589	0.836702	2.45756	0.0457215
ENSOARG00000005450	-	3920	4.90606	0.827052	2.56852	0.0365547
XLOC_3397963	-	3477	0.0665032	0.907132	-3.76982	0.023531
ENSOARG00000017402	APOB	13668	16.0841	1.4007	3.52142	0.00701641

XLOC_913477	-	4759	7.57718	0.514646	3.88001	0.00159574
ENSOARG00000000860	ENTPD5	1368	4.68111	0.586539	2.99655	0.0212288
ENSOARG00000003709	KLHL40	1750	718.312	68.7104	3.38601	0.0384683
XLOC_3483583	-	740	6.50736	0.976437	2.73647	0.0396928
XLOC_4910037	-	483	0	25.3111		0.0493126
ENSOARG00000002767	-	3503	11.298	1.04284	3.43747	0.00504774
ENSOARG00000002636	CES3	1686	4.14708	0.414906	3.32124	0.0108483
ENSOARG00000000636	DIAPH1	3744	44.4332	6.47237	2.77927	0.0289097
XLOC_3869483	-	1384	0	2.11109		0.0498424
ENSOARG00000002233	APOA5	1076	1.52941	0.144472	3.40412	0.0455324
ENSOARG00000009231	-	612	156.069	14.5684	3.42127	0.00546103
ENSOARG00000015707	-	4954	2.23614	0.350644	2.67293	0.0316132
XLOC_2739968	-	6998	0.240671	0.0264472	3.18588	0.0402559
ENSOARG00000010722	CREB3L3	1371	3.649	0.478608	2.93059	0.0262215
XLOC_405123	-	2455	0.0272798	0.37803	-3.79259	0.0272909

MmuscleW and DmuscleW indicate skeletal muscle of Mongolian sheep and of Dorper sheep sampled in winter, respectively.

Table S3. Protein-coding genes with differential expression in liver retrieved by RNA-seq.

Gene ID	Gene Name	Length	MliverW FPKM	DliverW FPKM	log2(foldchange)	P value
ENSOARG00000003876	MARVELD3	948	0.259756	1.99943	-2.94436	0.0407371
ENSOARG00000008077	-	258	164.218	6.94681	4.56312	0.00101542
ENSOARG00000008064	LEF1	1206	0.0475943	0.53863	-3.50043	0.0416209
ENSOARG00000001553	-	2828	3.8194	0		0.0480991
ENSOARG00000015491	-	3774	0.104074	2.15636	-4.37292	0.000983222
ENSOARG00000020373	MFI2	2217	0.04651	0.861925	-4.21195	0.012515
ENSOARG00000000979	-	411	2.41887	16.1196	-2.73641	0.0379206
ENSOARG00000001697	TMEM86B	651	0.44748	4.10475	-3.1974	0.0260622
ENSOARG00000001659	WDFY4	9620	0.426415	2.27312	-2.41434	0.0490303
ENSOARG00000009130	ITGAX	3486	0.184126	1.15585	-2.65019	0.0390855
ENSOARG00000006729	TACC2	8235	0.0473251	0.460085	-3.28122	0.0347925
ENSOARG00000016787	-	715	2.71028	19.9276	-2.87825	0.0202949
XLOC_1216690	-	3756	0.0203077	0.405106	-4.3182	0.0418628
ENSOARG00000008620	LTF	4973	0.223414	1.46095	-2.70912	0.0301396
XLOC_3308896	-	3989	0.171685	1.60824	-3.22765	0.0114139
XLOC_1942313	-	2505	0.862096	0.0919603	3.22877	0.0186705
ENSOARG00000013905	-	378	0.997242	17.5922	-4.14085	0.00727573
XLOC_518689	-	400	3.63831	30.8723	-3.08497	0.02718
XLOC_518689	-	616	0.731074	8.70343	-3.5735	0.019097
ENSOARG00000018923	PAMR1	2455	0.539662	3.56104	-2.72217	0.0286044
ENSOARG00000016897	TRPV2	4079	0.155684	1.42595	-3.19523	0.0127423
ENSOARG00000006414	DIAPH3	3363	0.0147214	1.16111	-6.30146	0.000186741
XLOC_5187581	-	4616	0.664973	0.0480923	3.78942	0.0174446
ENSOARG00000010190	TCF19	1362	0.204883	1.35689	-2.72743	0.0497357
XLOC_4819472	-	1808	0.0586421	0.969416	-4.04711	0.0164747
ENSOARG00000018118	OCIAD2	462	12.8404	68.0847	-2.40664	0.0498714
ENSOARG00000000674	S100A2	297	1.49603	69.1372	-5.53025	0.00104123
ENSOARG00000001815	-	3231	0.215195	3.47655	-4.01394	0.00160714
ENSOARG00000001146	ABRACL	246	1.99119	28.5116	-3.83984	0.0251685
XLOC_2442897	-	407	1.65082	38.5343	-4.54488	0.000847133
ENSOARG00000014084	CNTLN	4299	0.656993	4.75637	-2.85591	0.0198543
ENSOARG00000001138	-	2991	0.651771	47.6185	-6.19102	2.41E-06
ENSOARG00000000839	-	3447	0.129022	0.784528	-2.60421	0.0482283
ENSOARG00000016809	NCAM1	2709	0.0186209	0.55479	-4.89695	0.00373653
XLOC_1275948	-	2811	2.4997	0.130516	4.25945	0.00367141
ENSOARG00000014731	DDX58	2832	2.82022	20.6076	-2.8693	0.0208533
XLOC_4811589	-	1566	0.173362	1.28429	-2.88911	0.0375206
XLOC_2469398	-	1306	1.55266	0.209061	2.89274	0.0344446

ENSOARG00000007622	PSMB8	4806	1.66137	10.1234	-2.60724	0.0349637
XLOC_4332389	-	462	2.89945	0.171067	4.08314	0.0174809
ENSOARG00000005372	-	1149	3.38878	30.3906	-3.16479	0.00990435
ENSOARG00000011997	UBA7	2997	0.828782	4.96575	-2.58295	0.0354473
ENSOARG00000017380	-	1919	0.205486	2.56216	-3.64025	0.00661538
ENSOARG00000004140	PHYHIPL	4872	0	0.628332		0.049233
ENSOARG00000011918	ARHGEF39	1008	0.0598522	0.872508	-3.86569	0.0236212
ENSOARG00000019297	-	690	6.43695	39.9368	-2.63327	0.0317825
ENSOARG00000003068	-	5176	1.98391	13.1197	-2.72531	0.0359092
XLOC_4790479	-	2748	0.0183313	0.221409	-3.59433	0.0361122
ENSOARG00000001229	-	2588	0.39161	4.46265	-3.51041	0.00508922
ENSOARG00000002971	PHACTR4	2148	0.199147	2.02411	-3.34538	0.0239514
XLOC_519303	-	596	5.42452	0.633342	3.09844	0.023251
ENSOARG00000007320	BLNK	1380	0.362967	2.345	-2.69168	0.0412069
ENSOARG00000019163	-	976	5.05993	77.0101	-3.92786	0.00161994
ENSOARG00000002180	PIK3R3	1390	0.519726	4.03559	-2.95695	0.0212528
XLOC_4337557	-	1080	3.07933	0.10026	4.94079	0.0193779
ENSOARG00000009323	BCAM	2011	2.67389	72.734	-4.76562	0.000270701
ENSOARG00000009637	KIFC1	2308	0.177853	1.3612	-2.93612	0.0273326
ENSOARG00000011261	-	906	15.6708	106.615	-2.76625	0.027229
ENSOARG00000020761	TNIK	4059	0.0999692	0.847776	-3.08413	0.0327368
ENSOARG00000015908	ANKRD1	1400	4.99392	0.736113	2.76217	0.0273753
XLOC_4620630	-	1387	9.09896	0.873979	3.38003	0.00654023
XLOC_4448929	-	3074	8.14241	0.577969	3.81639	0.00248137
ENSOARG00000009604	NDC80	5974	0.0641431	0.870376	-3.76227	0.00466569
XLOC_829568	-	793	0.407799	3.98901	-3.2901	0.0426651
ENSOARG00000018677	EHF	2217	0.83718	7.86975	-3.23271	0.00866405
ENSOARG00000020511	CAPG	1191	0.77352	5.15914	-2.73762	0.0311788
XLOC_2586509	-	729	0.376097	2.67685	-2.83136	0.0493846
ENSOARG00000008507	ALPL	2395	1.07232	8.30054	-2.95247	0.0195911
ENSOARG00000003188	CREB3L1	1545	0.422764	3.41183	-3.01262	0.0198263
XLOC_3308896	-	4203	0.278424	1.75458	-2.65577	0.0332885
XLOC_2587627	-	1743	0.0611782	0.863486	-3.81908	0.0238341
ENSOARG00000012851	CD37	1056	0.0563437	1.13999	-4.33863	0.0105796
ENSOARG00000016359	-	3906	0.0627042	1.2411	-4.30691	0.00489892
XLOC_3570370	-	1158	0.100166	1.21497	-3.60045	0.0334199
ENSOARG00000009955	CUBN	10863	0.0186314	0.215656	-3.53292	0.0124104
ENSOARG00000000907	MUM1L1	1791	0.0889273	14.9881	-7.39698	1.48E-06
XLOC_1832196	-	1338	1.67489	0.202934	3.04499	0.0258073
XLOC_311977	-	5404	0.0445145	3.60134	-6.33811	4.46E-06
XLOC_4890562	-	622	10.2313	0.19651	5.70224	0.00072173
ENSOARG00000000899	MECOM	3509	1.06716	0.0216619	5.62247	0.0337321
XLOC_1093091	-	3317	0.149414	4.24503	-4.82838	0.000197588
XLOC_2494821	-	4078	0.870416	5.9984	-2.7848	0.0285314

ENSOARG00000016424	CELSR3	9304	0.0050722	0.0530009	-3.38533	0.0494148
ENSOARG00000009920	MACC1	6372	0.0824723	2.91772	-5.14479	6.91E-05
ENSOARG00000009919	-	2439	0.731754	8.28555	-3.50117	0.00447709
ENSOARG00000010755	CYP39A1	1410	2.35773	15.738	-2.73878	0.0255239
ENSOARG00000006711	DIO1	636	242.201	24.3447	3.31453	0.0083991
XLOC_4891834	-	1038	0.115229	4.7569	-5.36744	0.0014599
ENSOARG00000020515	-	447	5.77451	195.224	-5.07929	4.63E-05
ENSOARG00000016534	TFPI	1354	0.907961	12.1675	-3.74426	0.00311297
ENSOARG00000006707	TINAG	1254	0.181365	1.90534	-3.39308	0.0181563
ENSOARG00000016403	-	819	0.344756	4.70619	-3.77091	0.0229577
ENSOARG00000017779	MYL2	594	33.3804	2.33561	3.83713	0.00213988
ENSOARG00000011143	RIMS1	1410	3.77237	0.539408	2.80602	0.0268029
XLOC_1066185	-	4389	34.3275	4.28147	3.00319	0.0337838
XLOC_3487808	-	1434	0.423562	4.1659	-3.29798	0.0111635
ENSOARG00000010231	MX2	2413	0.719352	66.5855	-6.53237	8.55E-07
XLOC_1928868	-	2373	0.0431084	0.711889	-4.04561	0.0165146
ENSOARG00000020227	MUC13	1524	1.00258	31.0955	-4.95491	6.88E-05
ENSOARG00000009851	CDCA2	3027	0.0329924	0.969416	-4.87691	0.00382561
ENSOARG00000009260	QPCT	1092	9.19606	0.130977	6.13363	6.89E-05
ENSOARG00000006626	IRF7	1851	0.456945	3.50002	-2.93727	0.020645
ENSOARG00000000070	-	879	0.649812	4.66846	-2.84485	0.0306579
XLOC_097267	-	550	0.593288	5.95533	-3.32738	0.0205468
XLOC_1778455	-	4979	0.00970134	0.11704	-3.59267	0.0361982
ENSOARG00000006820	DYNC2LI1	1056	1.18322	6.61195	-2.48236	0.0479715
XLOC_3067649	-	4138	0.083538	0.924568	-3.46827	0.0205645
XLOC_2224305	-	3568	0.923787	5.67892	-2.61998	0.0379359
ENSOARG00000013482	MYRF	3441	0.0718132	0.520148	-2.8566	0.0397221
ENSOARG00000013873	RGS20	1170	0.0494367	0.599592	-3.60033	0.035803
ENSOARG00000018199	TCAF2	2287	3.4588	18.8005	-2.44243	0.0473544
ENSOARG00000004180	-	942	0.404872	2.65351	-2.71237	0.0462459
XLOC_879266	-	545	5.80853	0.617853	3.23284	0.0203585
ENSOARG00000009181	-	2866	1.29556	0.0140958	6.52217	0.000109799
XLOC_2500546	-	2312	19.6694	0.920494	4.4174	0.000521427
ENSOARG00000001097	TMA7	195	1823.99	32.6019	5.806	0.000573815
ENSOARG00000004854	-	2103	3.65061	62.8855	-4.10652	0.00154179
ENSOARG00000004431	XIRP2	11423	0.415221	0.0660808	2.65158	0.0352048
ENSOARG00000002839	-	991	0.306103	8.23019	-4.74884	0.000614533
ENSOARG00000013589	-	720	9.77274	65.8664	-2.75271	0.0251462
ENSOARG00000014648	RSAD2	1092	0.971331	33.8793	-5.1243	4.58E-05
ENSOARG00000014647	TRIM66	3683	0	0.505013		0.0493273
ENSOARG00000014461	COL24A1	6520	0.00732079	0.0941783	-3.68532	0.0314656
XLOC_1943702	-	952	0.0645741	0.680139	-3.3968	0.0486492
ENSOARG00000019924	BCL2L15	492	2.00704	35.4483	-4.14258	0.00139047
ENSOARG00000000191	SULT1C4	918	17.6991	207.607	-3.5521	0.0068163

ENSOARG00000015072	-	1779	1.70279	16.2137	-3.25123	0.0080168
XLOC_1182309	-	443	1.3588	47.0765	-5.1146	0.000168416
ENSOARG00000017057	ARHGEF16	2336	0.0219347	0.229717	-3.38857	0.0491974
ENSOARG00000019982	-	3060	0.0163023	1.64848	-6.65992	8.89E-05
ENSOARG00000018060	ADGRG7	2388	0.342459	2.05174	-2.58285	0.042142
ENSOARG00000020247	CASC5	7053	0.20919	2.45221	-3.5512	0.00403303
ENSOARG00000013602	VWA3B	3800	0.0581111	0.789731	-3.76448	0.00770402
XLOC_2352663	-	3470	15.3725	2.08311	2.88353	0.0240678
XLOC_3216019	-	1047	0.0569721	0.783906	-3.78235	0.0269707
ENSOARG00000012641	-	1161	0.383558	3.31279	-3.11053	0.042413
ENSOARG00000015242	SYCP2L	2903	5.93893	0.0138995	8.73903	2.03E-07
ENSOARG00000003854	-	2607	1.24309	7.88365	-2.66493	0.0297497
ENSOARG00000014745	PAPPA2	6322	0.00755912	0.255274	-5.07769	0.00261871
ENSOARG00000019233	TAGLN3	651	1.1187	12.3142	-3.46043	0.00789411
XLOC_1678313	-	1062	2.88528	0.429261	2.74879	0.0355861
ENSOARG00000002927	SLC17A4	1539	4.1056	25.5933	-2.6401	0.0318303
XLOC_2034022	-	3611	0.0818299	0.867015	-3.40536	0.0125483
ENSOARG00000003473	ANGPTL7	1035	0.0578321	0.889458	-3.94299	0.020845
ENSOARG00000005322	SRGN	453	24.3907	134.233	-2.46034	0.0450384
ENSOARG00000011803	MEDAG	1659	0.485999	0.0261378	4.21674	0.0139497
ENSOARG00000020792	-	390	0.306101	18.7058	-5.93333	0.000433678
ENSOARG00000007561	SNAP91	2600	0.0584428	1.31785	-4.49502	0.00358351
ENSOARG00000017512	CHP2	615	1.1035	7.40885	-2.74717	0.037205
ENSOARG00000004775	-	4319	0.0563553	1.49156	-4.72613	0.000652969
XLOC_2148052	-	984	0.0617965	1.40138	-4.50318	0.0078556
ENSOARG00000009575	MIS18BP1	4138	0.165122	1.30945	-2.98735	0.0193117
ENSOARG00000001355	MAFB	489	1.10793	7.9071	-2.83528	0.037652
ENSOARG00000003004	MND1	5063	0.0285971	0.260664	-3.18825	0.039378
XLOC_2352868	-	400	78.3804	5.75364	3.76795	0.00248035
ENSOARG00000005908	ERCC6L	3672	0.0803755	1.0995	-3.77395	0.00567354
ENSOARG00000005907	CD180	1986	1.13227	8.65992	-2.93514	0.0169098
ENSOARG00000012187	FGF21	489	79.5866	11.4045	2.80293	0.0223716
ENSOARG00000009367	TYMS	948	0.836652	9.44194	-3.49638	0.00912228
XLOC_5187581	-	6829	0.0404611	0.516635	-3.67454	0.0213261
ENSOARG00000021012	OLR1	4711	0.14396	3.67232	-4.67295	0.000235084
ENSOARG00000012804	TNK1	1968	0.399091	3.453	-3.11306	0.0143779
ENSOARG00000002356	RARRES1	933	2.25572	19.732	-3.12888	0.0112
ENSOARG00000012537	-	705	0.395926	14.5681	-5.20144	0.000283508
ENSOARG00000003703	AOAH	1782	1.22243	7.35763	-2.58949	0.0353281
ENSOARG00000010400	FREM3	6340	0.414565	7.66364	-4.20836	0.000679879
ENSOARG00000009599	ALDH1A3	1482	0.370175	7.08188	-4.25785	0.00104514
ENSOARG00000015724	EDIL3	1452	19.3462	1.68436	3.52178	0.00408082
ENSOARG00000019627	PLCD4	2301	0.0446144	0.988434	-4.46956	0.00803068
ENSOARG00000018032	NNAT	566	0.846251	23.7843	-4.81278	0.000404459

ENSOARG00000017163	KRT86	4541	0	0.421321		0.0492887
ENSOARG00000014800	IFIT3	1449	2.12956	43.043	-4.33715	0.000480176
ENSOARG00000010334	TMPRSS2	2023	0.747775	5.52836	-2.88618	0.0198665
ENSOARG00000000942	RNF213	15531	3.95071	34.5807	-3.12978	0.0460472
XLOC_2239923	-	4978	0.572013	0		0.0491124
ENSOARG00000008558	BCO1	1793	2.51636	18.502	-2.87827	0.0190955
ENSOARG00000016372	ART3	1254	0.544095	3.17743	-2.54593	0.0490574
ENSOARG00000008356	RTP3	873	2.10637	20.5603	-3.28703	0.0079421
XLOC_1071682	-	784	26.6231	4.15978	2.6781	0.0334987
ENSOARG00000020789	-	729	3.00878	100.802	-5.06621	4.90E-05
ENSOARG00000020963	LYSMD2	648	0.225385	3.7678	-4.06326	0.0160491
XLOC_4922741	-	649	0.112417	3.75845	-5.0632	0.00269676
ENSOARG00000010107	FAM169B	1085	0.0544099	0.704372	-3.6944	0.0310501
XLOC_2586305	-	3392	0.107768	1.48609	-3.78552	0.00931577
XLOC_1163411	-	2021	0.0258143	0.624202	-4.59577	0.00662763
ENSOARG00000018615	SAMD9	4746	2.3875	45.2269	-4.24361	0.00187732
XLOC_1071682	-	1059	17.1627	2.1849	2.97363	0.0175723
ENSOARG00000006553	SPI1	780	0.596005	4.49636	-2.91536	0.0308566
ENSOARG00000021026	CLEC12A	3194	0.0933816	0.676478	-2.85683	0.0361998
ENSOARG00000018513	-	420	1.02136	15.4274	-3.91693	0.00638675
XLOC_638155	-	971	0.0628956	1.06989	-4.08836	0.0163214
ENSOARG00000008913	CSRP3	585	3.19857	0.217967	3.87524	0.0224836
ENSOARG00000017291	SLC4A8	3246	0.0305887	0.332376	-3.44174	0.042377
XLOC_4906774	-	736	0.184923	3.97687	-4.42663	0.00947307
XLOC_2519366	-	1366	0.244987	1.68181	-2.77924	0.0415833
ENSOARG00000016924	ZNF385B	1164	0.597093	5.83395	-3.28844	0.0109306
ENSOARG00000004617	-	1092	0.917368	5.15175	-2.48949	0.0493757
ENSOARG00000003992	SLC44A4	2136	0.509219	11.2163	-4.46117	0.000351799
XLOC_3163751	-	1615	0.0334368	0.755384	-4.4977	0.00793128
XLOC_652960	-	1719	0.217598	2.08106	-3.25758	0.0158783
ENSOARG00000018394	NEUROD4	993	0.610579	0.0494462	3.62625	0.036855
ENSOARG00000004721	-	267	102.598	672.403	-2.71232	0.0270073
ENSOARG00000007039	-	6132	0.67107	4.09075	-2.60783	0.0335341
ENSOARG00000004979	-	1179	1.32305	11.9585	-3.1761	0.0147961
XLOC_5170041	-	5708	0	0.263688		0.049973
ENSOARG00000009143	-	1395	7.72239	129.991	-4.07322	0.00207756
XLOC_2500546	-	3206	7.27284	0.345245	4.39682	0.000686734
ENSOARG00000015588	ATP6V1C2	1310	0.257809	11.5593	-5.4866	5.37E-05
ENSOARG00000009256	CD3G	603	2.91328	16.2474	-2.47949	0.0474262
XLOC_2516763	-	2214	0.232903	0.0187661	3.63353	0.0364777
ENSOARG00000013047	RAB19	666	0.107931	1.93507	-4.16421	0.0143737
XLOC_353434	-	8498	0.278363	1.54395	-2.47158	0.0442226
ENSOARG00000000304	ACKR3	1089	0.0541535	0.788658	-3.86427	0.0236507
ENSOARG00000018857	SLC1A2	3756	2.61517	54.0172	-4.36844	0.00126636

ENSOARG00000010196	TNFRSF9	1270	0.758827	11.4698	-3.91793	0.00188814
ENSOARG00000020316	SLC51A	1044	0.0571846	0.833139	-3.86486	0.0236296
ENSOARG00000007971	CD55	1641	0.393795	2.38276	-2.59712	0.0446856
ENSOARG00000013440	IFI44	4063	2.89822	81.5909	-4.81517	0.000836907
ENSOARG00000018091	LPCAT2	2747	0.733545	4.40042	-2.58468	0.0357485
ENSOARG00000001830	C17orf78	861	0.0740372	0.960988	-3.6982	0.0308775
ENSOARG00000000812	-	1886	0.307247	2.43212	-2.98474	0.0217384
ENSOARG00000018099	TLR8	3108	0.657242	5.03249	-2.93678	0.0169041
ENSOARG00000003257	LGALS3BP	2341	6.3678	44.1238	-2.79269	0.0279483
ENSOARG00000014875	-	1959	0.775616	5.71339	-2.88093	0.0200941
ENSOARG00000020736	ECT2	3112	0.112056	2.10039	-4.22837	0.00171767
ENSOARG00000005617	TNFSF13B	867	0.659958	4.40161	-2.73759	0.0378718
ENSOARG00000005557	-	879	4.8927	74.1088	-3.92094	0.00155037
ENSOARG00000015051	BCAS1	2410	0.0847467	1.53596	-4.17984	0.00361921
ENSOARG00000004466	MAPK4	2649	5.07652	0.0768437	6.04577	1.25E-05
XLOC_1057267	-	4012	0.0514144	0.750201	-3.86703	0.019719
ENSOARG00000020608	DNER	1938	0.0270761	0.458377	-4.08144	0.0165035
ENSOARG00000017670	-	3045	0.0163903	0.290274	-4.1465	0.0147944
ENSOARG00000014413	-	657	19.6265	1098.99	-5.80723	0.00013927
XLOC_2093585	-	1567	0.0346463	0.503251	-3.86051	0.0237871
ENSOARG00000015632	VCAN	10692	0.206735	1.51662	-2.87501	0.0191838
ENSOARG00000007603	-	1203	5.20394	89.2684	-4.10047	0.00124458
ENSOARG00000018943	CYBB	1773	4.1087	26.7017	-2.70018	0.0286543
ENSOARG00000012024	PTGER3	774	0.172201	14.9717	-6.442	0.000129727
ENSOARG00000014819	-	2737	0.368242	3.83989	-3.38234	0.00697087
ENSOARG00000001169	-	814	4.24529	0		0.0491629
ENSOARG00000013755	PTPRD	5781	0.124457	0.927414	-2.89756	0.022813
ENSOARG00000002718	CLEC4E	639	0.115235	1.78606	-3.95413	0.0204868
ENSOARG00000001274	CDC25B	1725	0.309599	1.99771	-2.68987	0.0390655
ENSOARG00000011569	DEPDC1	2439	0.0209073	1.2462	-5.89739	0.000469933
XLOC_3600981	-	907	0.896102	0.055881	4.00323	0.0201441
ENSOARG00000003341	IFI6	417	29.3409	1289.8	-5.45809	7.83E-05
ENSOARG00000015467	DRAM1	1019	1.59354	25.2293	-3.98479	0.00130193
ENSOARG00000002606	CCDC67	1863	0.0283274	0.3426	-3.59625	0.0360127
ENSOARG00000007612	SEC14L3	1203	0.525168	4.47693	-3.09166	0.0174249
XLOC_561604	-	2058	0.101156	3.77064	-5.22016	0.000271656
XLOC_4783592	-	2511	0.0809776	0.586987	-2.85773	0.0471821
ENSOARG00000011604	FAM111B	2249	0.457692	5.69738	-3.63785	0.00368743
XLOC_133710	-	1204	0.238465	14.0336	-5.87897	2.12E-05
XLOC_168712	-	639	0.115235	1.42444	-3.62774	0.0456938
XLOC_3102165	-	1808	0.029321	0.307376	-3.39	0.0491023
ENSOARG00000018770	CXorf21	903	0.901508	7.75853	-3.10537	0.0155176
XLOC_712133	-	1236	0.0923213	0.969996	-3.39324	0.0453958
ENSOARG00000011308	ZNF345	1458	0.226481	1.52366	-2.75007	0.0438159

ENSOARG00000017942	CHGB	1938	1.29966	0		0.049244
ENSOARG00000017418	ZBP1	1314	0.68493	8.40357	-3.61697	0.00428903
XLOC_2599653	-	784	2.95811	19.7055	-2.73585	0.0266218
ENSOARG00000000857	-	464	4.92613	152.887	-4.95587	7.00E-05
XLOC_008055	-	3915	0.0750608	0.508795	-2.76095	0.0429791
XLOC_747349	-	1593	1.25777	19.7302	-3.97147	0.00125472
ENSOARG00000000412	PAPLN	3813	0.0128673	0.21742	-4.07871	0.016576
ENSOARG00000021089	DLGAP5	2535	0.100163	2.79122	-4.80047	0.00053415
ENSOARG00000006382	UNC5B	2838	0.0176963	0.185225	-3.38776	0.049252
ENSOARG00000009474	-	480	0	58.1105		0.047393
XLOC_1941787	-	956	4.0457	0.208094	4.28108	0.00287139
ENSOARG00000016486	APBB1IP	2238	0.368169	2.94785	-3.00122	0.0180586
ENSOARG00000000896	-	1682	0.573896	4.73232	-3.04369	0.0157869
ENSOARG00000002099	-	1094	0.430692	3.13618	-2.86428	0.0313309
ENSOARG00000002032	-	1715	0.250472	2.03653	-3.02339	0.0227381
ENSOARG00000016420	-	4060	0.0240705	0.977964	-5.34444	0.00153042
ENSOARG00000001311	NDEL1	1170	1.66969	10.0152	-2.58453	0.0463525
ENSOARG00000016560	IGFALS	1303	1.42729	13.8022	-3.27356	0.00798228
ENSOARG00000005076	DNA2	3189	0.14031	1.43055	-3.34988	0.011068
ENSOARG00000003897	SYT8	990	0.0613022	0.695039	-3.50308	0.0414667
ENSOARG00000007199	FAM46A	1014	3.32647	26.2593	-2.98076	0.0150453
XLOC_1723860	-	2314	0.687188	11.6081	-4.07828	0.000955063
ENSOARG00000003959	RASGEF1A	1488	0.147358	1.75448	-3.57365	0.0128224
ENSOARG00000006381	-	732	4.20556	0.152023	4.78994	0.0045128
XLOC_1038584	-	1613	0.167427	1.37803	-3.041	0.0284857
ENSOARG00000017725	SPC24	720	0.478937	4.67604	-3.28738	0.0178774
ENSOARG00000018343	-	186	2061.55	35742.3	-4.11583	0.000881523
XLOC_4927259	-	653	4.56446	0.274292	4.05666	0.00830042
ENSOARG00000018341	-	183	1137.65	6210.4	-2.44863	0.047726
ENSOARG00000009867	CLEC10A	1051	0.113382	3.48711	-4.94277	0.00337673
XLOC_5138242	-	1482	0.0370175	0.388457	-3.39148	0.0490033
ENSOARG00000021170	ARG2	1863	1.16142	7.17175	-2.62643	0.0327832
ENSOARG00000019445	TRAC	474	1.07571	9.99425	-3.21581	0.0431875
ENSOARG00000021001	FGF7	1377	0.323489	2.15529	-2.73609	0.0397163
ENSOARG00000006688	EVC	6937	0.295193	3.17911	-3.4289	0.00522212
ENSOARG00000008530	UHRF1	6308	0.0314287	0.955175	-4.92561	0.000653211
XLOC_980841	-	1349	0.041457	1.00455	-4.59879	0.00659207
XLOC_4562417	-	4619	0.364357	2.64855	-2.86178	0.0258934
ENSOARG00000019189	HJURP	2123	0.0244159	1.43634	-5.87844	0.000490051
XLOC_918763	-	1918	5.56197	0.751012	2.88869	0.0194877
ENSOARG00000008683	CTSL	1026	1.40386	20.1254	-3.84154	0.00200527
XLOC_3732595	-	932	2.98982	0.430752	2.79513	0.0357418
XLOC_4292303	-	7801	0.437794	0.0635451	2.7844	0.0301242
ENSOARG00000006790	-	2700	0.728872	7.19358	-3.30297	0.0072232

ENSOARG00000010283	MX1	1971	5.44479	64.7863	-3.57274	0.00561518
ENSOARG00000014842	COL6A5	7917	0.287485	1.61275	-2.48797	0.0428943
ENSOARG00000006142	IFIH1	3069	1.64499	10.8645	-2.72348	0.0331886
XLOC_1183959	-	2679	0.0565498	0.470556	-3.05677	0.048513
ENSOARG00000020163	CASQ2	1861	1.41812	0.160078	3.14713	0.0198111
XLOC_1132320	-	1331	0.151946	4.07289	-4.74443	0.0013895
XLOC_5114875	-	3283	0.780464	0.0424155	4.20167	0.0159435
XLOC_1942313	-	5697	0.335221	0.0268812	3.64045	0.0120337
XLOC_2494839	-	4254	1.04035	9.1131	-3.13087	0.0150244
ENSOARG00000016850	CERKL	1647	0.26141	1.92441	-2.88003	0.0304141
XLOC_740208	-	434	9.44982	1.04619	3.17514	0.0415996
XLOC_2604170	-	2390	0.491826	0.0172255	4.83553	0.00443498
ENSOARG00000015138	BTC	644	0.455234	3.62004	-2.99133	0.0376025
ENSOARG00000001857	-	1921	0.02735	0.419238	-3.93816	0.0209752
ENSOARG00000014126	HMMR	2184	0.307739	3.72151	-3.59611	0.0049685
ENSOARG00000020918	UNC13C	10326	0.0273495	0.402998	-3.88119	0.00444068
ENSOARG00000012081	OR4E2	942	0.785928	0.0530702	3.88842	0.0245767
ENSOARG00000019622	NELL2	2608	0.0194151	0.844319	-5.44254	0.00124718
ENSOARG00000017094	MZB1	561	0.286478	9.50059	-5.05152	0.00274069
XLOC_4770420	-	1884	0.0279655	0.293113	-3.38973	0.0491198
ENSOARG00000009247	-	393	4.20209	35.9019	-3.09488	0.015349
ENSOARG00000018744	KCNH3	3225	0.015402	0.185955	-3.59377	0.0361414
ENSOARG00000019729	CSF3R	2532	0.0802356	0.856236	-3.41569	0.0173906
XLOC_1801896	-	2214	1.14123	0.0938303	3.60439	0.00944371
ENSOARG00000016186	-	1068	3.16504	44.0801	-3.79983	0.00203175
ENSOARG00000012621	SLCO4A1	2663	1.02462	14.9894	-3.87079	0.00167452
XLOC_2247992	-	2231	1.54713	0.260475	2.57038	0.0442224
ENSOARG00000014069	-	1092	2.89361	15.8544	-2.45394	0.0456375
XLOC_2549493	-	2355	4.97976	0.722951	2.78411	0.0238353
ENSOARG00000014085	SH2D1A	387	0.31229	5.49443	-4.13701	0.0150892
XLOC_725479	-	379	71.9518	1.10869	6.0201	2.65E-05
ENSOARG00000020836	CCNB2	1197	0.24021	1.82537	-2.92583	0.035141
ENSOARG00000015167	BCL2A1	621	2.77563	15.7627	-2.50563	0.0451138
ENSOARG00000015169	IFIT2	1392	2.87349	22.4309	-2.96462	0.0156727
XLOC_2873952	-	751	0.089976	1.31667	-3.87121	0.0234012
ENSOARG00000006209	ALAS1	1998	5.38189	32.8769	-2.61089	0.0467926
ENSOARG00000007036	FRRS1L	1029	0.0582719	0.754758	-3.69514	0.0310161
XLOC_4891062	-	523	2.76205	16.1401	-2.54684	0.0443436
ENSOARG00000007030	EVC2	3785	0.155627	0.918302	-2.56088	0.0477587
ENSOARG00000017527	ADHFE1	1350	0.147703	3.8185	-4.69224	0.00636963
ENSOARG00000001346	CST6	450	0.875709	11.0486	-3.65727	0.010871
XLOC_1889513	-	4485	0.0108303	0.134886	-3.6386	0.0338602
XLOC_835944	-	1161	5.99038	0.322928	4.21336	0.0015399
ENSOARG00000020042	-	381	2.27801	15.8412	-2.79783	0.0382457

ENSOARG00000014176	CCNA2	1188	0.290988	3.25434	-3.48333	0.0106688
ENSOARG00000006003	IQGAP3	5145	0.018746	0.339264	-4.17775	0.0132687
ENSOARG00000002419	APOA4	1113	114.493	0.426012	8.07015	1.40E-09
ENSOARG00000000461	NEBL	3048	0.704031	0.105441	2.7392	0.0397048
XLOC_828144	-	2473	1.2454	7.25686	-2.54273	0.0452593
ENSOARG00000012457	-	619	3.03417	21.9882	-2.85735	0.0217342
ENSOARG00000012547	-	663	0.108696	2.30336	-4.40537	0.00938201
XLOC_3978289	-	1302	14.279	1.59065	3.16621	0.0130203
XLOC_4038942	-	7081	0.490061	3.13722	-2.67845	0.0331856
ENSOARG00000009289	CKAP2	2083	0.224513	4.04099	-4.16984	0.00152146
ENSOARG00000016195	ZNF385A	1051	0.056691	0.78001	-3.7823	0.0269729
ENSOARG00000009699	PTK2B	4467	0.804856	4.5583	-2.50169	0.0413668
ENSOARG00000019641	LSAMP	1932	1.49447	0.0219052	6.09222	0.000302524
ENSOARG00000002747	-	1116	0.0933055	0.963702	-3.36855	0.0434831
ENSOARG00000004312	TNNC1	532	20.7855	3.22975	2.68608	0.0314922
ENSOARG00000006446	CDHR5	3324	0.402795	3.39782	-3.07649	0.013193
ENSOARG00000010944	-	432	0.23942	5.76034	-4.58854	0.00674266
ENSOARG00000009440	MAP4K2	2365	0.194718	1.18515	-2.60561	0.0481076
ENSOARG00000011033	MED7	843	0.0969575	2.58956	-4.73921	0.00977422
ENSOARG00000016116	KIF14	6715	0.255611	2.76872	-3.4372	0.00523024
ENSOARG00000011377	-	315	0.592492	16.4279	-4.79321	0.00460626
ENSOARG00000012748	GPNMB	5311	0.38078	27.1451	-6.15559	2.98E-06
ENSOARG00000011179	BRCA2	10319	0.150672	1.49946	-3.31496	0.00722264
ENSOARG00000002251	IDO1	3620	0.503369	3.03194	-2.59055	0.0355577
ENSOARG00000009963	-	3060	4.74422	163.603	-5.10789	0.00081931
XLOC_4924638	-	1689	1.08986	7.64126	-2.80966	0.0287892
XLOC_4929719	-	307	0	31.3602		0.0491592
ENSOARG00000010843	DTL	2193	0.0470816	0.701834	-3.8979	0.0209976
ENSOARG00000006321	CENPK	813	0.240719	2.41046	-3.32389	0.0315397
XLOC_1271899	-	2617	0.174074	1.07476	-2.62623	0.0463612
XLOC_1722180	-	1029	2.44742	0.330207	2.88982	0.0325519
ENSOARG00000006568	SUSD1	7875	0.264948	3.34006	-3.65609	0.00290241
ENSOARG00000009349	KNTC1	6662	0.157852	1.30083	-3.04278	0.0149918
XLOC_4530645	-	1707	0.0313398	0.429743	-3.77741	0.0271713
XLOC_816003	-	2520	0	0.643609		0.0499308
ENSOARG00000017970	-	1056	0.225375	2.37118	-3.39521	0.018084
XLOC_3869530	-	5421	0.180891	1.47486	-3.02739	0.0214645
ENSOARG00000010704	ADRA2A	1176	0.392959	2.62118	-2.73777	0.0395952
ENSOARG00000001422	SERPINI2	1155	3.16557	123.442	-5.28522	4.40E-05
ENSOARG00000019961	PRSS35	1239	0.782375	4.57496	-2.54783	0.0442472
ENSOARG00000018303	-	2223	2.13305	20.7075	-3.27916	0.00794208
ENSOARG00000001912	-	1264	0.0448984	0.907031	-4.33642	0.0106192
ENSOARG00000004608	-	2820	0.178197	1.07612	-2.5943	0.0465422
ENSOARG00000001917	-	3559	0.914232	10.1885	-3.47823	0.0046932

ENSOARG00000002539	MYRIP	2551	0.0198833	0.417237	-4.39124	0.00964743
ENSOARG00000009194	ATP10A	4392	0.166557	2.36047	-3.82499	0.00260299
ENSOARG00000013347	CHGA	1635	1.71378	0.106358	4.01018	0.00523727
XLOC_4229038	-	3328	0.0297764	0.970596	-5.02663	0.0028763
ENSOARG00000018242	-	2223	0.904354	5.9685	-2.72241	0.0270285
XLOC_5136775	-	29137	0.0490416	16.0225	-8.35188	6.57E-06
ENSOARG00000020126	BUB1B	3952	0.383948	2.09265	-2.44635	0.0482755
XLOC_828190	-	2078	0	2.1772		0.0492687
ENSOARG00000013934	FREM1	6564	0.894192	4.76964	-2.41522	0.0492338
ENSOARG00000008967	SLAMF7	1881	0.448266	4.90171	-3.45086	0.00646228
ENSOARG00000020474	PLA2G4D	6222	0.130653	0.0123593	3.40207	0.0466407
ENSOARG00000018500	-	423	4.01866	31.3065	-2.96168	0.0196702
ENSOARG00000012585	-	1910	19.1673	232.202	-3.59866	0.015375
XLOC_4865824	-	1042	0.0573273	0.788831	-3.78242	0.0269679
ENSOARG00000019050	NCF4	5155	0.252556	2.61797	-3.37377	0.0065558
XLOC_3691342	-	1758	1.18016	0.13475	3.13062	0.0462251
XLOC_1066185	-	4444	8.20649	1.01573	3.01424	0.0183226
ENSOARG00000004119	MYCBPAP	2895	0.122809	0.901235	-2.87548	0.0319046
ENSOARG00000020667	-	4647	0.125186	1.4433	-3.52722	0.00629227
ENSOARG00000008752	VWF	8607	0.565958	3.29057	-2.53957	0.0385974
ENSOARG00000018978	RNASEL	2401	0.446773	2.62204	-2.55308	0.0418954
XLOC_5122570	-	994	0.189028	1.55822	-3.04322	0.0455632
ENSOARG00000013421	IFI44L	5347	0.756191	14.5953	-4.27061	0.00070579
ENSOARG00000006999	-	1428	0.0387253	0.880401	-4.50681	0.0427256
ENSOARG00000011466	NEK2	1320	0.297992	1.9258	-2.69211	0.0461762
ENSOARG00000001744	TREM2	705	0.0988775	2.33397	-4.561	0.00708053
ENSOARG00000014101	MCOLN3	1664	0	2.03156		0.0492181
ENSOARG00000003228	SLC2A6	1496	0.0732404	1.62604	-4.47258	0.00796649
ENSOARG00000000655	-	1366	2.50461	15.3121	-2.61202	0.0331896
ENSOARG00000011768	CYFIP2	3876	0.366685	1.98386	-2.4357	0.0497351
XLOC_908390	-	1021	0.883032	0.0476594	4.21163	0.0140659
ENSOARG00000014659	CLCA1	2730	0.115393	1.42729	-3.62865	0.00817085
ENSOARG00000020734	CD8A	735	0.0928845	2.49291	-4.74625	0.00500238
ENSOARG00000021063	CD69	5048	0.0478105	0.43067	-3.17118	0.0223397
ENSOARG00000002796	-	1197	0.196171	5.55387	-4.82331	0.000663719
ENSOARG00000008369	CD40	3261	0.0760921	0.575701	-2.9195	0.0355379
ENSOARG00000004480	TTC39A	6716	0.26977	1.65527	-2.61726	0.0336255
XLOC_2494821	-	4162	0.79424	5.12646	-2.69032	0.0343313
XLOC_1270833	-	3210	0.139782	1.41147	-3.33595	0.011257
ENSOARG00000014716	TRHDE	2739	3.88184	0.72588	2.41894	0.0494038
XLOC_1271295	-	936	0.392803	6.43599	-4.03428	0.00358619
ENSOARG00000011817	ATP2B2	3886	0.113487	0.801509	-2.8202	0.0324594
ENSOARG00000014713	ASPM	10330	0.0546772	0.915542	-4.06561	0.0016036
ENSOARG00000006175	PHOSPHO1	892	0.0705168	1.02922	-3.86744	0.0235366

XLOC_2516726	-	224	19.4736	161.912	-3.05562	0.0276997
XLOC_4161984	-	6028	1.01066	0.0549597	4.20078	0.00417367
XLOC_1390418	-	14220	0.590675	0.0146185	5.3365	0.00103808
ENSOARG00000007307	CD1E	3317	0	0.733561		0.0491159
ENSOARG00000001387	ZNF225	2461	0.0207002	0.350139	-4.08021	0.0165361
ENSOARG00000012267	PRC1	1557	0.104728	1.33298	-3.66994	0.0181444
XLOC_1266645	-	611	5.08124	0.404869	3.64965	0.0111376
ENSOARG00000017573	GPR65	1026	0.350966	2.65182	-2.91758	0.0324027
ENSOARG00000015297	GBP5	1769	0.811861	5.57746	-2.7803	0.0252833
XLOC_776640	-	832	0.0776643	1.57587	-4.34275	0.0105058
ENSOARG00000005446	NAIP	5021	1.28856	11.1293	-3.11053	0.0123194
ENSOARG00000015153	-	2003	0.625869	5.08682	-3.02283	0.0152604
ENSOARG00000018173	-	540	3.16836	55.5059	-4.13083	0.00094821
ENSOARG00000018783	RPP40	4829	1.03581	0.153747	2.75213	0.0422353
ENSOARG00000018074	FAM26F	939	0.13155	1.46497	-3.47718	0.0401925
ENSOARG00000019783	SCG2	1842	1.72192	0.0231405	6.21746	0.000226413
ENSOARG00000020495	RTP4	4960	2.62016	16.3341	-2.64016	0.0357464
ENSOARG00000020040	-	405	6.40448	72.9236	-3.50923	0.00487522
XLOC_4620677	-	1455	8.05994	0.0305487	8.04351	1.77E-06
ENSOARG00000000485	SOD3	735	0.0928845	4.00376	-5.42977	0.00128087
ENSOARG00000006871	GPLD1	2547	3.8462	26.1937	-2.76772	0.0262965
ENSOARG00000015866	-	938	0.198457	2.89417	-3.86626	0.0119674
ENSOARG00000019099	-	1720	0.90087	7.26625	-3.01182	0.0150577
ENSOARG00000009770	DPYSL2	4268	0.752158	0.072051	3.38395	0.0252436
XLOC_4995698	-	908	0.825932	0.0557965	3.88778	0.0246005
ENSOARG00000015873	KIF20A	2688	0.0751225	2.51047	-5.06257	0.000416659
ENSOARG00000004141	DNAH17	13352	0.0350628	0.256413	-2.87046	0.0276837
ENSOARG00000013122	NLGN2	2154	0.0240205	0.290344	-3.59543	0.0360556
XLOC_4660301	-	1014	1.5487	9.9851	-2.68872	0.0466649
ENSOARG00000004104	SPC25	681	0.521296	4.84065	-3.21503	0.0205444
ENSOARG00000000932	ZNF862	5074	0.00620703	1.38412	-7.80085	0.0162098
ENSOARG00000002108	-	1344	0.0832896	0.87491	-3.39293	0.0455084
ENSOARG00000009425	GRIA1	2851	0.281731	2.08401	-2.88697	0.0229964
ENSOARG00000002109	-	417	12.9827	178.425	-3.78066	0.00209369
XLOC_356069	-	2849	0.153381	1.22193	-2.99397	0.0435203
ENSOARG00000004318	CDK1	5933	0.0969076	2.78256	-4.84366	0.000166078
XLOC_3126211	-	3961	0.179111	1.68438	-3.23329	0.0124932
ENSOARG00000020542	CDC20	1515	0.0360593	1.48431	-5.36328	0.00146898
XLOC_1804502	-	724	0.759965	10.3557	-3.76835	0.00460113
ENSOARG00000003788	MUC1	1767	0.210758	1.55403	-2.88235	0.0327848
XLOC_1262406	-	8987	0.226221	1.40492	-2.63468	0.0368336
ENSOARG00000002631	-	1720	0.27958	0.025056	3.48003	0.0465784
ENSOARG00000006366	FCGBP	7639	0.229904	1.27378	-2.47001	0.0451468
ENSOARG00000025182	-	471	1.99039	29.3964	-3.88451	0.00282328

ENSOARG00000020651	PTPRO	3667	0.0126763	0.194384	-3.93871	0.0268494
ENSOARG00000015016	CMTM8	375	0.67939	11.1395	-4.0353	0.0168423
ENSOARG00000011059	CENPE	6807	0.0280034	1.10885	-5.30731	0.000213279
XLOC_1132320	-	1981	0.60438	4.66328	-2.94782	0.0331029
XLOC_113897	-	1507	0.163577	2.33497	-3.83537	0.00699134
XLOC_3341589	-	2135	0.0242613	0.293264	-3.59547	0.0360532
XLOC_2078048	-	789	0.0837477	1.26946	-3.92202	0.0274412
ENSOARG00000009241	CCL8	333	1.46013	21.2542	-3.86358	0.0122782
XLOC_4926674	-	577	0.136438	2.00914	-3.88026	0.0230792
XLOC_4926211	-	371	0.349898	6.48118	-4.21125	0.0133074
ENSOARG00000004645	TSPYL5	973	0.250896	1.93066	-2.94393	0.0407664
XLOC_2362870	-	3348	0.0295848	0.297635	-3.33062	0.0497189
ENSOARG00000005282	ORC1	2592	0.0586416	0.645429	-3.46026	0.0250601
ENSOARG00000009490	-	4526	0.321894	2.64033	-3.03606	0.0141397
ENSOARG00000001404	-	3762	1.69697	0.021007	6.33594	0.000171022
XLOC_1479189	-	12014	0.0312379	1.30545	-5.38511	4.74E-05
ENSOARG00000016806	ASPA	1017	1.40219	8.33577	-2.57163	0.03951
ENSOARG00000012961	IGF2BP3	1740	0.0306503	0.568573	-4.21337	0.0131628
ENSOARG00000008681	SPSB1	1366	0.653298	4.61673	-2.82106	0.026348
XLOC_3544978	-	703	2.68123	0.242502	3.46682	0.0256155
XLOC_2810973	-	4389	0.0221618	3.37835	-7.2521	1.61E-05
ENSOARG00000019357	-	5339	0.120755	0.935392	-2.95348	0.0212018
ENSOARG00000013318	CHST10	1155	0.452225	2.76301	-2.61113	0.047636
ENSOARG00000018308	-	393	3.00149	24.1026	-3.00544	0.0211514
ENSOARG00000003867	CYP11A1	2430	0.86072	0		0.0496836
ENSOARG00000013358	MORN3	723	1.2375	0.0774437	3.99814	0.0203033
ENSOARG00000013352	SLC28A1	1972	0.34508	5.86291	-4.08661	0.00139483
ENSOARG00000013343	PIEZO1	7232	0.992871	6.68637	-2.75155	0.0261691
ENSOARG00000013007	-	408	4.64962	35.562	-2.93515	0.0203358
XLOC_3139420	-	2343	0.0218617	0.317008	-3.85804	0.0238766
XLOC_443297	-	399	5.77804	0.241291	4.58173	0.00716967
ENSOARG00000014451	-	704	9.41361	524.757	-5.80076	3.28E-05
XLOC_1206211	-	4215	0.0578298	0.455928	-2.97892	0.0319405
XLOC_1184062	-	3383	0.0877661	1.41271	-4.00866	0.00329154
ENSOARG00000019316	MYH6	5875	1.61055	0.0968475	4.05569	0.00267969
ENSOARG00000014636	CMPK2	3681	3.77974	32.2387	-3.09244	0.0281168
ENSOARG00000015392	SHCBP1	2022	0.0515996	1.62201	-4.97428	0.00317945
ENSOARG00000016714	CCDC73	3805	0.0128961	0.363181	-4.81568	0.00437894
ENSOARG00000013806	-	2460	2.96146	21.6183	-2.86788	0.0205858
ENSOARG00000004016	NCAPG	3093	0.145031	4.42339	-4.93072	0.000172399
ENSOARG00000000215	-	707	2.31126	0.129202	4.16098	0.0432391
ENSOARG00000006423	ITGAL	3495	2.1469	12.1283	-2.49805	0.0426621
ENSOARG00000018955	NFAM1	2507	0.12618	0.914636	-2.85772	0.0349772
XLOC_002094	-	2431	0.128587	1.13845	-3.14626	0.0435163

ENSOARG00000005084	MMP3	2269	0.090636	0.985815	-3.44316	0.0165058
XLOC_173969	-	1544	0.740405	0.0569077	3.70162	0.0296703
ENSOARG00000004495	HELLS	5344	0.270227	1.78202	-2.72127	0.0280049
ENSOARG00000014321	TOP2A	6053	0.48472	7.64931	-3.98011	0.00129276
ENSOARG00000002881	OAS1	4633	0.345359	7.58467	-4.45692	0.00031281
ENSOARG00000011541	MELK	4956	0.0194973	0.478286	-4.61653	0.00617905
ENSOARG00000001799	AOC1	1439	9.50958	84.7025	-3.15495	0.0136452
ENSOARG00000010431	C5orf42	9652	0.459158	2.52844	-2.46118	0.0448609
ENSOARG00000014562	MKI67	10857	0.0129908	1.41996	-6.77221	1.06E-05
ENSOARG00000020009	POLQ	8220	0.148997	1.25506	-3.07441	0.0133915
ENSOARG00000008862	-	1059	0.392961	3.0439	-2.95346	0.0287206
ENSOARG00000015177	IFIT1	1736	2.05906	160.446	-6.28396	6.67E-06
ENSOARG00000007578	SCIN	2142	0.217548	4.81125	-4.46701	0.000674277
ENSOARG00000006197	RGS3	3467	0.0129729	1.50154	-6.85479	0.0043586
XLOC_1309922	-	2301	0.0446144	0.736833	-4.04576	0.0165107
ENSOARG00000015333	RRM2	2423	0.273786	5.15716	-4.23545	0.000922548
ENSOARG00000012682	HRC	2193	1.20058	0.189685	2.66205	0.0410871
ENSOARG00000017187	KRT7	1360	1.97039	11.5045	-2.54565	0.0382252
ENSOARG00000003430	PDZK1IP1	2398	13.3579	89.8744	-2.75022	0.0422294
ENSOARG00000001222	-	2066	0.100712	0.73052	-2.85868	0.0471088
ENSOARG00000020074	CPNE8	1740	0.796908	5.31492	-2.73756	0.0277088
ENSOARG00000002590	SPP1	988	0.860525	416.157	-8.91769	1.73E-09
ENSOARG00000017398	-	833	0.854804	79.3515	-6.53652	5.23E-07
ENSOARG00000000122	GGT6	1473	0.0372877	0.933117	-4.64529	0.00604624
ENSOARG00000016471	FAM49A	1134	0.359993	2.41243	-2.74445	0.0420854
ENSOARG00000012286	ADCY10	4848	0.0598628	0.593833	-3.31032	0.0152297
XLOC_506661	-	1185	0.0748508	1.04517	-3.80358	0.0418351
ENSOARG00000004209	P2RY13	1068	1.16607	6.4902	-2.47661	0.0484926
ENSOARG00000020751	TMEM212	1471	0.199187	1.53763	-2.94852	0.0339261
XLOC_654538	-	2324	0.0446122	0.467021	-3.38798	0.0440765
ENSOARG00000008171	SUCLA2	1557	2.24874	0.164042	3.77698	0.0167194
ENSOARG00000002744	-	4831	51.6727	6.74163	2.93823	0.0299954
ENSOARG00000015826	MASTL	2652	0.114366	1.01307	-3.14701	0.0210317
ENSOARG00000007513	SYNPO	2625	0.269874	1.5679	-2.53848	0.0470407
XLOC_4451035	-	5553	0.83981	0.114708	2.87209	0.0429294
ENSOARG00000018647	KIF23	2880	0.104488	0.939396	-3.16839	0.020164
XLOC_5197822	-	3474	0.0284322	0.84349	-4.89078	0.00400884
ENSOARG00000003454	-	927	0.0669241	1.24751	-4.22038	0.0130114
XLOC_3979937	-	1210	0.0951752	1.11224	-3.54674	0.0357365
XLOC_1210866	-	522	0.619396	35.033	-5.82171	0.000368135
ENSOARG00000020402	-	1198	3.5034	0.038797	6.49667	0.000116788
ENSOARG00000007233	ISG15	501	26.0728	383.99	-3.88045	0.00242732
XLOC_2954905	-	1113	0.526647	0.0426012	3.62787	0.0367707
ENSOARG00000007230	ERICH4	516	0.333188	12.5901	-5.23981	0.001891

ENSOARG00000008058	SDR9C7	942	1.57186	0.0530702	4.88842	0.00399255
XLOC_037421	-	2009	0.0259894	0.520803	-4.32474	0.0108613
XLOC_3539368	-	701	0.89762	0.0811895	3.46674	0.047422
XLOC_1111173	-	4082	0.228099	2.35722	-3.36935	0.00736253
ENSOARG00000009436	SLITRK4	2514	0.545878	17.8794	-5.03358	5.46E-05
ENSOARG00000012484	PRUNE2	9264	0.300586	2.33829	-2.9596	0.0157706
XLOC_1262406	-	6529	0.277579	2.1233	-2.93534	0.0202976
ENSOARG00000009442	AQP3	888	0.212856	16.2825	-6.25729	4.76E-05
XLOC_1733115	-	1192	2.75277	0.312344	3.13967	0.018253
ENSOARG00000009910	ARHGAP15	714	3.783	53.2011	-3.81386	0.00192273
ENSOARG00000019272	-	1073	4.02914	39.526	-3.29426	0.00738747
ENSOARG00000019517	CHI3L2	4142	0.0117823	0.407597	-5.11245	0.00244522
ENSOARG00000007814	SYK	5466	0.835742	4.74711	-2.50592	0.0411338
ENSOARG00000016166	CDC25C	1443	0.0382176	0.447678	-3.55015	0.0387835
XLOC_1503183	-	1887	0.0279146	0.392669	-3.81422	0.0256678
ENSOARG00000020986	USP50	1137	0.0512555	0.538896	-3.39423	0.0488202
ENSOARG00000009196	-	393	1.50075	18.3275	-3.61026	0.0093127
ENSOARG00000020241	-	458	4.63981	27.1592	-2.5493	0.041935
ENSOARG00000009199	RBM43	5950	0.273754	1.89051	-2.78783	0.0239246
ENSOARG00000010688	TFF2	396	112.468	5.41379	4.37674	0.000454194
ENSOARG00000005289	COX7A1	234	0	143.024		0.0491992
ENSOARG00000013861	MPDZ	6286	0.0684518	1.21393	-4.14845	0.00497083
ENSOARG00000008703	GZMM	1001	0.120832	1.3209	-3.45045	0.0418578
XLOC_1801892	-	4230	1.17625	0.14008	3.06987	0.0252999
XLOC_3216019	-	980	0.124261	1.25805	-3.33975	0.0490963
XLOC_1132400	-	3296	7.74772	1.11397	2.79806	0.0225666
ENSOARG00000015349	MS4A8	890	1.06101	9.23439	-3.12158	0.0141127
ENSOARG00000019083	KIAA1324	4804	0.110807	0.680588	-2.61874	0.0440718
ENSOARG00000008702	-	1575	0.482141	4.94667	-3.35893	0.00843913
ENSOARG00000016747	ABCC11	4203	0.371231	4.91796	-3.72767	0.00251876
ENSOARG00000016046	RAB2A	5408	0.0044299	0.959804	-7.75932	0.0106596
ENSOARG00000001001	-	3585	0.0274887	0.807404	-4.87638	0.00382943
ENSOARG00000006991	-	6214	0.100045	0.645636	-2.69007	0.0362173
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ENSOARG00000008807	E2F8	3306	0	0.482753		0.0498023
ENSOARG00000008812	HAPLN4	943	0.0654008	1.00689	-3.94445	0.0207976
XLOC_2473473	-	521	0.252194	3.80925	-3.9169	0.0345393
ENSOARG00000014063	CDC6	1890	0.0835915	2.13416	-4.67417	0.00245724
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ENSOARG00000005759	-	1284	0.616536	5.01707	-3.02459	0.0178452
ENSOARG00000005764	STMN1	1025	0.644257	5.35786	-3.05595	0.0187742
ENSOARG00000014486	-	1655	3.21666	17.3786	-2.43368	0.0473152
ENSOARG00000014490	-	1250	1.36562	26.3397	-4.2696	0.000551302

ENSOARG00000008368	CENPF	9824	0.067158	2.0306	-4.9182	0.000133517
XLOC_844658	-	6246	0.17606	1.74185	-3.30648	0.00800715
ENSOARG00000007404	-	3975	0	0.386238		0.049973
ENSOARG00000014711	COL26A1	1434	0.0385056	0.963753	-4.64552	0.00604368
ENSOARG00000004789	HTR4	1357	0.740882	16.2003	-4.45063	0.00047647
ENSOARG00000018764	-	225	453.923	34.1419	3.73283	0.00463326
ENSOARG00000007427	EPSTI1	741	10.1867	67.3132	-2.7242	0.0268029
XLOC_4918832	-	2031	0.357994	3.08969	-3.10945	0.02751
ENSOARG00000008181	FABP7	399	0.288902	4.10195	-3.82766	0.0251927
XLOC_3090572	-	544	0.15125	1.85978	-3.62013	0.0347977
XLOC_1706431	-	1152	0.100825	1.01918	-3.33748	0.0492502
ENSOARG00000012367	ITGB2	2256	1.8016	11.006	-2.61093	0.0332651
ENSOARG00000002926	TMEM72	834	0.154806	3.51794	-4.5062	0.00752436
ENSOARG00000011352	MST1R	4131	0.165419	1.31181	-2.98736	0.0193115
XLOC_352549	-	591	0.130995	1.7134	-3.70928	0.0303789
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XLOC_3300101	-	8531	0.00554511	0.0891477	-4.00691	0.0186971
XLOC_3384566	-	5637	2.22772	0.164891	3.75598	0.0043382
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ENSOARG00000003013	PGLYRP2	1809	1.55302	15.548	-3.32358	0.00672843
ENSOARG00000020028	-	393	3.30164	27.1153	-3.03785	0.0195035
ENSOARG00000016702	GEN1	3057	0.146885	0.945932	-2.68705	0.0415565
ENSOARG00000019121	ABHD1	1263	25.7567	4.28162	2.58872	0.0401879
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XLOC_3164104	-	1597	0.0677606	2.43304	-5.16617	0.00219011
XLOC_4882712	-	5202	0.0377795	0.831291	-4.45968	0.00660858
XLOC_4882712	-	4851	0.0505047	0.613061	-3.60154	0.0233666
XLOC_1534378	-	1881	0.242811	5.63567	-4.53668	0.000706522
XLOC_845097	-	6589	0.253443	1.46717	-2.53331	0.0401868
ENSOARG00000000173	GML	4466	0.141427	0.00875121	4.01443	0.0197981
ENSOARG00000012858	NSUN7	2255	0.0456329	0.974302	-4.41622	0.00881553
ENSOARG00000004386	FLRT3	1986	0.526635	8.06561	-3.93691	0.00166346
ENSOARG00000007151	TTK	4177	0.140131	1.76619	-3.65579	0.0046098
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ENSOARG00000010964	ISG20	513	0.336849	15.0842	-5.48479	0.00114448
ENSOARG00000000627	CIT	6169	0.0482679	0.456313	-3.24089	0.0176758
ENSOARG00000000647	-	3168	0.141316	3.81693	-4.75541	0.000292624
XLOC_4710193	-	1043	7.57699	0.694646	3.44727	0.0160828
XLOC_4710193	-	1928	4.62116	0.54975	3.07141	0.025339
XLOC_2078048	-	4714	0.0513798	0.725137	-3.81898	0.00595803
ENSOARG00000014894	ASAP2	2883	0.302558	1.97639	-2.70759	0.0438618

ENSOARG00000000407	-	1875	0	0.952212		0.0496103
XLOC_2375374	-	1389	0.0740739	0.933052	-3.65492	0.0303306
ENSOARG00000006830	IL27RA	1965	1.49253	9.45323	-2.66305	0.0299399
ENSOARG00000001989	-	1596	1.35621	7.38659	-2.44533	0.0470437
XLOC_5119031	-	6571	0.0228228	0.366135	-4.00383	0.00741792
XLOC_2859902	-	1595	0.180881	1.21217	-2.74448	0.0493158
ENSOARG00000006302	B4GALT6	1387	0.240501	1.58611	-2.72138	0.0460771
XLOC_4928815	-	621	0.362039	3.64513	-3.33175	0.0311396
XLOC_774276	-	1333	1.49968	10.7897	-2.84693	0.02485
XLOC_1023153	-	1182	0.0976139	1.77571	-4.18517	0.0130928
ENSOARG00000010352	CCND2	876	0.578328	4.39735	-2.92668	0.0278373
ENSOARG00000002568	NATD1	267	1.23612	14.7159	-3.57348	0.0380602
ENSOARG00000002569	-	1446	0.30498	2.98546	-3.29116	0.0134038
ENSOARG00000018331	ICOS	630	0.117894	1.25069	-3.40716	0.0479665
ENSOARG00000006069	-	7500	0.24697	1.98546	-3.00706	0.014532
ENSOARG00000010353	HNMT	933	1.65862	9.03263	-2.44517	0.0499554
ENSOARG00000020743	KIAA0101	475	0.391306	12.1018	-4.95078	0.00332603
ENSOARG00000011076	CD40LG	786	0.0842079	1.23131	-3.87009	0.0234413
XLOC_4269578	-	1204	0.155451	1.38053	-3.15069	0.0492321
ENSOARG00000013159	IL1R2	1197	1.87363	13.3602	-2.83403	0.0213295
ENSOARG00000001102	KIF2C	5223	0.0276789	0.556508	-4.32955	0.00501938
ENSOARG00000020976	GLDN	1656	0.292217	3.32657	-3.50892	0.00776599
XLOC_1107210	-	5806	0.074339	0.670846	-3.17379	0.0161122
ENSOARG00000005785	MYO16	5561	0.0172804	0.215395	-3.63977	0.0314741
ENSOARG00000003709	KLHL40	1750	0.304473	0.0245562	3.63216	0.0365488

MliverW and DliverW indicate liver of Mongolian sheep and of Dorper sheep sampled in winter, respectively.

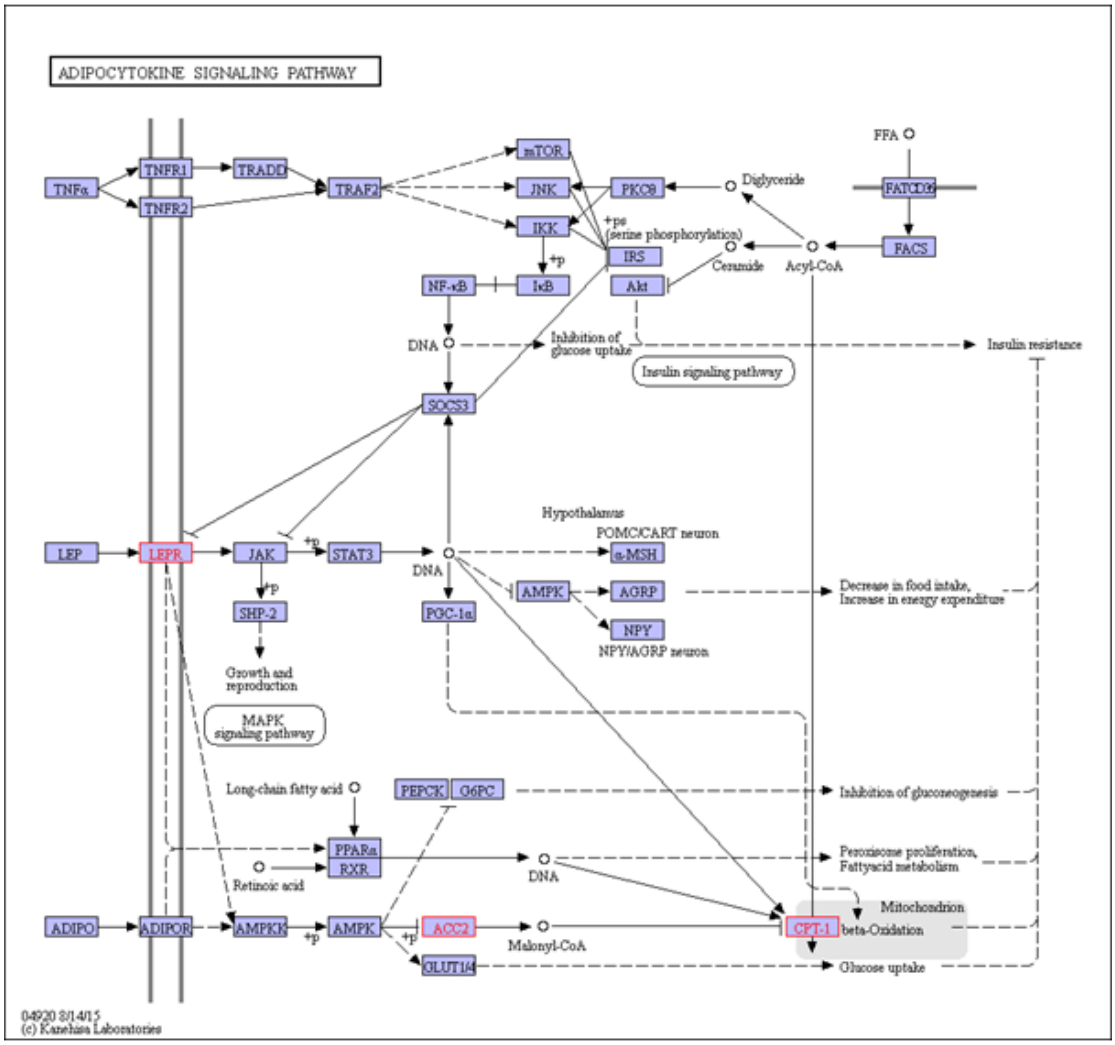


Figure S1. Adipocytokine signaling pathway with candidate genes in adipose tissue.

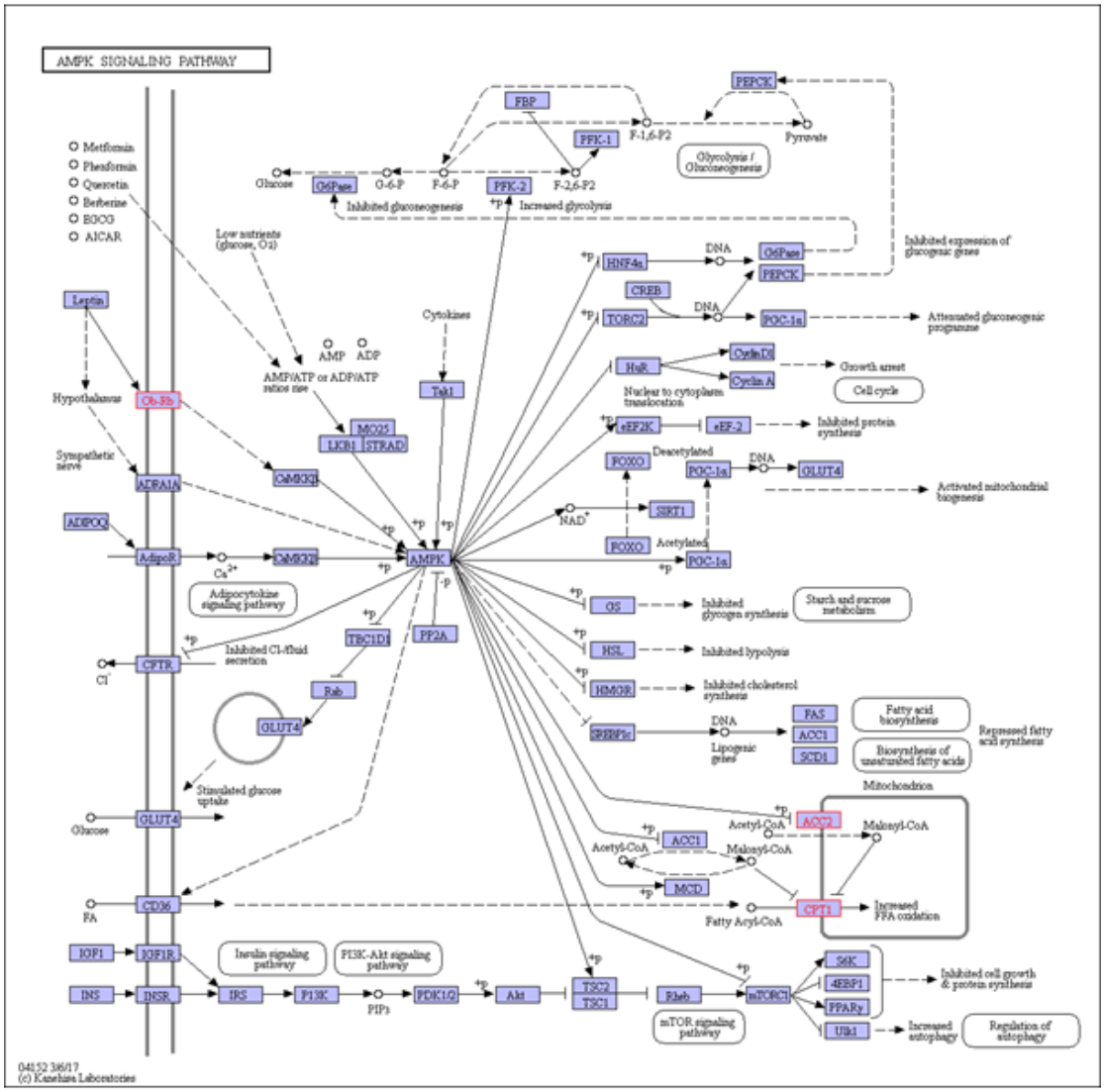


Figure S2. AMPK signaling pathway with candidate genes in adipose tissue.

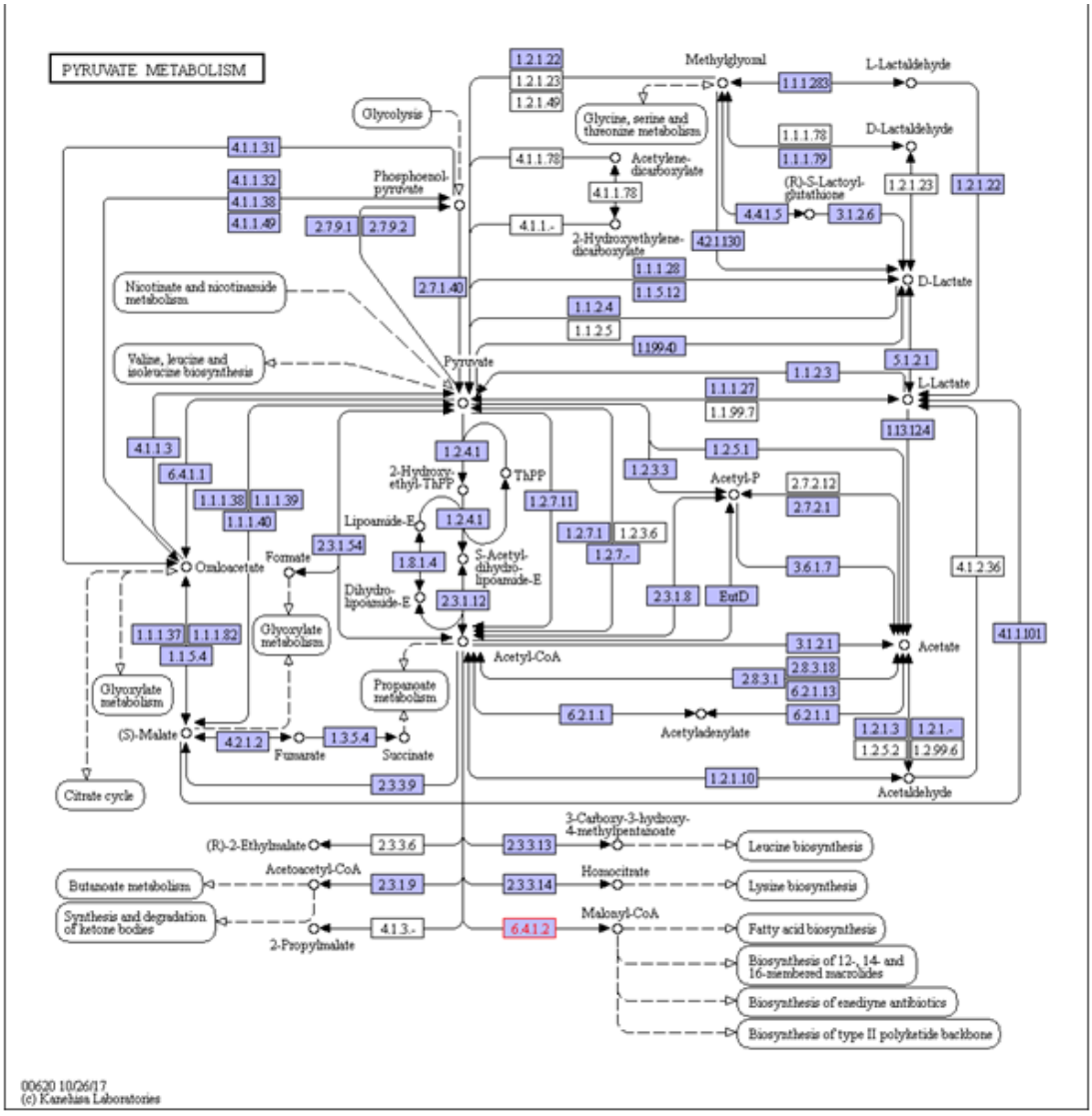


Figure S3. Pyruvate metabolism with candidate gene in adipose tissue.

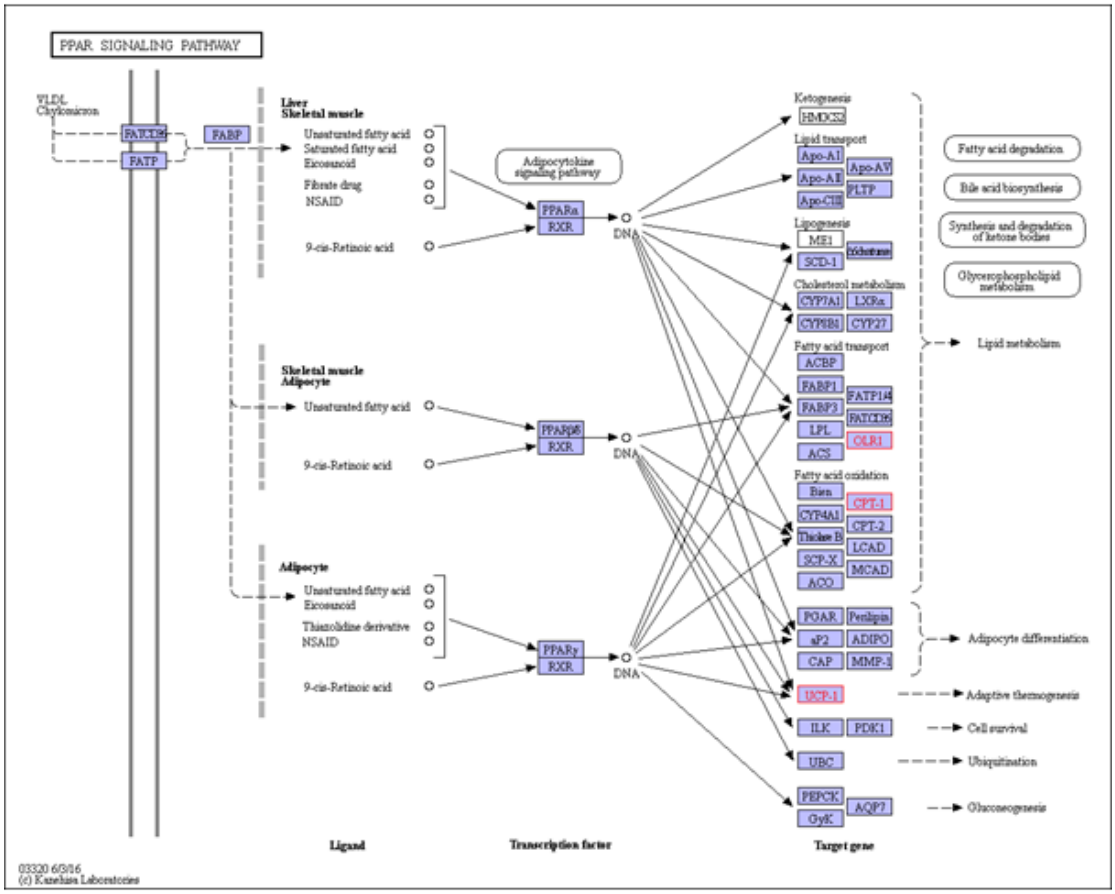


Figure S4. PPAR signaling pathway with candidate genes in adipose tissue.

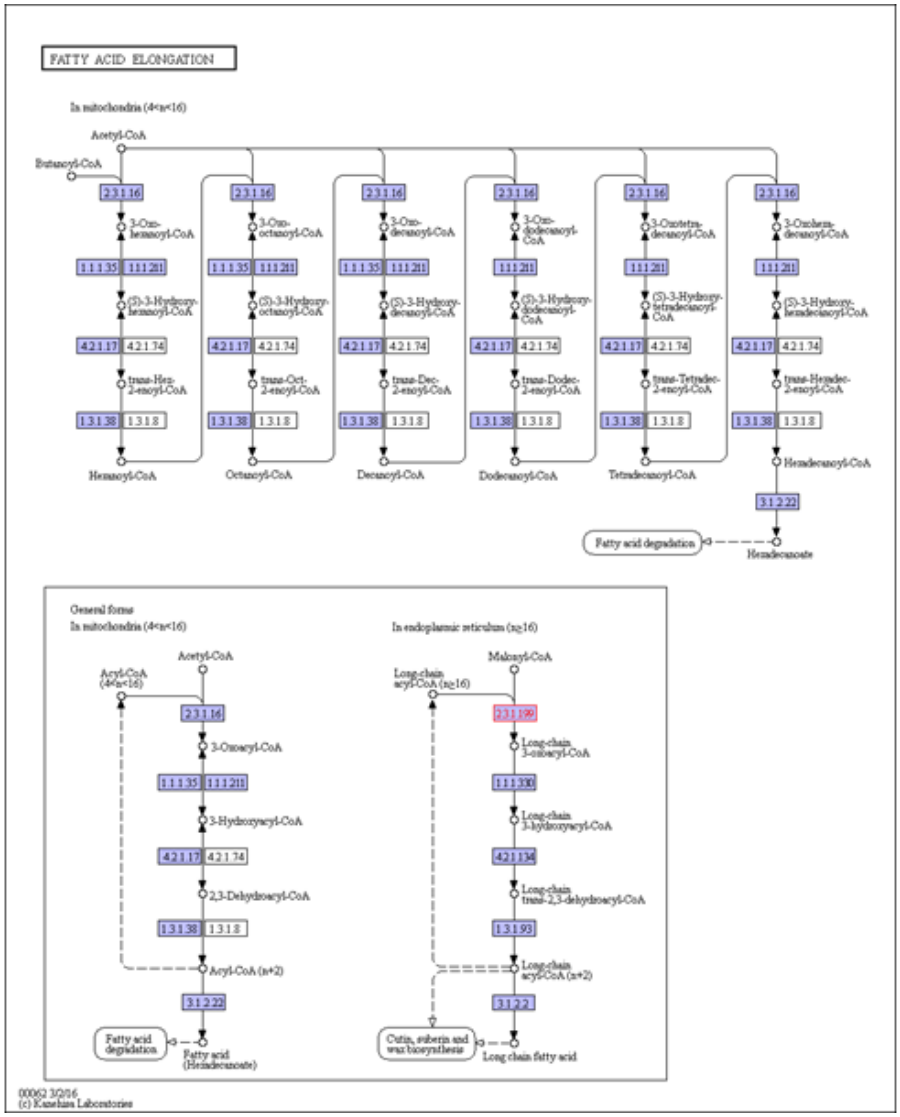


Figure S5. Fatty acid elongation with candidate gene in adipose tissue.

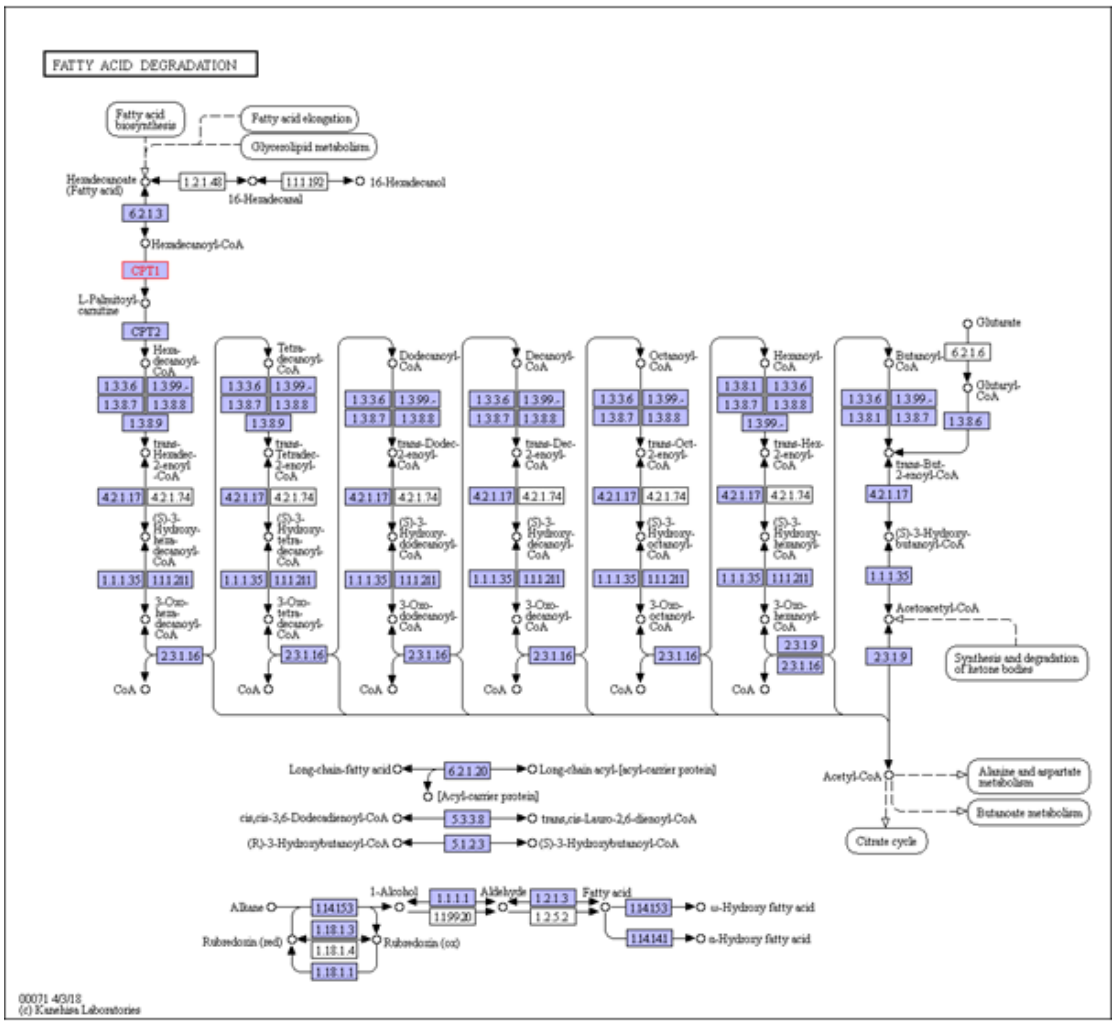


Figure S6. Fatty acid degradation with candidate gene in adipose tissue.

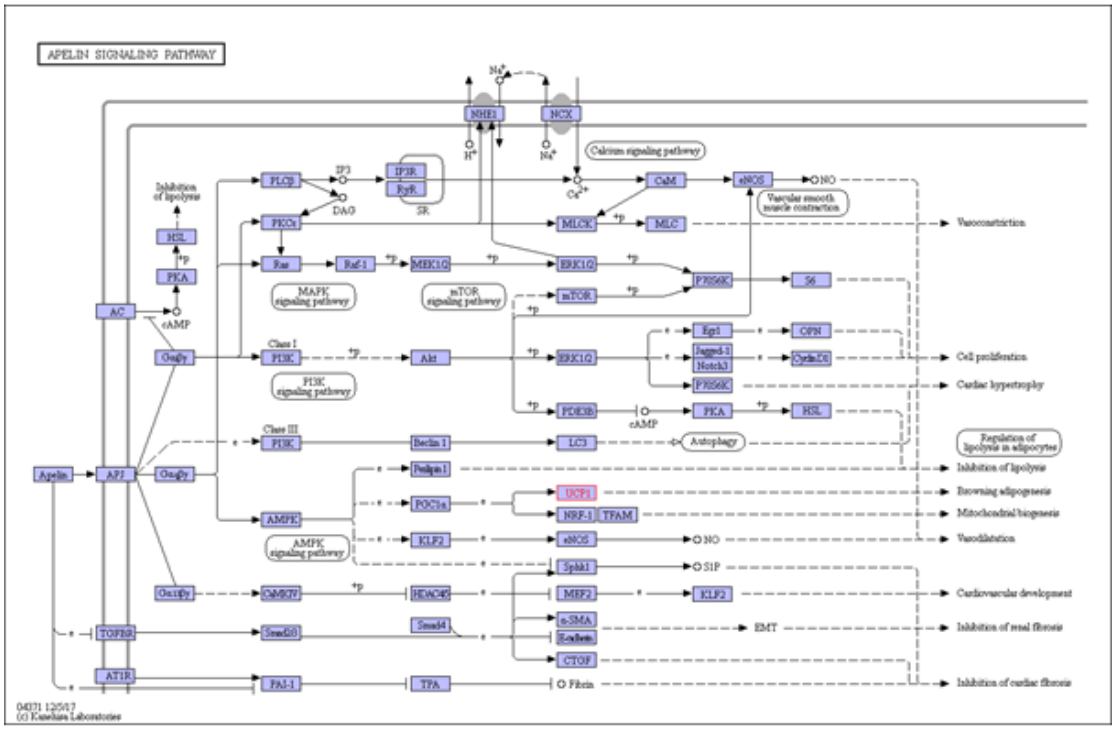


Figure S7. Apelin signaling pathway with candidate gene in adipose tissue.

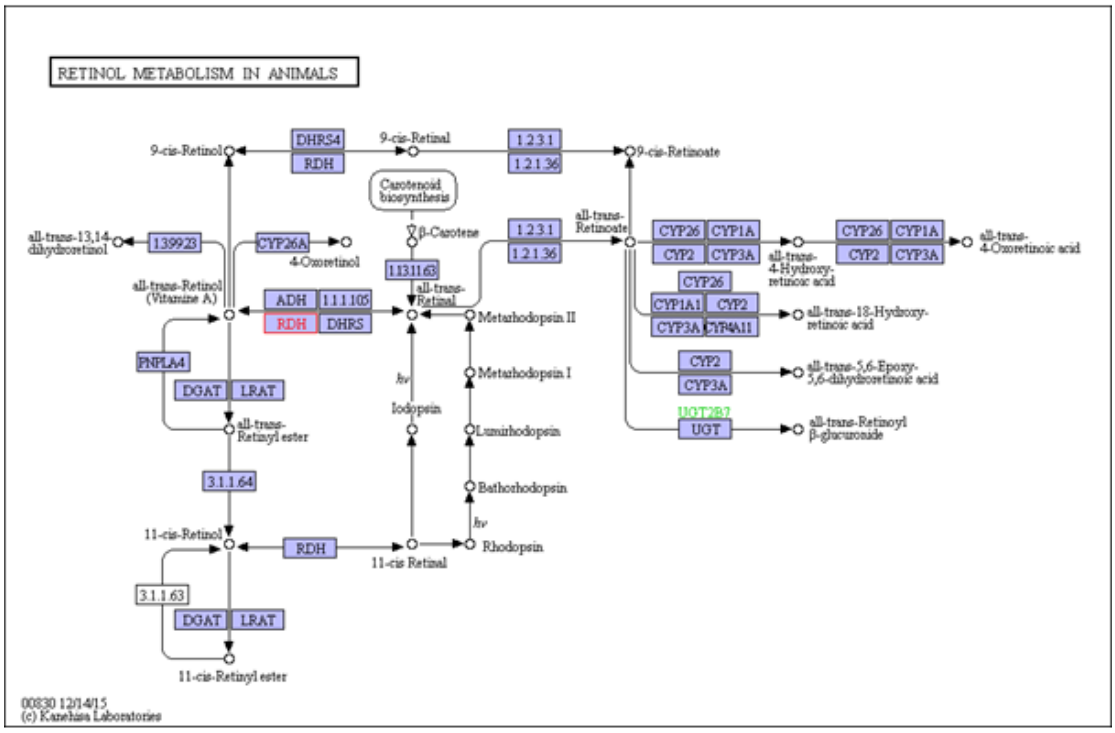


Figure S8. Retinol metabolism with candidate gene in adipose tissue.

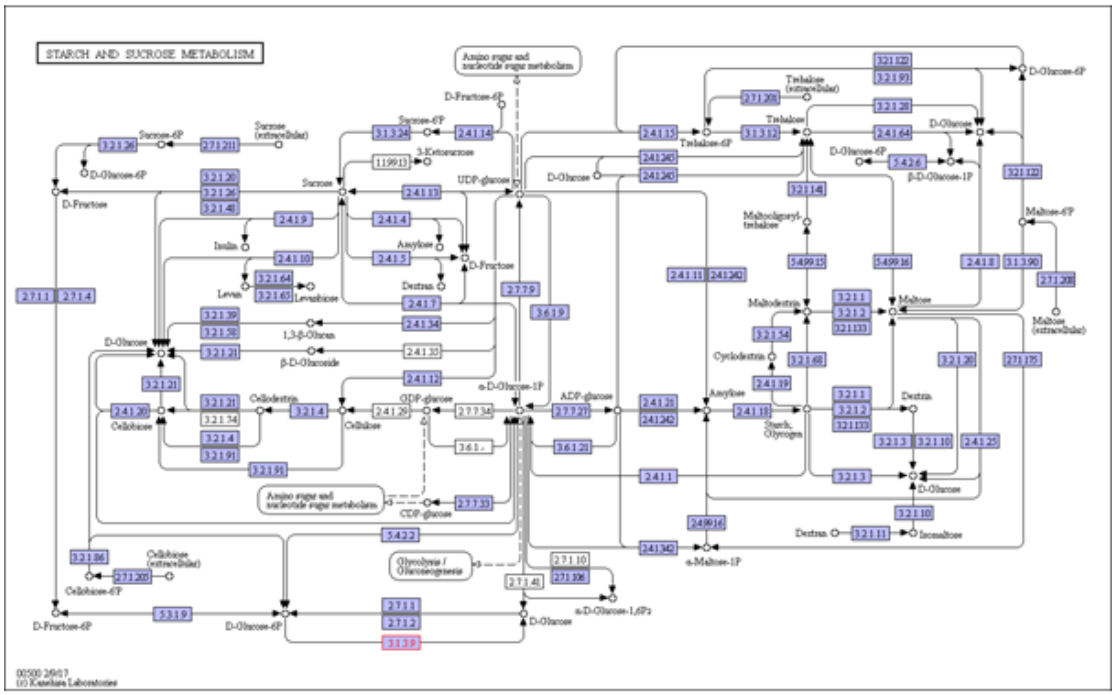


Figure S9. Starch and sucrose metabolism with candidate gene in skeletal muscle.

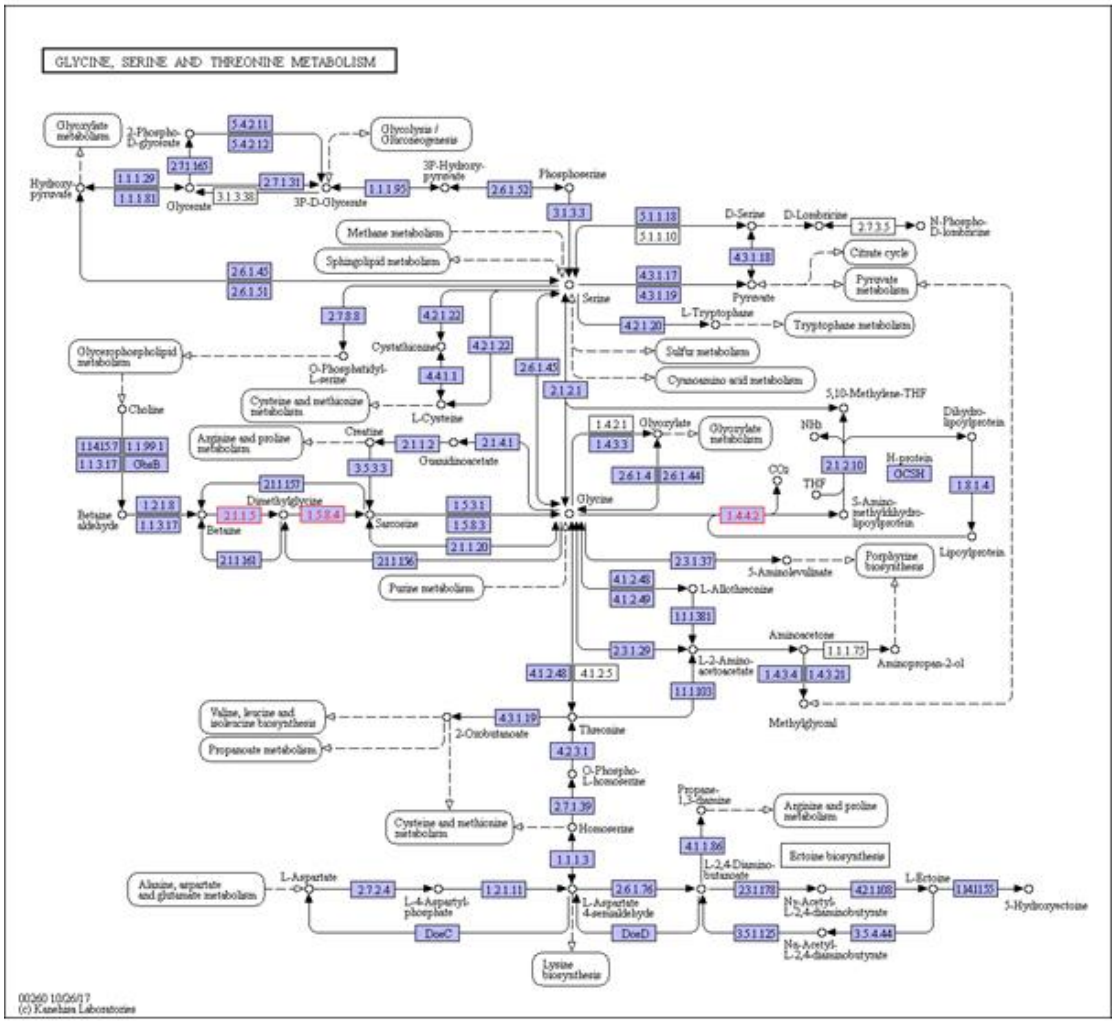


Figure S10. Glycine, serine and threonine metabolism with candidate genes in skeletal muscle.

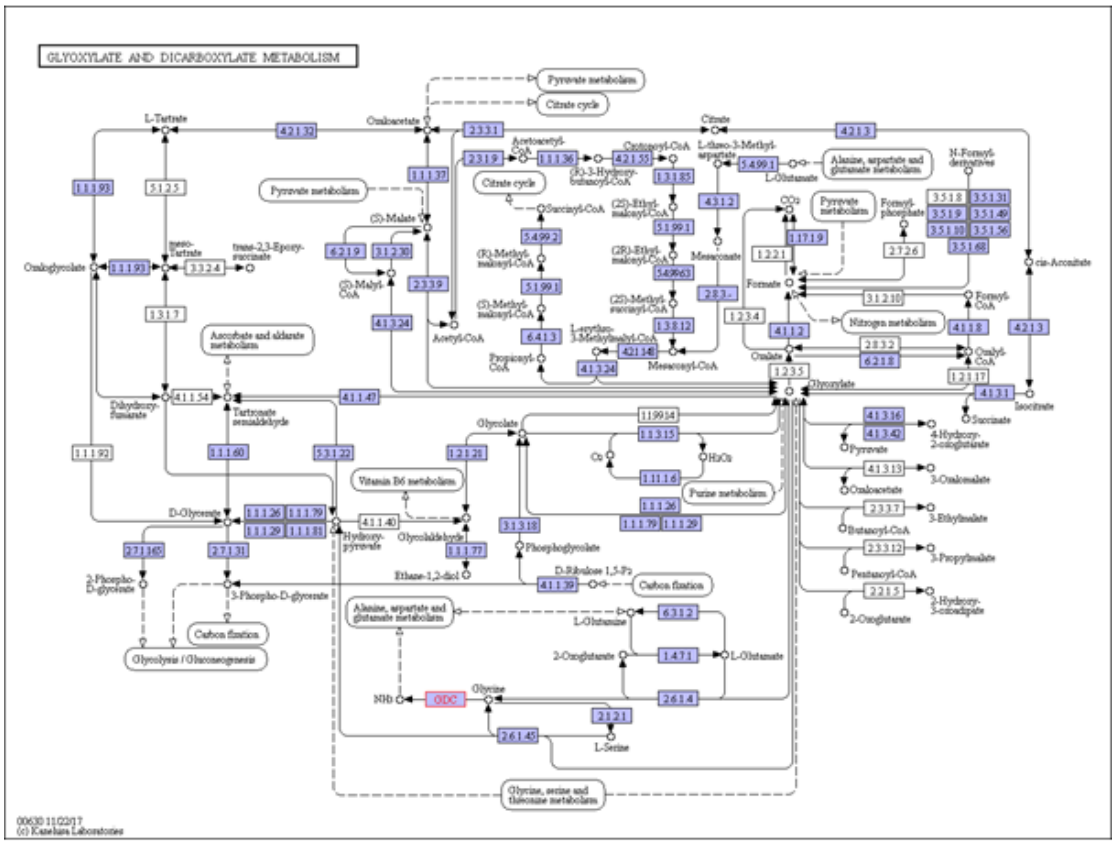


Figure S11. Glyoxylate and dicarboxylate metabolism with candidate gene in skeletal muscle.

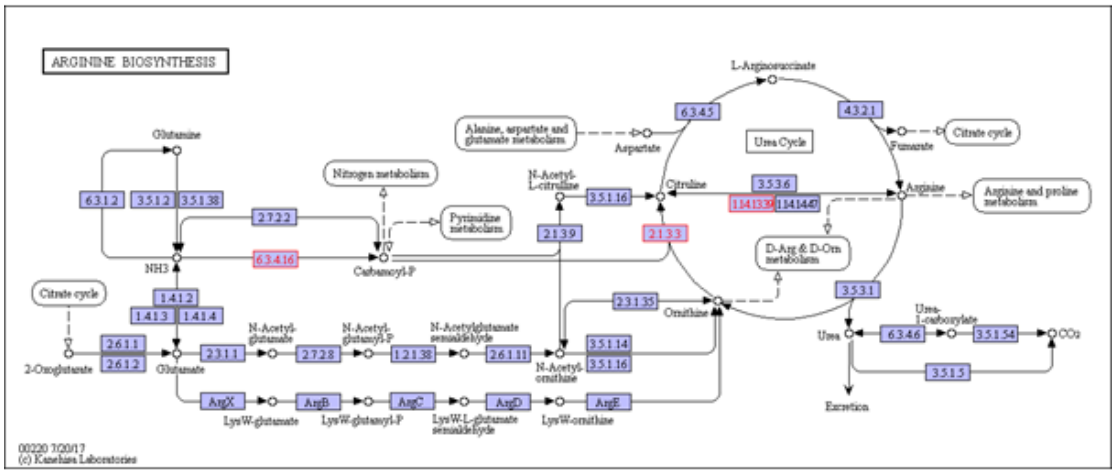


Figure S12. Arginine biosynthesis with candidate genes in skeletal muscle.

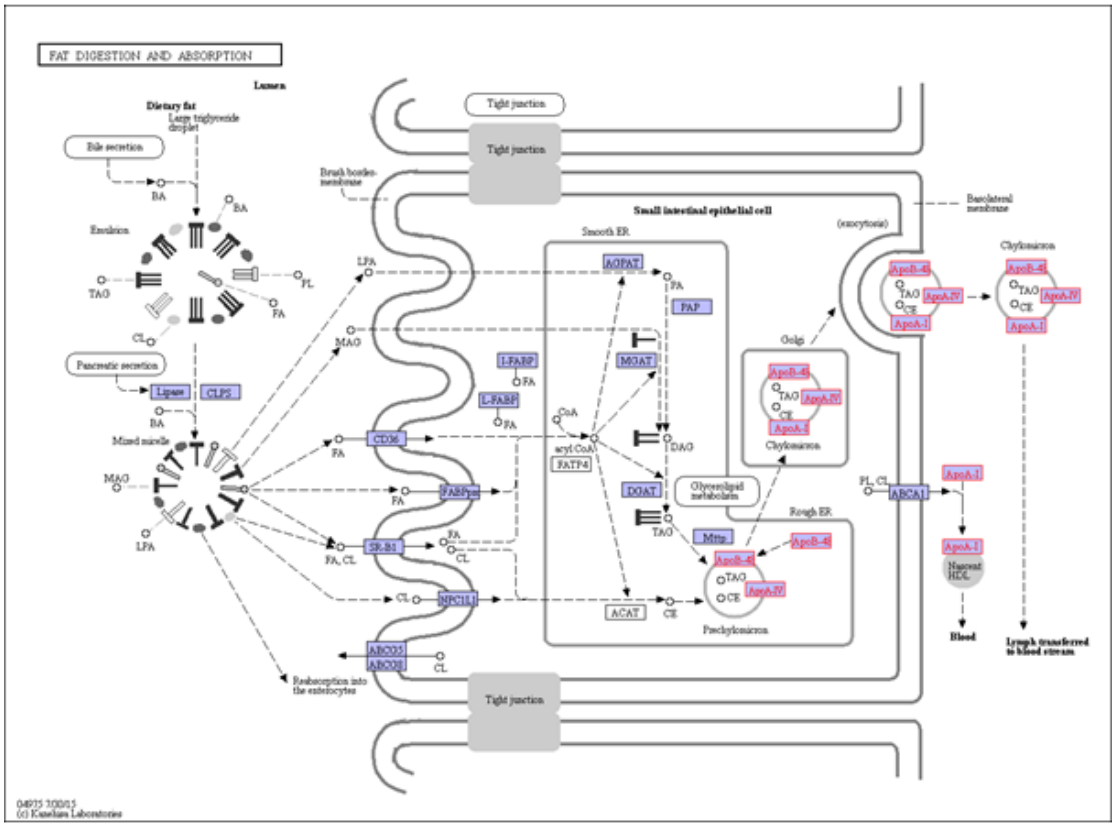


Figure S13. Fat digestion and absorption with candidate genes in skeletal muscle.

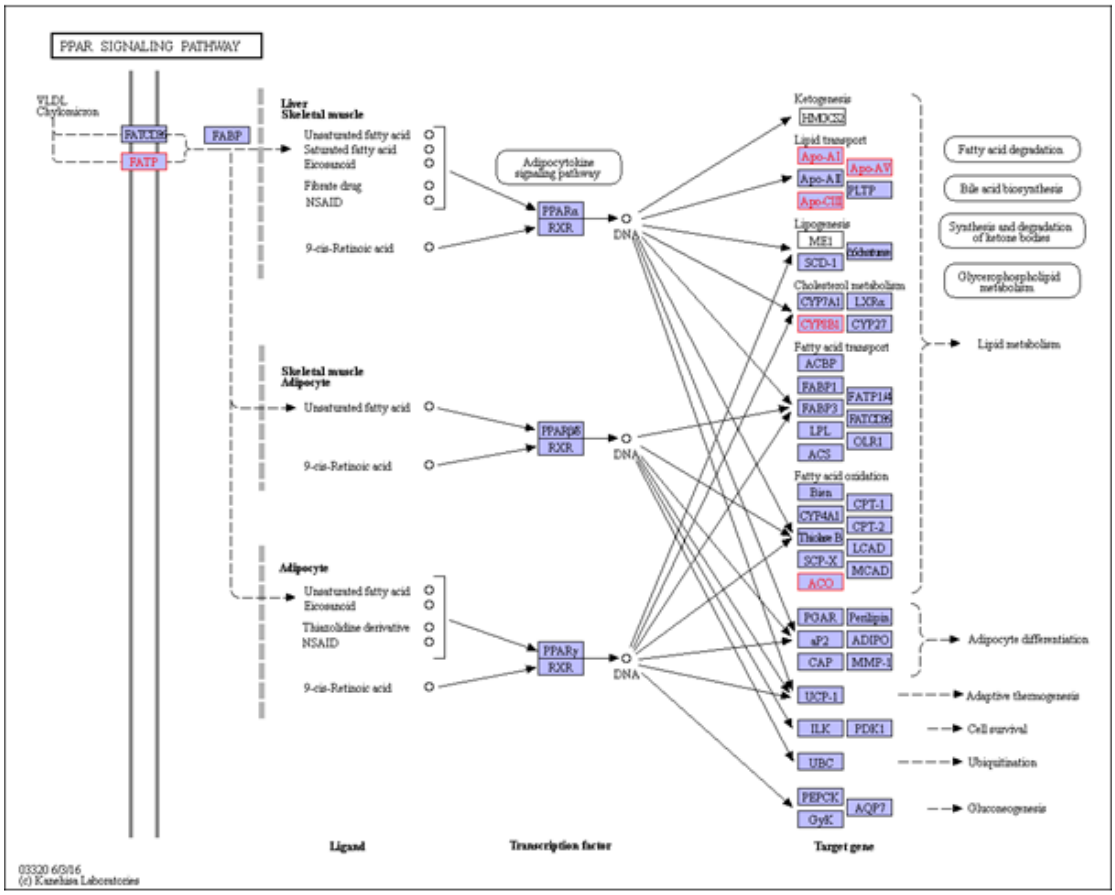


Figure S14. PPAR signaling pathway with candidate genes in skeletal muscle.

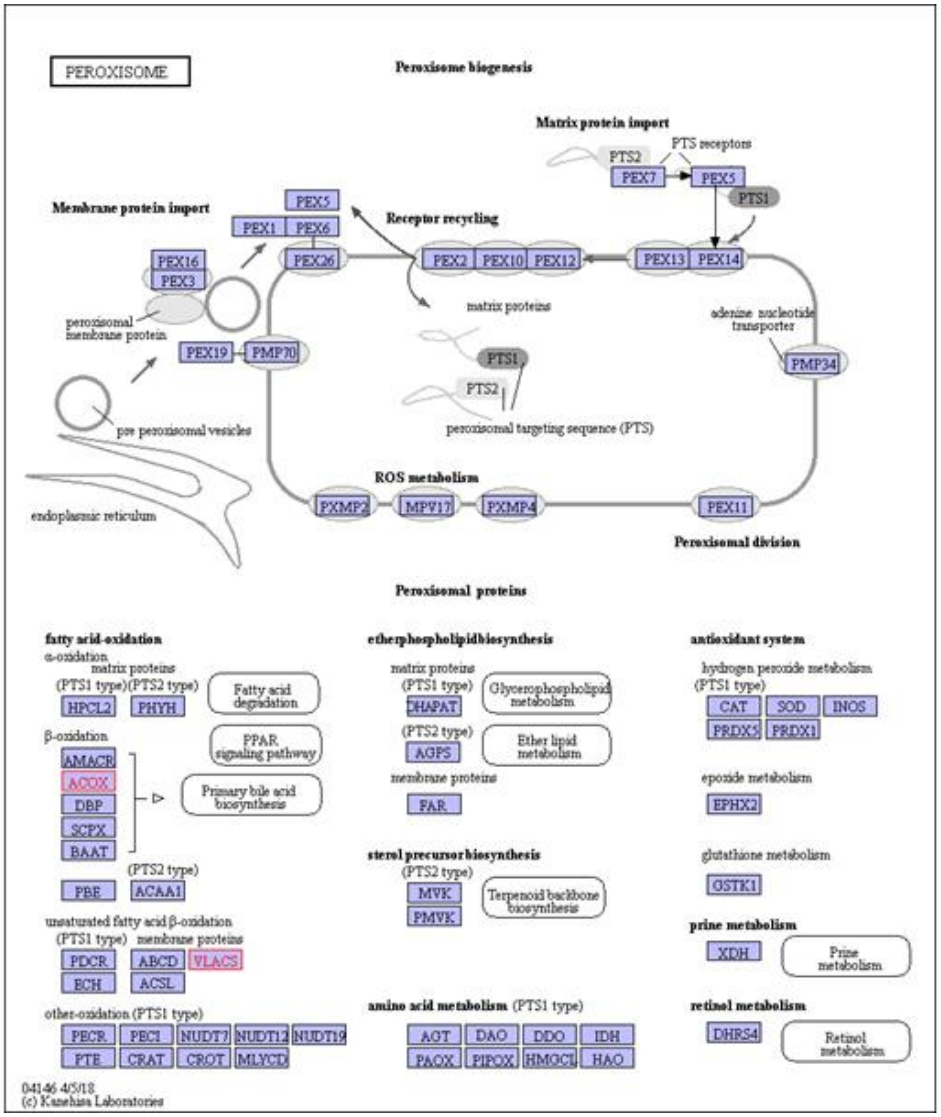


Figure S15. Peroxisome with candidate genes in skeletal muscle.

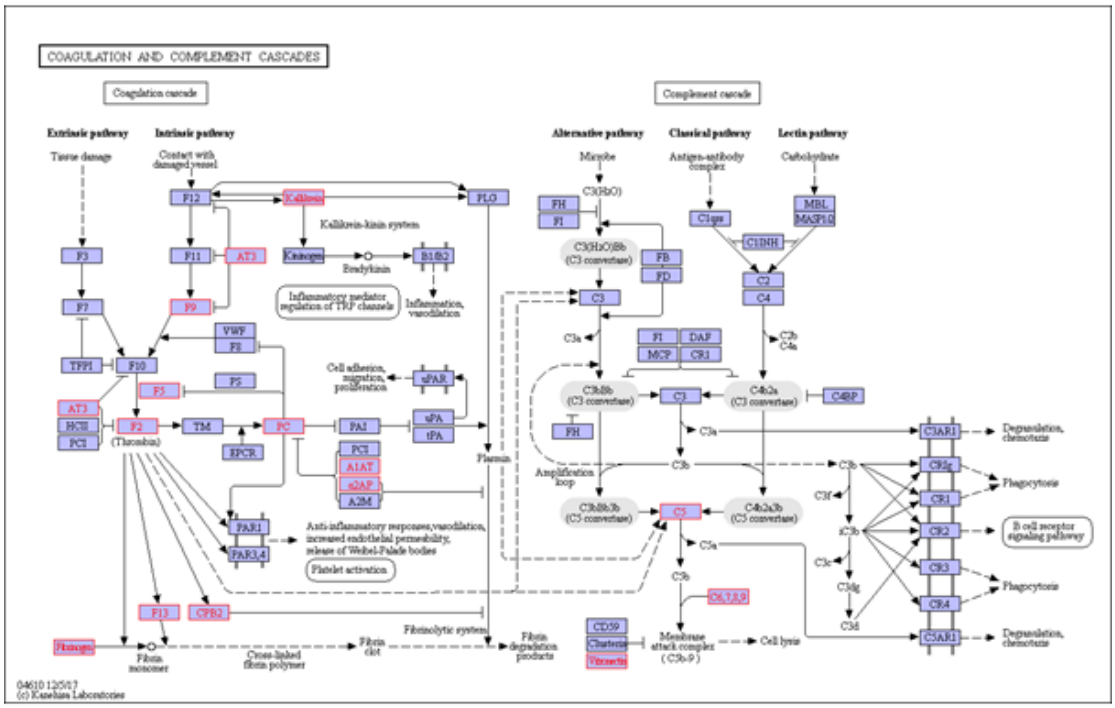


Figure S16. Complement and coagulation with candidate genes in skeletal muscle.

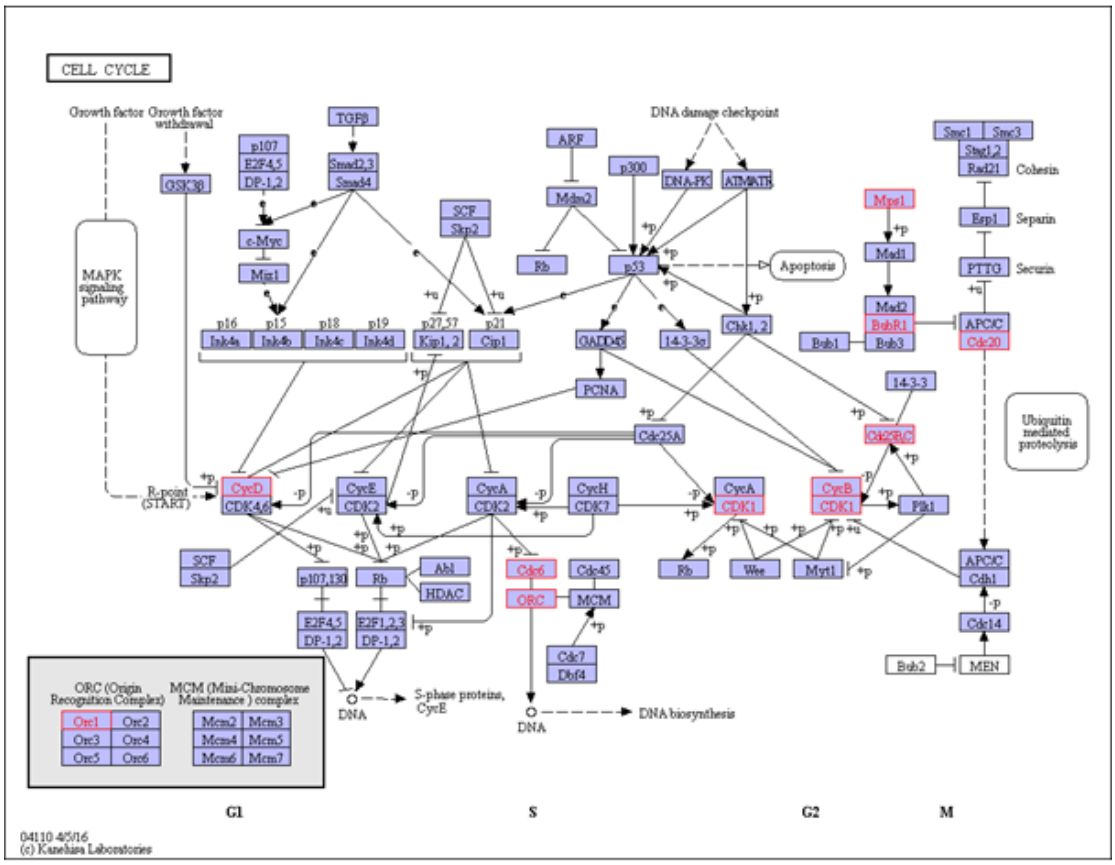


Figure S17. Cell cycle with candidate genes in liver.

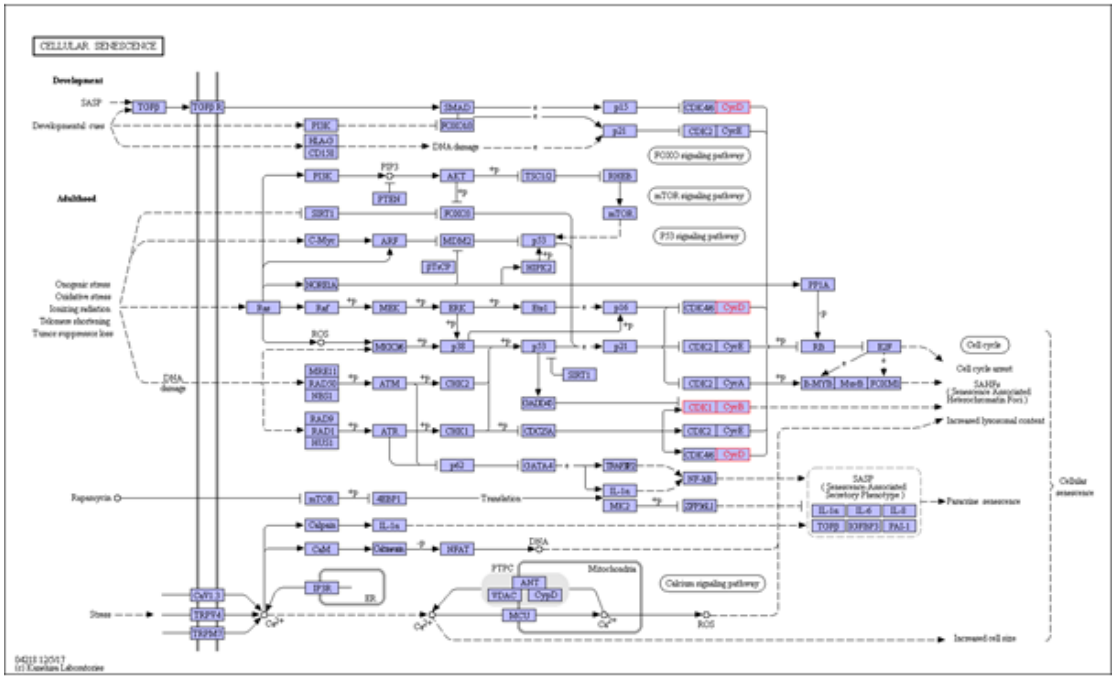


Figure S18. Cellular senescence with candidate genes in liver.