Supporting Information

Early-Stage Alcoholic Cardiomyopathy Highlighted by Metabolic Remodeling, Oxidative Stress, and Cardiac Myosin Dysfunction in Male Rats

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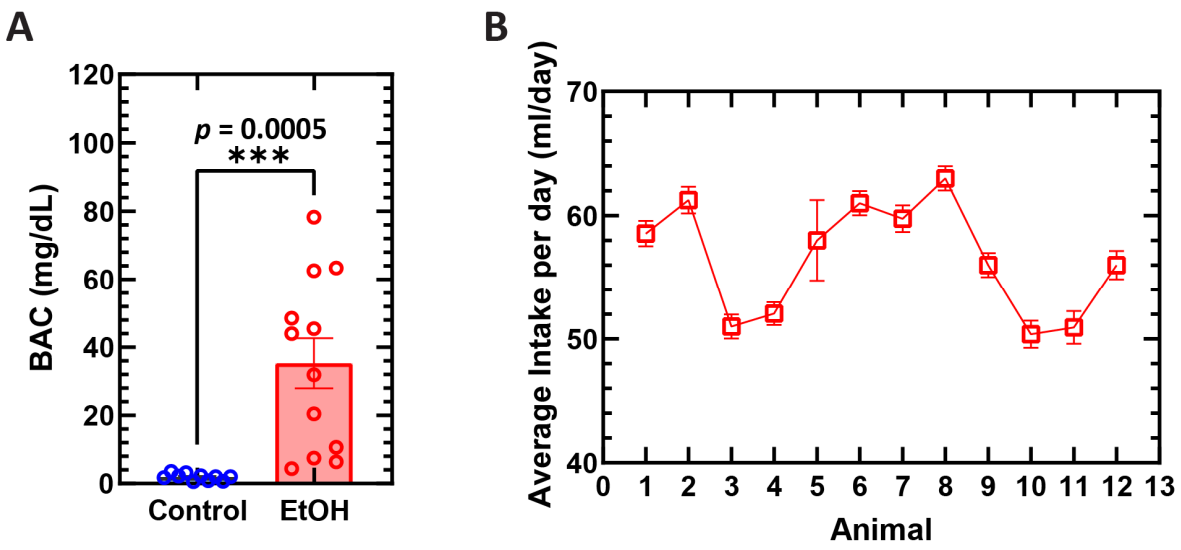
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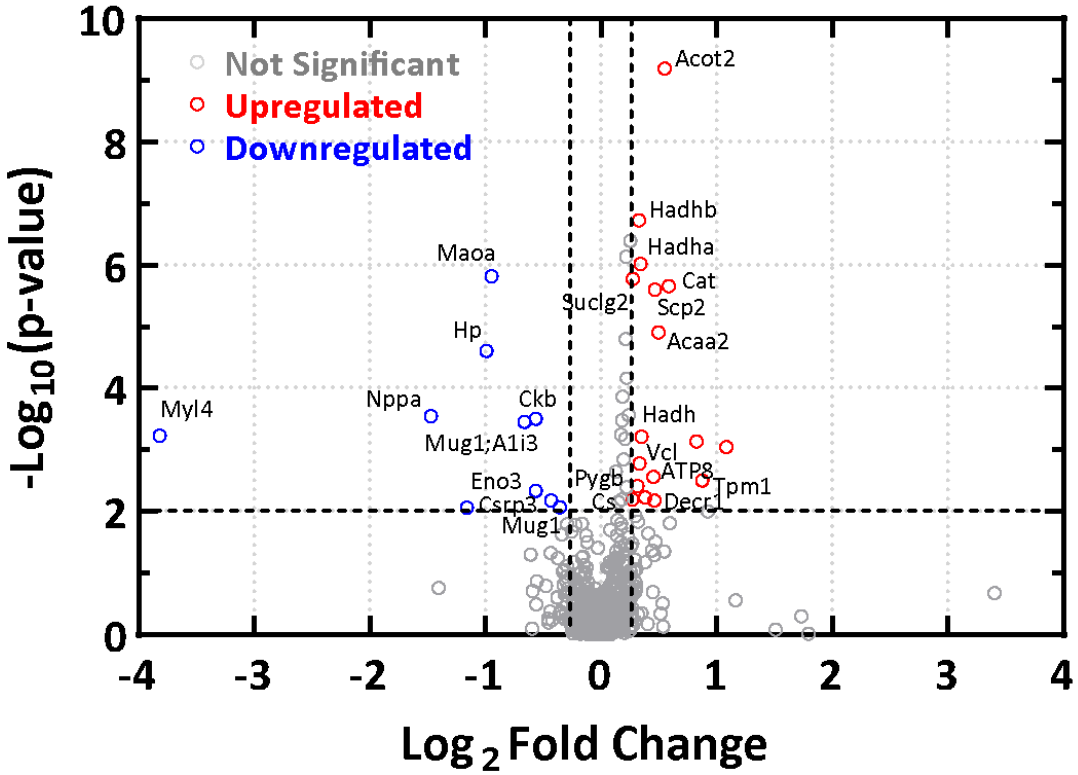
Supplemental Table S1. Oligonucleotides Used in qPCR Analysis.
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Supplemental Table S1. **Oligonucleotides Used in qPCR Analysis**

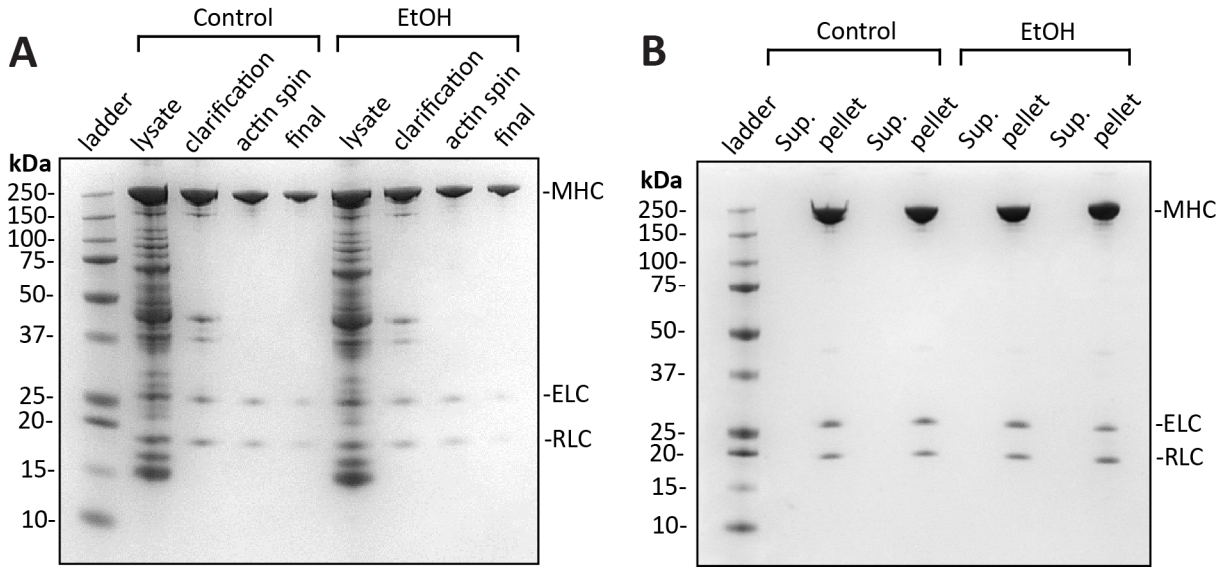
Gene	Forward Primer Sequence	Reverse Primer Sequence
CAT	CCGCCTTTTTGCTTACCCAG	GAGCACGGTAGGGACAGTTC
CCL2	CACTCACCTGCTGCTACTCA	GCTTGGTGACAAAAACTACAGC
CCL5	TGCTGCTTTGCCTACCTCTC	TCCTTCGAGTGACAAACACGA
DDIT4	GGAGGACGAGAAACGATCCC	TCTTGTCCGCAATCTTCGCT
GAPDH	AGTTCAACGGCACAGTCAAG	TACTCAGCACCAGCATCACC
GPX1	CAGTCCACCGTGTATGCCTT	GAGGGACGCGACATTCTCAA
HMOX1	CAGGGAAGGCTTTAAGCTGGT	GGGTTCTGCTTGTTTCGCTC
ICAM1	CTCACAGGGTACTTCCCCCA	CAGGTGAGGACCATATAGCAGA
IFNA1	AGCAACAAAGCCTCAGGAACA	GGATCTGCTGGGCATCCATCT
IFNB1	CTTGGGTGACATCCACGACT	AAGACTTCTGCTCGGACCAC
IL1B	AGGCTTCCTTGTGCAAGTGTC	TCATCTGGACAGCCCAAGTC
IL6	CATTCTGTCTCGAGCCCACC	GCTGGAAGTCTCTTGCGGAG
NQO1	ATTGTATTGGCCCACGCAGA	GATTCGACCACCTCCCATCC
SOD1	TCATTGGCCGTACTATGGTGG	CCAATCACACCACAAGCCAAG
SOD2	GGAGCAAGGTCGCTTACAGA	TCCCACACATCAATCCCCAG
TNF	ATGGGCTCCCTCTCATCAGT	GCTTGGTGGTTTGCTACGAC



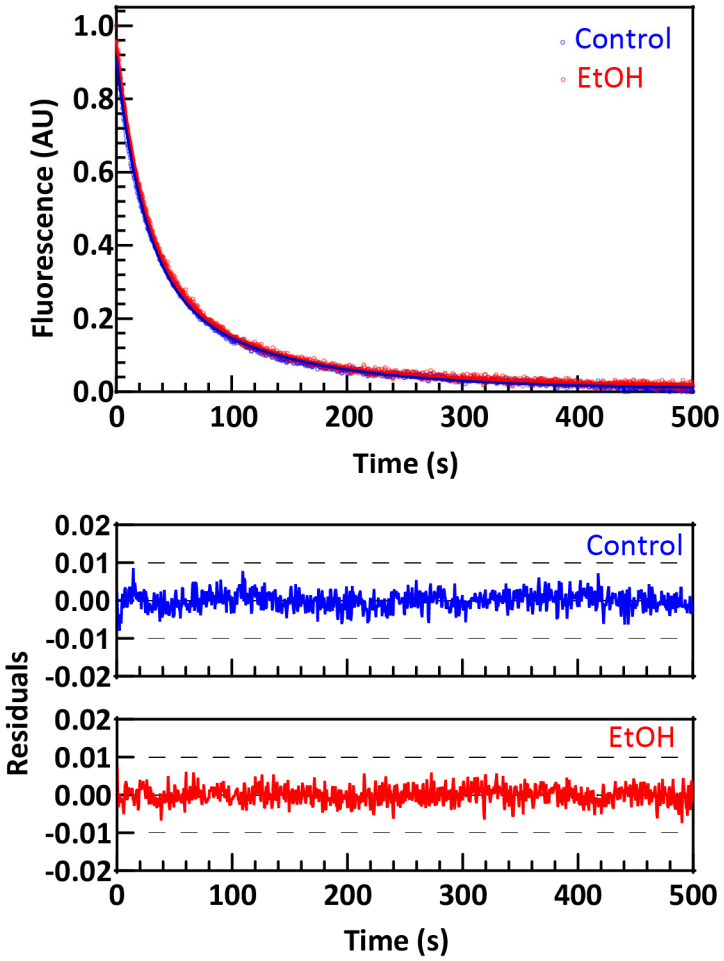
Supplementary Figure S1. Blood Alcohol Concentration and Alcohol Consumption. (A) Difference in blood alcohol levels between the control group (n = 10) and the EtOH group (n = 12) measured from blood serum at time of sacrifice. (B) Average daily alcohol consumption in the EtOH group. Data are presented as mean ± SEM, statistical significance was evaluated using an unpaired t-test.



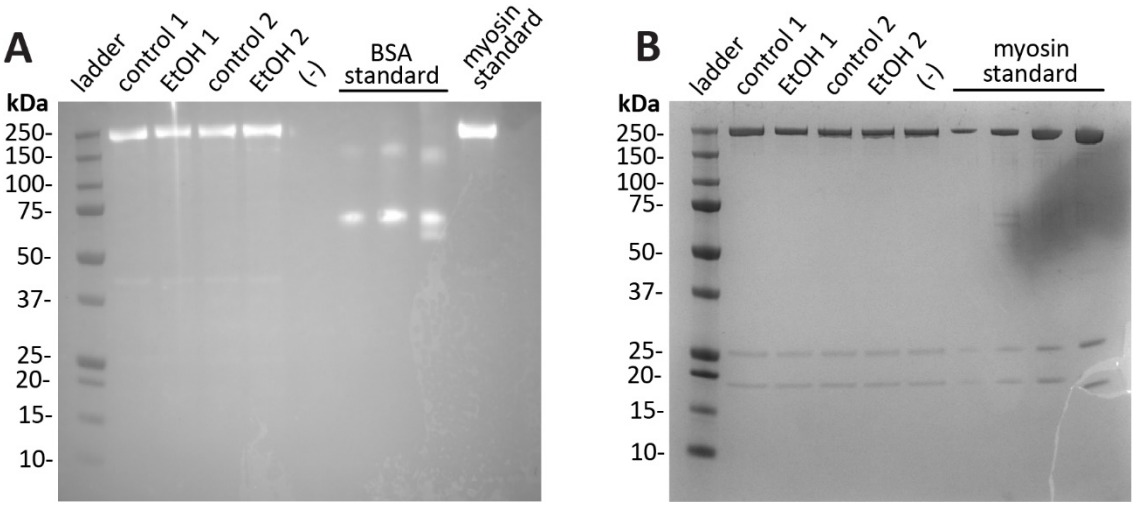
Supplementary Figure S2. Volcano plot of differentially abundant proteins in the EtOH group compared to control. The threshold for significance was set at a 1.2-fold change in abundance with a p-value < 0.01. Proteins that were significantly altered are labeled on the plot. Upregulated proteins (fold change ≥ 1.2, p-value < 0.01) are shown in red, downregulated proteins (fold change ≤ 0.8, p-value < 0.01) are shown in blue, and non-significant proteins are shown in gray.



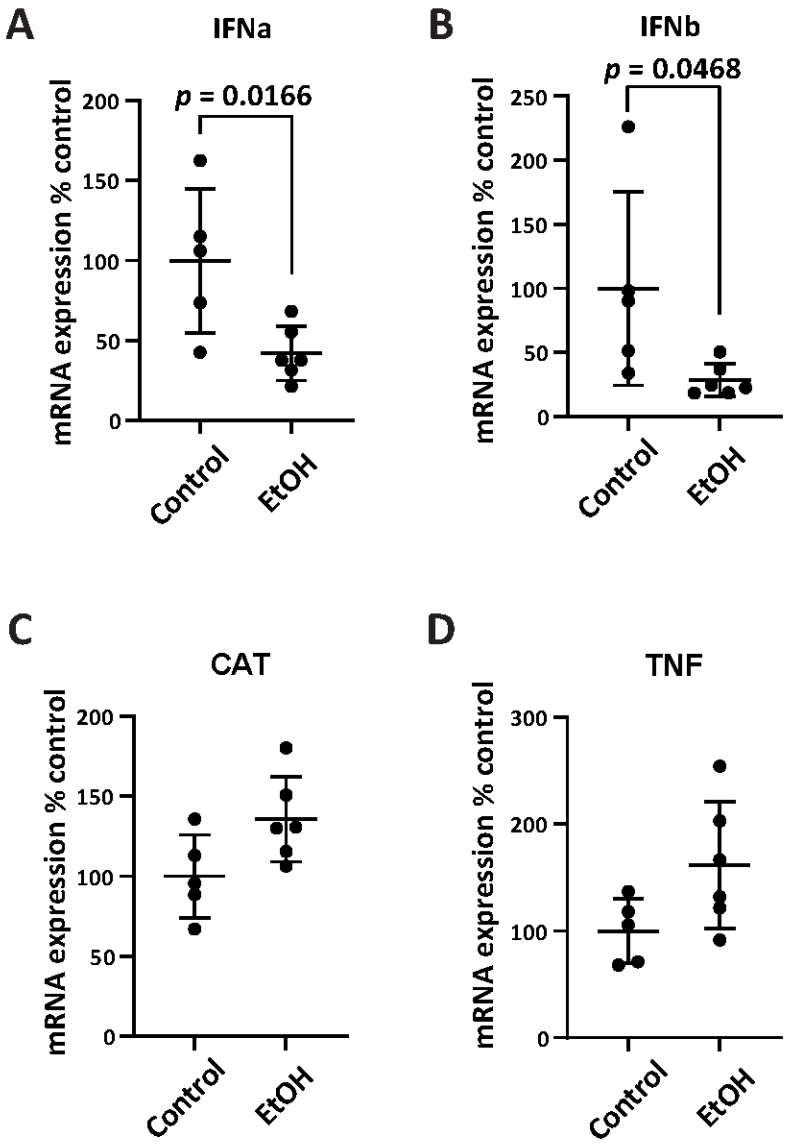
Supplementary Figure S3. Myosin Extraction and Synthetic Thick Filament Assembly. (A) Representative SDS-PAGE gel showing the steps of the myosin extraction protocol. Lanes 2 to 5 contain samples from control heart tissue, following lysis, ultracentrifugation, actin spin-down, and final dialysis. Lanes 6 to 10 represent the corresponding steps for the EtOH (alcohol-rich diet) group. (B) Representative SDS-PAGE gel showing synthetic thick filament assembly. Filamentary myosin was pelleted by centrifugation, and no detectable myosin was observed in the supernatant for either the control or EtOH groups.



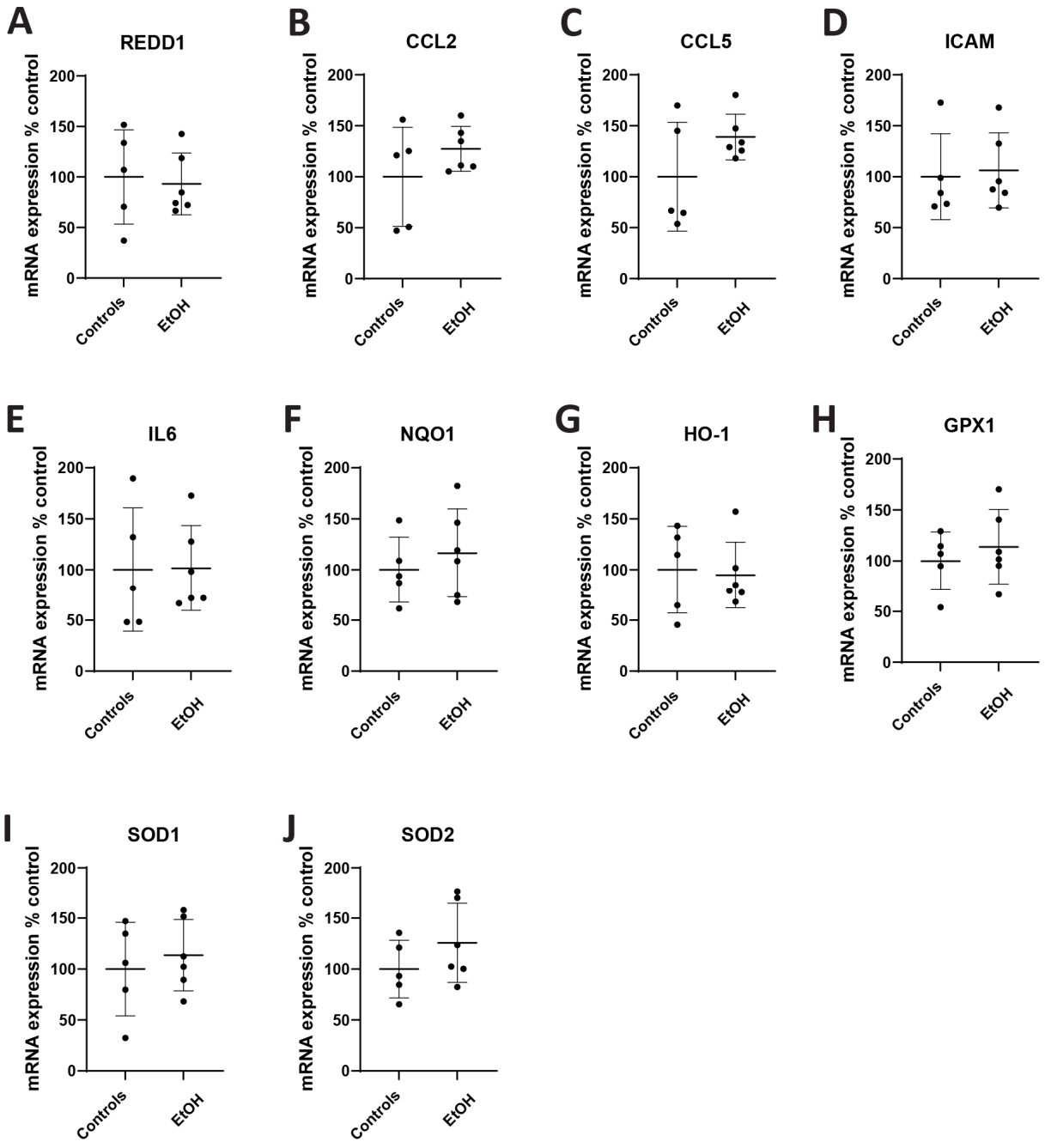
Supplementary Figure S4. Single ATP Turnover. Representative single mant-ATP turnover traces are presented. The data were fitted to a two-exponential function, with the fitting residuals shown for the control (blue) and EtOH (red) groups. The rate constants of fast phase (DRX) and slow phase (SRX) are 0.025 s^{-1} and 0.0035 s^{-1} in the control group, and 0.025 s^{-1} and 0.0053 s^{-1} in the EtOH group. And the relative amplitudes of slow component (SRX fraction) are 0.20 and 0.21 in the control group and EtOH group, respectively.



Supplementary Figure S5. Carbonylation Analysis. (A) Representative Western blot showing two separate myosin preparations from the control and EtOH groups. From left to right: molecular weight ladder, followed by myosin samples with DNPH derivatization of carbonyl compounds, and a negative control (-) without DNPH. Also shown are a carbonylated BSA standard and a myosin standard. (B) Representative SDS-PAGE gel, Coomassie stained, used to calculate the protein concentration of myosin samples, relative to a myosin standard of known concentration.



Supplementary Figure S6. mRNA Expression. Comparison of mRNA expression levels between the control and EtOH groups for (A) IFNα, (B) IFNβ, (C) CAT, and (D) TNF. Each solid dot represents the mean expression value for an individual animal (n = 5 for control, n = 6 for EtOH). The black line indicates the group mean ± SD. Statistical significance was determined using an unpaired t-test.



Supplementary Figure S7. mRNA Expression. Comparison of mRNA expression levels between the control and EtOH groups for (A) REDD1, (B) CCL2, (C) CCL5, (D) ICAM, (E) IL6, (F) NQO1, (G) HO-1, (H) GPX1, (I) SOD1, and (J) SOD2. Each solid dot represents the mean expression value for an individual animal (n = 5 for control, n = 6 for EtOH). The black line indicates the group mean ± SD.

Supplemental Table S2. **Summary of Mass Spectrometry Results**

			Abundance (Top 3)		**SD of Abundance (Top 3)**		EtOH/Control		T-test
Gene	**Master. Protein. Accessions**	**Peptides**	**EtOH**	**Control**	**EtOH**	**Control**	Ratio	SD of ratio	p_value
A1bg	Q9EPH1	4	7.97E-05	8.47E-05	6.31E-10	1.93E-09	0.9277	0.2830	9.98E-01
A1i3	P14046	4	2.80E-05	4.50E-05	9.33E-11	2.26E-10	0.6559	0.0920	5.09E-02
A1m	Q63041	5	5.77E-05	7.82E-05	5.27E-10	9.38E-10	0.7404	0.1668	4.75E-02
Ablim1; Ablim1	F1LWK7; Q3KR72	2	1.39E-05	1.16E-05	1.59E-11	9.69E-12	1.2338	0.2310	1.69E-01
Acaa2	P13437	5	8.31E-04	5.56E-04	3.83E-08	1.22E-08	1.4164	0.1760	1.23E-05
Acad9	B1WC61	4	2.52E-05	2.42E-05	1.22E-10	7.40E-12	1.0403	0.0957	5.19E-01
Acadl	P15650	5	1.10E-03	1.04E-03	2.50E-08	5.50E-08	1.0307	0.1344	6.49E-01
Acadm	G3V796	5	1.93E-04	1.81E-04	6.34E-10	1.27E-09	1.0753	0.0530	1.10E-01
Acads	Q6IMX3	5	1.63E-04	1.54E-04	1.22E-09	9.13E-10	1.0540	0.1082	4.90E-01
Acadvl	Q5M9H2	5	1.94E-04	1.82E-04	4.74E-10	7.64E-10	1.0958	0.0516	2.29E-03
Acat1	P17764	5	5.11E-04	4.74E-04	2.61E-09	3.60E-09	1.0570	0.0351	2.31E-01
Aco2	Q9ER34	5	1.25E-03	1.15E-03	5.99E-08	2.67E-08	1.0176	0.1982	7.34E-01
Acot13	D3ZA93	2	9.02E-05	9.77E-05	3.64E-10	2.24E-10	0.9257	0.0749	6.34E-01
Acot2	O55171	5	2.40E-04	1.65E-04	1.92E-09	1.33E-09	1.4683	0.4256	6.47E-10
Acp1	Z4YNF4	2	2.14E-05	2.28E-05	1.32E-10	1.59E-11	0.8928	0.1764	7.89E-01
Acsf2	Q499N5	5	1.06E-04	9.13E-05	1.05E-09	1.34E-10	1.0481	0.1983	2.38E-01
Acsl1	P18163	5	1.75E-04	1.61E-04	4.18E-10	5.55E-10	1.0824	0.0409	6.07E-02
Acss1	D3ZZN3	5	4.98E-05	4.68E-05	2.05E-10	7.71E-11	1.0399	0.1231	8.11E-02
Acta2; P68035	B0BMT0; P68035	5	5.12E-03	5.32E-03	2.31E-06	1.25E-06	0.8722	0.3775	5.99E-01
Actb	P60711	5	1.39E-04	1.46E-04	3.66E-09	1.67E-09	0.8398	0.3653	8.53E-01
Actb; Acta2; P68035	P60711; B0BMT0; P68035	5	5.23E-03	4.43E-03	2.97E-06	8.52E-07	1.1046	0.8748	7.48E-01
Actbl2; Actb; Acta2; P68035	D3ZRN3; P60711; B0BMT0; P68035	5	7.94E-03	7.91E-03	1.91E-06	1.12E-06	0.8938	0.2262	7.28E-01
Actn1	Q6T487	5	2.36E-05	2.34E-05	1.54E-10	6.63E-11	1.0352	4.3322	7.10E-01
Actn1; Actn2	Q6T487; D3ZCV0	5	3.56E-04	3.36E-04	4.41E-09	2.50E-09	1.0362	0.0581	8.12E-01
Actn2	D3ZCV0	5	3.95E-04	4.14E-04	7.97E-09	6.00E-09	0.9460	0.0660	3.44E-01
Acyp2	D4A1G1	3	1.94E-05	1.91E-05	2.23E-11	1.48E-11	0.9754	0.1057	3.20E-01
Adck3	Q5BJQ0	5	6.94E-05	5.34E-05	4.53E-10	1.83E-10	1.2293	0.1565	1.20E-02
Adsl	D3ZW08	2	5.21E-06	6.49E-06	5.25E-12	2.08E-12	0.8405	0.1662	2.12E-02
Adssl1	M0R9J5	5	1.08E-04	1.02E-04	5.84E-10	4.59E-10	0.9347	0.2168	4.70E-01
Afg3l2	F1LN92	2	1.62E-05	1.55E-05	2.62E-12	2.84E-12	1.0446	0.0241	3.57E-01
Agl	D4AEH9	5	2.43E-05	2.02E-05	3.21E-10	2.05E-11	1.0995	0.4019	9.45E-02
Ahnak	M0R9D5	5	1.15E-04	1.02E-04	2.47E-10	3.45E-10	1.1312	0.1072	6.38E-01
Ahsg	P24090	4	3.88E-05	4.26E-05	2.75E-10	1.93E-10	0.9265	0.2888	1.43E-01
Aifm1	Q9JM53	4	3.07E-05	2.77E-05	1.51E-11	1.17E-11	1.0596	0.0388	2.01E-02
Ak1	P39069	5	1.13E-04	1.30E-04	7.26E-09	2.41E-09	0.8689	0.2766	2.27E-01

Ak2	P29410	2	6.64E-05	6.15E-05	8.04E-11	6.91E-11	1.0669	0.0428	4.69E-01
Ak3	P29411	2	2.18E-05	1.77E-05	2.69E-10	2.33E-11	1.2290	0.7042	6.15E-02
Ak4	Q9WUS0	2	2.71E-05	2.31E-05	2.66E-11	8.33E-12	1.1514	0.0697	2.58E-01
Akr1b1	P07943	5	1.31E-04	1.35E-04	3.31E-09	2.19E-09	0.9092	0.2238	2.93E-01
Akr1b10	Q6AY99	3	1.42E-05	1.60E-05	3.00E-11	3.23E-11	0.8809	0.1931	1.71E-01
Akr1cl	D3ZF77	2	3.17E-05	2.85E-05	1.75E-10	9.83E-11	1.1022	0.3586	4.71E-01
Alb	P02770	5	4.04E-03	4.57E-03	2.25E-06	2.05E-06	0.8175	0.1675	7.66E-02
Aldh1a1	P51647	3	1.04E-05	9.21E-06	5.92E-11	2.36E-11	1.3048	2.5800	6.69E-02
Aldh2; Aldh2	P11884; F1LN88	5	1.35E-04	1.24E-04	3.68E-10	2.51E-10	1.1028	0.0541	9.82E-02
Aldh6a1	G3V7J0	5	2.17E-04	2.15E-04	1.14E-09	8.95E-10	1.0312	0.0699	2.63E-01
Aldh7a1	Q64057	4	1.71E-05	1.70E-05	1.02E-11	7.22E-12	0.9467	0.1848	3.17E-01
Aldh9a1	Q9JLJ3	5	6.42E-05	4.72E-05	7.93E-10	1.63E-10	1.1939	0.2148	9.12E-02
Aldoa	P05065	5	6.77E-04	6.86E-04	2.15E-08	1.67E-08	0.9815	0.1058	5.43E-01
Alpha II spectrin	C9EH87	5	6.72E-05	4.87E-05	5.86E-10	2.05E-10	1.3298	0.2402	2.31E-02
Anxa11	Q5XI77	3	2.20E-05	1.86E-05	3.11E-11	2.32E-11	1.1778	0.1724	2.39E-01
Anxa2	Q07936	4	1.61E-05	1.72E-05	4.03E-11	2.51E-11	0.9404	0.2212	8.05E-01
Anxa5	P14668	5	6.63E-05	7.11E-05	1.71E-10	2.37E-10	0.9548	0.1130	2.29E-01
Anxa6	P48037	5	4.56E-05	4.49E-05	8.28E-11	6.87E-11	1.0707	0.2665	7.60E-01
Apoa1	P04639	5	8.46E-05	9.51E-05	7.45E-10	1.33E-09	0.8453	0.2227	3.36E-01
Apoa2	P04638	2	8.50E-06	1.24E-05	3.14E-11	3.90E-11	0.6802	0.3248	3.27E-01
Apoa4	P02651	4	4.42E-05	4.90E-05	2.95E-10	1.07E-10	1.0047	0.2119	4.31E-01
Apobec2	B4F789	2	3.19E-05	3.37E-05	3.46E-11	2.81E-11	0.9345	0.0474	2.42E-01
Apoo	M0R7G4	3	3.16E-05	2.67E-05	6.53E-11	2.49E-11	1.1539	0.1051	3.64E-01
Apool	Q5U1W6	2	1.70E-05	1.68E-05	8.21E-12	7.62E-12	1.0511	0.0508	4.99E-01
Aprt	P36972	4	3.53E-05	3.72E-05	2.21E-10	1.79E-10	0.9074	0.2153	7.18E-01
Arf3	P61206	3	1.93E-05	2.07E-05	8.11E-11	6.85E-11	0.9314	0.2911	5.42E-01
Arhgdia	Q5XI73	2	2.73E-05	2.67E-05	2.97E-11	1.08E-11	1.0309	0.0646	4.43E-01
Aspn	Q5XIH1	3	5.95E-06	8.71E-06	6.11E-11	5.08E-11	0.7481	3.5187	5.82E-01
Atic	O35567	3	2.26E-05	2.20E-05	5.92E-11	2.83E-11	1.0301	0.2285	7.67E-01
Atp12a; Atp1a1	G3V8S4; P06685	3	5.34E-05	4.98E-05	8.54E-11	7.29E-11	1.0984	0.0556	6.37E-01
Atp1a1	P06685	5	7.79E-05	6.61E-05	1.25E-10	1.00E-10	1.1673	0.0578	6.89E-05
Atp1b1	P07340	3	5.43E-05	4.60E-05	1.06E-10	1.28E-10	1.1192	0.0755	5.99E-01
Atp2a2	P11507	5	5.25E-04	5.53E-04	6.02E-09	5.82E-09	0.9885	0.0430	3.94E-01
Atp5a1	F1LP05	5	2.66E-03	2.30E-03	8.44E-08	9.30E-08	1.1284	0.0383	5.74E-04
Atp5b	G3V6D3	5	2.72E-03	2.45E-03	9.81E-08	7.75E-08	1.1009	0.0277	2.51E-02
Atp5d	G3V7Y3	3	3.83E-04	3.47E-04	2.38E-09	2.01E-09	0.9904	0.0383	9.84E-01
Atp5e	P29418	3	1.60E-04	1.40E-04	2.60E-10	2.93E-10	1.1471	0.0343	1.52E-01
Atp5f1	P19511	5	4.62E-04	4.30E-04	3.01E-09	3.00E-09	0.9536	0.2157	9.06E-01
Atp5h	P31399	5	5.28E-04	5.06E-04	8.40E-09	7.32E-09	1.0262	0.0611	5.45E-01
Atp5i	P29419	4	3.78E-04	3.39E-04	2.19E-09	2.09E-09	1.0228	0.0449	8.61E-01
Atp5j	P21571	4	1.37E-04	1.22E-04	1.54E-09	9.21E-10	1.1444	1.0395	7.14E-01
Atp5j2	D3ZAF6	4	3.08E-04	2.75E-04	3.28E-09	3.99E-09	1.2784	5.6127	4.50E-01
Atp5l	Q6PDU7	4	7.57E-05	6.75E-05	8.74E-10	3.97E-10	0.8903	0.8335	7.46E-01
Atp5o	Q06647	5	7.78E-04	7.05E-04	5.82E-09	1.03E-08	1.1113	0.0747	2.06E-01
ATP8	Q5UAJ5	2	2.57E-04	1.94E-04	9.02E-09	1.71E-09	1.3721	0.5243	2.81E-03
Auh	F1LU71	5	3.01E-05	2.77E-05	4.53E-11	2.59E-11	1.0264	0.0825	2.44E-01
Bcat2	G3V8U8	5	6.49E-05	5.94E-05	5.12E-10	1.18E-10	0.9482	0.1750	8.65E-01

Bcl-2-interacting death suppressor	Q156J1	2	2.07E-05	2.09E-05	1.38E-11	1.66E-11	0.9948	0.0627	6.43E-01
Bdh1	P29147	3	6.07E-05	5.81E-05	3.55E-09	7.88E-10	0.8336	0.5567	5.52E-01
Bgn	P47853	2	3.91E-05	1.07E-05	1.15E-10	7.52E-11	2.8560	3.0059	8.36E-01
Blvrb	B5DF65	3	1.97E-05	2.19E-05	1.89E-10	4.48E-11	0.8715	0.3087	1.58E-01
Bsg	P26453	4	3.61E-05	4.18E-05	1.11E-09	5.99E-10	0.9646	0.3370	7.88E-01
C1qbp	O35796	3	4.43E-05	4.35E-05	4.04E-11	8.27E-11	1.0065	0.0560	6.87E-01
C3	M0RBF1	5	7.87E-05	8.12E-05	3.78E-10	1.52E-10	0.8532	0.1641	1.26E-01
Ca1	B0BNN3	5	3.61E-05	4.07E-05	1.54E-10	3.34E-10	0.8537	0.2295	2.82E-01
Ca2	P27139	5	5.00E-05	5.35E-05	2.61E-10	7.27E-10	0.8542	0.4352	3.34E-01
Calm1	P62161	2	4.21E-05	4.00E-05	7.58E-11	1.17E-10	1.0338	0.0682	9.65E-01
Canx	P35565	2	1.38E-05	1.36E-05	1.10E-11	6.95E-12	1.0293	0.1687	7.75E-01
Capza2	Q3T1K5	2	1.36E-05	1.51E-05	1.18E-11	6.63E-12	0.8943	0.0777	4.86E-01
Cardiac titin N2B isoform (Fragment)	Q7TMZ9	5	8.79E-05	9.26E-05	5.87E-10	4.03E-10	0.9693	0.1109	5.95E-01
Casq2	F1M944	5	2.94E-04	2.82E-04	1.74E-09	7.24E-10	1.0290	0.0263	3.18E-01
Cat	P04762	5	1.82E-05	1.24E-05	1.41E-11	3.73E-12	1.5054	0.1665	2.18E-06
Cav1	P41350	3	3.77E-05	4.23E-05	6.21E-11	2.57E-10	0.8906	0.1159	1.87E-01
Cav3; Cav1	P51638; P41350	2	4.06E-05	3.79E-05	1.43E-10	8.01E-11	1.0595	0.2955	9.27E-01
Cbr1	M0R3X6	4	4.17E-05	2.64E-05	1.23E-10	3.71E-11	1.3676	0.6756	2.07E-01
CD36/FAT	O35754	5	1.10E-04	9.74E-05	4.11E-10	3.14E-10	1.0501	0.1466	7.42E-01
Cdh2	G3V803	3	1.67E-05	1.52E-05	1.25E-11	1.36E-11	1.0833	0.1419	4.96E-01
Cfl2	M0RC65	2	1.51E-05	1.58E-05	7.03E-11	6.08E-11	0.9087	3.2458	6.30E-01
Chchd3	D3ZUX5	5	9.15E-05	7.87E-05	1.31E-10	9.09E-11	1.1005	0.0497	3.50E-01
Cilp2	D3ZE05	2	1.32E-05	2.31E-05	NA	2.73E-10	0.6638	0.0000	8.09E-01
Cisd1	B0K020	3	2.12E-05	1.50E-05	1.20E-10	1.95E-10	3.4791	586.1979	9.68E-01
Ckb	P07335	5	5.16E-05	7.97E-05	2.10E-10	7.17E-10	0.6767	0.0841	3.18E-04
Ckm	P00564	5	1.03E-03	1.05E-03	4.23E-08	3.33E-08	0.9661	0.0776	1.78E-01
Ckmt2	B0BNC0	5	1.88E-03	1.87E-03	8.64E-08	1.44E-07	1.0167	0.0723	5.56E-01
Cltc	F1M779	3	1.31E-05	1.39E-05	1.75E-11	1.97E-11	0.9324	0.1674	3.32E-01
Col15a1	F1LPD0	2	1.21E-05	1.12E-05	2.10E-11	3.52E-11	1.0813	0.3884	5.40E-01
Col1a1	P02454	5	4.25E-04	4.75E-04	3.87E-07	1.31E-07	0.9174	2.3245	5.98E-01
Col1a1; Col2a1	P02454; F1LRM7	2	2.07E-04	2.51E-04	1.05E-07	6.10E-08	0.8815	2.6322	9.73E-01
Col1a2	F1LS40	5	2.42E-04	2.56E-04	9.70E-08	3.26E-08	1.0612	2.1149	5.61E-01
Col2a1	F1LRM7	2	3.73E-05	2.85E-05	6.08E-09	5.73E-10	1.3796	7.1401	5.21E-02
Col3a1	P13941	5	5.61E-04	6.16E-04	2.66E-07	1.32E-07	0.9453	0.9268	7.16E-01
Col4a1	F1MA59	3	4.19E-05	3.61E-05	2.49E-10	1.14E-10	1.1598	0.3073	2.72E-01
Col4a2	F1M6Q3	5	3.31E-05	2.80E-05	8.98E-11	4.07E-11	1.2301	0.2791	1.43E-01
Col5a1	Q9JI03	2	1.33E-05	1.47E-05	1.03E-10	8.87E-11	0.9458	0.8468	8.32E-01
Col5a2	F1LQ00	3	4.68E-05	5.68E-05	4.68E-09	2.13E-09	0.8984	0.8397	5.69E-01
Col6a1	D3ZUL3	5	6.92E-05	6.36E-05	8.06E-10	1.11E-09	1.0614	0.4614	7.85E-01
Col6a2	F1LNH3	5	1.50E-04	9.74E-05	1.13E-08	5.35E-09	1.1701	0.7955	3.70E-01

Col6a3	D4A115	5	6.94E-05	5.45E-05	3.65E-10	4.69E-10	1.1989	0.3945	3.76E-02
Coq9	Q68FT1	4	5.05E-05	4.86E-05	6.02E-11	8.36E-11	0.7304	1.2212	6.35E-01
COX1	A0A0A1FZ34	2	1.93E-05	2.59E-05	1.86E-10	8.69E-11	0.6654	0.2625	1.96E-01
COX2; COX2	A0A097PE04; Q5UAJ6	4	6.18E-04	5.76E-04	9.26E-09	1.06E-08	0.9888	0.3578	9.93E-01
Cox4i1	P10888	5	8.05E-04	7.38E-04	2.00E-08	1.45E-08	1.1169	0.1148	5.94E-02
Cox5a	P11240	5	6.16E-04	5.32E-04	5.80E-09	6.99E-09	1.0975	0.1440	6.10E-01
Cox5b	P12075	5	2.48E-04	2.54E-04	4.72E-09	3.70E-09	0.9090	1.4680	8.95E-01
Cox6b1	D3ZD09	5	6.20E-04	5.73E-04	5.27E-09	2.58E-08	1.0202	0.0589	6.21E-01
Cox6c2	P11951	3	3.65E-04	3.50E-04	4.73E-09	4.63E-09	1.0423	0.1355	6.02E-01
Cox7a2l	D3ZYX8	2	5.25E-05	4.98E-05	5.95E-11	3.07E-11	1.0528	0.0374	7.75E-02
Cox7b	P80431	2	1.15E-04	1.35E-04	7.61E-10	4.20E-10	0.8860	0.0456	5.80E-01
Cox7c	P80432	2	1.26E-04	1.24E-04	2.44E-09	9.37E-10	1.0123	0.3425	7.09E-01
Cp	G3V7K3	5	3.46E-05	3.07E-05	2.03E-10	1.69E-10	1.0591	0.5072	5.77E-01
Cpt1b	Q63704	5	8.61E-05	8.36E-05	2.12E-10	1.53E-10	1.0225	0.0760	6.78E-01
Cpt2	P18886	5	8.10E-05	6.51E-05	1.46E-10	5.24E-11	1.1813	0.0563	2.80E-04
Crat	Q704S8	5	5.98E-05	6.29E-05	2.04E-10	1.29E-10	0.9563	0.0891	8.69E-01
Crip2	P36201	2	3.83E-05	4.20E-05	7.70E-11	1.66E-10	0.9087	0.1464	1.17E-01
Cryab	P23928	5	7.40E-04	8.00E-04	2.13E-08	2.75E-08	0.9291	0.0616	3.85E-01
Cs	G3V936	5	1.11E-03	8.66E-04	5.07E-08	1.80E-08	1.2097	0.1025	6.45E-03
Csrp3	G3V7U0	5	8.76E-05	1.36E-04	9.48E-10	9.74E-10	0.7421	0.0903	6.70E-03
Ctsd	P24268	3	4.21E-05	3.86E-05	1.66E-10	5.39E-11	1.0820	0.3243	3.40E-01
Cyb5r3	P20070	2	2.05E-05	1.95E-05	1.50E-11	1.39E-11	1.0410	0.0683	8.81E-01
Dbi	Q6TXF3	2	2.67E-05	2.96E-05	3.88E-11	4.45E-11	0.7716	0.0820	2.55E-01
Dbt	B2GV15	5	2.25E-05	1.94E-05	2.04E-11	1.93E-11	1.0444	0.1214	1.95E-01
Dcn	Q01129	5	6.67E-05	6.13E-05	1.76E-09	1.50E-09	1.0626	0.6927	9.51E-01
Ddt	P80254	4	3.98E-05	4.33E-05	2.85E-10	1.92E-10	1.0479	0.7710	3.14E-01
Decr1	G3V734	5	1.90E-04	1.50E-04	2.24E-09	8.31E-10	1.3817	0.3146	6.78E-03
Des	Q6P725	5	3.75E-04	3.53E-04	2.76E-09	3.47E-09	1.0956	0.0514	7.65E-02
Dhrs4	Q8VID1	5	4.71E-05	4.11E-05	2.37E-11	4.43E-11	1.1687	0.0645	4.08E-03
Dlat	P08461	5	3.17E-04	2.82E-04	1.68E-09	1.70E-09	1.1302	0.0580	3.19E-02
Dld	Q6P6R2	5	2.82E-04	2.60E-04	2.65E-09	1.24E-09	1.0490	0.0501	3.86E-01
Dlst	G3V6P2	5	3.18E-04	2.93E-04	7.79E-10	1.35E-09	1.0601	0.0321	2.52E-01
Dmd	F1M705	2	2.20E-05	1.81E-05	4.03E-11	1.47E-11	1.1349	0.1152	7.68E-01
Dnm1l	O35303	2	1.44E-05	1.33E-05	3.13E-11	7.64E-12	1.0492	0.1172	7.85E-01
Dpysl2	P47942	3	2.41E-05	2.43E-05	4.64E-11	6.60E-11	0.9407	0.1763	5.53E-01
Dsp	F1LMV6	5	2.26E-05	2.12E-05	2.25E-11	1.17E-11	1.0576	0.0768	8.17E-01
Dstn	Q7M0E3	2	1.97E-05	7.22E-06	1.93E-10	2.03E-11	10.6129	59.1903	2.15E-01
Ech1	Q62651	5	2.04E-04	1.70E-04	9.15E-10	5.47E-10	1.1991	0.0779	2.53E-01
Echs1	P14604	5	3.92E-04	3.51E-04	7.30E-09	6.32E-09	1.0559	0.1205	7.12E-01
Eci1	P23965	5	3.63E-04	3.01E-04	3.02E-09	3.26E-09	1.1662	0.0858	4.08E-02
Eci2	Q5XIC0	5	5.92E-05	5.47E-05	7.20E-11	6.44E-11	1.0739	0.0909	2.72E-01
Eef1a2	P62632	5	8.77E-05	1.05E-04	2.12E-09	2.15E-09	0.8030	0.2538	9.05E-02
Eef2	P05197	5	5.06E-05	5.10E-05	2.01E-10	7.05E-11	0.9624	0.0829	4.02E-01
Ehd1	Q641Z6	2	1.50E-05	1.61E-05	1.68E-11	9.62E-12	0.8856	0.0896	6.88E-01
Ehd2	Q4V8H8	5	3.65E-05	3.25E-05	6.16E-11	3.78E-11	1.1466	0.0947	1.45E-03
Ehd4	Q8R3Z7	3	1.66E-05	1.66E-05	9.33E-12	3.85E-12	1.0090	0.0503	8.26E-01
Eif4a2	Q5RKI1	2	1.47E-05	1.57E-05	1.43E-11	9.25E-12	0.9512	0.0837	9.38E-01
Eif5a	Q3T1J1	3	3.42E-05	3.44E-05	1.62E-10	2.24E-10	0.9713	0.2276	7.70E-01

Eno2	P07323	2	3.85E-05	4.82E-05	7.23E-11	5.92E-11	0.8144	0.1019	2.35E-01
Eno3	P15429	5	6.75E-05	9.93E-05	1.71E-09	6.16E-10	0.6765	0.1778	4.64E-03
Ephx2	P80299	2	8.17E-06	1.06E-05	1.89E-11	1.86E-11	0.7705	0.2683	2.48E-01
ES1 protein homolog, mitochondrial	P56571	5	2.96E-04	2.79E-04	2.51E-09	1.80E-09	1.1000	0.0617	4.50E-02
Etfa	P13803	5	3.32E-04	2.91E-04	2.05E-09	2.34E-09	1.1306	0.0524	1.89E-02
Etfb	Q68FU3	5	3.94E-04	3.43E-04	3.92E-09	3.59E-09	1.1596	0.0873	1.56E-05
Etfdh	Q66HF3	5	1.56E-04	1.33E-04	2.72E-10	3.20E-10	1.1926	0.0388	4.05E-07
Fabp3	P07483	5	2.97E-03	2.70E-03	2.22E-06	6.95E-07	1.0749	0.3761	6.01E-01
Fabp4	Q9R290	5	3.15E-04	2.61E-04	3.10E-08	3.50E-09	1.1322	0.3794	1.81E-01
Fahd2	B2RYW9	3	1.85E-05	1.68E-05	1.16E-11	5.23E-12	1.0875	0.0563	3.10E-01
Fam162a	Q4QQV3	5	6.10E-05	4.84E-05	4.00E-10	1.81E-10	1.2102	0.2968	2.07E-01
Fam65b	Q7TP54	4	2.74E-05	2.39E-05	1.59E-10	3.19E-11	0.9827	0.3863	3.98E-02
Fbn1	G3V9M6	5	5.33E-05	4.65E-05	8.02E-10	4.76E-10	0.9866	1.7055	3.52E-01
Fga	P06399	4	2.89E-05	3.13E-05	2.63E-10	2.76E-10	0.8920	0.3083	6.87E-01
Fgb	P14480	2	2.14E-05	2.63E-05	9.52E-11	1.59E-10	0.8073	0.1984	2.25E-01
Fgg	P02680	3	1.63E-05	2.04E-05	3.14E-11	5.52E-11	0.7980	0.1519	9.47E-02
Fh	P14408	5	1.63E-04	1.47E-04	9.38E-10	4.99E-10	1.1320	0.0600	6.52E-03
Fhl2	O35115	5	6.03E-05	8.50E-05	2.05E-09	1.38E-09	0.6811	0.3022	1.37E-01
Flna	C0JPT7	5	1.11E-05	7.50E-06	4.87E-10	3.68E-11	1.4617	13.1979	4.52E-02
Flnc	D3ZHA0	5	1.81E-05	1.72E-05	1.58E-11	1.35E-11	1.0172	0.0963	6.14E-01
Flnc; Flna	D3ZHA0; C0JPT7	2	8.47E-06	9.95E-06	5.48E-11	9.66E-12	0.8373	0.8347	6.89E-01
Fth1	Q5FVS1	3	8.05E-05	9.14E-05	6.86E-10	5.33E-10	0.8772	0.1329	1.05E-01
Gapdh	P04797	5	8.80E-04	8.80E-04	6.99E-08	2.73E-08	1.0006	0.2506	9.08E-01
Gbas	Q5RK08	5	5.19E-04	5.15E-04	1.02E-07	5.73E-08	1.0246	0.2389	8.50E-01
Gc	P04276	2	2.50E-05	2.20E-05	3.12E-11	1.98E-11	0.9808	0.7078	4.23E-01
Gdi2	P50399	3	1.53E-05	1.52E-05	1.14E-11	5.36E-12	0.9571	0.0862	8.35E-01
Glud1	P10860	5	5.02E-05	5.56E-05	1.68E-10	1.46E-10	0.9095	0.0736	2.99E-01
Glyceraldehyde-3-phosphate dehydrogenase; Gapdh	D3ZEN2; P04797	2	9.65E-04	9.75E-04	6.79E-08	4.72E-08	0.9943	0.1284	8.17E-01
Gnb4	O35353	2	2.30E-05	1.89E-05	5.40E-11	1.33E-11	1.1765	0.1463	3.09E-01
Got1	P13221	5	3.12E-04	3.11E-04	8.80E-09	4.09E-09	0.9889	0.1008	6.51E-01
Got2	P00507	5	8.89E-04	7.69E-04	4.44E-08	1.48E-08	1.1587	0.1313	6.77E-04
Gpi	Q6P6V0	5	1.01E-04	1.04E-04	2.00E-09	1.03E-09	0.9510	0.2215	2.23E-01
Gpx1	P04041	5	5.88E-05	6.12E-05	9.75E-11	1.61E-10	0.9618	0.2104	8.39E-01
Grpel1	P97576	3	2.60E-05	2.24E-05	2.05E-11	1.79E-11	1.1572	0.0873	4.97E-02
Grtp1	Q6TXE7	2	1.60E-05	1.35E-05	1.87E-11	2.55E-11	1.2130	0.4850	7.17E-01
Gsn	Q68FP1	2	1.33E-05	1.53E-05	1.84E-11	2.68E-11	0.8751	0.1857	2.86E-01
Gstk1	P24473	2	1.16E-05	1.20E-05	2.92E-12	4.88E-12	0.9718	0.0463	4.39E-01
Gstm2	P08010	5	6.43E-05	7.41E-05	3.07E-10	3.87E-10	0.8888	1.3655	8.96E-01
Gstm2; Gstm3	P08010; P08009	5	1.51E-04	1.46E-04	1.39E-09	1.21E-09	0.9977	0.1034	8.18E-01

Gstp1	P04906	3	2.29E-05	2.32E-05	1.68E-10	6.74E-11	1.0417	0.1751	7.37E-01
H1f0	P43278	2	4.23E-05	4.13E-05	7.36E-11	1.45E-10	1.0329	0.1147	5.29E-01
H2afv	D4AEC0	2	1.49E-05	1.58E-05	6.42E-12	2.29E-11	0.9530	0.1225	6.38E-01
H2afv; H2afx; Histone H2A type 1	D4AEC0; D3ZXP3; P02262	2	8.32E-04	8.43E-04	2.41E-08	4.35E-08	0.9211	0.0814	8.97E-01
H2afx	D3ZXP3	2	2.88E-05	2.46E-05	2.75E-11	3.82E-11	1.1899	0.1207	2.55E-01
Hadh	Q9WVK7	5	4.19E-04	3.35E-04	4.76E-09	3.97E-09	1.2762	0.1012	6.20E-04
Hadha	Q64428	5	4.74E-04	3.81E-04	4.49E-09	4.89E-09	1.2679	0.0908	9.55E-07
Hadhb	Q60587	5	4.33E-04	3.49E-04	5.69E-09	4.39E-09	1.2563	0.0998	1.86E-07
Hba1	P01946	5	4.86E-03	6.34E-03	2.02E-06	9.48E-06	0.8426	0.2880	2.16E-01
Hba1; LOC287167	P01946; Q63910	2	2.76E-03	3.26E-03	1.12E-06	4.72E-06	1.0289	0.5048	7.79E-01
Hbb	P02091	4	2.35E-03	2.78E-03	1.04E-06	3.97E-06	0.8457	0.3562	5.76E-01
Hbb; Hemoglobin subunit beta-2	P02091; P11517	5	3.11E-03	3.79E-03	8.38E-07	4.29E-06	0.7993	0.2543	1.56E-01
Hbb; Zero beta-globin (Fragment); Hemoglobin subunit beta-2; Hbb-b1	P02091; Q63011; P11517; Q62669	3	3.32E-03	3.95E-03	1.03E-06	5.42E-06	0.8802	0.2548	8.56E-01
Hbe1; Hbb; Hemoglobin subunit beta-2	O88752; P02091; P11517	2	3.96E-03	3.94E-03	1.35E-05	1.96E-05	0.9913	0.7786	9.26E-01
Hemoglobin subunit beta-2	P11517	2	9.39E-04	9.00E-04	1.09E-07	4.53E-07	0.9827	0.4102	7.81E-01
Hhatl	D4A9P9	4	2.77E-05	2.70E-05	4.00E-11	7.41E-11	1.0132	0.1046	6.45E-01
Hibadh	P29266	5	5.40E-05	5.05E-05	7.15E-11	6.21E-11	1.0673	0.0867	2.50E-01
Hibch	Q5XIE6	3	1.18E-05	1.18E-05	1.27E-11	1.41E-11	1.0104	0.2104	9.26E-01
Hint2	D4AB01	2	2.12E-05	1.99E-05	1.12E-11	7.64E-12	1.0420	0.0591	8.88E-01
Hist1h2bo	D3ZNH4	5	4.45E-04	4.31E-04	6.52E-09	1.32E-08	1.0092	0.0868	6.77E-01
Hist1h4b	P62804	5	6.70E-04	5.94E-04	2.28E-08	2.52E-08	0.9817	0.1599	9.94E-01
Hist2h3c2	D3ZJ08	3	4.15E-04	3.89E-04	5.75E-09	1.03E-08	1.2027	0.2619	7.11E-01
Histone H2A type 1	P02262	3	3.24E-04	3.18E-04	6.65E-09	1.73E-08	1.0583	0.0924	7.12E-01
Hk1	P05708	5	2.86E-05	2.62E-05	3.02E-11	1.07E-11	1.0023	0.0752	4.67E-01
Hmg1l1	D3ZL49	2	8.17E-06	9.81E-06	4.18E-11	1.57E-11	0.8246	0.6163	5.42E-01

Hnrnpa2b1	A7VJC2	2	3.42E-05	3.35E-05	7.69E-11	7.06E-11	0.9570	0.1365	6.90E-01
Hnrnph1	G3V9Q3	2	8.06E-06	9.45E-06	4.83E-12	1.01E-11	0.8588	0.1251	8.70E-01
Hnrpk	Q5D059	3	1.51E-05	1.49E-05	9.07E-12	1.10E-11	0.9956	0.0877	9.99E-01
Hp	P06866	3	1.24E-05	2.47E-05	9.47E-11	5.43E-11	0.5042	0.1789	2.43E-05
Hprt1	P27605	5	5.80E-05	5.93E-05	1.37E-10	1.38E-10	0.9493	0.3823	5.31E-01
Hpx	P20059	5	6.42E-05	8.14E-05	4.02E-10	6.73E-10	0.8176	0.2171	1.64E-02
Hrc	Q80W59	2	9.90E-06	1.02E-05	6.11E-12	3.31E-12	0.9850	0.0815	9.63E-01
Hsd17b10	B0BMW2	5	1.43E-04	1.22E-04	1.01E-09	7.79E-10	1.1527	0.1941	3.68E-02
Hsdl2	Q4V8F9	4	6.98E-05	6.35E-05	2.80E-10	1.39E-10	1.0813	0.1065	6.62E-02
Hsp90aa1	P82995	5	3.13E-05	3.16E-05	1.44E-10	8.16E-11	1.0100	0.1417	9.72E-01
Hsp90ab1	P34058	5	1.01E-04	1.14E-04	2.41E-09	6.63E-10	0.8904	0.2734	3.35E-01
Hsp90ab1; Hsp90aa1	P34058; P82995	5	1.01E-04	1.06E-04	2.50E-10	1.82E-10	0.9381	0.0451	8.21E-01
Hspa1l; Hspa8	P55063; P63018	2	1.09E-04	1.08E-04	9.71E-11	6.16E-11	1.0058	0.0134	9.48E-01
Hspa1l; Hspa8; Hspa5	P55063; P63018; P06761	3	2.01E-04	1.94E-04	2.00E-10	3.58E-10	1.0359	0.0141	8.78E-01
Hspa4	F1LRV4	2	1.25E-05	1.36E-05	9.23E-12	5.03E-12	0.9110	0.0693	1.07E-01
Hspa5	P06761	5	3.97E-05	3.85E-05	8.22E-11	5.65E-11	1.0017	0.0807	7.70E-01
Hspa8	P63018	5	1.77E-04	1.78E-04	2.91E-10	1.88E-10	0.9823	0.0164	7.25E-01
Hspa8; D3ZH98	P63018; D3ZH98	3	7.12E-05	6.48E-05	1.30E-10	5.31E-11	1.2285	0.1994	5.97E-01
Hspa9	F1M953	5	1.40E-04	1.21E-04	1.36E-10	1.48E-10	1.1650	0.0307	7.29E-07
Hspb1	G3V913	5	1.24E-04	1.21E-04	4.03E-09	1.87E-09	0.9568	0.1758	4.58E-01
Hspb2	O35878	2	1.67E-05	1.83E-05	1.26E-11	5.83E-12	0.9106	0.0523	1.70E-01
Hspb6	P97541	5	2.23E-04	2.04E-04	1.39E-09	1.01E-09	1.0557	0.0826	7.64E-01
Hspd1	P63039	5	3.43E-04	3.09E-04	3.84E-09	2.17E-09	1.1209	0.0615	3.88E-02
Hspe1	P26772	5	2.35E-04	1.89E-04	5.67E-09	9.26E-10	1.1735	0.1973	7.04E-02
Hspg2	F1LTJ5	5	1.75E-05	1.57E-05	6.01E-11	1.80E-11	1.1974	0.3851	9.79E-02
Hspg2	F1M566	5	3.33E-05	3.07E-05	1.61E-10	5.64E-11	1.0673	0.2185	8.02E-01
Hspg2; Hspg2	F1LTJ5; F1M566	5	3.28E-05	2.80E-05	9.15E-11	5.43E-11	1.1710	0.2359	4.19E-01
Idh1	P41562	3	6.15E-05	4.42E-05	8.79E-10	7.33E-11	1.1912	0.4258	3.95E-01
Idh2	P56574	5	1.62E-03	1.59E-03	4.82E-08	4.31E-08	1.0313	0.0602	2.31E-01
Idh2; Idh1	P56574; P41562	2	1.08E-03	1.05E-03	7.98E-08	2.08E-08	1.0218	0.0770	5.99E-01
Idh3a	F1LNF7	5	1.38E-04	1.33E-04	6.94E-10	7.43E-10	1.0459	0.0747	2.59E-01
Idh3B	Q68FX0	5	8.48E-05	8.04E-05	3.48E-10	8.17E-11	0.9885	0.0764	9.09E-01
Idh3g	P41565	5	5.56E-05	5.26E-05	1.43E-10	7.70E-11	1.0240	0.3323	6.86E-01
Immt	Q3KR86	5	1.09E-04	9.68E-05	2.45E-10	1.12E-10	1.1347	0.0672	3.36E-04
Itih3	Q63416	2	1.29E-05	1.23E-05	2.81E-11	2.25E-11	1.0535	0.3267	5.38E-01
Itih4	Q5EBC0	5	1.20E-04	1.33E-04	2.99E-09	2.76E-09	0.8211	0.1869	5.36E-01
Ivd	P12007	5	9.66E-05	8.42E-05	4.61E-10	9.14E-10	1.0902	0.1527	1.66E-01
Jup	P70565	5	2.69E-05	2.28E-05	4.02E-11	1.92E-11	1.1136	0.1206	5.71E-01
Krt1	Q6IMF3	3	4.56E-05	3.50E-05	1.32E-08	5.49E-10	1.3047	13.8086	6.01E-03
Krt10	Q6IFW6	2	1.35E-05	9.21E-06	1.40E-09	1.39E-10	1.3873	17.1921	3.11E-02
Krt6a	Q4FZU2	2	5.63E-05	3.16E-05	1.94E-08	1.27E-09	1.7790	23.4569	7.46E-04
Krt8	Q10758	3	2.08E-05	1.02E-05	5.95E-09	5.76E-10	2.1232	37.8976	9.21E-04

Lama2	F1M614	5	2.35E-05	2.20E-05	1.48E-11	2.16E-11	1.1126	0.1045	7.08E-03
Lamb1	D3ZQN7	5	2.66E-05	2.21E-05	2.72E-11	2.11E-11	1.1056	0.1238	1.26E-01
Lamb2	M0R6K0	5	3.75E-05	3.68E-05	1.06E-10	2.68E-10	1.1589	0.1610	3.47E-01
Lamc1	F1MAA7	5	3.92E-05	3.57E-05	6.28E-11	5.92E-11	1.1086	0.0915	1.20E-01
Ldb3	A0A096MJ01	5	9.51E-05	8.43E-05	5.15E-10	2.84E-10	1.0993	0.1933	7.31E-01
Ldb3	Q5XIG1	3	8.41E-05	8.59E-05	8.66E-10	6.49E-10	0.9715	0.1249	7.78E-01
Ldb3; Ldb3	Q5XIG1; A0A096MJ01	5	2.10E-04	2.16E-04	2.52E-09	1.44E-09	1.0071	0.0947	7.91E-01
Ldha	P04642	5	3.75E-04	4.11E-04	3.67E-08	2.68E-08	0.8939	0.2557	5.67E-02
Ldha; Ldhb	P04642; P42123	3	1.02E-03	1.05E-03	1.75E-07	1.25E-07	0.9857	0.1450	9.80E-01
Ldhb	P42123	5	1.86E-03	1.95E-03	7.35E-07	5.14E-07	0.9628	0.2574	4.64E-01
Letm1	Q5XIN6	2	1.61E-05	1.67E-05	6.97E-12	1.58E-11	0.9662	0.0633	5.41E-01
Lgals1	P11762	5	5.80E-05	5.55E-05	1.03E-10	1.41E-10	1.0186	0.0729	6.69E-01
Lmna	G3V8L3	5	5.98E-05	5.69E-05	1.10E-10	1.09E-10	0.9922	0.1341	4.61E-01
LOC100360413	M0R757	2	1.33E-05	1.64E-05	4.79E-11	6.96E-11	0.8117	0.3350	1.36E-01
LOC100360413; Eef1a2	M0R757; P62632	5	2.72E-04	2.75E-04	6.90E-10	5.87E-10	0.9484	0.0357	7.12E-01
LOC100360791	M0R8Q2	2	2.74E-05	3.25E-05	6.86E-11	1.81E-11	0.8573	0.0703	1.66E-02
LOC100361144	D4A4P3	3	2.22E-05	1.54E-05	1.77E-10	1.27E-10	1.4504	1.8801	3.13E-01
LOC100362298	D3ZM33	2	2.02E-05	1.83E-05	2.57E-11	8.81E-12	1.1456	0.1584	6.50E-02
LOC100362339	D4A6G6	2	1.55E-05	1.48E-05	2.75E-12	5.93E-12	1.0526	0.0413	2.68E-01
LOC100363268	B5DEL8	5	1.20E-04	1.26E-04	7.00E-10	3.95E-10	0.9203	0.0826	2.29E-01
LOC100912386	M0RAK8	2	1.38E-05	1.36E-05	2.86E-12	3.50E-12	1.0156	0.0349	9.06E-01
LOC100912599	D3ZCZ9	4	4.61E-05	4.48E-05	4.46E-10	5.94E-10	0.9748	0.9268	5.68E-01
LOC102554591	M0RCE8	2	1.51E-05	1.59E-05	1.58E-11	7.91E-12	0.9330	0.1105	5.39E-01
LOC102554591	F1LVX3	2	1.24E-05	1.33E-05	2.85E-11	2.70E-11	0.9644	0.2453	8.40E-01
LOC287167	Q63910	4	2.90E-05	2.15E-05	3.51E-10	3.54E-10	1.1398	1.0162	7.15E-01
LOC367586	Q5M7V3	5	2.18E-04	2.66E-04	5.03E-09	2.07E-08	0.7933	0.2381	2.37E-02
LOC498555	D4A4D5	2	2.73E-05	2.97E-05	2.45E-11	2.09E-11	0.8978	0.0583	5.42E-01
LOC500183	Q4KM66	5	1.61E-04	2.10E-04	2.75E-09	7.33E-09	0.7205	0.1720	1.64E-01
LOC679794	D4A5L9	5	6.99E-04	6.75E-04	5.50E-08	4.03E-08	0.9192	0.2003	5.36E-01

LOC683884	D3ZF13	4	2.39E-05	2.40E-05	3.04E-10	3.38E-10	0.7919	1.1827	5.04E-01
LOC683961	M0RCY2	2	9.73E-06	1.10E-05	2.91E-12	4.67E-12	0.9039	0.0618	7.58E-02
LOC684828; Hist1h1e	M0R7B4; P15865	5	3.87E-04	3.58E-04	2.35E-09	4.85E-09	1.0283	0.0899	6.04E-01
LOC688963	F1LPG5	4	6.08E-05	6.02E-05	2.47E-10	1.82E-10	1.0327	0.2281	8.72E-01
Lonp1	Q924S5	2	8.39E-06	8.86E-06	3.08E-12	5.85E-12	0.8985	0.2460	6.69E-01
Lrpprc	F1LM33	3	1.48E-05	1.32E-05	1.22E-11	2.60E-12	1.1029	0.1019	7.70E-01
Lum	P51886	4	1.27E-04	1.22E-04	1.16E-09	1.04E-09	1.1514	1.1880	9.43E-01
Lypla1	P70470	2	2.15E-05	1.98E-05	1.11E-10	4.55E-11	1.0897	0.4753	5.60E-01
Macrod1	Q8K4G6	4	3.83E-05	3.60E-05	1.17E-10	7.64E-11	0.9959	0.1862	9.40E-01
Maoa	G3V9Z3	5	4.12E-05	8.18E-05	6.61E-10	2.51E-09	0.5191	0.1898	1.51E-06
Map1	P01048	5	6.36E-05	4.78E-05	4.61E-10	3.99E-10	1.1355	0.4936	6.62E-01
Mb	Q9QZ76	5	4.62E-03	5.29E-03	3.44E-06	4.71E-06	0.8649	0.1377	1.65E-01
Mccc1	F1LP30	5	2.59E-05	2.68E-05	3.87E-11	1.32E-11	1.0292	0.5651	5.65E-01
Mccc2	Q5XIT9	5	2.56E-05	2.43E-05	2.34E-11	2.04E-11	1.0170	0.0637	8.52E-01
Mdh1	O88989	5	6.45E-04	6.82E-04	3.26E-08	3.37E-08	0.9212	0.1271	3.21E-02
Mdh2	P04636	5	1.73E-03	1.81E-03	5.28E-08	5.01E-08	1.0351	0.0687	2.82E-01
Me3	F1M5N4	2	1.78E-05	1.63E-05	2.67E-11	8.92E-12	1.0961	0.1264	5.67E-02
Mpc2	P38718	3	9.92E-05	1.00E-04	4.36E-10	2.79E-10	0.8880	0.4527	5.18E-01
Mpst	P97532	4	1.93E-05	2.22E-05	3.71E-11	1.96E-11	0.8924	0.2132	3.18E-01
Msn	A0A096MK30	4	2.90E-05	2.98E-05	6.55E-11	3.22E-11	0.9380	0.0825	9.36E-01
Mtch2	B0BN52	4	5.18E-05	5.01E-05	5.58E-11	4.78E-11	1.0052	0.0389	9.96E-01
Mtx2	Q5U1Z9	2	2.14E-05	2.08E-05	2.20E-11	9.44E-12	1.0088	0.0721	7.09E-01
Mug1	Q03626	5	6.76E-05	6.95E-05	1.29E-09	4.14E-10	0.7824	0.1971	8.73E-03
Mug1; A1i3	Q03626; P14046	5	8.11E-05	1.39E-04	1.68E-09	2.80E-09	0.6320	0.0947	3.56E-04
Murc	B1PRL5	4	1.97E-05	1.82E-05	9.20E-12	5.34E-12	1.1805	0.1773	2.68E-02
Mut	D3ZKG1	3	2.69E-05	2.55E-05	1.69E-11	2.32E-11	1.0577	0.0660	1.56E-01
Mybpc3	P56741	5	4.37E-04	4.40E-04	9.28E-09	9.33E-09	0.9754	0.0855	9.50E-01
Myh11	E9PTU4	5	2.86E-05	1.59E-05	4.45E-10	6.53E-11	1.4331	7.1111	4.62E-01
Myh6	G3V885	5	3.54E-03	3.67E-03	8.03E-07	6.84E-07	0.9518	0.1131	4.22E-01
Myh7	G3V8B0	5	7.76E-04	7.98E-04	4.01E-07	3.76E-07	1.3256	1.6238	6.69E-01
Myh7; Myh13; Myh6	G3V8B0; F1M789; G3V885	5	3.58E-03	3.49E-03	4.05E-07	2.25E-07	1.0453	0.0891	8.33E-01
Myh7; Myh13; Myh6; Myh7b	G3V8B0; F1M789; G3V885; B6RK61	5	2.26E-03	2.11E-03	2.08E-07	1.39E-07	1.0461	0.1660	8.31E-01
Myh7; Myh6	G3V8B0; G3V885	5	4.56E-03	4.46E-03	6.56E-07	5.38E-07	1.0288	0.0743	6.07E-01
Myh7; Myh6; Myh7b	G3V8B0; G3V885; B6RK61	5	1.85E-03	1.91E-03	2.92E-07	2.27E-07	3.3258	24.1659	5.07E-01
Myh9; Myh11	Q62812; E9PTU4	4	1.43E-05	1.35E-05	2.86E-10	3.43E-11	1.1683	8.7955	1.30E-01

Myl2	P08733	5	2.55E-03	2.61E-03	3.40E-07	3.80E-07	0.9729	0.2152	9.42E-01
Myl3	P16409	5	3.57E-03	3.26E-03	6.59E-07	5.79E-07	1.0386	0.1233	7.70E-01
Myl4	P17209	4	4.42E-06	7.90E-05	1.86E-10	2.62E-08	0.0711	0.0573	5.98E-04
Myl7	F1M7K3	5	2.15E-05	5.70E-05	7.29E-11	1.18E-08	0.3778	34.7821	1.75E-01
Myom1	F1M7T8	5	9.64E-05	1.01E-04	4.72E-10	5.45E-10	1.0202	0.0991	3.39E-01
Myom1; Myom1	F1M7T8; Q80UL1	2	2.37E-05	2.68E-05	2.41E-11	1.65E-11	0.8882	0.0508	9.93E-02
Myom2	G3V7K1	5	7.62E-04	8.23E-04	3.15E-08	1.09E-08	0.9624	0.0458	8.00E-01
Myoz2	D3ZX18	5	1.59E-04	1.57E-04	1.45E-09	8.42E-10	1.0422	0.0988	6.89E-01
ND5	A0A096XKT9	2	4.60E-05	4.23E-05	1.52E-10	1.52E-10	1.2310	0.4572	1.87E-01
Ndrg2	Q8VBU2	4	7.62E-05	6.91E-05	8.57E-11	9.37E-11	1.0396	0.0771	9.37E-01
Ndufa10	Q561S0	5	1.55E-04	1.62E-04	2.28E-09	1.34E-09	0.9968	0.0945	5.05E-01
Ndufa11	Q80W89	3	4.80E-05	5.02E-05	7.34E-11	5.31E-11	0.9461	0.0511	5.21E-01
Ndufa12	F1LXA0	4	1.75E-04	1.45E-04	8.04E-09	4.81E-10	1.1532	0.2766	2.93E-01
Ndufa13	F1LZC5	3	1.25E-04	1.18E-04	4.16E-10	3.23E-10	0.9880	0.2281	5.84E-01
Ndufa2	D3ZS58	5	1.71E-04	1.52E-04	5.05E-10	4.39E-10	1.1158	0.0326	3.78E-01
Ndufa4	B2RZD6	5	6.31E-04	5.97E-04	8.79E-09	4.98E-09	1.0825	0.0403	6.37E-01
Ndufa5	Q63362	5	9.93E-05	1.02E-04	2.92E-10	2.12E-10	0.9870	0.0455	9.55E-01
Ndufa6	D4A3V2	5	1.14E-04	1.23E-04	1.72E-09	9.03E-10	0.8450	0.2069	9.46E-01
Ndufa7l	A9UMV9	4	9.24E-05	8.59E-05	1.81E-10	1.69E-10	1.1537	0.2272	5.22E-01
Ndufa8	Q7TP78	3	1.29E-04	1.28E-04	6.03E-10	7.94E-10	1.0055	0.0607	6.46E-01
Ndufa9	Q5BK63	5	1.73E-04	1.71E-04	3.28E-09	1.62E-09	1.0595	0.1308	8.63E-02
Ndufb10	D4A0T0	5	2.09E-04	1.70E-04	2.06E-08	1.81E-09	1.1247	0.3815	2.03E-01
Ndufb11	D4A7L4	2	1.80E-04	1.59E-04	9.37E-10	7.50E-10	1.1056	0.0727	6.42E-01
Ndufb5	D4A565	4	9.64E-05	1.02E-04	5.28E-10	3.25E-10	0.9462	0.1131	8.69E-01
Ndufb6	D3ZZ21	4	6.94E-05	6.22E-05	4.29E-10	2.81E-10	1.4534	7.7927	7.36E-01
Ndufb7	D3ZLT1	4	8.38E-05	8.46E-05	2.91E-10	2.00E-10	0.8506	0.1320	5.22E-01
Ndufb8	B2RYS8	3	5.94E-05	7.31E-05	5.85E-10	2.07E-10	0.8751	0.2121	6.29E-01
Ndufb9	B2RYW3	4	8.73E-05	8.78E-05	3.52E-10	2.92E-10	0.8695	0.0832	3.95E-01
Ndufc2	Q5PQZ9	2	9.73E-05	9.94E-05	4.00E-10	6.08E-10	0.9888	0.1004	8.45E-01
Ndufs1	Q66HF1	5	2.54E-04	2.31E-04	9.40E-10	9.19E-10	1.0541	0.0533	6.79E-02
Ndufs2	Q641Y2	5	1.74E-04	1.68E-04	4.34E-10	6.86E-10	0.9671	0.0492	7.09E-01
Ndufs3	D3ZG43	5	1.85E-04	1.79E-04	6.16E-10	4.36E-10	1.0121	0.0396	6.85E-01
Ndufs4	Q5XIF3	5	1.16E-04	1.21E-04	6.64E-10	6.06E-10	0.9663	0.1093	8.68E-01
Ndufs7	Q5RJN0	5	1.10E-04	1.04E-04	2.37E-10	2.31E-10	1.0880	12.2029	6.45E-01
Ndufs8	B0BNE6	4	6.40E-05	6.48E-05	3.53E-10	3.32E-10	0.8098	0.1323	5.64E-01
Ndufv1	Q5XIH3	5	1.95E-04	1.70E-04	4.94E-10	3.27E-10	1.1310	0.0480	1.60E-02
Ndufv2	P19234	5	2.58E-04	2.38E-04	1.42E-09	1.44E-09	1.0554	0.0482	6.56E-01
Ndufv3	Q6PCU8	2	5.38E-05	4.30E-05	2.73E-10	2.28E-10	1.2515	0.3416	4.68E-01
Nebl	D4A164	5	2.75E-05	2.78E-05	2.46E-11	2.35E-11	0.9137	0.1696	7.81E-01
Nid1	F1LM84	5	2.97E-05	2.68E-05	4.51E-11	3.91E-11	1.1226	0.2421	2.57E-01
Nit2	Q497B0	5	4.29E-05	4.00E-05	1.62E-10	2.22E-10	1.0945	0.4263	7.48E-01
Nme2	P19804	5	3.52E-04	3.42E-04	9.75E-09	7.53E-09	0.9886	0.1340	6.18E-01
Nnt	Q5BJZ3	5	3.15E-04	2.96E-04	4.59E-08	2.38E-08	1.0287	0.7646	4.35E-01
Nppa	P01161	4	1.33E-05	3.54E-05	2.16E-11	4.31E-08	0.3614	18.9675	2.87E-04
Nqo2	Q6AY80	2	1.90E-05	1.55E-05	3.18E-10	3.66E-11	1.2226	1.5644	9.29E-02
Ogdh	Q5XI78	5	2.15E-04	1.99E-04	5.31E-10	5.77E-10	1.0516	0.0299	3.29E-01
Ogn	D3ZVB7	5	2.48E-05	2.74E-05	5.28E-10	3.53E-10	0.9555	1.5066	7.35E-01
Ola1	A0JPJ7	2	1.51E-05	1.61E-05	1.90E-11	9.04E-12	0.9425	0.1357	7.38E-01
Opa1	D4A8U5	3	9.69E-06	9.21E-06	4.36E-12	5.78E-12	1.0410	0.1243	9.72E-01

Oxct1	B2GV06	5	2.31E-04	2.17E-04	4.64E-09	2.17E-09	1.0627	0.1455	7.71E-01
Park7	O88767	5	1.82E-04	1.75E-04	1.04E-08	4.93E-09	1.0209	0.2839	9.51E-01
Pcca	P14882	2	5.29E-05	4.23E-05	1.77E-10	8.78E-11	1.1947	0.1069	1.17E-01
Pcca; Pcca	D4A882; P14882	5	5.44E-05	5.65E-05	4.10E-11	5.00E-11	0.9450	0.0355	9.76E-01
Pccb	Q68FZ8	2	4.43E-05	4.44E-05	4.95E-11	4.24E-11	1.0040	0.0452	8.08E-01
Pccb; Pccb	P07633; Q68FZ8	5	5.04E-05	4.72E-05	5.65E-11	4.57E-11	1.0223	0.0500	3.86E-01
Pdha1l1	D4A5G8	5	3.81E-04	3.53E-04	1.29E-09	2.05E-09	1.0443	0.0431	6.48E-01
Pdhb	P49432	5	3.75E-04	3.64E-04	2.37E-09	1.77E-09	1.0490	0.0347	5.20E-01
Pdhx	Q7TQ85	4	5.81E-05	5.17E-05	5.13E-11	6.69E-11	1.1181	0.0601	5.09E-01
Pdia3	P11598	4	1.39E-04	9.62E-05	1.92E-09	8.07E-10	1.2097	0.2522	3.76E-01
Pdk1	F1MA54	4	3.44E-05	2.80E-05	4.85E-11	2.47E-11	1.1943	0.1219	2.20E-01
Pdk2	Q64536	2	2.89E-05	2.69E-05	1.10E-11	9.45E-12	1.0787	0.0302	7.42E-02
Pdlim5	Q62920	5	9.29E-05	9.72E-05	7.29E-10	4.15E-10	0.8925	0.1893	7.48E-01
Pebp1	P31044	5	1.60E-04	1.63E-04	3.53E-09	2.57E-09	0.9338	0.1864	4.04E-01
Pfkm	Q52KS1	5	8.04E-05	7.63E-05	3.67E-10	7.27E-11	0.9985	0.1532	7.20E-01
Pfn1	P62963	3	5.86E-05	6.34E-05	4.83E-10	2.01E-10	1.2066	0.1620	4.57E-01
Pgam1	P25113	5	4.54E-05	5.14E-05	9.81E-11	4.40E-10	0.8193	0.1699	1.83E-01
Pgam2	P16290	5	2.44E-04	2.30E-04	4.22E-09	7.16E-09	0.9822	0.4810	4.46E-01
Pgam2; Pgam1	P16290; P25113	3	9.85E-05	1.13E-04	6.83E-10	4.29E-10	0.9178	0.1796	7.35E-01
Pgk1	P16617	5	3.22E-04	3.31E-04	5.85E-09	4.44E-09	0.9684	0.0904	5.55E-01
Pgm1	A1A5L2	5	4.50E-05	5.26E-05	1.65E-10	1.10E-10	0.9009	0.1023	2.00E-01
Phb	P67779	5	9.02E-05	8.20E-05	1.70E-10	1.43E-10	1.1122	0.0641	1.08E-01
Phb2	Q5XIH7	5	8.37E-05	8.15E-05	3.33E-10	2.60E-10	1.1000	0.1757	2.24E-01
Pkm	P11980	5	2.53E-04	2.63E-04	6.09E-09	4.75E-09	0.7861	0.1733	4.29E-01
Plectin 6	Q6S3A0	5	1.98E-05	2.50E-05	1.86E-10	4.32E-11	0.9510	0.2968	8.27E-01
Plin4	M0R7S5	2	6.95E-05	6.84E-05	7.60E-11	4.94E-11	1.0172	0.0284	7.14E-01
Ppia	P10111	2	9.44E-05	1.11E-04	4.07E-10	5.41E-10	0.8575	0.0642	3.07E-01
Ppp2r1a	Q5XI34	3	2.62E-05	2.59E-05	2.28E-11	2.00E-11	0.8999	0.1047	5.46E-02
Prdx1	Q63716	5	7.04E-05	7.21E-05	3.32E-10	2.50E-10	0.9372	0.1025	2.83E-01
Prdx2	P35704	5	1.51E-04	1.71E-04	2.52E-09	4.77E-09	0.9018	0.1575	4.15E-01
Prdx3	G3V7I0	5	1.53E-04	1.55E-04	4.01E-10	4.70E-10	0.9547	0.1755	6.89E-01
Prdx5	Q9R063	5	1.45E-04	1.32E-04	1.57E-09	8.95E-10	1.0688	0.2172	7.04E-01
Prdx6	O35244	5	1.28E-04	1.28E-04	1.15E-09	1.00E-09	0.9875	0.2491	6.01E-01
Prelp	Q9EQP5	4	3.38E-05	3.34E-05	3.27E-10	3.63E-10	1.0157	5.9261	7.34E-01
Prkar1a	P09456	3	1.68E-05	1.68E-05	4.06E-11	1.21E-11	0.9175	0.1036	6.20E-01
Psap	F7EPE0	2	3.26E-05	3.74E-05	3.38E-11	6.73E-11	0.8682	0.0779	1.85E-01
Psme1	Q6P9V7	3	2.47E-05	2.74E-05	3.04E-10	7.69E-11	0.8916	0.4198	6.80E-01
Psme3	Q7TP38	2	2.52E-05	1.05E-05	1.82E-10	4.63E-12	2.2469	1.8244	2.78E-01
Ptgr2	Q5BK81	2	1.77E-05	1.64E-05	1.07E-11	2.42E-11	1.0736	0.1442	5.15E-01
Ptrf	G3V8L9	3	8.14E-05	7.90E-05	1.01E-10	2.01E-10	1.0328	0.0512	4.89E-01
Pygb	B2GV03	5	5.09E-05	5.15E-05	1.15E-10	3.78E-11	1.2468	0.3110	3.91E-03
Pygb; Pygm	B2GV03; B1WBU9	5	1.81E-04	1.84E-04	2.52E-09	8.33E-10	0.9543	0.0633	8.94E-01
Pygm	B1WBU9	5	1.84E-04	1.69E-04	6.45E-10	3.58E-10	1.0171	0.0387	5.93E-01
Ran	P62828	2	4.37E-05	5.10E-05	2.56E-10	1.03E-10	0.8731	0.0874	8.26E-01
Rat apolipopr	Q65ZS7	4	5.48E-05	3.53E-05	8.85E-10	2.61E-10	1.5127	1.5797	1.57E-02

otein E protein									
Reep5	B2RZ37	3	3.01E-05	2.66E-05	3.34E-11	1.64E-11	1.0614	0.1239	9.88E-01
RGD1564515	F1LYQ4	2	8.34E-06	1.82E-05	2.47E-11	8.93E-11	0.4478	0.1146	8.81E-03
Rhoc	B2RYP0	2	1.62E-05	1.67E-05	1.85E-11	5.71E-12	0.9077	0.0689	5.30E-01
Rmdn1	Q4G069	3	3.60E-05	2.66E-05	1.58E-10	2.68E-11	1.2306	0.1965	2.03E-01
Rpl18	P12001	2	1.53E-05	1.52E-05	4.27E-12	8.23E-12	1.0043	0.0536	9.64E-01
Rpl4	Q6P3V9	2	9.52E-06	1.04E-05	3.59E-12	5.24E-12	0.9158	0.0822	2.49E-02
Rplp0	P19945	2	1.29E-05	1.39E-05	2.76E-12	5.18E-12	0.9255	0.0352	9.75E-01
Rplp1	P19944	2	1.90E-05	1.75E-05	1.92E-11	2.75E-11	1.0849	0.2100	5.52E-01
Rps16	Q6P3E1	2	2.34E-05	2.18E-05	3.28E-11	1.69E-11	1.0743	0.1136	6.50E-01
Rps27a	P62982	2	4.07E-04	4.57E-04	6.31E-09	5.00E-09	0.8901	0.0393	3.03E-01
Rps27a; LOC679594	P62982; F1M0Q4	3	3.79E-04	3.67E-04	1.49E-08	3.27E-09	0.9571	0.0615	8.96E-01
Rps7	P62083	2	1.21E-05	1.15E-05	3.38E-11	4.81E-12	0.9961	0.2167	5.64E-01
Rpsa	P38983	2	1.08E-05	1.28E-05	9.50E-12	7.08E-12	0.8166	0.0874	2.06E-01
Ryr2	B0LPN4	4	2.80E-05	2.46E-05	1.77E-11	1.36E-11	1.1054	0.0575	1.40E-02
Samm50	Q6AXV4	5	1.03E-04	7.89E-05	1.85E-09	3.24E-10	1.2494	0.2815	1.49E-02
Scp2	P11915	2	2.66E-05	1.93E-05	9.38E-11	1.22E-11	1.3861	0.3120	2.49E-06
Sdha	Q920L2	5	2.47E-04	2.51E-04	2.06E-09	1.99E-09	0.9982	0.0550	7.83E-01
Sdhb	P21913	5	1.76E-04	1.77E-04	6.75E-10	1.01E-09	1.0679	0.0747	3.39E-01
Sdhc	Q641Z9	2	5.74E-05	6.01E-05	5.50E-11	1.04E-10	0.8930	0.0381	6.15E-01
Sdpr	Q66H98	2	1.04E-05	1.11E-05	3.16E-12	2.49E-12	0.9368	0.0423	3.11E-01
Selenbp1	Q8VIF7	5	3.09E-05	3.35E-05	1.81E-10	8.29E-11	0.8897	0.1858	4.26E-01
Serpina1	P17475	5	1.46E-04	1.29E-04	4.41E-09	2.25E-09	1.1295	0.3932	3.05E-01
Serpina3k	P05545	4	6.19E-05	4.71E-05	7.91E-10	2.96E-10	0.9760	0.5732	8.82E-01
Serpina3l	P05544	3	3.52E-05	4.63E-05	3.37E-10	3.71E-10	0.7387	0.2264	4.26E-01
Serpinc1	Q5M7T5	3	4.72E-05	2.94E-05	2.08E-09	2.26E-10	1.1886	0.9699	8.58E-01
Sgca	D3ZDQ9	3	3.89E-05	3.85E-05	9.89E-11	7.97E-11	1.0172	0.0843	9.81E-01
Slc25a11	G3V6H5	5	1.28E-04	1.17E-04	4.15E-10	3.18E-10	1.0501	0.0830	5.24E-01
Slc25a12	F1LX07	5	6.35E-05	6.00E-05	1.18E-10	5.43E-11	1.0665	0.0509	5.40E-01
Slc25a13	F1LZW6	3	3.17E-05	2.63E-05	7.70E-11	4.40E-11	1.2069	0.2276	3.36E-02
Slc25a13; Slc25a12	F1LZW6; F1LX07	4	8.03E-05	7.42E-05	1.27E-10	9.34E-11	1.0709	0.0862	1.55E-01
Slc25a20	P97521	5	6.71E-05	6.22E-05	7.97E-11	9.94E-11	1.0582	0.0539	1.69E-01
Slc25a3	Q6IRH6	5	6.19E-04	5.99E-04	6.11E-09	9.27E-09	0.9929	0.0707	7.10E-01
Slc25a4	Q05962	5	1.72E-03	1.68E-03	8.62E-08	3.95E-08	1.0276	0.2776	4.93E-01
Slc25a5	Q09073	4	8.68E-05	8.34E-05	7.03E-10	2.42E-10	1.0592	0.2824	8.26E-01
Slc25a5; Slc25a31; Slc25a4	Q09073; D3ZB81; Q05962	3	1.84E-03	1.71E-03	9.17E-08	4.95E-08	1.1079	2.0620	7.78E-01
Slc25a5; Slc25a4	Q09073; Q05962	5	2.36E-03	2.13E-03	1.22E-07	7.64E-08	1.1941	2.1076	7.63E-01
Slc4a1	F8WFT7	4	1.12E-05	1.11E-05	1.68E-11	7.84E-11	0.9746	0.7769	5.62E-01
Smpx	Q925F0	2	1.45E-05	1.59E-05	1.52E-11	5.30E-11	0.9110	0.2357	9.66E-02
Smyd1	D4A3D2	4	3.43E-05	3.10E-05	1.22E-10	3.46E-11	1.0310	0.1295	9.90E-01
Sod2	P07895	5	4.38E-04	3.99E-04	3.59E-09	3.06E-09	1.0617	0.1402	7.64E-01
Sorbs1; Sorbs1	F1M820; F1M8Z8	3	1.58E-05	1.46E-05	1.28E-11	9.66E-12	1.0743	0.1219	9.35E-01

Sorbs2	F1LPM3	2	1.98E-05	2.07E-05	2.71E-11	2.25E-11	0.9595	0.1228	2.91E-01
SP120	Q63555	2	1.30E-05	1.10E-05	3.82E-10	2.44E-10	1.2398	20.6723	8.68E-02
Sptbn1	Q6XD99	5	2.27E-05	2.04E-05	3.43E-11	1.44E-11	1.0904	0.1045	9.18E-02
Srl	F1LWG8	5	2.63E-04	2.48E-04	1.04E-09	2.07E-09	1.0200	0.0565	8.13E-01
Sucla2	F1LM47	5	2.58E-04	2.85E-04	1.17E-09	1.21E-09	0.9736	0.0369	8.58E-01
Suclg1	P13086	5	3.45E-04	2.77E-04	1.22E-08	3.25E-09	1.1420	0.1343	1.11E-01
Suclg2	B1H270	5	7.28E-05	6.13E-05	1.05E-10	5.90E-11	1.2122	0.0537	1.66E-06
Superoxide dismutase [Cu-Zn] (Fragment)	Q6PEC5	5	2.90E-04	3.24E-04	1.02E-08	4.36E-09	0.9367	0.1264	6.51E-01
Taf3	Q6QI09	5	6.31E-04	5.27E-04	1.23E-08	6.13E-09	1.0688	0.0753	6.94E-01
Tagln	P31232	5	1.45E-05	7.47E-06	2.32E-09	6.26E-10	1.9006	98.0218	1.02E-02
Tf	P12346	5	2.66E-04	3.68E-04	1.91E-08	9.80E-09	0.8142	0.2407	1.15E-01
Tgm2	Q6P6R6	5	2.01E-05	2.14E-05	4.28E-11	1.47E-11	0.9197	0.1364	8.20E-02
Timm21	Q5U2X7	3	1.67E-05	1.52E-05	6.53E-12	5.06E-12	1.1111	0.0599	9.68E-02
Titin (Fragment)	Q9JJ49	5	6.44E-05	6.31E-05	2.28E-10	1.26E-10	1.0034	0.1069	5.97E-01
Titin (Fragment)	Q63580	5	9.23E-05	9.31E-05	5.89E-10	4.97E-10	1.0261	0.0982	7.91E-01
Titin protein homolog (Fragment)	P97851	2	6.19E-05	6.53E-05	2.39E-10	9.70E-11	0.9514	0.0777	2.37E-01
Tln1	G3V852	2	7.12E-06	7.52E-06	7.13E-12	3.21E-12	0.9318	0.1597	5.42E-01
Tmod1	P70567	2	9.45E-06	1.02E-05	8.16E-12	6.72E-12	0.9174	0.1366	3.15E-01
Tnnc1	Q4PP99	5	4.12E-04	4.01E-04	1.80E-08	1.56E-08	1.0552	0.1718	9.61E-01
Tnni3	P23693	5	5.10E-04	5.00E-04	9.43E-09	9.38E-09	1.0085	0.2696	9.33E-01
Tnnt2	F1LQ95	5	7.91E-04	9.20E-04	2.84E-08	1.64E-08	0.8948	0.0835	1.59E-02
Tpi1	P48500	5	3.08E-04	3.14E-04	1.02E-08	8.86E-09	0.9496	0.1489	2.55E-01
Tpm1	F7FK40	2	4.11E-05	2.33E-05	1.63E-09	2.25E-10	1.8349	5.0166	3.22E-03
Tpm1	P04692	5	9.72E-04	1.05E-03	8.06E-08	4.29E-08	0.9896	0.1581	3.94E-01
Tpm1; Tpm1	F7FK40; P04692	5	1.30E-03	1.22E-03	5.29E-08	2.80E-08	1.0811	0.0594	4.71E-01
Tpm2	Q5FVG5	3	1.10E-05	9.91E-06	5.96E-10	1.08E-10	1.0997	9.8873	6.29E-01
Tpm2; Tpm1	Q5FVG5; P04692	2	1.11E-03	1.07E-03	6.93E-08	3.26E-08	1.0310	0.1910	9.39E-01
Tpm2; Tpm1; Tpm1	Q5FVG5; F7FK40; P04692	2	9.21E-04	8.32E-04	6.91E-08	4.08E-08	1.1481	0.1120	8.28E-01
Tpm3; Tpm1; Tpm1	Q63610; F7FK40; P04692	3	3.43E-04	3.30E-04	2.39E-08	2.27E-08	0.9613	0.4269	6.55E-01
Tpm3; Tpm2;	Q63610; Q5FVG5;	5	1.67E-03	1.56E-03	1.39E-07	8.24E-08	1.0404	0.0848	9.62E-01

Tpm1; Tpm1	F7FK40; P04692								
Trim72	A0JPQ4	5	3.60E-05	3.41E-05	5.34E-11	5.29E-11	1.0439	0.0935	7.21E-01
Tst	P24329	2	2.28E-05	2.46E-05	4.79E-11	4.95E-11	0.8568	0.1269	5.82E-01
Tuba1a	P68370	5	4.50E-05	7.17E-05	2.85E-09	2.88E-09	0.7819	0.4687	4.56E-01
Tuba1a; Tuba4a	P68370; Q5XIF6	5	1.26E-04	1.35E-04	5.17E-10	6.43E-10	0.9735	0.1207	8.12E-01
Tuba4a	Q5XIF6	5	9.25E-05	9.49E-05	6.53E-10	4.68E-10	0.9731	0.1009	6.02E-01
Tubb4b	G3V7C6	4	4.03E-05	4.39E-05	9.81E-11	7.76E-11	0.8814	0.3764	8.07E-01
Tubb5	P69897	2	2.05E-05	2.12E-05	3.49E-11	4.88E-11	0.9892	0.1483	9.09E-01
Tubb5; Tubb4b	P69897; G3V7C6	5	1.36E-04	1.15E-04	5.36E-08	5.04E-08	1.0560	6.1131	5.09E-01
Tufm	P85834	5	1.38E-04	1.43E-04	1.06E-09	5.16E-10	0.9631	0.0583	9.84E-01
Txnrd2	Q9Z0J5	2	6.75E-06	6.97E-06	1.28E-12	8.30E-13	0.9542	0.0297	8.15E-01
Uba1	Q5U300	3	1.50E-05	1.61E-05	1.59E-11	1.01E-11	0.9106	0.0920	2.03E-01
Ube2l3	B2RZA9	2	1.85E-05	2.07E-05	9.20E-12	1.09E-11	0.8727	0.0336	2.71E-01
Ube2n	Q9EQX9	2	2.10E-05	2.37E-05	1.27E-11	9.23E-12	0.8567	0.0335	4.26E-01
Ugp2	Q4V8I9	3	1.97E-05	1.83E-05	1.94E-11	4.84E-11	1.0768	0.3058	8.41E-01
Uncharacterized protein	M0R5J4	5	2.62E-04	3.19E-04	8.60E-09	6.01E-09	0.8497	0.0971	6.71E-02
Uncharacterized protein	D4A8Y1	5	4.13E-05	4.13E-05	8.77E-11	3.29E-11	0.9819	0.0757	3.78E-01
Uncharacterized protein	D3ZEK8	2	1.70E-05	1.87E-05	5.22E-12	4.93E-12	0.8116	0.0276	4.49E-01
Uncharacterized protein	D3Z874	5	6.32E-05	5.89E-05	1.10E-10	5.08E-11	1.0379	0.0552	8.78E-01
Uncharacterized protein (Fragment)	F1M7L9	2	2.55E-05	2.33E-05	2.11E-11	4.46E-11	1.0879	0.1322	2.54E-01
Uncharacterized protein (Fragment)	F1LPQ6	2	1.40E-04	1.32E-04	8.51E-09	7.13E-09	1.0889	1.1539	5.88E-01
Uncharacterized protein (Fragment)	D4A4B0	5	2.69E-04	2.20E-04	1.23E-08	3.40E-09	1.0551	0.1269	9.71E-01
Uncharacterized protein; Eno3; Enolase; Eno2	M0R5J4; P15429; D3ZYU0; P07323	2	2.58E-04	3.35E-04	8.98E-09	2.53E-09	0.7485	0.2311	5.83E-01

Uncharacterized protein; Enolase	M0R5J4; D3ZYU0	4	1.62E-04	1.99E-04	3.12E-09	2.74E-09	0.7726	0.1140	5.74E-02
Uncharacterized protein; Uncharacterized protein (Fragment)	D4A8Y1; D4A4B0	5	6.00E-05	6.05E-05	1.82E-10	1.26E-10	0.9903	0.0966	7.25E-01
Uqcr10	B2RYX1	2	1.50E-04	1.58E-04	8.14E-09	1.92E-09	0.9523	0.5014	5.63E-01
Uqcrb	B2RYS2	3	1.47E-04	1.49E-04	5.51E-10	9.43E-10	0.9933	0.0894	8.14E-01
Uqcrc1	Q68FY0	5	4.30E-04	4.02E-04	7.10E-09	8.21E-09	1.1087	0.0961	1.20E-01
Uqcrc2	P32551	5	4.55E-04	3.99E-04	3.42E-09	3.23E-09	1.1403	0.0412	1.40E-04
Uqcrfs1	P20788	5	3.39E-04	3.34E-04	2.40E-09	3.00E-09	1.0718	0.0616	1.40E-01
Uqcrh	Q5M9I5	3	6.73E-05	7.67E-05	5.82E-10	7.50E-10	0.9958	0.1447	7.65E-01
Uqcrq	Q7TQ16	2	1.96E-04	1.98E-04	1.31E-09	1.81E-09	1.0052	0.2703	9.65E-01
Vcl	P85972	5	1.09E-04	7.90E-05	1.37E-09	2.42E-10	1.2609	0.1649	1.71E-03
Vcp	P46462	5	2.93E-05	2.76E-05	1.98E-11	7.14E-12	0.9111	0.0673	5.73E-01
Vdac1	Q9Z2L0	5	1.76E-04	1.83E-04	7.40E-10	6.33E-10	0.9128	0.0558	8.27E-01
Vdac1; Vdac1	F1M2D3; Q9Z2L0	5	4.78E-04	4.72E-04	6.08E-09	2.86E-09	1.0216	0.0391	7.76E-01
Vdac2	P81155	5	1.39E-04	1.37E-04	2.71E-10	2.21E-10	1.0340	0.0419	1.88E-01
Vdac3	A0A0A0MY29	5	2.72E-04	2.18E-04	5.37E-09	2.44E-09	1.1786	0.1667	1.07E-01
Vim	G3V8C3	5	3.29E-05	3.43E-05	1.27E-09	9.37E-10	0.9407	1.3240	7.37E-01
Vim; Des	G3V8C3; Q6P725	2	2.94E-04	2.88E-04	1.65E-09	2.52E-09	1.0160	0.0506	2.02E-01
Ywhae	P62260	4	5.45E-05	5.84E-05	1.80E-10	1.07E-10	0.9179	0.0831	3.92E-01
Ywhag	P61983	4	4.39E-05	2.95E-05	3.78E-10	9.04E-11	1.3601	0.5054	4.34E-02
Ywhah	P68511	4	3.98E-05	3.81E-05	4.39E-10	8.53E-11	1.0043	0.2956	8.12E-01
Ywhah; Ywhaq; Ywhag; Ywhaz; Ywhae	P68511; P68255; P61983; P63102; P62260	3	1.26E-04	1.34E-04	3.02E-09	1.17E-09	0.8689	0.1206	9.17E-01
Ywhaz	P63102	4	2.56E-05	2.83E-05	5.30E-11	4.81E-11	0.9003	0.0933	5.99E-01
Zero beta-globin (Fragment)	Q63011	2	1.69E-03	2.33E-03	4.04E-07	2.03E-06	0.7295	0.1592	5.56E-01
Zero beta-globin (Fragment); Hbb-b1	Q63011; Q62669	5	7.57E-04	8.39E-04	5.72E-08	2.53E-07	0.9729	2.6427	7.56E-01