**Supplementary Material**

**Supplementary 1a:** Relative change in protein content between soleus and EDL muscles isolated from WT mice**.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gene name** | **Protein\*** | **Relative content** | **q value** |
| **Contractile and sarcomeric proteins** | *Myh 4* | Myosin-4 (MyHC 2b) | 0.01 | 6.14x10-10 |
| *Actn3* | -actinin 3 | 0.017 | 6.14x10-8 |
| *Actn4* | -actinin 4 | 0.033 | 2.74x10-8 |
| *Myh3* | Myosin-3 (MyHC emb) | 0.042 | 9.82x10-5 |
| *Myoz1* | Myozenin 1 | 0.27 | 6.7x10-7 |
| *Myoz3* | Myozenin 3 | 0.407 | 1.76x10-6 |
| *Myh6* | Myosin-6 (MyHC-a) | 0.47 | 0.00018 |
| *Myom1* | Myomesin-1 | 0.57 | 4.74x10-6 |
| *Myh14* | Myosin-14 (MyHC non-muscle IIc) | 1.48 | 0.00013 |
| *Myh11* | Myosin-11 (MyHC smooth muscle isoform) | 1.57 | 0.0012 |
| *Myh10* | Myosin-10 (non-muscle MyHC IIb) | 1.95 | 7.36x10-6 |
| *Myh13* | MyHC-EO | 2.87 | 0.00068 |
| *Des* | Desmin | 4.43 | 2.13x10-7 |
| *Myot* | Myotilin | 4.43 | 4.71x10-7 |
| *Myom3* | Myomesin-3 | 7.36 | 4.5x10-8 |
| *Tnnt1* | Troponin T, slow skeletal muscle (sTnT) | 7.77 | 5.54x10-5 |
| *TnnI1* | Troponin I, slow skeletal muscle | 32.77 | 6.86x10-10 |
| *Myoz2* | Myozenin 2 | 53.55 | 6.86x10-10 |
| *Tnnc1* | Troponin C1, slow skeletal and cardiac muscle) | 84.66 | 2.04x10-10 |
| *Myh7* | Myosin-7 (MyHC-slow) | 197.0 | 2.49x10-10 |
| **ECC** | *Atp2a1* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 (SERCA1) | 0.10 | 4.4x10-7 |
| *Atp2a3* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 (SERCA3) | 0.14 | 2.4x10-6 |
| *Casq1* | Calsequestrin-1 | 0.14 | 5.88x10-9 |
| *Trdn* | Triadin | 0.20 | 2.99x10-7 |
| *Stac3* | SH3 and cysteine-rich domain-containing protein 2 (STAC3) | 0.39 | 2.4x10-6 |
| *Cacna1s* | Voltage dependent L type calcium channel subunit 1s (DHPR 1s) | 0.32\*\* | 1.05x10-7 |
| *Cacna2d1* | Calcium Voltage-Gated Channel Auxiliary Subunit a2 1 | 0.37 | 5.21x10-7 |
| *Jph1* | Junctophilin-1 | 0.37 | 1.39x10-5 |
| *Cacnb1* | Voltage dependent L type calcium channel subunit ß1 (DHPR ß1 subunit) | 0.40 | 2.61x10-7 |
| *Ryr1* | Ryanodine receptor 1 (RyR1) | 0.38\*\* | 3.31x10-7 |
| *Jph2* | Junctophilin-2 | 0.43 | 1.18x10-5 |
| *ATP2b4* | Calcium transporting ATPase | 1.38 | 0.0074 |
| *Asph* | Aspartyl/asparaginyl ß-hydroxylase (junctin/junctate/aspß-hydroxylase) | 1.44 | 0.0098 |
| *Trim72* | Tripartite motif-containing protein 72 (Mitsugumin-53) | 2.68 | 7.98x10-7 |
| *Casq2* | Calsequestrin-2 | 11.19 | 6.7x10-10 |
| *Atp2a2* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA2) | 22.97 | 3.85x10-9 |
| **Collagen and ECM** | *Col1a2* | Collagen (I) 2 chain | 0.047 | 0.00081 |
| *Col1a1* | Collagen (I) 1 chain | 0.054 | 0.00018 |
| *Col18a1* | Collagen  (XVIII)  chain | 1.32 | 0.00428 |
| *Itgb1* | Integrin 1 | 1.33 | 0.00099 |
| *Itga7* | Integrin 7 | 1.39 | 0.00415 |
| *Col15a1* | Collagen (XV) 1-chain | 1.42 | 0.00657 |
| **Calcium binding proteins** | *Pvalb* | Parvalbumin | 0.0065 | 2.99x10-7 |
| *S100a4* | S100 A4 | 0.47 | 0.00046 |
| *S100a1* | S100 A1 | 5.18 | 3.11x10-6 |
| **Heat shock proteins** | *Dnajb11* | DnaJ homolog subfamily B member 11 (ER-associated HSP40 co-chaperone) | 0.33 | 6.68x10-5 |
| *Dnajc11* | DnaJ homolog subfamily C member 11 | 0.38 | 0.00073 |
| *Dnajc3* | DnaJ homolog subfamily C member 3 | 0.52 | 3.98x10-5 |
| *Dnajc1* | DnaJ homolog subfamily C member 1 | 1.42 | 0.017 |
| *Hspa4* | Hsp family 70 kDa protein 4 | 1.56 | 5.53x10-5 |
| *Hsp90ab1* | Hsp 90-ß | 1.58 | 2.02x10-5 |
| *Hspb3* | Hsp ß-3 | 1.58 | 0.00070 |
| *Dnaja2* | DnaJ homolog subfamily A member 2 | 1.85 | 0.00025 |
| *Hspb2* | Hsp ß-2 | 1.89 | 1.24x10-5 |
| *Hspa9* | Mitochondrial, stress-70 protein | 1.93 | 6.28x10-6 |
| *Hspd1* | Mitochondrial, 60 kDa Hsp | 2.08 | 1.14x10-6 |
| *Hspe1* | Mitochondrial 10 kDa Hsp | 2.48 | 1.01x10-6 |
| *Hspb7* | Hsp ß-7 | 2.66 | 6.17x10-7 |
| *Dnaja4* | DnaJ homolog subfamily A member 4 | 3.08 | 6.7x10-7 |
| *Dnajb4* | DnaJ homolog subfamily B member 4 (Hsp40) | 3.28 | 4.39 x10-6 |
| *Hspb1* | Hsp ß-1 | 5.43 | 2.17x10-8 |
| *Hspa1a* | Heat shock 70 kDa protein 1A | 5.75 | 3.05x10-8 |
| *Hspb6* | Hsp ß- 6 | 16.23 | 2.05x10-7 |
| **Proteasomal proteins** | *Psmd6* | 26S proteasome, non-ATPase regulatory subunit 6 | 1.55 | 0.0017 |
| *Psmd5* | 26S proteasome, non-ATPase regulatory subunit 5 | 1.59 | 0.0012 |
| *Psmd14* | 26S proteasome, non-ATPase regulatory subunit 14 | 1.65 | 0.0199 |
| *Psma2* | Proteasome subunit a type-2 | 1.67 | 6.78x10-5 |
| *Psmd11* | 26S proteasome, non-ATPase regulatory subunit 11 | 1.67 | 3.14x10-6 |
| *Psmg2* | Proteasome assembly chaperone 2 | 1.68 | 0.0033 |
| *Psmb3* | Proteasome subunit ß type-3 | 1.70 | 0.000126 |
| **FK506 binding proteins** | *Fkbp1a* | Peptidyl-prolyl cis-trans isomerase FKBP1A (FKBP12; calstabin-1**)** | 0.57 | 0.00017 |
| *Fkbp3* | Peptidyl-prolyl cis-trans isomerase FKBP3 (FK506-binding protein 3) | 1.96 | 0.0047 |
| **Ribosomal proteins** | *Mrps5* | 28S ribosomal Protein S5, mitochondrial | 1.29 | 0.0011 |
| *Mrps30* | 28S ribosomal Protein S30, mitochondrial | 1.31 | 0.0046 |
| *Rpl22* | 60S Ribosomal Protein L22 | 1.33 | 0.01 |
| *Mrpl28* | 39S ribosomal Protein L28, mitochondrial | 1.34 | 0.0021 |
| *Rpl18a* | 60S ribosomal Protein L18a | 1.34 | 0.0018 |
| *Rps3* | 40S ribosomal Protein S3 | 1.35 | 0.0025 |
| *Rpl5* | 60S ribosomal Protein L5 | 1.35 | 0.0091 |
| *Mrpl45* | 39S ribosomal Protein L45, mitochondrial | 1.36 | 0.0015 |
| *Rpl38* | 60S ribosomal Protein L38 | 1.37 | 0.00079 |
| *Rpl12* | 60S ribosomal Protein L12 | 1.37 | 7.46x10-5 |
| *Rpl24* | 60S ribosomal Protein L24 | 1.38 | 0.0051 |
| *Rps11* | 40S ribosomal Protein S11 | 1.38 | 0.0057 |
| *Rpsa* | 40S ribosomal Protein SA | 1.39 | 0.0011 |
| *Mrpl37* | 39S ribosomal Protein L37, mitochondrial | 1.39 | 0.00018 |
| *Mrpl21* | 39S ribosomal Protein L21, mitochondrial | 1.39 | 0.029 |
| *Mrps35* | 28S ribosomal Protein S35, mitochondrial | 1.41 | 0.0015 |
| *Rps19* | 40S ribosomal Protein S19 | 1.42 | 0.00036 |
| *Rpl23a* | 60S ribosomal Protein L23a | 1.43 | 0.00034 |
| *Mrpl1* | 39S ribosomal Protein L1, mitochondrial | 1.45 | 0.0012 |
| *Rps4x* | 40S ribosomal Protein S4 X-linked | 1.45 | 0.00016 |
| *Rps7* | 40S ribosomal Protein S7 | 1.46 | 0.00080 |
| *Rpl7* | 60S ribosomal Protein L7 | 1.49 | 0.00015 |
| *Rpl31* | 60S ribosomal Protein L31 | 1.50 | 0.016 |
| *Mrpl47* | 39S ribosomal Protein L47, mitochondrial | 1.51 | 0.00037 |
| *Mrpl48* | 39S ribosomal Protein L48, mitochondrial | 1.51 | 0.00018 |
| *Rps2* | 40S ribosomal Protein S2 | 1.57 | 0.00012 |
| *Mrpl32* | 39S ribosomal Protein L37, mitochondrial | 1.59 | 9.44x10-5 |
| *Mrpl19* | 39S ribosomal Protein L19, mitochondrial | 1.59 | 0.0012 |
| *Mrps34* | 28S ribosomal Protein S34, mitochondrial | 1.66 | 0.0014 |
| *Rpl1* | 60S ribosomal Protein L11 | 1.67 | 1.11x10-5 |
| *Rps16* | 40S ribosomal Protein S16 | 1.69 | 0.00020 |
| *Rpl10* | 60S ribosomal Protein L10 | 1.69 | 3.57x10-6 |
| *Rpl27* | 60S ribosomal Protein L27 | 1.71 | 0.017 |
| *Rpl27a* | 60S ribosomal Protein L27a | 1.77 | 0.0013 |
| *Mrpl40* | 39S ribosomal Protein L40 mitochondrial | 1.78 | 8.86x10-6 |
| *Mrpl38* | 39S ribosomal Protein L38, mitochondrial | 1.83 | 0.00031 |
| *Mrpl49* | 39S ribosomal Protein L49, mitochondrial | 1.87 | 7.01x10-6 |
| *Rps23* | 40S ribosomal Protein S23 | 1.88 | 5.96x10-5 |
| *Mrpl2* | 39S ribosomal Protein L2, mitochondrial | 1.88 | 3.71x10-5 |
| *Mrpl53* | 39S ribosomal Protein L53, mitochondrial | 1.90 | 3.25x10-5 |
| *Rps17* | 40S ribosomal Protein S17 | 1.93 | 0.00021 |
| *Mrpl50* | 39S ribosomal Protein L50, mitochondrial | 1.96 | 1.97x10-6 |
| *Mrpl3* | 39S ribosomal Protein L3, mitochondrial | 1.97 | 3.03x10-5 |
| *Mrpl13* | 39S ribosomal Protein L13, mitochondrial | 1.97 | 3.03x10-5 |
| *Rps10* | 40S ribosomal Protein S10 | 2.00 | 0.0057 |
| *Mrps7* | 28S ribosomal Protein S7, mitochondrial | 2.07 | 0.00020 |
| *Mrps28* | 28S ribosomal Protein S28, mitochondrial | 2.13 | 0.0070 |
| *Rps25* | 40S ribosomal Protein S25 | 2.19 | 0.0024 |
| *Mrps31* | 28S ribosomal Protein S31, mitochondrial | 2.31 | 7.26x10-6 |
| *Mrps22* | 28S ribosomal Protein S22, mitochondrial | 2.50 | 1.67x10-6 |
| *Mrpl16* | 39S ribosomal Protein L16, mitochondrial | 2.66 | 3.21x10-5 |
| *Mrpl57* | 39S ribosomal Protein L57, mitochondrial | 2.76 | 5.48x10-7 |
| *Mrps27* | 28S ribosomal Protein S27, mitochondrial | 2.80 | 3.93x10-6 |
| *Mrps23* | 28S ribosomal Protein S23, mitochondrial | 2.90 | 4.05x10-5 |
| *Mrpl33* | 39S ribosomal Protein L33, mitochondrial | 4.35 | 3.63x10-7 |
| *Mrpl43* | 39S ribosomal Protein L34, mitochondrial | 4.63 | 5.26x10-6 |
| **Calcium dependent protein kinases** | *Camk2a* | Calcium/calmodulin dependent protein kinase II subunit  | 0.25 | 6.14x10-8 |
| *Camk2g* | Calcium/calmodulin dependent protein kinase II subunit  | 0.52 | 0.0011 |
| **Varia** | *Fth1* | Ferritin | 1.64 | 0.00468 |
| *Atp1a2* | Na+/K+ ATPase a | 1.83 | 3.25x10-5 |
| *Sod2* | Superoxide dismutase (mitochondrial) | 2.39 | 3.14x10-6 |
| *Mtor* | Serine-threonine-protein kinase mTOR (Mechanistic target of rapamycin) | 2.49 | 0.0068 |
| *Atp1a1* | Na+/K+ ATPase 1 | 3.09 | 2.05x10-7 |
| *Cat* | Catalase | 3.28 | 2.04x10-7 |
| *Atp1b1* | Na+/K+ ATPase ß1 | 4.85 | 1.2x10-5 |
| *Ca3* | Carbonic anhydrase 3 | 12.91 | 0.0060 |
| *Mb* | Myoglobin | 21.45 | 8.92x10-7 |

\*The nomenclature of Proteins is based on that of the UniProtKB database

\*\*These ratio values were calculated based on the absolute concentration determined with the peptides (Table 4).

**Supplementary 1b:** Relative change in protein content between EOM and EDL muscles isolated from WT mice.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gene name** | **Protein\*** | **Relative content** | **q value** |
| **Contractile and sarcomeric proteins** | *Actn3* | -actinin 3 | 0.021 | 1.6x10-9 |
| *Myh 4* | Myosin-4 (MyHC 2b) | 0.072 | 5.68x10-8 |
| *Myh1* | MyHC-2x | 0.61 | 0.0053 |
| *Actn4* | -actinin 4 | 0.13 | 6.10x10-8 |
| *Myl4* | Myosin light chain 4 | 0.16 | 2.05x10-8 |
| *Myl1* | Myosin light chain 1 | 0.17 | 1.62x10-7 |
| *Mylpf* | Myosin light chain phosphorylatable fast muscle | 0.17 | 7.68x10-7 |
| *Myoz1* | Myozenin 1 | 0.18 | 3.77x10-9 |
| *Myom1* | Myomesin-1 | 0.31 | 2.16x10-8 |
| *Myoz3* | Myozenin 3 | 0.49 | 2.60x10-6 |
| *Myot* | Myotilin | 0.73 | 0.024 |
| *Myh14* | Myosin-14 (MyHC non-muscle IIc) | 1.66 | 1.14x10-5 |
| *Myh10* | Myosin-10 (non-muscle MyHC IIb) | 1.68 | 0.00018 |
| *Myh7b* | Myosin heavy chain 7b (cardiac muscle, ß) | 1.91 | 4.90x10-5 |
| *Des* | Desmin | 1.96 | 1.56x10-5 |
| *Tnnt2* | Cardiac troponin T | 2.68 | 1.13x10-5 |
| *Myh11* | Myosin-11 (MyHC smooth muscle isoform) | 2.85 | 0.00 16 |
| *Myh2* | Myosin heavy chain -2A | 3.59 | 0.013 |
| *Myom3* | Myomesin-3 | 4.72 | 1.0x10-6 |
| *Myh3* | Myosin heavy chain, embryonic | 8.81 | 0.0014 |
| *Myh7* | Myosin-7 (MyHC-slow) | 24.60 | 1.60x10-7 |
| *Myh13* | MyHC-EO | 29.40 | 1.01x10-8 |
| *Tnnc1* | Troponin C1, slow skeletal and cardiac muscle) | 31.17 | 9.79x10-8 |
| **ECC** | *Stac3* | SH3 and cysteine-rich domain-containing protein 2 (STAC3) | 0.26 | 2.4x10-6 |
| *Trdn* | Triadin | 0.25 | 2.33x10-6 |
| *Casq1* | Calsequestrin-1 | 0.28 | 1.17x10-6 |
| *Jph2* | Junctophilin-2 | 0.31 | 3.57x10-8 |
| *Jph1* | Junctophilin-1 | 0.34 | 1.02x10-6 |
| *Cacna1s* | Voltage dependent L type calcium channel subunit a1s (DHPR 1s) | 0.37\*\* | 8.46x10-8 |
| *Dhrs7c* | Dehydrogenase/reductase SDR family member 7C (SRP-35) | 0.36 | 7.60x10-6 |
| *Ryr1* | Ryanodine receptor 1 (RyR1) | 0.46\*\* | 2.08x10-7 |
| *Cacna2d1* | Calcium Voltage-Gated Channel Auxiliary Subunit ad 1 | 0.54 | 0.00025 |
| *Orai1* | Orai1 | 1.45\*\* | 0.0016 |
| *Stim2* | Stromal interaction molecule 2 | 2.30 | 0.032 |
| *ATP2b4* | PM Ca2+ ATPase protein 4 | 2.53 | 2.56x10-5 |
| *ATP2b1* | PM Ca2+ ATPase | 2.61 | 2.16x10-8 |
| *Stim1* | Stromal interaction molecule 1 | 2.93\*\* | 1.53x10-7 |
| *Asph* | Aspartyl/asparaginyl ß-hydroxylase (junctin/junctate/aspß-hydroxylase) | 3.46 | 2.30x10-8 |
| *Atp2a2* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA2) | 3.62 | 1.10x10-8 |
| *Casq2* | Calsequestrin-2 | 21.50 | 1.91x10-10 |
| **Collagen and ECM** | *Col24a1* | Collagen (XXIV) -1 chain | 0.022 | 8.42x10-7 |
| *Col1a2* | Collagen (I) 2-chain | 0.030 | 2.38x10-6 |
| *Col1a1* | Collagen (I) 1 chain | 0.030 | 2.57x10-6 |
| *Col2a1* | Collagen (II) pro-1 chain | 0.058 | 8.34x10-7 |
| *Col12a1* | Collagen (XII) -1 chain | 0.15 | 2.24x10-5 |
| *Col11a1* | Collagen (XI)  -1 chain | 0.16 | 1.59x10-6 |
| *Col11a2* | Collagen (XI) pro  -11 chain | 0.19 | 4.15x10-6 |
| *Col18a1* | Collagen (XVIII) a-1 chain | 1.44 | 0.0041 |
| *Col5a2* | Collagen (V) - 2 chain | 1.60 | 0.00135 |
| *Col6a2* | Collagen (VI) -2 chain | 1.73 | 0.00066 |
| *Itgb4* | Integrin ß4 | 1.88 | 0.0021 |
| *Itgb6* | Integrin ß6 | 1.93 | 4.60x10-6 |
| *Col3a1* | Collagen (III) a-1 chain | 1.95 | 0.05 |
| *Itgav* | Integrin Subunit  V | 2.00 | 2.64x10-6 |
| *Col15a1* | Collagen (XV) a-1 chain | 2.14 | 4.42x10-7 |
| *Itga6* | Integrin Subunit  6 | 2.35 | 2.78x10-7 |
| *Col28a1* | Collagen (XXVII) a-1 chain | 2.38 | 0.00078 |
| *Col6a1* | Collagen (VI) a-1 chain | 2.59 | 4.22x10-6 |
| *Col14a1* | Collagen (XIV) a-1 chain | 2.91 | 5.48x10-7 |
| *Col6a5* | Collagen (VI) a-1 chain | 3.13 | 0.00030 |
| *Col6a6* | Collagen (VI) a-6 chain | 3.14 | 1.04x10-6 |
| *Itga5* | Integrin  5 | 3.60 | 1.17x10-7 |
| **Calcium binding proteins** | *Pvalb* | Parvalbumin | .025 | 2.47x10-7 |
| *S100a4* | S100 A4 | 0.24 | 0.00078 |
| *Calm1* | Calmodulin 1 | 0.53 | 4.66x10-6 |
| *S100a13* | S100 A13 | 1.50 | 0.00041 |
| *S100a11* | S100 A11 | 3.22 | 0.00052 |
| *S100a10* | S100 A10 | 3.52 | 1.60x10-6 |
| *S100a1* | S100 A1 | 17.28 | 1.74x10-8 |
| **Heat shock proteins** | *Dnajc11* | DnaJ homolog subfamily C member 11 | 0.43 | 0.0012 |
| *Hspb3* | Hsp ß-3 | 0.59 | 0.00064 |
| *Dnajb11* | DnaJ homolog subfamily B member 11 (ER-associated HSP40 co-chaperone) | 0.63 | 0.00036 |
| *Hspb7* | Hsp ß-7 | 0.64 | 0.0018 |
| *Dnajb5* | DnaJ Heat Shock Protein Family (Hsp40) Member B5 | 0.70 | 0.0042 |
| *Dnajc1* | DnaJ homolog subfamily C member 1 | 1.55 | 0.0096 |
| *Dnajc5* | DnaJ Heat Shock Protein Family (Hsp40) Member C5 | 1.56 | 0.00022 |
| *Hspa4* | Hsp family 70 kDa protein 4 | 1.57 | 8.98x10-6 |
| *Hspa12b* | Heat Shock Protein Family A (Hsp70) Member 12B | 1.70 | 1.02x10-5 |
| *Hspb1* | Hsp ß-1 | 1.90 | 6.33x10-6 |
| *Dnaja1* | DnaJ homolog subfamily A member 1 | 1.96 | 9.34x10-5 |
| *Hspa13* | Heat Shock Protein Family A (Hsp70) Member 13 | 1.97 | 0.00013 |
| *Hsp90aa1* | Heat Shock Protein 90 a Family Class A Member 1 | 2.01 | 7.58x10-6 |
| *Dnaja3* | DNAJ/Hsp40 | 2.01 | 9.49x10-6 |
| *Dnajc9* | DnaJ Heat Shock Protein Family (Hsp40) Member C9 | 2.02 | 0.00026 |
| *Hsph1* | Heat Shock Protein 105 KDa | 2.03 | 1.14x10-6 |
| *Hspa5* | Heat Shock Protein Family A (Hsp70) Member 5, BiP | 2.05 | 6.72x10-7 |
| *Hsp90b1* | Heat Shock Protein 90 ß Family Member 1 | 2.28 | 4.01x10-6 |
| *Hsp90ab1* | Heat Shock Protein 90 a Family Class B Member 1 | 2.42 | 5.93x10-7 |
| *Hspa1b* | Heat Shock Protein Family A (Hsp70) Member 1B | 2.83 | 1.89x10-7 |
| *Dnajc28* | DnaJ Heat Shock Protein Family (Hsp40) Member C28 | 3.30 | 3.34x10-8 |
| *Hspa4l* | Heat Shock Protein Family A (Hsp70) Member 4 Like | 3.15 | 1.83x10-8 |
| **Proteasomal proteins** | *Psmb4* | Proteasome subunit ß type-4 | 1.50 | 0.00015 |
| *Psmd13* | 26S proteasome, non-ATPase regulatory subunit 13 | 1.52 | 1.60x10-5 |
| *Psmb3* | Proteasome subunit ß type-3 | 1.63 | 4.83x10-5 |
| *Psmc4* | Proteasome 20S Subunit ß 3 | 1.63 | 3.0x10-5 |
| *Psme2* | Proteasome Activator Subunit 2 | 1.65 | 1.13x10-5 |
| *Psmc5* | Proteasome 26S Subunit, ATPase 5 | 1.68 | 1.63x10-5 |
| *Psma2* | Proteasome 20S Subunit a 2 | 1.74 | 0.00011 |
| *Psme1* | Proteasome Activator Subunit 1 | 1.99 | 1.44x10-6 |
| *Psmd5* | Proteasome 26S Subunit, Non-ATPase 5, | 2.21 | 7.53x10-6 |
| *Psme3* | Proteasome Activator Subunit 3 | 2.26 | 1.99x10-6 |
| **Ribosomal Proteins** | *Mrps31* | 28S ribosomal Protein S31, mitochondrial | 0.25 | 4.67x10-7 |
| *Rpl29* | 60S ribosomal Protein L29 | 0.40 | 0.00027 |
| *Rps16* | 40S ribosomal Protein S16 | 0.53 | 2.92x10-6 |
| *Rpl25* | 60S ribosomal Protein L25 | 0.63 | 0.00072 |
| *Rps20* | 40S ribosomal Protein L20 | 0.74 | 0.0031 |
| *Rpl35a* | 60S ribosomal Protein L35A | 0.70 | 0.049 |
| *Mrps33* | 28S ribosomal Protein S33, mitochondrial | 1.26 | 0.040 |
| *Mrpl4* | 39S ribosomal Protein L4, mitochondrial | 1.26 | 0.030 |
| *Rps13* | 40S ribosomal Protein S13 | 1.30 | 0.0037 |
| *Rps9* | 40S ribosomal Protein S9 | 1.34 | 0.0037 |
| *Rps23* | 40S ribosomal Protein S23 | 1.35 | 0.00086 |
| *Rpl28* | 60S ribosomal Protein L28 | 1.35 | 0.00045 |
| *Rpl10a* | 60S ribosomal Protein L10A | 1.36 | 0.00095 |
| *Rpl2* | 60S ribosomal Protein L25 | 1.37 | 0.0028 |
| *Rpl6* | 60S ribosomal Protein L6 | 1.38 | 0.0013 |
| *Rpl34* | 60S ribosomal Protein L34 | 1.38 | 0.0096 |
| *Rps10* | 40S ribosomal Protein S10 | 1.39 | 0.0090 |
| *Rps19* | 40S ribosomal Protein S19 | 1.40 | 0.0013 |
| *Rpl18* | 60S ribosomal Protein L18 | 1.41 | 0.00050 |
| *Rps11* | 40S ribosomal Protein S11 | 1.43 | 0.00079 |
| *Rps18* | 40S ribosomal Protein S18 | 1.43 | 0.00020 |
| *Mrpl50* | 39S ribosomal Protein L50, mitochondrial | 1.44 | 0.0038 |
| *Rpl7a* | 60S ribosomal Protein L7A | 1.44 | 0.0038 |
| *Rpl23* | 60S ribosomal Protein L23 | 1.46 | 0.0015 |
| *Rpl10* | 60S ribosomal Protein L10 | 1.47 | 0.0013 |
| *Rpl4* | 60S ribosomal Protein L4 | 1.47 | 0.00066 |
| *Mrpl48* | 39S ribosomal Protein L48, mitochondrial | 1.48 | 0.00032 |
| *Mrps22* | 28S ribosomal Protein S22, mitochondrial | 1.48 | 0.0022 |
| *Rps14* | 40S ribosomal Protein S14 | 1.48 | 0.00087 |
| *Rps6kb2* | Ribosomal Protein S6 Kinase B2 | 1.48 | 0.0013 |
| *Rps27l* | Ribosomal Protein S27 like | 1.50 | 0.00016 |
| *Rpl36a* | 60S ribosomal Protein L36A | 1.50 | 0.0058 |
| *Mrpl2* | 39S ribosomal Protein L2, mitochondrial | 1.51 | 1.32x10-5 |
| *Rps8* | 40S ribosomal Protein S8 | 1.51 | 0.00026 |
| *Rps4x* | Ribosomal Protein S4 X-linked | 1.54 | 0.00095 |
| *Mrps26* | 28S ribosomal Protein S26, mitochondrial | 1.55 | 0.0010 |
| *Rps12* | 40S ribosomal Protein S12 | 1.56 | 0.00011 |
| *Mrpl21* | 39S ribosomal Protein L21, mitochondrial | 1.59 | 1.84x10-5 |
| *Mrpl19* | 39S ribosomal Protein L19, mitochondrial | 1.60 | 0.0022 |
| *Rps6ka5* | Ribosomal Protein S6 Kinase A5 | 1.61 | 0.00079 |
| *Rpl7* | 60S ribosomal Protein L7 | 1.62 | 2.29x10-5 |
| *Rpl11* | 60S ribosomal Protein L11 | 1.65 | 0.0050 |
| *Mrpl11* | 39S ribosomal Protein L11, mitochondrial | 1.66 | 0.00038 |
| *Rpl18a* | 60S ribosomal Protein L18A | 1.68 | 6.94x10-5 |
| *Mrpl45* | 39S ribosomal Protein L45, mitochondrial | 1.68 | 0.00068 |
| *Rpl24* | 60S ribosomal Protein L24 | 1.70 | 0.00010 |
| *Mrpl34* | 28S ribosomal Protein S34, mitochondrial | 1.75 | 0.0434 |
| *Mrpl3* | 39S ribosomal Protein L3, mitochondrial | 1.77 | 0.00087 |
| *Mrpl38* | 39S ribosomal Protein L38, mitochondrial | 1.79 | 0.0013 |
| *Rps3* | 40S ribosomal Protein S3 | 1.79 | 2.46x10-5 |
| *Rplp2* | Ribosomal Protein Lateral Stalk Subunit P2 | 1.80 | 4.17x10-5 |
| *Mrpl40* | 39S ribosomal Protein L40, mitochondrial | 1.80 | 0.00044 |
| *Mrpl55* | 39S ribosomal Protein L55, mitochondrial | 1.80 | 0.0020 |
| *Mrpl47* | 39S ribosomal Protein L47, mitochondrial | 1.81 | 5.81x10-6 |
| *Rps2* | 40S ribosomal Protein S2 | 1.82 | 7.30x10-6 |
| *Rps26* | 40S ribosomal Protein S26 | 1.87 | 1.81x10-6 |
| *Mrps5* | 28S ribosomal Protein S5, mitochondrial | 1.88 | 0.00025 |
| *Rps6ka4* | Ribosomal Protein S6 Kinase A4 | 1.88 | 7.08x10-6 |
| *Mrpl13* | 39S ribosomal Protein L13, mitochondrial | 1.90 | 6.22x10-6 |
| *Mrps18a* | 28S ribosomal Protein S18a, mitochondrial | 1.93 | 1.57x10-5 |
| *Mrpl58* | 39S ribosomal Protein L58, mitochondrial | 1.98 | 5.03x10-6 |
| *Mrpl16* | 39S ribosomal Protein L16, mitochondrial | 1.98 | 2.46x10-5 |
| *Mrps35* | 28S ribosomal Protein S35, mitochondrial | 1.98 | 8.79x10-7 |
| *Rpsa* | Ribosomal Protein SA | 1.99 | 0.00015 |
| *Rpl27a* | 60S ribosomal Protein L27A | 2.01 | 3.72x10-6 |
| *Rpl38* | 60S ribosomal Protein L38 | 2.02 | 1.39x10-5 |
| *Mrps7* | 28S ribosomal Protein S7, mitochondrial | 2.02 | 2.94x10-6 |
| *Rps17* | 40S ribosomal Protein S17 | 2.05 | 3.46x10-5 |
| *Mrpl53* | 39S ribosomal Protein L53, mitochondrial | 2.05 | 1.83x10-5 |
| *Mrpl49* | 39S ribosomal Protein L49, mitochondrial | 2.06 | 7.20x10-5 |
| *Mrps9* | 28S ribosomal Protein S9, mitochondrial | 2.07 | 1.79x10-6 |
| *Mrps6* | 28S ribosomal Protein S6, mitochondrial | 2.13 | 0.00084 |
| *Mrpl44* | 39S ribosomal Protein L44, mitochondrial | 2.13 | 1.75x10-7 |
| *Mrpl22* | 39S ribosomal Protein L22, mitochondrial | 2.13 | 0.00074 |
| *Rpl22* | 60S ribosomal Protein L22 | 2.15 | 0.00010 |
| *Rpl3* | 60S ribosomal Protein L3 | 2.18 | 5.69x10-6 |
| *Mrpl4* | 39S ribosomal Protein L4, mitochondrial | 2.21 | 4.39x10-5 |
| *Mrpl37* | 39S ribosomal Protein L37, mitochondrial | 2.22 | 6.61x10-7 |
| *Mrpl17* | 39S ribosomal Protein L17, mitochondrial | 2.24 | 4.06x10-5 |
| *Rps25* | 40S ribosomal Protein S25 | 2.29 | 2.03x10-6 |
| *Rpl9* | 60S ribosomal Protein L9 | 2.30 | 3.74x10-7 |
| *Mrpl9* | 39S ribosomal Protein L9, mitochondrial | 2.30 | 1.80x10-6 |
| *Mrpl39* | 39S ribosomal Protein L39, mitochondrial | 2.32 | 6.59x10-7 |
| *Rplp0* | Ribosomal Protein Lateral Stalk Subunit P0 | 2.40 | 6.31x10-6 |
| *Rpl5* | 60S ribosomal Protein L5 | 2.41 | 3.12x10-7 |
| *Mrpl12* | 39S ribosomal Protein L12, mitochondrial | 2.43 | 4.56x10-7 |
| *Mrps25* | 28S ribosomal Protein S25, mitochondrial | 2.42 | 2.83x10-7 |
| *Mrpl15* | 39S ribosomal Protein L15, mitochondrial | 2.43 | 1.07x10-6 |
| *Mrps30* | 28S ribosomal Protein S30, mitochondrial | 2.58 | 3.21x10-5 |
| *Mrps18b* | 28S ribosomal Protein S18b, mitochondrial | 2.66 | 6.66x10-6 |
| *Mrps27* | 28S ribosomal Protein S27 mitochondrial | 2.82 | 3.91x10-8 |
| *Mrpl24* | 39S ribosomal Protein L24, mitochondrial | 2.86 | 4.48x10-6 |
| *Mrps23* | 28S ribosomal Protein S23, mitochondrial | 2.94 | 1.78x10-6 |
| *Mrpl57* | 39S ribosomal Protein L57, mitochondrial | 2.97 | 3.78x10-7 |
| *Mrpl1* | 39S ribosomal Protein L1, mitochondrial | 2.98 | 4.40x10-8 |
| *Mrps16* | 28S ribosomal Protein S16, mitochondrial | 2.98 | 0.00030 |
| *Mrpl10* | 39S ribosomal Protein L10, mitochondrial | 3.15 | 2.80x10-6 |
| *Rps7* | 40S ribosomal Protein S7 | 3.16 | 3.11x10-6 |
| *Mrpl28* | 39S ribosomal Protein L28, mitochondrial | 3.18 | 2.06x10-6 |
| *Mrpl41* | 39S ribosomal Protein L41, mitochondrial | 3.44 | 3.91x10-8 |
| *Mrpl46* | 39S ribosomal Protein L46, mitochondrial | 3.94 | 4.29x10-8 |
| *Mrps36* | 28S ribosomal Protein S36, mitochondrial | 4.22 | 2.93x10-6 |
| *Mrps17* | 28S ribosomal Protein S17, mitochondrial | 5.54 | 1.01x10-8 |
| **FK506 binding proteins** | *Fkbp1a* | Peptidyl-prolyl cis-trans isomerase FKBP1A (FKBP12; calstabin-1**)** | 0.52 | 3.92x10-5 |
| *Fkbp15* | Peptidyl-prolyl cis-trans isomerase FKBP3 (FK506-binding protein 15) | 2.31 | 2.44x10-5 |
| **Calcium dependent protein kinases** | *Camk2a* | Calcium/calmodulin dependent protein kinase II subunit  | 0.31 | 3.47x10-8 |
| *Camk2g* | Calcium/calmodulin dependent protein kinase II subunit  | 0.62 | 0.00038 |
| *Camk2d* | Calcium/calmodulin dependent protein kinase II subunit  | 1.57 | 0.00029 |
| **Varia** | *Ca3* | Carbonic anhydrase 3 | 0.089 | 0.0027 |
| *Atp1b2* | Na+/K+ ATPase ß2 | 0.20 | 1.69x10-7 |
| *Mtor* | Serine-threonine-protein kinase mTOR (Mechanistic target of rapamycin) | 1.76 | 3.44x10-5 |
| *Cat* | Catalase | 1.98 | 0.00027 |
| *Mb* | Myoglobin | 3.85 | 7.40x10-5 |
| *Atp1a2* | Na+/K+ ATPase  2 | 4.41 | 1.60x10-9 |
| *Sod2* | Superoxide dismutase (mitochondrial) | 6.60 | 1.28x10-8 |
| *Atp1a3* | Na+/K+ ATPase  3 | 6.79 | 7.67x10-9 |
| *Atp1a1* | Na+/K+ ATPase  1 | 7.69 | 1.60x10-9 |

\*The nomenclature of Proteins is based on that of the UniProtKB database

\*\*These ratio values were calculated based on the absolute concentration determined with the peptides (Table 4).

**Supplementary 1c:** Relative change in protein content between EOM and soleus muscles isolated from WT mice.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gene name** | **Protein\*** | **Relative content** | **q value** |
| **Contractile and sarcomeric proteins** | *Myh 7* | Myosin-7 (MyHC-slow) | 0.0096 | 2.62x10-9 |
| *Myl2* | Myosin light chain 2 | 0.010 | 1.39x10-8 |
| *Actn2* |  -actinin 2 | 0.017 | 5.26x10-8 |
| *Myoz2* | Myozenin-2 | 0.017 | 8.31x10-10 |
| *Actn1* |  -actinin 1 | 0.012 | 0.0010 |
| *Myh6* | Myosin-6 (MyHC-a) | 0.012 | 2.14x10-11 |
| *Myl10* | Myosin light chain 10 | 0.019 | 6.30x10-9 |
| *Myh2* | Myosin heavy chain -2A | 0.02 | 1.48x10-8 |
| *Tnnc1* | Troponin C1, slow skeletal and cardiac muscle) | 0.025 | 5.79x10-5 |
| *Myl3* | Myosin light chain 3 | 0.029 | 4.66x10-9 |
| *Tnni1* | Troponin I1, Slow Skeletal Type | 0.049 | 1.38x10-8 |
| *Tnnt1* | Troponin T, slow skeletal muscle (sTnT) | 0.049 | 3.02x10-6 |
| *Myot* | Myotilin | 0.14 | 9.80x10-8 |
| *Myh8* | MyHC-fetal and embryonic | 0.15 | 1.63x10-6 |
| *Myom3* | Myomesin-3 | 0.29 | 3.77x10-8 |
| *Des* | Desmin | 0.40 | 9.36x10-6 |
| *Tnnt3* | Troponin T3, Fast Skeletal | 0.53 | 0.0036 |
| *Myom1* | Myomesin-1 | 0.54 | 7.23x10-5 |
| *Myh4* | Myosin-4 (MyHC 2b) | 0.67 | 0.0062 |
| *Myh11* | Myosin-11 (MyHC smooth muscle isoform) | 1.47 | 0.014 |
| *Myoz3* | Myozenin 3 | 1.53 | 0.0022 |
| *Myl9* | Myosin light chain 9 | 1.66 | 0.0018 |
| *Myl4* | Myosin light chain 4 | 1.86 | 0.012 |
| *Mylk* | myosin light chain kinase | 1.88 | 0.00016 |
| *Myl6b* | myosin alkali light chain, fast skeletal muscle | 1.90 | 0.0082 |
| *Myh7b* | Myosin-7 (MyHC-slow) | 2.06 | 8.48x10-6 |
| *Actn3* |  -actinin 3 | 2.83 | 0.0042 |
| *Myl1* | Myosin light chain 1 | 2.91 | 0.00036 |
| *Tnnt2* | Cardiac troponin T | 3.10 | 3.56x10-5 |
| *Myh13* | MyHC-EO | 19.57 | 2.62x10-9 |
| *Myh3* | Myosin heavy chain, embryonic | 49.06 | 2.86x10-8 |
| **ECC** | *Atp2a2* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA2) | 0.041 | 1.38x10-8 |
| *Trim72* | Tripartite motif-containing protein 72 (Mitsugumin-53) | 0.40 | 1.16x10-5 |
| *Jph2* | Junctophilin-2 | 0.62 | 0.00084 |
| *Cacnb1* | Calcium Voltage-Gated Channel Auxiliary Subunit ß 1 | 1.43 | 0.00059 |
| *Jph1* | Junctophilin-1 | 1.44 | 0.0045 |
| *Cacna2d1* | Calcium Voltage-Gated Channel Auxiliary Subunit a2 1 | 1.51 | 0.0024 |
| *ATP2b4* | Calcium transporting ATPase | 1.58 | 0.00050 |
| *Trdn* | Triadin | 1.74 | 0.0050 |
| *Atp2b1* | PM Ca2+ ATPase | 2.29 | 4.41x10-6 |
| *Casq1* | Calsequestrin-1 | 2.34 | 0.00011 |
| *Stim1* | Stromal Interaction Molecule 1 | 2.45\*\* | 6.84x10-7 |
| *Asph* | Aspartyl/asparaginyl ß-hydroxylase (junctin/junctate/aspß-hydroxylase) | 3.01 | 2.59x10-6 |
| *Atp2a3* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 (SERCA3) | 7.02 | 7.63x10-7 |
| *Atp1a3* | Na+/K+ ATPase 3 subunit | 7.26 | 1.39x10-8 |
| *Atp2a1* | Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 (SERCA1) | 8.37 | 2.73x10-7 |
| **Collagen and ECM** | *Col11a2* | Collagen (XI) pro -11 chain | 0.086 | 6.97x10-5 |
| *Col12a1* | Collagen (XII) -1 chain | 0.32 | 0.00018 |
| *Col2a1* | Collagen (II) pro- 1 chain | 0.62 | 0.00018 |
| *Itga5* | Integrin  5 | 1.59 | 0.0031 |
| *Itgb2* | Integrin ß2 | 1.79 | 0.0087 |
| *Itga6* | Integrin  6 | 2.07 | 1.94x10-5 |
| *Col15a1* | Collagen (XV) 1 chain | 2.00 | 0.0035 |
| *Col6a2* | Collagen (VI) 2 chain | 2.12 | 0.00012 |
| *Col6a1* | Collagen (VI) 1 chain | 2.20 | 0.00068 |
| *Col3a1* | Collagen (III) 1 chain | 2.33 | 0.00064 |
| *Col4a1* | Collagen (IV) 1 chain | 2.52 | 3.14x10-5 |
| *Col5a1* | Collagen (V) 1 chain | 2.60 | 0.0033 |
| *Col28a1* | Collagen (XXVIII) 1 chain | 3.28 | 9.60x10-6 |
| *Col6a5* | Collagen (VI)  5 chain | 4.00 | 1.91x10-7 |
| *Itgb4* | Integrin  4 | 3.32 | 2.35x10-5 |
| *Col6a6* | Collagen (VI)  6 chain | 6.87 | 3.16x10-10 |
| **Ribosomal proteins** | *Rpl27* | 60S ribosomal Protein L27 | 0.51 | 0.045 |
| *Mrpl33* | 39S ribosomal Protein L33, mitochondrial | 0.52 | 0.00094 |
| *Mrpl38* | 39S ribosomal Protein L38, mitochondrial | 0.60 | 0.0047 |
| *Rps25* | 40S ribosomal Protein S25 | 0.61 | 2.03x10-6 |
| *Mrpl50* | 39S ribosomal Protein L50, mitochondrial | 0.67 | 0.0081 |
| *Rps6ka3* | Ribosomal Protein 6 Kinase A3 | 0.67 | 0.036 |
| *Rps6kb2* | Ribosomal Protein 6 Kinase B2 | 0.70 | 0.0045 |
| *Mrpl43* | 39S ribosomal Protein L43, mitochondrial | 0.72 | 0.0041 |
| *Rpl10* | 60S ribosomal Protein L10 | 0.74 | 0.011 |
| *Rps3* | 40S ribosomal Protein S3 | 1.27 | 0.028 |
| *Mrpl21* | 39S ribosomal Protein L21, mitochondrial | 1.27 | 0.030 |
| *Mrps27* | 40S ribosomal Protein S27, mitochondrial | 1.27 | 0.015 |
| *Mrpl44* | 39S ribosomal Protein L44, mitochondrial | 1.28 | 0.0060 |
| *Mrps22* | 40S ribosomal Protein S22, mitochondrial | 1.29 | 0.013 |
| *Rps4x* | Ribosomal protein S4 X-linked | 1.30 | 0.020 |
| *Mrps9* | 4S0 ribosomal Protein S9, mitochondrial | 1.32 | 0.043 |
| *Rpl13a* | 60S ribosomal Protein L13A | 1.32 | 0.047 |
| *Rpl23a* | 60S ribosomal Protein L23A | 1.35 | 0.0094 |
| *Rps8* | 40S ribosomal Protein S8 | 1.36 | 0.018 |
| *Mrps5* | 4S0 ribosomal Protein S5, mitochondrial | 1.36 | 0.045 |
| *Mrpl37a* | 39S ribosomal Protein L37A, mitochondrial | 1.37 | 0.019 |
| *Rpl38* | 60S ribosomal Protein L38 | 1.39 | 0.023 |
| *Mrps30* | 40S ribosomal Protein S30, mitochondrial | 1.41 | 0.0050 |
| *Rps21* | 40S ribosomal Protein S21 | 1.46 | 0.024 |
| *Mrps23* | 4S0 ribosomal Protein S23, mitochondrial | 1.47 | 0.0046 |
| *Mrps7* | 4S0 ribosomal Protein S7, mitochondrial | 1.48 | 0.0025 |
| *Mrps35* | 4S0 ribosomal Protein S35, mitochondrial | 1.55 | 0.00095 |
| *Mrpl2* | 39S ribosomal Protein L2, mitochondrial | 1.64 | 0.00065 |
| *Mrps16* | 4S0 ribosomal Protein S16, mitochondrial | 1.76 | 0.0098 |
| *Mrps36* | 4S0 ribosomal Protein S36, mitochondrial | 1.86 | 1.21x10-5 |
| *Mrpl27* | 39S ribosomal Protein L27, mitochondrial | 1.93 | 0.00040 |
| *Rps6ka5* | Ribosomal Protein S6 Kinase A5 | 2.36 | 5.23x10-5 |
| *Mrpl42* | 39S ribosomal Protein L42, mitochondrial | 3.07 | 1.81x10-5 |
| **Calcium binding proteins** | *S100a11* | S100 A11 | 1.44 | 0.015 |
| *Calm1* | Calmodulin 1 | 1.47 | 0.0012 |
| *S100a13* | S100 A13 | 2.53 | 0.00069 |
| *S100a1* | S100 A1 | 2.61 | 0.0018 |
| *S100a6* | S100 A6 | 2.62 | 0.0027 |
| *S100a10* | S100 A10 | 3.04 | 5.72x10-6 |
| *Pvalb* | Parvalbumin | 14.06 | 1.52x10-5 |
| **Heat shock proteins** | *Hspb7* | Heat Shock Protein Family B (small) member 7 | 0.13 | 3.46x10-9 |
| *Hspb6* | Hsp ß- 6 | 0.20 | 6.36x10-5 |
| *Dnajb4* | DnaJ Heat Shock Protein Family (Hsp40) Member B4, | 0.20 | 2.44x10-7 |
| *Hspb1* | Hsp ß-1 | 0.29 | 1.67x10-6 |
| *Dnaja4* | DnaJ homolog subfamily A member 4 | 0.34 | 5.07x10-6 |
| *Hspb3* | Hsp ß-3 | 0.37 | 2.54x10-5 |
| *Hspb2* | Hsp ß-2 | 0.40 | 8.13x10-7 |
| *Hspa1b* | Heat Shock Protein Family A (Hsp70) Member 1B | 0.46 | 9.46x10-6 |
| *Hspa1l* | Heat Shock Protein Family A (Hsp70) Member 1 Like | 0.55 | 0.0066 |
| *Dnaja2* | DnaJ homolog subfamily A member 2 | 0.59 | 5.76x10-5 |
| *Hspa8* | Heat shock 70 kDa protein 8 | 0.59 | 0.0052 |
| *Dnajb5* | DnaJ Heat Shock Protein Family (Hsp40) Member B5 | 0.62 | 0.00039 |
| *Dnajc9* | DnaJ homolog subfamily C member 9 | 1.31 | 0.042 |
| *Dnaja1* | DnaJ homolog subfamily A member 1 | 1.34 | 0.039 |
| *Hspa12b* | Heat Shock Protein Family A (Hsp70) Member 12B | 1.45 | 0.0022 |
| *Dnajb1* | DnaJ Heat Shock Protein Family (Hsp40) Member B1 | 1.50 | 0.046 |
| *Dnajc8* | DnaJ Heat Shock Protein Family (Hsp40) Member C8 | 1.54 | 0.0017 |
| *Hspa8* | Heat shock 70 kDa protein 8 | 1.60 | 0.0029 |
| *Hspa5* | Heat Shock Protein Family A (Hsp70) Member 5 (BiP) | 1.64 | 0.00018 |
| *Dnajc3* | DnaJ Heat Shock Protein Family (Hsp40) Member C3 | 1.66 | 3.44x10-5 |
| *Dnajc28* | DnaJ Heat Shock Protein Family (Hsp40) Member C28 | 1.66 | 7.46x10-5 |
| *Dnajc25* | DnaJ Heat Shock Protein Family (Hsp40) Member C25 | 1.71 | 0.0043 |
| *Hsph1* | Heat shock protein 105 kDa | 1.79 | 9.71x10-5 |
| *Dnajb12* | DnaJ Heat Shock Protein Family (Hsp40) Member B12 | 1.86 | 0.00017 |
| *Hsp90aa1* | Heat Shock Protein 90 a Family Class A Member 1 | 1.93 | 2.34x10-5 |
| *Hspa13* | Heat Shock Protein Family A (Hsp70) Member 13 | 1.97 | 1.78x10-5 |
| *Hspa90b1* | Heat Shock Protein 90 ß Family Member 1 | 2.00 | 1.59x10-5 |
| *Hspe1* | Heat Shock Protein Family E (Hsp10) Member 1) | 2.00 | 0.00022 |
| *Hspd1* | Mitochondrial, 60 kDa Hsp | 2.14 | 4.71x10-6 |
| *Dnajb11* | DnaJ homolog subfamily B member 11 (ER-associated HSP40 co-chaperone) | 2.20 | 4.95x10-6 |
| *Hspa4l* | Heat Shock Protein Family A (Hsp70) Member 4 Like | 3.27 | 4.16x10-6 |
| *Hspa12a* | Heat Shock Protein Family A (Hsp70) Member 12A | 7.67 | 6.15x10-8 |
| **Proteasomal proteins** | *Psmd4* | Proteasome 26S Subunit Ubiquitin Receptor, Non-ATPase 4 | 0.55 | 0.0019 |
| *Psmd14* | 26S proteasome, non-ATPase regulatory subunit 14 | 0.58 | 0.00063 |
| *Psmd12* | Proteasome 26S Subunit, Non-ATPase 12 | 0.60 | 0.00065 |
| *Psmd7* | Proteasome 26S Subunit, Non-ATPase 7 | 0.61 | 0.00030 |
| *Psmg2* | Proteasome assembly chaperone 2 | 0.70 | 0.0089 |
| *Psmd11* | 26S proteasome, non-ATPase regulatory subunit 11 | 0.71 | 0.00071 |
| *Psma5* | Proteasome 20S Subunit a 5 | 0.72 | 0.0083 |
| *Psmb7* | Proteasome 20S Subunit ß 7 | 0.74 | 0.010 |
| *Psme3* | Proteasome Activator Subunit 3 | 1.50 | 0.029 |
| **FK506 binding proteins** | *Fkbp7* | Peptidyl-prolyl cis-trans isomerase FKBP7 (FK506-binding protein 7) | 1.31 | 0.046 |
| *Fkbp4* | Peptidyl-prolyl cis-trans isomerase FKBP4 (FK506-binding protein 4) | 1.34 | 0.0095 |
| *Fkbp8* | Peptidyl-prolyl cis-trans isomerase FKBP8 (FK506-binding protein 8) | 1.41 | 0.041 |
| *Fkbp9* | Peptidyl-prolyl cis-trans isomerase FKBP9 (FK506-binding protein 9) | 1.43 | 0.0062 |
| *Fkbp5* | Peptidyl-prolyl cis-trans isomerase FKBP5 (FK506-binding protein 5) | 1.57 | 0.046 |
| *Fkbp2* | Peptidyl-prolyl cis-trans isomerase FKBP2 (FK506-binding protein 2) | 2.05 | 0.0029 |
| *Fkbp3* | Peptidyl-prolyl cis-trans isomerase FKBP3 (FK506-binding protein 3) | 0.50 | 3.09x10-5 |
| **Calcium dependent protein kinases** | *Camk2b* | Calcium/calmodulin dependent protein kinase II subunit ß | 1.37 | 0.036 |
| *Camk2a* | Calcium/calmodulin dependent protein kinase II subunit  | 1.52 | 0.00050 |
| *Camk2d* | Calcium/calmodulin dependent protein kinase II subunit  | 1.58 | 8.68x10-5 |
| *Camk2g* | Calcium/calmodulin dependent protein kinase II subunit  | 2.08 | 0.031 |
| **Varia** | *Ca3* | Carbonic anhydrase 3 | 0.0041 | 6.84x10-12 |
| *Mb* | Myoglobin | 0.14 | 1.78x10-6 |
| *Atb1b4* | Na+/K+ ATPase ß4 | 0.55 | 0.0021 |
| *Cat* | Catalase | 0.57 | 0.0070 |
| *Sod2* | Superoxide dismutase (mitochondrial) | 1.82 | 0.012 |
| *Fth1* | Ferritin | 1.88 | 0.0098 |
| *Atp1b1* | Na+/K+ ATPase ß1 | 2.18 | 0.00017 |
| *Atp1b3* | Na+/K+ ATPase ß3 | 2.34 | 4.95x10-6 |
| *Atp1a1* | Na+/K+ ATPase 1 | 2.39 | 4.12x10-7 |
| *Sod3* | Superoxide dismutase Zn-Cu | 2.46 | 0.00049 |
| *Atp1a2* | Na+/K+ ATPase 2 | 2.73 | 3.09x10-6 |
| *Atp1a3* | Na+/K+ ATPase 3 | 7.26 | 1.39x10-8 |

\*The nomenclature of Proteins is based on that of the UniProtKB database

\*\*These ratio values were calculated based on the absolute concentration determined with the peptides (Table 4).