Supplemental Figure 1


Supplemental Figure 1 Principal component analysis (PCA) of muscle tissue protein FSRs for the contralateral limb in vehicle-treated (Con-Veh, $n=3$ ) and clenbuterol-treated (Con-Clen, $n=3$ ) rats, as well as denervated limb in vehicle-treated (Den-Veh) and clenbuterol-reated (Den-Clen) rats.

Supplemental Table 1: Correlation of fractional synthesis of creatine-kinase M-type (CK-M) and carbonic anhydrase 3 (CA-3) with that of muscle proteins in rat gastrocnemius. Pearson correlation coefficients between

| Gastrocnemius Muscle Proteins | Muscle CK-M fractional synthesis vs. other gastrocnemius muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed $\mathbf{p}$-value, $\mathbf{n}$ | Plasma CK-M fractional synthesis vs. other gastrocnemius muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p-value, n | Muscle CA-3 fractional synthesis vs. other gastrocnemius muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p -value, n | Plasma CA-3 fractional synthesis vs. other gastrocnemius muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p-value, $n$ |
| :---: | :---: | :---: | :---: | :---: |
| 2-oxoglutarate dehydrogenase, mitochondrial | $\mathrm{r}=0.958, \mathrm{p}<0.0001, \mathrm{n}=17$ | $\mathrm{r}=0.9748, \mathrm{p}<0.0001, \mathrm{n}=15$ | $\mathrm{r}=0.9321, \mathrm{p}<0.0001, \mathrm{n}=17$ | $\mathrm{r}=0.9488, \mathrm{p}<0.0001, \mathrm{n}=17$ |
| 3-mercaptopyruvate sulfurtransferase | $r=0.8819, p<0.0001, \mathrm{n}=13$ | $\mathrm{r}=0.9202, \mathrm{p}<0.0001, \mathrm{n}=12$ | $r=0.7977, p<0.005, n=13$ | $r=0.8444, p<0.0005, n=13$ |
| 60 kDa heat shock protein, mitochondrial | $r=0.9126, p<0.0001, n=16$ | $\mathrm{r}=0.931, \mathrm{p}<0.0001, \mathrm{n}=14$ | $\mathrm{r}=0.8324, \mathrm{p}<0.0001, \mathrm{n}=16$ | $\mathrm{r}=0.8094, \mathrm{p}<0.0001, \mathrm{n}=16$ |
| Aconitate hydratase, mitochondrial | $\mathrm{r}=0.9314, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.948, p<0.0001, n=22$ | $\mathrm{r}=0.8418, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8761, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Actin | $\mathrm{r}=0.8741, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.857, p<0.0001, n=22$ | $\mathrm{r}=0.9257, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.882, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Adenylate kinase isoenzyme 1 | $\mathrm{r}=0.9957, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9687, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9073, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9737, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| ADP/ATP translocase 1 | $r=0.9263, p<0.0001, n=20$ | $\mathrm{r}=0.933, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.9322, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.9068, \mathrm{p}<0.0001, \mathrm{n}=20$ |
| Alpha-enolase | $\mathrm{r}=0.982, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.972, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8705, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9353, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Aspartate aminotransferase, cytoplasmic | $\mathrm{r}=0.8461, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8571, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.6658, \mathrm{p}<0.0005, \mathrm{n}=24$ | $\mathrm{r}=0.8051, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Aspartate aminotransferase, mitochondrial | $\mathrm{r}=0.9568, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.961, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9204, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9179, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| ATP synthase subunit alpha, mitochondrial | $\mathrm{r}=0.9182, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9286, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8368, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.881, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| ATP synthase subunit beta, mitochondrial | $\mathrm{r}=0.9548, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9667, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8629, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9174, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Beta-enolase | $\mathrm{r}=0.9887, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9811, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8657, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9433, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Carbonic anhydrase 3 | $\mathrm{r}=0.914, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8977, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=1$ | $\mathrm{r}=0.9038, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Citrate synthase, mitochondrial | $\mathrm{r}=0.9524, \mathrm{p}<0.0001, \mathrm{n}=14$ | $\mathrm{r}=0.9505, \mathrm{p}<0.0001, \mathrm{n}=12$ | $\mathrm{r}=0.9155, \mathrm{p}<0.0001, \mathrm{n}=14$ | $\mathrm{r}=0.8727, \mathrm{p}<0.0001, \mathrm{n}=14$ |
| Creatine kinase M-type | = 1 | $\mathrm{r}=0.9771, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.914, p<0.0001, n=24$ | $\mathrm{r}=0.9688, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Creatine kinase S-type, mitochondrial | $\mathrm{r}=0.8289, \mathrm{p}<0.0001, \mathrm{n}=23$ | $\mathrm{r}=0.8336, \mathrm{p}<0.0001, \mathrm{n}=21$ | $r=0.6496, p<0.001, n=23$ | $\mathrm{r}=0.8099, \mathrm{p}<0.0001, \mathrm{n}=23$ |
| Cytochrome c oxidase subunit 5A, mitochondrial | $r=0.9465, \mathrm{p}<0.0001, \mathrm{n}=19$ | $\mathrm{r}=0.937, \mathrm{p}<0.0001, \mathrm{n}=17$ | $\mathrm{r}=0.7961, \mathrm{p}<0.0001, \mathrm{n}=19$ | $r=0.9033, \mathrm{p}<0.0001, \mathrm{n}=19$ |
| Dihydrolipoyl dehydrogenase, mitochondrial | $r=0.7097, p<0.005, n=15$ | $\mathrm{r}=0.6923, \mathrm{p}<0.01, \mathrm{n}=14$ | $\mathrm{r}=0.6604, \mathrm{p}<0.01, \mathrm{n}=15$ | $r=0.6735, p<0.01, \mathrm{n}=15$ |
| Electron transfer flavoprotein subunit alpha, mitochondrial | $r=0.8915, \mathrm{p}<0.0001, \mathrm{n}=23$ | $\mathrm{r}=0.8266, \mathrm{p}<0.0001, \mathrm{n}=21$ | $r=0.7398, p<0.0001, n=23$ | $r=0.8748, p<0.0001, n=23$ |
| Fatty acid-binding protein, heart | $\mathrm{r}=0.8732, \mathrm{p}<0.0001, \mathrm{n}=17$ | $\mathrm{r}=0.8673, \mathrm{p}<0.0001, \mathrm{n}=15$ | $r=0.757, p<0.0005, n=17$ | $r=0.845, p<0.0005, n=17$ |
| Four and a half LIM domains protein 1 | $\mathrm{r}=0.9624, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.945, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.9423, \mathrm{p}<0.0001, \mathrm{n}=20$ | $r=0.9322, p<0.0001, \mathrm{n}=20$ |
| Fructose-bisphosphate aldolase A | $r=0.9945, p<0.0001, n=24$ | $\mathrm{r}=0.9799, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8912, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9558, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Fumarate hydratase, mitochondrial | $r=0.9218, \mathrm{p}<0.0001, \mathrm{n}=23$ | $\mathrm{r}=0.9267, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.8103, \mathrm{p}<0.0001, \mathrm{n}=23$ | $\mathrm{r}=0.8588, \mathrm{p}<0.0001, \mathrm{n}=23$ |
| Galectin-1 | $\mathrm{r}=0.8867, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8502, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.9022, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.8593, \mathrm{p}<0.0001, \mathrm{n}=22$ |
| Glucose-6-phosphate isomerase | $\mathrm{r}=0.9911, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9705, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8765, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9612, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Glyceraldehyde-3-phosphate dehydrogenase | $r=0.9802, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9735, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8469, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9427, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic | $\mathrm{r}=0.9793, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9673, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8857, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9444, p<0.0001, n=24$ |
| Glycogen phosphorylase, muscle form | $r=0.9887, p<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9712, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8666, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9542, p<0.0001, n=24$ |
| GTP-binding protein SAR1b | $r=0.7995, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.839, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.6263, \mathrm{p}<0.005, \mathrm{n}=22$ | $\mathrm{r}=0.772, \mathrm{p}<0.0001, \mathrm{n}=22$ |
| Heat shock cognate 71 kDa protein | $\mathrm{r}=0.9681, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9575, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9181, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9621, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Heat shock-related 70 kDa protein 2 | $r=0.9567, p<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9477, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.8899, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.9464, p<0.0001, n=22$ |
| Histidine triad nucleotide-binding protein 1 | $\mathrm{r}=0.9799, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.9634, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.8707, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.9651, \mathrm{p}<0.0001, \mathrm{n}=20$ |
| Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial | $r=0.9153, p<0.0001, n=16$ | $\mathrm{r}=0.9273, \mathrm{p}<0.0001, \mathrm{n}=14$ | $\mathrm{r}=0.7567, \mathrm{p}<0.001, \mathrm{n}=16$ | $r=0.8713, p<0.0001, \mathrm{n}=16$ |
| Isocitrate dehydrogenase [NADP], mitochondrial | $r=0.8735, p<0.0001, n=23$ | $\mathrm{r}=0.8783, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.7557, \mathrm{p}<0.0001, \mathrm{n}=23$ | $r=0.8267, p<0.0001, n=23$ |
| L-lactate dehydrogenase A chain | $\mathrm{r}=0.9955, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9738, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9005, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9617, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| L-lactate dehydrogenase B chain | $\mathrm{r}=0.9332, \mathrm{p}<0.0001, \mathrm{n}=12$ | $\mathrm{r}=0.8535, \mathrm{p}<0.005, \mathrm{n}=10$ | $\mathrm{r}=0.8208, \mathrm{p}<0.005, \mathrm{n}=12$ | $r=0.9412, p<0.0001, n=12$ |
| Malate dehydrogenase, cytoplasmic | $\mathrm{r}=0.9082, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.905, p<0.0001, n=22$ | $\mathrm{r}=0.7289, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8408, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Malate dehydrogenase, mitochondrial | $r=0.9445, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9549, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8911, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9116, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Myoglobin | $\mathrm{r}=0.8057, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8331, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.6355, \mathrm{p}<0.001, \mathrm{n}=24$ | $\mathrm{r}=0.7721, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Myosin light chain 1/3, skeletal muscle isoform | $r=0.9597, p<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9404, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8997, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9436, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Nucleoside diphosphate kinase A | $\mathrm{r}=0.9734, \mathrm{p}<0.0001, \mathrm{n}=13$ | $\mathrm{r}=0.9262, \mathrm{p}<0.0001, \mathrm{n}=11$ | $\mathrm{r}=0.9456, \mathrm{p}<0.0001, \mathrm{n}=13$ | $r=0.9653, p<0.0001, n=13$ |
| Nucleoside diphosphate kinase B | $\mathrm{r}=0.9432, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9481, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.8873, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.9403, p<0.0001, n=22$ |
| Parvalbumin alpha | $\mathrm{r}=0.9357, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8887, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9148, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9169, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Peroxiredoxin-2 | $r=0.9547, p<0.0001, n=21$ | $\mathrm{r}=0.9591, \mathrm{p}<0.0001, \mathrm{n}=19$ | $\mathrm{r}=0.8336, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.9252, \mathrm{p}<0.0001, \mathrm{n}=21$ |
| Phosphatidylethanolamine-binding protein 1 | $r=0.9032, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.9147, \mathrm{p}<0.0001, \mathrm{n}=19$ | $\mathrm{r}=0.8015, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.8852, \mathrm{p}<0.0001, \mathrm{n}=21$ |
| Phosphoglucomutase-1 | $r=0.9812, p<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9759, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8592, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9499, p<0.0001, n=24$ |
| Phosphoglycerate kinase 1 | $\mathrm{r}=0.9942, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9837, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9042, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9666, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Phosphoglycerate mutase 1 | $\mathrm{r}=0.9937, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9739, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.9017, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9677, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Phosphoglycerate mutase 2 | $\mathrm{r}=0.9935, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9791, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8939, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9722, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Profilin-1 | $r=0.7676, p<0.005, n=13$ | $\mathrm{r}=0.745, \mathrm{p}<0.01, \mathrm{n}=11$ | $\mathrm{r}=0.832, \mathrm{p}<0.0005, \mathrm{n}=13$ | $\mathrm{r}=0.767, \mathrm{p}<0.005, \mathrm{n}=13$ |
| Protein DJ-1 | $r=0.9826, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.968, p<0.0001, n=22$ | $\mathrm{r}=0.9107, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9586, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Protein NDRG2 | $\mathrm{r}=0.8866, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.8296, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.6632, \mathrm{p}<0.005, \mathrm{n}=20$ | $\mathrm{r}=0.8339, \mathrm{p}<0.0001, \mathrm{n}=20$ |
| Pyruvate kinase isozymes M1/M2 | $\mathrm{r}=0.9897, \mathrm{p}<0.001, \mathrm{n}=24$ | $\mathrm{r}=0.9768, \mathrm{p}<0.001, \mathrm{n}=22$ | $\mathrm{r}=0.8682, \mathrm{p}<0.001, \mathrm{n}=24$ | $r=0.9562, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Rho GDP-dissociation inhibitor 1 | $\mathrm{r}=0.9314, \mathrm{p}<0.001, \mathrm{n}=8$ | $\mathrm{r}=0.8882, \mathrm{p}<0.01, \mathrm{n}=7$ | $\mathrm{r}=0.9176, \mathrm{p}<0.005, \mathrm{n}=8$ | $\mathrm{r}=0.8088, \mathrm{p}<0.05, \mathrm{n}=8$ |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 | $r=0.9888, p<0.0001, n=24$ | $r=0.9813, p<0.0001, n=22$ | $r=0.8848, p<0.0001, n=24$ | $r=0.9598, p<0.0001, n=24$ |
| Superoxide dismutase [Cu-Zn] | $r=0.903, p<0.0001, n=20$ | $\mathrm{r}=0.8624, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.7654, \mathrm{p}<0.0001, \mathrm{n}=20$ | $r=0.8689, p<0.0001, n=20$ |
| Triosephosphate isomerase | $r=0.9928, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9863, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8921, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9591, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Tripartite motif-containing protein 72 | $r=0.8728, p<0.0001, n=21$ | $\mathrm{r}=0.8844, \mathrm{p}<0.0001, \mathrm{n}=19$ | $\mathrm{r}=0.7823, \mathrm{p}<0.0001, \mathrm{n}=21$ | $\mathrm{r}=0.8451, \mathrm{p}<0.0001, \mathrm{n}=21$ |
| Tropomyosin alpha-1 chain | $r=0.844, p<0.0001, \mathrm{n}=15$ | $\mathrm{r}=0.8033, \mathrm{p}<0.001, \mathrm{n}=14$ | $r=0.802, p<0.0005, n=15$ | $r=0.8885, p<0.0001, n=15$ |
| Tubulin alpha-1B chain | $\mathrm{r}=0.9127, \mathrm{p}<0.0001, \mathrm{n}=12$ | $r=0.9038, p<0.005, n=10$ | $r=0.933, p<0.0001, n=12$ | $r=0.902, p<0.0001, n=12$ |


| Quadriceps Muscle Proteins | Muscle CK-M fractional synthesis vs. other quadriceps muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p-value, n | Plasma CK-M fractional synthesis vs. other quadriceps muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p -value, n | Muscle CA-3 fractional synthesis vs. other quadriceps muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed $p$ value, $n$ | Plasma CA-3 fractional synthesis vs. other quadriceps muscle proteins fractional synthesis: Pearson correlation coefficient $r$, two-tailed p -value, n |
| :---: | :---: | :---: | :---: | :---: |
| Aconitate hydratase, mitochondrial | $\mathrm{r}=0.9508, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.949, \mathrm{p}<0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.8317, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.9128, \mathrm{p}<0.0001, \mathrm{n}=20$ |
| Actin | $r=0.9778, \mathrm{p}<0.0001, \mathrm{n}=23$ | $r=0.9541, p<0.0001, n=22$ | $\mathrm{r}=0.9063, \mathrm{p}<0.0001, \mathrm{n}=23$ | $\mathrm{r}=0.9479, \mathrm{p}<0.0001, \mathrm{n}=23$ |
| Adenylate kinase isoenzyme 1 | $r=0.9784, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9735, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.8392, p<0.0001, n=24$ | $\mathrm{r}=0.9454, \mathrm{p}<0.001, \mathrm{n}=24$ |
| Aspartate aminotransferase, cytoplasmic | $\mathrm{r}=0.8018, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.7825, \mathrm{p}=0.0001, \mathrm{n}=18$ | $\mathrm{r}=0.469, \mathrm{p}<0.05, \mathrm{n}=20$ | $\mathrm{r}=0.7299, \mathrm{p}<0.005, \mathrm{n}=20$ |
| Beta-enolase | $r=0.9919, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9788, p<0.0001, n=22$ | $r=0.8088, p<0.0001, n=24$ | $r=0.9357, p<0.0001, \mathrm{n}=24$ |
| Carbonic anhydrase 3 | $\mathrm{r}=0.8647, \mathrm{p}<0.0001, \mathrm{n}=20$ | $\mathrm{r}=0.86, \mathrm{p}<0.0001, \mathrm{n}=18$ | = 1 | $r=0.8819, p<0.0001, \mathrm{n}=24$ |
| Creatine Kinase M-type | $r=1$ | $r=0.9844, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8647, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9512, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Fructose-bisphosphate aldolase A | $\mathrm{r}=0.9966, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9838, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.8478, p<0.0001, n=24$ | $r=0.9474, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Glucose-6-phosphate isomerase | $\mathrm{r}=0.9895, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9895, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8466, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9517, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Glyceraldehyde-3-phosphate dehydrogenase | $\mathrm{r}=0.9873, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9762, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.804, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9316, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Glycogen phosphorylase, muscle form | $r=0.9915, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9831, p<0.0001, n=22$ | $\mathrm{r}=0.82, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9489, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| L-lactate dehydrogenase A chain | $r=0.9916, p<0.0001, \mathrm{n}=24$ | $r=0.9821, p<0.0001, \mathrm{n}=22$ | $r=0.8445, p<0.0001, n=24$ | $\mathrm{r}=0.9489, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Malate dehydrogenase, mitochondrial | $\mathrm{r}=0.9432, \mathrm{p}<0.0001, \mathrm{n}=21$ | $r=0.9418, \mathrm{p}<0.0001, \mathrm{n}=19$ | $r=0.7594, \mathrm{p}<0.0005, \mathrm{n}=21$ | $\mathrm{r}=0.9106, \mathrm{p}<0.0001, \mathrm{n}=21$ |
| Myoglobin | $r=0.7591, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.7649, p<0.0001, n=22$ | $r=0.4823, p<0.05, n=24$ | $\mathrm{r}=0.715, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Myosin Light Chain-1/3 | $\mathrm{r}=0.9834, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9749, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.865, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9511, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Parvalbumin alpha | $\mathrm{r}=0.9588, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9347, p<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8939, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9327, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Phosphoglucomutase-1 | $\mathrm{r}=0.9631, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9518, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.7644, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9197, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Phosphoglycerate kinase 1 | $\mathrm{r}=0.9654, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.9601, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.7792, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.8947, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Phosphoglycerate mutase 2 | $\mathrm{r}=0.995, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9857, \mathrm{p}<0.0001, \mathrm{n}=22$ | $r=0.8514, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9446, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Pyruvate Kinase M1/M2 | $\mathrm{r}=0.9886, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9783, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8098, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.933, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 | $r=0.9427, p<0.0001, n=17$ | $r=0.9428, p<0.0001, n=16$ | $\mathrm{r}=0.8179, \mathrm{p}<0.0005, \mathrm{n}=17$ | $\mathrm{r}=0.9168, \mathrm{p}<0.0001, \mathrm{n}=17$ |
| Triosephosphate isomerase | $\mathrm{r}=0.9928, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9843, \mathrm{p}<0.0001, \mathrm{n}=22$ | $\mathrm{r}=0.8382, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9527, \mathrm{p}<0.0001, \mathrm{n}=24$ |
| Tropomyosin | $r=0.9673, \mathrm{p}<0.0001, \mathrm{n}=24$ | $\mathrm{r}=0.9563, \mathrm{p}<0.0001, \mathrm{n}=24$ | $r=0.8386, p<0.0001, n=24$ | $r=0.9372, p<0.0001, \mathrm{n}=24$ |


| Protein | Sedentary FSR/week Mean | Sprint FSR/week Mean | Sedentary FSR/week SD | Sprint FSR/week SD | Sedentary FSR/week N | Sprint FSR/week N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aspartate aminotransferase, cytoplasmic | 7.2\% | 12.0\% | 0.8\% | 3.1\% | 5 | 6 |
| Heat shock 70 kDa protein 1A/1B | 13.2\% | 18.6\% | 2.7\% | 2.9\% | 5 | 6 |
| Fructose-1,6-bisphosphatase isozyme 2 | 12.9\% | 20.2\% | 1.9\% | 5.2\% | 5 | 5 |
| Phosphoglycerate mutase 2 | 5.7\% | 8.5\% | 1.0\% | 1.8\% | 5 | 6 |
| Pyruvate kinase isozymes M1/M2 | 9.5\% | 15.3\% | 1.6\% | 4.4\% | 5 | 6 |
| Malate dehydrogenase, cytoplasmic | 7.2\% | 11.5\% | 1.4\% | 3.3\% | 5 | 6 |
| Creatine kinase S-type, mitochondrial | 9.0\% | 13.8\% | 2.2\% | 3.3\% | 5 | 6 |
| ATP synthase subunit beta, mitochondrial | 8.5\% | 12.4\% | 1.8\% | 2.8\% | 5 | 6 |
| Fatty acid-binding protein, heart | 6.2\% | 9.3\% | 1.4\% | 2.3\% | 5 | 5 |
| Fructose-bisphosphate aldolase A | 10.5\% | 15.9\% | 1.7\% | 4.7\% | 5 | 6 |
| Triosephosphate isomerase | 5.4\% | 8.3\% | 0.9\% | 2.5\% | 5 | 6 |
| ATP synthase subunit alpha, mitochondrial | 9.3\% | 13.4\% | 1.8\% | 3.5\% | 5 | 6 |
| 2-oxoglutarate dehydrogenase, mitochondrial | 15.5\% | 25.4\% | 2.6\% | 10.5\% | 5 | 6 |
| Phosphoglycerate kinase 1 | 5.7\% | 8.6\% | 1.0\% | 2.6\% | 5 | 6 |
| L-lactate dehydrogenase A chain | 7.6\% | 13.1\% | 1.6\% | 5.4\% | 5 | 6 |
| Ferritin heavy chain | 17.9\% | 33.6\% | 3.1\% | 10.8\% | 3 | 3 |
| Filamin-A | 17.7\% | 25.7\% | 2.6\% | 7.9\% | 5 | 5 |
| Glyceraldehyde-3-phosphate dehydrogenase | 7.0\% | 11.5\% | 0.4\% | 4.6\% | 5 | 6 |
| Myosin light chain 1/3, skeletal muscle isoform | 10.0\% | 12.9\% | 2.7\% | 1.6\% | 5 | 6 |
| Filamin-C | 16.1\% | 25.3\% | 1.7\% | 10.3\% | 5 | 6 |
| Fumarate hydratase, mitochondrial | 9.7\% | 15.7\% | 1.7\% | 6.1\% | 5 | 6 |
| Glucose-6-phosphate isomerase | 6.3\% | 9.0\% | 0.7\% | 2.9\% | 5 | 6 |
| Phosphoglycerate mutase 1 | 6.3\% | 9.0\% | 0.7\% | 2.8\% | 5 | 6 |
| Aldose reductase | 5.2\% | 7.4\% | 0.6\% | 2.2\% | 5 | 5 |
| 14-3-3 protein gamma | 17.6\% | 32.3\% | 4.6\% | 16.5\% | 5 | 6 |
| Beta-enolase | 6.3\% | 8.8\% | 0.8\% | 2.6\% | 5 | 6 |
| 60 kDa heat shock protein, mitochondrial | 9.3\% | 13.6\% | 1.5\% | 4.3\% | 5 | 5 |
| Tropomyosin alpha-1 chain | 7.6\% | 10.3\% | 0.8\% | 2.9\% | 5 | 6 |
| Filamin-B | 17.4\% | 25.3\% | 2.2\% | 9.5\% | 5 | 5 |
| Apolipoprotein A-I | 72.6\% | 74.9\% | 4.6\% | 0.0\% | 4 | 4 |
| Histidine triad nucleotide-binding protein 1 | 7.5\% | 6.1\% | 0.3\% | 0.5\% | 2 | 2 |
| Ubiquitin-like modifier-activating enzyme 1 | 16.5\% | 21.3\% | 1.2\% | 5.8\% | 5 | 6 |
| Superoxide dismutase [Cu-Zn] | 5.5\% | 12.4\% | 1.0\% | 8.5\% | 5 | 4 |
| LIM domain-binding protein 3 | 19.7\% | 12.7\% | 4.3\% | 0.9\% | 3 | 2 |
| Aspartate aminotransferase, mitochondrial | 7.4\% | 10.2\% | 2.2\% | 2.6\% | 5 | 6 |
| ADP/ATP translocase 1 | 10.4\% | 14.3\% | 2.4\% | 4.0\% | 5 | 6 |
| Electron transfer flavoprotein subunit beta | 8.8\% | 13.6\% | 3.2\% | 2.9\% | 4 | 3 |
| Flavin reductase (NADPH) | 8.7\% | 10.8\% | 1.1\% | 2.4\% | 5 | 6 |
| Tubulin beta-4A chain | 8.8\% | 10.8\% | 1.6\% | 0.5\% | 4 | 3 |
| Nucleoside diphosphate kinase A | 6.5\% | 9.5\% | 2.4\% | 2.5\% | 5 | 4 |
| ATP synthase subunit O, mitochondrial | 5.9\% | 9.6\% | 2.1\% | 0.5\% | 3 | 2 |
| Myosin-7 | 10.8\% | 22.1\% | 1.6\% | 18.4\% | 5 | 6 |
| Adenylate kinase isoenzyme 1 | 4.7\% | 5.8\% | 0.5\% | 1.3\% | 5 | 5 |
| Myosin-6 | 11.2\% | 22.4\% | 1.7\% | 18.3\% | 5 | 6 |
| Gamma-enolase | 5.0\% | 6.8\% | 0.8\% | 2.3\% | 5 | 6 |
| Nucleoside diphosphate kinase B | 7.1\% | 9.6\% | 2.1\% | 2.5\% | 5 | 5 |
| Cofilin-1 | 10.6\% | 13.5\% | 1.7\% | 3.4\% | 5 | 5 |
| 1,4-alpha-glucan-branching enzyme | 20.8\% | 27.1\% | 0.8\% | 5.8\% | 3 | 3 |
| Myosin-2 | 11.2\% | 18.3\% | 1.0\% | 10.1\% | 5 | 5 |
| Alpha-enolase | 5.2\% | 6.9\% | 0.8\% | 2.2\% | 5 | 6 |
| Alpha-actinin-3 | 6.7\% | 4.6\% | 1.3\% | 0.9\% | 3 | 2 |
| NADP-dependent malic enzyme | 17.3\% | 7.0\% | 7.0\% | 1.4\% | 2 | 2 |
| Phosphatidylethanolamine-binding protein 1 | 6.5\% | 7.7\% | 1.5\% | 1.1\% | 5 | 6 |
| UTP--glucose-1-phosphate uridylyltransferase | 15.8\% | 19.0\% | 2.1\% | 3.9\% | 5 | 5 |
| Phosphoglucomutase-1 | 7.7\% | 10.5\% | 0.4\% | 4.1\% | 5 | 6 |
| Heat shock protein beta-6 | 21.7\% | 30.3\% | 4.9\% | 12.2\% | 5 | 6 |
| ES1 protein homolog, mitochondrial | 8.2\% | 11.4\% | 2.3\% | 3.2\% | 5 | 3 |
| Heat shock cognate 71 kDa protein | 14.1\% | 17.4\% | 1.0\% | 4.8\% | 5 | 5 |
| Creatine kinase B-type | 7.9\% | 14.6\% | 4.8\% | 3.9\% | 3 | 3 |
| Troponin I, fast skeletal muscle | 11.1\% | 15.9\% | 1.6\% | 6.9\% | 5 | 6 |
| Peroxiredoxin-6 | 9.1\% | 10.7\% | 1.5\% | 1.8\% | 5 | 6 |
| Protein disulfide-isomerase | 20.6\% | 14.8\% | 2.2\% | 2.9\% | 2 | 2 |
| Heat shock-related 70 kDa protein 2 | 15.5\% | 19.6\% | 1.6\% | 6.1\% | 5 | 5 |
| Enoyl-CoA delta isomerase 1, mitochondrial | 14.8\% | 9.2\% | 5.0\% | 3.3\% | 3 | 3 |
| Alpha-1-antitrypsin | 60.4\% | 41.4\% | 21.0\% | 34.9\% | 5 | 5 |
| Myomesin-2 | 5.3\% | 6.9\% | 0.3\% | 2.3\% | 5 | 6 |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 | 12.3\% | 15.7\% | 1.2\% | 4.9\% | 5 | 6 |
| Four and a half LIM domains protein 1 | 9.4\% | 13.1\% | 0.8\% | 5.5\% | 5 | 6 |
| Cofilin-2 | 10.6\% | 13.2\% | 1.4\% | 3.7\% | 5 | 5 |
| Elongation factor 1-alpha 2 | 14.7\% | 18.5\% | 1.2\% | 5.8\% | 5 | 5 |
| Isopentenyl-diphosphate Delta-isomerase 2 | 25.5\% | 13.4\% | 9.8\% | 0.6\% | 2 | 2 |
| Glutathione S-transferase P | 7.5\% | 9.1\% | 1.3\% | 2.2\% | 5 | 5 |
| Myosin-4 | 11.6\% | 18.1\% | 1.7\% | 9.7\% | 5 | 5 |
| Peroxiredoxin-1 | 11.8\% | 14.2\% | 2.0\% | 3.3\% | 5 | 5 |
| Ubiquinone biosynthesis protein COQ9, mitochondrial | 7.3\% | 9.1\% | 1.6\% | 2.4\% | 5 | 5 |
| Tripartite motif-containing protein 72 | 10.4\% | 12.3\% | 2.4\% | 1.8\% | 5 | 5 |
| Lumican | 18.7\% | 11.7\% | 9.0\% | 3.1\% | 3 | 4 |
| Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenas | 3.8\% | 5.6\% | 1.0\% | 2.2\% | 4 | 3 |
| L-lactate dehydrogenase B chain | 8.9\% | 11.9\% | 0.4\% | 4.9\% | 5 | 6 |
| Glycogen debranching enzyme | 9.9\% | 13.2\% | 1.8\% | 5.3\% | 5 | 6 |


| Creatine kinase M-type | 6.2\% | 8.0\% | 0.8\% | 2.9\% | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Troponin T, slow skeletal muscle | 13.9\% | 18.9\% | 1.8\% | 6.0\% | 3 | 3 |
| Medium-chain specific acyl-CoA dehydrogenase, mitochondrial | 21.2\% | 25.1\% | 5.3\% | 4.2\% | 5 | 4 |
| Fatty acid-binding protein, adipocyte | 19.7\% | 35.7\% | 7.9\% | 16.1\% | 3 | 2 |
| Vinculin | 16.7\% | 21.2\% | 4.2\% | 6.3\% | 5 | 5 |
| Carbonic anhydrase 3 | 4.3\% | 6.1\% | 0.8\% | 2.8\% | 5 | 6 |
| Long-chain-fatty-acid--CoA ligase 1 | 12.2\% | 16.7\% | 6.2\% | 3.7\% | 5 | 4 |
| Kelch repeat and BTB domain-containing protein 10 | 24.5\% | 20.1\% | 0.6\% | 3.3\% | 2 | 2 |
| Troponin C, slow skeletal and cardiac muscles | 18.9\% | 29.3\% | 3.0\% | 16.8\% | 5 | 4 |
| Myosin-binding protein C, fast-type | 20.8\% | 26.7\% | 2.2\% | 7.0\% | 3 | 2 |
| Pyruvate dehydrogenase E1 component subunit beta, mitochondrial | 7.4\% | 9.9\% | 3.0\% | 3.4\% | 5 | 6 |
| Aldehyde dehydrogenase X, mitochondrial | 15.9\% | 22.2\% | 2.9\% | 4.8\% | 2 | 2 |
| Malate dehydrogenase, mitochondrial | 7.6\% | 9.6\% | 1.6\% | 3.4\% | 5 | 6 |
| Cytosolic 10-formyltetrahydrofolate dehydrogenase | 18.5\% | 23.5\% | 3.8\% | 7.5\% | 5 | 3 |
| Protein DJ-1 | 6.9\% | 8.1\% | 1.2\% | 1.8\% | 5 | 6 |
| Band 3 anion transport protein | 6.4\% | 4.2\% | 2.8\% | 0.2\% | 4 | 3 |
| Beta-actin-like protein 2 | 5.1\% | 6.4\% | 0.7\% | 2.2\% | 5 | 6 |
| Tubulin beta chain | 9.2\% | 11.5\% | 2.1\% | 3.2\% | 5 | 3 |
| Carbonic anhydrase 1 | 7.2\% | 8.8\% | 2.4\% | 2.2\% | 5 | 6 |
| Reticulon-2 | 11.6\% | 10.6\% | 1.0\% | 0.3\% | 3 | 2 |
| Tropomyosin alpha-3 chain | 8.7\% | 10.1\% | 0.6\% | 2.5\% | 5 | 6 |
| Ig gamma-2 chain C region | 12.0\% | 7.3\% | 5.8\% | 5.2\% | 5 | 3 |
| Actin, alpha cardiac muscle 1 | 4.5\% | 5.4\% | 0.3\% | 1.7\% | 5 | 6 |
| Cysteine and glycine-rich protein 3 | 19.6\% | 7.8\% | 0.4\% | 9.7\% | 2 | 2 |
| NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 11 | 10.3\% | 8.9\% | 1.0\% | 1.3\% | 3 | 2 |
| Glutathione S-transferase Mu 1 | 5.6\% | 8.4\% | 0.8\% | 2.9\% | 2 | 4 |
| Alpha-actinin-4 | 9.1\% | 41.9\% | 2.8\% | 46.6\% | 3 | 2 |
| Enoyl-CoA hydratase, mitochondrial | 9.2\% | 11.3\% | 1.9\% | 3.5\% | 5 | 5 |
| Transforming protein RhoA | 27.9\% | 53.7\% | 11.4\% | 24.4\% | 2 | 2 |
| Tubulin beta-4B chain | 9.5\% | 11.8\% | 2.5\% | 2.9\% | 5 | 3 |
| Peroxiredoxin-2 | 8.0\% | 9.4\% | 2.9\% | 1.6\% | 5 | 6 |
| Tubulin alpha-4A chain | 17.7\% | 20.1\% | 3.6\% | 1.6\% | 5 | 3 |
| Retinal dehydrogenase 1 | 13.6\% | 11.4\% | 1.8\% | 3.5\% | 4 | 3 |
| Superoxide dismutase [Mn], mitochondrial | 7.7\% | 9.9\% | 1.5\% | 4.2\% | 5 | 6 |
| Ig alpha-1 chain C region | 57.8\% | 46.1\% | 18.2\% | 16.2\% | 3 | 4 |
| Myoglobin | 3.6\% | 4.3\% | 0.5\% | 1.3\% | 5 | 6 |
| Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial | 11.5\% | 8.2\% | 3.8\% | 0.5\% | 3 | 2 |
| Cytoplasmic aconitate hydratase | 14.5\% | 17.5\% | 4.4\% | 4.7\% | 5 | 4 |
| Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial | 7.7\% | 9.5\% | 2.1\% | 3.4\% | 5 | 6 |
| Myosin regulatory light chain 2, ventricular/cardiac muscle isoform | 8.1\% | 9.5\% | 1.4\% | 2.5\% | 5 | 6 |
| Serum albumin | 22.9\% | 28.3\% | 8.4\% | 11.0\% | 5 | 6 |
| Ig kappa chain C region | 16.8\% | 26.0\% | 5.5\% | 16.4\% | 4 | 6 |
| Protein-arginine deiminase type-2 | 14.4\% | 8.3\% | 8.0\% | 0.9\% | 3 | 2 |
| NAD(P) transhydrogenase, mitochondrial | 8.9\% | 21.9\% | 1.9\% | 25.4\% | 3 | 5 |
| Ig gamma-1 chain C region | 15.9\% | 19.5\% | 3.7\% | 7.2\% | 5 | 5 |
| Actin, alpha skeletal muscle | 4.4\% | 5.2\% | 0.3\% | 1.7\% | 5 | 6 |
| Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform | 25.1\% | 32.4\% | 5.8\% | 9.2\% | 3 | 2 |
| Alpha-crystallin B chain | 18.6\% | 22.3\% | 4.6\% | 7.0\% | 5 | 6 |
| Citrate synthase, mitochondrial | 8.9\% | 11.0\% | 3.5\% | 3.4\% | 5 | 5 |
| Dysferlin | 9.8\% | 10.8\% | 0.0\% | 1.8\% | 3 | 2 |
| Alpha-actinin-1 | 7.7\% | 10.1\% | 1.9\% | 3.6\% | 3 | 3 |
| ATP synthase subunit b, mitochondrial | 6.8\% | 8.6\% | 1.7\% | 3.1\% | 5 | 3 |
| Myosin regulatory light chain 2, skeletal muscle isoform | 6.9\% | 8.5\% | 2.1\% | 3.1\% | 5 | 6 |
| Glutathione S-transferase Mu 4 | 6.0\% | 8.3\% | 0.3\% | 3.0\% | 2 | 4 |
| WD repeat-containing protein 1 | 5.8\% | 7.3\% | 0.3\% | 1.8\% | 2 | 2 |
| POTE ankyrin domain family member E | 4.5\% | 5.4\% | 0.5\% | 2.0\% | 5 | 6 |
| Annexin A6 | 16.3\% | 12.5\% | 0.3\% | 8.5\% | 3 | 4 |
| Polyubiquitin-C | 52.5\% | 67.6\% | 16.5\% | 12.6\% | 5 | 3 |
| Myosin-1 | 11.4\% | 13.7\% | 1.3\% | 4.8\% | 5 | 4 |
| Synaptophysin-like protein 2 | 2.2\% | 3.1\% | 0.9\% | 1.4\% | 4 | 2 |
| Isoleucine--tRNA ligase, mitochondrial | 15.0\% | 12.5\% | 3.4\% | 0.9\% | 3 | 2 |
| Calsequestrin-1 | 10.0\% | 5.3\% | 11.2\% | 1.3\% | 4 | 5 |
| Tubulin alpha-8 chain | 17.4\% | 20.0\% | 4.8\% | 2.2\% | 4 | 3 |
| Neutral alpha-glucosidase AB | 23.2\% | 16.2\% | 3.1\% | 9.2\% | 2 | 2 |
| Trifunctional enzyme subunit alpha, mitochondrial | 7.0\% | 6.1\% | 1.9\% | 0.5\% | 5 | 4 |
| Cytochrome b-c1 complex subunit 1, mitochondrial | 9.6\% | 12.4\% | 1.6\% | 5.0\% | 3 | 2 |
| ATP synthase subunit d, mitochondrial | 7.0\% | 9.2\% | 1.7\% | 3.7\% | 3 | 3 |
| Electron transfer flavoprotein subunit alpha, mitochondrial | 9.9\% | 11.8\% | 2.5\% | 4.5\% | 5 | 6 |
| NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial | 16.3\% | 22.1\% | 5.0\% | 8.8\% | 3 | 2 |
| Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial | 16.6\% | 19.4\% | 4.3\% | 4.9\% | 5 | 3 |
| Inter-alpha-trypsin inhibitor heavy chain H2 | 68.2\% | 74.9\% | 9.5\% | 0.0\% | 2 | 2 |
| Protein NDRG2 | 36.1\% | 32.1\% | 6.5\% | 19.4\% | 5 | 3 |
| Troponin T, fast skeletal muscle | 11.8\% | 10.3\% | 1.4\% | 3.0\% | 3 | 3 |
| Thioredoxin-dependent peroxide reductase, mitochondrial | 11.8\% | 14.6\% | 4.2\% | 6.1\% | 5 | 5 |
| Glutathione S-transferase Mu 3 | 9.4\% | 8.7\% | 0.7\% | 1.3\% | 3 | 2 |
| Acylphosphatase-2 | 15.4\% | 12.3\% | 5.3\% | 2.5\% | 4 | 2 |
| Glycogen [starch] synthase, muscle | 15.8\% | 17.3\% | 4.3\% | 1.9\% | 5 | 4 |
| Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial | 8.1\% | 9.1\% | 1.6\% | 0.4\% | 3 | 2 |
| Cytochrome b-c1 complex subunit 2, mitochondrial | 8.4\% | 9.4\% | 1.0\% | 1.8\% | 3 | 2 |
| Galectin-1 | 8.5\% | 10.4\% | 1.9\% | 3.5\% |  | 2 |
| ATP synthase subunit g, mitochondrial | 5.6\% | 6.8\% | 1.2\% | 2.5\% | 3 | 2 |
| Ig gamma-4 chain C region | 11.2\% | 16.4\% | 0.6\% | 11.0\% | 3 | 2 |
| Vitamin D-binding protein | 74.9\% | 74.9\% | 0.0\% | 0.0\% | 2 | 2 |
| PWWP domain-containing protein MUM1 | 5.8\% | 8.6\% | 0.6\% | 4.6\% |  | 4 |
| Cytochrome b-c1 complex subunit 7 | 11.7\% | 14.8\% | 0.4\% | 5.3\% | 2 | 2 |
| Heat shock protein beta-1 | 15.3\% | 19.1\% | 3.9\% | 9.8\% | 5 | 5 |
| Importin subunit beta-1 | 26.7\% | 18.3\% | 0.1\% | 17.6\% | 2 | 2 |
| Cullin-associated NEDD8-dissociated protein 2 | 33.7\% | 40.7\% | 13.4\% | 16.1\% | 4 | 3 |
| Annexin A5 | 15.0\% | 16.5\% | 1.8\% | 3.4\% | 4 | 3 |


| Cytochrome c oxidase subunit 5B, mitochondrial | 9.8\% | 8.0\% | 3.2\% | 0.9\% | 3 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Angiotensinogen | 35.3\% | 51.0\% | 34.4\% | 33.8\% | 3 | 2 |
| Very long-chain specific acyl-CoA dehydrogenase, mitochondrial | 16.6\% | 19.2\% | 3.3\% | 6.7\% | 5 | 2 |
| Protein-L-isoaspartate(D-aspartate) O-methyltransferase | 10.3\% | 7.1\% | 6.1\% | 1.1\% | 3 | 2 |
| Myosin light chain 3 | 4.1\% | 4.6\% | 1.1\% | 1.4\% | 5 | 6 |
| Mitochondrial 2-oxoglutarate/malate carrier protein | 8.7\% | 9.9\% | 1.5\% | 2.5\% | 3 | 2 |
| Hemoglobin subunit alpha | 7.4\% | 6.7\% | 2.3\% | 1.6\% | 5 | 6 |
| Ubiquitin carboxyl-terminal hydrolase 5 | 16.7\% | 14.9\% | 3.2\% | 1.2\% | 2 | 2 |
| Carbonic anhydrase 2 | 5.9\% | 6.5\% | 1.4\% | 1.6\% | 5 | 5 |
| Apolipoprotein B-100 | 48.2\% | 64.9\% | 37.8\% | 17.3\% | 2 | 3 |
| Prohibitin-2 | 4.6\% | 6.4\% | 1.5\% | 4.4\% | 3 | 2 |
| Actin, cytoplasmic 2 | 4.6\% | 5.2\% | 0.5\% | 2.1\% | 5 | 6 |
| Protein S100-A1 | 18.1\% | 20.6\% | 6.0\% | 5.6\% | 4 | 3 |
| Catalase | 9.2\% | 11.0\% | 2.9\% | 5.0\% | 4 | 5 |
| Microsomal glutathione S-transferase 3 | 12.7\% | 15.3\% | 3.1\% | 5.9\% | 3 | 2 |
| Glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic | 12.8\% | 14.3\% | 1.9\% | 5.0\% | 5 | 5 |
| SH3 domain-binding glutamic acid-rich protein | 18.8\% | 22.0\% | 2.5\% | 8.4\% | 4 | 4 |
| Mitochondrial inner membrane protein | 8.8\% | 6.9\% | 1.7\% | 7.1\% | 3 | 2 |
| Glycogen phosphorylase, brain form | 9.3\% | 8.4\% | 2.3\% | 3.7\% | 5 | 6 |
| Spectrin alpha chain, erythrocyte | 10.8\% | 8.4\% | 4.9\% | 1.5\% | 2 | 2 |
| Acyl-CoA-binding protein | 5.0\% | 6.0\% | 0.3\% | 2.2\% | 2 | 2 |
| Rab GDP dissociation inhibitor beta | 10.7\% | 11.4\% | 1.5\% | 0.8\% | 3 | 2 |
| NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial | 20.2\% | 24.4\% | 6.2\% | 9.7\% | 3 | 2 |
| Acetyl-CoA acetyltransferase, mitochondrial | 8.2\% | 9.9\% | 2.1\% | 6.1\% | 5 | 6 |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 | 12.8\% | 14.1\% | 1.9\% | 4.3\% | 5 | 6 |
| UPF0366 protein C11orf67 | 9.7\% | 10.7\% | 3.6\% | 0.4\% | 2 | 3 |
| Ryanodine receptor 1 | 16.3\% | 11.9\% | 11.7\% | 9.1\% | 5 | 4 |
| Alpha-2-macroglobulin | 39.1\% | 45.8\% | 20.9\% | 16.0\% | 5 | 5 |
| Heat shock protein HSP 90-beta | 57.2\% | 56.4\% | 21.5\% | 26.1\% | 5 | 2 |
| Glycogen phosphorylase, muscle form | 10.0\% | 11.3\% | 2.2\% | 5.0\% | 5 | 6 |
| Protein-cysteine N-palmitoyltransferase HHAT-like protein | 3.7\% | 4.5\% | 0.9\% | 2.7\% | 3 | 2 |
| GTP-binding protein SAR1b | 48.8\% | 41.8\% | 13.3\% | 16.3\% | 2 | 2 |
| S-formylglutathione hydrolase | 5.4\% | 6.4\% | 2.9\% | 0.1\% | 4 | 2 |
| Leucine-rich PPR motif-containing protein, mitochondrial | 38.7\% | 43.2\% | 17.5\% | 8.0\% | 3 | 2 |
| NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5 | 15.4\% | 18.0\% | 5.6\% | 6.0\% | 3 |  |
| DNA damage-binding protein 1 | 33.3\% | 30.1\% | 10.0\% | 10.6\% | 5 | 5 |
| Cytochrome b-c1 complex subunit Rieske, mitochondrial | 10.5\% | 12.0\% | 2.3\% | 4.3\% | 3 | 2 |
| Dihydrolipoyl dehydrogenase, mitochondrial | 10.6\% | 13.1\% | 2.5\% | 8.9\% | 5 | 5 |
| Ig lambda-2 chain C regions | 21.4\% | 23.2\% | 9.9\% | 0.6\% | 4 | 2 |
| Hemopexin | 46.7\% | 56.5\% | 19.0\% | 26.0\% | 2 | 2 |
| Transitional endoplasmic reticulum ATPase | 36.5\% | 30.7\% | 13.7\% | 6.5\% | 3 | 2 |
| Phosphorylase b kinase regulatory subunit beta | 14.1\% | 15.4\% | 4.2\% | 1.8\% | 3 | 2 |
| CDGSH iron-sulfur domain-containing protein 1 | 9.9\% | 12.1\% | 2.9\% | 5.3\% | 2 | 2 |
| Hexokinase-1 | 20.9\% | 16.8\% | 10.5\% | 2.2\% | 3 | 2 |
| Troponin C, skeletal muscle | 21.1\% | 20.2\% | 3.2\% | 6.1\% | 4 | 5 |
| PDZ and LIM domain protein 3 | 25.7\% | 29.9\% | 5.1\% | 12.2\% | 3 | 3 |
| Alpha-actinin-2 | 7.0\% | 8.3\% | 2.3\% | 5.1\% | 4 | 3 |
| Aldehyde dehydrogenase, mitochondrial | 31.7\% | 28.2\% | 9.8\% | 3.9\% | 3 | 3 |
| Aconitate hydratase, mitochondrial | 11.3\% | 13.3\% | 2.0\% | 7.0\% | 5 | 6 |
| Peptidyl-prolyl cis-trans isomerase A | 13.0\% | 14.6\% | 1.0\% | 4.7\% | 2 | 3 |
| Cytochrome c oxidase subunit 4 isoform 1, mitochondrial | 9.7\% | 10.6\% | 3.2\% | 1.5\% | 3 | 2 |
| Myosin-binding protein C, slow-type | 18.2\% | 19.7\% | 4.4\% | 6.1\% | 5 | 5 |
| Glutathione S-transferase omega-1 | 7.3\% | 7.7\% | 0.7\% | 1.1\% | 2 | 2 |
| Heat shock protein HSP 90-alpha | 53.0\% | 41.8\% | 16.0\% | 28.7\% | 4 | 3 |
| Glutathione S-transferase Mu 2 | 7.5\% | 7.2\% | 1.3\% | 2.3\% | 5 | 5 |
| Myc box-dependent-interacting protein 1 | 17.0\% | 18.9\% | 2.2\% | 6.1\% | 2 | 2 |
| Serotransferrin | 51.2\% | 52.0\% | 17.9\% | 20.8\% | 5 | 5 |
| Myosin-8 | 11.9\% | 12.7\% | 2.0\% | 4.3\% | 5 | 4 |
| Titin | 17.4\% | 17.0\% | 2.2\% | 6.4\% | 4 | 5 |
| Ig gamma-3 chain C region | 17.4\% | 18.5\% | 6.6\% | 5.7\% | 4 | 3 |
| 14-3-3 protein epsilon | 13.6\% | 14.3\% | 2.6\% | 3.8\% | 5 | 5 |
| Plectin | 15.1\% | 16.5\% | 2.8\% | 7.3\% | 5 | 3 |
| Leucine-rich repeat-containing protein 20 | 16.9\% | 15.8\% | 4.5\% | 0.8\% | 5 | 2 |
| Hemoglobin subunit beta | 7.4\% | 7.0\% | 2.6\% | 1.7\% | 5 | 6 |
| L-xylulose reductase | 8.2\% | 8.8\% | 0.2\% | 2.7\% | 2 | 2 |
| Translationally-controlled tumor protein | 62.4\% | 63.3\% | 21.7\% | 20.1\% | 3 | 3 |
| Prolyl endopeptidase | 12.4\% | 13.6\% | 3.2\% | 6.4\% | 3 | 2 |
| Programmed cell death 6-interacting protein | 28.1\% | 38.4\% | 3.7\% | 27.2\% | 2 | 2 |
| Clathrin heavy chain 1 | 39.6\% | 40.0\% | 14.1\% | 9.4\% | 4 | 2 |
| Voltage-dependent anion-selective channel protein 1 | 11.8\% | 12.7\% | 4.9\% | 4.3\% | 3 | 2 |
| Ankyrin repeat domain-containing protein 2 | 18.6\% | 32.1\% | 4.7\% | 37.2\% | 5 | 3 |
| Succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial | 19.8\% | 16.9\% | 11.2\% | 4.8\% | 3 | 2 |
| Carboxymethylenebutenolidase homolog | 7.5\% | 7.2\% | 2.5\% | 4.7\% | 4 | 5 |
| Atrial natriuretic peptide receptor 1 | 4.4\% | 5.1\% | 2.6\% | 4.6\% | 4 | 5 |
| ATP synthase subunit f, mitochondrial | 9.4\% | 8.6\% | 4.5\% | 2.4\% | 2 | 2 |
| Troponin I, slow skeletal muscle | 21.0\% | 21.2\% | 6.6\% | 4.6\% | 5 | 6 |
| Isocitrate dehydrogenase [NADP], mitochondrial | 8.4\% | 8.5\% | 2.3\% | 2.1\% | 5 | 5 |
| Importin-5 | 48.9\% | 43.1\% | 21.9\% | 9.5\% | 2 | 2 |
| Phosphorylase b kinase regulatory subunit alpha, skeletal muscle isoform | 12.3\% | 12.9\% | 1.0\% | 4.6\% | 5 | 5 |
| Sarcalumenin | 12.4\% | 12.0\% | 6.8\% | 6.7\% | 5 | 6 |
| Complement component 1 Q subcomponent-binding protein, mitochondrial | 16.6\% | 16.1\% | 4.8\% | 6.9\% | 2 | 2 |
| Cytochrome c oxidase subunit 2 | 8.9\% | 9.3\% | 2.0\% | 3.5\% | 3 | 2 |
| Fructose-bisphosphate aldolase C | 8.4\% | 8.8\% | 2.9\% | 4.4\% | 5 | 5 |
| Hemoglobin subunit delta | 7.1\% | 6.9\% | 2.8\% | 1.9\% | 5 | 6 |
| Isochorismatase domain-containing protein 2, mitochondrial | 9.1\% | 9.7\% | 1.8\% | 6.2\% | 4 | 2 |
| Reticulon-4 | 12.7\% | 12.8\% | 2.5\% | 1.3\% | 3 | 2 |
| Trifunctional enzyme subunit beta, mitochondrial | 16.7\% | 17.2\% | 2.4\% | 5.5\% | 3 | 2 |
| 14 kDa phosphohistidine phosphatase | 6.3\% | 6.4\% | 0.5\% | 1.3\% | 2 | 2 |
| Complement C3 | 70.3\% | 62.6\% | 9.2\% | 24.6\% | 4 | 4 |


| Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial | 15.7\% | 15.8\% | 1.9\% | 0.9\% | 3 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rab GDP dissociation inhibitor alpha | 11.9\% | 11.7\% | 2.5\% | 1.2\% | 2 | 2 |
| Heat shock 70 kDa protein 4 | 30.4\% | 28.3\% | 14.6\% | 5.3\% | 2 | 3 |
| Acyl-protein thioesterase 1 | 14.2\% | 14.1\% | 4.7\% | 6.6\% | 2 | 2 |
| Tropomyosin beta chain | 9.2\% | 9.4\% | 2.2\% | 3.4\% | 5 | 6 |
| Phosphate carrier protein, mitochondrial | 8.9\% | 9.4\% | 2.8\% | 5.7\% | 3 | 3 |
| Myomesin-1 | 10.3\% | 10.9\% | 1.3\% | 6.8\% | 5 | 4 |
| Succinate-semialdehyde dehydrogenase, mitochondrial | 6.1\% | 6.0\% | 2.5\% | 1.7\% | 3 | 2 |
| Stress-70 protein, mitochondrial | 48.4\% | 36.4\% | 37.5\% | 5.4\% | 2 | 2 |
| NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 4 | 7.3\% | 7.5\% | 0.5\% | 4.8\% | 3 | 2 |
| ATP synthase subunit gamma, mitochondrial | 7.8\% | 7.8\% | 2.8\% | 3.8\% | 3 | 2 |
| Cytochrome c | 6.8\% | 7.4\% | 0.7\% | 6.9\% | 2 | 3 |
| Cullin-associated NEDD8-dissociated protein 1 | 16.3\% | 15.8\% | 8.6\% | 4.5\% | 2 | 2 |
| 6-phosphofructokinase, muscle type | 16.7\% | 21.8\% | 2.5\% | 19.5\% | 5 | 6 |
| Profilin-1 | 15.2\% | 15.2\% | 2.8\% | 2.6\% | 2 | 2 |

Supplemental Table 3B: Human Muscle FSR. Values represent mean, SD for FSR of proteins in the different gene ontological clusters, measured in the vastus

| Proteins in Gene Ontology Term (Level 5) | Sedentary FSR/week Mean | Sprint FSR/week Mean | Sedentary FSR/week SD | Sprint FSR/week SD | Sedentary FSR/week N | Sprint FSR/week N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Glucose Metabolic Process GO:0006006 |  |  |  |  |  |  |
| 2-oxoglutarate dehydrogenase, mitochondrial | 15.5\% | 25.4\% | 2.6\% | 10.5\% | 5 | 6 |
| 6-phosphofructokinase, muscle type | 16.7\% | 21.8\% | 2.5\% | 19.5\% | 5 | 6 |
| Alpha-crystallin B chain | 18.6\% | 22.3\% | 4.6\% | 7.0\% | 5 | 6 |
| Alpha-enolase | 5.2\% | 6.9\% | 0.8\% | 2.2\% | 5 | 6 |
| Beta-enolase | 6.3\% | 8.8\% | 0.8\% | 2.6\% | 5 | 6 |
| Fructose-1,6-bisphosphatase isozyme 2 | 12.9\% | 20.2\% | 1.9\% | 5.2\% | 5 | 5 |
| Fructose-bisphosphate aldolase A | 10.5\% | 15.9\% | 1.7\% | 4.7\% | 5 | 6 |
| Fructose-bisphosphate aldolase C | 8.4\% | 8.8\% | 2.9\% | 4.4\% | 5 | 5 |
| Gamma-enolase | 5.0\% | 6.8\% | 0.8\% | 2.3\% | 5 | 6 |
| Glucose-6-phosphate isomerase | 6.3\% | 9.0\% | 0.7\% | 2.9\% | 5 | 6 |
| Glyceraldehyde-3-phosphate dehydrogenase | 7.0\% | 11.5\% | 0.4\% | 4.6\% | 5 | 6 |
| Glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic | 12.8\% | 14.3\% | 1.9\% | 5.0\% | 5 | 5 |
| Glycogen [starch] synthase, muscle | 15.8\% | 17.3\% | 4.3\% | 1.9\% | 5 | 4 |
| Glycogen debranching enzyme | 9.9\% | 13.2\% | 1.8\% | 5.3\% | 5 | 6 |
| Glycogen phosphorylase, brain form | 9.3\% | 8.4\% | 2.3\% | 3.7\% | 5 | 6 |
| Glycogen phosphorylase, muscle form | 10.0\% | 11.3\% | 2.2\% | 5.0\% | 5 | 6 |
| L-lactate dehydrogenase A chain | 7.6\% | 13.1\% | 1.6\% | 5.4\% | 5 | 6 |
| L-lactate dehydrogenase B chain | 8.9\% | 11.9\% | 0.4\% | 4.9\% | 5 | 6 |
| Malate dehydrogenase, cytoplasmic | 7.2\% | 11.5\% | 1.4\% | 3.3\% | 5 | 6 |
| Malate dehydrogenase, mitochondrial | 7.6\% | 9.6\% | 1.6\% | 3.4\% | 5 | 6 |
| Phosphoglucomutase-1 | 7.7\% | 10.5\% | 0.4\% | 4.1\% | 5 | 6 |
| Phosphoglycerate kinase 1 | 5.7\% | 8.6\% | 1.0\% | 2.6\% | 5 | 6 |
| Phosphoglycerate mutase 1 | 6.3\% | 9.0\% | 0.7\% | 2.8\% | 5 | 6 |
| Phosphoglycerate mutase 2 | 5.7\% | 8.5\% | 1.0\% | 1.8\% | 5 | 6 |
| Phosphorylase b kinase regulatory subunit alpha, skeletal muscle isoform | 12.3\% | 12.9\% | 1.0\% | 4.6\% | 5 | 5 |
| Pyruvate dehydrogenase E1 component subunit beta, mitochondrial | 7.4\% | 9.9\% | 3.0\% | 3.4\% | 5 | 6 |
| Pyruvate kinase isozymes M1/M2 | 9.5\% | 15.3\% | 1.6\% | 4.4\% | 5 | 6 |
| Triosephosphate isomerase | 5.4\% | 8.3\% | 0.9\% | 2.5\% | 5 | 6 |
| UTP--glucose-1-phosphate uridylyltransferase | 15.8\% | 19.0\% | 2.1\% | 3.9\% | 5 | 5 |
| Striated Muscle Contraction GO:0006941 |  |  |  |  |  |  |
| Phosphoglycerate mutase 2 | 5.7\% | 8.5\% | 1.0\% | 1.8\% | 5 | 6 |
| Fructose-bisphosphate aldolase A | 10.5\% | 15.9\% | 1.7\% | 4.7\% | 5 | 6 |
| Myosin light chain 1/3, skeletal muscle isoform | 10.0\% | 12.9\% | 2.7\% | 1.6\% | 5 | 6 |
| Tropomyosin alpha-1 chain | 7.6\% | 10.3\% | 0.8\% | 2.9\% | 5 | 6 |
| Myosin-2 | 11.2\% | 18.3\% | 1.0\% | 10.1\% | 5 | 5 |
| Troponin I, fast skeletal muscle | 11.1\% | 15.9\% | 1.6\% | 6.9\% | 5 | 6 |
| Myosin-6 | 11.2\% | 22.4\% | 1.7\% | 18.3\% | 5 | 6 |
| Myosin-7 | 10.8\% | 22.1\% | 1.6\% | 18.4\% | 5 | 6 |
| Troponin C, slow skeletal and cardiac muscles | 18.9\% | 29.3\% | 3.0\% | 16.8\% | 5 | 4 |
| Actin, alpha cardiac muscle 1 | 4.5\% | 5.4\% | 0.3\% | 1.7\% | 5 | 6 |
| Myoglobin | 3.6\% | 4.3\% | 0.5\% | 1.3\% | 5 | 6 |
| Myosin-1 | 11.4\% | 13.7\% | 1.3\% | 4.8\% | 5 | 4 |
| Myosin light chain 3 | 4.1\% | 4.6\% | 1.1\% | 1.4\% | 5 | 6 |
| Troponin C, skeletal muscle | 21.1\% | 20.2\% | 3.2\% | 6.1\% | 4 | 5 |
| Myomesin-1 | 10.3\% | 10.9\% | 1.3\% | 6.8\% | 5 | 4 |
| Titin | 17.4\% | 17.0\% | 2.2\% | 6.4\% | 4 | 5 |
| Regulation of Apoptosis GO:0042981 |  |  |  |  |  |  |
| Heat shock 70 kDa protein 1A/1B | 13.2\% | 18.6\% | 2.7\% | 2.9\% | 5 | 6 |
| 60 kDa heat shock protein, mitochondrial | 9.3\% | 13.6\% | 1.5\% | 4.3\% | 5 | 5 |
| Superoxide dismutase [Cu-Zn] | 5.5\% | 12.4\% | 1.0\% | 8.5\% | 5 | 4 |
| Nucleoside diphosphate kinase A | 6.5\% | 9.5\% | 2.4\% | 2.5\% | 5 | 4 |
| Nucleoside diphosphate kinase B | 7.1\% | 9.6\% | 2.1\% | 2.5\% | 5 | 5 |
| Cofilin-1 | 10.6\% | 13.5\% | 1.7\% | 3.4\% | 5 | 5 |
| Glutathione S-transferase P | 7.5\% | 9.1\% | 1.3\% | 2.2\% | 5 | 5 |
| Elongation factor 1-alpha 2 | 14.7\% | 18.5\% | 1.2\% | 5.8\% | 5 | 5 |
| Peroxiredoxin-1 | 11.8\% | 14.2\% | 2.0\% | 3.3\% | 5 | 5 |
| Superoxide dismutase [Mn], mitochondrial | 7.7\% | 9.9\% | 1.5\% | 4.2\% | 5 | 6 |
| Peroxiredoxin-2 | 8.0\% | 9.4\% | 2.9\% | 1.6\% | 5 | 6 |
| Alpha-crystallin B chain | 18.6\% | 22.3\% | 4.6\% | 7.0\% | 5 | 6 |
| Thioredoxin-dependent peroxide reductase, mitochondrial | 11.8\% | 14.6\% | 4.2\% | 6.1\% | 5 | 5 |
| Heat shock protein beta-1 | 15.3\% | 19.1\% | 3.9\% | 9.8\% | 5 | 5 |
| Catalase | 9.2\% | 11.0\% | 2.9\% | 5.0\% | 4 | 5 |
| 14-3-3 protein epsilon | 13.6\% | 14.3\% | 2.6\% | 3.8\% | 5 | 5 |
| Cellular Respiration GO:0045333 |  |  |  |  |  |  |
| Malate dehydrogenase, cytoplasmic | 7.2\% | 11.5\% | 1.4\% | 3.3\% | 5 | 6 |
| Fumarate hydratase, mitochondrial | 9.7\% | 15.7\% | 1.7\% | 6.1\% | 5 | 6 |
| Pyruvate dehydrogenase E1 component subunit beta, mitochondrial | 7.4\% | 9.9\% | 3.0\% | 3.4\% | 5 | 6 |
| Malate dehydrogenase, mitochondrial | 7.6\% | 9.6\% | 1.6\% | 3.4\% | 5 | 6 |
| Superoxide dismutase [Mn], mitochondrial | 7.7\% | 9.9\% | 1.5\% | 4.2\% | 5 | 6 |
| Cytoplasmic aconitate hydratase | 14.5\% | 17.5\% | 4.4\% | 4.7\% | 5 | 4 |
| Citrate synthase, mitochondrial | 8.9\% | 11.0\% | 3.5\% | 3.4\% | 5 | 5 |
| NAD(P) transhydrogenase, mitochondrial | 8.9\% | 21.9\% | 1.9\% | 25.4\% | 3 | 5 |
| Catalase | 9.2\% | 11.0\% | 2.9\% | 5.0\% | 4 | 5 |
| Aconitate hydratase, mitochondrial | 11.3\% | 13.3\% | 2.0\% | 7.0\% | 5 | 6 |
| Dihydrolipoyl dehydrogenase, mitochondrial | 10.6\% | 13.1\% | 2.5\% | 8.9\% | 5 | 5 |
| Isocitrate dehydrogenase [NADP], mitochondrial | 8.4\% | 8.5\% | 2.3\% | 2.1\% | 5 | 5 |


|  |  | Muscle CK-M FSR vs. Muscle Protein FSR |  | Plasma CK-M FSR vs. Muscle Protein FSR |  | Muscle CA-3 FSR vs. Muscle Protein FSR |  | Plasma CA-3 FSR vs. <br> Muscle Protein FSR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Protein Name | Number of Subjects | Pearson Correlation Coefficient | P (two-tailed) | Pearson <br> Correlation <br> Coefficient | P (two-tailed) | Pearson Correlation Coefficient | P (two-tailed) | Pearson Correlation | P (two-tailed) |
| Myofibril |  |  |  |  |  |  |  |  |  |
| Actin, alpha cardiac muscle 1 | 17 | 0.8738 | < 0.0001 | 0.7256 | 0.001 | 0.8156 | < 0.0001 | 0.7139 | 0.0013 |
| Actin, alpha skeletal muscle | 17 | 0.8985 | < 0.0001 | 0.7401 | 0.0007 | 0.8427 | < 0.0001 | 0.6932 | 0.002 |
| Filamin-B | 16 | 0.9192 | <0.0001 | 0.8618 | < 0.0001 | 0.8512 | < 0.0001 | 0.6753 | 0.0041 |
| Filamin-C | 17 | 0.9413 | < 0.0001 | 0.9238 | < 0.0001 | 0.9048 | <0.0001 | 0.7616 | 0.0004 |
| Myomesin-2 | 17 | 0.9678 | < 0.0001 | 0.8385 | < 0.0001 | 0.9392 | < 0.0001 | 0.7827 | 0.0002 |
| Myosin light chain $1 / 3$, skeletal muscle isoform | 16 | 0.705 | 0.0023 | 0.6892 | 0.0031 | 0.5345 | 0.0271 | 0.668 | 0.0034 |
| Myosin regulatory light chain 2, skeletal muscle isoform | 16 | 0.871 | < 0.0001 | 0.7218 | 0.0016 | 0.7901 | 0.0002 | 0.4922 | 0.0447 |
| Myosin-2 | 16 | 0.8848 | <0.0001 | 0.7789 | 0.0004 | 0.8813 | <0.0001 | 0.5737 | 0.0202 |
| Myosin-4 | 15 | 0.9106 | < 0.0001 | 0.7274 | 0.0021 | 0.8577 | < 0.0001 | 0.5064 | 0.0453 |
| Myosin-6 | 17 | 0.7624 | 0.0004 | 0.6003 | 0.0108 | 0.7533 | 0.0005 | 0.5575 | 0.0201 |
| Myosin-7 | 16 | 0.7724 | 0.0005 | 0.622 | 0.011 | 0.7456 | 0.0006 | 0.5518 | 0.0216 |
| PDZ and LIM domain protein 3 | 13 | 0.8716 | 0.0001 | 0.9448 | < 0.0001 | 0.776 | 0.0018 | 0.8643 | 0.0003 |
| Titin | 16 | 0.8155 | 0.0001 | 0.7043 | 0.0023 | 0.878 | < 0.0001 | 0.7569 | 0.0017 |
| Tropomyosin alpha-1 chain | 17 | 0.9369 | < 0.0001 | 0.8489 | < 0.0001 | 0.8997 | < 0.0001 | 0.7926 | 0.0001 |
| Tropomyosin alpha-3 chain | 17 | 0.7989 | 0.0001 | 0.7543 | 0.0005 | 0.7562 | 0.0004 | 0.7243 | 0.001 |
| Tropomyosin beta chain | 17 | 0.7314 | 0.0008 | 0.6454 | 0.0051 | 0.8047 | < 0.0001 | 0.7328 | 0.0008 |
| Troponin C, skeletal muscle | 15 | 0.7177 | 0.0026 | 0.6303 | 0.0118 | 0.7102 | 0.003 | 0.6228 | 0.0131 |
| Troponin C, slow skeletal and cardiac muscles | 14 | 0.8882 | < 0.0001 | 0.7912 | 0.0007 | 0.8359 | 0.0002 | 0.7701 | 0.0013 |
| Troponin I, fast skeletal muscle | 17 | 0.9444 | < 0.0001 | 0.9115 | < 0.0001 | 0.8961 | < 0.0001 | 0.8021 | 0.0001 |
| Troponin T, slow skeletal muscle | 11 | 0.8102 | 0.0025 | 0.8445 | 0.0011 | 0.8731 | 0.0004 | 0.6549 | 0.0208 |
| Cytoplasm |  |  |  |  |  |  |  |  |  |
| 14 kDa phosphohistidine phosphatase | 10 | 0.8182 | 0.0038 | 0.7401 | 0.0144 | 0.6549 | 0.0399 | 0.6552 | 0.0207 |
| 14-3-3 protein gamma | 17 | 0.9078 | < 0.0001 | 0.8461 | < 0.0001 | 0.8481 | < 0.0001 | 0.7639 | 0.0004 |
| 6-phosphofructokinase, muscle type | 17 | 0.8022 | 0.0001 | 0.748 | 0.0006 | 0.8156 | < 0.0001 | 0.7204 | 0.0011 |
| Actin, cytoplasmic 2 | 17 | 0.7765 | 0.0002 | 0.6318 | 0.0065 | 0.7614 | 0.0004 | 0.6122 | 0.009 |
| Adenylate kinase isoenzyme 1 | 16 | 0.8409 | < 0.0001 | 0.768 | 0.0005 | 0.7846 | 0.0003 | 0.6368 | 0.008 |
| ADP/ATP translocase 1 | 17 | 0.7225 | 0.0011 | 0.5866 | 0.0133 | 0.7275 | 0.0009 | 0.6014 | 0.0107 |
| Aldose reductase | 16 | 0.8958 | < 0.0001 | 0.7989 | 0.0002 | 0.8171 | 0.0001 | 0.5983 | 0.0144 |
| Alpha-actinin-2 | 13 | 0.8373 | 0.0004 | 0.6666 | 0.0128 | 0.8449 | 0.0003 | 0.7283 | 0.0048 |
| Alpha-crystallin B chain | 17 | 0.8704 | < 0.0001 | 0.9478 | < 0.0001 | 0.7917 | 0.0002 | 0.8251 | < 0.0001 |
| Alpha-enolase | 17 | 0.9197 | < 0.0001 | 0.7515 | 0.0005 | 0.8234 | < 0.0001 | 0.7185 | 0.0012 |
| Aspartate aminotransferase, cytoplasmic | 17 | 0.8818 | < 0.0001 | 0.8152 | < 0.0001 | 0.8484 | < 0.0001 | 0.6684 | 0.0034 |
| Beta-actin-like protein 2 | 17 | 0.7949 | 0.0001 | 0.6862 | 0.0024 | 0.7814 | 0.0002 | 0.5948 | 0.0118 |
| Beta-enolase | 17 | 0.9496 | < 0.0001 | 0.82 | < 0.0001 | 0.871 | < 0.0001 | 0.7687 | 0.0003 |
| Carbonic anhydrase 2 | 16 | 0.7644 | 0.0006 | 0.9032 | < 0.0001 | 0.6097 | 0.0122 | 0.8421 | < 0.0001 |
| Carbonic anhydrase 3 | 17 | 0.9308 | < 0.0001 | 0.8136 | <0.0001 | 1 |  |  |  |
| Carboxymethylenebutenolidase homolog | 15 | 0.7652 | 0.0009 | 0.8604 | < 0.0001 | 0.6768 | 0.0056 | 0.7245 | 0.0015 |
| Cofilin-1 | 16 | 0.8399 | < 0.0001 | 0.8987 | < 0.0001 | 0.7673 | 0.0005 | 0.7058 | 0.0022 |
| Cofilin-2 | 16 | 0.8585 | < 0.0001 | 0.8834 | < 0.0001 | 0.7928 | 0.0002 | 0.7215 | 0.0016 |
| Creatine kinase M-type | 17 | 1 |  |  |  | 0.9308 | < 0.0001 | 0.8216 | < 0.0001 |
| Cytosolic 10-formyltetrahydrofolate dehydrogenase | 12 | 0.7433 | 0.0056 | 0.8121 | 0.0013 | 0.6651 | 0.0183 | 0.6462 | 0.0317 |
| Elongation factor 1-alpha 2 | 16 | 0.9184 | < 0.0001 | 0.8917 | < 0.0001 | 0.8234 | < 0.0001 | 0.746 | 0.0009 |
| Fatty acid-binding protein, heart | 16 | 0.6148 | 0.0113 | 0.5415 | 0.0303 | 0.5056 | 0.0457 | 0.5183 | 0.0397 |
| Filamin-A | 16 | 0.8812 | < 0.0001 | 0.8763 | < 0.0001 | 0.8094 | 0.0001 | 0.6617 | 0.0052 |
| Flavin reductase (NADPH) | 17 | 0.7424 | 0.0006 | 0.7087 | 0.0015 | 0.7464 | 0.0006 | 0.6114 | 0.0091 |
| Four and a half LIM domains protein 1 | 17 | 0.9675 | < 0.0001 | 0.907 | < 0.0001 | 0.9437 | < 0.0001 | 0.8181 | < 0.0001 |
| Fructose-1,6-bisphosphatase isozyme 2 | 16 | 0.8863 | <0.0001 | 0.758 | 0.0007 | 0.7971 | 0.0002 | 0.6561 | 0.0058 |
| Fructose-bisphosphate aldolase A | 17 | 0.9616 | < 0.0001 | 0.8894 | < 0.0001 | 0.8722 | < 0.0001 | 0.8169 | < 0.0001 |
| Gamma-enolase | 17 | 0.8979 | < 0.0001 | 0.7216 | 0.0011 | 0.7882 | 0.0002 | 0.6899 | 0.0022 |
| Glucose-6-phosphate isomerase | 17 | 0.9104 | <0.0001 | 0.8136 | < 0.0001 | 0.8282 | < 0.0001 | 0.7383 | 0.0007 |
| Glutathione S-transferase Mu 1 | 13 | 0.6634 | 0.0134 | 0.7674 | 0.0022 | 0.57 | 0.042 | 0.6868 | 0.0095 |
| Glutathione S-transferase Mu 2 | 16 | 0.6945 | 0.0028 | 0.7758 | 0.0004 | 0.5709 | 0.0209 | 0.6458 | 0.0069 |
| Glutathione S-transferase Mu 4 | 13 | 0.6613 | 0.0138 | 0.6795 | 0.0106 | 0.673 | 0.0117 | 0.6502 | 0.0161 |
| Glyceraldehyde-3-phosphate dehydrogenase | 17 | 0.9552 | <0.0001 | 0.8622 | < 0.0001 | 0.9271 | < 0.0001 | 0.7353 | 0.0008 |
| Glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic | 16 | 0.9128 | < 0.0001 | 0.8634 | < 0.0001 | 0.8005 | 0.0002 | 0.6696 | 0.0045 |
| Glycogen debranching enzyme | 17 | 0.8655 | <0.0001 | 0.8963 | < 0.0001 | 0.8172 | < 0.0001 | 0.8144 | < 0.0001 |
| Glycogen phosphorylase, muscle form | 17 | 0.8895 | < 0.0001 | 0.8861 | < 0.0001 | 0.84 | < 0.0001 | 0.8648 | < 0.0001 |
| Heat shock 70 kDa protein 1A/1B | 17 | 0.743 | 0.0006 | 0.7668 | 0.0003 | 0.558 | 0.0199 | 0.6693 | 0.0033 |
| Heat shock cognate 71 kDa protein | 16 | 0.9148 | < 0.0001 | 0.8834 | < 0.0001 | 0.8711 | < 0.0001 | 0.712 | 0.002 |
| Heat shock protein beta-1 | 16 | 0.9142 | < 0.0001 | 0.9016 | < 0.0001 | 0.8188 | 0.0001 | 0.7783 | 0.0004 |
| Heat shock protein beta-6 | 17 | 0.8065 | <0.0001 | 0.7956 | 0.0001 | 0.7178 | 0.0012 | 0.7431 | 0.0006 |
| Heat shock-related 70 kDa protein 2 | 16 | 0.8964 | < 0.0001 | 0.8293 | < 0.0001 | 0.8875 | < 0.0001 | 0.6148 | 0.0113 |
| Kelch repeat and BTB domain-containing protein 10 | 11 | 0.8272 | 0.0017 | 0.8917 | 0.0002 | 0.654 | 0.0291 | 0.7848 | 0.0042 |
| L-lactate dehydrogenase A chain | 17 | 0.8993 | < 0.0001 | 0.8345 | < 0.0001 | 0.8855 | < 0.0001 | 0.7475 | 0.0006 |
| L-lactate dehydrogenase B chain | 17 | 0.9087 | < 0.0001 | 0.9049 | < 0.0001 | 0.9093 | < 0.0001 | 0.7527 | 0.0005 |
| Malate dehydrogenase, cytoplasmic | 17 | 0.8725 | <0.0001 | 0.8736 | < 0.0001 | 0.8126 | <0.0001 | 0.7587 | 0.0004 |
| Myoglobin | 17 | 0.9591 | < 0.0001 | 0.8478 | < 0.0001 | 0.8598 | < 0.0001 | 0.8432 | < 0.0001 |
| Nucleoside diphosphate kinase B | 16 | 0.6087 | 0.0123 | 0.5412 | 0.0304 | 0.5321 | 0.0339 | 0.6266 | 0.0094 |
| Peroxiredoxin-1 | 16 | 0.7574 | 0.0007 | 0.8188 | 0.0001 | 0.606 | 0.0128 | 0.6381 | 0.0078 |
| Peroxiredoxin-6 | 17 | 0.7769 | 0.0002 | 0.8336 | < 0.0001 | 0.6398 | 0.0057 | 0.7938 | 0.0001 |
| Phosphatidylethanolamine-binding protein 1 | 17 | 0.6793 | 0.0027 | 0.8389 | <0.0001 | 0.5093 | 0.0368 | 0.772 | 0.0003 |
| Phosphoglucomutase-1 | 17 | 0.9305 | < 0.0001 | 0.8994 | < 0.0001 | 0.9064 | < 0.0001 | 0.766 | 0.0003 |
| Phosphoglycerate kinase 1 | 17 | 0.8862 | <0.0001 | 0.7583 | 0.0004 | 0.8911 | <0.0001 | 0.692 | 0.0021 |
| Phosphoglycerate mutase 1 | 17 | 0.9382 | < 0.0001 | 0.793 | 0.0001 | 0.8928 | < 0.0001 | 0.7542 | 0.0005 |
| Phosphoglycerate mutase 2 | 17 | 0.8786 | <0.0001 | 0.8199 | < 0.0001 | 0.7981 | 0.0001 | 0.7389 | 0.0007 |
| Phosphorylase b kinase regulatory subunit alpha, skeletal muscle isoform | 16 | 0.7209 | 0.0016 | 0.7123 | 0.002 | 0.747 | 0.0009 | 0.6795 | 0.0038 |
| Plectin | 14 | 0.8408 | 0.0002 | 0.8485 | 0.0001 | 0.7679 | 0.0013 | 0.8783 | < 0.0001 |
| POTE ankyrin domain family member E | 17 | 0.817 | < 0.0001 | 0.6836 | 0.0025 | 0.8034 | 0.0001 | 0.5525 | 0.0214 |


| Protein DJ-1 | 17 | 0.7644 | 0.0004 | 0.8162 | < 0.0001 | 0.6547 | 0.0043 | 0.7458 | 0.0006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purine nucleoside phosphorylase | 10 | 0.8797 | 0.0008 | 0.8968 | 0.0004 | 0.8421 | 0.0022 | 0.8102 | 0.0045 |
| Pyruvate kinase isozymes M1/M2 | 17 | 0.9188 | < 0.0001 | 0.8613 | < 0.0001 | 0.8557 | < 0.0001 | 0.7671 | 0.0003 |
| SH3 domain-binding glutamic acid-rich protein | 15 | 0.8178 | 0.0002 | 0.835 | 0.0001 | 0.7784 | 0.0006 | 0.7178 | 0.0057 |
| Superoxide dismutase [Cu-Zn] | 15 | 0.9208 | < 0.0001 | 0.7539 | 0.0012 | 0.946 | < 0.0001 | 0.6532 | 0.0083 |
| Thioredoxin | 8 | 0.9148 | 0.0014 | 0.9314 | 0.0008 | 0.7154 | 0.046 | 0.8252 | 0.0062 |
| Triosephosphate isomerase | 17 | 0.9635 | < 0.0001 | 0.8843 | < 0.0001 | 0.911 | < 0.0001 | 0.7943 | 0.0001 |
| Tubulin alpha-4A chain | 14 | 0.7285 | 0.0031 | 0.7604 | 0.0016 | 0.6237 | 0.0171 | 0.5571 | 0.0385 |
| Ubiquitin-like modifier-activating enzyme 1 | 17 | 0.8794 | < 0.0001 | 0.7779 | 0.0002 | 0.8234 | < 0.0001 | 0.7306 | 0.0009 |
| UTP--glucose-1-phosphate uridylyltransferase | 16 | 0.7929 | 0.0002 | 0.8207 | < 0.0001 | 0.6938 | 0.0029 | 0.7882 | 0.0003 |
| Vinculin | 16 | 0.8305 | < 0.0001 | 0.9087 | < 0.0001 | 0.6938 | 0.0029 | 0.7508 | 0.0008 |
| Mitochondrion |  |  |  |  |  |  |  |  |  |
| 2-oxoglutarate dehydrogenase, mitochondrial | 17 | 0.8593 | < 0.0001 | 0.8676 | < 0.0001 | 0.8579 | < 0.0001 | 0.7298 | 0.0009 |
| 60 kDa heat shock protein, mitochondrial | 16 | 0.8311 | < 0.0001 | 0.7926 | 0.0003 | 0.6971 | 0.0027 | 0.6656 | 0.0049 |
| Acetyl-CoA acetyltransferase, mitochondrial | 17 | 0.6441 | 0.0053 | 0.7329 | 0.0008 | 0.6341 | 0.0063 | 0.6834 | 0.0025 |
| Aconitate hydratase, mitochondrial | 17 | 0.8108 | < 0.0001 | 0.7116 | 0.0014 | 0.7616 | 0.0004 | 0.6818 | 0.0026 |
| Aspartate aminotransferase, mitochondrial | 17 | 0.8987 | < 0.0001 | 0.8613 | < 0.0001 | 0.794 | 0.0001 | 0.8102 | < 0.0001 |
| ATP synthase subunit alpha, mitochondrial | 17 | 0.8629 | < 0.0001 | 0.8161 | < 0.0001 | 0.8001 | 0.0001 | 0.7608 | 0.0004 |
| ATP synthase subunit b, mitochondrial | 14 | 0.6518 | 0.0115 | 0.82 | 0.0003 | 0.5744 | 0.0317 | 0.7538 | 0.0018 |
| ATP synthase subunit beta, mitochondrial | 17 | 0.8801 | < 0.0001 | 0.8316 | < 0.0001 | 0.7746 | 0.0003 | 0.7929 | 0.0001 |
| Citrate synthase, mitochondrial | 16 | 0.6703 | 0.0045 | 0.5543 | 0.0259 | 0.6781 | 0.0039 | 0.5347 | 0.0329 |
| Creatine kinase S-type, mitochondrial | 17 | 0.841 | < 0.0001 | 0.7516 | 0.0005 | 0.7919 | 0.0002 | 0.7073 | 0.0015 |
| Cytochrome c | 8 | 0.8521 | 0.0072 | 0.7709 | 0.0251 | 0.8298 | 0.0108 | 0.6644 | 0.0361 |
| Dihydrolipoyl dehydrogenase, mitochondrial | 16 | 0.9037 | < 0.0001 | 0.775 | 0.0004 | 0.9481 | < 0.0001 | 0.7273 | 0.0014 |
| Enoyl-CoA hydratase, mitochondrial | 16 | 0.8553 | < 0.0001 | 0.7808 | 0.0004 | 0.8303 | < 0.0001 | 0.6966 | 0.0027 |
| ES1 protein homolog, mitochondrial | 14 | 0.7316 | 0.0029 | 0.6684 | 0.009 | 0.573 | 0.0322 | 0.6557 | 0.0109 |
| Fumarate hydratase, mitochondrial | 17 | 0.861 | < 0.0001 | 0.8126 | < 0.0001 | 0.8545 | < 0.0001 | 0.6702 | 0.0032 |
| Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial | 17 | 0.4947 | 0.0435 | 0.6665 | 0.0035 | 0.4833 | 0.0494 | 0.5623 | 0.0188 |
| Isocitrate dehydrogenase [NADP], mitochondrial | 16 | 0.7448 | 0.0009 | 0.837 | < 0.0001 | 0.5366 | 0.0321 | 0.7845 | 0.0003 |
| Malate dehydrogenase, mitochondrial | 17 | 0.86 | < 0.0001 | 0.7719 | 0.0003 | 0.8115 | < 0.0001 | 0.7559 | 0.0004 |
| Pyruvate dehydrogenase E1 component subunit beta, mitochondrial | 17 | 0.8366 | < 0.0001 | 0.7021 | 0.0017 | 0.8061 | < 0.0001 | 0.6954 | 0.0019 |
| Superoxide dismutase [Mn], mitochondrial | 17 | 0.8146 | < 0.0001 | 0.8644 | < 0.0001 | 0.771 | 0.0003 | 0.7528 | 0.0005 |
| Thioredoxin-dependent peroxide reductase, mitochondrial | 16 | 0.7835 | 0.0003 | 0.6068 | 0.0127 | 0.7745 | 0.0004 | 0.5935 | 0.0154 |
| Ubiquinone biosynthesis protein COQ9, mitochondrial | 16 | 0.7608 | 0.0006 | 0.7537 | 0.0007 | 0.647 | 0.0067 | 0.6905 | 0.0031 |
| Endoplasmic Reticulum |  |  |  |  |  |  |  |  |  |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 | 17 | 0.9513 | < 0.0001 | 0.9053 | < 0.0001 | 0.9071 | < 0.0001 | 0.7687 | 0.0003 |
| Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 | 17 | 0.9015 | < 0.0001 | 0.9358 | < 0.0001 | 0.8461 | < 0.0001 | 0.851 | < 0.0001 |
| Nucleus |  |  |  |  |  |  |  |  |  |
| PWWP domain-containing protein MUM1 | 6 | 0.9101 | 0.0118 | 0.9284 | 0.0075 | 0.8876 | 0.0182 | 0.8983 | 0.0383 |

