Table S1: Significantly enriched GO terms in the differentially expressed proteins identified using DAVID tool.

Functional Terms	Count	P Value	Protein UNIPROT IDS
Acetylation	24	4.38E-20	P00505, P06576, Q8NEZ4, Q53GB3, P00441, P02792, O75947, P63313, Q596K9, Q9UNM1, Q00325, Q8NCF7, P06733, P13929, Q9NPL4, P60660, Q8WVW5, P08670, Q53HU8, P62328, Q8N7G1, P42765, P09493, P32119, P60174, Q6FHP9, P02511, P63316, Q6FH91, Q6P6D7, P62158, Q9BRL5,
Cytoplasm	47	3.83E-14	Q53GB3, Q9NTJ5, Q53R15, P00441, Q9UNM1, P63313, Q596K9, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P62328, P50461, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, Q9UKL3, P00505, P06576, P16219, P30049, Q6FG90, Q5TCW3, Q9BX68, O75947, Q9UBC5, Q00325, Q8NCF7, Q5QPQ0, Q06830, Q4ZG20, Q8WVW5, P28330, P08670, Q53HU8, P47985, Q8NBV9, Q7Z5G3, Q9NUB1, P30086, Q59EI6, P42765, Q99996, P32119, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2, Q6P6D7, P62158, Q9BRL5, P09104,
Cytoplasmic part	38	1.52E-13	Q9NTJ5, Q53GB3, Q53R15, P00441, Q9UNM1, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P50461, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, P00505, P06576, P16219, P30049, Q6FG90, Q5TCW3, Q9BX68, O75947, Q9UBC5, Q00325, Q8NCF7, Q06830, Q4ZG20, Q8WVW5, P28330, P47985, Q8NBV9, Q7Z5G3, Q9NUB1, P42765, Q99996, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2, Q6P6D7, P09104,
Transit peptide	16	7.94E-13	P06576, Q53GB3, P00505, P30049, Q6FG90, P16219, Q00325, Q8NCF7, Q96DD3, Q13011, P28330, P47985, Q7Z5G3, Q9NUB1, P30048, Q53HC2, P42765, O43181, P17540, Q6IAQ7, Q9UII2,

Direct protein sequencing	31	1.37E-12	P00441, P02792, Q9UNM1, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q13011, P62328, Q8N7G1, P30048, Q53HC2, P09493, P08590, P63316, Q6FH91, P06576, P00505, P30049, Q6FG90, P16219, Q06830, P60660, Q8WVW5, P47985, P08670, Q53HU8, P30086, P42765, P32119, P11142, Q53GZ6, P17540, P60174, Q6FHP9, P02511, Q6P6D7, P62158, Q9BRL5, P09104,
Mitochondrion	18	2.28E-11	P06576, Q53GB3, P00505, P16219, P30049, Q6FG90, O75947, Q9UNM1, Q00325, Q8NCF7, Q96DD3, Q13011, P28330, P47985, Q7Z5G3, Q9NUB1, P30048, Q53HC2, P42765, O43181, P17540, Q6IAQ7, Q9UII2,
Mitochondrion	20	4.88E-11	P06576, Q53GB3, P00505, P00441, P16219, P30049, Q6FG90, Q5TCW3, Q9BX68, O75947, Q9UNM1, Q00325, Q8NCF7, Q96DD3, Q13011, P28330, P47985, Q7Z5G3, Q9NUB1, P30048, Q53HC2, P42765, O43181, P17540, Q6IAQ7, Q9UII2,
Transit peptide: Mitochondrion	14	1.37E-10	P06576, Q53GB3, P00505, P30049, Q6FG90, P16219, Q00325, Q8NCF7, Q96DD3, Q13011, P28330, P47985, Q7Z5G3, Q9NUB1, P30048, Q53HC2, P17540, Q6IAQ7, Q9UII2,
Mitochondrial part	15	6.39E-10	P06576, Q53GB3, P00505, P00441, P30049, Q6FG90, P16219, Q9UNM1, Q00325, Q8NCF7, Q96DD3, P28330, P47985, Q7Z5G3, Q9NUB1, P42765, O43181, P17540,
Intracellular	52	8.80E-10	Q9NTJ5, Q53R15, P00441, P63313, Q596K9, Q9UNM1, O00635, Q96DD3, Q969V3, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, P06576, Q5QPQ0, Q06830, Q4ZG20, P47985, P08670, Q53HU8, P28330, Q8NBV9, P32119, Q99996, P17540, P02511, Q6IAQ7, Q9UII2, Q6P6D7, P09104, Q8NEZ4, Q53GB3, P02792, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q13011, P50461, P62328, P00505, Q9UKL3, P30049, Q6FG90, P16219, Q9UBC5, O75947, Q5TCW3, Q9BX68, Q00325, Q8NCF7, P60660, Q8WVW5, Q7Z5G3, Q9NUB1, Q59EI6, P30086, P42765, P11142, Q53GZ6, P62158, Q9BRL5,

Intracellular part	51	1.15E-09	Q9NTJ5, Q53R15, P00441, P63313, Q596K9, Q9UNM1, Q96DD3, Q969V3, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, P06576, Q5QPQ0, Q06830, Q4ZG20, P47985, P08670, Q53HU8, P28330, Q8NBV9, P32119, Q99996, P17540, Q6IAQ7, Q9UII2, P02511, Q6P6D7, P09104, Q8NEZ4, Q53GB3, P02792, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q13011, P50461, P62328, P00505, Q9UKL3, P30049, Q6FG90, P16219, Q9UBC5, O75947, Q5TCW3, Q9BX68, Q00325, Q8NCF7, P60660, Q8WVW5, Q7Z5G3, Q9NUB1, Q59EI6, P30086, P42765, P11142, Q53GZ6, P62158, Q9BRL5,
Contractile fiber	8	2.15E-09	Q53R15, P09493, P02511, P08590, P63316, Q6FH91, Q4ZG20, Q8WVW5, P50461,
Contractile fiber part	7	5.31E-08	Q53R15, P09493, P02511, P08590, P63316, Q6FH91, Q4ZG20, P50461,
Muscle system process	9	7.06E-08	P00441, P09493, P10916, Q6IB42, P17540, P02511, P08590, P60660, P63316, Q6FH91, Q4ZG20,
Muscle contraction	9	7.06E-08	P00441, P09493, P10916, Q6IB42, P17540, P02511, P08590, P60660, P63316, Q6FH91, Q4ZG20,
Generation of precursor metabolites and energy	14	1.31E-07	P06576, Q53GB3, P30049, Q6FG90, P16219, O75947, Q00325, Q8NCF7, Q96DD3, Q4ZG20, Q13011, P28330, P47985, O43181, P17540, Q6IAQ7, Q9UII2,
Structural constituent of muscle	6	1.53E-07	Q53R15, P09493, P10916, Q6IB42, P08590, P60660, Q4ZG20,
Muscle protein	6	5.24E-07	Q53R15, P09493, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91,
Myofibril	6	1.13E-06	P09493, P02511, P63316, Q6FH91, Q4ZG20, Q8WVW5, P50461,
Mitochondrial matrix	8	1.16E-06	P00505, Q53GB3, Q7Z5G3, Q9NUB1, P00441, P16219, Q9UNM1, Q96DD3, P28330,
Mitochondrial lumen	8	1.16E-06	P00505, Q53GB3, Q7Z5G3, Q9NUB1, P00441, P16219, Q9UNM1, Q96DD3, P28330,
Intracellular organelle	44	1.57E-06	Q9NTJ5, Q8NEZ4, Q53GB3, Q53R15, P00441, Q9UNM1, P63313, Q596K9, P10916, Q6IB42, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P62328, P50461, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, Q9UKL3, P00505, P06576, P16219, P30049, Q6FG90, Q5TCW3, Q9BX68, O75947,

			Q9UBC5, Q00325, Q8NCF7, Q06830, P60660, Q4ZG20, Q8WVW5, P28330, P08670, Q53HU8, P47985, Q8NBV9, Q7Z5G3, Q9NUB1, Q59EI6, P42765, Q99996, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2,
Organelle	44	1.60E-06	Q9NTJ5, Q8NEZ4, Q53GB3, Q53R15, P00441, Q9UNM1, P63313, Q596K9, P10916, Q6IB42, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P62328, P50461, P30048, Q53HC2, P09493, O43181, P08590, P63316, Q6FH91, Q9UKL3, P00505, P06576, P16219, P30049, Q6FG90, Q5TCW3, Q9BX68, O75947, Q9UBC5, Q00325, Q8NCF7, Q06830, P60660, Q4ZG20, Q8WVW5, P28330, P08670, Q53HU8, P47985, Q8NBV9, Q7Z5G3, Q9NUB1, Q59EI6, P42765, Q99996, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2,
Antioxidant	4	2.26E-06	P00441, P30048, Q53HC2, P32119, Q06830,
Intracellular organelle part	27	5.41E-06	Q53GB3, Q53R15, P00441, Q9UNM1, Q96DD3, P10916, Q6IB42, Q969V3, P09493, O43181, P08590, P63316, Q6FH91, P06576, P00505, P30049, Q6FG90, P16219, Q9UBC5, Q00325, Q8NCF7, P60660, Q4ZG20, P08670, Q53HU8, P28330, P47985, Q8WVW5, Q7Z5G3, Q9NUB1, P42765, Q99996, P17540,
Subunit	39	5.62E-06	Q8NEZ4, Q53GB3, Q53R15, P00441, P02792, Q9UNM1, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q969V3, Q13011, P50461, Q8N7G1, P30048, Q53HC2, P09493, P08590, Q9UKL3, P00505, P06576, P16219, P30049, Q6FG90, O75947, Q06830, P60660, Q8WVW5, P47985, P08670, Q53HU8, P28330, Q59EI6, P42765, Q5T2B7, Q99996, P32119, P11142, Q53GZ6, P60174, Q6FHP9, P17540, P02511, Q6P6D7, P62158, Q9BRL5, P09104,
Organelle part	27	5.75E-06	Q53GB3, Q53R15, P00441, Q9UNM1, Q96DD3, P10916, Q6IB42, Q969V3, P09493, O43181, P08590, P63316, Q6FH91, P06576, P00505, P30049, Q6FG90, P16219, Q9UBC5, Q00325, Q8NCF7, P60660, Q4ZG20, P08670, Q53HU8, P28330, P47985, Q8WVW5, Q7Z5G3, Q9NUB1,

			P42765, Q99996, P17540,
Domain: EF-hand 3	6	8.56E-06	Q53R15, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, P62158, Q9BRL5,
Myosin	5	9.81E-06	Q53R15, Q9UBC5, P10916, Q6IB42, P08590, P60660,
Glycolysis	5	1.17E-05	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Fatty acid metabolism	5	1.28E-05	P16219, Q5QPQ0, P42765, Q13011, P28330,
Miscellaneous	15	1.29E-05	Q8NEZ4, P00505, P00441, P16219, P10916, Q6IB42, Q06830, P06733, P13929, Q9NPL4, Q8WVW5, P28330, P47985, P30048, Q53HC2, P32119, P17540, P63316, Q6FH91, P62158, Q9BRL5,
Mitochondrial membrane	9	1.88E-05	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, Q96DD3, P47985,
Actin cytoskeleton	8	2.08E-05	Q53R15, Q9UBC5, P09493, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, Q8WVW5,
Catalytic activity	23	2.15E-05	P00505, Q53GB3, Q8NEZ4, P06576, P00441, P16219, P30049, Q6FG90, O75947, Q5QPQ0, Q96DD3, P06733, P13929, Q9NPL4, Q06830, P28330, P47985, Q8N7G1, Q7Z5G3, Q9NUB1, P30048, Q53HC2, P42765, P32119, P60174, Q6FHP9, P17540, Q6P6D7, P09104,
Sarcomere	5	2.29E-05	P09493, P02511, P63316, Q6FH91, Q4ZG20, P50461,
Muscle development	7	2.52E-05	Q53R15, P00441, P02511, P60660, Q4ZG20, Q8WVW5, P50461,
Antioxidant activity	5	2.56E-05	P00441, P30048, Q53HC2, P32119, Q06830, Q4ZG20,
Mitochondrial envelope	9	2.66E-05	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, Q96DD3, P47985,
Mitochondrial inner membrane	8	3.17E-05	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, P47985,
Coenzyme metabolic process	7	4.60E-05	Q53GB3, P06576, Q7Z5G3, Q9NUB1, P00441, P30049, Q6FG90, O75947, P60174, Q6FHP9,
Cytoskeleton	14	4.69E-05	Q53R15, P63313, Q596K9, Q9UBC5, P10916, Q6IB42, P60660, Q8WVW5, P08670, Q53HU8, Q8NBV9, P50461, P62328, P09493, Q99996, P08590, P63316, Q6FH91,

Organelle inner membrane	8	4.89E-05	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, P47985,
Glycolysis	5	5.22E-05	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Disease mutation	15	5.74E-05	P00441, P02792, P16219, Q9UBC5, Q00325, Q8NCF7, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q8WVW5, P28330, P50461, Q8N7G1, P09493, P60174, Q6FHP9, P08590, P02511,
Protein complex	19	5.79E-05	P06576, Q53GB3, Q53R15, P00441, P30049, Q6FG90, P02792, O75947, Q9UBC5, P10916, Q6IB42, P06733, P13929, Q9NPL4, P60660, Q8WVW5, P47985, Q59EI6, P30048, Q53HC2, O43181, P08590, P63316, Q6FH91, P09104,
Proton-transporting ATP synthase complex	4	6.86E-05	Q53GB3, P06576, P30049, Q6FG90, O75947,
Myosin complex	5	7.87E-05	Q53R15, Q9UBC5, P10916, Q6IB42, P08590, P60660,
Glucose catabolic process	5	9.39E-05	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Cofactor metabolic process	7	1.25E-04	Q53GB3, P06576, Q7Z5G3, Q9NUB1, P00441, P30049, Q6FG90, O75947, P60174, Q6FHP9,
Acetylated amino end	5	1.59E-04	P00441, P02792, Q9UNM1, P62158, Q9BRL5, Q8WVW5,
Hexose catabolic process	5	1.63E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Monosaccharide catabolic process	5	1.71E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Domain:EF-hand 1	6	1.74E-04	Q53R15, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, P62158, Q9BRL5,
Domain:EF-hand 2	6	1.80E-04	Q53R15, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, P62158, Q9BRL5,
Alcohol catabolic process	5	1.87E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Methylation	6	2.29E-04	Q53R15, P10916, Q6IB42, P02511, P08590, P62158, Q9BRL5, Q8WVW5,
Signal transduction mechanisms / Cytoskeleton / Cell division and chromosome partitioning / General function prediction only	5	2.37E-04	Q53R15, P08590, P60660, P63316, Q6FH91, P62158, Q9BRL5,
Regulation of muscle contraction	4	2.47E-04	P00441, P09493, P10916, Q6IB42, P63316, Q6FH91,
Fatty acid metabolic process	6	2.79E-04	P16219, Q5QPQ0, P42765, P60174, Q6FHP9, Q13011, P28330,
Peroxidase activity	4	2.86E-04	P30048, Q53HC2, P32119, Q06830, Q4ZG20,
Oxidoreductase activity, acting	4	2.86E-04	P30048, Q53HC2, P32119, Q06830,

on peroxide as acceptor			Q4ZG20,
Hydrogen ion transporting ATP synthase activity, rotational mechanism	4	2.86E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Hydrogen ion transporting ATPase activity, rotational mechanism	4	3.07E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Oxidoreductase	9	3.11E-04	P00441, P16219, P30048, Q53HC2, P32119, O43181, Q96DD3, Q06830, P47985, P28330,
Motor protein	5	3.59E-04	Q53R15, Q9UBC5, P10916, Q6IB42, P08590, P60660,
Organelle envelope	9	3.79E-04	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, Q96DD3, P47985,
Envelope	9	3.88E-04	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, Q96DD3, P47985,
Cross-link: Glycyl lysine isopeptide (Lys-Gly) (interchain with G-Cter in ubiquitin)	5	4.14E-04	Q9UKL3, P30049, Q6FG90, P09493, Q96DD3, P62158, Q9BRL5,
0xidoreductase activity	11	4.66E-04	P00441, P16219, P02792, P30048, Q53HC2, P32119, O43181, Q96DD3, Q06830, Q4ZG20, P47985, P28330,
ATP synthesis coupled proton transport	4	4.73E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Cellular carbohydrate catabolic process	5	4.80E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Lipid metabolism	5	5.16E-04	P16219, Q5QPQ0, P42765, Q13011, P28330,
Carboxylic acid metabolic process	9	5.45E-04	P00505, Q59EI6, P16219, Q5QPQ0, P42765, O43181, P60174, Q6FHP9, Q13011, P28330,
Organic acid metabolic process	9	5.65E-04	P00505, Q59EI6, P16219, Q5QPQ0, P42765, O43181, P60174, Q6FHP9, Q13011, P28330,
Oxidative phosphorylation	5	5.68E-04	Q53GB3, P06576, P30049, Q6FG90, O75947, O43181,
Carbohydrate catabolic process	5	6.06E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Glucose metabolic process	5	6.26E-04	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Nucleoside phosphate metabolic process	4	6.42E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
ATP biosynthetic process	4	6.42E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Alcohol metabolic process	7	6.59E-04	P00441, P42765, P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Cation-transporting ATPase	4	6.71E-04	Q53GB3, P06576, P30049, Q6FG90,

Activity			O75947,
Hydrogen ion transport	4	6.75E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Catalytic activity	31	7.60E-04	Q8NEZ4, Q53GB3, P00441, P02792, Q96DD3, P06733, P13929, Q9NPL4, Q13011, Q8N7G1, P30048, Q53HC2, O43181, P06576, P00505, P30049, Q6FG90, P16219, Q5TCW3, Q9BX68, O75947, Q5QPQ0, Q06830, P60660, Q4ZG20, P47985, P28330, Q7Z5G3, Q9NUB1, Q59EI6, P42765, P32119, P11142, Q53GZ6, P17540, P60174, Q6FHP9, Q6P6D7, P09104,
Hsa00010:Glycolysis / Gluconeogenesis	5	7.72E-04	Q7Z5G3, Q9NUB1, P60174, Q6FHP9, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Macromolecular complex	19	8.45E-04	P06576, Q53GB3, Q53R15, P00441, P30049, Q6FG90, P02792, O75947, Q9UBC5, P10916, Q6IB42, P06733, P13929, Q9NPL4, P60660, Q8WVW5, P47985, Q59EI6, P30048, Q53HC2, O43181, P08590, P63316, Q6FH91, P09104,
ATP metabolic process	4	9.83E-04	Q53GB3, P06576, P30049, Q6FG90, O75947,
Identical protein binding	7	0.001048 96	Q9UKL3, P00441, P02792, P30048, Q53HC2, Q6IAQ7, Q9UII2, Q4ZG20, Q8WVW5,
Hydrogen ion transmembrane transporter activity	5	0.001087	Q53GB3, P06576, P30049, Q6FG90, O75947, P47985,
nucleotide metabolic process	6	0.001125 61	Q53GB3, P06576, P30049, Q6FG90, O75947, P60174, Q6FHP9, Q6IAQ7, Q9UII2,
Proton-transporting two-sector ATPase complex	4	0.001189 65	Q53GB3, P06576, P30049, Q6FG90, O75947,
Ubl conjugation	7	0.001215 05	Q9UKL3, P00441, P30049, Q6FG90, P09493, Q5T2B7, Q96DD3, P62158, Q9BRL5,
Monocarboxylic acid metabolic process	6	0.001257 26	P16219, Q5QPQ0, P42765, P60174, Q6FHP9, Q13011, P28330,
Monovalent inorganic cation transmembrane transporter activity	5	0.001416 65	Q53GB3, P06576, P30049, Q6FG90, O75947, P47985,
Nucleobase, nucleoside and nucleotide metabolic process	6	0.001424 92	Q53GB3, P06576, P30049, Q6FG90, O75947, P60174, Q6FHP9, Q6IAQ7, Q9UII2,
Motor activity	5	0.001517 44	Q53R15, Q9UBC5, P10916, Q6IB42, P08590, P60660,
Cytoskeleton organization and biogenesis	8	0.001663 57	P00441, P63313, Q596K9, P60660, Q4ZG20, Q8WVW5, P08670, Q53HU8, Q8NBV9, P62328,
Purine nucleoside triphosphate biosynthetic process	4	0.001681 28	Q53GB3, P06576, P30049, Q6FG90, O75947,

Purine ribonucleoside triphosphate biosynthetic process	4	0.00168128	Q53GB3, P06576, P30049, Q6FG90, O75947,
Ribonucleoside triphosphate biosynthetic process	4	0.0017503	Q53GB3, P06576, P30049, Q6FG90, O75947,
Hsa00190:Oxidative phosphorylation	6	0.00185011	Q53GB3, P06576, P30049, Q6FG90, O75947, O43181, P47985,
Nucleoside triphosphate biosynthetic process	4	0.0018936	Q53GB3, P06576, P30049, Q6FG90, O75947,
Cytoskeletal part	9	0.00195922	Q53R15, Q9UBC5, P09493, Q99996, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, P08670, Q53HU8,
Cytoskeletal protein binding	7	0.00201245	Q9UBC5, P63313, Q596K9, P09493, P63316, Q6FH91, Q4ZG20, Q8NBV9, P62328,
Hexose metabolic process	5	0.00216622	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
ATPase activity, coupled	6	0.00226572	Q53GB3, P06576, P30049, Q6FG90, O75947, P11142, Q53GZ6, P60660,
Skeletal muscle development	4	0.00228327	P60660, Q4ZG20, Q8WVW5, P50461,
Purine ribonucleoside triphosphate metabolic process	4	0.00228327	Q53GB3, P06576, P30049, Q6FG90, O75947,
Purine nucleoside triphosphate metabolic process	4	0.00236671	Q53GB3, P06576, P30049, Q6FG90, O75947,
Ribonucleoside triphosphate metabolic process	4	0.00236671	Q53GB3, P06576, P30049, Q6FG90, O75947,
Monosaccharide metabolic process	5	0.00241411	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Cytoplasm	17	0.00246434	Q9UKL3, P00441, P63313, Q596K9, Q5QPQ0, Q06830, P06733, P13929, Q9NPL4, Q8WVW5, Q8NBV9, P50461, P62328, P30086, Q59EI6, P09493, Q99996, P32119, P11142, Q53GZ6, P09104,
System process	13	0.00248993	P00441, Q9UBC5, P10916, Q6IB42, P60660, Q4ZG20, Q8WVW5, P50461, P09493, Q99996, P17540, P08590, P02511, P63316, Q6FH91,
Non-membrane-bound organelle	15	0.00276091	Q53R15, P63313, Q596K9, Q9UBC5, P10916, Q6IB42, P60660, Q4ZG20, Q8WVW5, P08670, Q53HU8, Q8NBV9, P50461, P62328, P09493, Q99996, P08590, P63316, Q6FH91,
Intracellular non-membrane-bound organelle	15	0.00276091	Q53R15, P63313, Q596K9, Q9UBC5, P10916, Q6IB42, P60660, Q4ZG20, Q8WVW5, P08670, Q53HU8, Q8NBV9, P50461, P62328, P09493, Q99996, P08590, P63316, Q6FH91,
Purine ribonucleotide biosynthetic process	4	0.00300398	Q53GB3, P06576, P30049, Q6FG90, O75947,

Nucleoside triphosphate metabolic process	4	0.00310278	Q53GB3, P06576, P30049, Q6FG90, O75947,
Proton transport	4	0.00320356	Q53GB3, P06576, P30049, Q6FG90, O75947,
Hydrogen transport	4	0.00330633	Q53GB3, P06576, P30049, Q6FG90, O75947,
Inorganic cation transmembrane transporter activity	5	0.00331868	Q53GB3, P06576, P30049, Q6FG90, O75947, P47985,
Response to chemical stimulus	8	0.0036814	P00441, P16219, Q9UNM1, P32119, O43181, P11142, Q53GZ6, Q4ZG20, Q8WVW5,
Purine nucleotide biosynthetic process	4	0.0037376	Q53GB3, P06576, P30049, Q6FG90, O75947,
Ribonucleotide biosynthetic process	4	0.0037376	Q53GB3, P06576, P30049, Q6FG90, O75947,
Actin-binding	5	0.00377841	Q9UBC5, P63313, Q596K9, P09493, Q8NBV9, P62328,
Purine ribonucleotide metabolic process	4	0.00396551	Q53GB3, P06576, P30049, Q6FG90, O75947,
ATPase activity, coupled to transmembrane movement of ions	4	0.00397564	Q53GB3, P06576, P30049, Q6FG90, O75947,
Cytoskeleton	6	0.00430479	P63313, Q596K9, P09493, Q8WVW5, Q8NBV9, P62328, P50461,
Striated muscle development	4	0.00457183	P60660, Q4ZG20, Q8WVW5, P50461,
Purine nucleotide metabolic process	4	0.00496112	Q53GB3, P06576, P30049, Q6FG90, O75947,
Ribonucleotide metabolic process	4	0.0050952	Q53GB3, P06576, P30049, Q6FG90, O75947,
ATPase activity	6	0.00538401	Q53GB3, P06576, P30049, Q6FG90, O75947, P11142, Q53GZ6, P60660,
Structural molecule activity	9	0.00554804	Q53R15, P09493, P10916, Q6IB42, P02511, P08590, P60660, Q4ZG20, Q8WVW5, P08670, Q53HU8,
Mitochondrial membrane part	4	0.00600837	P06576, P30049, Q6FG90, O43181, P47985,
Coenzyme biosynthetic process	4	0.00671557	Q53GB3, P06576, P30049, Q6FG90, O75947,
Regulation of apoptosis	7	0.00849787	Q9UKL3, P00441, Q9UNM1, Q5T2B7, P32119, P02511, Q8NBV9,
Organ development	11	0.00859268	Q53R15, P00441, O43181, Q6IAQ7, Q9UII2, P02511, Q06830, P60660, Q4ZG20, Q8WVW5, Q8NBV9, P50461,
Regulation of programmed cell death	7	0.00894974	Q9UKL3, P00441, Q9UNM1, Q5T2B7, P32119, P02511, Q8NBV9,

Intracellular membrane-bound organelle	33	0.009228 83	Q9NTJ5, Q8NEZ4, Q53GB3, P00441, Q9UNM1, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P50461, P30048, Q53HC2, O43181, P06576, P00505, Q9UKL3, P30049, Q6FG90, P16219, Q5TCW3, Q9BX68, O75947, Q00325, Q8NCF7, Q06830, Q4ZG20, Q8WVW5, P47985, P28330, Q7Z5G3, Q9NUB1, Q59EI6, P42765, Q99996, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2,
Membrane-bound organelle	33	0.009297 01	Q9NTJ5, Q8NEZ4, Q53GB3, P00441, Q9UNM1, Q96DD3, P06733, P13929, Q9NPL4, Q969V3, Q13011, P50461, P30048, Q53HC2, O43181, P06576, P00505, Q9UKL3, P30049, Q6FG90, P16219, Q5TCW3, Q9BX68, O75947, Q00325, Q8NCF7, Q06830, Q4ZG20, Q8WVW5, P47985, P28330, Q7Z5G3, Q9NUB1, Q59EI6, P42765, Q99996, P11142, Q53GZ6, P17540, P02511, Q6IAQ7, Q9UII2,
Membrane-enclosed lumen	9	0.009380 35	P00505, Q53GB3, Q7Z5G3, Q9NUB1, P00441, P16219, Q9UNM1, Q96DD3, Q8WVW5, P28330,
Organelle lumen	9	0.009380 35	P00505, Q53GB3, Q7Z5G3, Q9NUB1, P00441, P16219, Q9UNM1, Q96DD3, Q8WVW5, P28330,
ATPase activity, coupled to transmembrane movement of substances	4	0.009402 14	Q53GB3, P06576, P30049, Q6FG90, O75947,
ATPase activity, coupled to movement of substances	4	0.009583 11	Q53GB3, P06576, P30049, Q6FG90, O75947,
Cofactor biosynthetic process	4	0.010167 42	Q53GB3, P06576, P30049, Q6FG90, O75947,
Hydrolase activity, acting on acid anhydrides, catalyzing transmembrane movement of substances	4	0.010907 08	Q53GB3, P06576, P30049, Q6FG90, O75947,
Primary active transmembrane transporter activity	4	0.011914 56	Q53GB3, P06576, P30049, Q6FG90, O75947,
P-P-bond-hydrolysis-driven transmembrane transporter activity	4	0.011914 56	Q53GB3, P06576, P30049, Q6FG90, O75947,
Cellular catabolic process	7	0.013619 3	P00505, P00441, P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Actin binding	5	0.013630 4	Q9UBC5, P63313, Q596K9, P09493, Q8NBV9, P62328,
Macromolecule catabolic	6	0.015430	P00441, P60174, Q6FHP9, Q96DD3,

Process		81	P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Organelle organization and biogenesis	10	0.01578972	Q8NEZ4, P00441, P63313, Q596K9, O43181, P60660, Q4ZG20, Q8WVW5, P08670, Q53HU8, Q8NBV9, P62328,
Regulation of multicellular organismal process	5	0.01587673	P00441, P09493, P10916, Q6IB42, P63316, Q6FH91, P50461,
Cellular lipid metabolic process	7	0.01674291	P00441, P16219, Q5QPQ0, P42765, P60174, Q6FHP9, Q13011, P28330,
Nucleotide biosynthetic process	4	0.0171158	Q53GB3, P06576, P30049, Q6FG90, O75947,
Pathway	8	0.01936408	P16219, P42765, Q5T2B7, P60174, Q6FHP9, P06733, P13929, Q9NPL4, Q13011, P09104, P28330,
Sequence variant	30	0.025542	Q8NEZ4, Q53GB3, P00441, P02792, O00635, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q969V3, Q13011, P50461, Q8N7G1, P30048, Q53HC2, P09493, P08590, P63316, Q6FH91, P00505, P16219, Q9UBC5, Q00325, Q8NCF7, Q06830, P60660, Q8WVW5, P28330, Q59EI6, Q5T2B7, P32119, Q99996, P60174, Q6FHP9, P02511, P09104,
Cytosol	6	0.0260679 4	P00441, P30048, Q53HC2, P06733, P13929, Q9NPL4, Q6P6D7, P09104, Q8WVW5,
Adenyl nucleotide binding	11	0.0261021 4	P06576, Q7Z5G3, Q9NUB1, P30086, P16219, Q9UBC5, Q9UNM1, P11142, Q53GZ6, P17540, Q4ZG20, Q8WVW5, P28330,
Disease	15	0.0266010 8	P00441, P02792, P16219, Q9UBC5, Q00325, Q8NCF7, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q8WVW5, P28330, P50461, Q8N7G1, P09493, P60174, Q6FHP9, P08590, P02511,
Cellular carbohydrate metabolic process	5	0.0286043	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Cellular macromolecule catabolic process	5	0.0291265 4	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Calcium ion binding	8	0.0300321	Q53R15, P10916, Q6IB42, P08590, P60660, P63316, Q6FH91, P62158, Q9BRL5, Q4ZG20, Q8NBV9,
Organelle membrane	10	0.0309339 5	Q53GB3, P06576, P30049, Q6FG90, Q00325, Q8NCF7, P42765, O43181, P17540, Q96DD3, Q969V3, P47985,
Active transmembrane transporter activity	5	0.0310650 2	Q53GB3, P06576, P30049, Q6FG90, O75947, Q00325, Q8NCF7,
carbohydrate metabolic process	6	0.0335118 4	P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104, Q4ZG20,

Phosphoprotein	22	0.034318 59	Q9UKL3, P00505, P06576, Q8NEZ4, P10916, Q6IB42, Q06830, P06733, P13929, Q9NPL4, Q13011, Q8WVW5, P08670, Q53HU8, P62328, P30086, Q5T2B7, O43181, Q99996, P11142, Q53GZ6, P60174, Q6FHP9, P02511, Q6P6D7, P62158, Q9BRL5, P09104, Q8ND56,
Regulation of a molecular function	6	0.036071 97	Q9UKL3, Q59EI6, P00441, P30048, Q53HC2, Q9UNM1, Q6IAQ7, Q9UII2,
Catabolic process	7	0.036178 46	P00505, P00441, P60174, Q6FHP9, Q96DD3, P06733, P13929, Q9NPL4, Q6P6D7, P09104,
Protein binding	30	0.036843 51	Q8NEZ4, Q53GB3, P00441, P02792, Q9UNM1, P63313, Q596K9, O00635, P10916, Q6IB42, P06733, P13929, Q9NPL4, Q13011, P50461, P62328, P30048, Q53HC2, P09493, P63316, Q6FH91, P06576, Q9UKL3, Q9UBC5, Q4ZG20, P08670, Q53HU8, Q8WVW5, Q8NBV9, P30086, Q59EI6, Q5T2B7, Q99996, P11142, Q53GZ6, P02511, Q6IAQ7, Q9UII2, P62158, Q9BRL5,
Induction	7	0.037449 03	Q9UKL3, Q9UNM1, P11142, Q53GZ6, P06733, P13929, Q9NPL4, Q06830, P09104, P62328,
Actin filament-based process	4	0.039048 24	P60660, Q4ZG20, Q8WVW5, Q8NBV9,
Lipid metabolic process	7	0.039928 56	P00441, P16219, Q5QPQ0, P42765, P60174, Q6FHP9, Q13011, P28330,
Apoptosis	7	0.044379 66	Q9UKL3, P00441, Q9UNM1, Q5T2B7, P32119, P02511, Q8NBV9,
Nucleoside-triphosphatase activity	6	0.044815 52	Q53GB3, P06576, P30049, Q6FG90, O75947, P11142, Q53GZ6, P60660,
positive regulation of catalytic activity	4	0.044863 64	Q9UKL3, Q59EI6, P00441, Q9UNM1,
Programmed cell death	7	0.046009 19	Q9UKL3, P00441, Q9UNM1, Q5T2B7, P32119, P02511, Q8NBV9,
Anatomical structure development	13	0.046212 95	Q53R15, P00441, Q9UBC5, Q06830, P06733, P13929, Q9NPL4, P60660, Q4ZG20, Q8WVW5, Q8NBV9, P50461, O43181, P02511, Q6IAQ7, Q9UII2,

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