Table S6. Functionality related proteins from Gene Ontology enrichment analyses performed using Batch Gene tool of Gene Ontology Enrichment Analysis Software Toolkit (GOEAST, http://omicslab.genetics.ac.cn/GOEAST/).

GOID[a]	Biological Process Term	n[b]	Symbols[c]	*p*-value[d]
		WHITE MUSCLE		
GO:0006091	generation of precursor metabolites and energy	8/24	PGK1 // PKM2 // PKM2 // PGAM2 // PGAM2 // LDHA // ATP5B // PYGM	$9.70 \cdot 10^{-8}$
GO:0005975	carbohydrate metabolic process	8/24	PGK1 // PKM2 // PKM2 // PGAM2 // PGAM2 // LDHA // FBP1 // PYGM	$4.15 \cdot 10^{-5}$
GO:0006936	muscle contraction	7/24	MYOM1 // MYOM1 // MYOM1 // PGAM2 // PGAM2 // MYL2 // MYL1	$6.94 \cdot 10^{-9}$
GO:0006096	glycolysis	6/24	PGK1 // PKM2 // PKM2 // PGAM2 // PGAM2 // LDHA	$1.31 \cdot 10^{-8}$
GO:0006094	gluconeogenesis	4/24	PGK1 // FBP1 // PGAM2 // PGAM2	$6.54 \cdot 10^{-6}$
		RED MUSCLE		
GO:0006091	generation of precursor metabolites and energy	11/26	PDHA1 // ADSL // PKM2 // ATP5A1 // FH // FH // FH // IDH2 // IDH2 // IDH2 // PGK1	$5.36 \cdot 10^{-12}$
GO:0005975	carbohydrate metabolic process	8/26	PDHA1 // HIBADH // PDIA3 // PKM2 // IDH2 // IDH2 // IDH2 // PGK1	$7.41 \cdot 10^{-5}$
GO:0006099	tricarboxylic acid cycle	6/26	FH // FH // FH // IDH2 // IDH2 //IDH2	$1.38 \cdot 10^{-9}$
GO:0006635	fatty acid beta-oxidation	4/26	HADH // HADH // ACADM // ECH1	$3.56 \cdot 10^{-4}$
GO:0006936	muscle contraction	3/26	ACTA1 // CKMT2 // CKMT2	0.013
GO:0006096	glycolysis	3/26	PDHA1 // PKM2 // PGK1	0.003

[a]Gene Ontology Identification number. [b]Number of gene products in the sample set that are annotated / number of gene products in the sample set. [c]List of gene products in the sample set that are annotataed to the GO term. [d]Related proteins are shown by *p*-values < 0.05 (Hypergeometric statistical test).