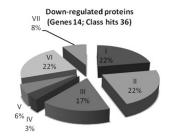
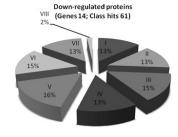
## Electronic Supplementary Material (ESI) for Molecular BioSystems. This journal is © The Royal Society of Chemistry 2016

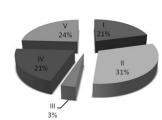
## (A) GO Molecular function



## (B) GO Biological process



## (C) GO Cellular component



Down-regulated proteins (Genes 14; Class hits 29)

- Binding (GO: 0005488) (MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6, ATP5A1)
- П. Catacytic Activity (GO: 0003824) (MYH7, MYH2, MYH4, MYH1, MYH13, MYH6, ATP5A1, ATP2A1)
- III. Enzyme regulator activity (GO: 0030234)
- (MYH7, MYH2, MYH4, MYH1, MYH13, MYH6) IV.
- Nucleic acid binding transcription factor activity (GO: 0001071) (LDB3)
- ٧. Receptor Acticvity (GO: 0004872) (RYR1; ATP5A1)
- VI. Structural molecule activity (GO: 0005198)
- (ACTA1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6)
- VII. Transporter activity (GO: 0005215) (RYR1; ATP5A1; ATP2A1)
- ١. Biological regulation (GO: 0065007)
  - (MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6, ATP2A1)
- Cellular component organzation or biogenesis (GO: 0071840) (ACTA1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6)
- Cellular process (GO: 0009987) III.
  - (ACTA1, RYR1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6)
- IV. Developmental process (GO: 0032502) (ACTA1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6)
- Localization (GO: 0051179)
- (ACTA1, RYR1, MYH7, MYH2, MYH4, MYH1, MYH13, MYH6, ATP5A1, ATP2A1)
- Metabolic process (GO: 0008152) VI.
- ( MYH7, MYH2, MYH4,LDB3, MYH1, MYH13, MYH6, ATP5A1, ATP2A1)
- VII.
- Multicellular organismal process (GO: 0032501) (RYR1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6)
- Response to stimulus (GO:0050896)
  - (RYR1)
- ī. Cell junction (GO:0030054) (MHY7, MYH2, MYH4, MYH13 MYH1, MYH6)
- Cell part (GO: 0044464)
- (ACTA1, MYH7, MYH2, MYH4, LDB3, MYH1, MYH13, MYH6, ATP5A1)
- Macromolecular complex (GO: 0032991) (ATP5A1)
- Membrane (GO: 0016020) (MHY7, MYH2, MYH4, MYH13 MYH1, MYH6)
- Organelle (GO: 0043226)
- (MHY7, MYH2, MYH4,LDB3, MYH13 MYH1, MYH6)

Fig. S2 Muscle proteins differently expressed between pigs fed NPD and RPD analysed with the Panther bioinformatics tool (http://www.pantherdb.org), using the following gene ontology categories: (A) GO molecular function pie chart shows the number of the down-expressed proteins involved in molecular activity of the cell. (B) GO biological process pie chart indicate the number of the down-expressed proteins involved in each biological process. (C) GO Cellular component pie chart shows the localization of the down-expressed proteins in the cell. For each category the percentage of the total number of proteins in the pie chart is indicated for each Gene Ontology term.