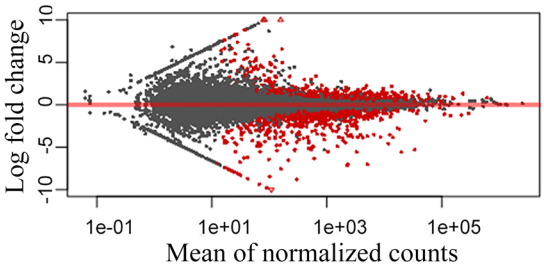
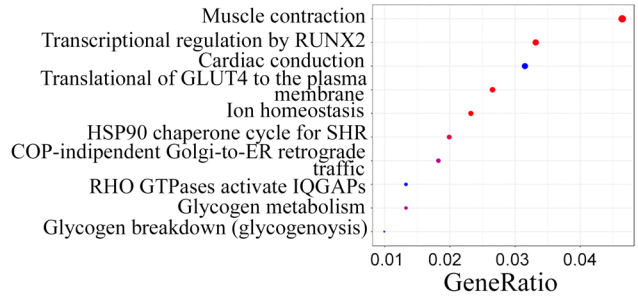
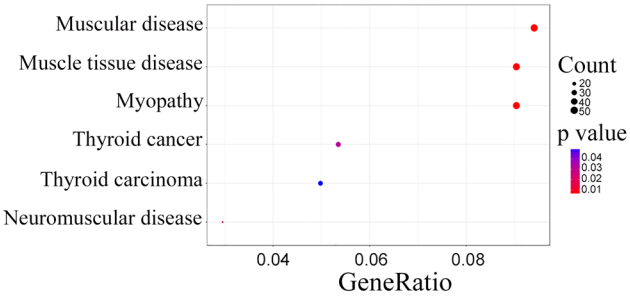
a


Log fold change
10
5
0
-5
-10
1e-01
1e+01
1e+03
1e+05
Mean of normalized counts

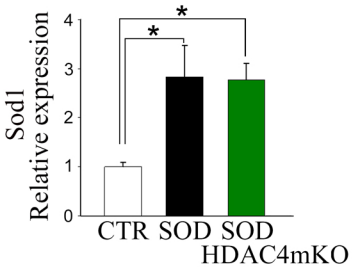
b


Muscle contraction
Transcriptional regulation by RUNX2
Cardiac conduction
Translational of GLUT4 to the plasma membrane
Ion homeostasis
HSP90 chaperone cycle for SHR
COP-indipendent Golgi-to-ER retrograde traffic
RHO GTPases activate IQGAPs
Glycogen metabolism
Glycogen breakdown (glycogenoysis)
0.01
0.02
0.03
0.04
GeneRatio

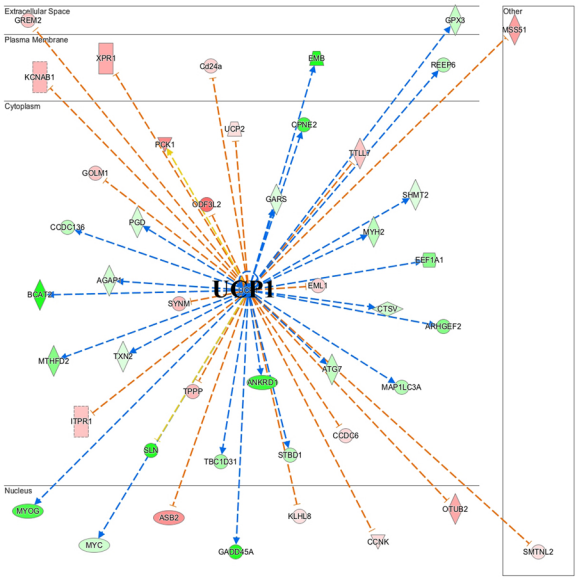
c


Muscular disease
Muscle tissue disease
Myopathy
Thyroid cancer
Thyroid carcinoma
Neuromuscular disease
0.04
0.06
0.08
GeneRatio
Count
20
30
40
50
p value
0.04
0.03
0.02
0.01

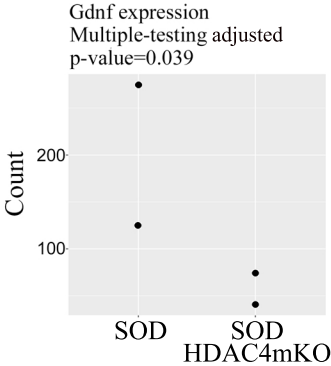
d


Sod1
Relative expression
4
3
2
1
0
*
*
CTR
SOD
SOD
HDAC4mKO

e


Extracellular Space
GREM2
Plasma Membrane
KCNAB1
XPR1
Cd24a
LMB
REEP6
GPX3
Other
MSS51
Cytoplasm
UCP2
CPNE2
PDK1
TTLL7
GOLM1
DDF3L2
GARS
SHMT2
CCDC136
PGD
MYH2
SEF1A1
AGAP4
UCP1
EML1
BCAT2
SYNM
CTSV
ARHGEF2
MTHFD2
TXN2
ATG7
TPPP
NNKRD1
MAP1LC3A
ITPR1
CCDC6
SEL
TBC1D31
STBD1
Nucleus
MYOG
ASB2
KLHL8
OTUB2
MYC
GATM-AS4
CCNK
SMTNL2

f


Gdnf expression
Multiple-testing adjusted
p-value=0.039
Count
200
100
SOD
SOD
HDAC4mKO