A

Glucose
NAD+
NADH
LDH
Lactate
Lactate
Pyruvate
Intracellular
intermediary
metabolism

B

Lactate production
Ldha
Ldhb
Lactate consumption

C

mGFP
mtdTomato
Merge
Rod-cre > mT/mG
ONL
ONL
LENS
200 µm

D

mGFP
Cone Arrestin
Rod-cre > mT/mG
INSET
MERGE

E

LDHAfl/fl
Rod-cre> LDHAfl/fl
α-LDHA
α-HSP70

F

Rod-cre > LDHAfl/fl
LDHB
DAPI
MERGE
ONL
INL
50 µm
50 µm
50 µm

G

UT
no sh
sh1
sh3
sh4
sh3+sh4
no sh
sh1
α-AU1
α-COX IV
AU1muLDHA
(FL)
AU1muLDHA
(CDS)

H

mGFP
LDHB
DAPI
MERGE
ONL
INL
mGFP
LDHB
DAPI
50 µm
NS
IS+OS
(microns)
60
40
20
0
****
****
CAG-mGFP + + +
LDHAsh - + +
CAG-LDHB - - +

I

-Succinate
+Malonate
+NaN3
ONL
INL
ONL
INL
ONL
INL
SDH Histochemistry
COX Histochemistry

J

PDH
PDH DAPI
ONL
INL