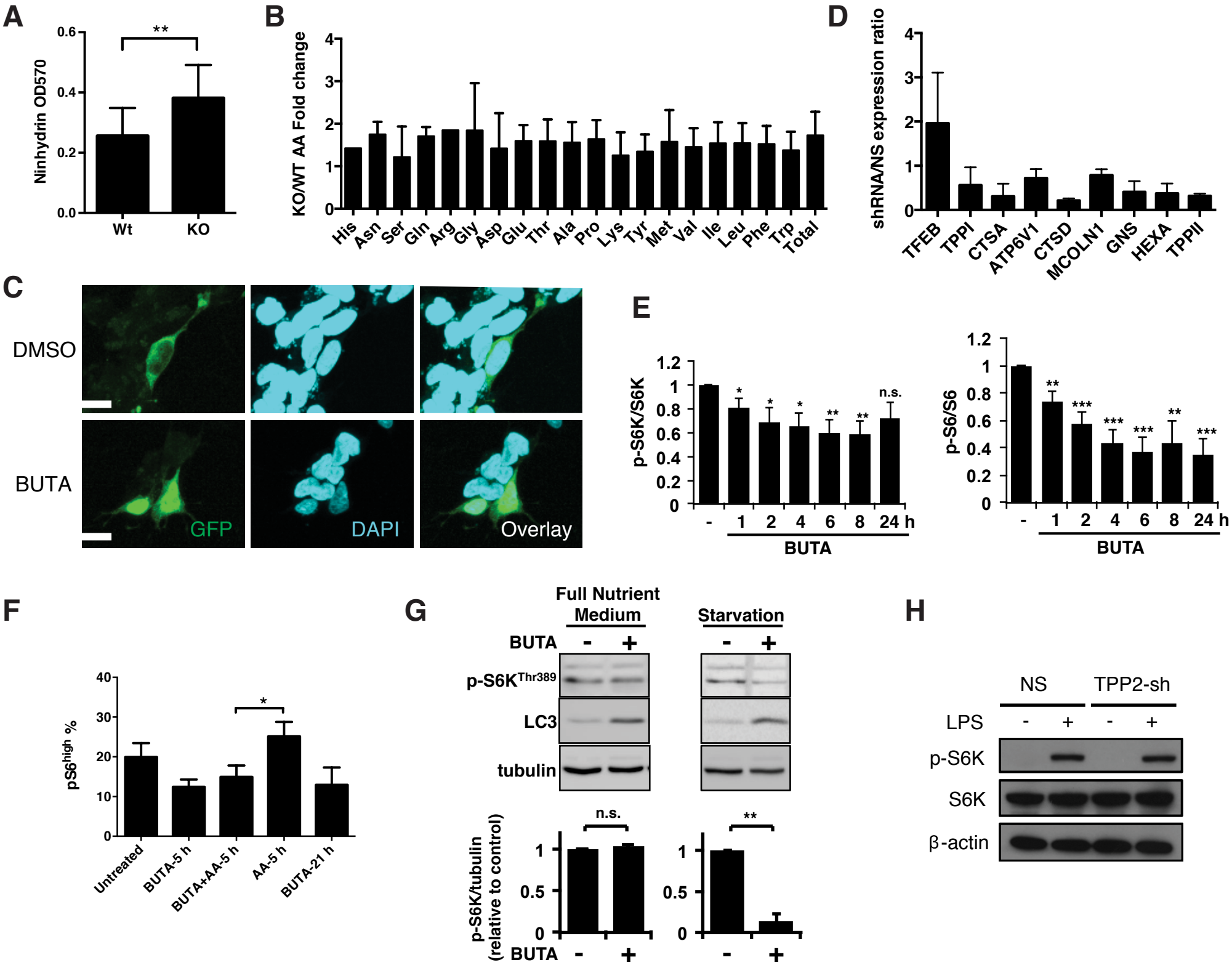
A
Ninhydrin OD570
0.6
0.4
0.2
0.0
**
Wt
KO
B
KO/WT AA Fold change
4
3
2
1
0
His
Asn
Ser
Gln
Arg
Gly
Asp
Glu
Thr
Ala
Pro
Lys
Tyr
Met
Val
Ile
Leu
Phe
Trp
Total
D
shRNA/NS expression ratio
4
3
2
1
0
TFEB
TPPI
CTSA
ATP6V1
CTSD
MCOLN1
GNS
HEXA
TPPII
C
DMSO
BUTA
GFP
DAPI
Overlay
E
p-S6K/S6K
1.2
1
0.8
0.6
0.4
0.2
0
*
*
*
**
**
n.s.
-
1
2
4
6
8
24 h
BUTA
p-S6/S6
1.2
1
0.8
0.6
0.4
0.2
0
**
***
***
***
**
***
-
1
2
4
6
8
24 h
BUTA
F
pS6high %
40
30
20
10
0
*
Untreated
BUTA-5 h
BUTA+AA-5 h
AA-5 h
BUTA-21 h
G
Full Nutrient Medium
Starvation
BUTA
-
+
-
+
p-S6KThr389
LC3
tubulin
p-S6K/tubulin (relative to control)
1
0.5
0
n.s.
**
BUTA
-
+
-
+
H
NS
TPP2-sh
LPS
-
+
-
+
p-S6K
S6K
β-actin