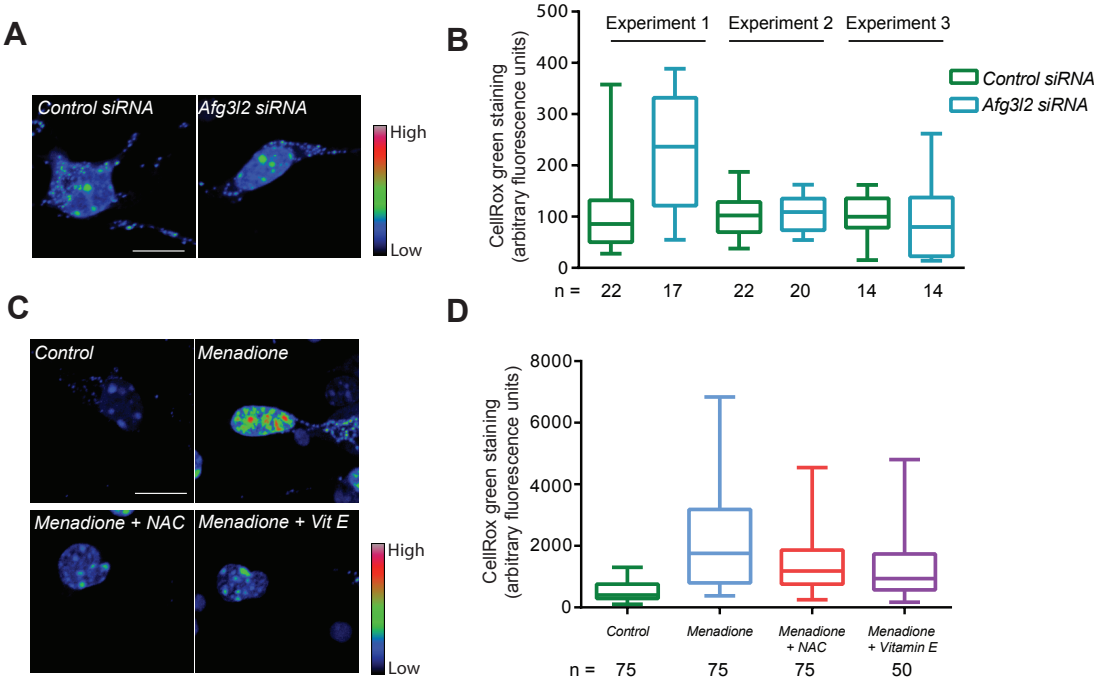
A
Control siRNA
Afg3l2 siRNA
High
Low
B
Experiment 1
Experiment 2
Experiment 3
Control siRNA
Afg3l2 siRNA
CellRox green staining (arbitrary fluorescence units)
500
400
300
200
100
0
n = 22 17 22 20 14 14
C
Control
Menadione
Menadione + NAC
Menadione + Vit E
High
Low
D
CellRox green staining (arbitrary fluorescence units)
8000
6000
4000
2000
0
Control
Menadione
Menadione + NAC
Menadione + Vitamin E
n = 75 75 75 50
E
- + NAC
kDa
55
AT8
100
Calnexin
55
Tyr-Tub
100
Calnexin
55
Ace-Tub
100
Calnexin
- + NAC
kDa
55
Tau 1
40
Actin
70
Complex II
100
Calnexin
55
ß-Tub
35
GAPDH
100
Calnexin
F
- + Vitamin E
kDa
55
AT8
100
Calnexin
55
Ace-Tub
100
Calnexin
55
Tyr-Tub
100
Calnexin
- + Vitamin E
kDa
55
Tau 1
40
Actin
70
Complex II
100
Calnexin
55
ß-Tub
35
GAPDH
100
Calnexin

Figure S7. Effects of antioxidants on ROS and tau levels

(A) Representative images of CellROX intensities, shown in pseudocolour, in the soma of neurons knocked down using control or *Afg3l2* specific siRNA oligonucleotides. Bar: 10 µm. (B) Boxplots showing CellROX intensities in three independent experiments (n = 14-22 neurons from each experiment). (C) Representative images of CellROX intensities, shown in pseudocolour, in the soma of neurons untreated, and treated with menadione, menadione and NAC, or menadione and vitamin E. Bar: 10 µm. (D) Boxplot showing CellROX intensities in one representative experiment (n = 50-75 neurons for each condition). (E) Western blots of murine primary cortical neurons grown in medium without and with NAC. Reduced levels of beta-tubulin, acetylated tubulin, tyrosinated tubulin, actin, tau, and phospho-tau are observed in NAC-treated neurons. (F) Western blots of murine primary cortical neurons grown in medium without and with vitamin E. Reduced level of phospho-tau is observed in vitamin E-treated neurons.