#### Supplemental Data

#### Supplemental Figure 1

A) ARPE-19 cell viability cells determined by representative by light microscopy (upper panel) MTT crystal (lower panel) pictures after treatment with different concentration of  $H_2O_2$  for 24 hours.

B) ARPE-19 cell viability cells determined by representative by light microscopy (upper panel) MTT crystal (lower panel) pictures after treatment with different concentration of tBHP for 24 hours.

#### Supplemental Figure 2

Light microscopy pictures showing morphological changes of ARPE-19 cells at 0, 4 and 8 hours after 300 M  $H_2O_2$  (A-C), 500 M  $H_2O_2$  (D-E) or 150 M tBHP (G-I) treatment.

#### Supplemental Figure 3

DAPI staining of ARPE-19 cell nuclei at 8 hours after 300 M or 500 M H<sub>2</sub>O<sub>2</sub>, or 150 M tBHP treatment (C-E). UV-irradiated Hela cells were used as positive control for apoptosis (B). Arrow marked apoptotic chromatin condensation and nuclear fragmentation in (B).

#### Supplemental Figure 4

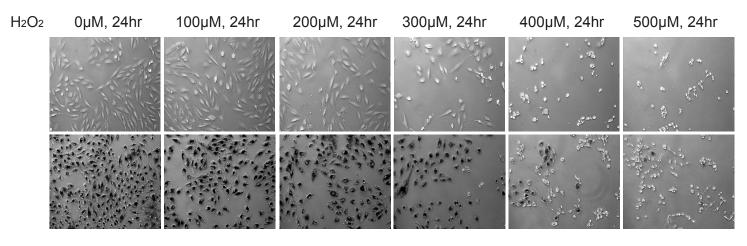
Rescue of Hela cell death in response to UV irradiation by z-VAD.

### Supplemental Figure 5

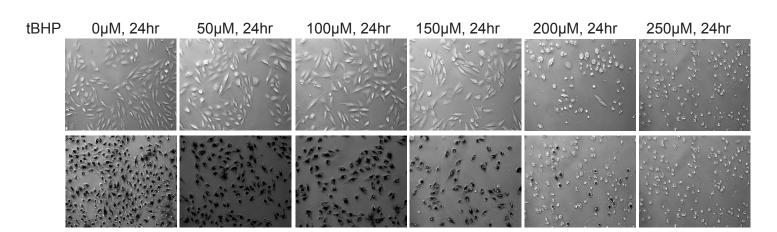
ARPE-19 cell survival in response to prolonged low oxidative stress. RPE cells were treated with 100-200 $\mu$ M H<sub>2</sub>O<sub>2</sub> or 75-100 $\mu$ M tBHP 2 hours/day for up to 4 days. Cell survival was measured by MTT assay.

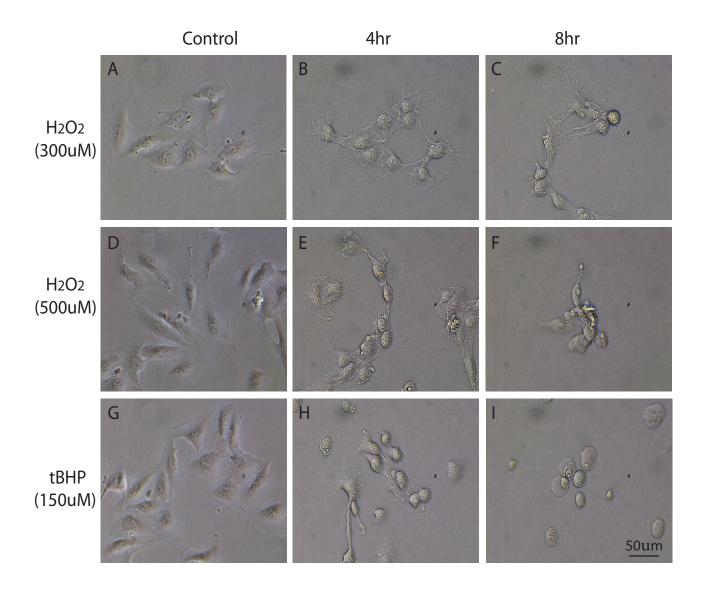
## Supplemental Figure 1

Α



В





# Supplemental Fig. 3

