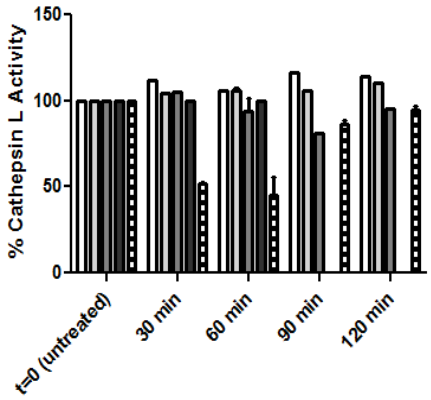
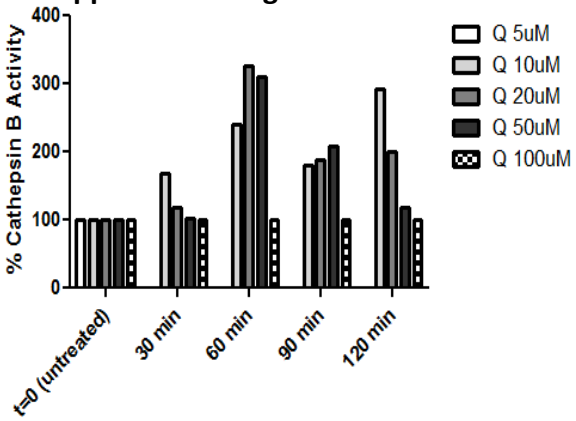
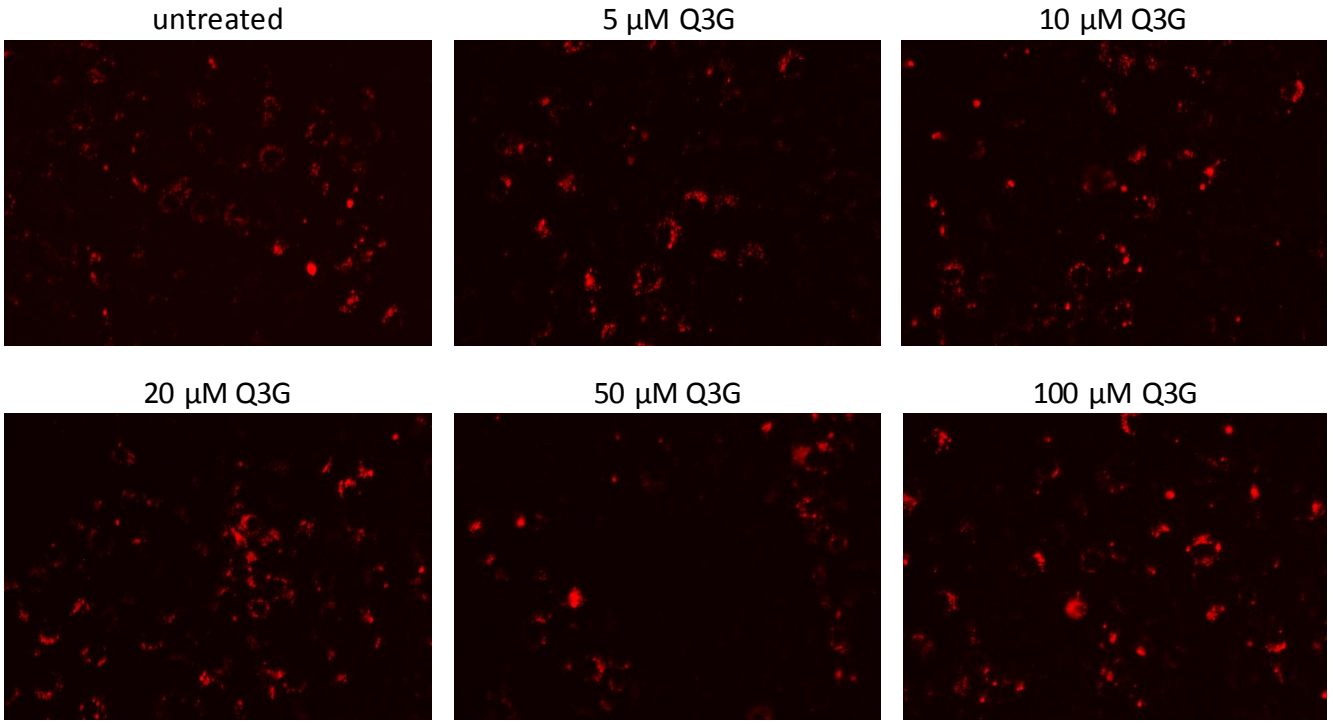
Supplemental Figure 1A



Supplemental Figure 1B



Supplemental Figure 2



Supplementary Figure Legends

Supplemental Figure 1: Effect of Q3G on cathepsin L or B activity: Vero E6 cells were incubated with Q3G, lysed for cytoplasmic proteins and incubated with a fluorescent cathepsin substrate. The amount of cleaved substrate via (A) Cathepsin L and (B) Cathepsin B was measured with a fluorescent plate reader. All experiments were done in triplicate.

Supplemental Figure 2: Effect of Q3G on lysosomal pH: Vero E6 cells were grown to 85% confluence, treated with a range of doses of Q3G (0-100 µM) for 1 hour and stained with 100 nM Lysotracker for 30 minutes at 37°C. Live images were taken with an EVOS microscope at 10X magnification. All experiments were performed in duplicate.

Supplementary Methods

Effect of Q3G on the activity of cathepsins B and L

Vero E6 cells were grown to 95% confluence and treated with a range of doses of Q3G (0-100 µM) for 1 hour and assessed for cathepsin B and L activity using the Cathepsin Activity Assay (Abcam) kits and following the manufacturer's instructions.

Effect of Q3G on acidification of lysosomes

Vero E6 cells were grown to 85% confluence, treated with a range of doses of Q3G (0-100 µM) for 1 hour and stained with 100 nM Lysotracker Red DND-99 (ThermoFisher Scientific) for 30 minutes at 37°C. Live images were taken with an EVOS microscope at 10X magnification.