

Figure S1. Effect of TG on the viability and apoptosis of HPDE6-C7 cells. HPDE6-C7 cells were treated with TG (0.5, 1.0, 2.5, 5.0 and 10 mM) for 24 h. (A) Inverted biological microscopy was used to analyze morphological changes (x100 magnification). (B) Cell viability was determined using the CCK-8 assay. \*\* $P < 0.01$ , \*\*\* $P < 0.001$  vs. control. (C) Changes in cell nuclei stained with DAPI under a fluorescence microscope (x200 magnification). The experiments were repeated at least three times. Data are presented as the mean  $\pm$  standard deviation. TG, triglycerides.

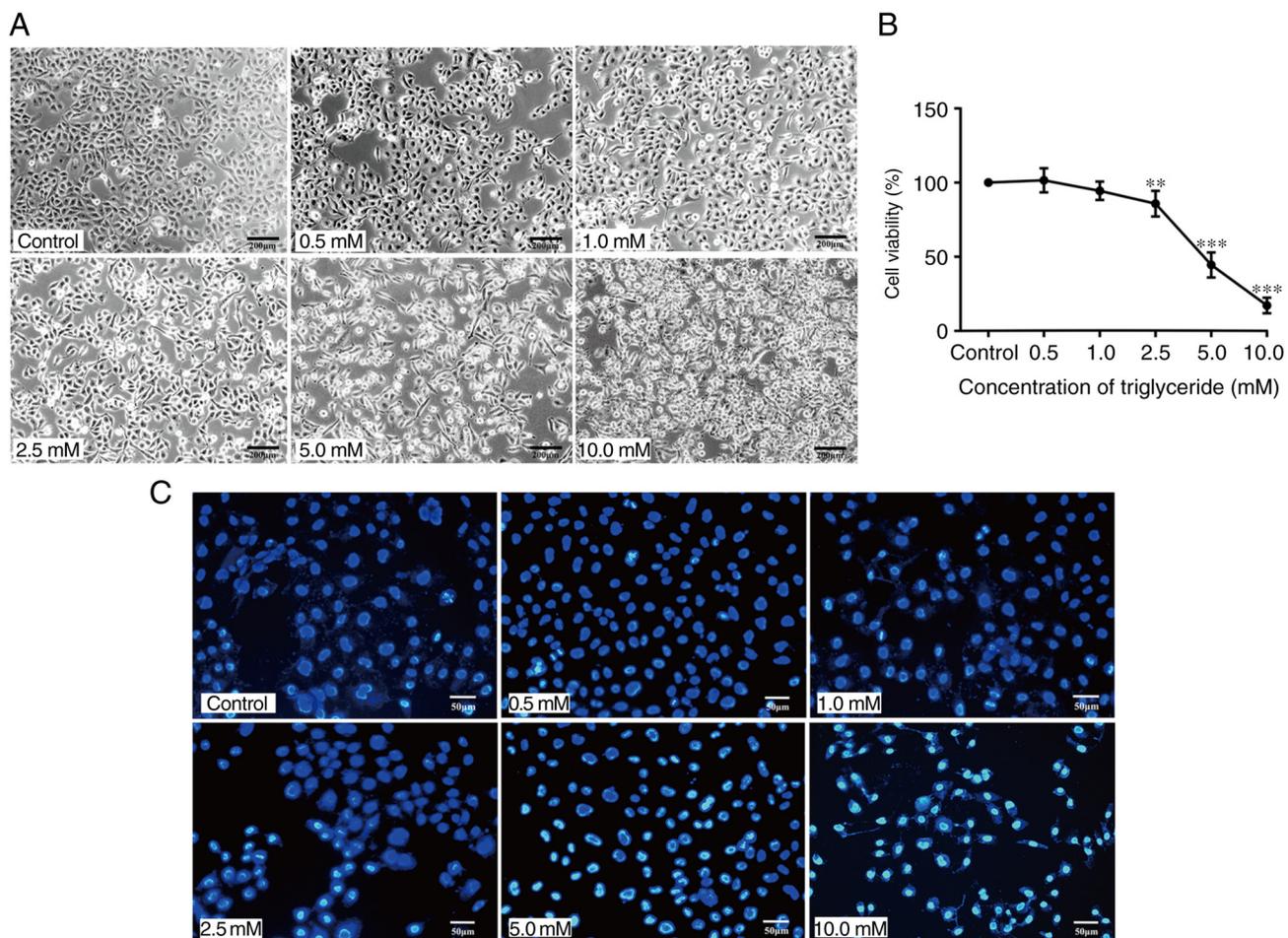


Figure S2. Ultrastructure of TJs in HPDE6-C7 cells treated with CAE and TG. HPDE6-C7 cells were treated with TG (2.5 mM), CAE (100 nM) or TG + CAE for 24 h. Ultrastructure of TJs was analyzed by transmission electron microscopy (x80,000 magnification, red arrows indicate TJs). The experiments were repeated at least three times. CAE, caerulein; TG, triglycerides; TJ, tight junction.

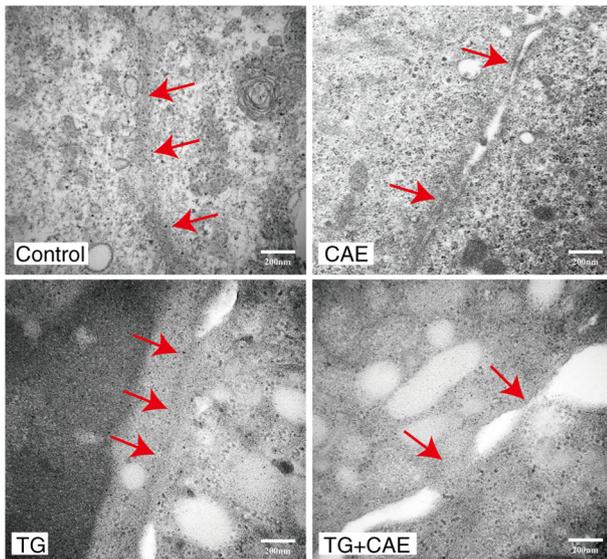


Figure S3. Time-dependent assessment of the effects of CAE on GSN expression, actin filaments and apoptosis in HPDE6-C7 cells. HPDE6-C7 cells were treated with CAE (100 nM) for 6, 12, 24 and 48 h. (A) Changes in cell nuclei stained with DAPI under a fluorescence microscope (x200 magnification). (B) Western blotting and (C) semi-quantification of GSN protein expression. (D) Changes in actin filaments, as determined by tetramethyl rhodamine isothiocyanate-phalloidin immunofluorescence under an upright fluorescence microscope (x1,000 magnification, white arrows indicate actin filaments). The experiments were repeated at least three times. Data are presented as the mean  $\pm$  standard deviation. \* $P$ <0.05, \*\* $P$ <0.01. CAE, caerulein; GSN, gelsolin.

