

SUPPORTING INFORMATION

The use of TAT peptide functionalized graphene as a highly nuclear-targeting carrier system for suppression of choroidal melanoma

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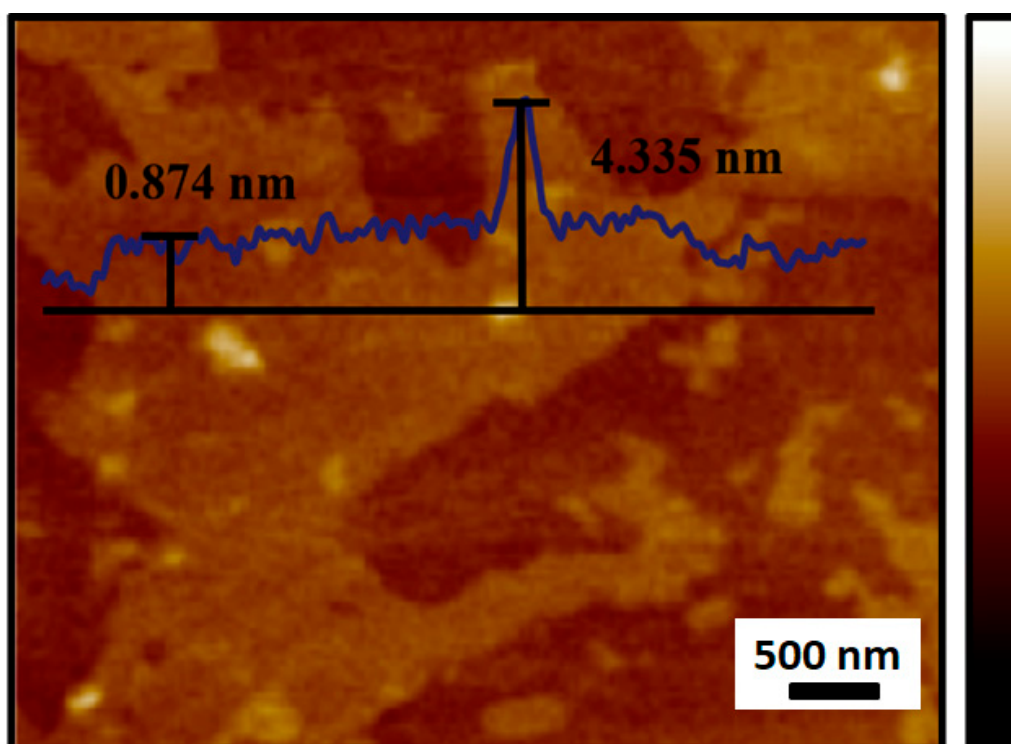


Figure S1. AFM micrograph of the as-prepared MMC-TG.

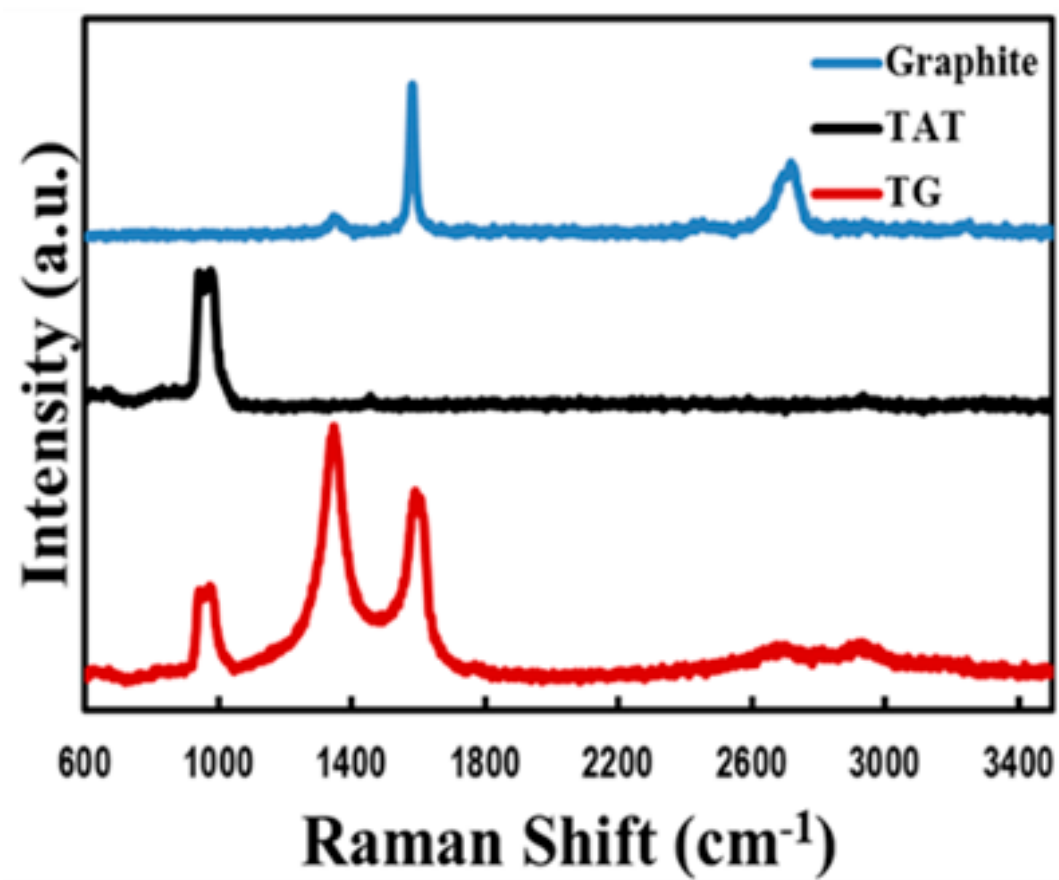


Figure S2. Raman spectra of (a) the pristine graphite, (b) the pristine TAT, and (c) the obtained TG.

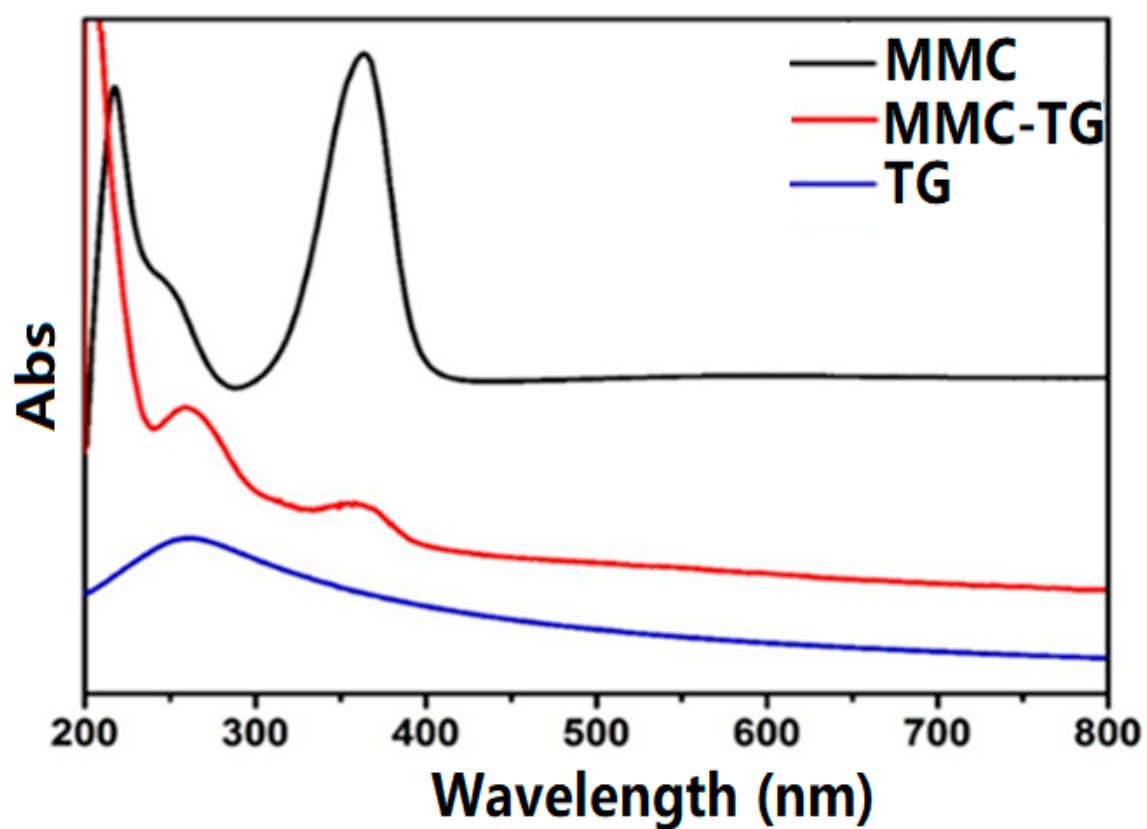


Figure S3. UV-vis spectra of (a) the pristine MMC, (b) the as-synthesized MMC-TG, and (c) TG.

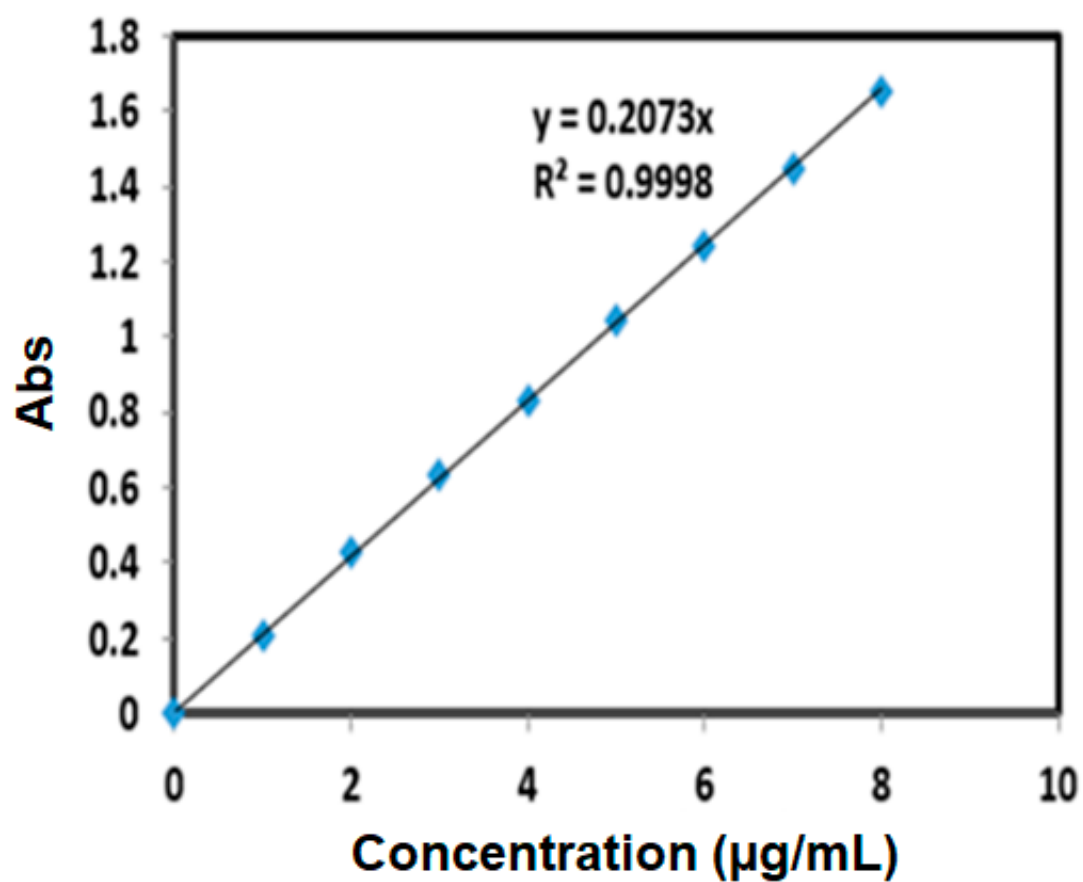


Figure S4. The standard curve of the UV absorption intensity at 363 nm vs the MMC concentration.

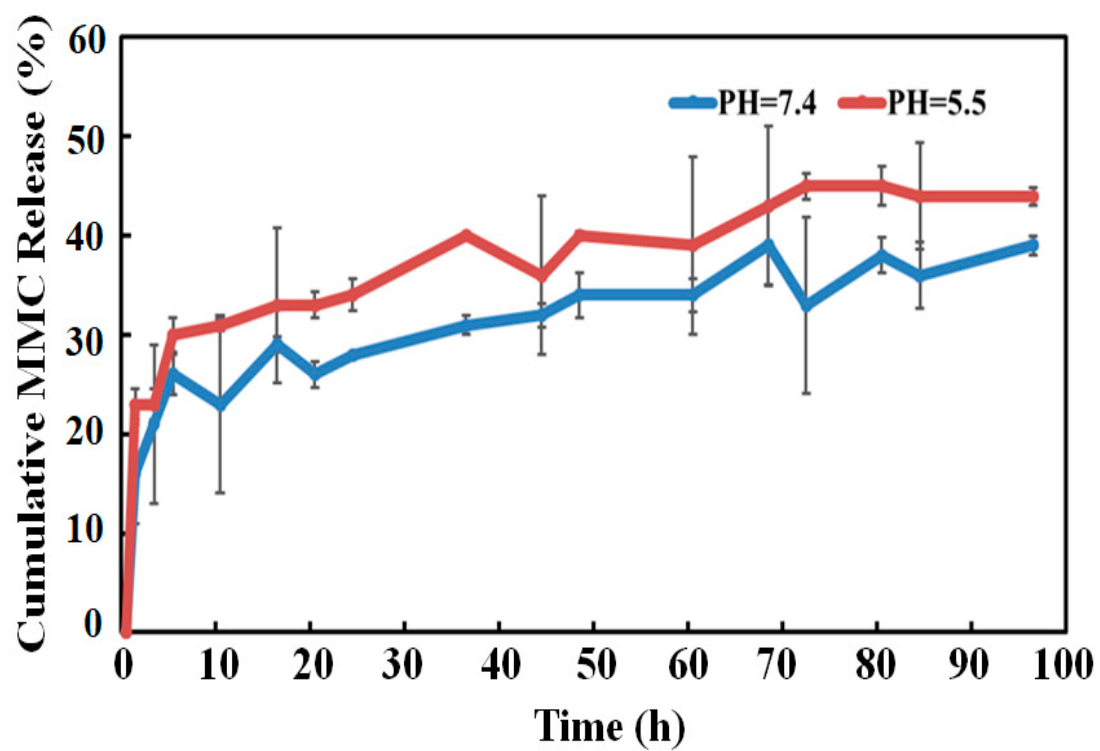


Figure S5. The typical release of MMC from the MMC-TG nanodrug in PBS solutions set at different pH values.

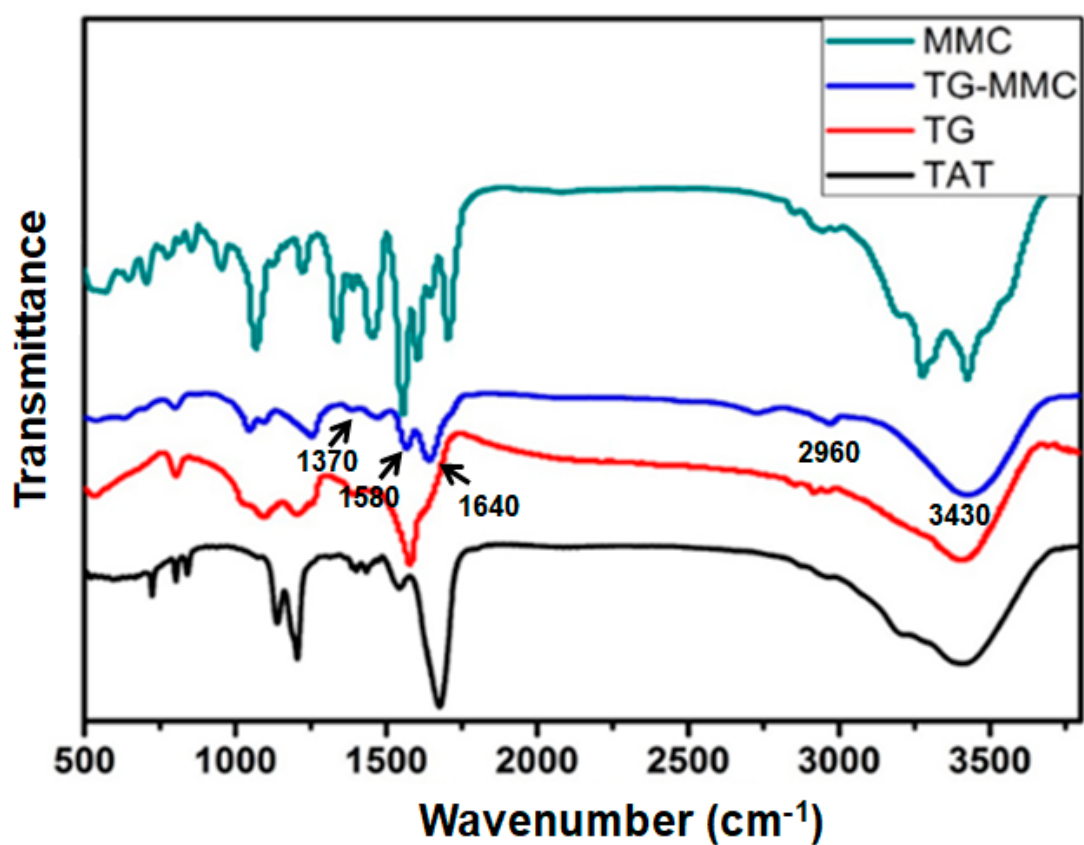


Figure S6. FTIR spectra of (a) the pristine MMC, (b) the prepared MMC-TG, (c) the synthesized TG, and (d) the pristine TAT.

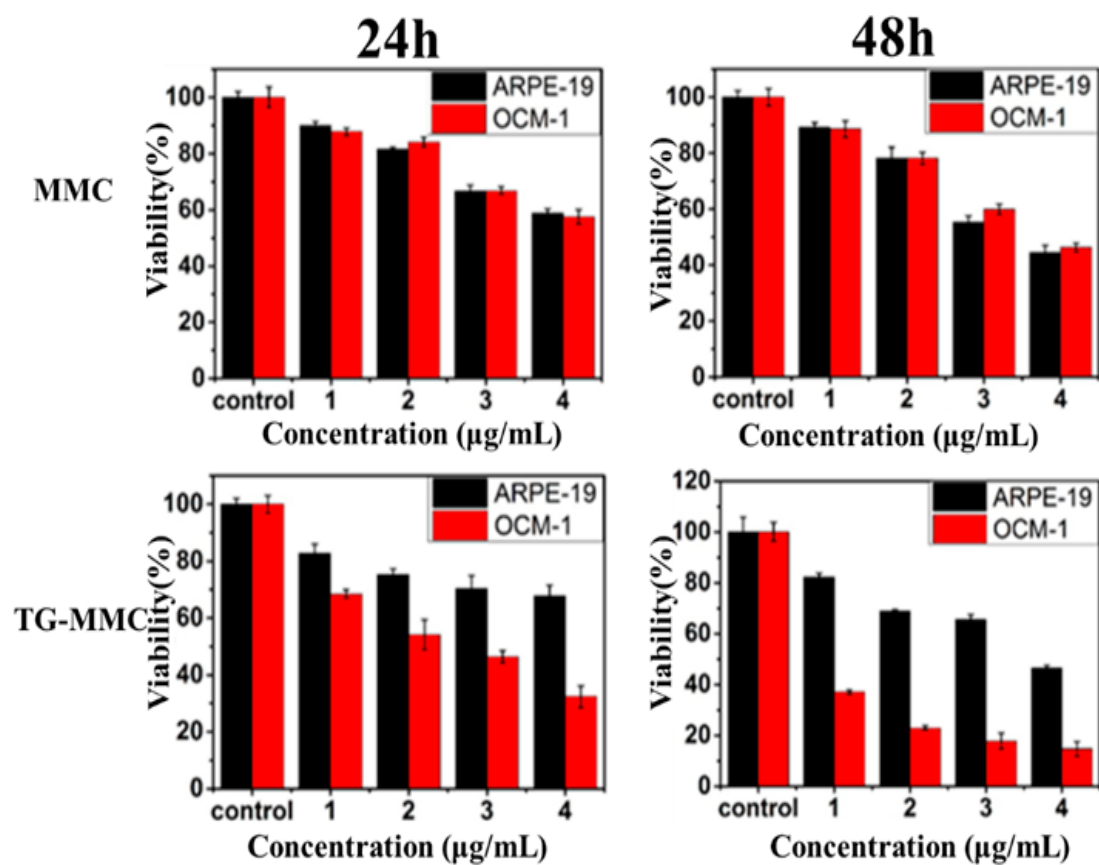


Figure S7. The cell viability of ARPE-19 and OCM-1 cells after being treated with MMC and MMC-TG over 24 and 48 hrs, respectively.

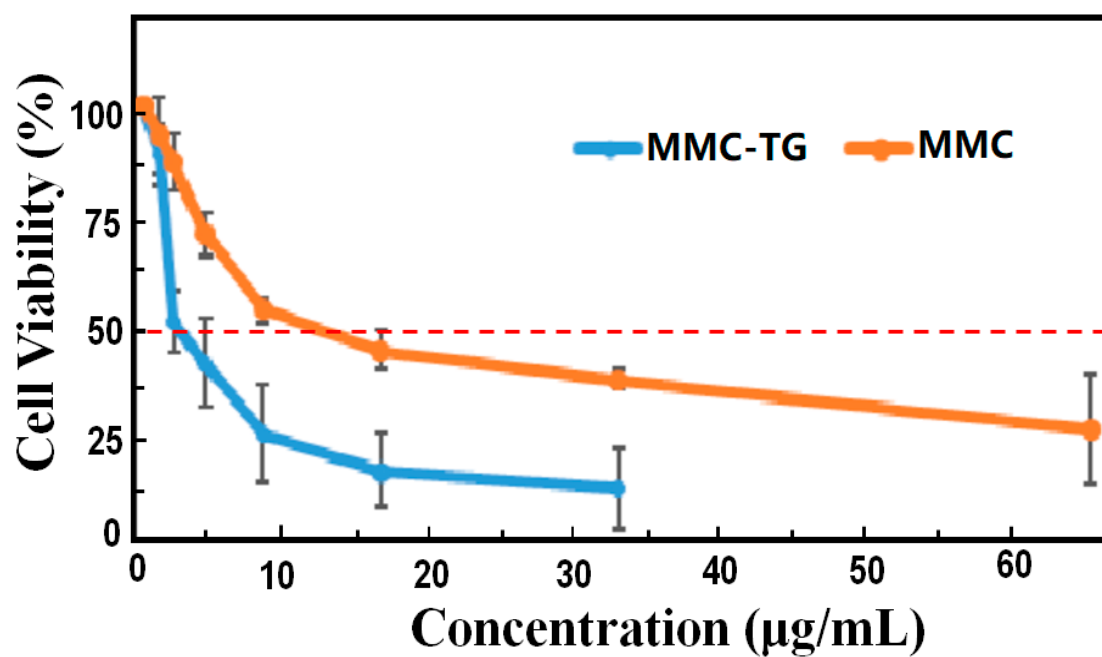


Figure S8. Cell viability of OCM-1 cells after being treated with the MMC-TG nanodrug compared to the pristine MMC at various concentrations.

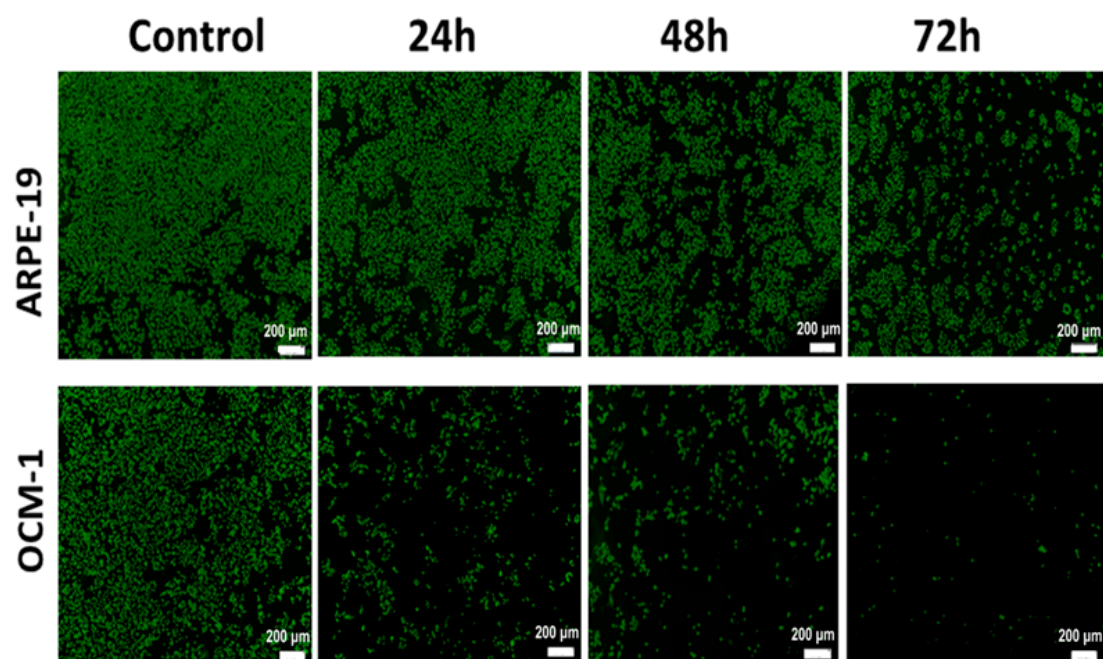


Figure S9. Fluorescence micrographs of various cells stained by Calcein-AM dyes and incubated with MMC-TG over 24, 48 and 72 hrs.

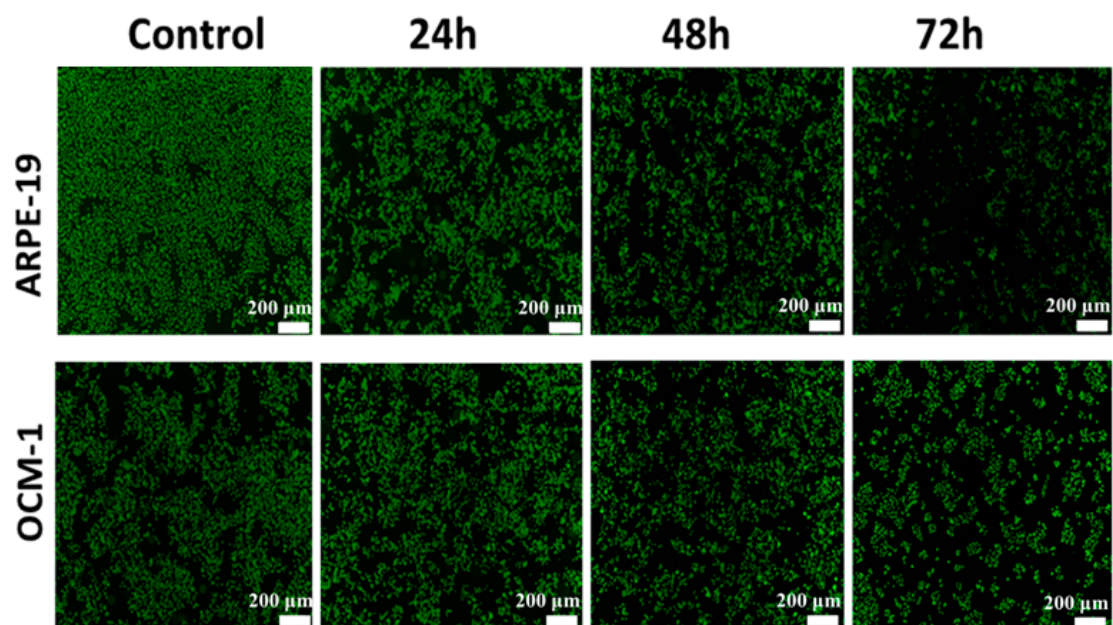


Figure S10. Fluorescence micrographs of different cells stained by Calceim-AM dyes and incubated with MMC over 24, 48, and 72 hrs.

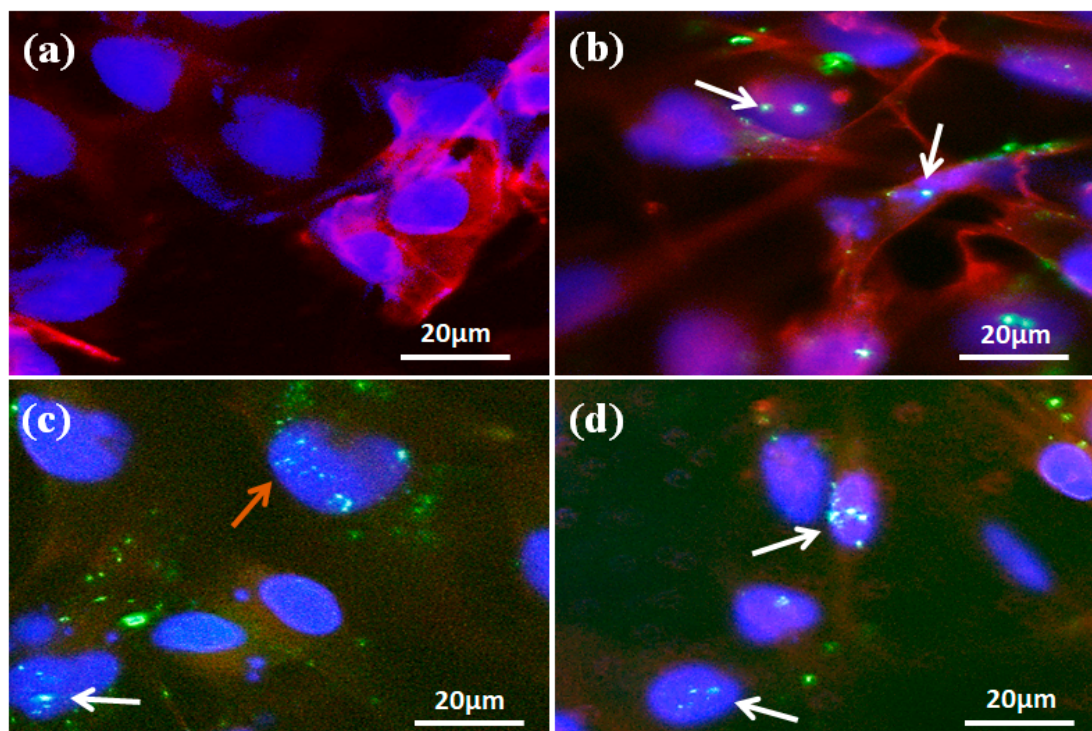


Figure S11. Confocal laser scanning microscopy images of OCM-1 cells marked by Texas Red TM-X phalloidin (red color, cytoplasm) and DAPI (blue color, nucleus) after incubation with TG stained with FITC (green color) over various periods. (a) The control, (b) 24 hrs, (c) 48 hrs, and (d) 72 hrs. Arrows indicate the presence of TG inside the cell nuclei.