

Supporting Information

Mesenchymal Stem Cell Membrane-Coated TPCS_{2a}-Loaded Nanoparticles for Breast Cancer Photodynamic Therapy

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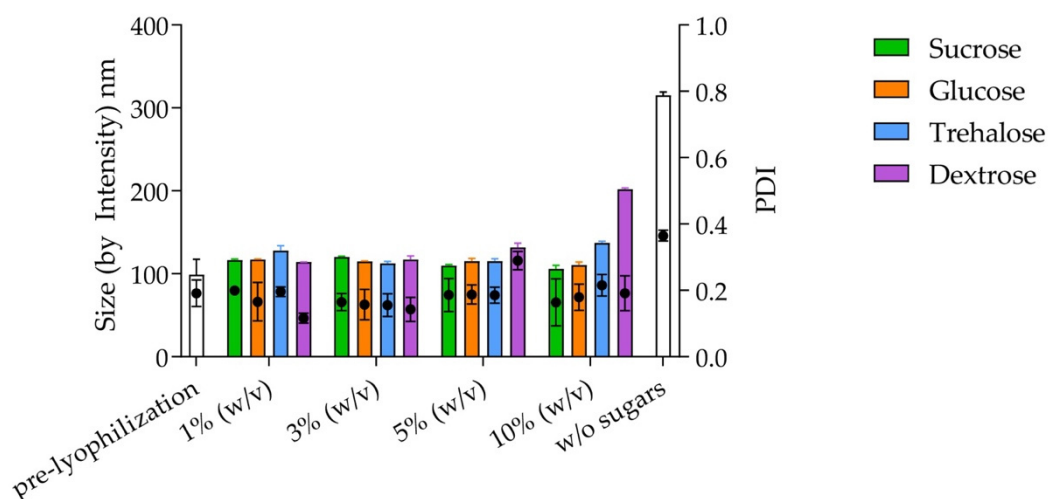


Figure S1. Lyophilization studies. Size (expressed by Intensity) and PDI of TPCS_{2a}@NPs re-suspended in water after freeze-drying with different percentages (w/v) of sucrose, glucose, trehalose and dextrose as cryoprotectants measured by dynamic light scattering (DLS).

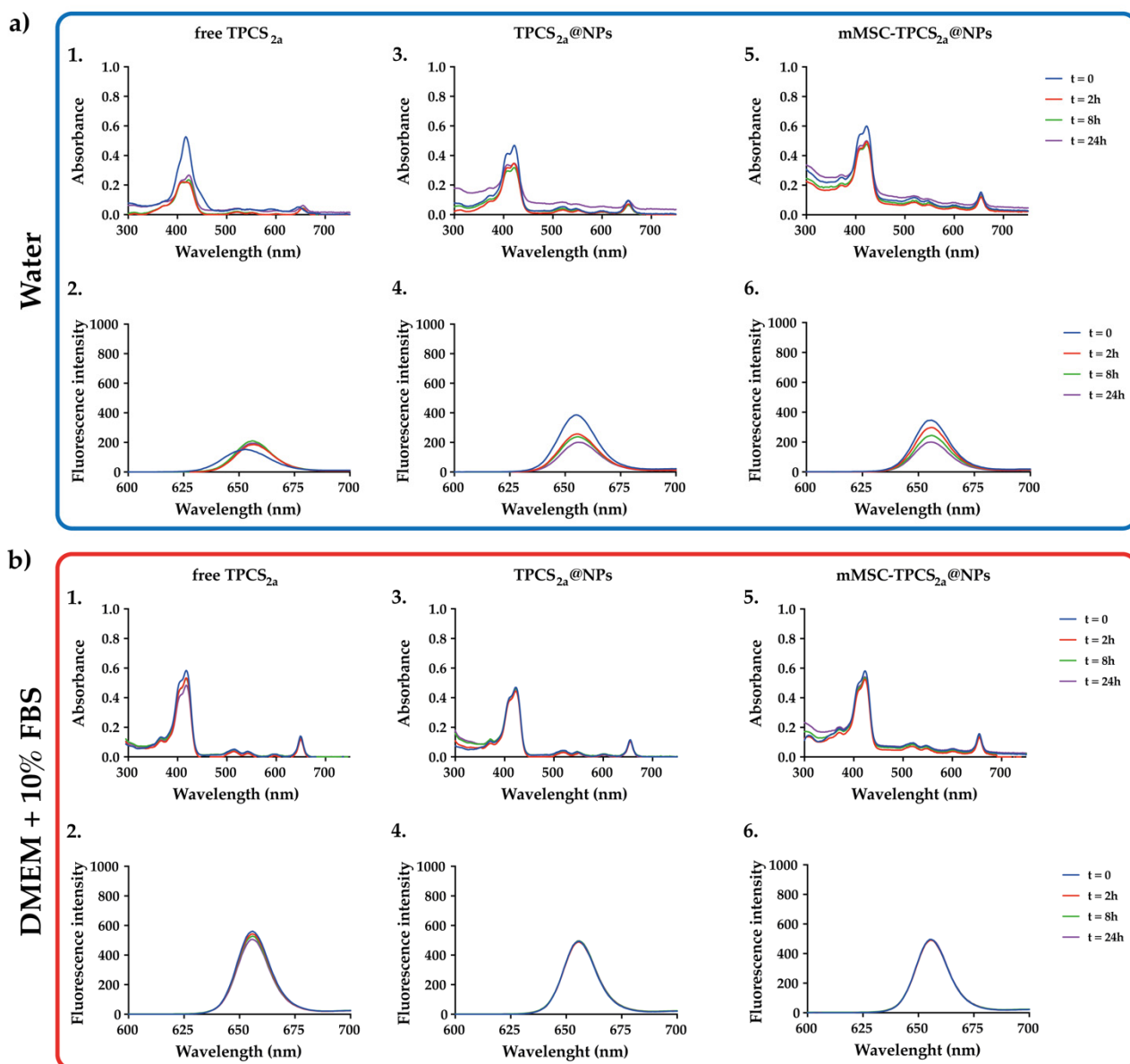


Figure S2. Absorption and fluorescence spectra of TPCS_{2a} formulations in different solvents. Absorption and fluorescence spectra of TPCS_{2a} in the free form (1,2), TPCS_{2a}@NPs (3,4) and mMSC-TPCS_{2a}@NPs (5,6) in H₂O (a) and DMEM + 10 % of FBS (b). Spectra were acquired at time 0 (■) and after 2 (■), 8 (■) and 24 h (■) of incubation at 37 °C.

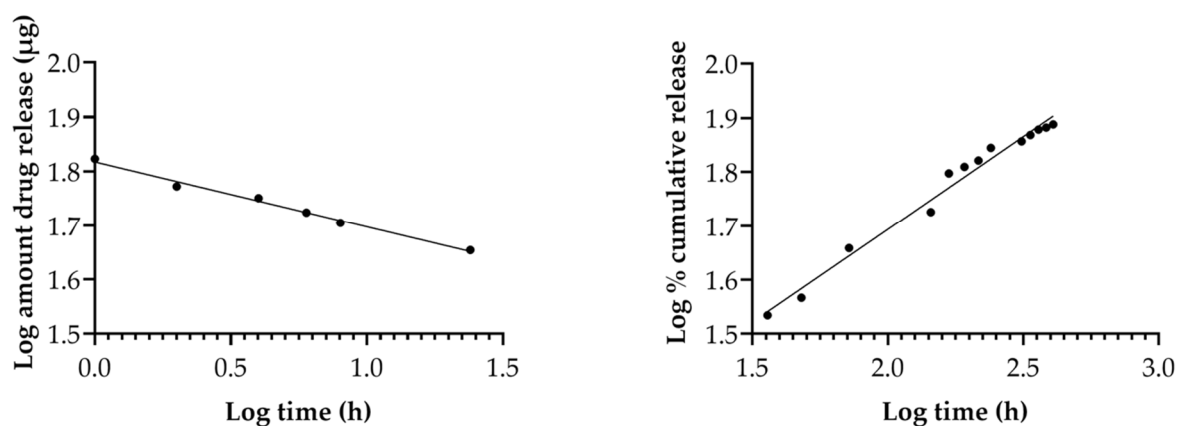


Figure S3. Drug release kinetic plot from TPCS_{2a}@NPs. Weibull plot for the first 24 h is displayed on the left panel and Korsmeyer-Peppas plot for the following 16 days is displayed on the right panel.

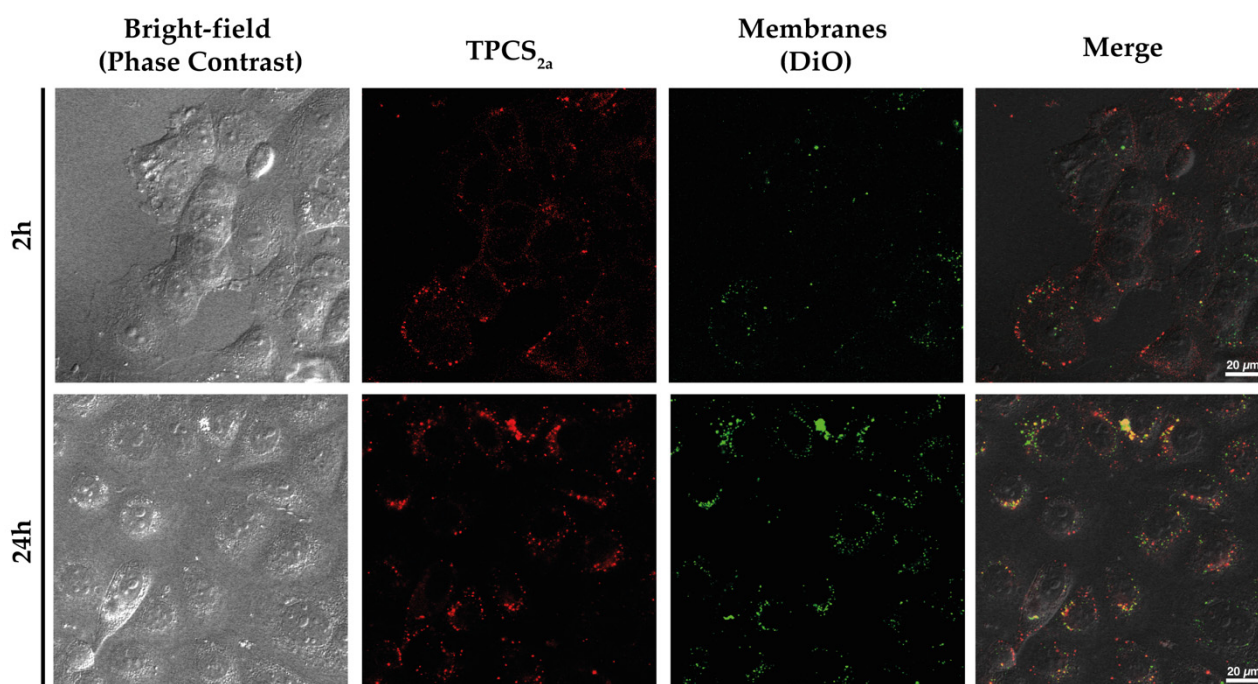


Figure S4. Endocytosis of mMSC-TPCS_{2a}@NPs. Confocal microscopy images of MCF7 cells incubated for 2 or 24 h with 1 μM of TPCS_{2a}@NPs or mMSC-TPCS_{2a}@NPs showing co-localization of TPCS_{2a} (red) and DiO-labeled MSC membranes (green) covering the NPs. Scale bars: 20 μm.