

Supporting Information

An Injectable Hybrid Hydrogel Based on Genetically Engineered Polypeptide for Second Near-infrared Fluorescence/Photoacoustic Imaging-monitored Sustained Chemo-photothermal Therapy

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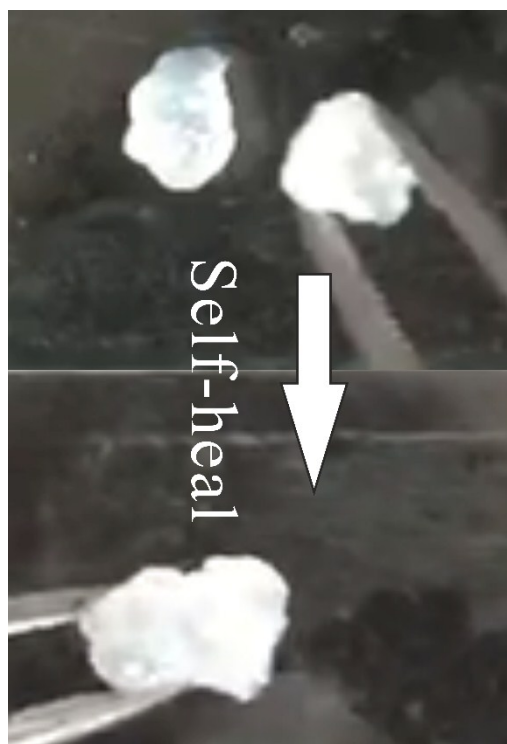


Figure S1. The photograph of self-healing PC₁₀A hydrogels.

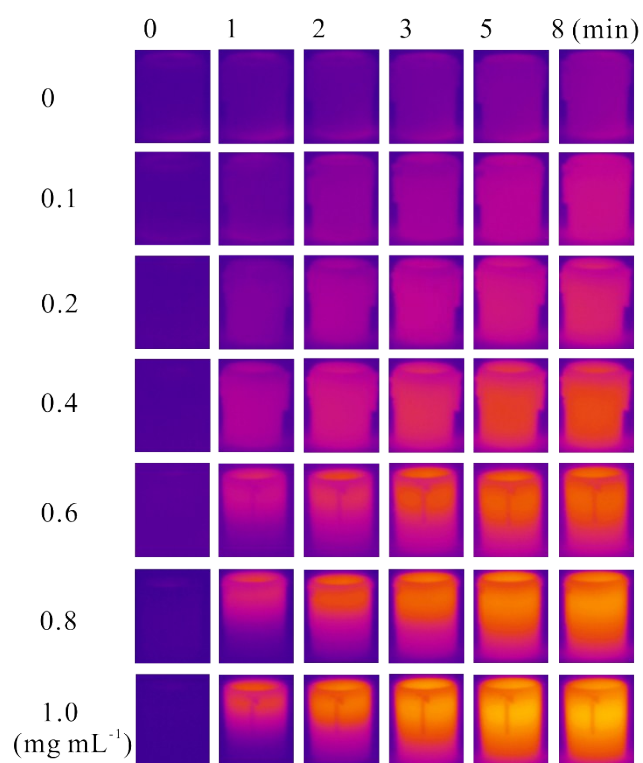


Figure S2. Thermal imaging of PC₁₀A/Ag₂S QD/PTX hydrogels (PC₁₀A: 3% w/w, PTX: 200 $\mu\text{g mL}^{-1}$) with different concentrations of Ag₂S QD (0, 0.1, 0.2, 0.4, 0.6, 0.8, and 1 mg mL^{-1}) under irradiation with an 808 nm laser for 8 min (2.5 W cm^{-2}).

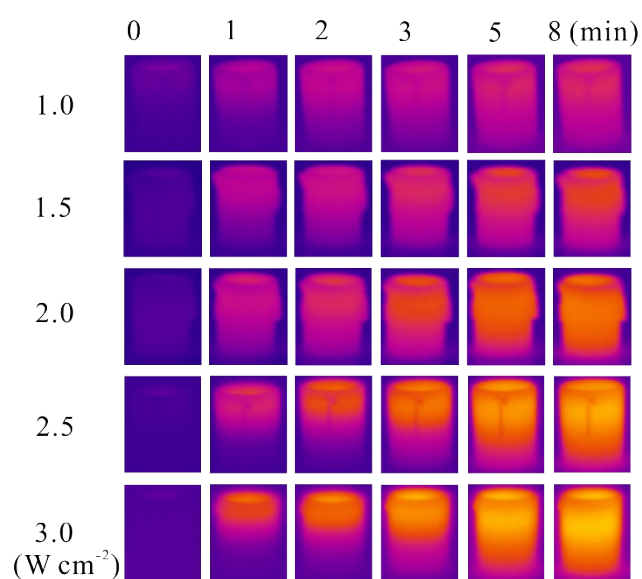


Figure S3. Thermal imaging of PC₁₀A/Ag₂S QD/PTX hydrogels (PC₁₀A: 3% w/w, Ag₂S QD: 1 mg mL⁻¹, PTX: 200 μg mL⁻¹) with different power densities.

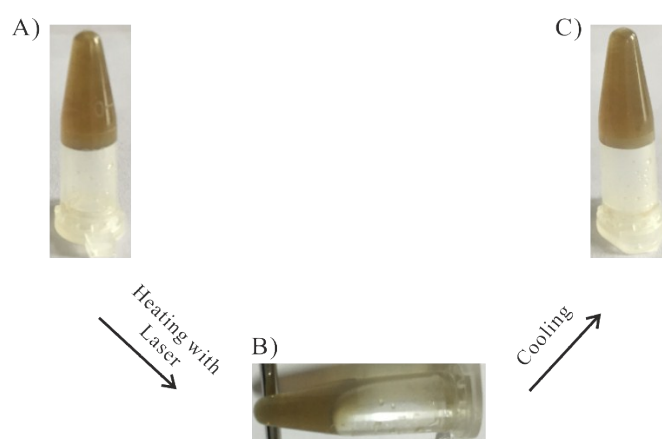


Figure S4. (A) PC₁₀A/Ag₂S QD/PTX hydrogel (PC₁₀A: 3% w/w, Ag₂S QD: 1 mg mL⁻¹, PTX: 200 μg mL⁻¹) was exposed with an 808 nm laser at a power density of 2.5 W cm⁻² for 8 min (B) and cooling down under room temperature (C).

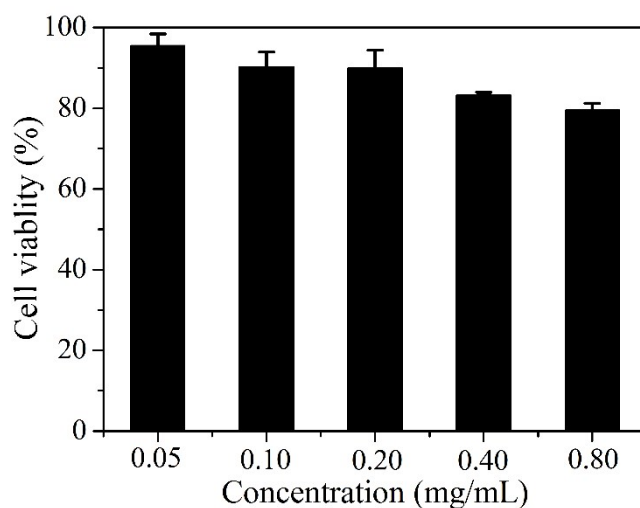


Figure S5. The cell viability of SKOV3 cells incubation with different concentrations of PC₁₀A nanogels.

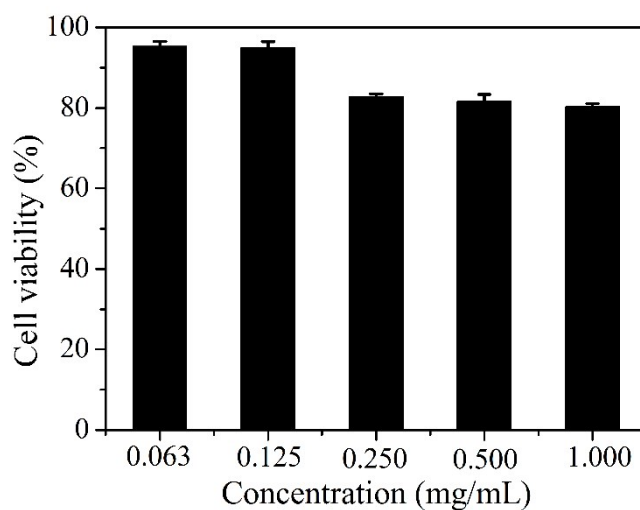


Figure S6. The cell viability of SKOV3 cells incubation with different concentrations of PC₁₀A/Ag₂S QD (PC₁₀A: 0.1%; Ag₂S QD: 1, 0.5, 0.25, 0.125, and 0.063 mg mL⁻¹) nanogels.

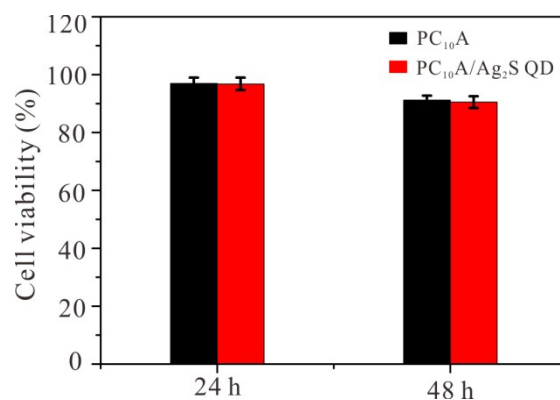


Figure S7. The cell viability of SKOV3 cells incubated in PC₁₀A hydrogel and PC₁₀A/Ag₂S QD hydrogel.

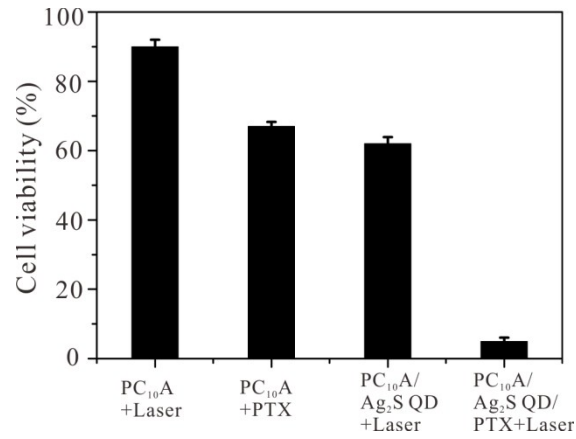


Figure S8. The cell viability of SKOV3 cells suffer from different treatments.

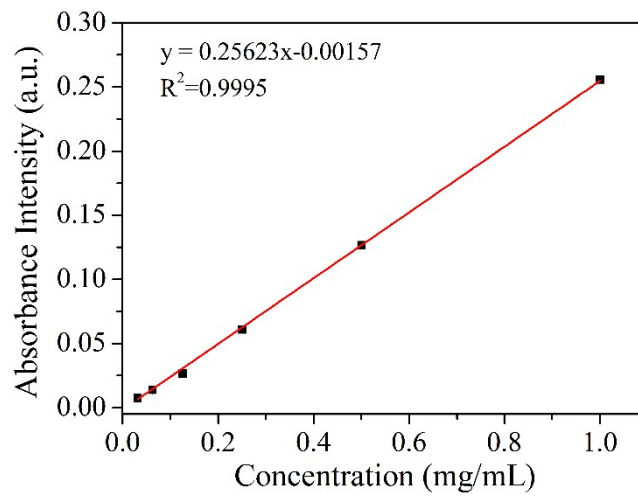


Figure S9. Standard curve of PC₁₀A nanogel measured with absorption spectrum at 278 nm.

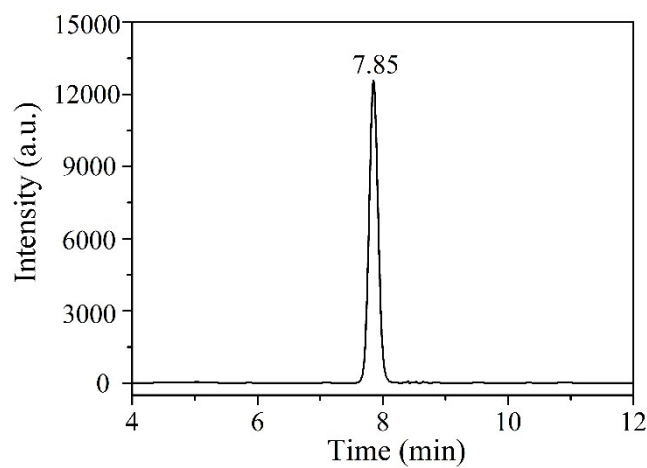


Figure S10. PTX analysis through high performance liquid chromatography (HPLC) at the absorption of 227 nm.

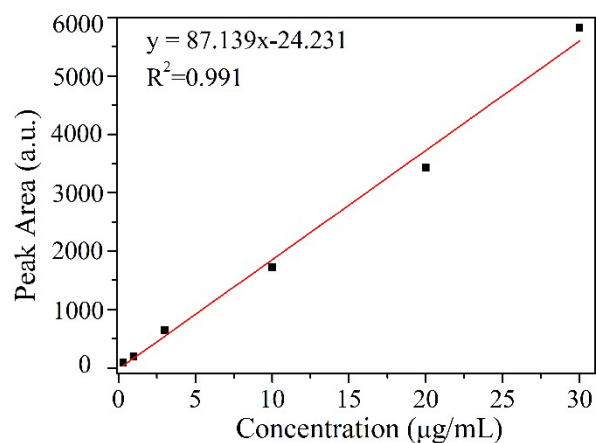


Figure S11. Standard curve of PTX measured by HPLC.

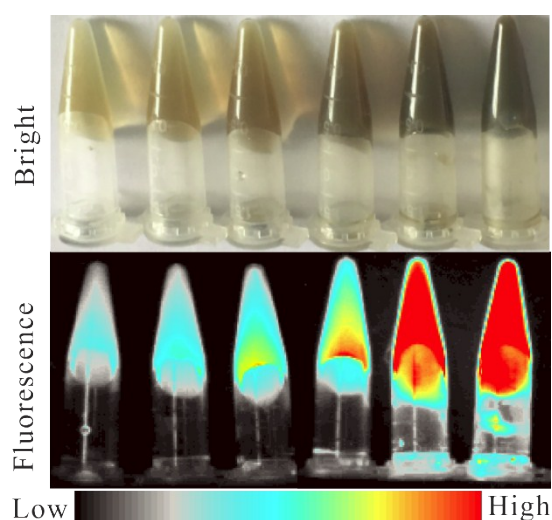


Figure S12. The fluorescence intensity of PC₁₀A/Ag₂S QD/PTX hydrogels contained different concentrations of Ag₂S QD (left to right: 20, 40, 60, 80, 100, and 120 µg mL⁻¹).

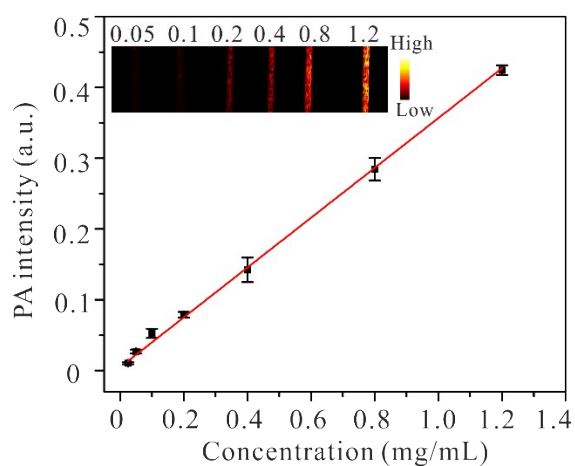


Figure S13. The linear relationship between PA signal intensity and PC₁₀A/Ag₂S QD (PC₁₀A: 0.1% w/w, Ag₂S QD: 1.2, 0.8, 0.4, 0.2, 0.1, and 0.05 mg mL⁻¹, PTX: 200 µg mL⁻¹).