Electronic Supplementary Material (ESI) for Biomaterials Science.

Supporting Information

A Biocompatible Nano-Barium Sulfonate System for Quad-modal, Imaging-guided Photothermal Radiotherapy of Tumors

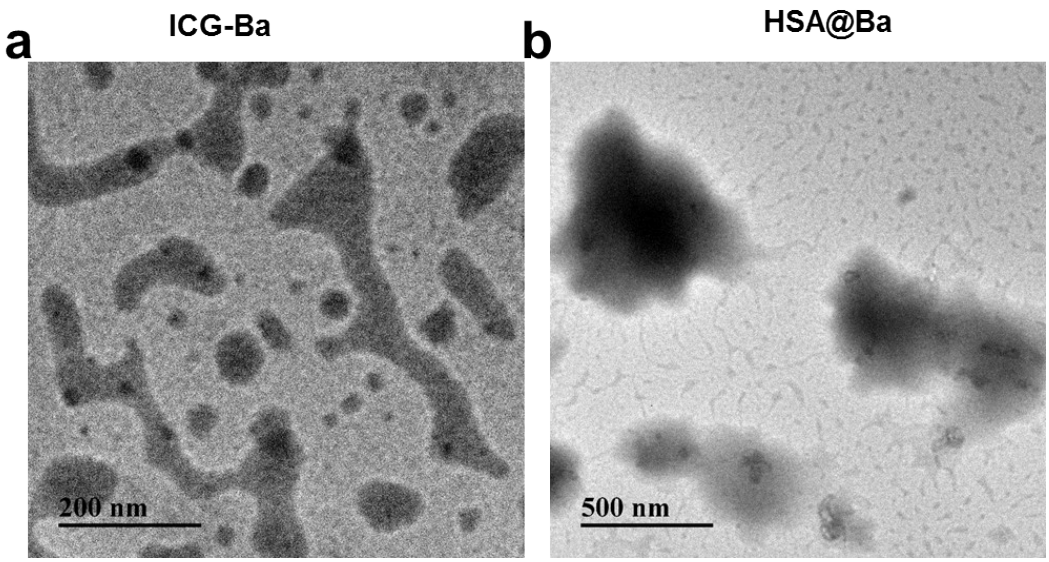

Figure S1 TEM images of (a) ICG-Ba and (b) HSA@Ba.

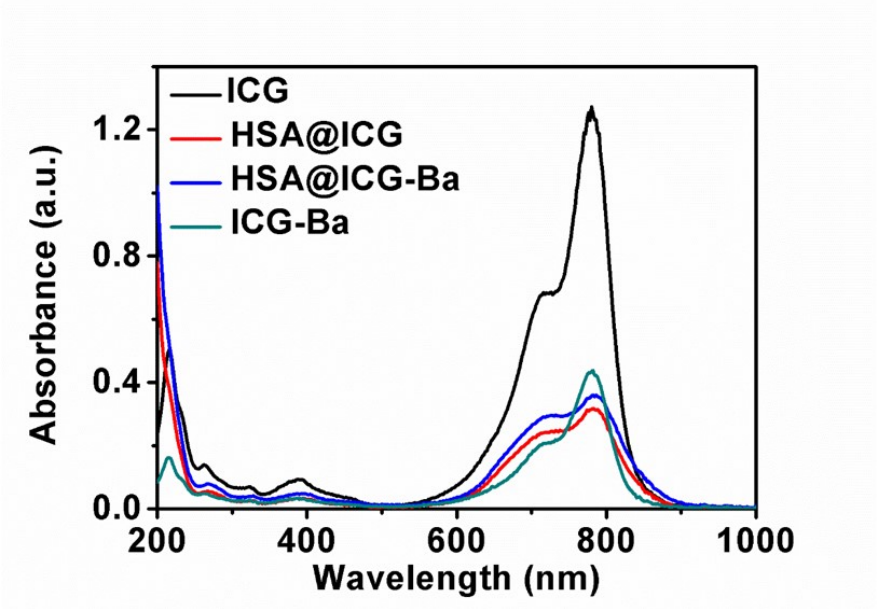

Figure S2 UV-vis-NIR spectra of free ICG, HSA@ICG and HSA@ICG-Ba nanoparticles and ICG-Ba.

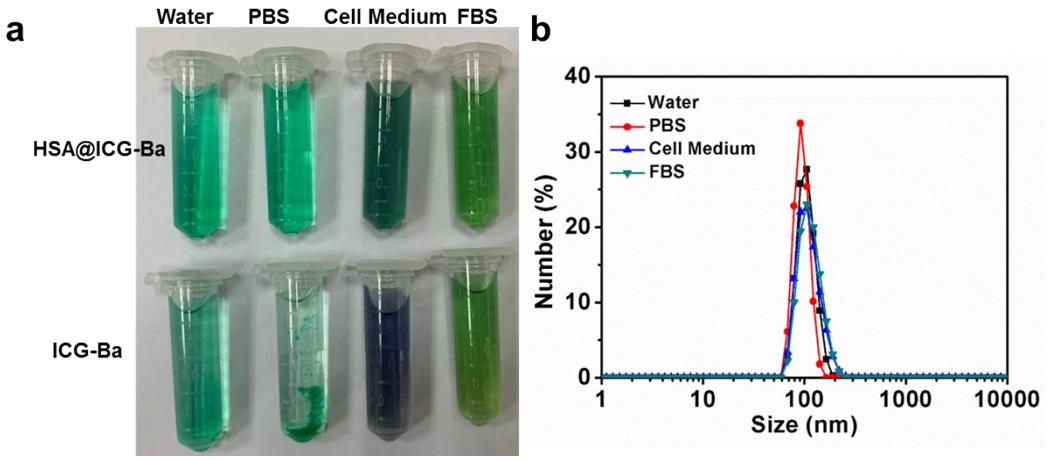

Figure S3 (a) A photo of HSA@ICG-Ba and ICG-Ba in different solutions including water, PBS, cell culture medium and FBS. (b) Hydrodynamic diameters of HSA@ICG-Ba in PBS, cell culture medium and FBS solution.

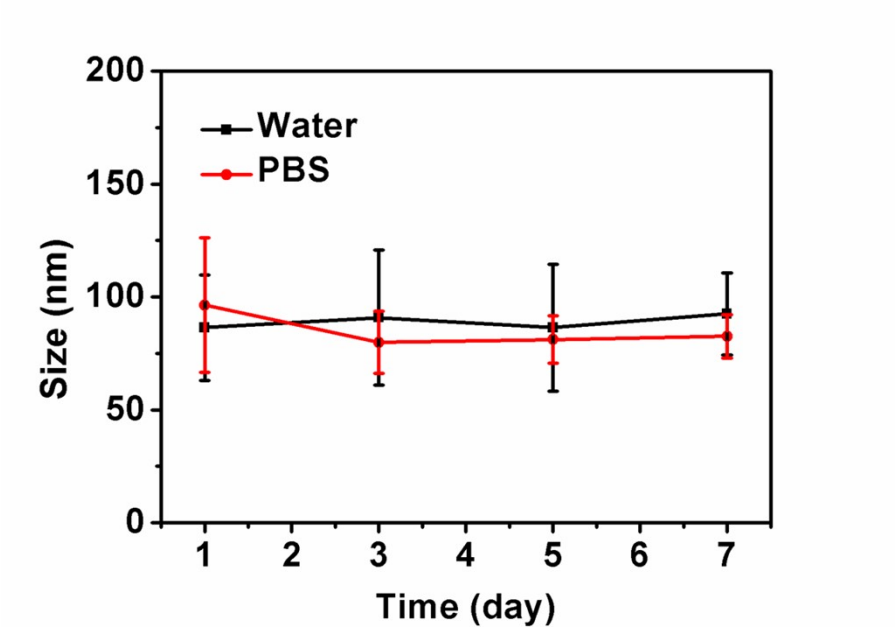

Figure S4 The averaged hydrodynamic diameters of HSA@ICG-Ba in water or PBS in one week.

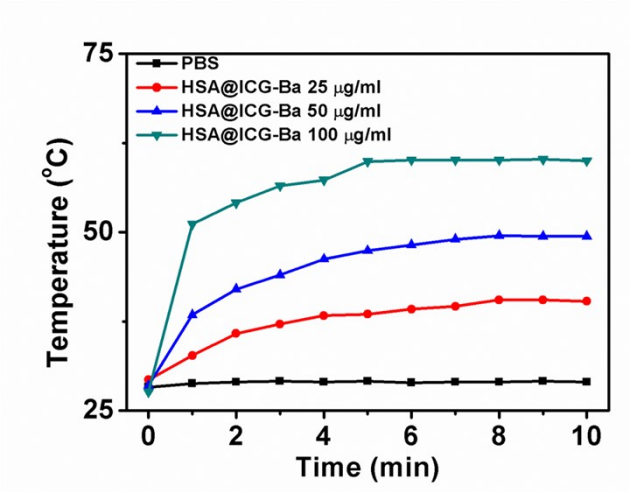

Figure S5 The temperature change of the different concentrations of HSA@ICG-Ba under 808 nm laser irradiation at the power density of 0.5 W/cm^2.

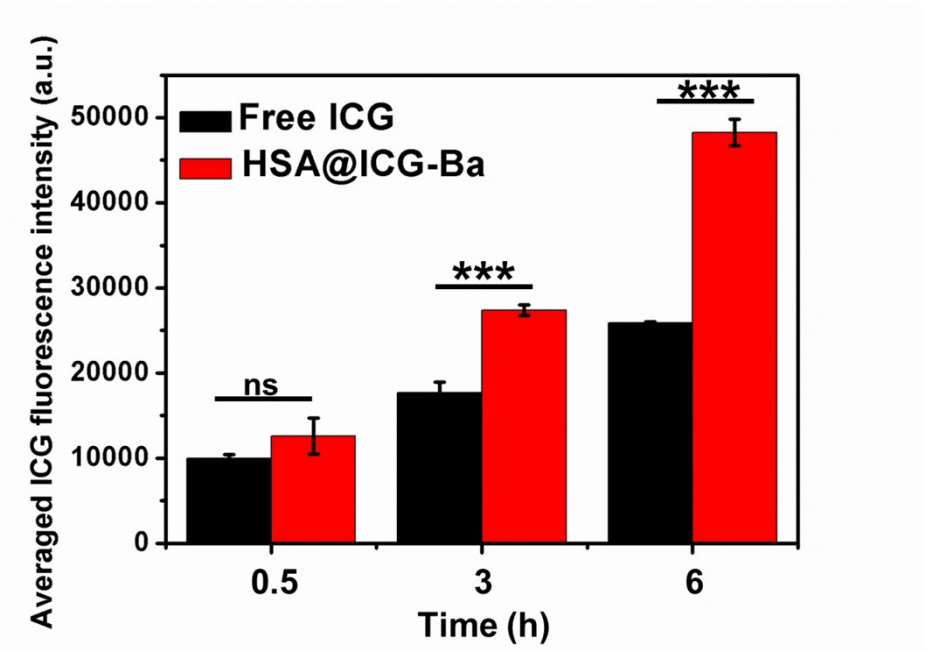

Figure S6 The cellular uptake of ICG in the cells incubated with free ICG or HSA@ICG-Ba for different times. Data are presented as the mean ± SD from representative experiments. *P< 0.05, **P < 0.01, ***P < 0.001 analysed by Student's t-test.

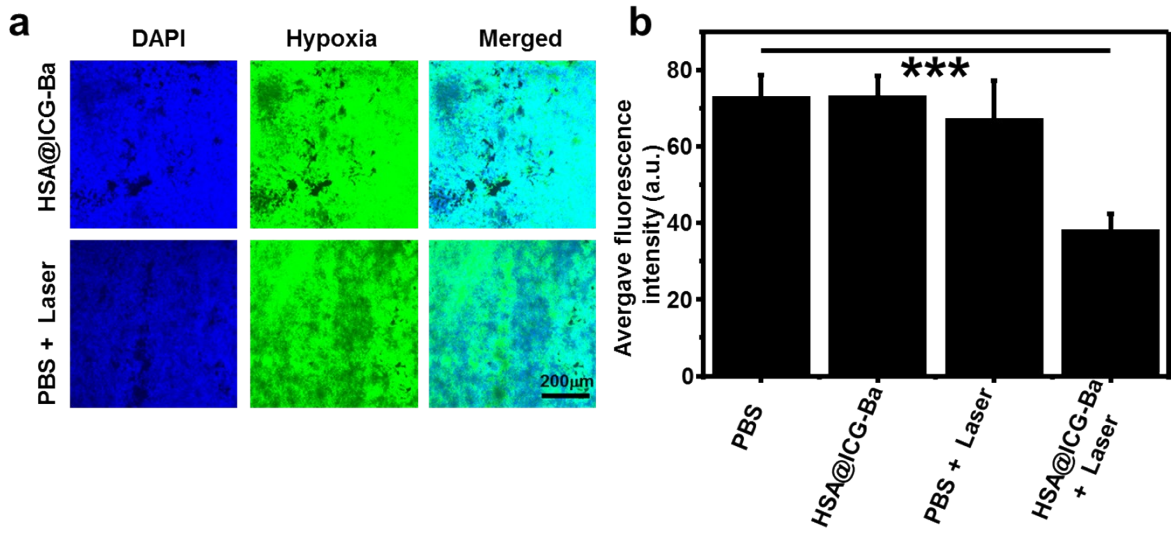

Figure S7 (a) Hypoxyprobe (pimonidazole) immunofluorescent staining assay of tumor slices from mice subjected to HSA@ICG-Ba injection or 808-nm laser irradiation. (b) Quantitative analysis of the hypoxic immunofluorescence imaging intensity in the tumor slices.

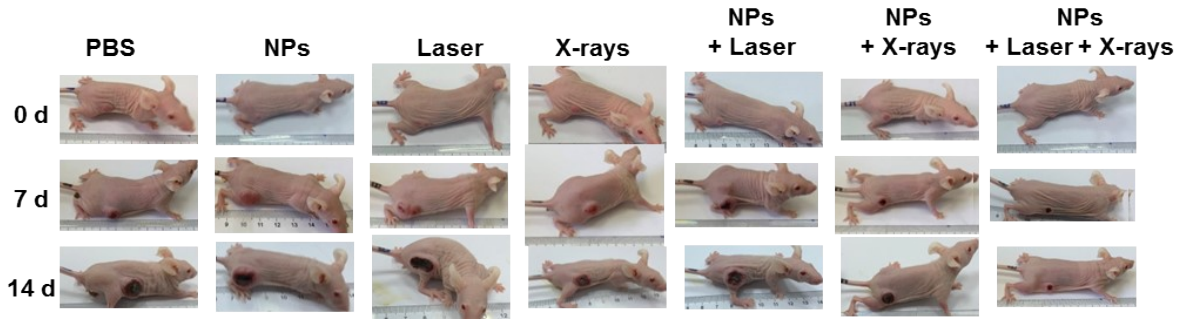

Figure S8 Representative digital photos of 4T1 solid tumor-bearing mice after different treatments at designated days (0 d, 7 d, 14 d) using the different treatments indicated.