

Supporting Information

Natural-origin Hypocrellin-HSA Assembly for Highly Efficient NIR Light-responsive Phototheranostics against Hypoxic Tumors

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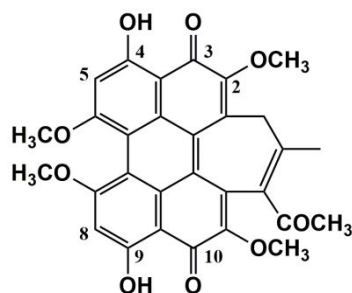


Figure S1. Schematic diagram of HB response sites.

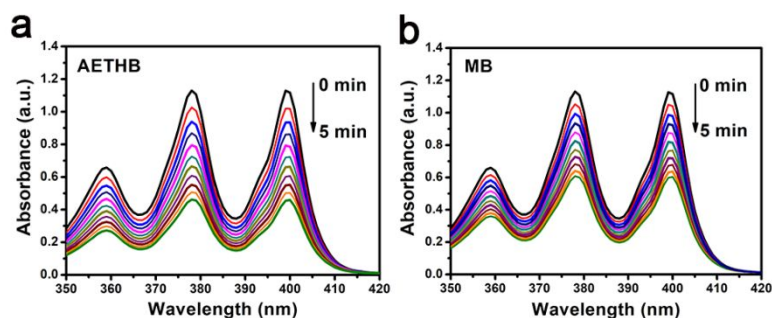


Figure S2. Photodegradation of ADPA with (a) **AETHB** and (b) MB under 671 nm laser irradiation (0.1 W cm^{-2}).

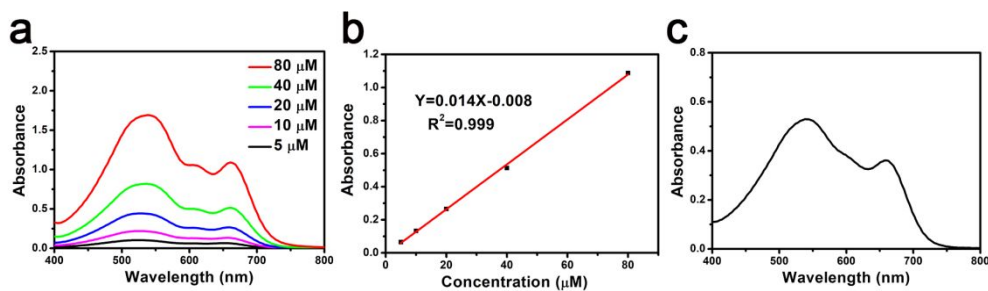


Figure S3. (a) UV-vis absorption spectra of **AETHB** in different concentrations. (b) Absorption calibration curve of **AETHB** at 660 nm. (c) The absorption value of **HSA-AETHB NPs** at 660 nm for the calculation of loading efficiency.

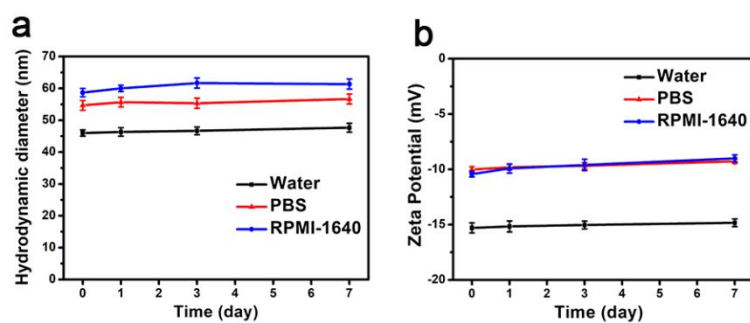


Figure S4. (a) The DLS stability of **HSA-AETHB NPs** for 0, 1, 3, and 7 days in water media (black line), PBS media (red line) and RPMI-1640 culture (blue line). (b) Zeta potential stability of **HSA-AETHB NPs** for 0, 1, 3, and 7 days in water media (black line), PBS media (red line) and RPMI-1640 culture (blue line).

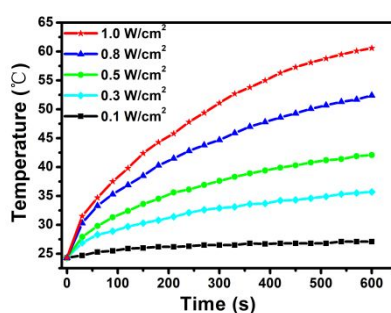


Figure S5. Temperature elevation of **HSA-AETHB NPs** (OD value: 0.2) under 671 nm laser irradiation with different laser power dose (0.1, 0.3, 0.5, 0.8 and 1.0 W cm⁻², respectively).

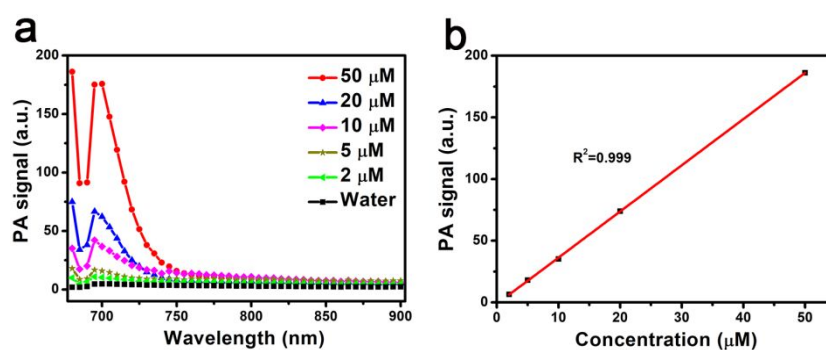


Figure S6. (a) PA signals of **HSA-AETHB NPs** with different concentrations (0, 2, 5, 10, 20, and 50 μM, respectively). (b) The linear relationship between the intensity of PA signal and the concentration of **HSA-AETHB NPs**.

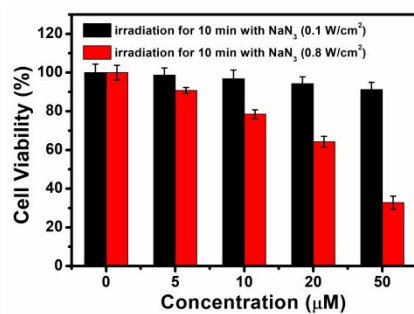


Figure S7. Relative viability of 4T1 cells incubated with different concentrations of **HSA-AETHB NPs** for 4 h and then irradiated 671 nm laser in the presence of 10 mM NaN_3 (0.1 W cm^{-2} or 0.8 W cm^{-2} , 10 min).

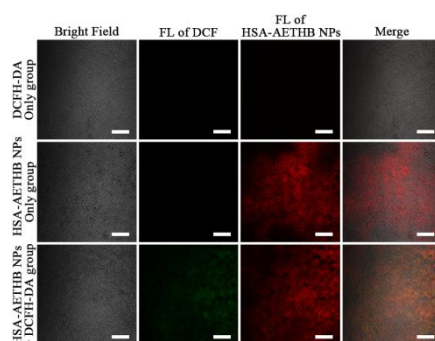


Figure S8. Intratumor ROS production after i.v. injection of **HSA-AETHB NPs** by fluorescence images of 4T1 tumor sections at 4 h. ROS intensity (green) was detected by intratumor injection of DCFH-DA. Scale bar is 200 μm .

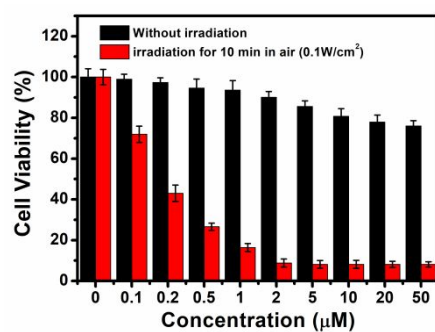


Figure S9. Relative viability of 4T1 cells incubated with different concentrations of **AETHB** for 4 h and then irradiated with and without 671 nm laser in air (0.1 W cm^{-2} , 10 min).

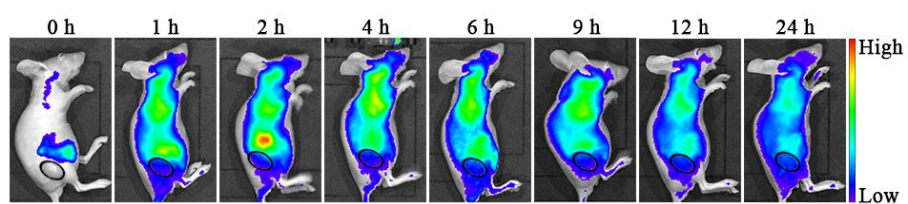


Figure S10. Real-time FL imaging of tumor sites after i.v. injection of **AETHB** in nude mice at different time points (0, 1, 2, 4, 6, 9, 12 and 24 h).

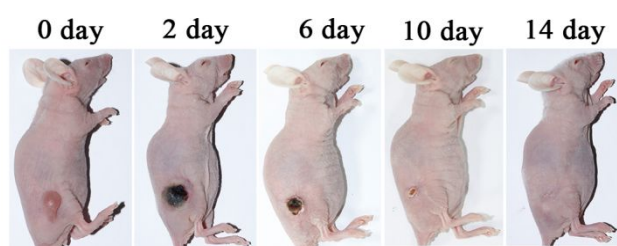


Figure S11. Photographs of the mice of PDT/PTT group on different days after treatment.