Hybrid Photosensitizer Based on Amphiphilic Block Copolymer Stabilized Silver Nanoparticles for Highly Efficient Photodynamic Inactivation of Bacteria

Supplementary Information



Scheme 1. (a) Synthesis of macro-CTA; (b) copolymerization with styrene using this macro-CTA and subsequent reduction reaction.



Figure S1. ¹H NMR spectrum of poly(*N*-isopropylacrylamide)



Figure S2. ¹H NMR spectrum of poly(*N*-isopropylacrylamide-*b*-styrene).



Figure S3. (a) UV-Vis absorption spectra of a series of HP solutions $(1 - 10 \,\mu\text{M})$; (b) Calibration curve of HP solutions; (c) HP leakage test for 5 days.



Figure S4. (a) Fluorescence emission spectra of pristine HP; (b) Fluorescence intensity (at 627 nm) vs. [HP]; (c) Fluorescence emission spectra of AgNP@PNIPAAm-styrene@HP; (d) Fluorescence intensity (at 627 nm) vs. [HP in hybrids].



Figure S5. PDI efficacy of AgNP@BCP, pristine HP, and AgNP@BCP@HP against *S. epidermidis* (ATCC 35984) (a-c) and *E. coli* (ATCC 35218) (d-f) under white light illumination. PDI efficacy of AgNP@BCP, pristine HP, and AgNP@BCP@HP against *S. epidermidis* (ATCC 35984) (g-i) and *E. coli* (ATCC 35218) (j-l) under red/NIR illumination.



Figure S6. Absorption spectrum of the bandpass filter (Edmund Optics #84-903) used in the red/NIR illumination experiment.