Supporting Information

Gold Nanocages Covered with Thermally-responsive Polymers for Controlled Release by High-intensity Focused Ultrasound**

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Figure S1. (A) $^1$H-NMR and (B) quantitative $^{13}$C NMR spectra of the as-prepared poly(NIPAAm-co-AAm) copolymers.
Figure S2. The LCST measured spectrophotometrically, with the solution being heated at a rate of 1.0 °C/min. The measurement was conducted in water (black line) and PBS buffer solution (red line), respectively. The temperature at 90% light transmittance (at 600 nm) of the original polymer solution was defined as the LCST.
**Figure S3.** UV-vis extinction spectra of an aqueous suspension of Au nanocages before (dashed line) and after functionalization with poly(NIPAAm-co-AAm) copolymers (solid line).
Figure S4. UV-vis absorption spectra taken from the supernatant immediately after preparation of the dye-loaded nanocages (black line) and after the sample had been heated at 37 °C for 48 h (red line).
**Figure S5.** Photograph showing the white spot, indicated by the white arrow, on the bottom surface of the petri dish after HIFU irradiation at a power of 15 W for 5 seconds.