

Supplementary information

¹³¹I-labeled gold nanoframeworks for radiotherapy-combined second near-infrared photothermal therapy of cancer

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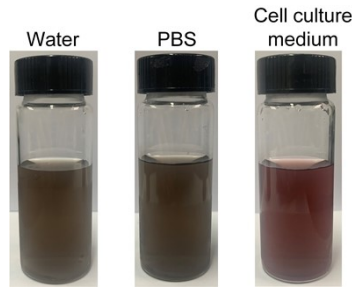


Fig. S1. Photographs of AuNFs after storage in water, PBS and cell culture medium for 7 days.

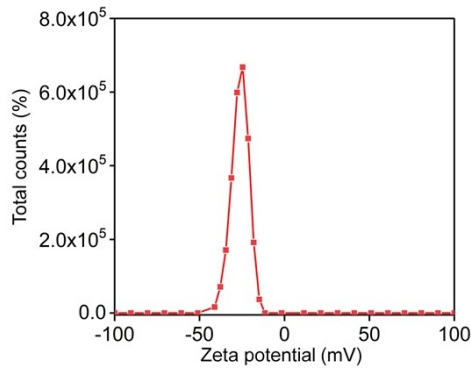


Fig. S2. Zeta potential of AuNFs dispersed in aqueous solution.

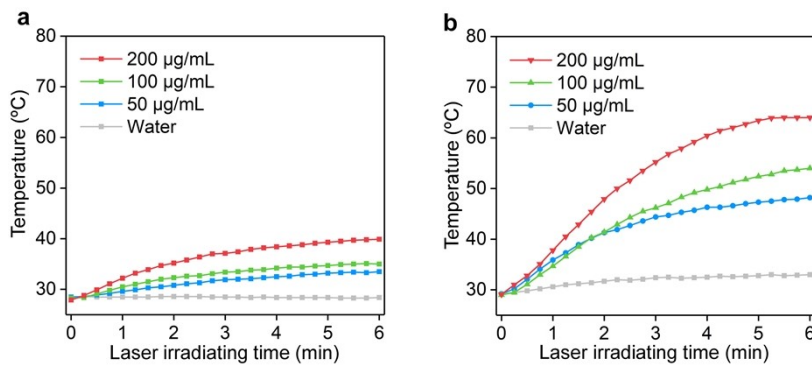


Fig. S3. Temperature curves of water and aqueous solution of AuNFs at Au concentration of 50, 100, and 200 µg/mL under 1064 nm laser irradiation at the power density of 0.3 W/cm² (a) and 1.3 W/cm² (b) for different time..

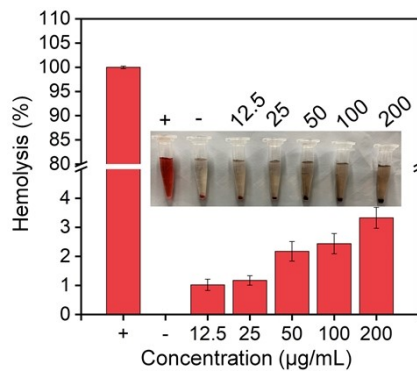


Fig. S4. Hemolysis assay of mouse blood red cells after incubation with water (positive control), PBS (negative control), and AuNFs at different Au concentrations for 2 h. Insert is the photograph of mouse blood red cells after incubation with water, PBS, and AuNFs at different Au concentrations for 2 h, followed by centrifugation.

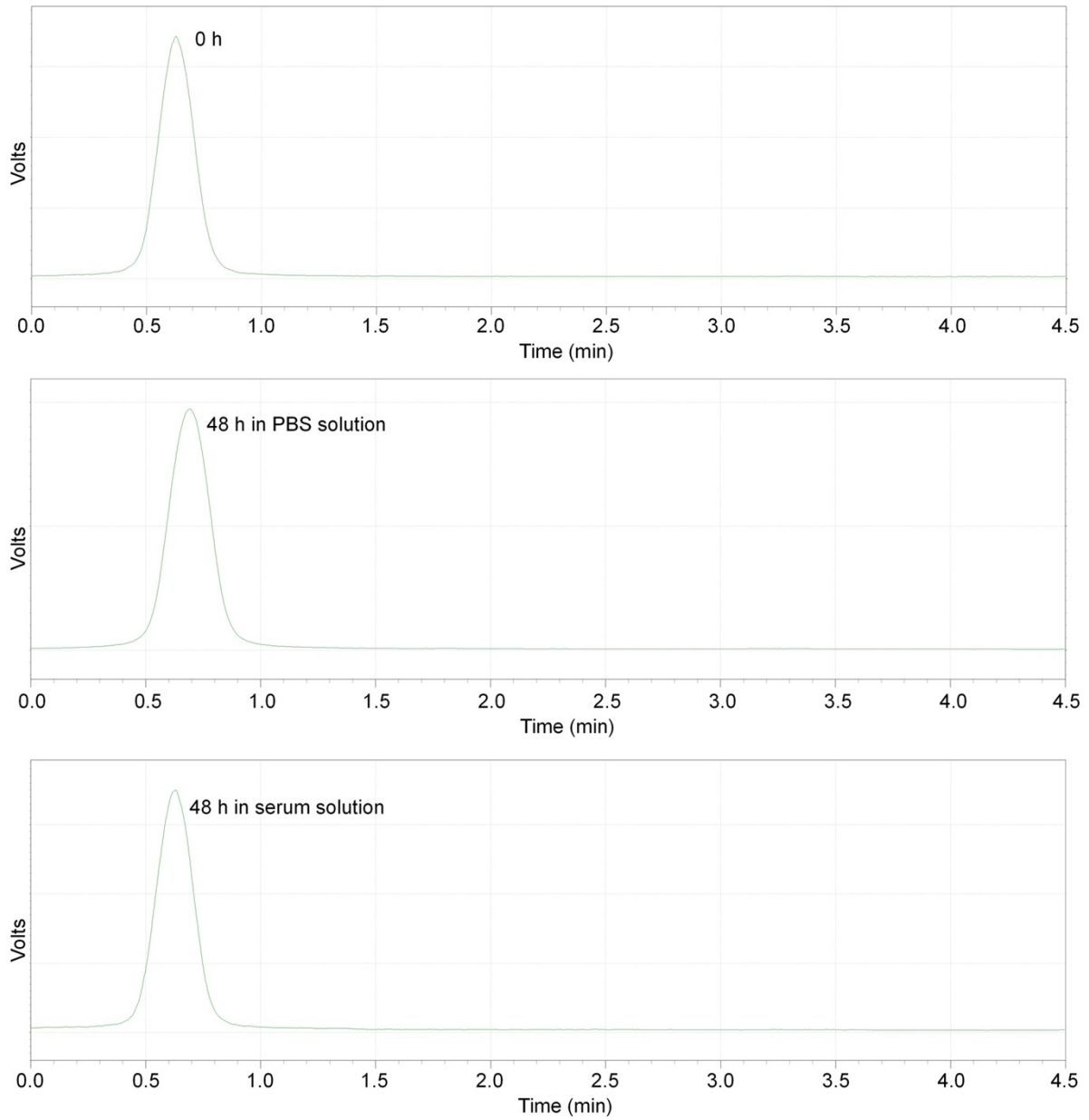


Fig. S5. The radiolabeling stability assay of ^{131}I -AuNFs after storage in PBS and serum solution at 37 °C for 48 h.

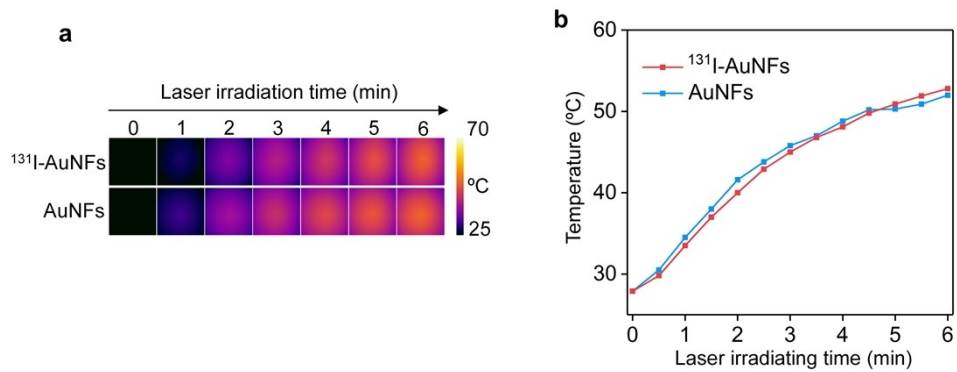


Fig. S6. (a) Thermal images of aqueous solution containing ^{131}I -AuNFs or AuNFs at Au concentration of 100 $\mu\text{g}/\text{mL}$ under 1064 nm laser irradiation (1.0 W/cm^2) for different time. (b) Temperature curves of aqueous solution of ^{131}I -AuNFs or AuNFs at Au concentration of 100 $\mu\text{g}/\text{mL}$ under 1064 nm laser irradiation (1.0 W/cm^2) for different time.

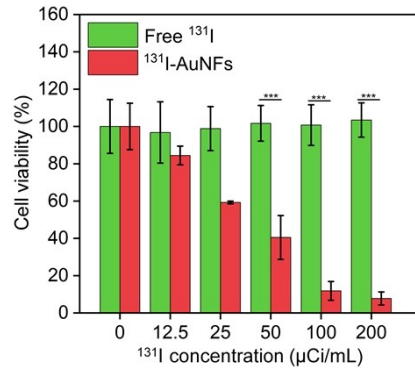


Fig. S7. Cell viability of 4T1 cancer cells after incubation with free ¹³¹I or ¹³¹I-AuNFs at different concentrations for 24 h.

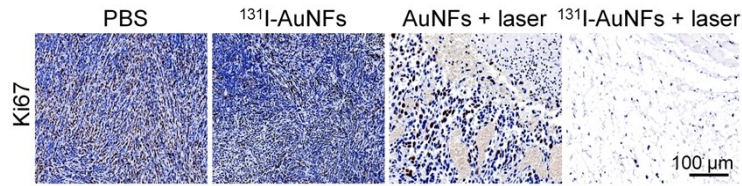


Fig. S8. Ki67 staining images of tumors from 4T1 tumor-bearing nude mice after intravenous injection of AuNFs and ¹³¹I-AuNFs under 1064 nm laser irradiation (1.0 W/cm²).

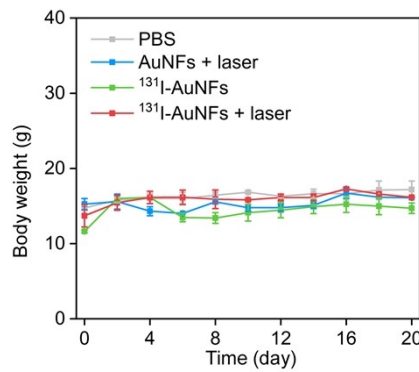


Fig. S9. Body weight of 4T1 tumor-bearing nude mice after different treatments.

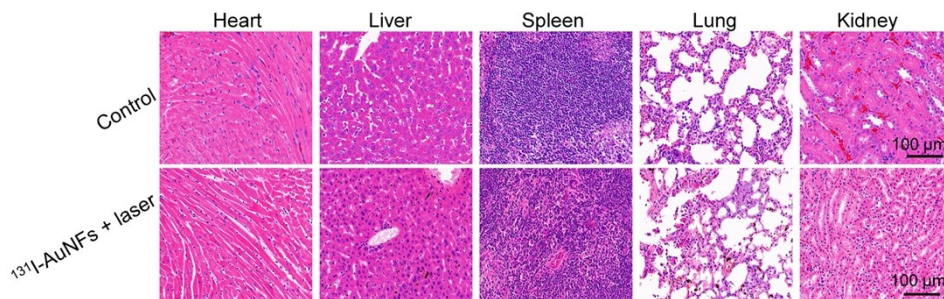


Fig. S10. H&E staining images of heart, liver, spleen, lung and kidney from 4T1 tumor-bearing nude mice without treatment or after ¹³¹I-AuNFs-mediated therapy for 20 days.