Electronic Supplementary Material (ESI)

Supporting Information

Human Hair Derived uPA Loaded Capsules with Dual Near-Infrared (I and II Biowindows) Laser Responsive Capabilities for Multi-Effective Thrombolysis Therapy

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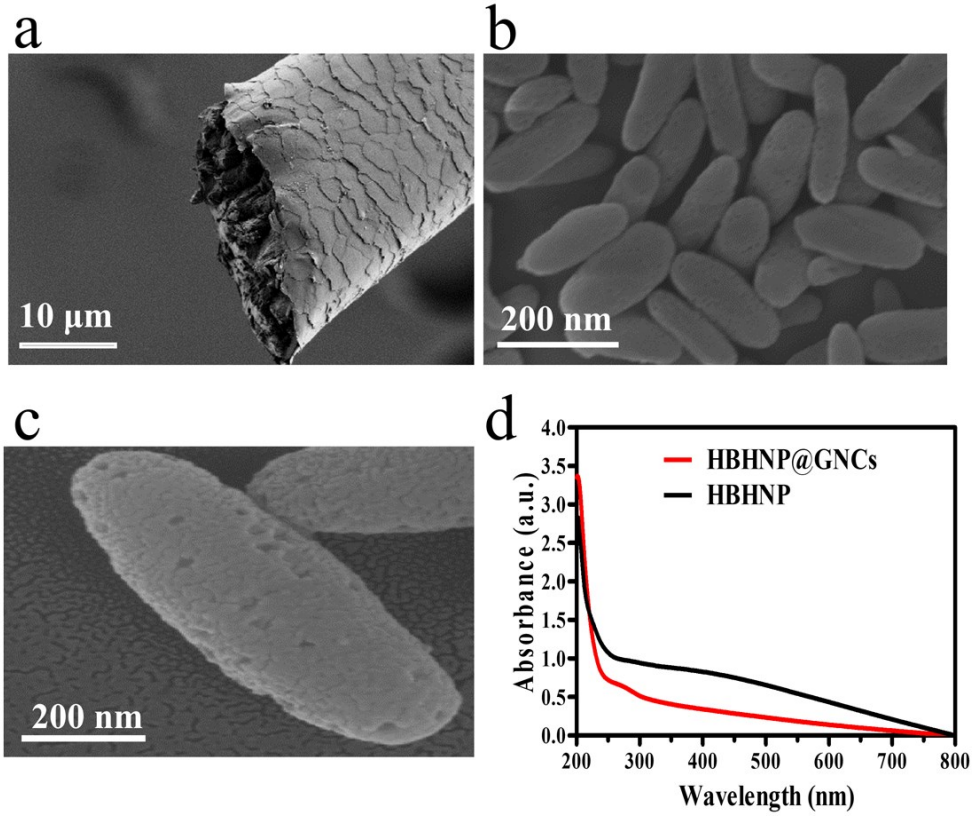

Figure S1. SEM images of Human black hair (a), HBHNP (b, c) and UV-vis spectrum of HBHNP and HBHNP@GNCs (d).

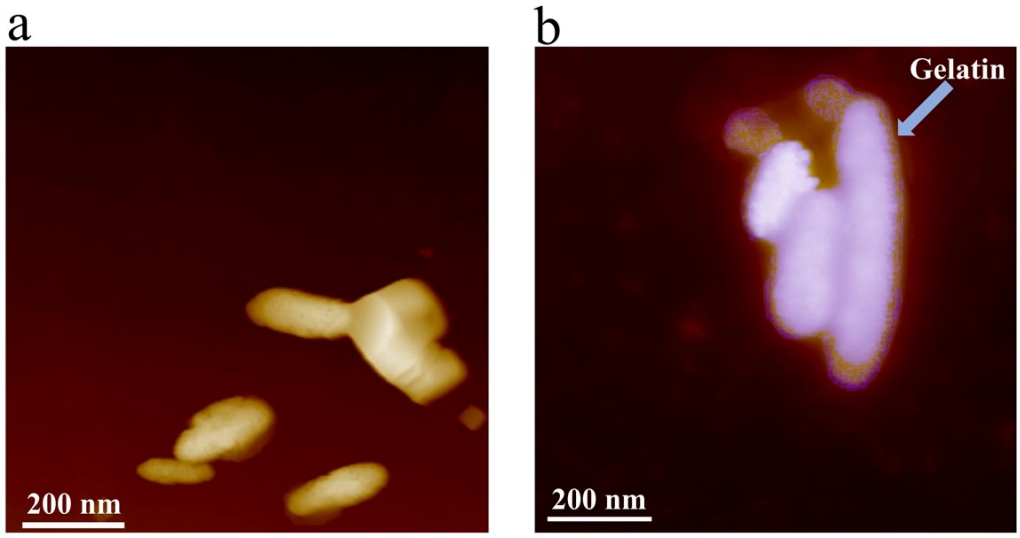

Figure S2. AFM images of HBHNP (a) and HBHNP@GNCs (b).

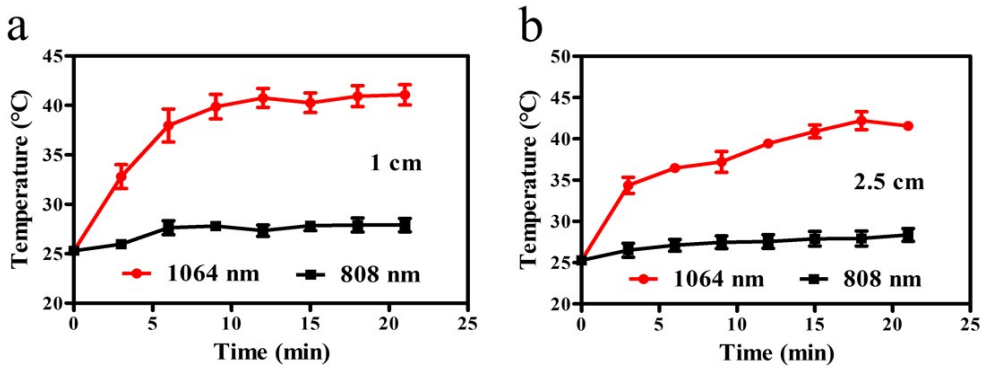

Figure S3. Comparison of temperature elevation curve of HBHNP@GNCs between 1064 nm and 808 nm NIR irradiation on 1 cm (a) and 2.5 cm (b) thick agar hydrogel clots. Error bars represent the standard deviation of three separate measurements.

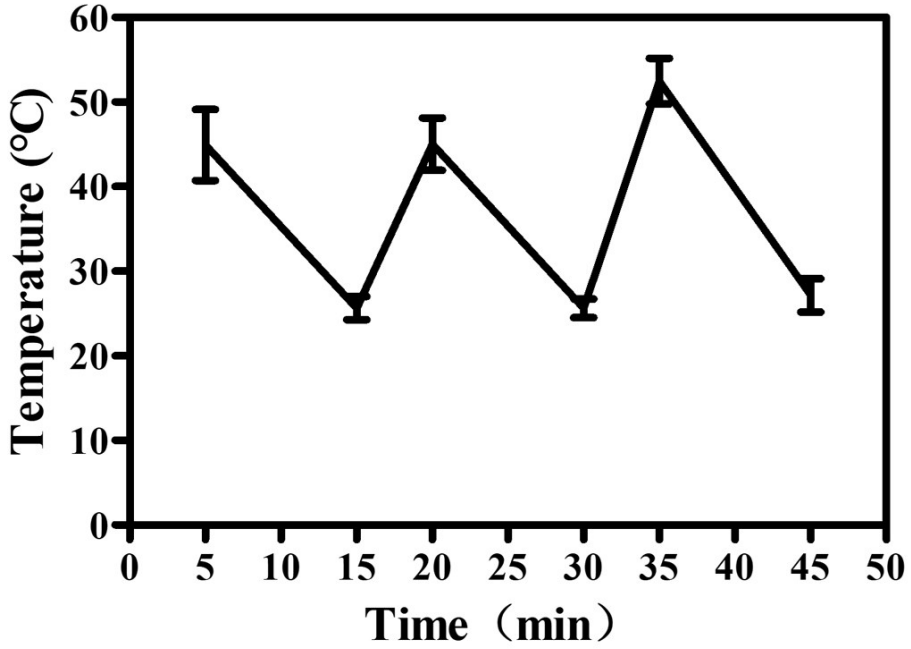

Figure S4. uPA@HBHNP@GNCs heating curve during *in vitro* thrombolysis under on and off NIR (808 nm, 2 W cm^{-2}) irradiation.

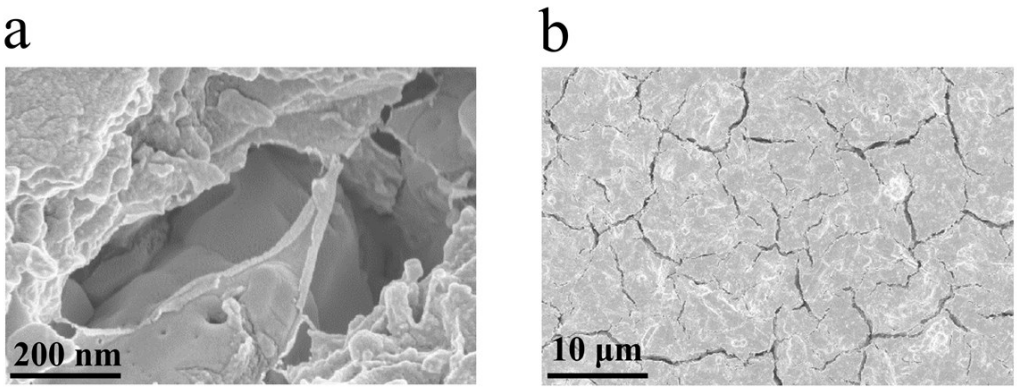

Figure S5. SEM images of thrombus after uPA@HBHNP@GNCs with NIR (808 nm, 2 W cm^{-2}) irradiation thrombolysis *in vitro*.

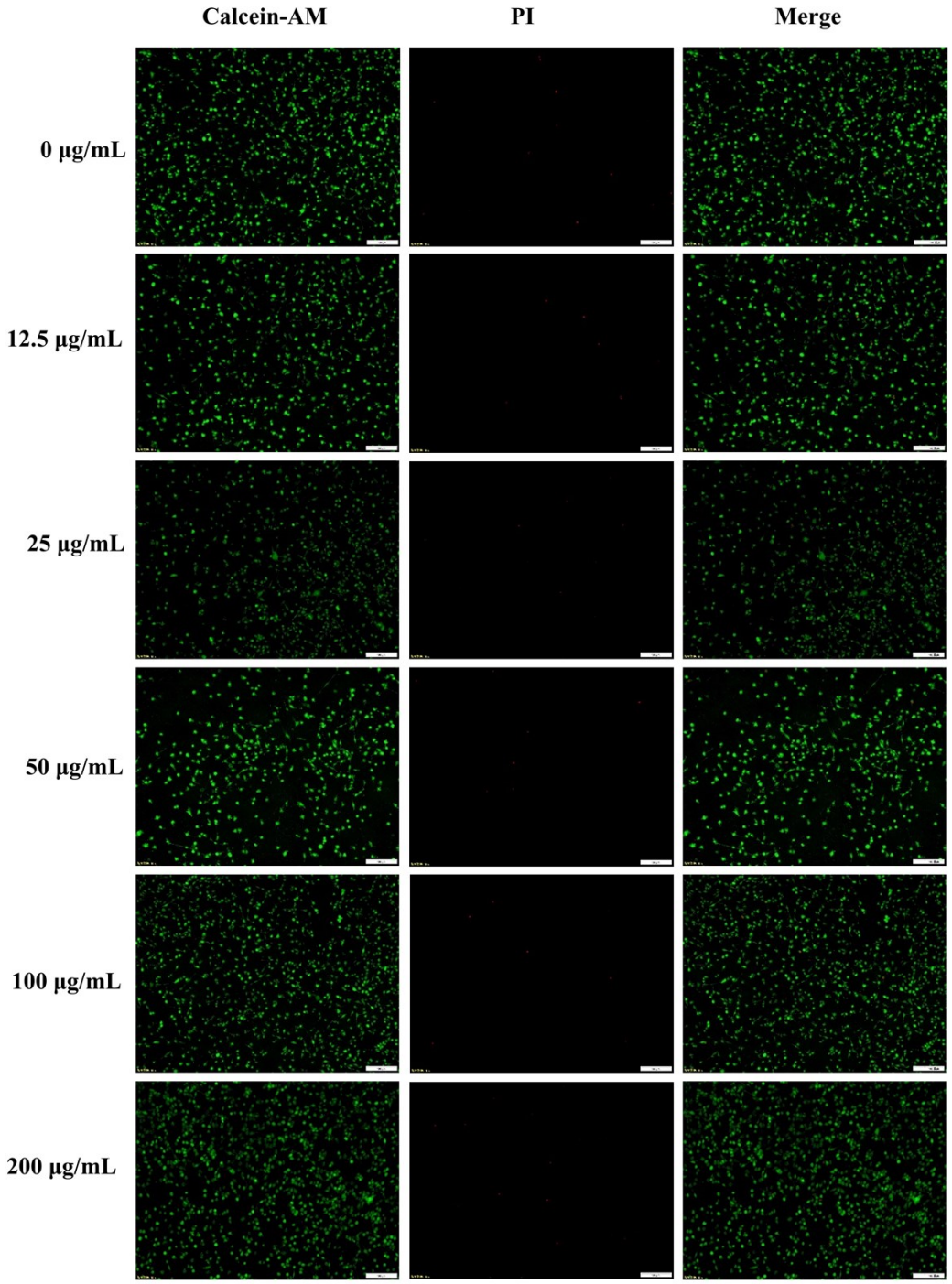

Figure S6. Live/dead cell assays of mouse fibroblast L929 cells treated with different concentrations of HBHNP@GNCs. The images were photographed using inverted fluorescence microscope (scale bar: 100 μm).

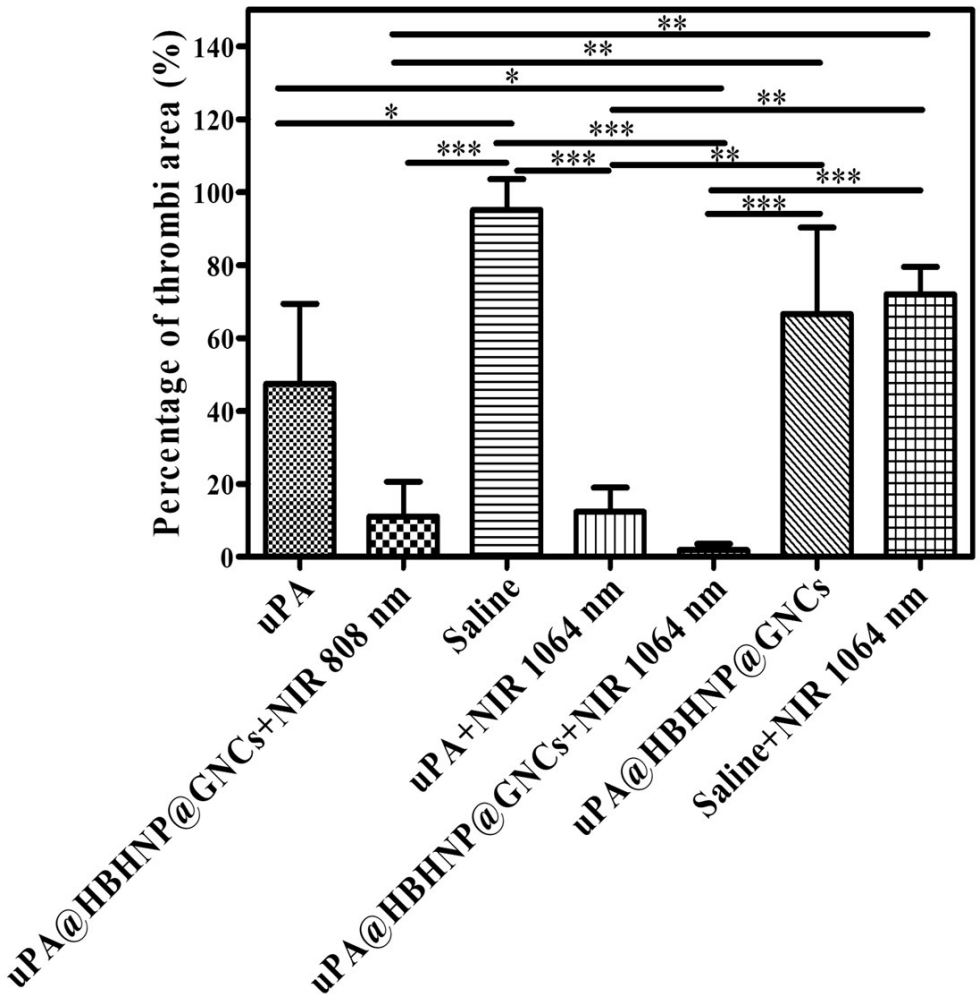

Figure S7. Percentage of thrombus area in blood vessel lumen area (%) after treatment for 24 h. * $p <$ 0.05, ** $p < 0.01$, *** $p < 0.001$.

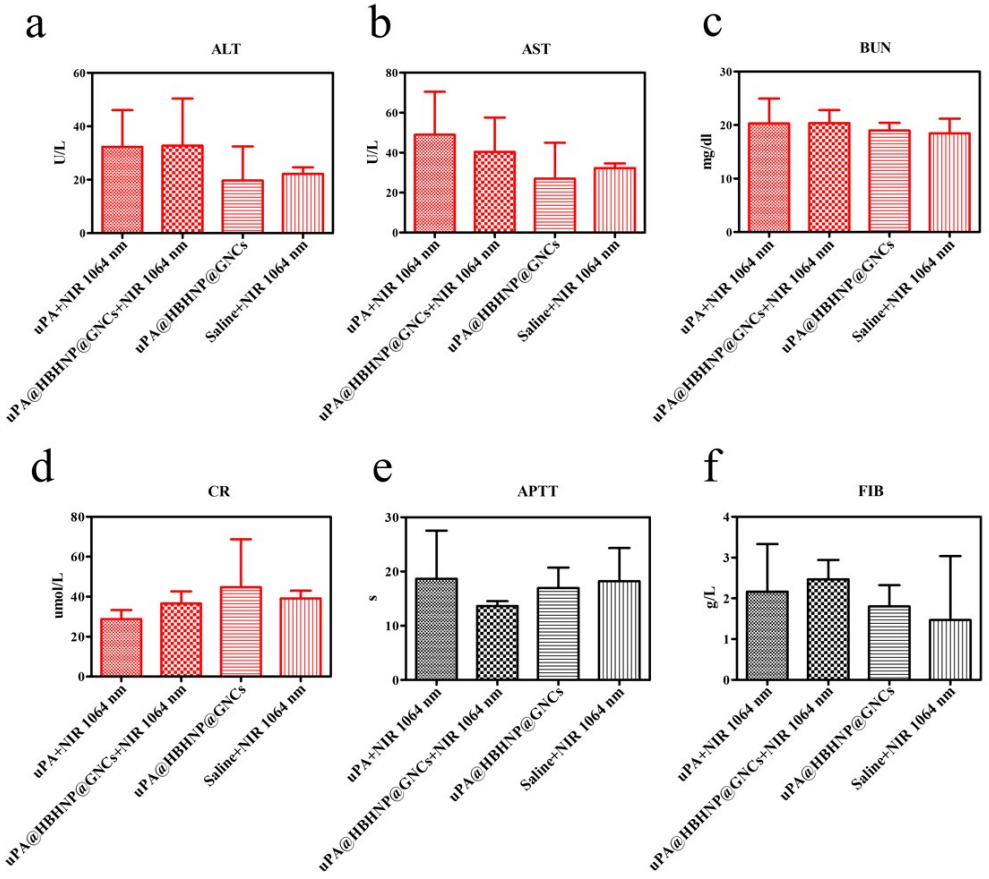

Figure S8. Biochemical test results of SD rats blood after 48 h of treatment.