

Supporting Information

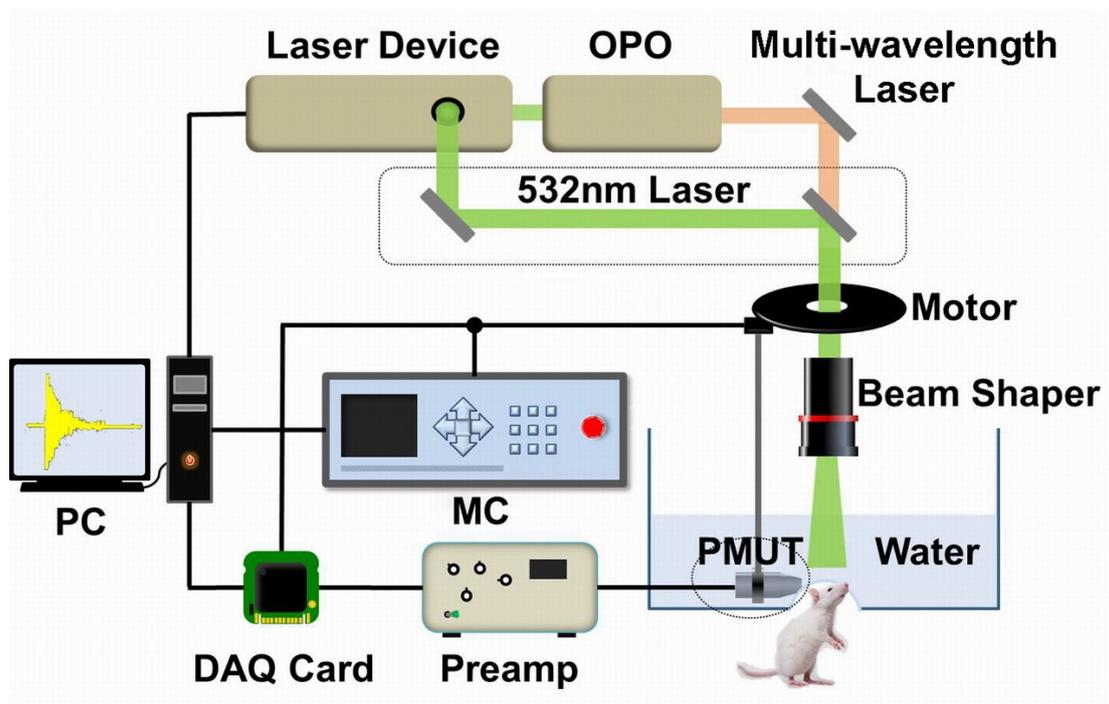


Figure S1. The unit rotation scanning photoacoustic detection system.

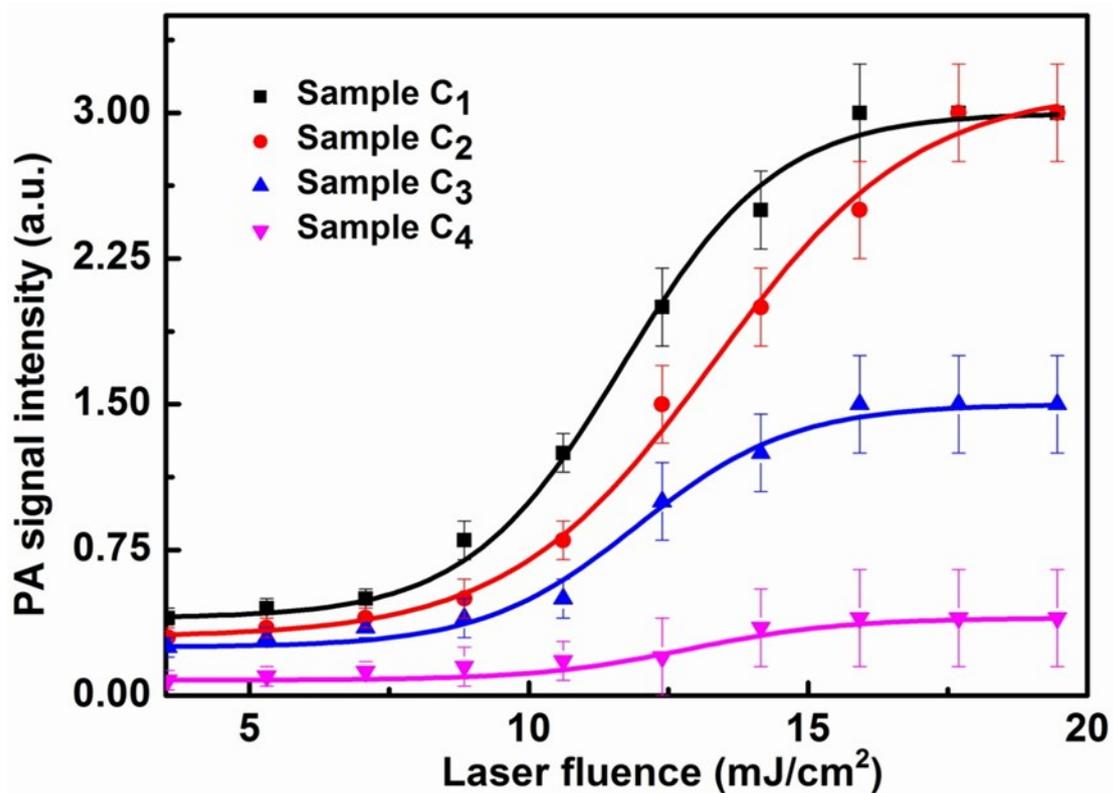


Figure S2. Peak amplitude of the PA signals from Au NR@PEG at various concentrations (C₁:10¹²/ mL, C₂:10¹¹/ mL, C₃:10¹⁰/ mL, C₄:10⁹/ mL) as a function of laser fluence, symbols and error bars are the mean values and standard deviations of the amplitude.

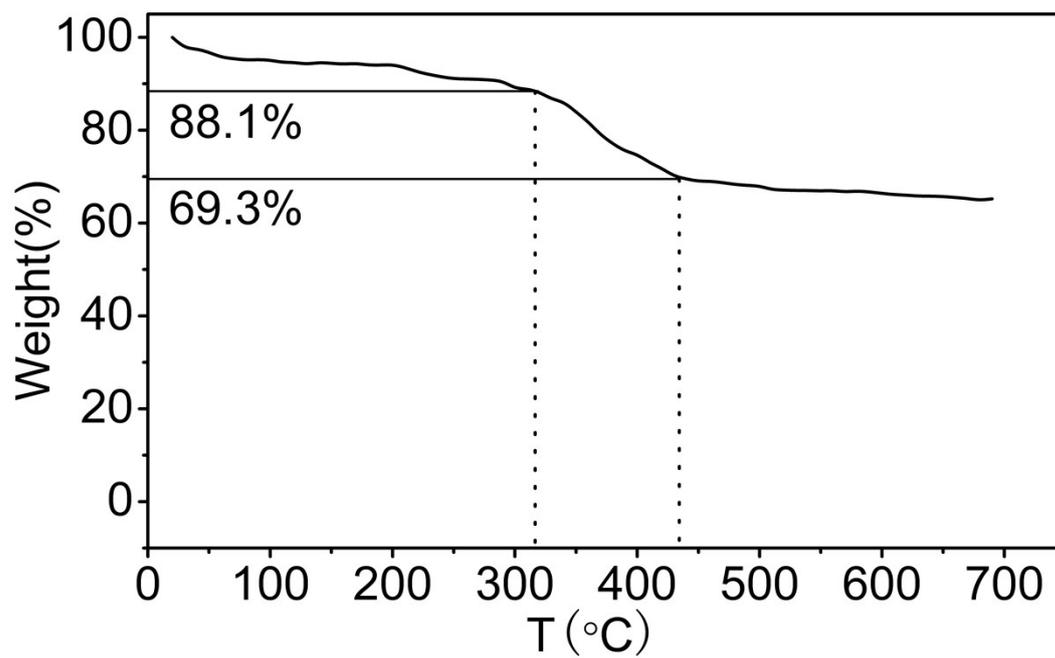


Figure S3. TGA curve of Au NR@PEG

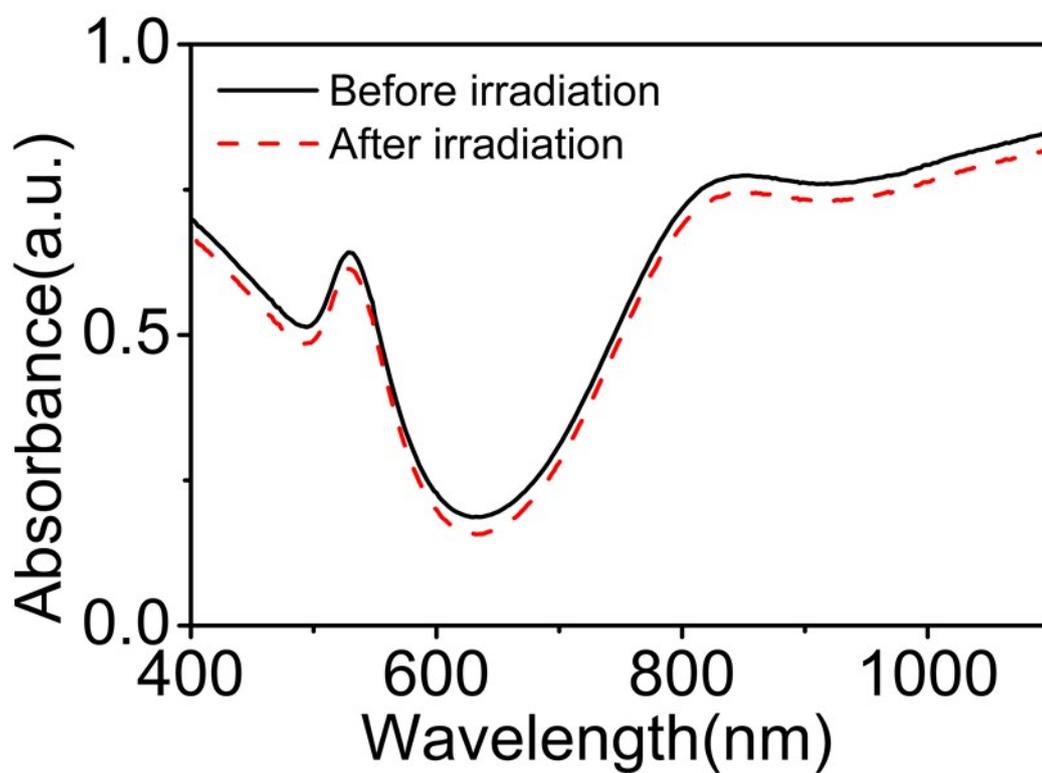


Figure S4. The UV-Vis absorbance spectrum of Au NR@PEG (1 nM) solutions before (black) and after (red) under the 828 nm laser irradiation (15 mJ/cm²) for 30 min.

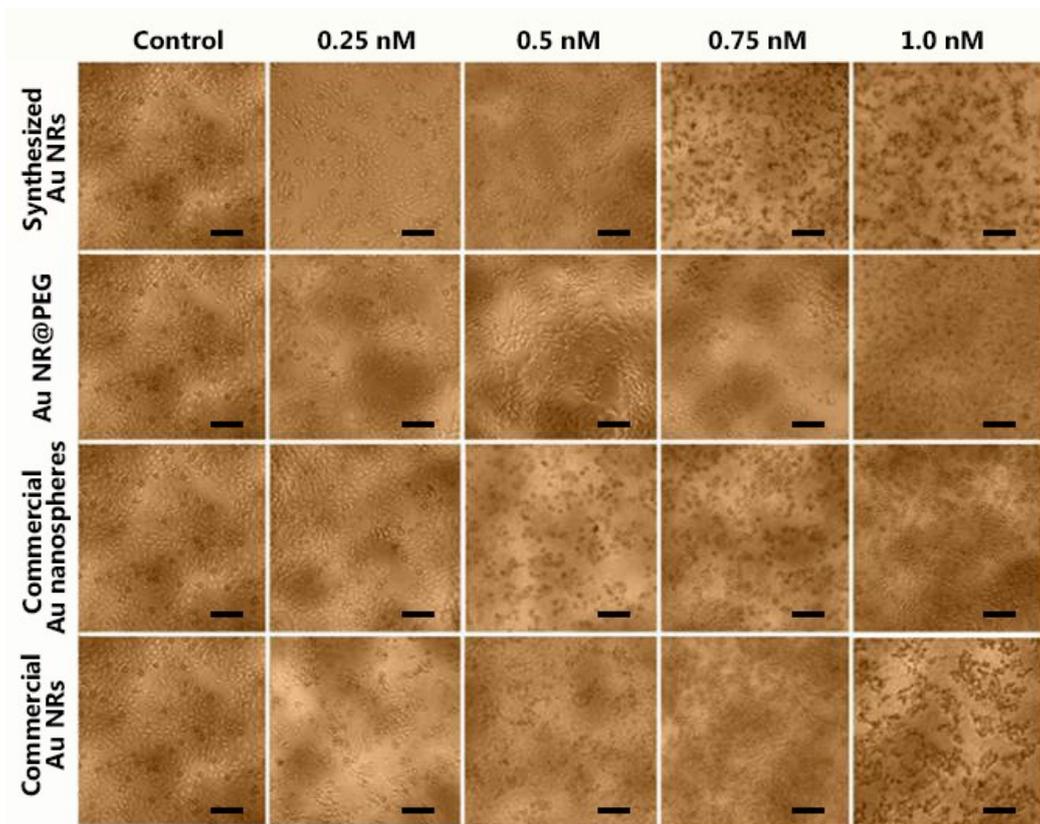


Figure S5. Optical microscopy images of MTT cells after being incubated with various concentrations of Au contrast agents for 24 h, scale bar: 50 μ m