

Supplementary Materials

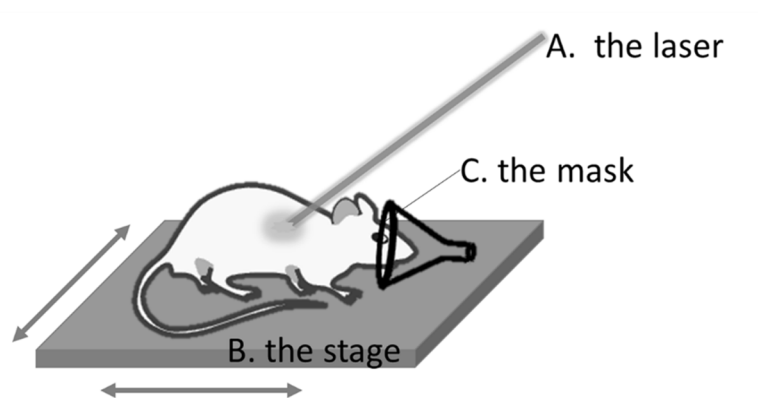
# Two-Photon Time-Gated In Vivo Imaging of Dihydrolipoic-Acid-Decorated Gold Nanoclusters

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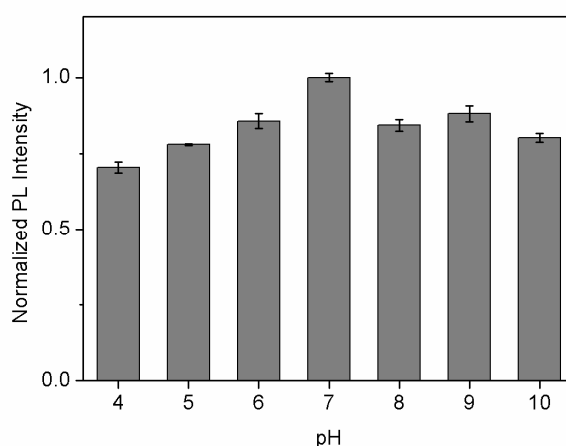
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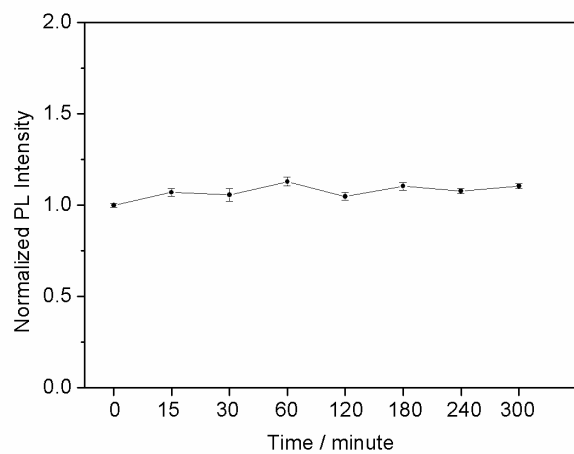
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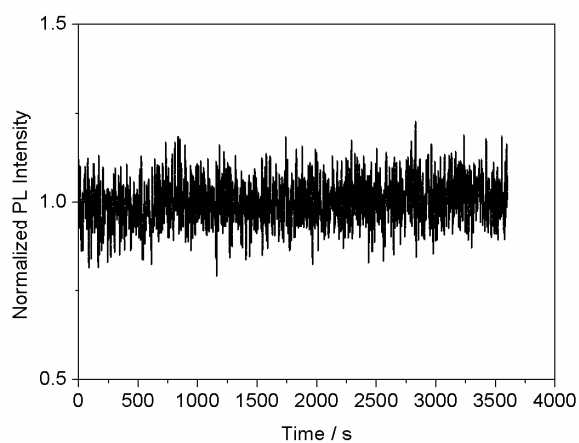
**Figure S1.** The arrangement of the in vivo imaging system, A) the fixed working laser pulses, B) a moveable object stage, C) the inhaling mask for anesthesia.



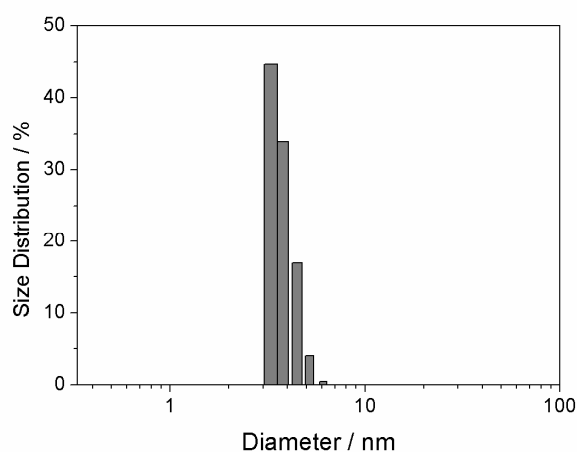
**Figure S2.** The PL intensity of DHLA-AuNCs changes with varied pH values.



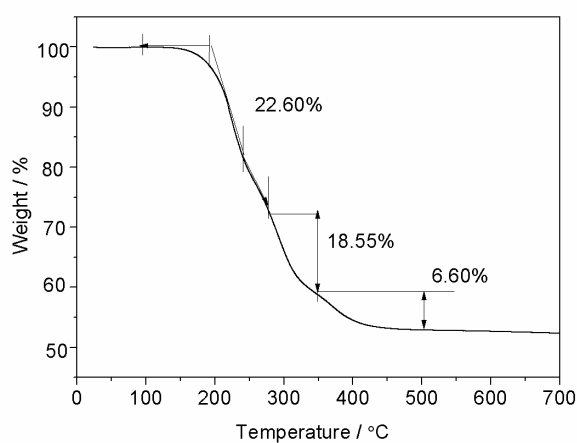
**Figure S3.** The time-course changes of PL intensity of DHLA-AuNCs incubated in PBS containing GSH (2 μM).



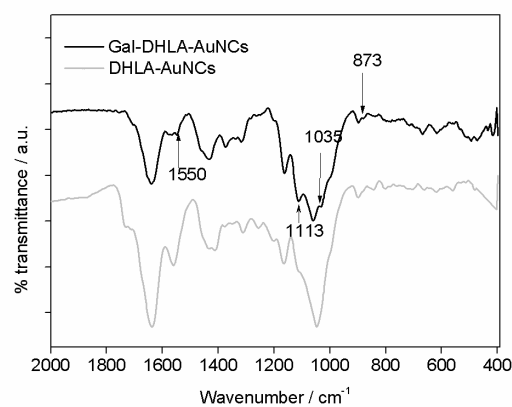
**Figure S4.** The change of PL intensity of DHLA-AuNCs continuously exposed to 400 nm laser for 1 h.



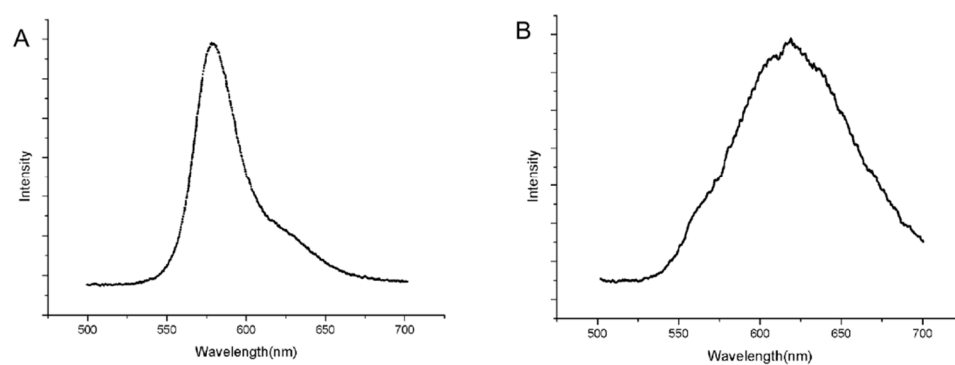
**Figure S5.** DLS analysis of DHLA-AuNCs displayed the hydrodynamic diameter to be  $(3.7 \pm 0.1)$  nm.



**Figure S6.** TGA curves of DHLA-AuNCs.



**Figure S7.** Fourier Transform infrared (FTIR) spectra of conjugated probe Gal-DHLA-AuNCs and DHLA-AuNCs.



**Figure S8.** Two-photon-induced fluorescence spectra, excited at 800 nm. (A) Rhodamine B, (B) DHLA-AuNCs.