

Supporting Information

Synthesis of Chitosan-Coated Near-Infrared Layered Double Hydroxide Nanoparticles for In Vivo Optical Imaging

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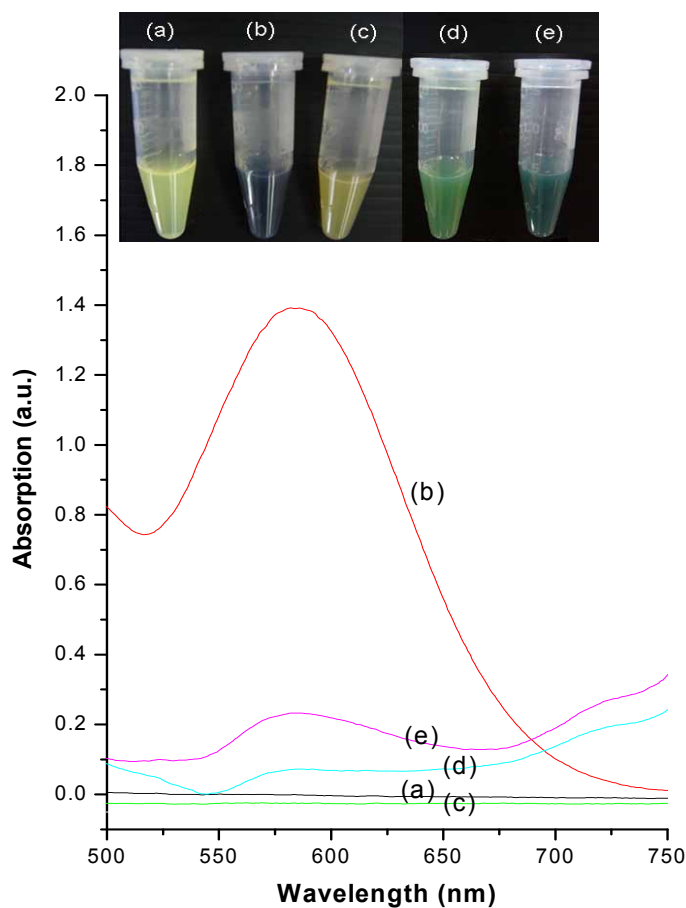


Fig. S1 UV-Vis spectra and white-light sample images of (a) LDHs, (b) LDHs-NH₂, (c) LDHs-NH₂-GA, (d) LDHs-NH₂-ICG-CS-1, and (e) LDHs-NH₂-ICG-CS-2 samples.

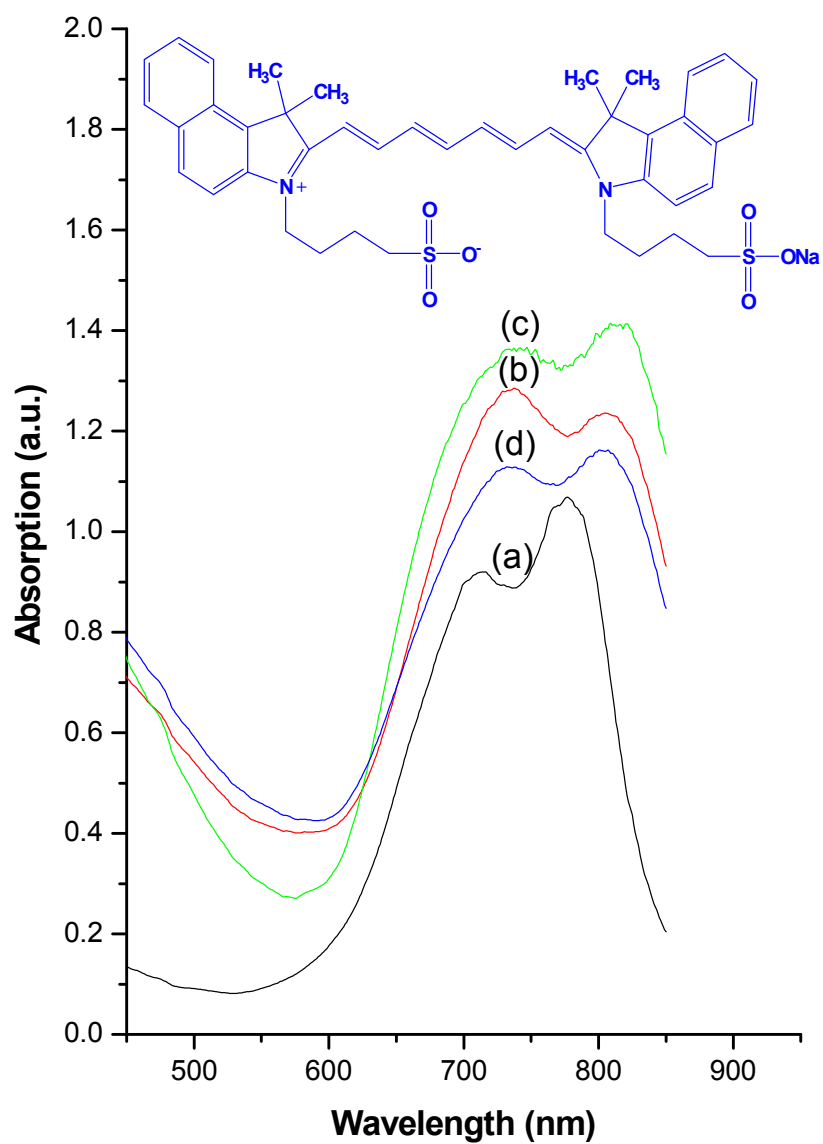


Fig. S2 UV-vis spectra of (a) free ICG, (b) LDHs-NH₂-ICG, (c) LDHs-NH₂-ICG-CS-1, and (d) LDHs-NH₂-ICG-CS-2 samples in dd-H₂O.

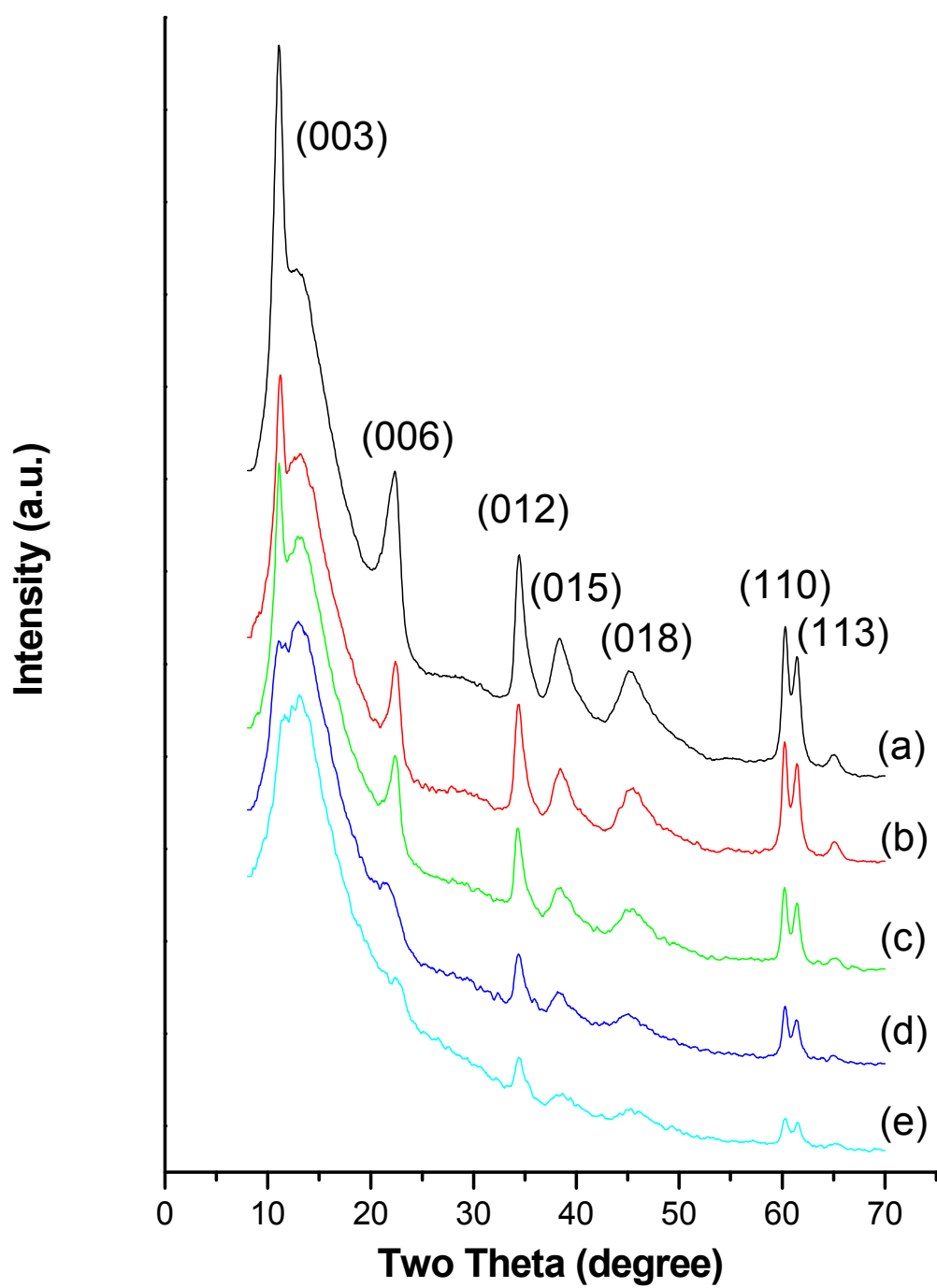


Fig. S3 XRD patterns of (a) LDHs, (b) LDHs-NH₂, (c) LDHs-NH₂-ICG, (d) LDHs-NH₂-ICG-CS-1, and (e) LDHs-NH₂-ICG-CS-2.

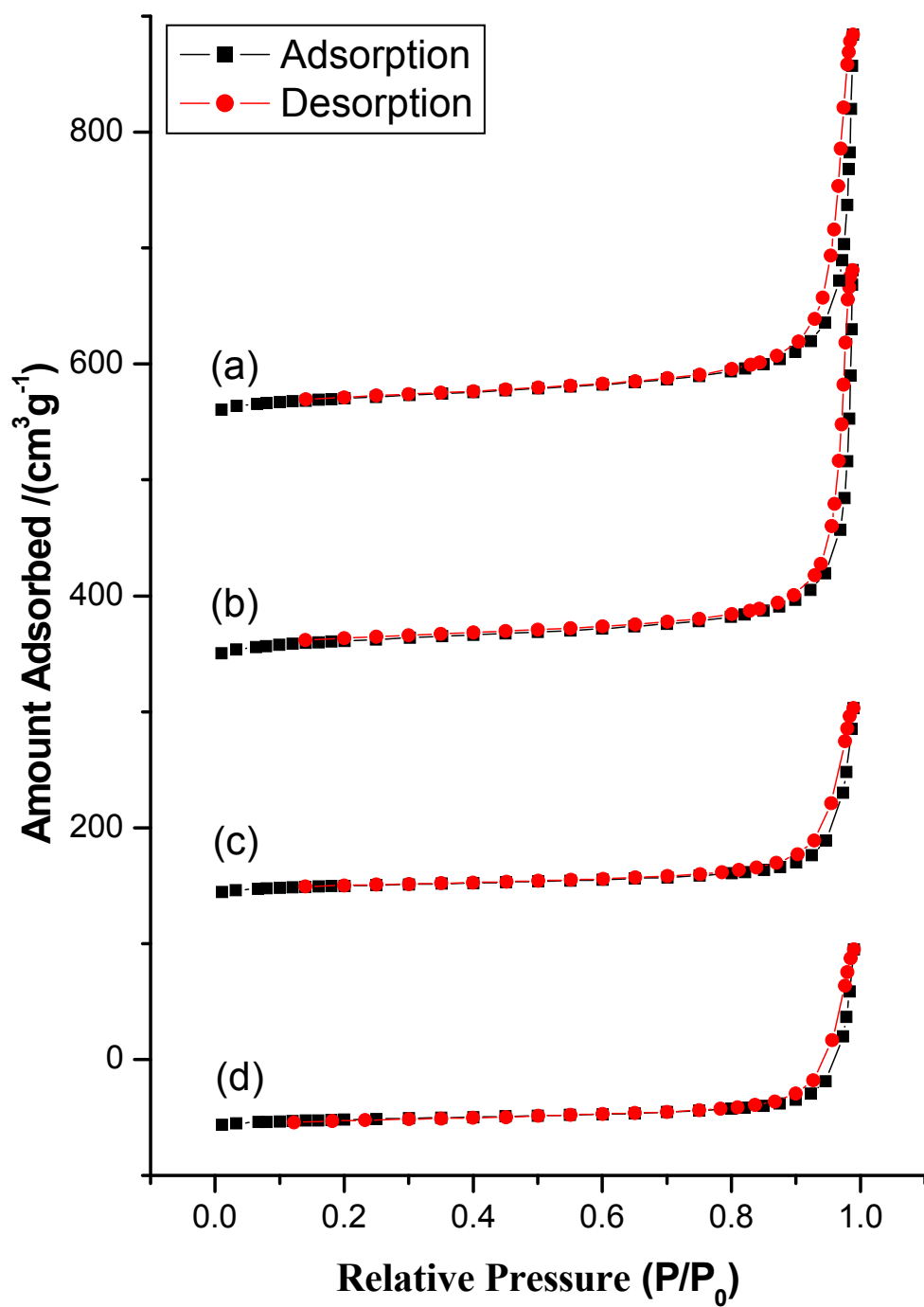


Fig. S4 Nitrogen adsorption-desorption isotherms of (a) LDHs-NH₂, (b) LDHs-NH₂-ICG, (c) LDHs-NH₂-ICG-CS-1, and (d) LDHs-NH₂-ICG-CS-2.

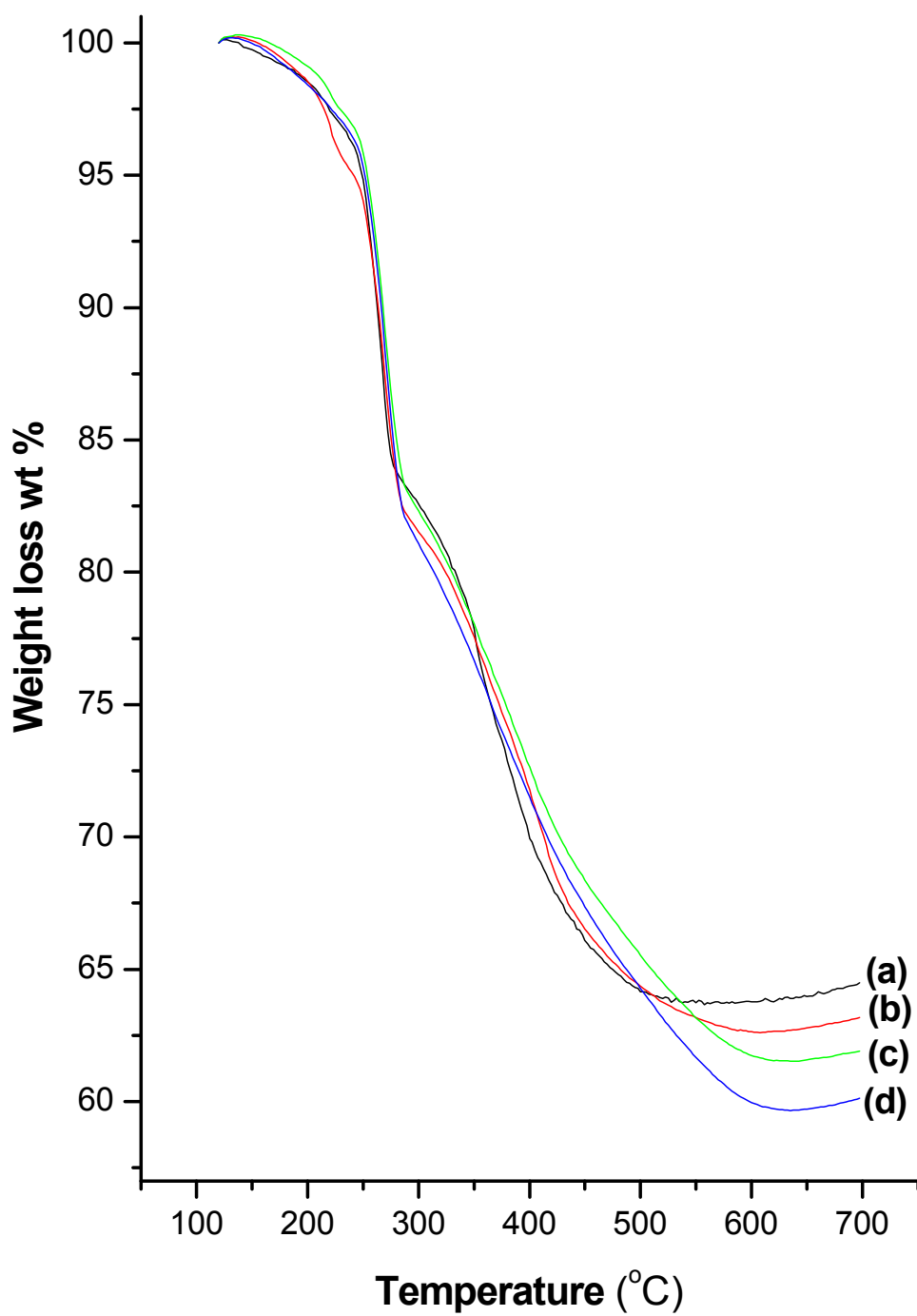


Fig. S5 Weight loss profiles of thermogravimetric analyses (TGA) of (a) LDHs-NH₂, (b) LDHs-NH₂-ICG, (c) LDHs-NH₂-ICG-CS-1, and (d) LDHs-NH₂-ICG-CS-2 samples.

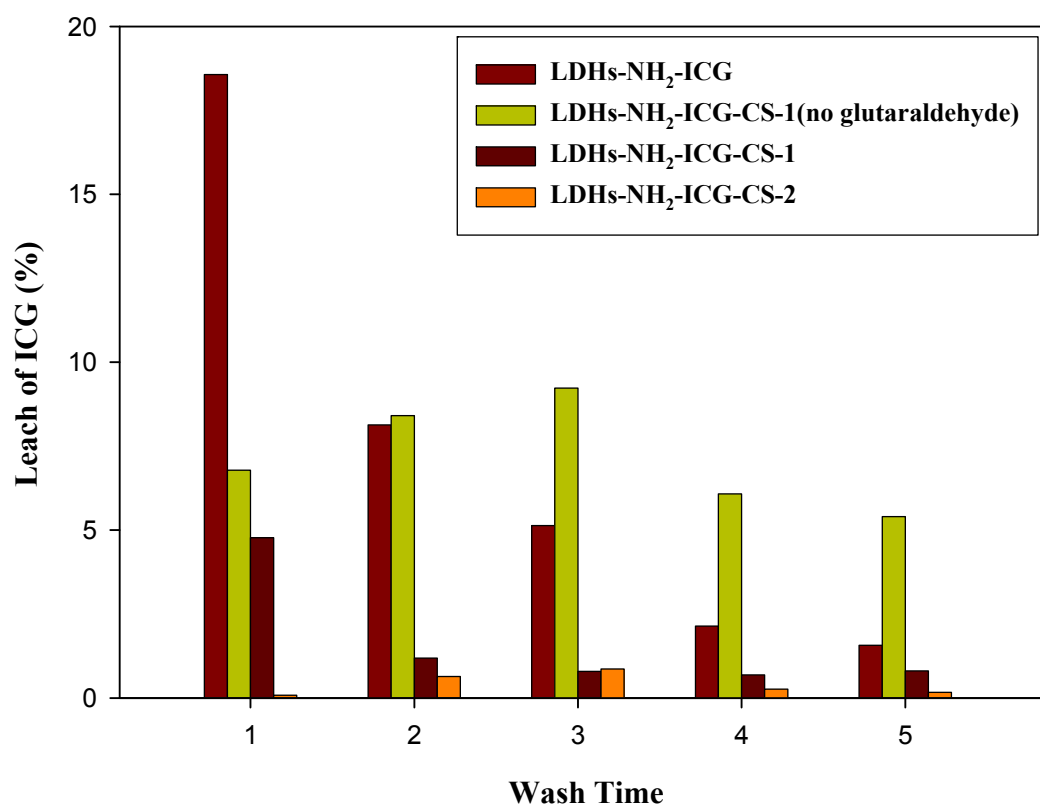


Fig. S6 Wash time 1–5: leaching amounts of ICG after wash with methanol for 1–5 times.

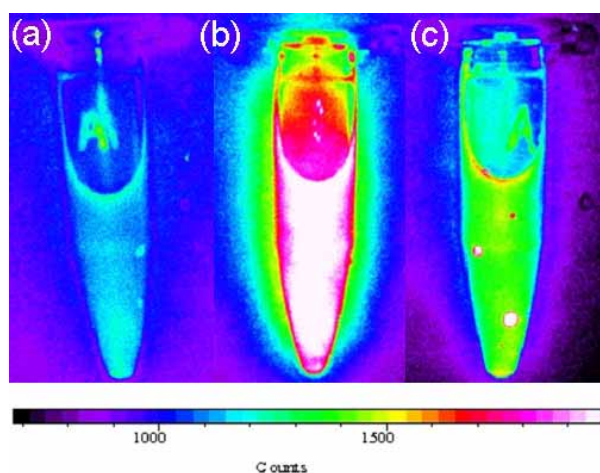


Fig. S7 Fluorescent imaging intensity of (a) LDHs-NH₂-ICG, (b) LDHs-NH₂-ICG-CS-1, and (c) LDHs-NH₂-ICG-CS-2 in aqueous solution (1 mg mL⁻¹).

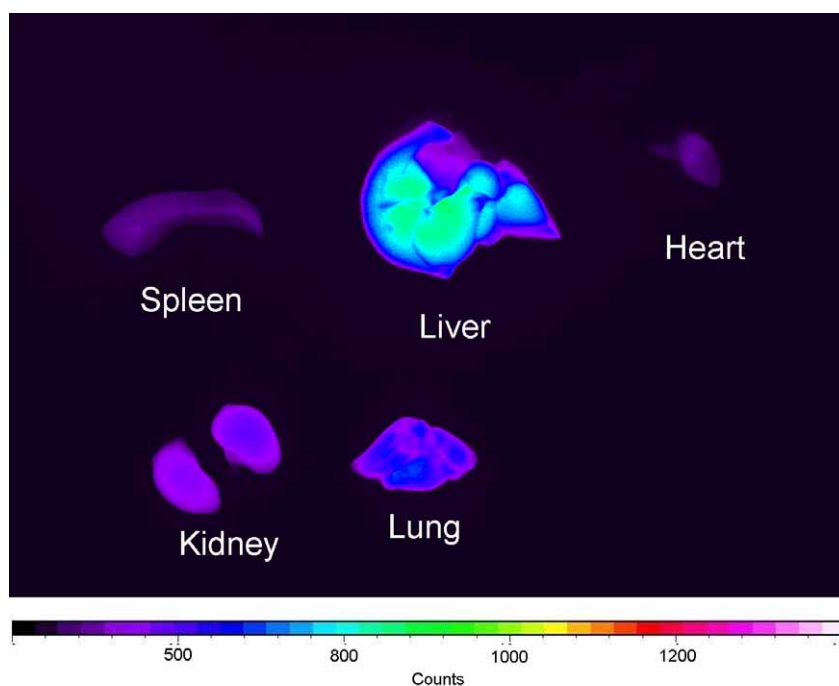


Fig. S8 NIR fluorescent images of dissected organs from a mouse sacrificed after i.v. injection of LDHs-NH₂-ICG-CS-2-TA samples for 3 h.

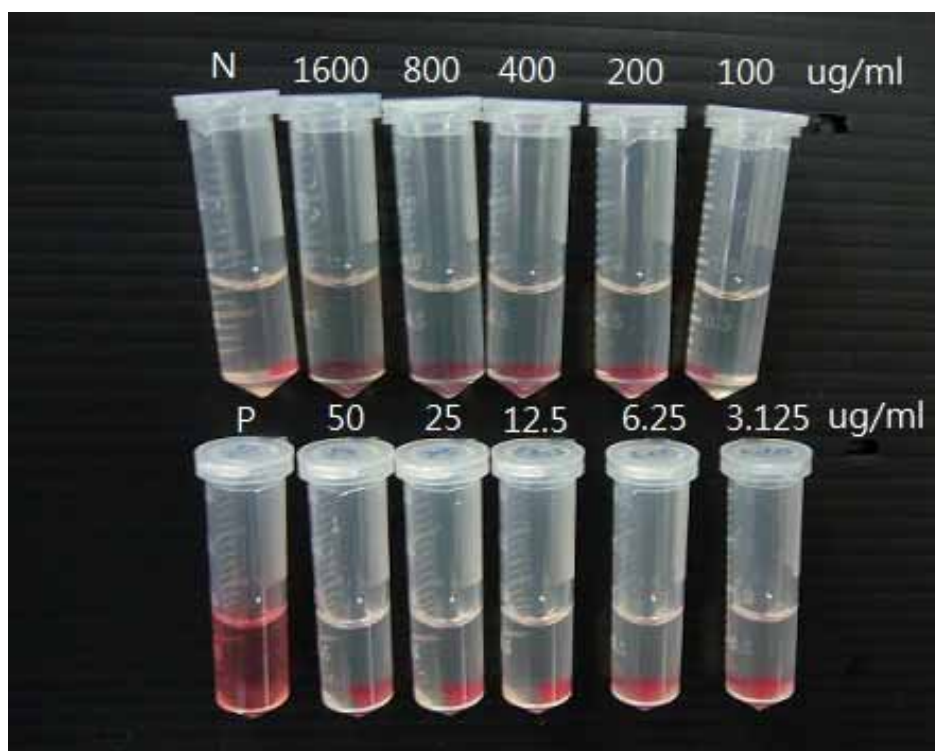


Fig. S9 Photographs of hemolysis of RBCs after the treatment of various concentrations of LDHs-NH₂-ICG-CS-2 samples for 3 h. The red hemoglobin in the supernatant indicated the damage of RBCs in the positive control experiment. dd-H₂O and PBS are used as positive (P) and negative (N) controls, respectively.

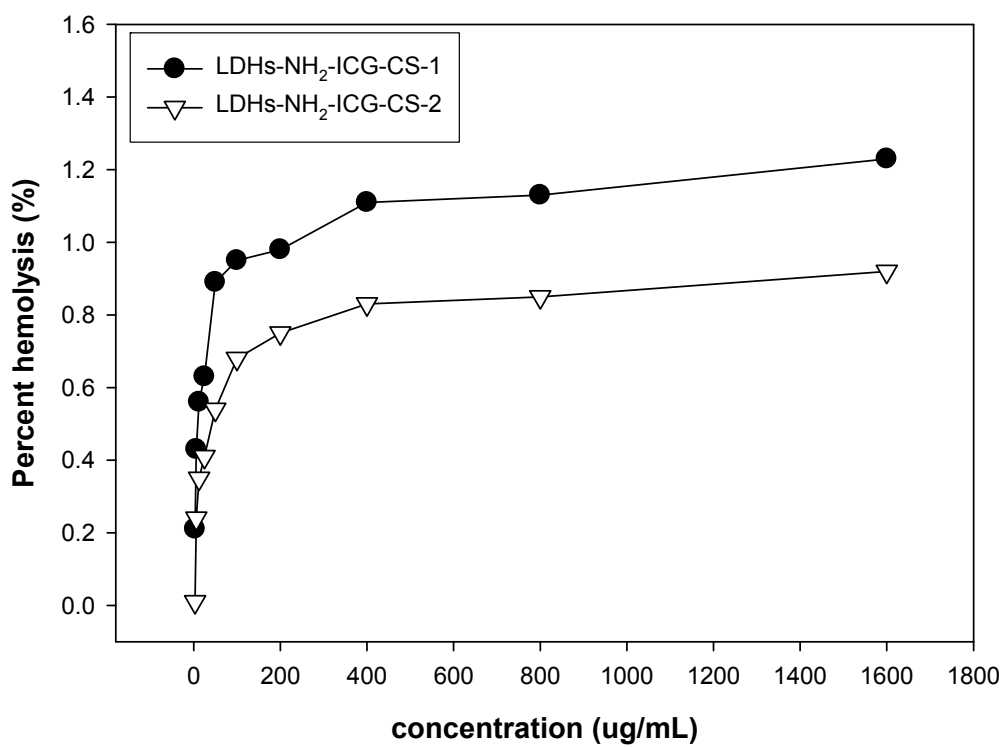


Fig. S10 Percentage of hemolysis of RBCs after the treatment of various concentrations of LDHs-NH₂-ICG-CS-1 and -2 samples for 3 h.