

Supporting Information

Dihydroartemisinin Loaded Layered Double Hydroxide

Nanocomposites for Tumor Specific Photothermal-Chemodynamic Therapy

Jingsong Lu,^{a,b,c} Zhenhu Guo,^{b,c,d} Shenglei Che,^a Fei Gao,^{b,c} Zi Gu,^e Jianzhong Xu,^{b,c} Yongjie Chi,^{b,c,f}
Junxin Zhang,^{b,c} Wanling Xu,^{b,c} Nonaka Takuya^{b,c}, Jing Yu*^a and Lingyun Zhao*^{b,c}

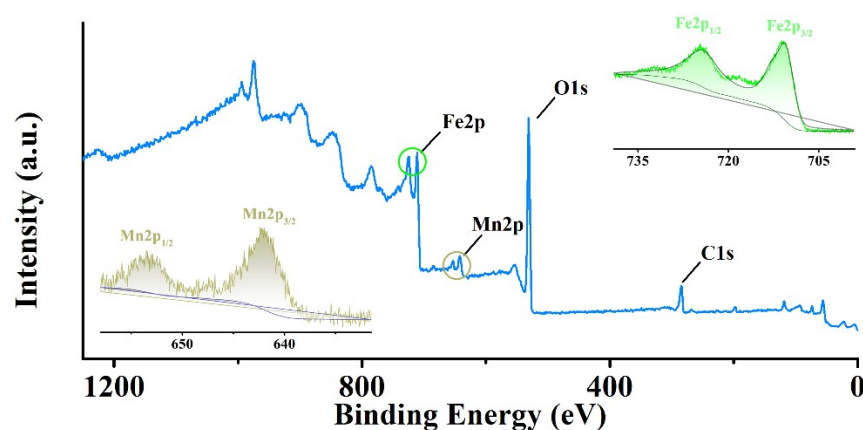


Figure. S1 XPS spectra of Fe 2p and Mn 2p orbits of MnMgFe-LDH.

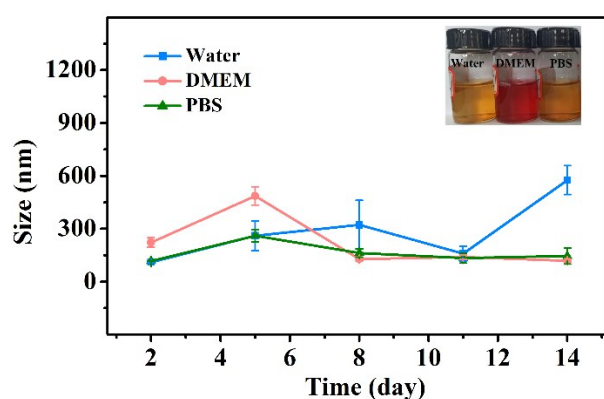


Figure. S2 Particle size of MnMgFe-LDH in water, DMEM or PBS for 14 days. Error bars represented for standard deviation, n = 3.

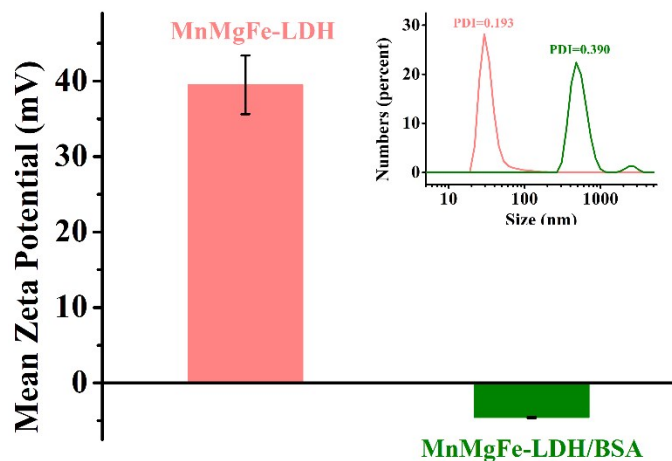


Figure. S3 Mean Zeta potential and particle size of MnMgFe-LDH and MnMgFe-LDH/BSA

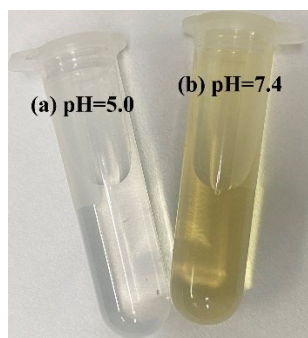


Figure. S4 Discoloration of MnMgFe-LDH after three weeks at pH=5.0 (a) and 7.4 (b).

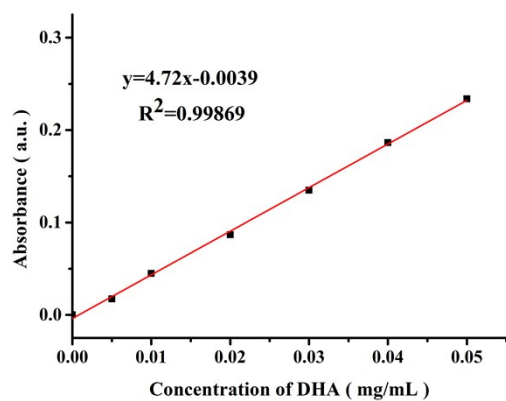


Figure. S5 Quantitative relationship between DHA and its absorbance at 240 nm.

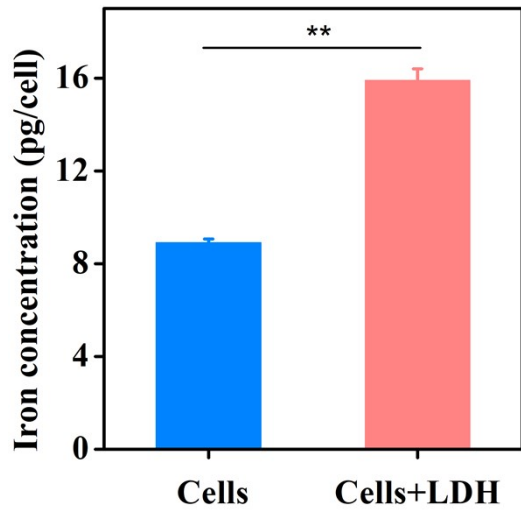


Figure. S6 Cellular uptake through quantitative analysis of iron in tumor cells when incubated with LDH at 100 $\mu\text{g}/\text{mL}$.

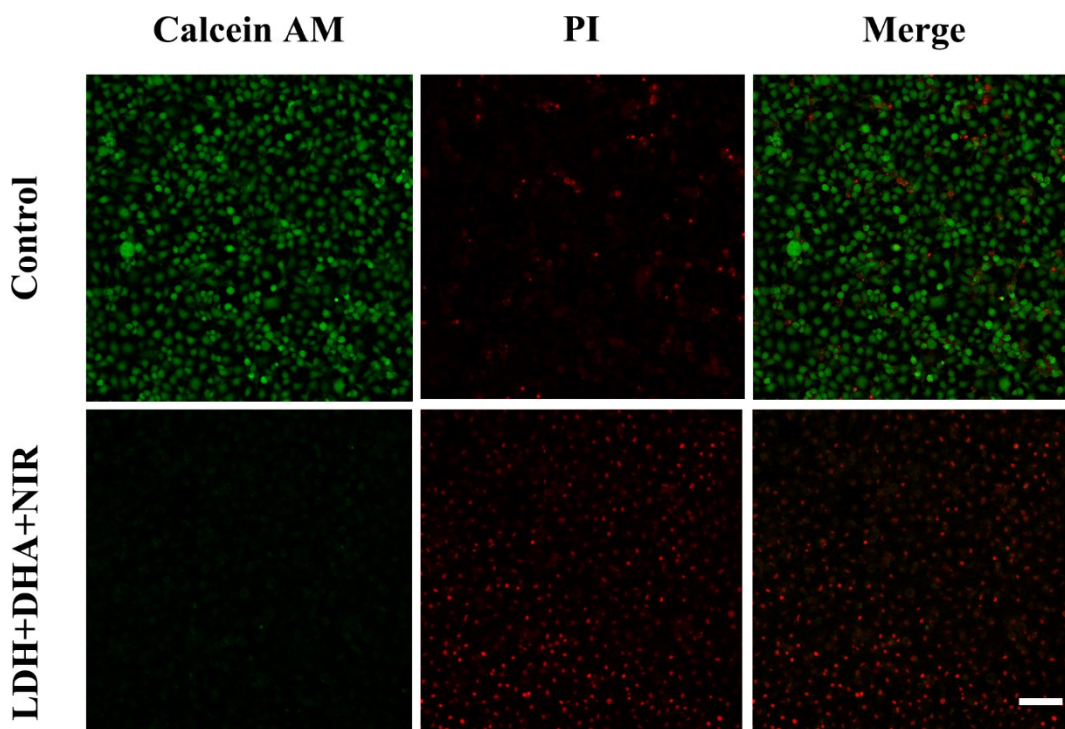


Figure. S7 Live and dead staining after incubating for 24 h ($[\text{LDH}] = 80 \mu\text{g}/\text{mL}$, $[\text{DHA}] = 40 \mu\text{g}/\text{mL}$, laser parameter: $1.5 \text{ W}/\text{cm}^2$, 5 min).

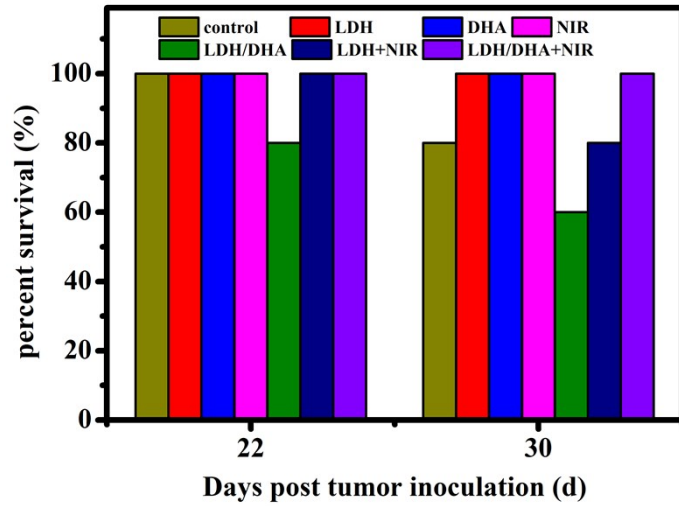


Figure. S8 Survival rate of mice after 22 and 30 days.

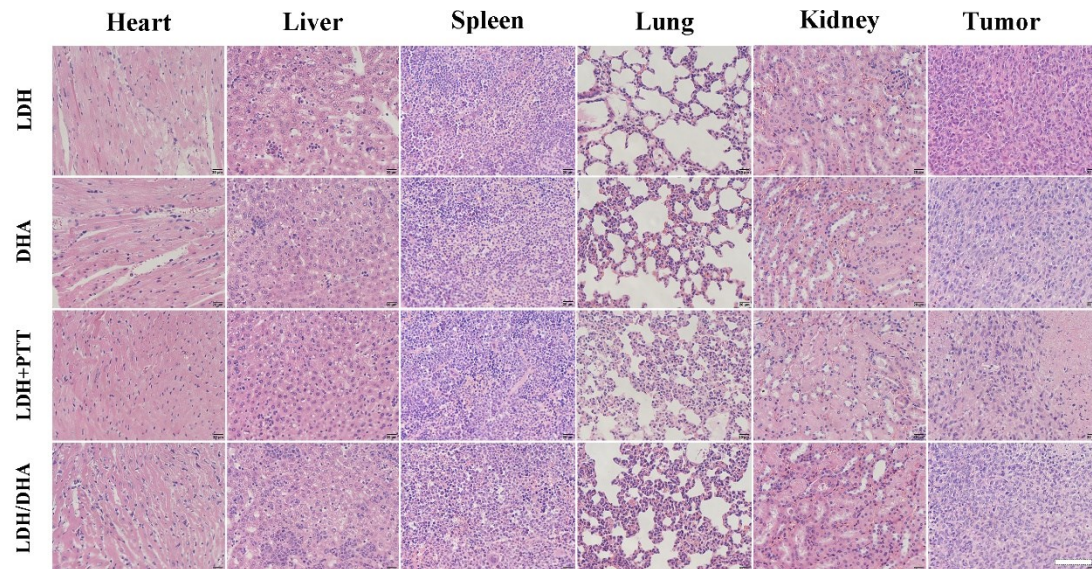


Figure. S9 Histological evaluations of heart, liver, spleen, lung, kidney, and tumor with H&E staining in mice treated with various formulations. The scale bar is 100 μ m.

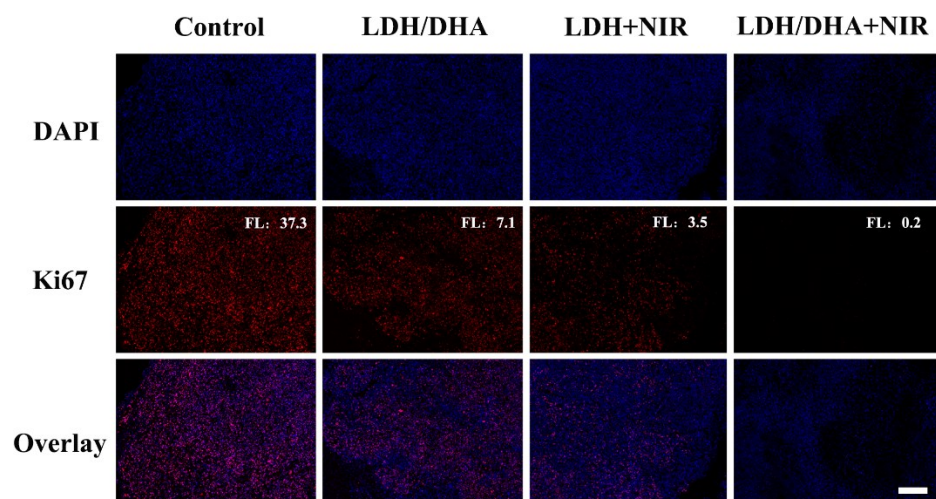


Figure. S10 Ki67 stained tumor images of different groups (Control, LDH/DHA, LDH+NIR, LDH/DHA+NIR) after various treatments (FL: fluorescence intensity). The scale bar is 200 μm .

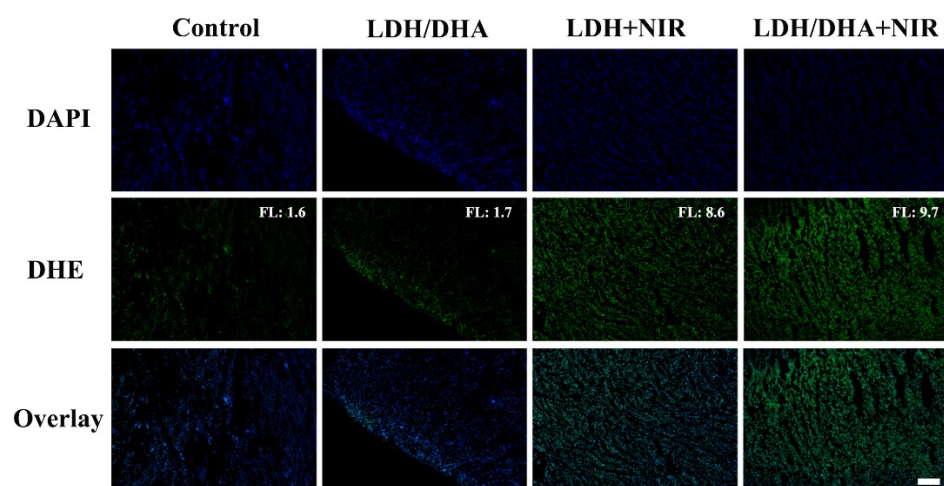


Figure. S11 DHE stained tumor images of different groups (Control, LDH/DHA, LDH+NIR, LDH/DHA+NIR) after various treatments for ROS detection (FL: fluorescence intensity). The scale bar is 200 μm .