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Supporting information for:

Construction of a Multifunctional Nanoprobe for Tumor-Targeted Time-Gated Luminescence and Magnetic Resonance Imaging in Vitro and in Vivo

Zhichao Dai^{‡a,b}, Hua Ma^{‡b}, Lu Tian^{a,b}, Bo Song^{*b}, Mingqian Tan^c, Xiuwen Zheng^a, Jingli Yuan^{*b}

^aShandong Key Laboratory of Functional Nano Materials and Technology, School of Chemistry and

Chemical Engineering, Linyi University, Linyi 276000, China

^bState Key Laboratory of Fine Chemicals, School of Chemistry, Dalian University of Technology, Dalian 116024, China

^cSchool of Food Science and Technology, National Engineering Research Center of Seafood, Dalian Polytechnic University, Qinggongyuan1, Ganjingzi District, Dalian 116034, China

*Corresponding author.

Tel./Fax: +86-411-84986042;

E-mail: bo.song@dlut.edu.cn; jlyuan@dlut.edu.cn

‡Equal contribution to this work



Figure S1. Preparation procedure of PTTA-Eu³⁺-CoFeO-FA NPs.



Figure S2 HRTEM image of PTTA-Eu3+-CoFeO-FA nanoparticles. Scale bar: 2 nm.



Figure S3. The PXRD patterns of CoFeO NPs (A, red line), PTTA-Eu³⁺-CoFeO-FA NPs (B, red line) and CoFe₂O₄ crystal (PDF#02-1045, blank line).



Figure S4. High-angle annular dark-field scanning TEM (HAADF-STEM) and corresponding mapping images of PTTA-Eu³⁺-CoFeO-FA nanoparticles. Scale bar: 60 nm.



Figure S5. Hydrated particle size distributions of CoFeO-DMSA NPs (red line) and PTTA-Eu³⁺-CoFeO-FA NPs (black line) in water by dynamic light scattering (DLS) measurement.



Figure S6. Zeta potential distributions of CoFeO-DMSA NPs (A) and PTTA-Eu³⁺-CoFeO-FA NPs (B) in water.



Figure S7. (A) Magnetic hysteresis loops of CoFeO-DMSA NPs at room temperature. (B) The separation of CoFeO NPs from the bulky solution by magnetic force.



Figure S8. Viabilities of RAW 264.7 cells incubated with different concentrations of PTTA-Eu³⁺-CoFeO-FA NPs for 24 h.



Figure S9. T_2 -weighted MR images of KM mouse before (A) and after (B) injection of the PTTA-Eu³⁺-CoFeO-FA NPs for 2 h.



Figure S10. T_2 -weighted MR intensity of tumor contrasts of tumor-bearing nude mice after injection with PTTA-Eu³⁺-CoFeO-FA NPs (A) and PTTA-Eu³⁺-CoFeO NPs (B) via tail vein at different time points.