

Electronic Supplementary Information (ESI)

Controllable synthesis of $\text{NH}_4\text{Eu}_3\text{F}_{10}$ nanospheres and its application in bioimaging

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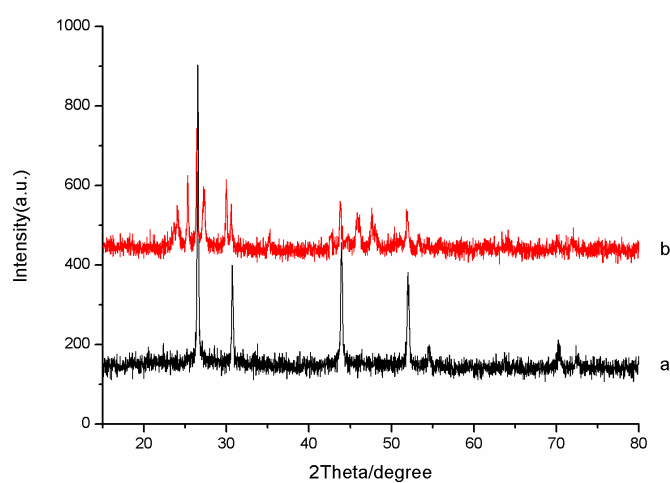


Figure. S1 XRD patterns of products prepared in 5.5 mL ammonium hydroxide solution:(a) without oleic acid, (b) without EDTA.

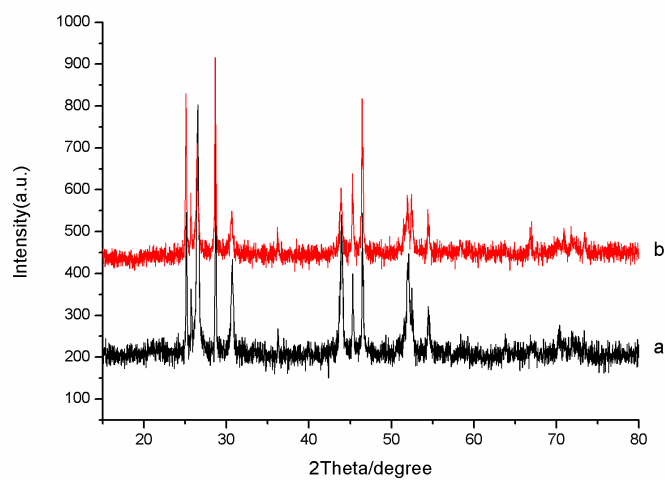


Figure. S2 XRD patterns of products prepared in (a) 9.5 mL and (b) 10 mL ammonium hydroxide solution after 8 h hydrothermal treating.

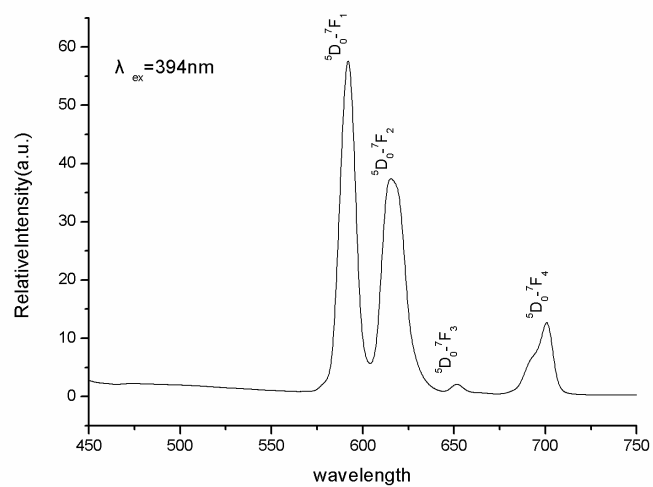


Figure. S3 Down-conversion luminescence spectrum of $\text{NH}_4\text{Eu}_3\text{F}_{10}$ nanospheres. ($\lambda_{ex} = 394\text{ nm}$).

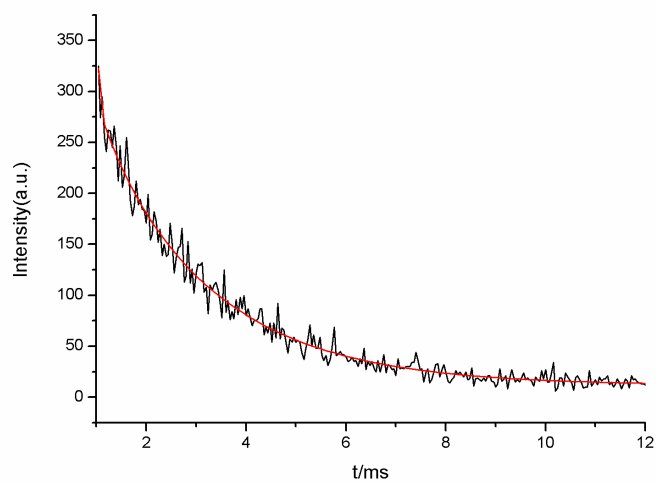


Figure. S4 Decay curve of Eu^{3+} luminescence (592 nm) upon 394 nm UV excitation of $\text{NH}_4\text{Eu}_3\text{F}_{10}$ nanospheres.

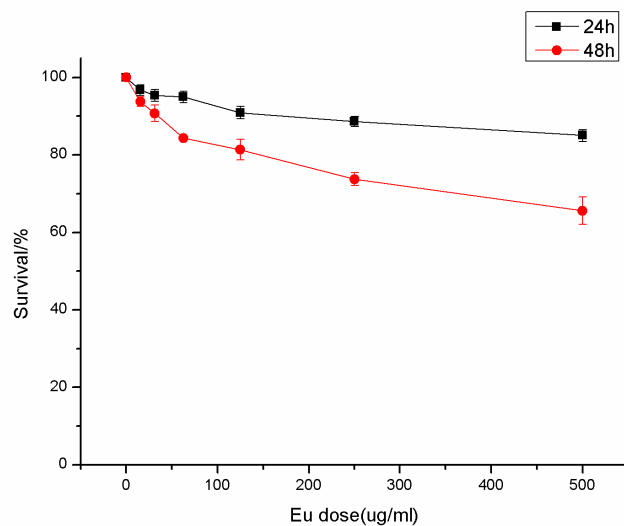


Figure. S5 Cytotoxicity of as-prepared $\text{NH}_4\text{Eu}_3\text{F}_{10}$ nanospheres against the human cervical cancer cell line determined by MTT assay after 24 h and 48 h.

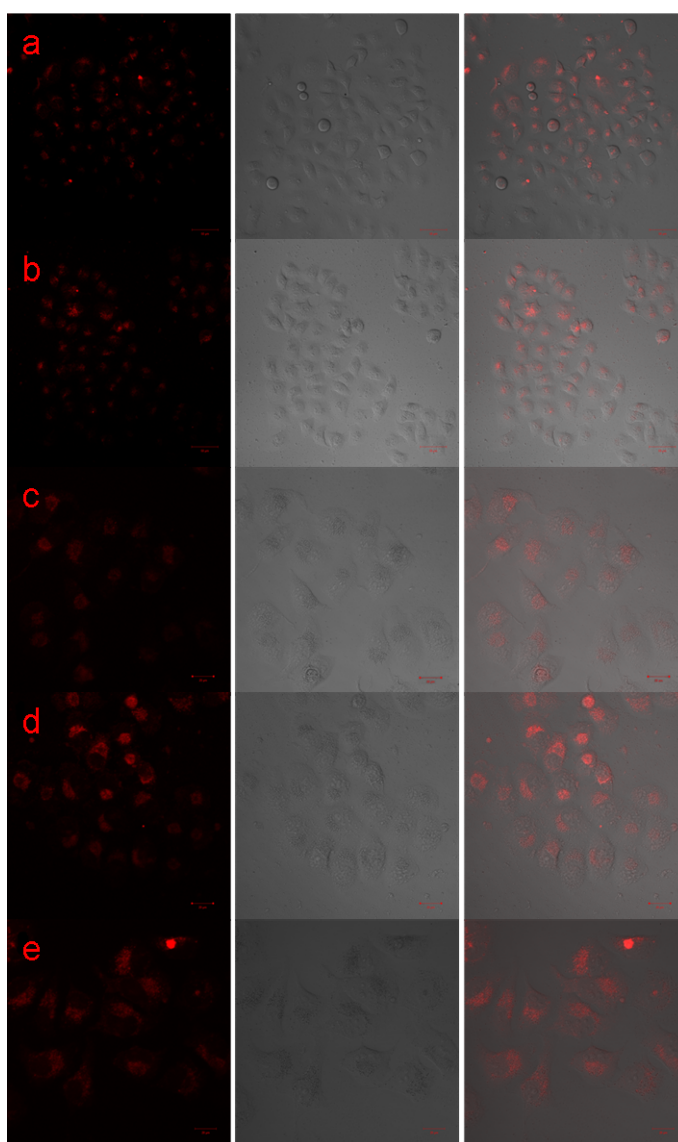


Figure. S6 Exciting at 405 nm, CLFM images of HeLa cells stained with 100 $\mu\text{g/mL}$ $\text{NH}_4\text{Eu}_3\text{F}_{10}$ nanospheres at 37 °C for (a) 2h, (b) 6 h, (c) 18h, (d) 24h, (e) 48h on the left, the bright field images in the middle, and the merged images of bright field and CLFM images on the right.