## **Supporting Information**

## **Eu/Tb Codoped Spindle-shaped Fluorinated Hydroxyapatite**

## Nanoparticles for Dual-Color Cell Imaging

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**Figure S1.** The amplified EDS patterns from 5.0 keV to 8.5 keV. a, 4% Eu doped FAp nanoparticles. b, 4%:4% Eu/Tb codoped FAp nanoparticles. c, 4%;4% Eu/Tb codoped FAp nanoparticles. d, 4%:8% Eu/Tb codoped FAp nanoparticles.

Sample	Oleic acid/ml	Alcohol/ml	Ratio		
a	2.2	17.8	1:8		
b	4	16	1:4		
с	6.7	13.3	1:2		
d	10	10	1:1		

**Table S1** The ratio of oleic acid and alcohol for different size FAp nanoparticles



**Figure S2** The different morphology and size at the different ratio of oleic acid and alcohol. a, SEM image of the ratio=1:8; b, SEM image of the ratio=1:4; b-1, TEM image of the ratio=1:4; c, SEM image of the ratio=1:2; c-1, TEM image of the ratio=1:2; d, SEM image of the ratio=1:1;

	Total	Endocytosis by cells	Endocytosis rate	
150 nm FAp-1	6 mg	2.83	- 370 μg/h	
150 nm FAp-2	6 mg	3.10		
250 nm FAp-1	6mg	1.95	220	
250 nm FAp-2 6mg		1.78	250 µg/n	

Table S2 The endocytosis efficiency of different size FAp nanoparticles