

Supplementary Materials: pH-Sensitive Folic Acid Conjugated Alginate Nanoparticle for Induction of Cancer-Specific Fluorescence Imaging

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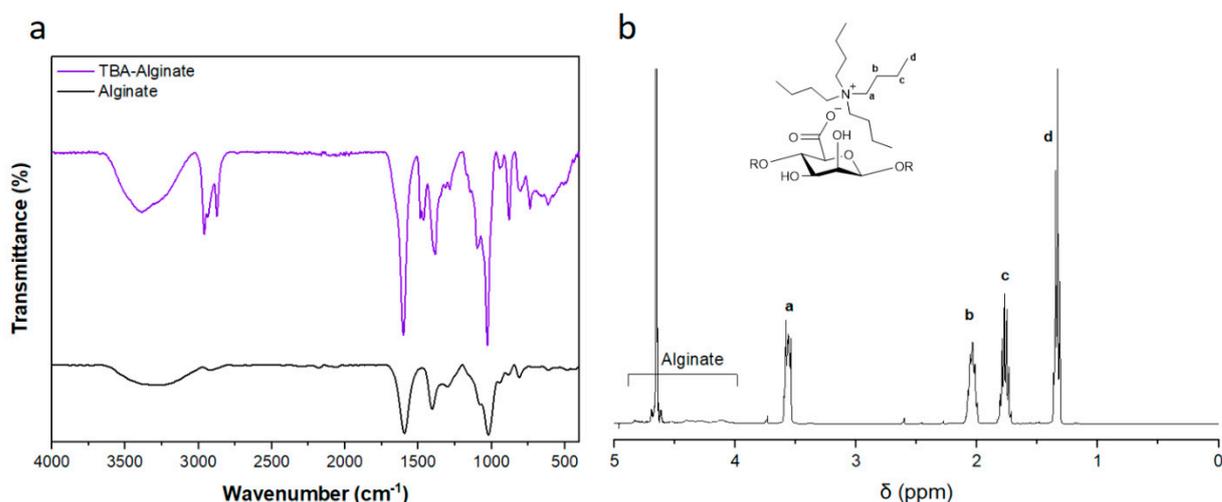


Figure S1. Characterization of TBA-Alginate. (a) FT-IR spectra of TBA-Alginate and alginate, (b) ¹H NMR spectrum of alginate-TBA in D₂O.

Table S1. Classification by nanoparticle fabrication conditions. The average size, ζ potential, 5-ALA loading capacity (LC) and encapsulation efficiency (EE) of AF nanoparticles.

NP	Alginate-FA (wt%)	HLB	Day 0		Zeta potential (mV)	LC%	EE%
			Size (nm)	PDI			
NP1	0.5	7	117.9±0.65	0.389	-27.4±2.1	1.2%	6.33%
NP2		8	53.56±1.52	0.496	-23.3±0.7	0.4%	8.8%
NP3	1	7	83.45±3.47	0.584	-22.8±2	2.8%	27.14%
NP4		8	45.89±1.56	0.454	-29.3±0.1	1.8%	31.6%

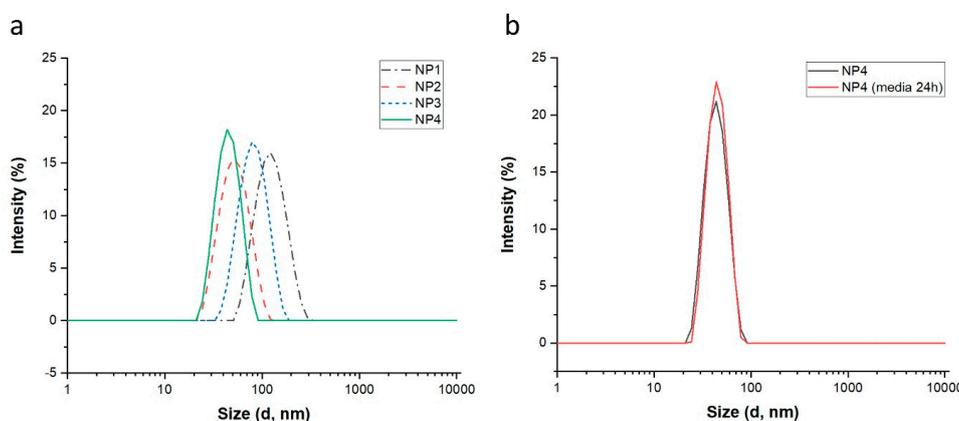


Figure S2. (a) The intensity according to the size of the four types of AF NPs was measured and indicated using DLS. (b) The size distribution of AF NPs stored in PBS at 4 °C and AF NPs incubated at 37 °C for 24 hours in cell media was shown.

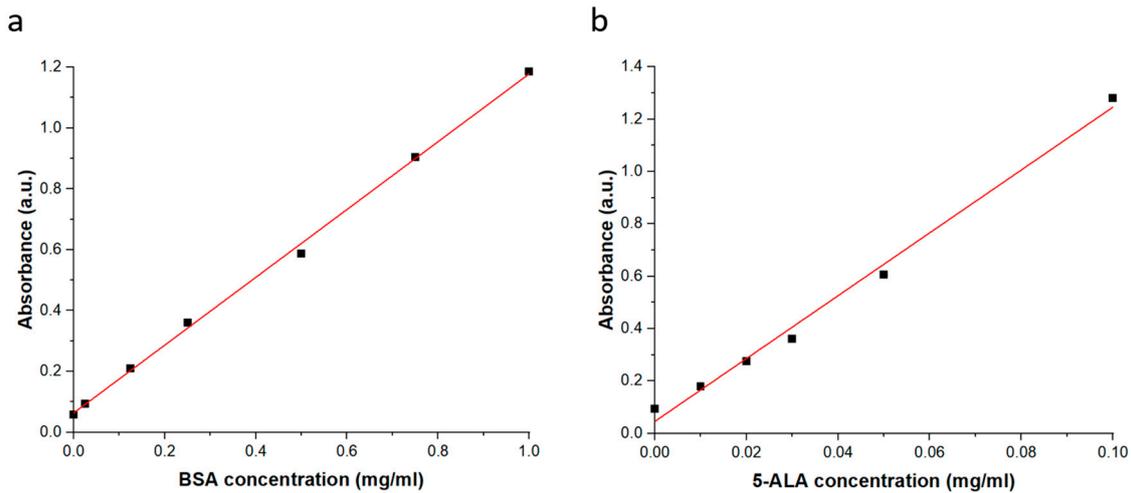


Figure S3. (a) The standard curve of BSA for BCA assay. (b) The calibration curve of 5-ALA by TBNSA Kit.

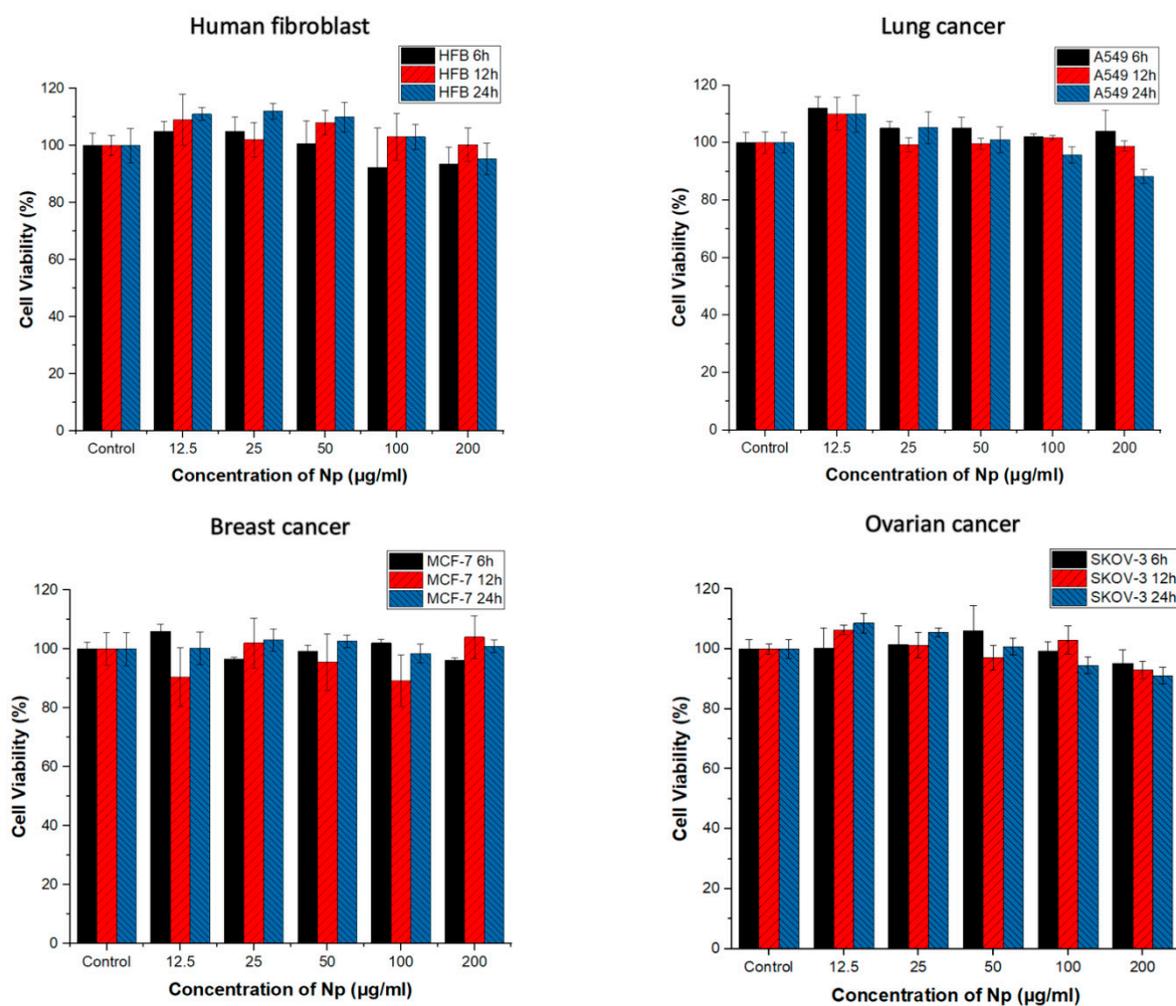


Figure S4. Cytotoxicity test of AF nanoparticles. After treating AF nanoparticles of various concentrations for 6 h, 12 h, and 24 h, the toxicity of the AF nanoparticles was investigated using CCK-8 assay.