Supporting Information

One-Pot Synthesis of Sustain-Released Doxorubicin Silica Nanoparticles for Aptamer Targeted Delivery to Tumor cells

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1. Experimental Results

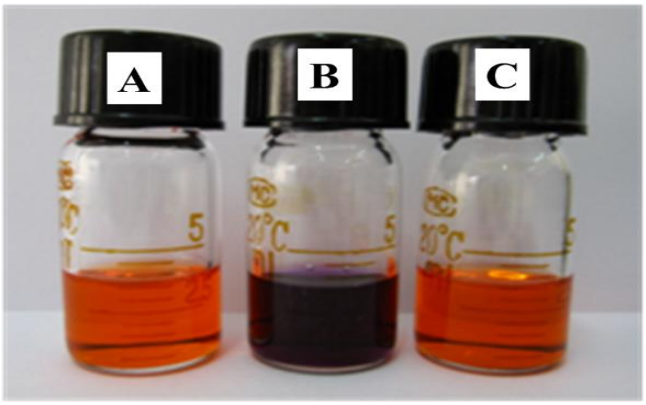

Figure S1. Images of Dox-contained reverse microemulsion after adding catalyst.

(A) Dox-contained reverse microemulsion; **(B)** Dox-contained reverse microemulsion after adding NH_4OH; **(C)** Dox-contained reverse microemulsion after adding NaF.

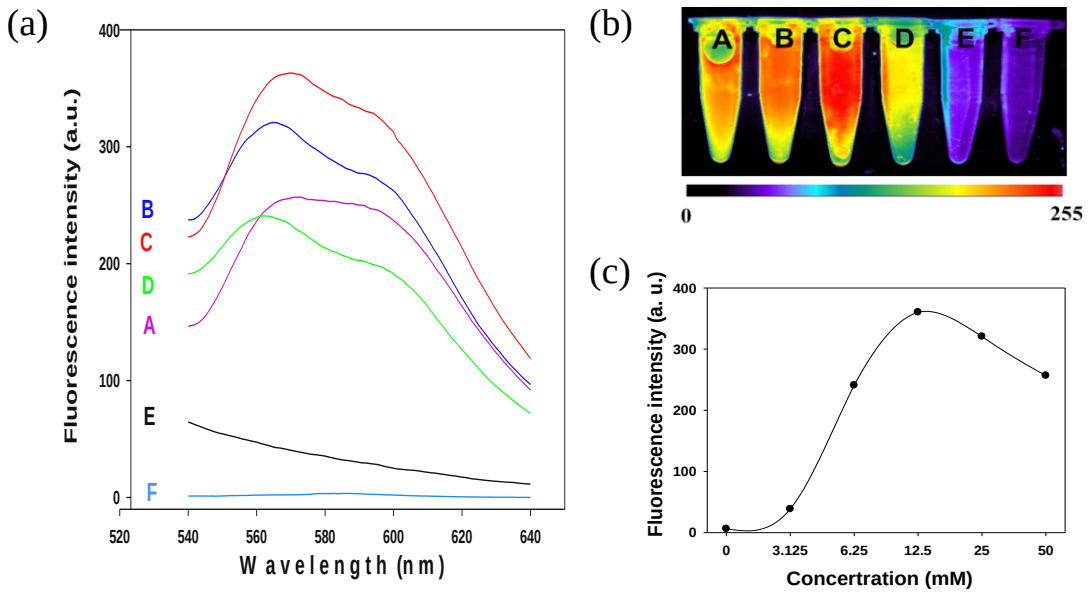

Figure S2. **(a)** Fluorescence emission spectra of NaF-Catalyzed COOH-Dox/SiNPs with different concentration of Dox: **(A)** 50mM; **(B)** 25mM; **(C)** 12.5mM; **(D)** 6.25mM; **(E)** 3.125mM and **(F)** water control; **(b)** Fluorescence images of NaF-Catalyzed COOH-Dox/SiNPs with different concentration of Dox: **(A)** 50mM; **(B)** 25mM; **(C)** 12.5mM; **(D)** 6.25mM; **(E)** 3.125mM and **(F)** water; **(c)** The max fluorescence intensity of COOH-Dox/SiNPs with different concentration of Dox doped inside.

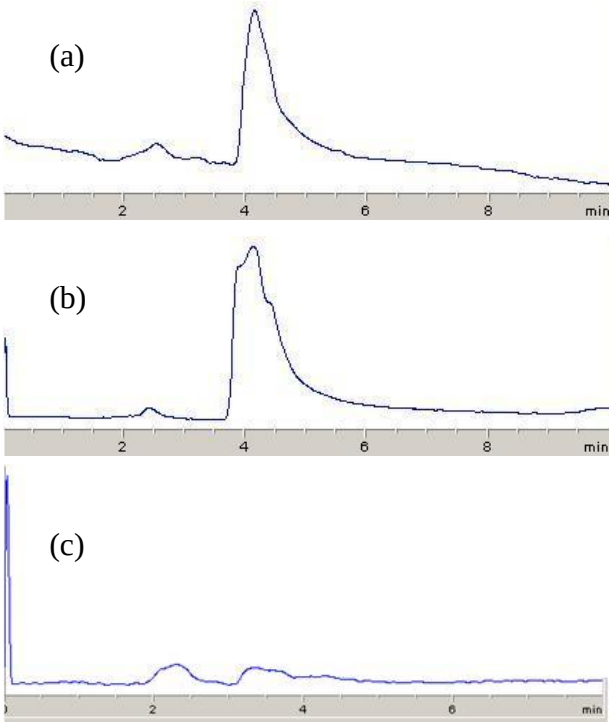

Figure S3. Chromatogram of (a) standard doxorubicin solution, (b) released doxorubicin products from the COOH-Dox/SiNPs and (c) doxorubicin suspended in NH_4OH.

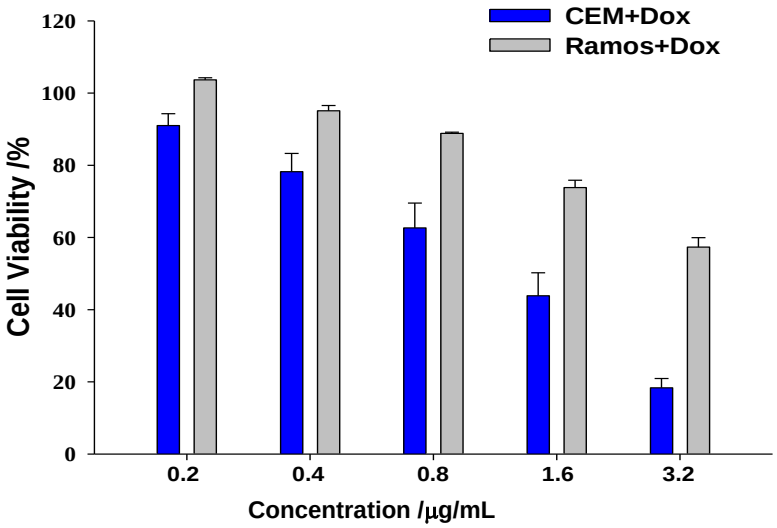

Figure S4. Cytotoxicity assays of free Dox with CEM and Ramos cells.

Table S1. Anticancer efficacy comparison of COOH-Dox/SiNPs with free Dox.

Concentration / Cells viability	Free Dox Concentration (μg/mL)			(Encapluated Dox concentration)/ (COOH-Dox/SiNPs Concentration) (μg/mL)		
	0.4	0.8	1.6	0.42/10	0.84/20	1.68/40
CEM Cells viability (%)	78.24±5.04	62.64±6.89	43.84±6.37	77.64±8.37	58.37±9.57	34.98±6.08
Ramos Cells viability (%)	95.09±1.45	88.83±0.33	73.80±2.03	99.79±7.87	85.26±2.78	66.46±1.02