Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Supporting Information

Flexible Assembly of Targeting Agents to Acid-Sensitive Multifunctional Porous Magnetic Nano-Cargos by Inclusion Complexation for Accurate Drug Delivery

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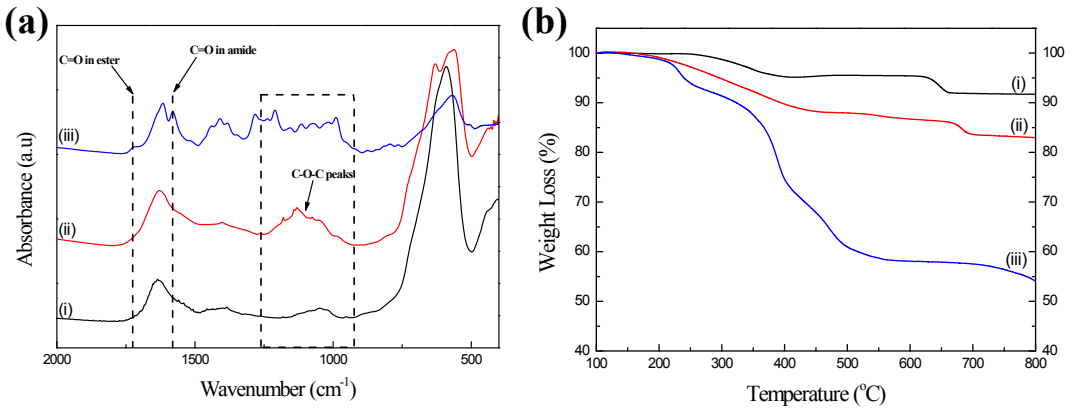

Fig. S1 (a) FT-IR spectra and (b) TGA curves of (i) MSP-PEG, (ii) p-MSP-PEG and (iii) DOX@p-MSP-PEG. In FT-IR spectra, the peak at 1720 cm^{-1} represents the C=O in the ester bond; the peak at 1580 cm^{-1} represents the C=O in the amide bond; the peaks from 1050 to 1200 cm^{-1} represent the C-O-C bonds of PEG.

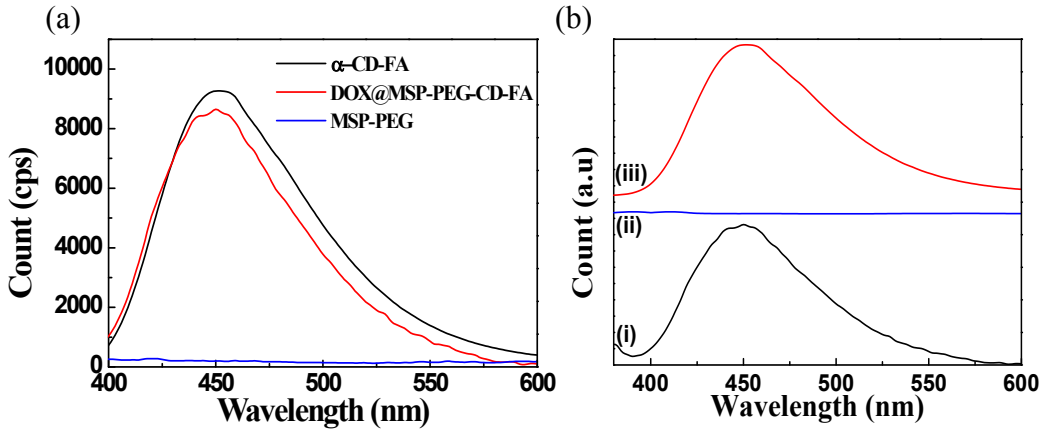

Fig. S2 (a) Fluorescence spectra of MSP-PEG, α-CD-FA, and DOX@p-MSP-PEG-FA; (b) Fluorescence spectra of (i) DOX@p-MSP-PEG-FA; (ii) DOX@p-MSP-PEG-FA treated with α-CD solution; (iii) the DOX@p-MSP-PEG-FA treated with α-CD solution firstly and then treated with α-CD-FA solution again.

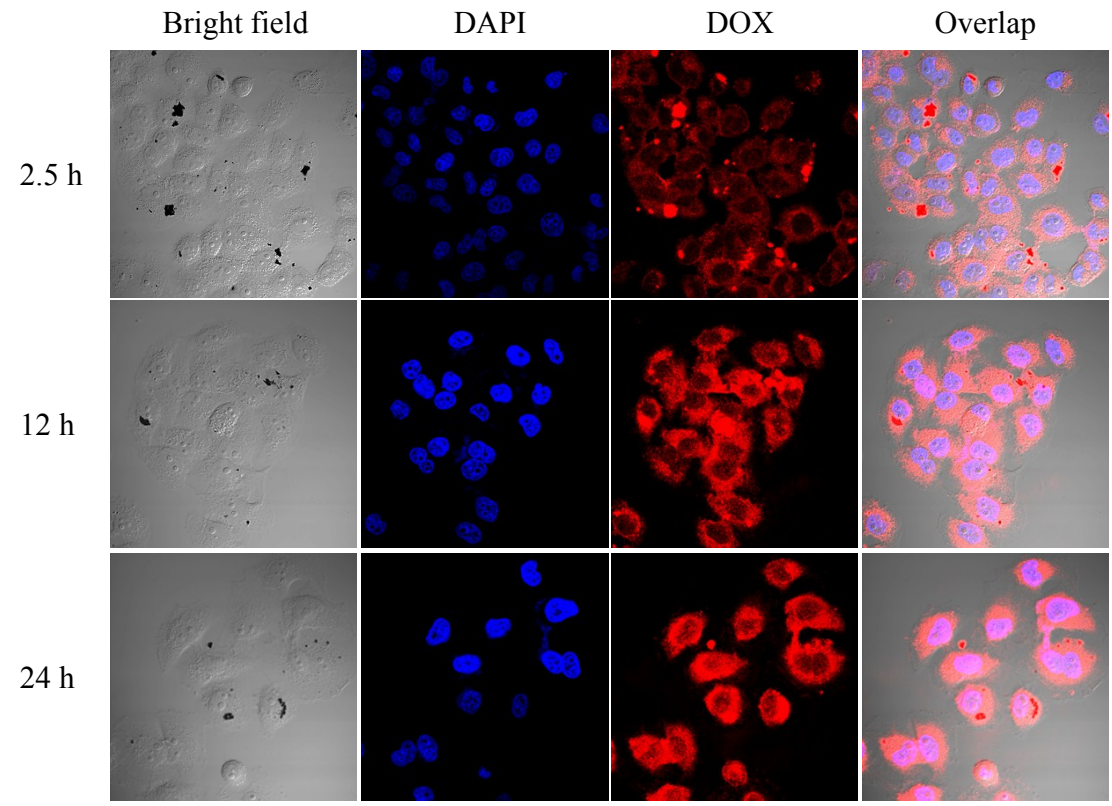

Fig. S3 The CLSM images of HeLa cells incubated with DOX@p-MSP-PEG-FA for 2.5, 12 and 24 h. excitation wavelength was 368 nm.

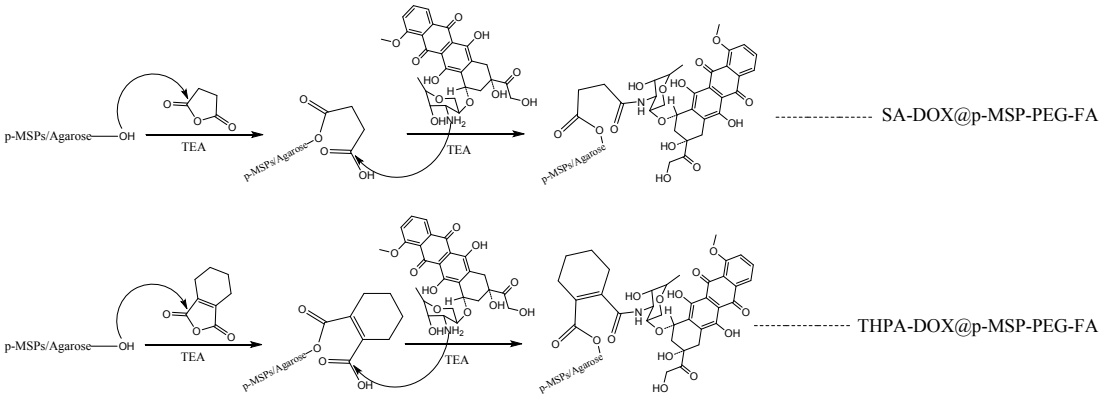

Fig. S4 The synthetic route of SA-DOX@p-MSP-PEG-FA and THPA-DOX@p-MSP-PEG-FA.

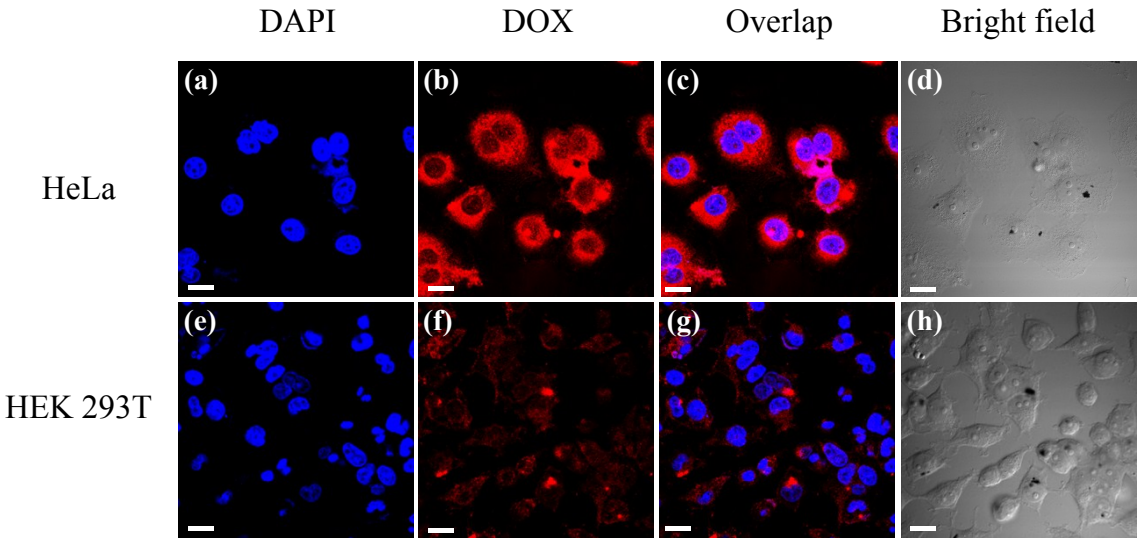

Fig. S5 The CLSM images of (a-d) HeLa cells and (e-f) HEK 293T cells incubated with DOX@p-MSP-PEG-FA for 24 h. All the scale bars are 20 μm.

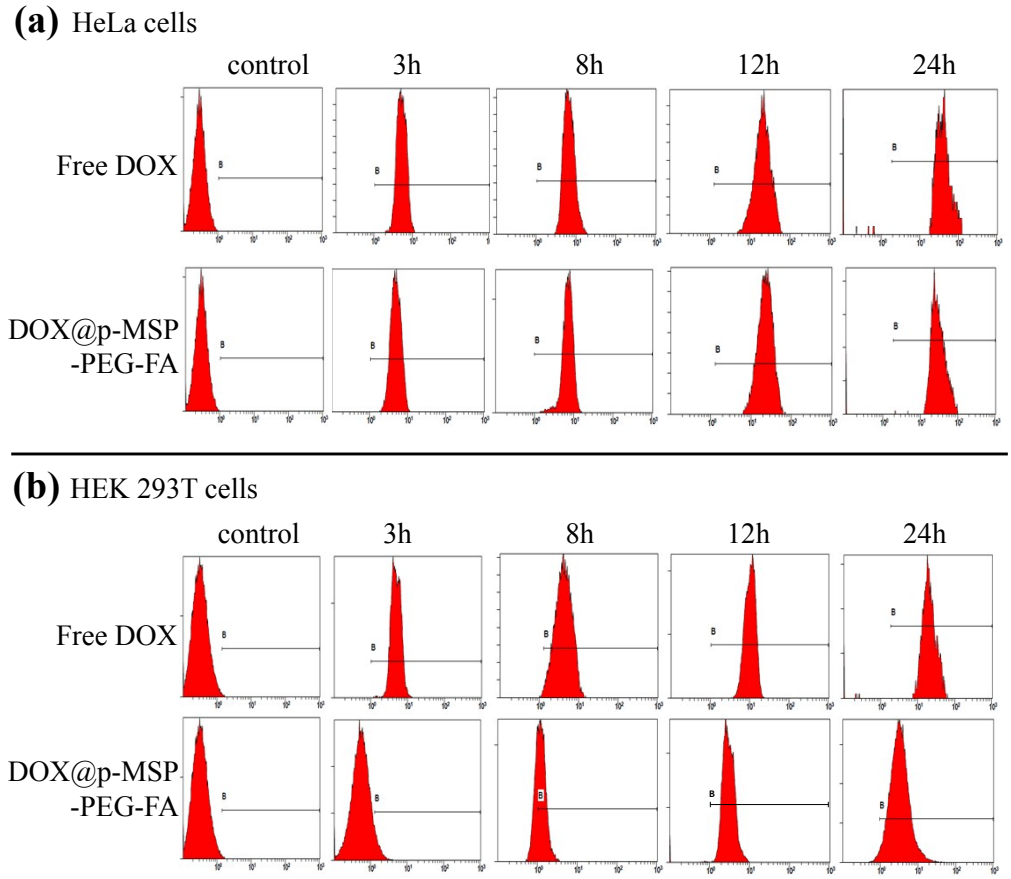

Fig. S6 The flow cytometer graphs of (a) HeLa cells and (b) HEK 293T cells incubated with DOX@p-MSP-PEG-FA (Nano-cargos) or free DOX for different times (0 h, 3 h, 8 h, 12 h and 24 h).