## **Supporting information**

## Construction of coumarin-based cross-linked micelles with pH responsive hydrazone bond and tumor targeting moiety

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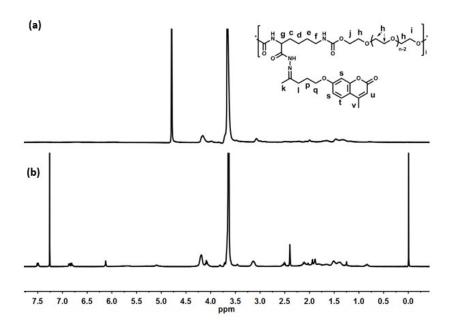
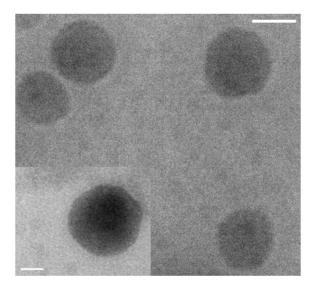


Figure S1. <sup>1</sup>H-NMR of micelles in D<sub>2</sub>O (a) and PU-hydra-OMC in CDCl<sub>3</sub> (b).



**Figure S2.** TEM microphotography of micelles. (Scale bare: 100 nm for the entire picture and 50 nm for the inside picture).

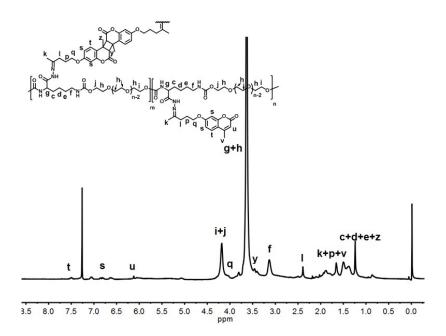
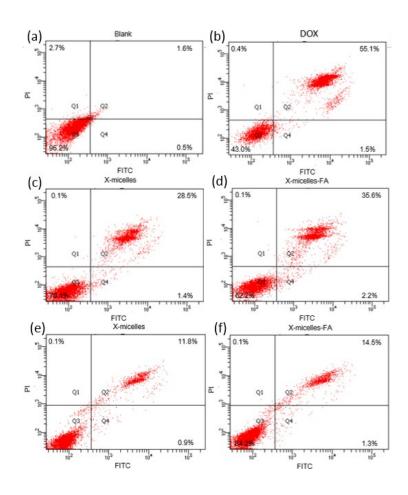


Figure S3. <sup>1</sup>H-NMR of x-micelles in CDCl<sub>3</sub>.



**Figure S4.** The scheme of apoptosis: (a) blank control, (b) DOX, (c) x-micelles (d) x-micelles-FA for Hela cells, and (e) x-micelles, (f) x-micelles-FA for L929 cells. Images were taken from one out of three measurements in a typical experiment. The dosage of DOX for both Hela and L929 cells was 2  $\mu$ g/mL.