Electronic Supplementary Material (ESI) for Biomaterials Science.

Supporting Information

Hyperbranched PEG-based Supramolecular Nanoparticles for Acid-Responsive Targeted Drug Delivery†

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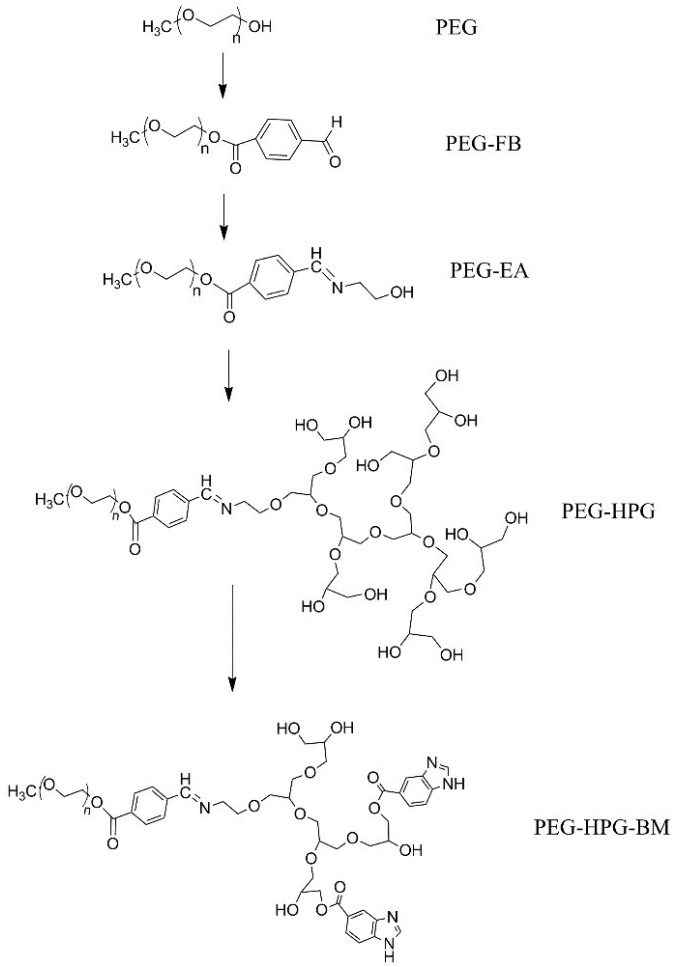

Fig. S1 synthesis procedure of PEG-HPG-BM

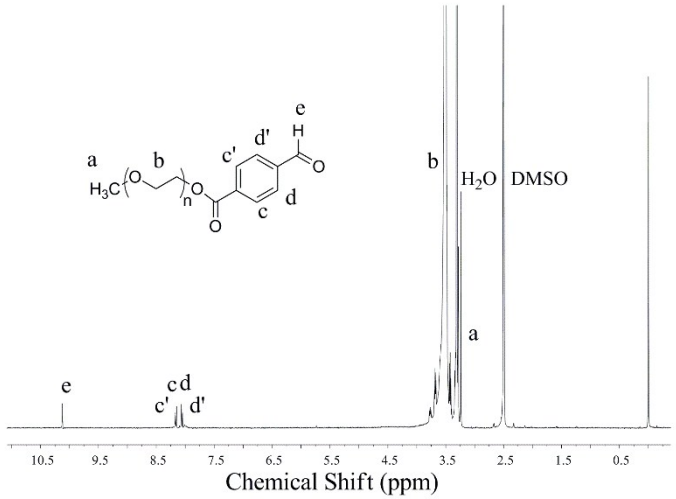

Fig. S2 ^{1}H NMR spectrum of PEG-FB in DMSO-d_6

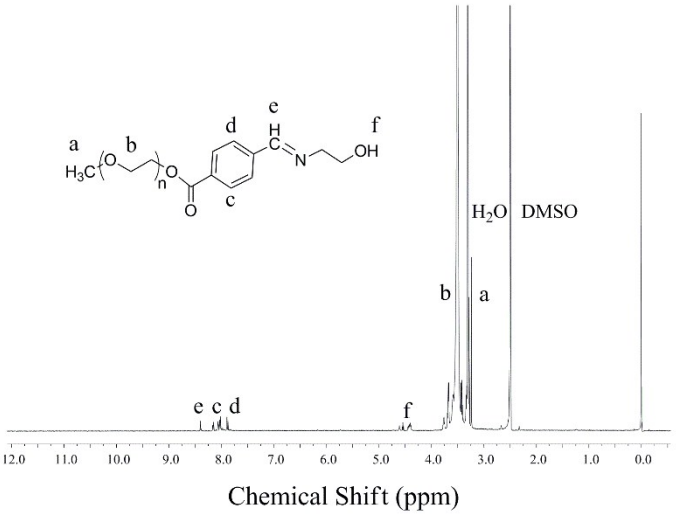

Fig. S3 ^{1}H NMR spectrum of PEG-EA in DMSO-d_6

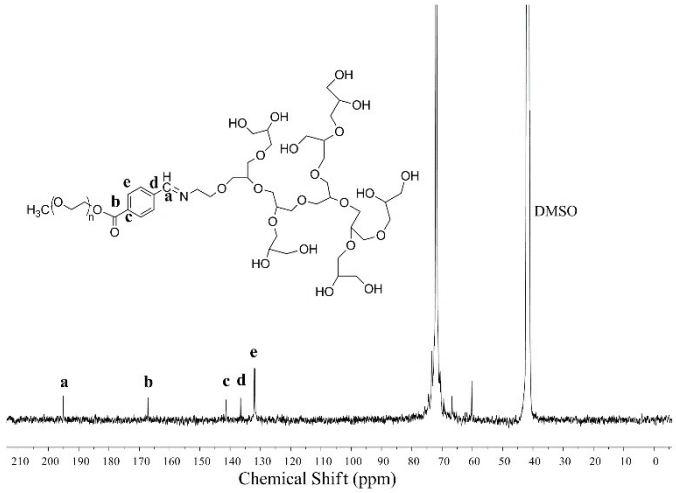

Fig. S4 ^{13}C NMR spectrum of PEG-HPG in DMSO-d_6

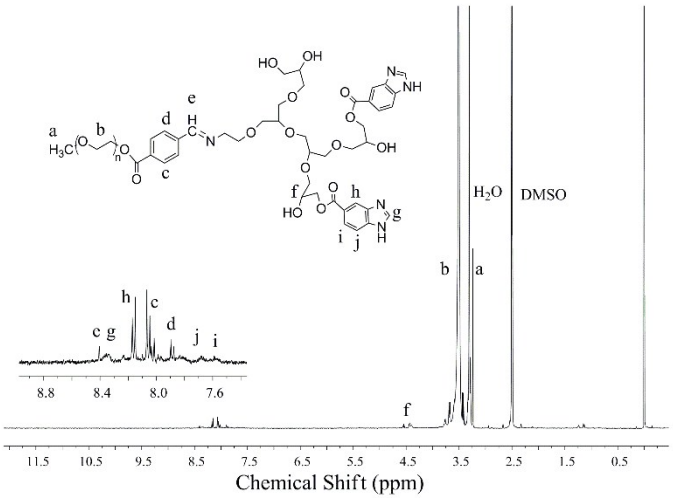

Fig. S5 ^{1}H NMR spectrum of PEG-HPG-BM in DMSO-d_6

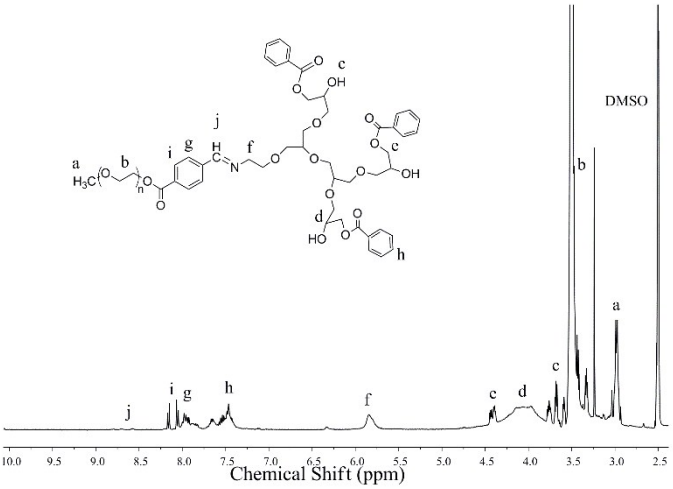

Fig. S6 ^{1}H NMR spectrum of PEG-HPG-BA in DMSO-d_6

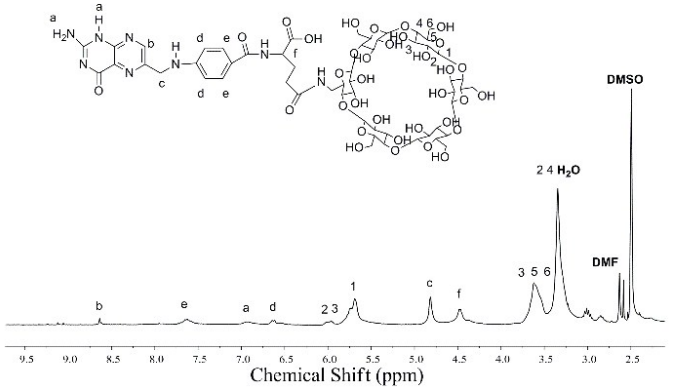

Fig. S7 ^{1}H NMR spectrum of FA-CD in DMSO-d_6

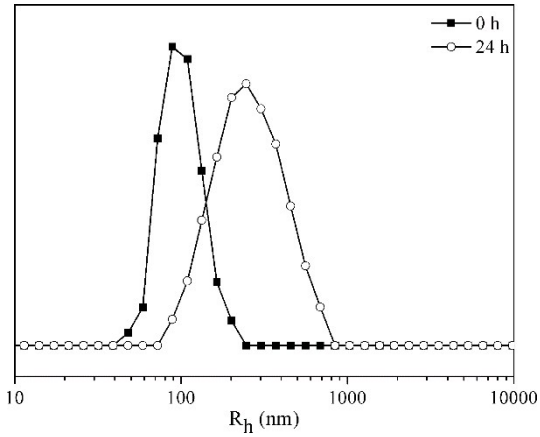

Fig. S8 DLS of TSNs at pH 5.3 in PBS solution.

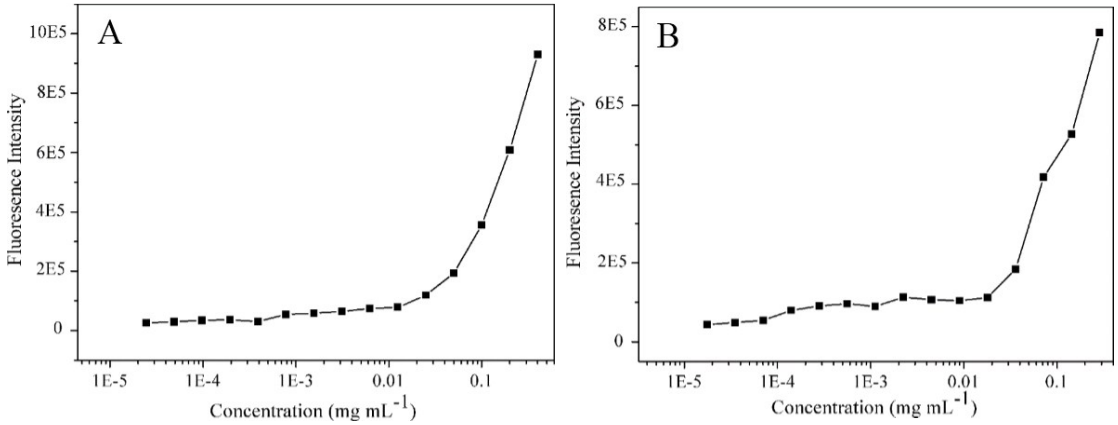

Fig. S9 CMC values of PEG-HPG-BM (A) and PEG-HPG-BA (B) at pH 7.4 in PBS solution.

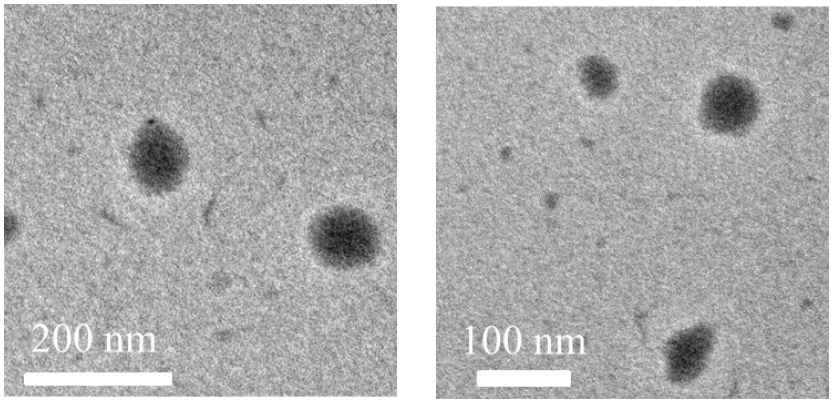

Fig. S10 TEM of PEG-HPB-BM and PEG-HPB-BA at pH 7.4

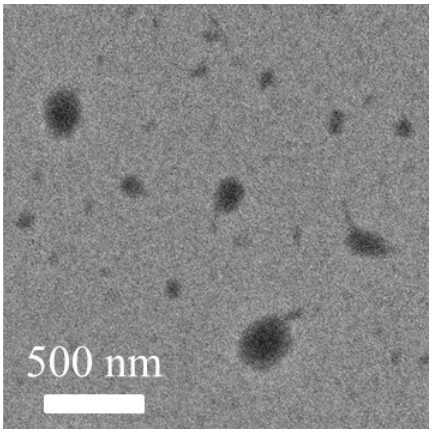

Fig. S11 TEM of TSNs at pH 5.3.

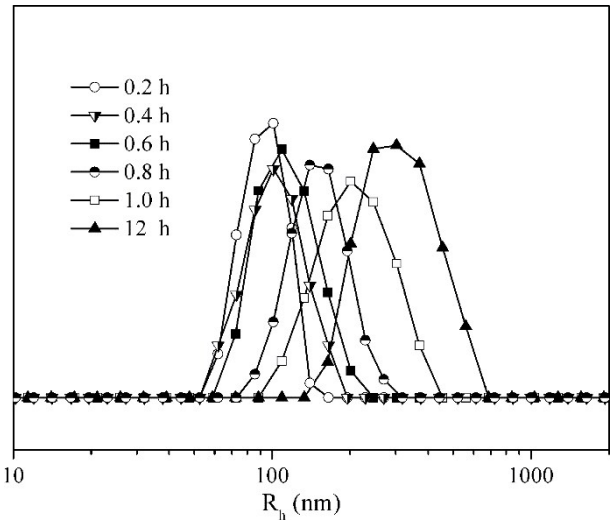

Fig. S12 Dynamic size changes of TSNs at pH 5.3.

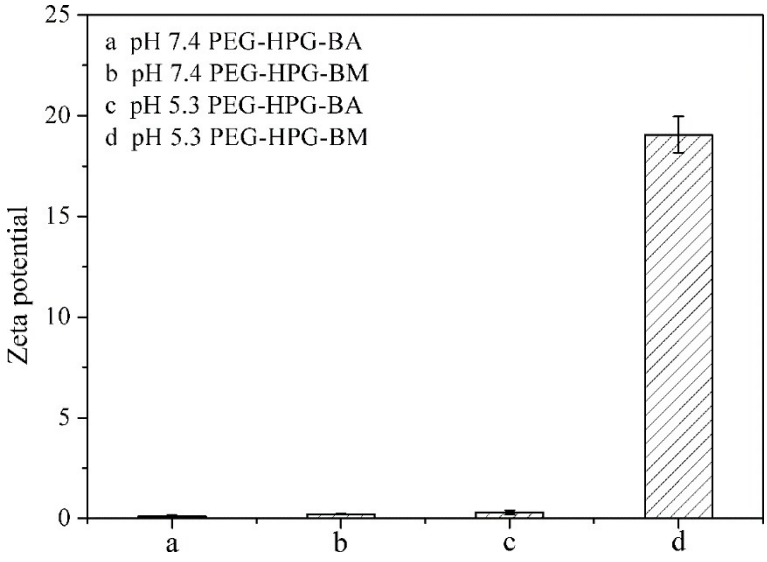

Fig. S13 Zeta potentials of PEG-HPG-BA and PEG-HPG-BM under pH 5.3 and 7.4 conditions

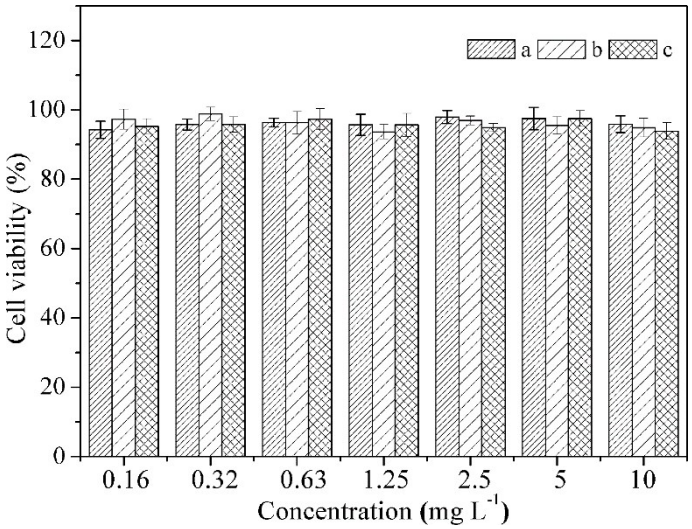

Fig. S14 Cytotoxicities of PEG-HPG-BM (a), PEG-HPG-BA (b) and TSNs (c) against L929 cells after incubation for 72 h, (n = 3, mean ± SD).

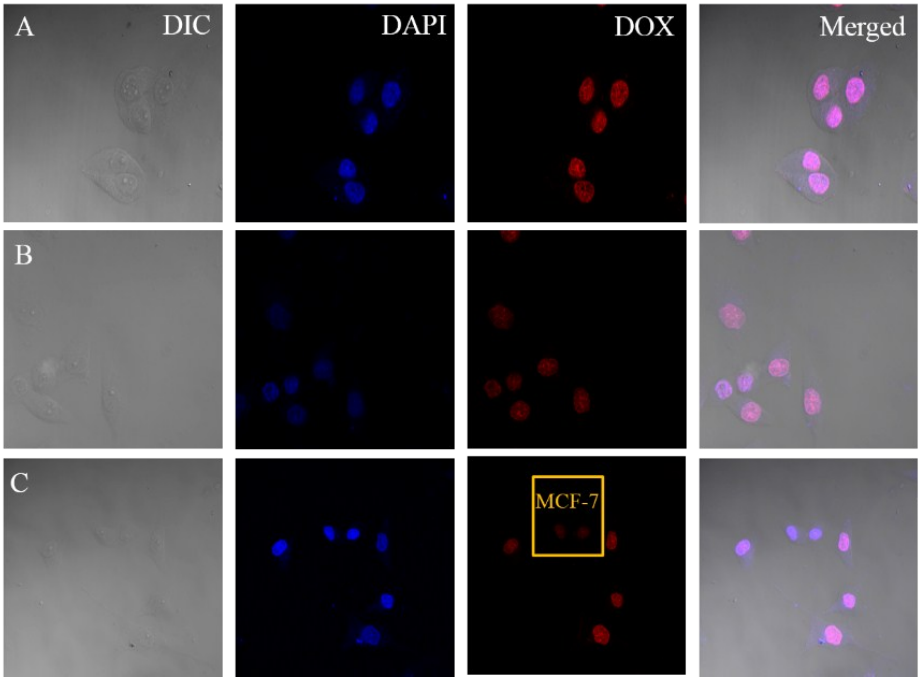

Fig. S15 Representative CLSM images of HeLa cells (A), MCF-7 cells (B) and co-culture HeLa and MCF-7 cells (C) incubated with DOX-loaded TSNs for 3 h.

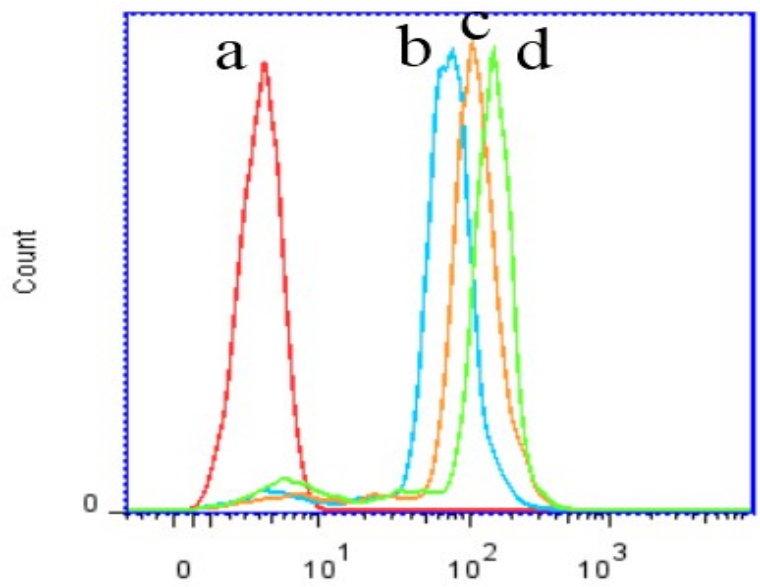

Fig. S16 Flow cytometric profiles of cells with PBS (a), MCF-7 cells (b), co-culture HeLa and MCF-7 cells (c) and HeLa cells (d) incubated with DOX-loaded TSNs for 3 h.

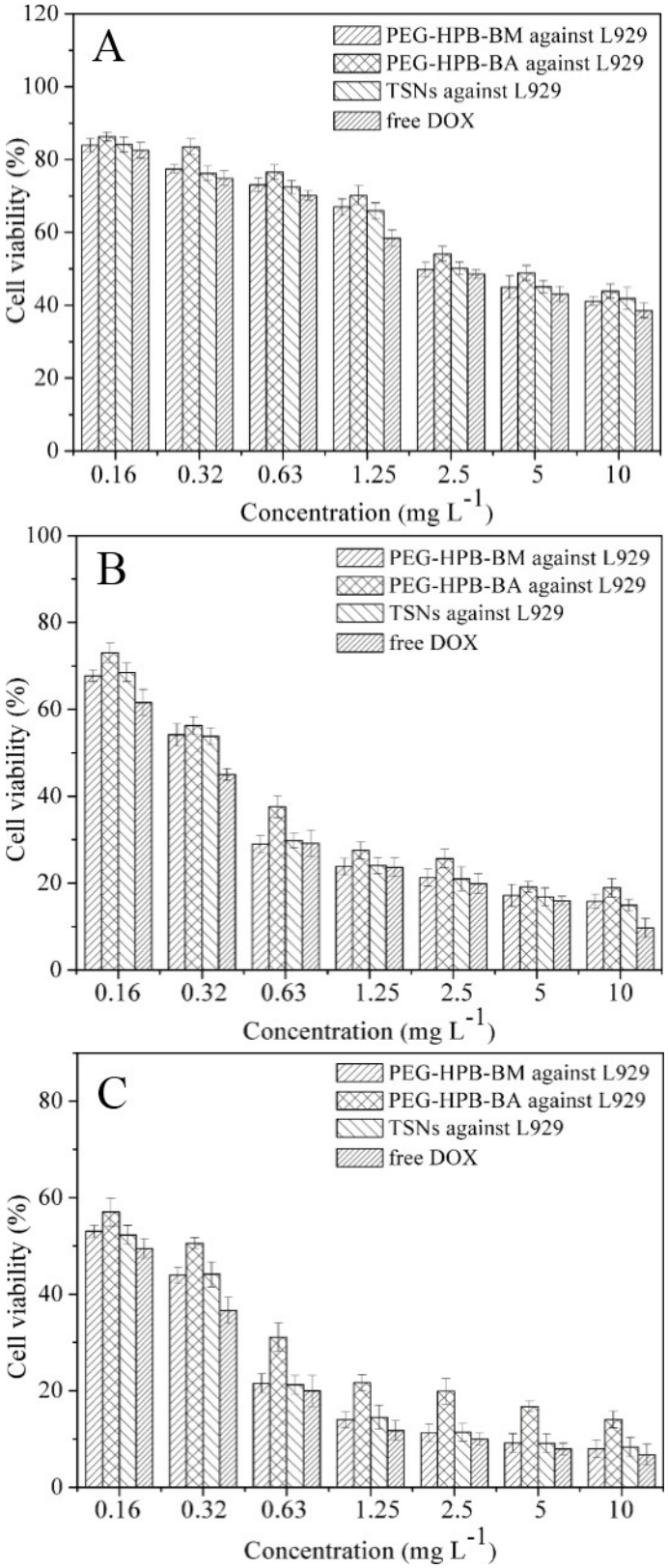

Fig. S17 Cytotoxicities of DOX-loaded nanoparticles towards L929 cells for 24 h (A), 48 h (B), and 72 h (C), (n = 3, mean ± SD).