Supplementary Materials: pH-Responsive Tumor-Targetable Theranostic Nanovectors Based on Core Crosslinked (CCL) Micelles with Fluorescence and Magnetic Resonance (MR) Dual Imaging Modalities and Drug Delivery Performance

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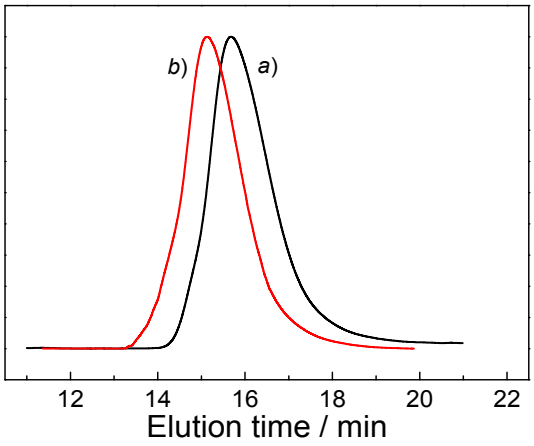

Figure S1. THF GPC traces of (**a**) N_3-POEGMA$_{32}$-Br macroinitiator and (**b**) N_3-POEGMA$_{32}$-*b*-P(DPA$_{0.86}$-*co*-GMA$_{0.14}$)$_{42}$ diblock copolymer.

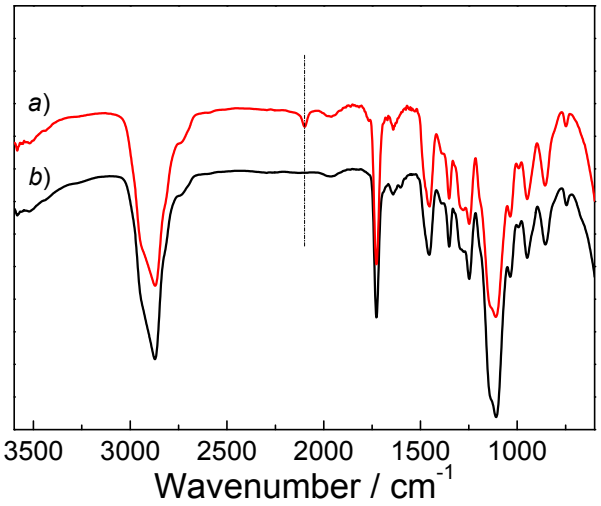

Figure S2. FT-IR spectra of N_3-POEGMA$_{32}$-Br macroinitiator (**a**) before and (**b**) after click reaction with 4-(prop-2-ynyloxy)benzaldehyde.

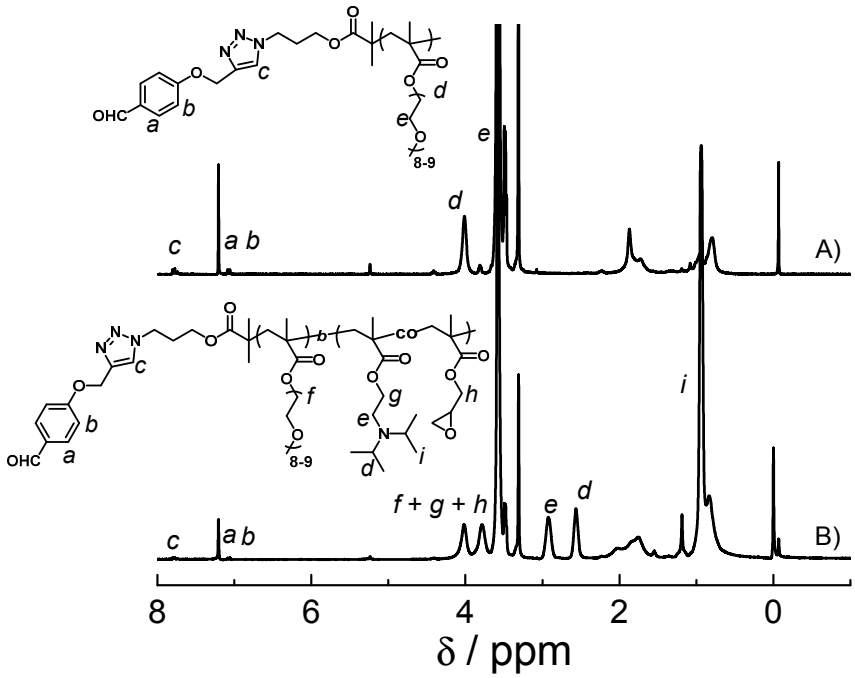

Figure S3. ^{1}H NMR spectra recorded in $CDCl_3$ for (**A**) benzaldehyde-POEGMA$_{32}$-Br and (**B**) benzaldehyde-POEGMA$_{32}$-*b*-P(DPA$_{0.86}$-*co*-GMA$_{0.14}$)$_{42}$ diblock copolymer.

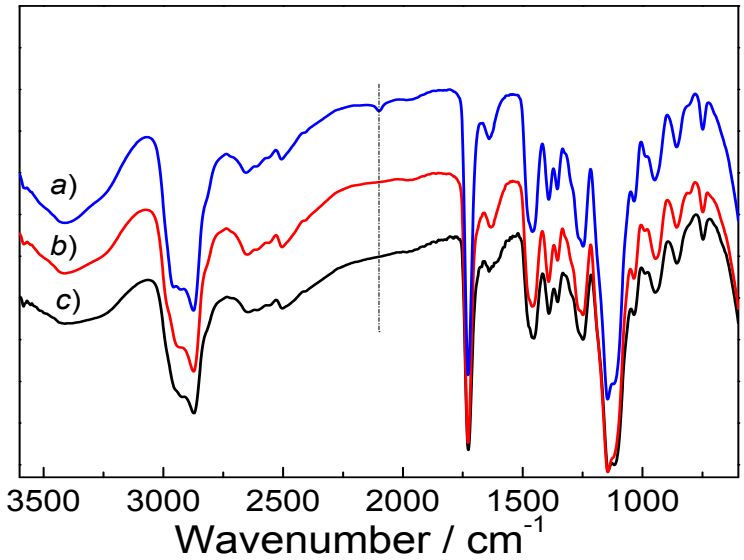

Figure S4. FT-IR spectra of (**a**) N_3-POEGMA$_{32}$-*b*-P(DPA$_{0.86}$-*co*-GMA$_{0.14}$)$_{42}$ (**BP1**) diblock copolymer precursor, (**b**) benzaldehyde-POEGMA$_{32}$-*b*-P(DPA$_{0.86}$-*co*-GMA$_{0.14}$)$_{42}$ (**BP3**), and (**c**) DOTA(*Gd*)-POEGMA$_{32}$-*b*-P(DPA$_{0.86}$-*co*-GMA$_{0.14}$)$_{42}$ (**BP2**).

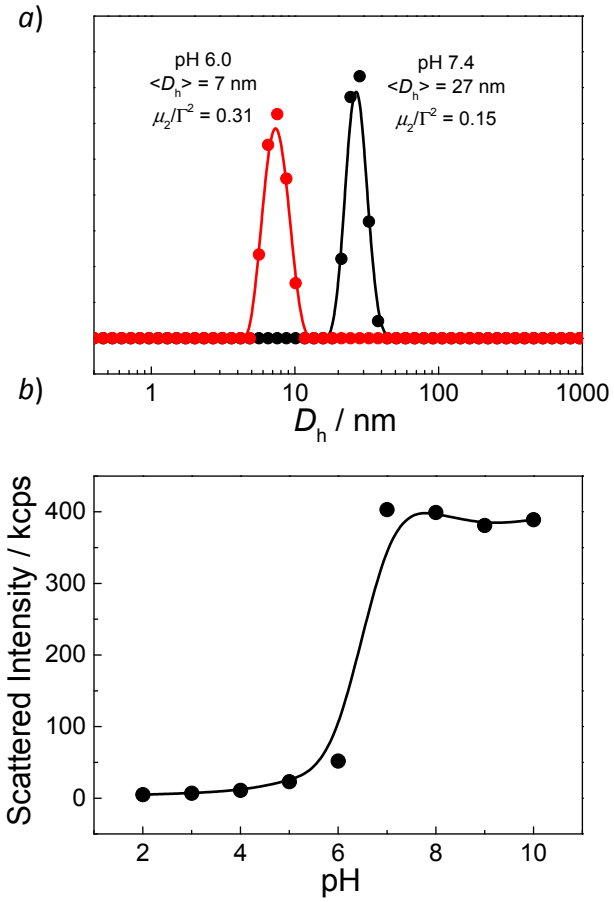

Figure S5. (**a**) Hydrodynamic distributions of 1.0 g/L aqueous solution (**BP2**/**BP3** = 9/1，wt %, 25 °C) of non-crosslinked *micelles* at pH 6.0 and 7.4; (**b**) Scattered light intensity changes for 1.0 g/L aqueous solution (**BP2**/**BP3** = 9/1，wt %, 25 °C) of non-crosslinked micelles at varying pH values.

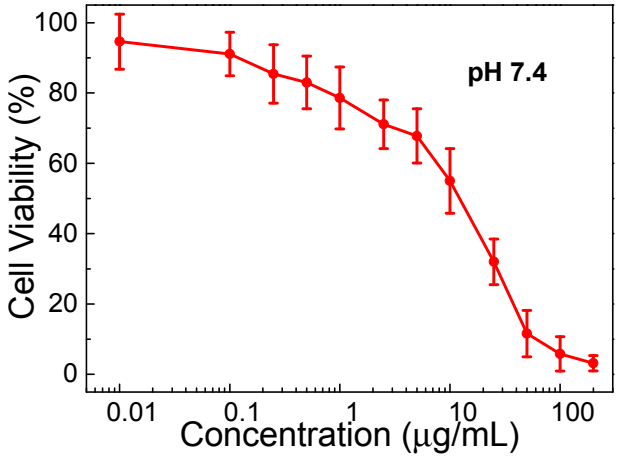

Figure S6. *In vitro* cytotoxicity of CPT at pH 7.4 as determined by MTT assay against A549 cells. For the cytotoxicity tests, A549 cells were firstly incubated with CPT at pH 7.4 for 2 h and were washed three time with PBS buffer, followed by a further incubation for 24 h.