Supporting Information

Tumor pH and Intracellular Reduction Responsive Polypeptide Nanomedicine with Sheddable PEG Corona and Disulfide-Cross-Linked Core

Yue Ding¹, Chang Du¹, Jiwen Qian¹, Linzhu Zhou¹, Yue Su¹, Rong Zhang²,*, Chang-Ming Dong¹,²,*

¹School of Chemistry and Chemical Engineering, Shanghai Key Laboratory of Electrical Insulation and Thermal Aging, Shanghai Jiao Tong University, Shanghai 200240, P. R. China

²Joint Research Center for Precision Medicine, Shanghai Jiao Tong University Affiliated Sixth People's Hospital South Campus, Shanghai Fengxian Central Hospital, Shanghai 201400, P. R. China

Fig. S1 Synthesis and ¹H NMR spectra of L-NBC-NCA (DMSO-d₆).

Electronic Supplementary Material (ESI) for Polymer Chemistry. This journal is © The Royal Society of Chemistry 2018
**Fig. S2** UV-vis data of 0.5 mg/mL CCL\textsubscript{21} nanoparticles in DMF/CH\textsubscript{3}CN (v: v = 4: 1) solution after 365 nm irradiation of different times (A) and the absorbance at 330 nm on irradiation time (B).

**Fig. S3** DLS data for both the NCL\textsubscript{21} (A) and NCL\textsubscript{79} (B) nanoparticles.
Fig. S4 The AFM images of CCL\textsubscript{79} nanoparticles.

Fig. S5 DLS data for CCL\textsubscript{21} nanoparticles when incubated at pH 7.4 (A), pH 7.4 + 10 mM DTT (B), pH 6.5 (C) and pH 6.5 + 10 mM DTT (D) for 24h.
**Fig. S6** FT-IR spectra of PEG-D-PC and the residual PC.

**Fig. S7** DLS and TEM data for both the CPT-loaded CCL$_{21}$ (A, C) and CCL$_{79}$ (B, D) nanoparticles.