Supporting Information

Photosensitive Poly(o-nitrobenzoyloxycarbonyl-L-lysine)-b-PEO Polypeptide Copolymers: Synthesis, Multiple Self-Assembly Behaviors, and the Photo/pH-Thermo-Sensitive Hydrogels

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Figure S1. $^1$H NMR spectrum of oNB-Lys NCA in DMSO-$d_6$ (A) and its $^{13}$C NMR spectrum in CD$_3$CN (B) ("*" denotes the EtOAc solvent peaks).
Figure S2. GPC traces of the PEO-NH$_2$ and PNBL-b-PEO block copolymers.

Figure S3. FT-IR spectra of the PEO-NH$_2$ and PNBL-b-PEO block copolymers.
Figure S4. Photocleavage percentage of oNB group of PNBL9-b-PEO in methanol solution (A) and in aqueous solution (B).

Figure S5. DLS-averaged diameter of PLys9-b-PEO micelles as a function of pH.
Figure S6. Digital images of thermo-sensitive hydrogels H2, H5 and H6 (A) and pH-sensitive hydrogels H5 and H6 (B).

Figure S7. Storage ($G'$) and ($G''$) loss modulus as a function of strain for hydrogels H2, H5 and H6.
**Figure S8.** Dependence of UV cleavage time on the hydrogel mechanical properties.

**Figure S9.** DSC curves of PEO-NH$_2$, PNBL$_9$-b-PEO, hydrogel H2, H5 and H6 in the second heating run.
Figure S10. The relationship of the absorbance intensity of DPH as a function of copolymer concentration of PNBL<sub>9</sub>-b-PEO (pH=7.5), PLys<sub>9</sub>-b-PEO (pH=10) and PLys<sub>9</sub>-b-PEO@α-CD (pH=3) respectively.