Electronic Supplementary Information:

Versatile Synthesis of Temperature-Sensitive Polypeptides by Click Grafting of Oligo(ethylene glycol)

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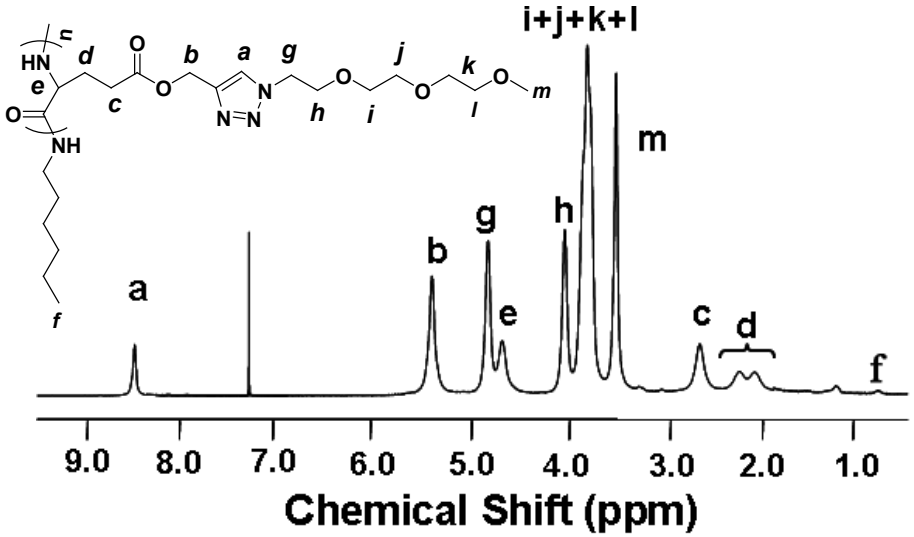

Figure S1. ^{1}H NMR spectra of $PPLG_{112}$-*g*-MEO_3 (in CF_3COOD+$CDCl_3$ (1/1, v/v)).

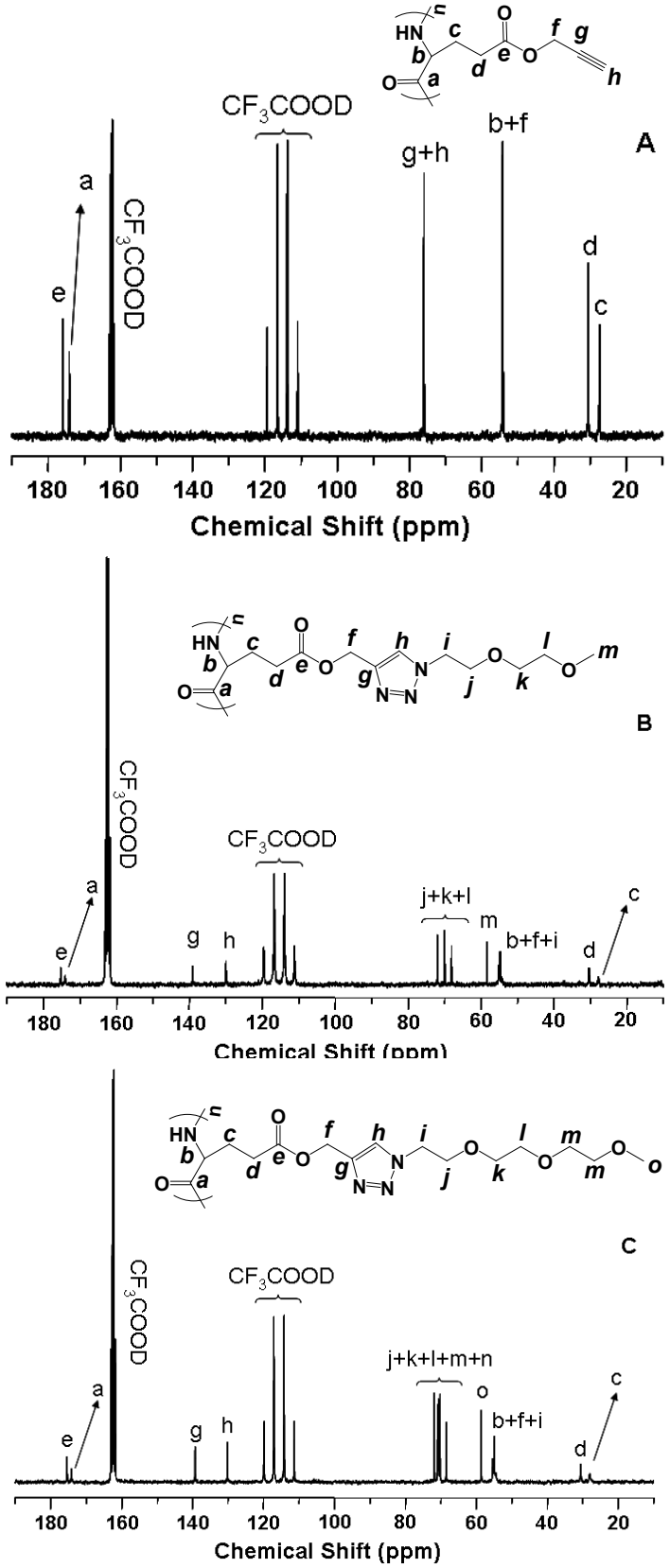

Figure S2. ^{13}C NMR spectra of $PPLG_{112}$, $PPLG_{112}$-*g*-MEO_2, and $PPLG_{112}$-*g*-MEO_3 (in CF_3COOD).

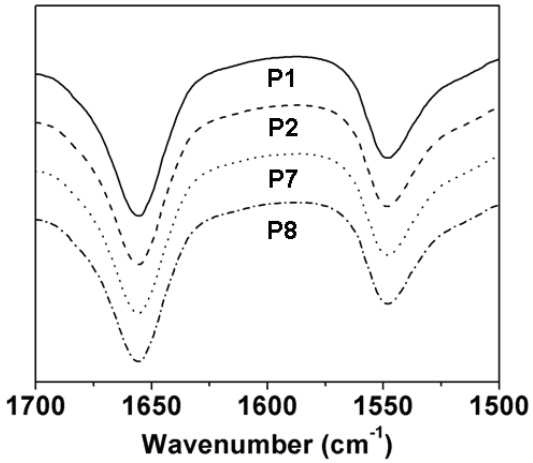

Figure S3. FT-IR spectra of P1 ($PPLG_{25}$-*g*-MEO_2), P2 ($PPLG_{25}$-*g*-MEO_3), P7 ($PPLG_{138}$-*g*-MEO_2) and P8 ($PPLG_{138}$-*g*-MEO_3).

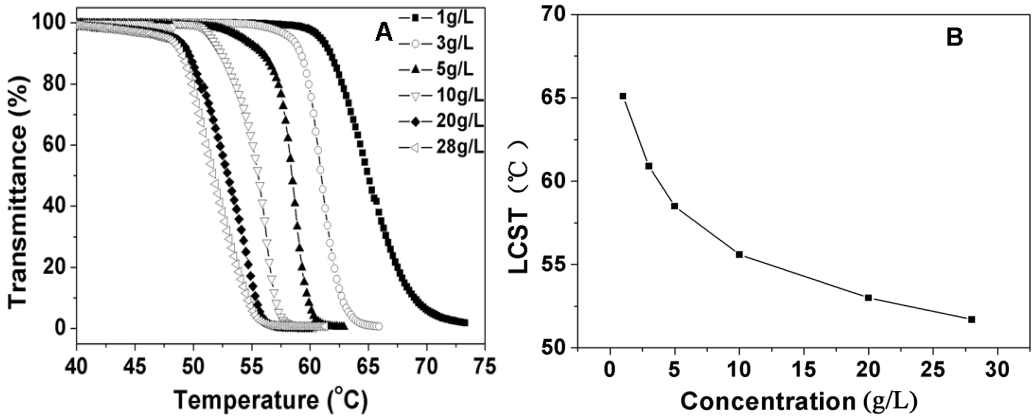

Figure S4. (A) Influence of the polymer concentration on the thermo-sensitive behavior of $PPLG_{112}$-*g*-MEO_3 in aqueous solution. (B) Low critical solution temperatures of $PPLG_{112}$-*g*-MEO_3 solution as a function of its concentration.

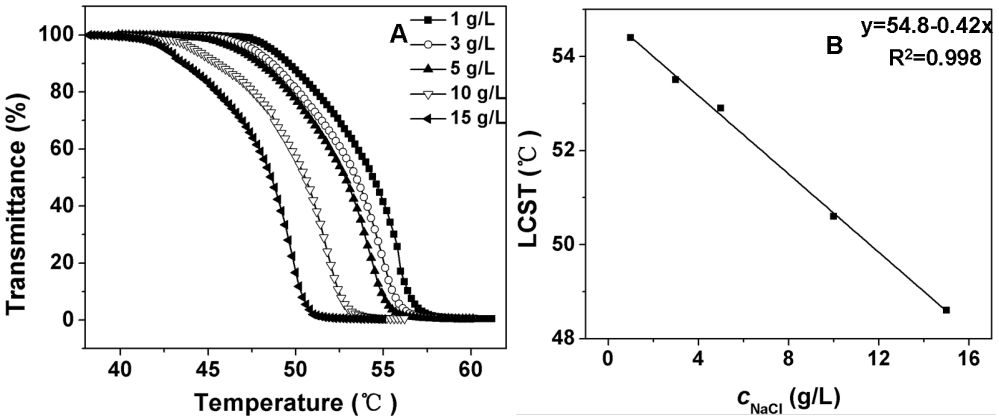

Figure S5. (A) Influence of sodium chloride concentration on the thermosensitive behavior of 10 mg/mL $PPLG_{112}$-*g*-MEO_3 aqueous solution. (B) Low critical solution temperatures of $PPLG_{112}$-*g*-MEO_3 solution as a function of sodium chloride concentration.

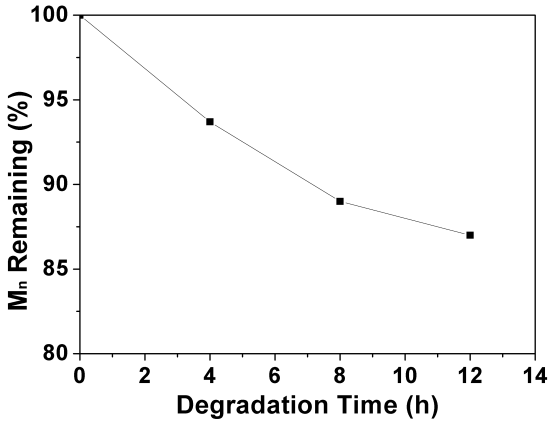

Figure S6. Molecular weight change of degraded $PPLG_{84}$-*g*-MEO_3 as a function of degradation time in PBS solution (pH 7.4) containing 0.2 mg/mL proteinase K.