Supplementary Data for:

Dually Responsive Aqueous Gels from Thermo- and Light-Sensitive Hydrophilic ABA
Triblock Copolymers

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Figure S1. Plot of dynamic storage modulus $G'$ ($\circ$), dynamic loss modulus $G''$ ($\triangle$), and $\tan\delta$ ($\circ$) versus temperature for a 10.0 wt % aqueous solution of PTEGEA-PEO-PEGEA (ABA-1 in Table 1) in a heating ramp. The rheological data were collected using a heating rate of 3 °C/min, a strain amplitude of 0.2 %, and an oscillation frequency of 1 Hz.
Figure S2. Frequency dependencies of dynamic storage modulus $G'$ ($) and loss modulus $G''$ ($\forall$) of a 9.7 wt % aqueous solution of $\text{P(TEGEA-co-AA)-b-PEO-b-P(TEGEA-co-AA)}$, obtained from UV irradiation of a 10.0 wt % aqueous solution of $\text{P(TEGEA-co-NBA)-b-PEO-b-P(TEGEA-co-NBA)}$ (ABA-3) at 43 °C for 116 h, at (a) 41, (b) 48, and (c) 65 °C. A strain amplitude of 0.2 % was used in the frequency sweep experiments.
(a) 

Supplementary Material (ESI) for Soft Matter
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(b) 

(c) 

(d)
**Figure S3.** Temperature ramps for aqueous solutions of P(TEGEA-co-NBA)-b-PEO-b-P(TEGEAA-co-NBA) (ABA-3 in Table 1) with concentrations of (a) 14.2, (b) 10.0, (c) 6.0, (d) 4.0, and (e) 3.0 wt %. The rheological data were collected at a constant frequency of 1 Hz, a strain amplitude of 0.2 %, and a heating rate of 3 °C/min. The pictures show the states of each solution at four different temperatures.

**Figure S4.** Temperature ramps for aqueous solutions of P(TEGEA-co-AA)-b-PEO-b-P(TEGEAA-co-AA) (obtained from UV irradiation of a 10.0 wt % aqueous solution of ABA-3) with concentrations of (a) 13.8 and (b) 7.8 wt %. The rheological data were collected at a constant frequency of 1 Hz, a strain amplitude of 0.2 %, and a heating rate of 3 °C/min. The pictures show the states of each solution at four different temperatures.
**Figure S5.** Phase diagram of aqueous solution of P(TEGEA-co-NBA)-b-PEO-b-P(TEGEA-co-NBA) (ABA-3). §: Sol-gel transition temperature determined by rheological measurements; #: temperature at which the gel became cloudy, determined by visual examination; #: temperature at which a clear solution turned cloudy, determined by visual examination.

**Figure S6.** Plot of dynamic storage modulus G' (†), dynamic loss modulus G'' (≈), and tanδ, (.) versus temperature for a 10.0 wt % aqueous solution of P(TEGEA-co-NBA)-b-PEO-b-P(TEGEA-co-NBA) (ABA-2) before (a) and after (b) the removal of o-nitrobenzyl groups. The rheological data were collected from heating ramps using a heating rate of 3 °C/min, a strain amplitude of 0.2 %, and an oscillation frequency of 1 Hz.
Figure S7. Plot of dynamic storage modulus $G'$ ($\ddagger$), dynamic loss modulus $G''$ (\wedge), and tan$\delta$ (.) versus temperature for a 10.0 wt % aqueous solution of P(TEGEA-co-NBA)-b-PEO-b-P(TEGEA-co-NBA) (ABA-4) before (a) and after (b) the removal of o-nitrobenzyl groups. The rheological data were collected from heating ramps using a heating rate of 3 °C/min, a strain amplitude of 0.2 %, and an oscillation frequency of 1 Hz.

Figure S8. Plot of dynamic storage modulus $G'$ ($\ddagger$), dynamic loss modulus $G''$ (\wedge), and tan$\delta$ (.) versus temperature for a 10.0 wt % aqueous solution of P(TEGEA-co-NBA)-b-PEO-b-P(TEGEA-co-NBA) (ABA-5) before (a) and after (b) the removal of o-nitrobenzyl groups. The rheological data were collected from heating ramps using a heating rate of 3 °C/min, a strain amplitude of 0.2 %, and an oscillation frequency of 1 Hz.