Supporting Information

Preparation and Characterization of Thermo-Responsive PEG Based Injectable Hydrogels and their Application for 3D Cell Culture

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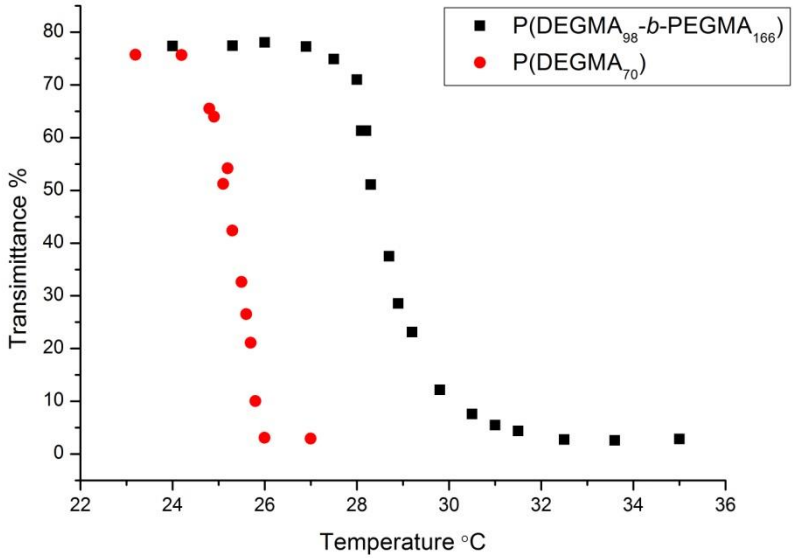

Figure S1. Lower critical solution temperature (LCST) of P(DEGMA$_{70}$) and diblock copolymer of P(DEGMA$_{98}$-*b*-PEGMA$_{166}$).

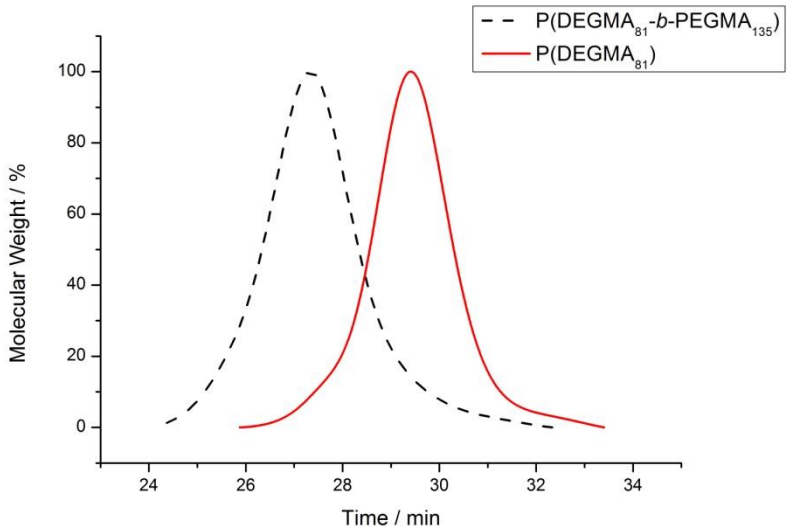

Figure S2. Overlaid GPC curves of PDEGMA macroRAFT and the resulting diblock copolymer.

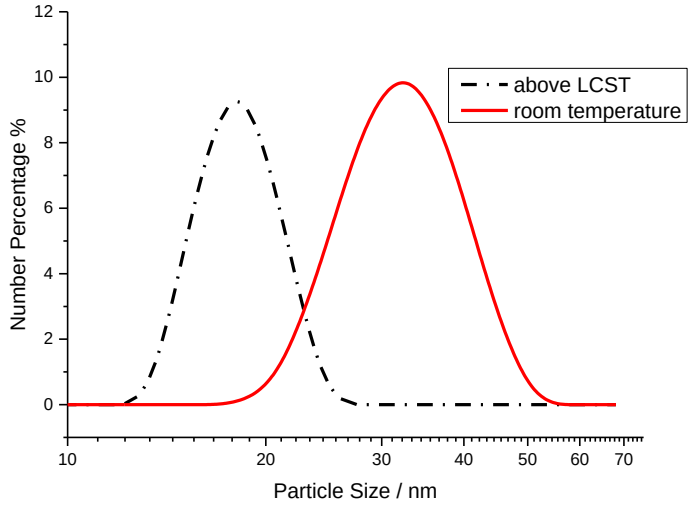

Figure S3. Particle size measurement of triblock P(DEGMA$_{70}$-*b*-PEGMA$_{343}$-*b*-DEGMA$_{70}$) at a concentration of 10 mg/mL and at different temperatures.

Table S1. Properties of P(DEGMA-*b*-PEGMA-*b*-DEGMA) triblock copolymers with different DPs

Entry	Structure	Calculated M_n	GPC M_n	PDI	Maximum conc. wt%	Minimum conc. to form a gel, wt%	Time to stop flowing at 37 °C at maximum concentration, sec
1	P(DEGMA$_{41}$-*b*-PEGMA$_{144}$-*b*-DEGMA$_{41}$)	87891	67644	1.949	25	13	11
2	P(DEGMA$_{63}$-*b*-PEGMA$_{180}$-*b*-DEGMA$_{63}$)	114075	89285	1.909	25	8	8
3	P(DEGMA$_{56}$-*b*-PEGMA$_{209}$-*b*-DEGMA$_{56}$)	125971	119180	2.406	30	8	12
4	P(DEGMA$_{76}$-*b*-PEGMA$_{209}$-*b*-DEGMA$_{76}$)	133411	131038	2.098	30	7	7
5	P(DEGMA$_{91}$-*b*-PEGMA$_{209}$-*b*-DEGMA$_{91}$)	138991	102798	2.044	22	6	8
6	P(DEGMA$_{51}$-*b*-PEGMA$_{244}$-*b*-DEGMA$_{51}$)	141611	156643	3.049	30	6	8
7	P(DEGMA$_{70}$-*b*-PEGMA$_{260}$-*b*-DEGMA$_{70}$)	156679	155899	2.224	30	6	6
8	P(DEGMA$_{83}$-*b*-PEGMA$_{260}$-*b*-DEGMA$_{83}$)	161515	93740	1.681	22	5	5

9	P(DEGMA$_{70}$-*b*-PEGMA$_{343}$-*b*-DEGMA$_{70}$)	198179	176667	1.967	35	8	6

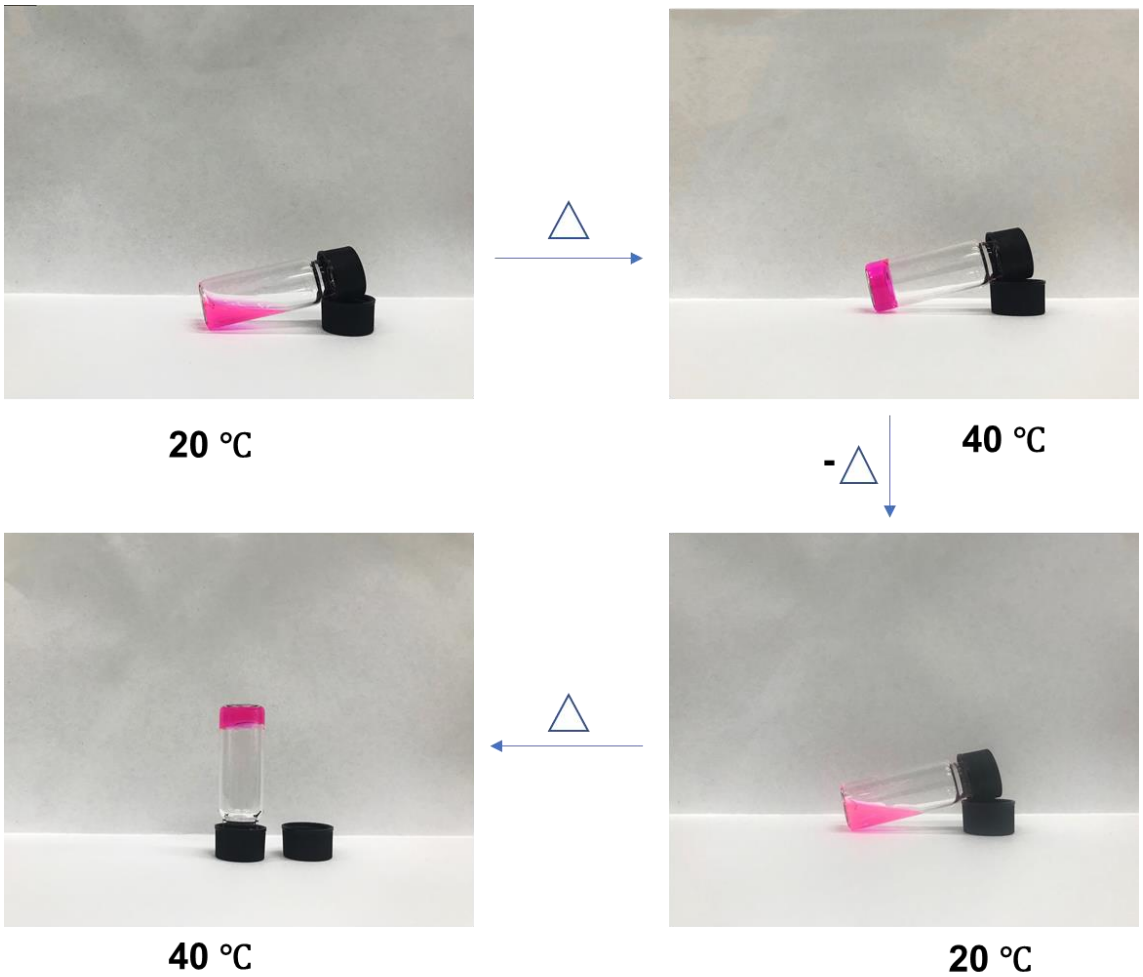

Figure S4. Demonstration of the gel formation at 40 °C and formation of a sol when the temperature is dropped to 20 °C.