Electronic Supplementary Information

Positional isomeric effects of coupling agents on the temperature-induced gelation of triblock copolymer aqueous solutions

Jiabin Luan, Shuquan Cui, Juntao Wang, Wenjia Shen, Lin Yu* and Jiandong Ding

State Key Laboratory of Molecular Engineering of Polymers, Department of Macromolecular

Science, Fudan University, Shanghai 200433, China

Corresponding Author

* E-mail: yu_lin@fudan.edu.cn (L. Y.)



Fig. S1 dn/dc results of the indicated samples measured by a refractive index detector in THF.



Fig. S2 Configurational distribution of single chains from Monte Carlo simulation. (A) Mean-squared end-to-end distance $\langle h^2 \rangle$, (B) mean-squared radius of gyration $\langle R_g^2 \rangle$ and (C) mean-squared distance between two side blocks $\langle D_{Centroid}^2 \rangle$. The statistics was made over 100,000 chain configurations.



Fig. S3 CMC determination of the indicated coplolymer aqueous solutions by fitting the data with a Boltzmann sigmoid, where y represents the absorbance difference $(A_{377} - A_{400})$, x is the logarithm of polymer concentration, A_1 and A_2 represent the asymptotic values of y at infinitely small and large x, x_c is the value at the center of the Boltzmann sigmoid, d measures the deviation of x around x_c , respectively. CMC was obtained from the turning point.

Sample	X _c	d	$x_c - 2d$	R^2	СМС
					(wt %)
mPEG-PLGA	-0.3288	0.3343	-0.9974	0.999	0.101
Bi(mPEG-PLGA)-HMDI	-0.5505	0.3139	-1.1783	0.999	0.066
Bi(mPEG-PLGA)-o-PC	-0.5813	0.3340	-1.2493	0.998	0.056
Bi(mPEG-PLGA)- <i>m</i> -PC	-0.6873	0.3143	-1.3159	0.998	0.048
Bi(mPEG-PLGA)–p-PC	-0.62831	0.3186	-1.2655	0.998	0.054

 Table S1 Parameters of the CMC measurements using Boltzmann fitting.