Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supporting Information

Hydrogels from Amphiphilic Star Block Copolypeptides

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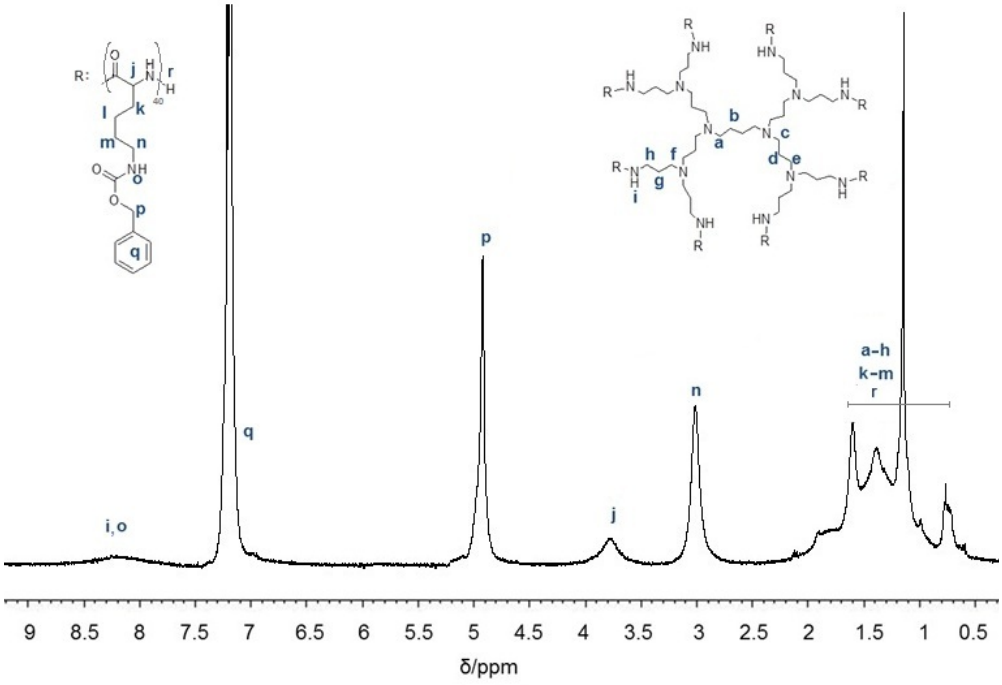

Figure S1. ^{1} H-NMR spectrum of 8-PZLL$_{40}$ ($CDCl_3$).

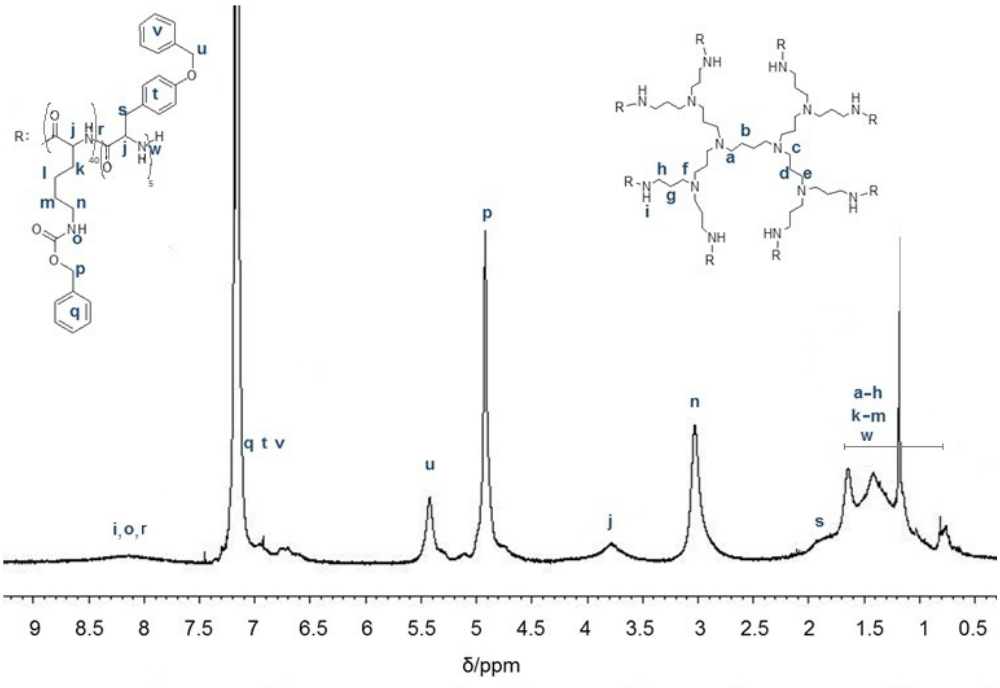

Figure S2. [1] H-NMR spectrum of 8-PZLL$_{40}$-*b*-PBLT$_5$ ($CDCl_3$).

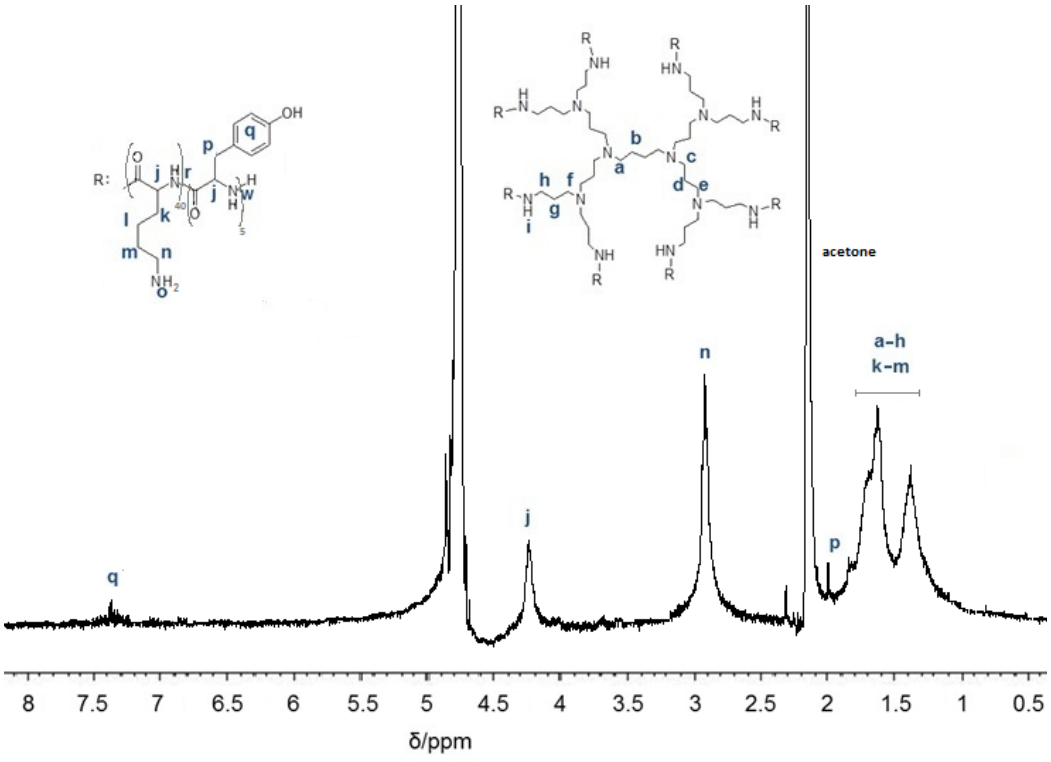

Figure S3. [1] H-NMR spectrum of 8-PLL$_{40}$-*b*-PLT$_5$ (D_2O).

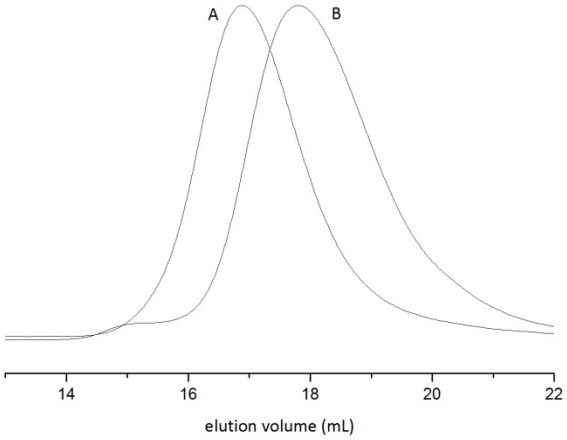

Figure S4: SEC trace of; 8-PZLL$_{40}$-b-PLA$_5$ (A) and 8-PZLL$_{40}$ (B).

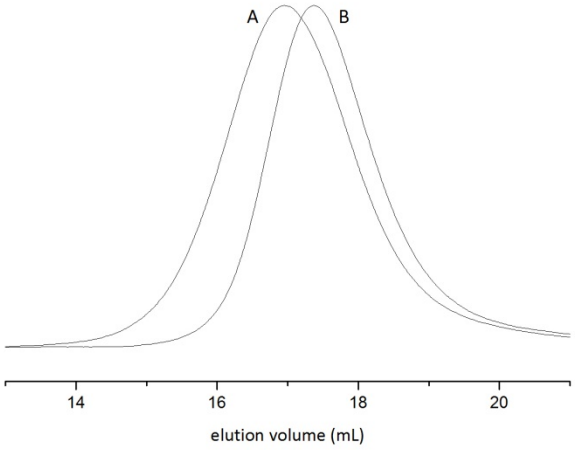

Figure S5: SEC trace of; 8-PZLL$_{40}$-b-PLT$_5$ (A) and 8-PZLL$_{40}$ (B).

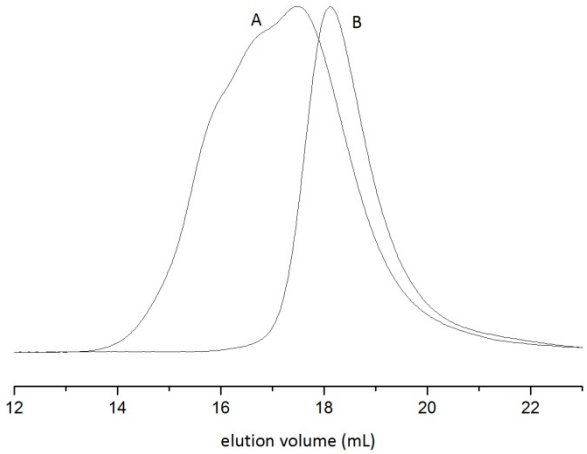

Figure S6: SEC trace of; 1-PZLL$_{148}$-b-PBLT$_{30}$ (A) and 1-PZLL$_{148}$ (B).

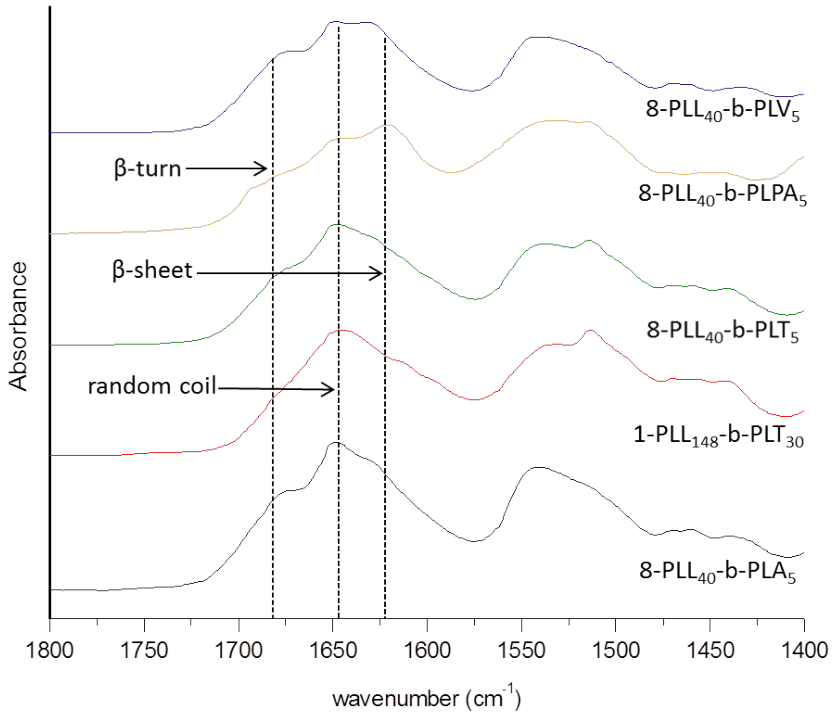

Figure S7: FT-IR spectra with assigned amide bands.

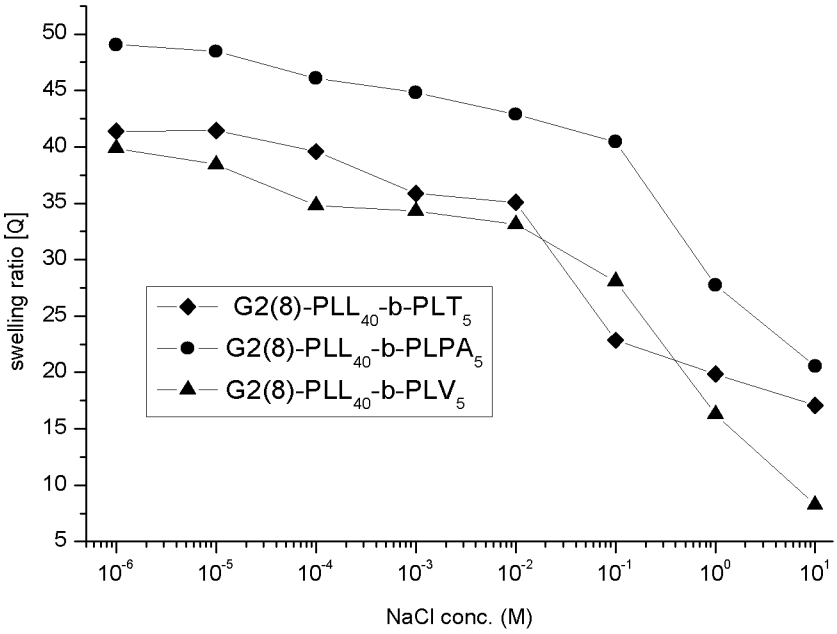

Figure S8: Swelling ratio of star diblock copolypeptides (3.0 wt.%) as a function of increasing ionic concentration.

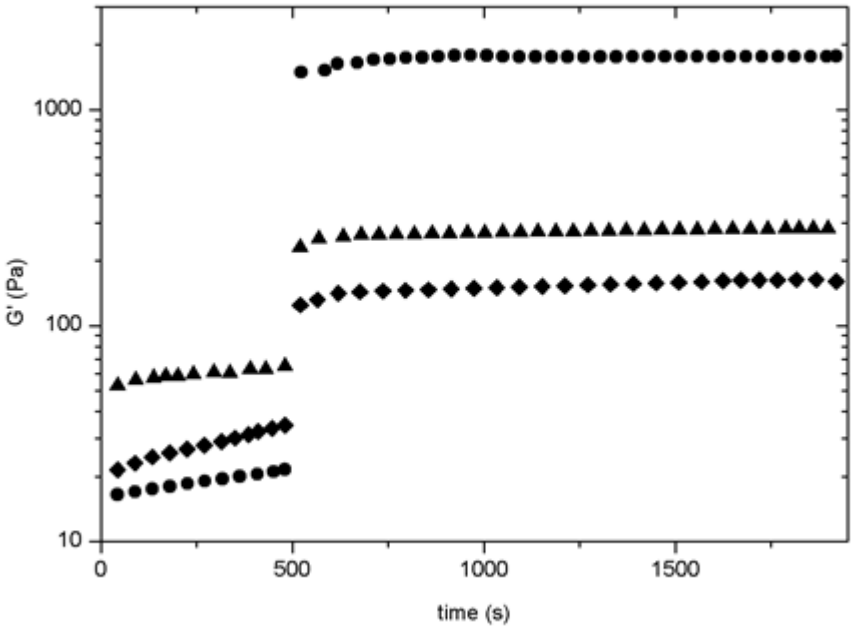

Figure S9: Strain based recovery of gel strength [sheared at γ = 1, ω = 6 rad s^{-1} for 8 mins before switching shear to γ = 0.1, ω = 6 rad s^{-1} for 24 mins]. 8-PLL_{40}-*b*-$PLPA_5$ (●), 8-PLL_{40}-*b*-PLV_5 (▲), 8-PLL_{40}-*b*-PLT_5 (◆).

Figure S10: Image of 8-PLL_{40}-b-$PLPA_5$ hydrogel loaded in a syringe.

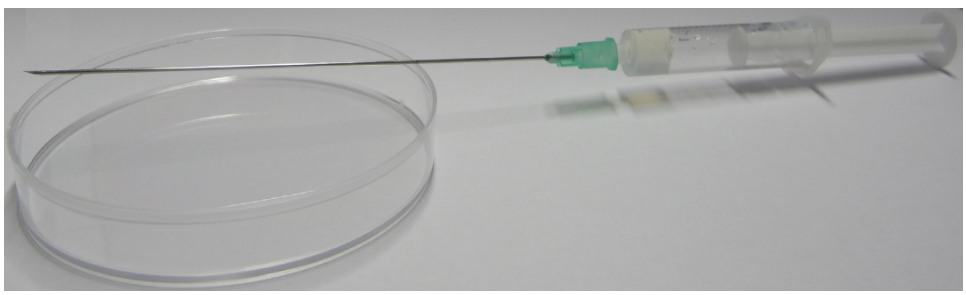

Figure S11: Image of 8-PLL_{40}-b-$PLPA_5$ with in a syringe with a 21G needle attached.

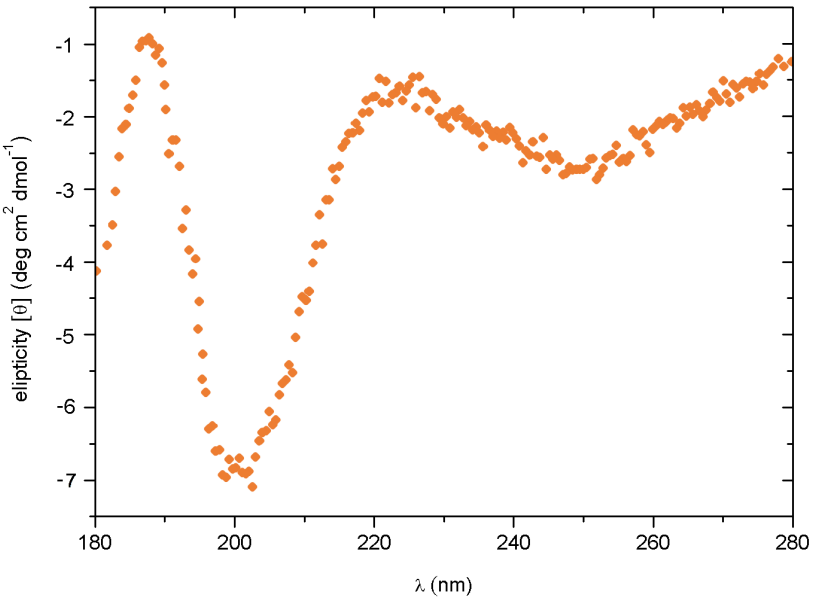

Figure S12: Circular dichroism (CD) spectrum of 8-arm PLL in water.