Supporting information

Detailed aspects of the data analysis of the light scattering:

In the DLS experiment, $G_2(t)$ can be converted into a correlation function of the scattered electric field, $g_1(t)$, using the Siegert's relationship.[1,2] For monodisperse particles, having smaller diameter compared to the wavelength of light as well as for hard spheres of any size, the relaxation time of $g_1(t)$, τ, is related to the relaxation rate of $g_1(t)$, Γ, and the translation diffusion coefficient, D, by the relationship

$$g_1(t) = e^{-t/\tau} = e^{-\Gamma t} = e^{-Dq^2 t} \qquad \text{and} \qquad \Gamma = \tau^{-1} = Dq^2 \qquad (1)$$

The hydrodynamic radii of particles can thus be obtained from the diffusion coefficient, D, via the Stokes-Einstein equation

$$R_h = \frac{kT}{6\pi\eta_o D} \qquad (2)$$

where k, T and η_o are the Boltzmann constant, the absolute temperature and the solvent viscosity.

Mean peak values of the size distributions, obtained at fixed *q* and *c*, were used to estimate the apparent hydrodynamic radii, R_h^{app}. The true hydrodynamic radius, R_h, as well as the true radius of gyration, R_g, were then obtained by extrapolating to q = 0 and c = 0. Decay rates of $g_1(t)$ were calculated from R_h^{app}.

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[1] Schärtl, W. *Light Scattering from Polymer Solutions and Nanoparticle Dispersions*, Springer Verlag, Berlin Heidelberg, **2007**.

[2] Brown, W. *Dynamic Light Scattering: The Method and Some Application*; Claredon Press, Oxford, **1993**.

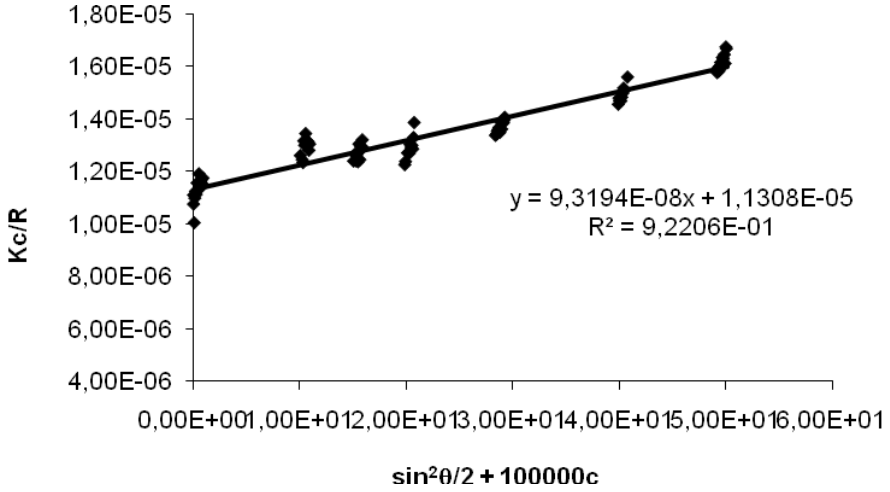

Figure S1 SLS data for star like poly(*n*-butyl acrylate) macroinitiator in THF.

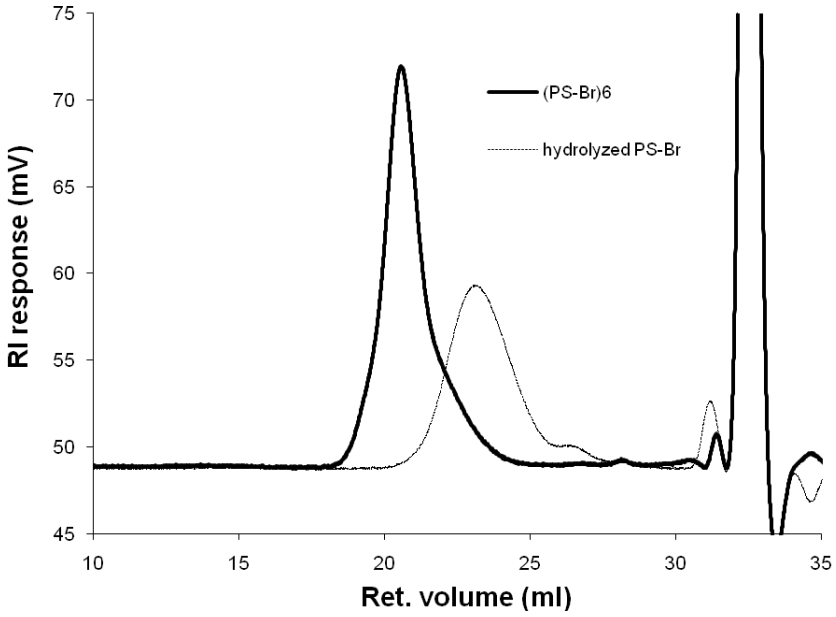

Figure S2 SEC traces of polystyrene star macroinitiator and corresponding hydrolyzed chains using THF as eluent (0.8 ml/min flow rate).

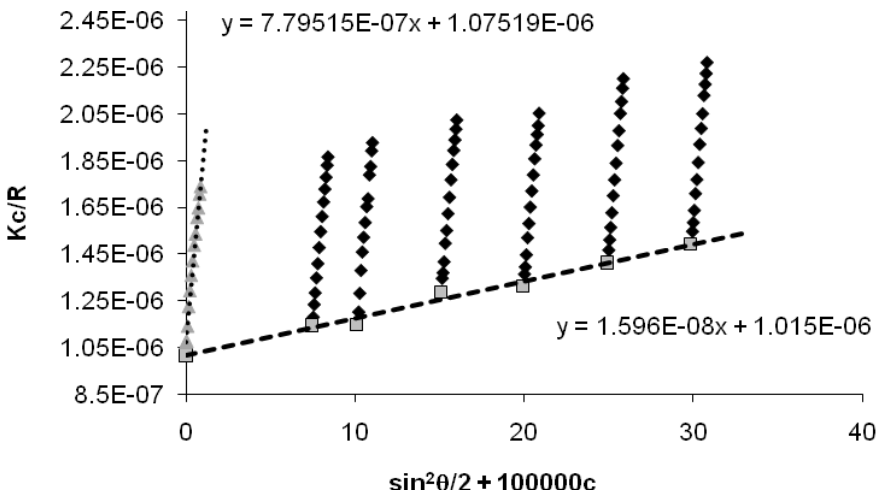

Figure S3 Angular dependence of star block copolymer $(PBuA\text{-}PDAEMA)_6$ in THF.

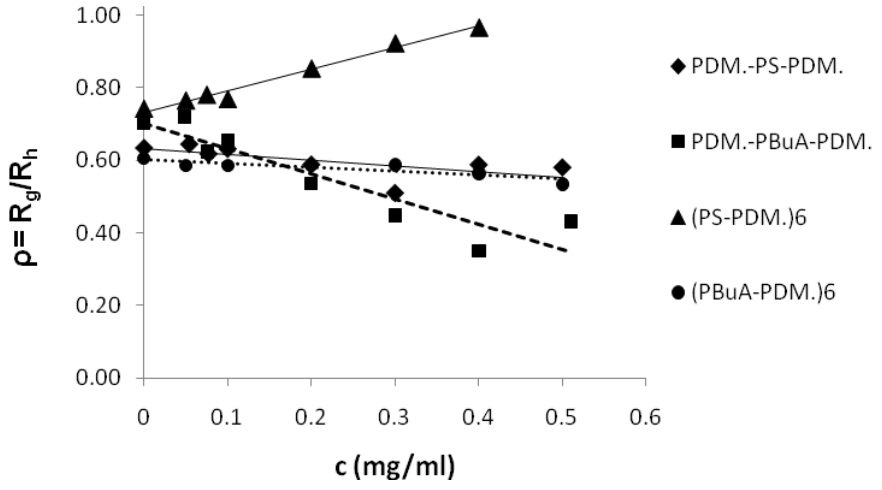

Figure S4 Ratio of radii of gyration and hydrodynamic radii (Rg/ Rh) for polymer micelles (0.05 M NaCl).

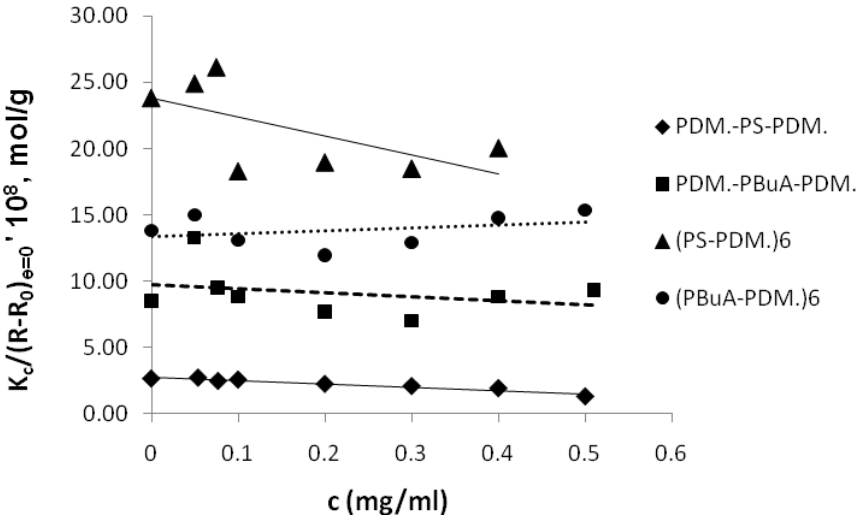

Figure S5 Kc/(R-R0)ɵ=0 curve for polymer micelles (0.05 M NaCl).

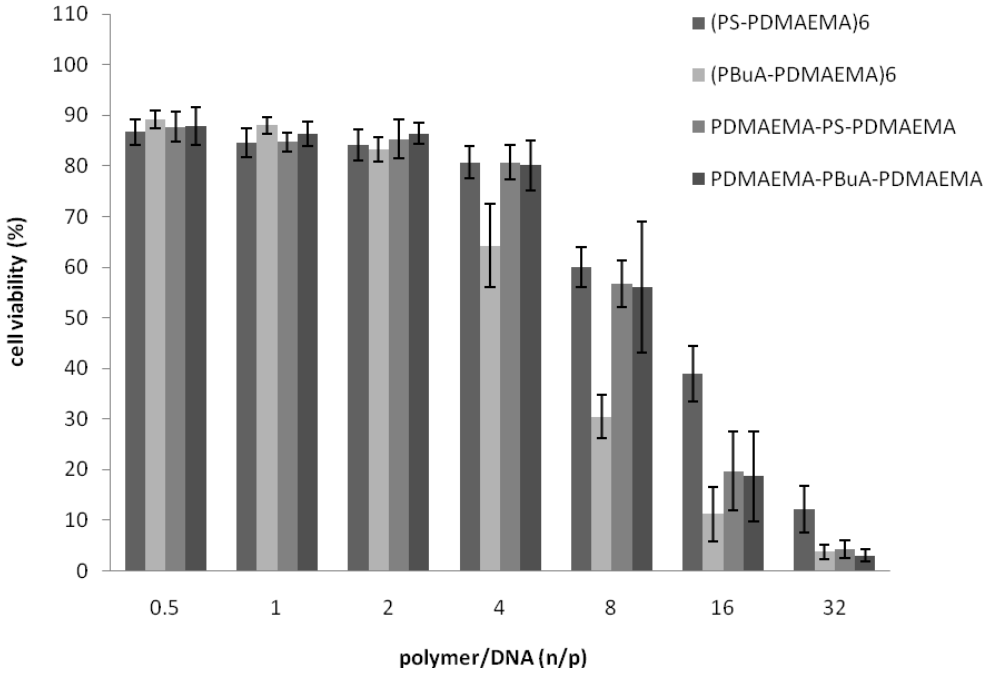

Figure S6 Cytotoxicity evaluation of polymer/DNA complexes in ARPE19 cells at n/p ratios 0.5 – 32. The percentage of cell viability is an average of three independent experiments ± sem.

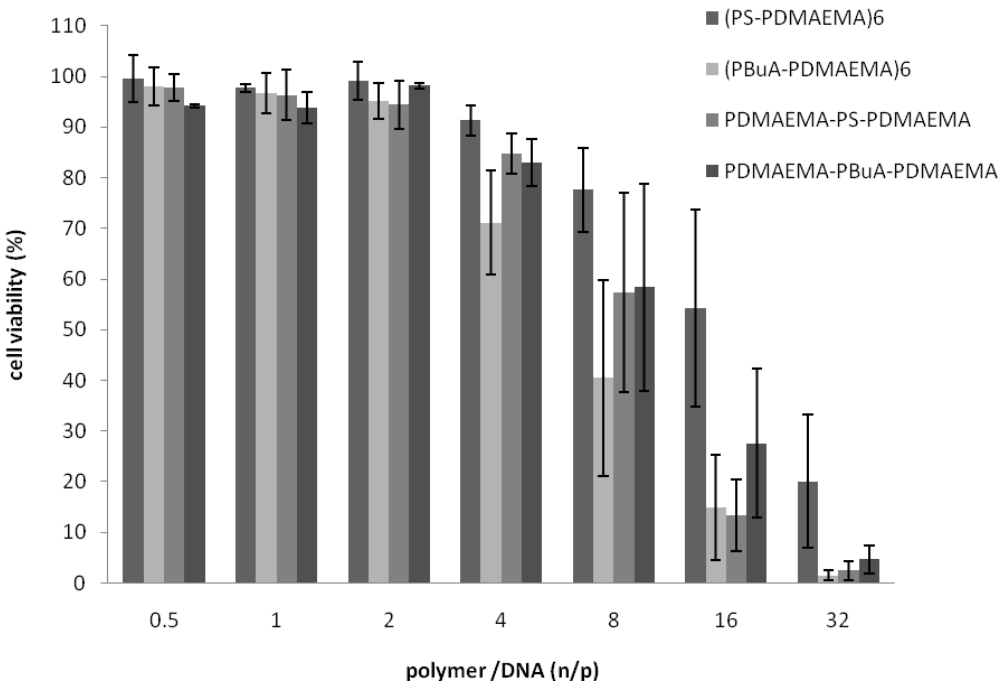

Figure S7 Cytotoxicity evaluation of polymer/DNA complexes in CV1-P cells at n/p ratios 0.5 – 32. The percentage of cell viability is an average of three independent experiments ± sem.