Supporting information for

Phase Separation of siRNA/polycation Complex and Its Effect on Transfection Efficiency

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Form factor for homogeneous spherical particle model

![Form factor fitting curve for siRNA/PAMAM complex in DPBS at N/P = 10](image)

**Figure S1.** Form factor fitting curve for siRNA/PAMAM complex in DPBS at N/P = 10
AFM image of G4 PAMAM

**Figure S2.** AFM of G4 PAMAM, c = 3.5e-5 g/mL. The view is 2 µm×2 µm.

Time dependence of the UV absorbance of the complex

**Figure S3.** Time dependence of the UV absorbance of the complex (N/P = 10) at 260 nm. c(oligonucleotide) = 1.0×10^{-5} g/mL, c(PAMAM) = 7.0×10^{-5} g/mL.

*In vitro* gene expression of Hela cell
Figure S4. *In vitro* gene expression of Hela cell at different time intervals. Lipo represents lipofectamine™2000 control; C represents control.