

Supplementary Figures

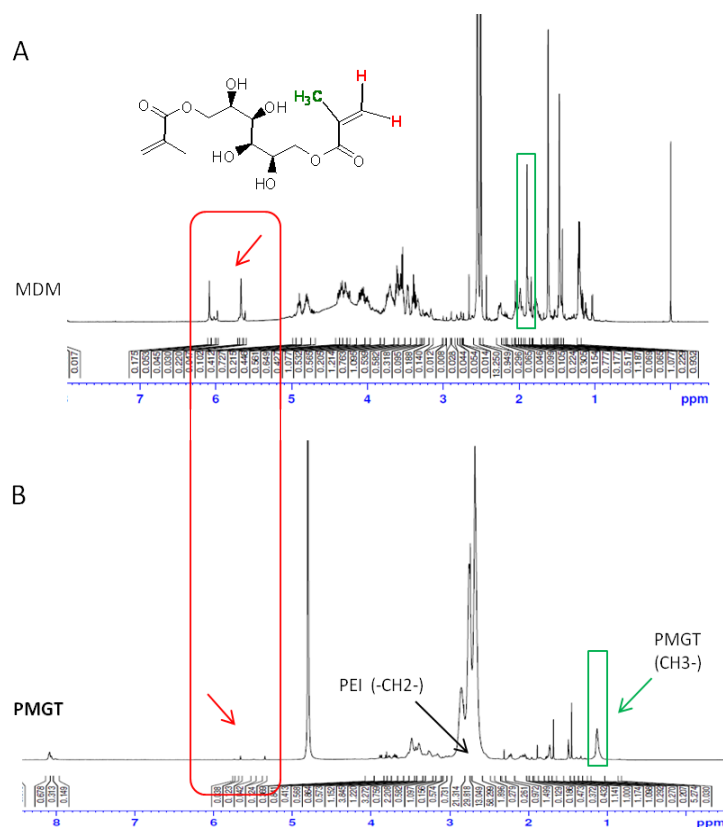


Fig. S1. Characterization of PMGT copolymer: ¹H-NMR spectra of (A) MDM in DMSO and (B) PMGT in D₂O

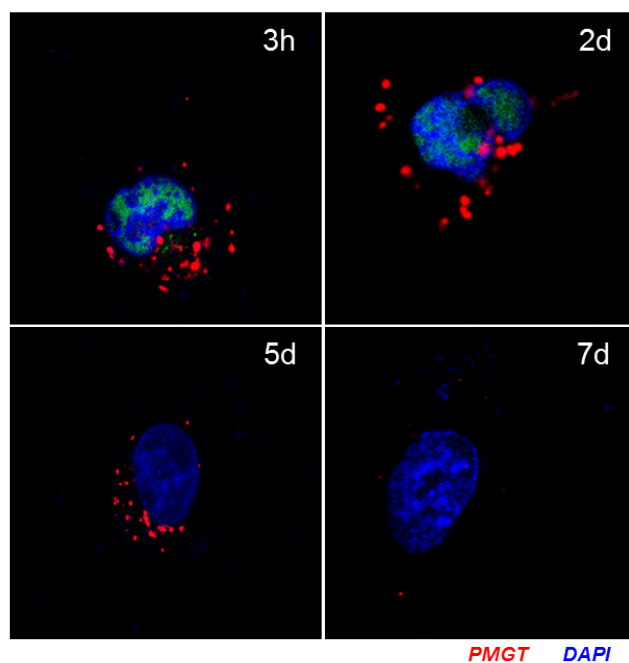
Table S1. siRNA sequences

siRNA	Sense (5'→3')	Anti-sense (5'→3')
siRNA scrambled	CGUACGCGGAUACUUCGAUU	UCGAAGUAUUCCGCGUACGUU
siRNA Luciferase	CUUACGCUGAGUACUUCGAUU	UCGAAGUACUCAGCGUAAGUU

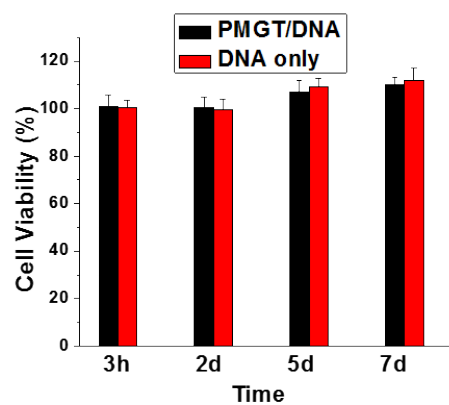
Table S2: Characterization of PMGT[a] Determined by ^1H NMR [b] Determined by GPC

Sample	MW of reactants [Da]		MDM : bPEI I [mol/mol]	Composition of bPEI [a] [mol-%]	Composition of MDM [a] [mol-%]	Molecular weight [b] [Da]	Polydispersity index (PDI)
	MDM	bPEI					
PMGT	318.32	1200	1 : 1	63.3	36.7	8592	1.312

(A)



(B)

**Fig. S2.** In vitro degradation study of PMGT. (a) Confocal images showing PMGT (red) decreasing significantly after 2 days and drastically after 5 days (magnification:100X). (b) Cell viability after 3 h, 2, 5, and 7 days in A549 cells (n = 3).

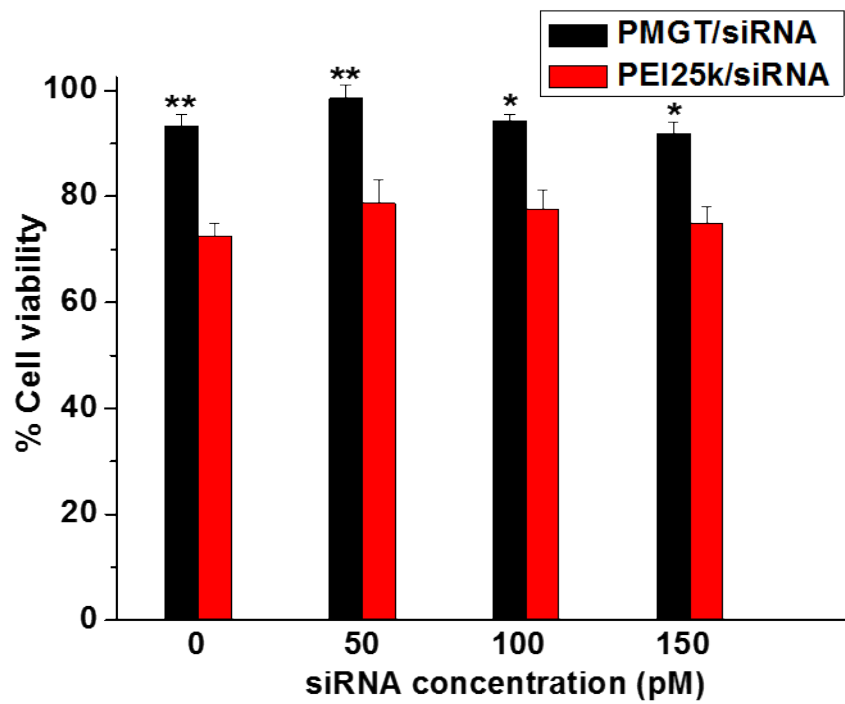


Fig. S3. Cytotoxicity of PMGT/siRNA and PEI25k/siRNA complexes at various siRNA concentrations in A549 cells. ($n = 3$, error bar represents SD) (* $p < 0.05$, one-way ANOVA).