

Electronic Supplementary Information

Branched polyethyleneimine modified with hyaluronic acid *via* a PEG spacer for targeted anticancer drug delivery

Chen Chen, ‡^a Benqing Zhou, ‡^a Xiaoyue Zhu,^a Mingwu Shen,^a Xiangyang Shi^{a, b*}

^a *College of Chemistry, Chemical Engineering and Biotechnology, Donghua University, Shanghai 201620, People's Republic of China.*

^b *State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, College of Materials Science and Engineering, Donghua University, Shanghai 201620, People's Republic of China*

*To whom correspondence should be addressed. E-mail: xshi@dhu.edu.cn (X. Shi)

Table S1. Zeta potential and hydrodynamic size of PEI-FI-(PEG-HA) conjugate.

Time (days)	Zeta potential (mV)	Hydrodynamic size (nm)
1	-18.4 ± 1.44	190.2 ± 0.64
2	-17.3 ± 1.30	197.3 ± 0.67
4	-18.2 ± 1.08	202.6 ± 0.49
7	-19.4 ± 1.50	192.0 ± 0.23

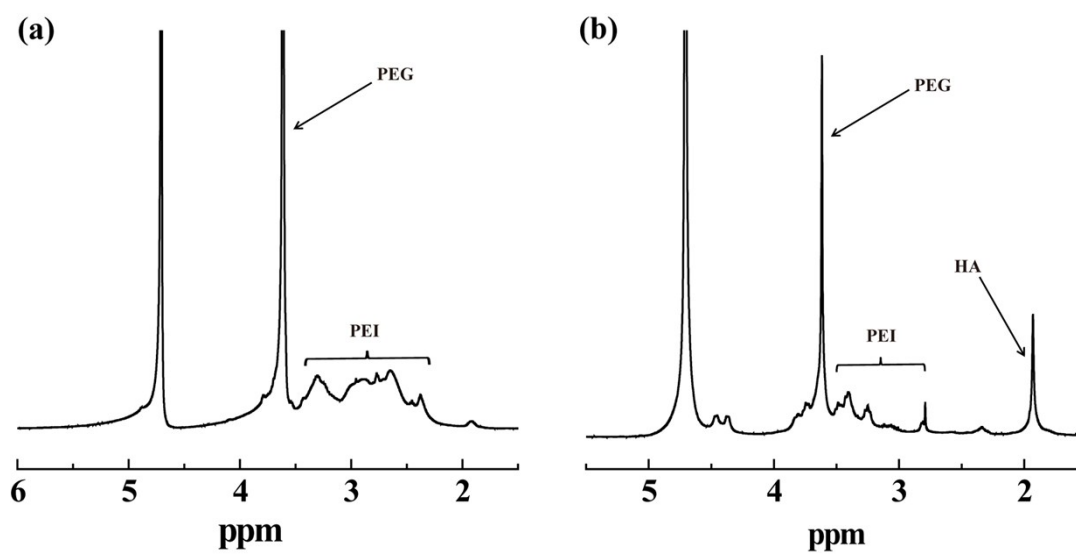


Figure S1. ^1H NMR spectra of PEI-PEG (a), and PEI-(PEG-HA) (b), respectively.

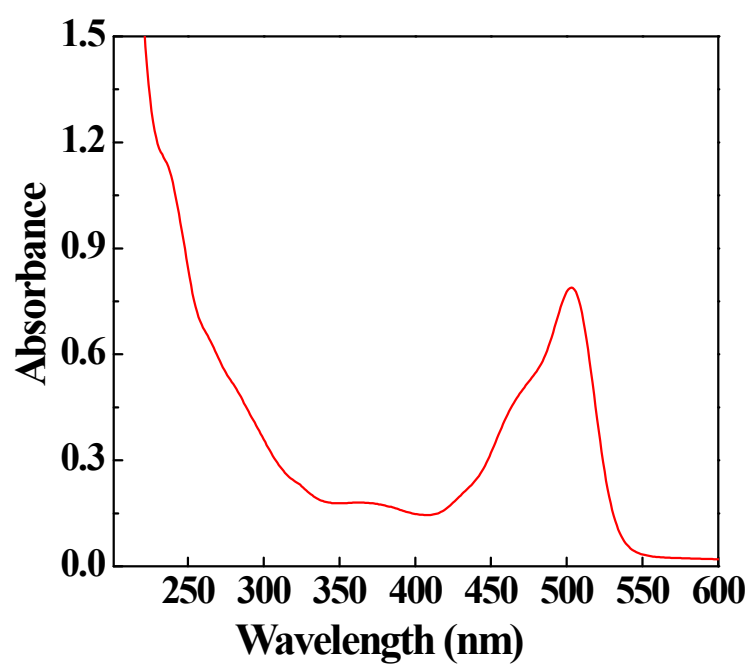


Figure S2. UV-vis spectrum of PEI-FI-(PEG-HA) conjugate.

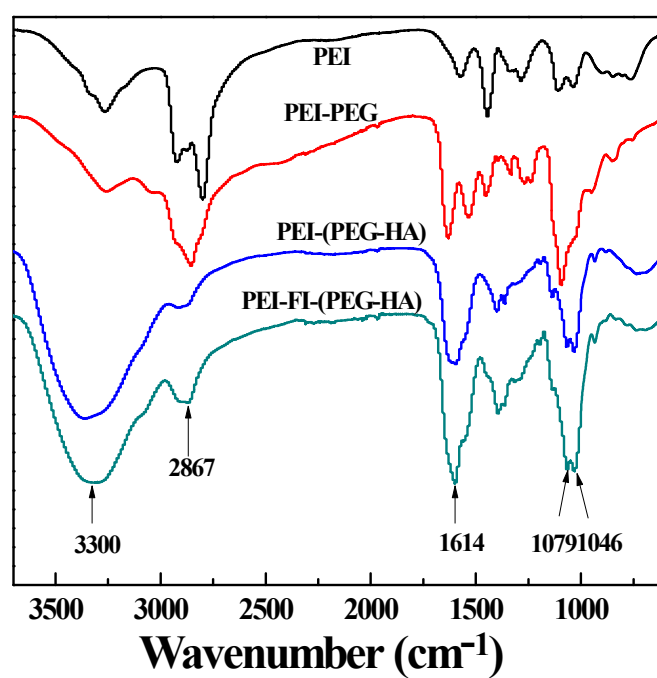


Figure S3. FTIR spectra of PEI, PEI-PEG, PEI-(PEG-HA), and PEI-FI-(PEG-HA), respectively.

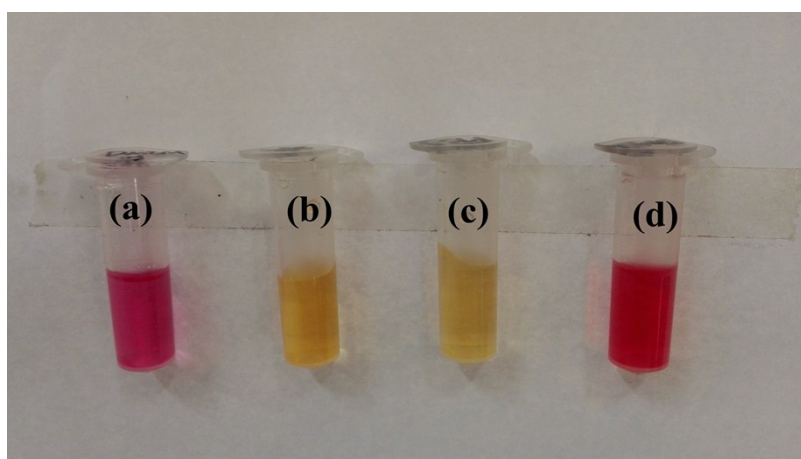


Figure S4. Photos of PEI-FI-(PEG-HA) conjugate dispersed in water (b), PBS (c), and cell culture medium (d) for 7 days. Blank cell culture medium is shown in (a).

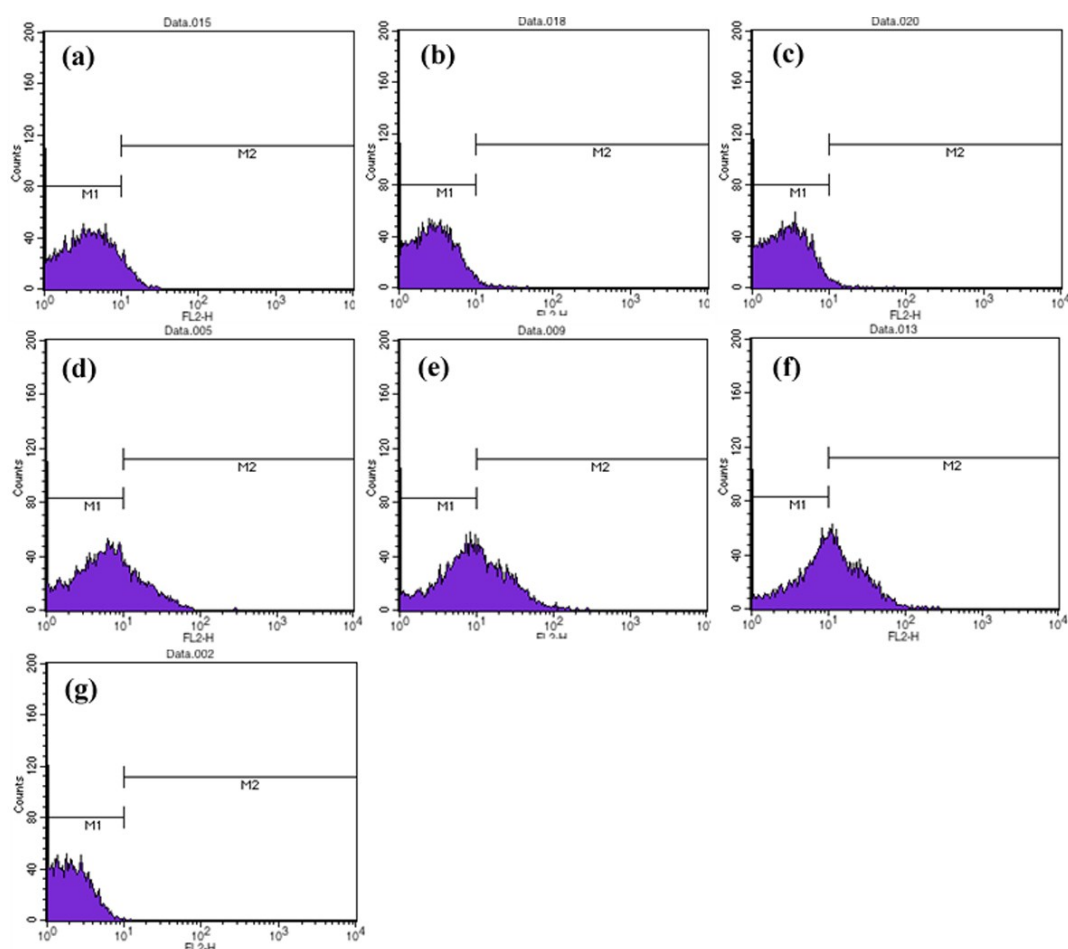


Figure S5. Flow cytometric analysis of HeLa-LCD44 (a, b, c), and HeLa-HCD44 (d, e, f) cells treated with the PEI-FI-(PEG-HA)/DOX complexes at the DOX concentrations of 8.0 $\mu\text{g/mL}$ (a, d), 10.0 $\mu\text{g/mL}$ (b, e), and 15.0 $\mu\text{g/mL}$ (c, f) for 4 h at 37 $^{\circ}\text{C}$, respectively. HeLa-HCD44 cells treated with NS (g) were used as control.