

# Supporting Information

## **pH-Switchable Coordinative Micelles for Enhancing Cellular Transfection of Biocompatible Polycations**

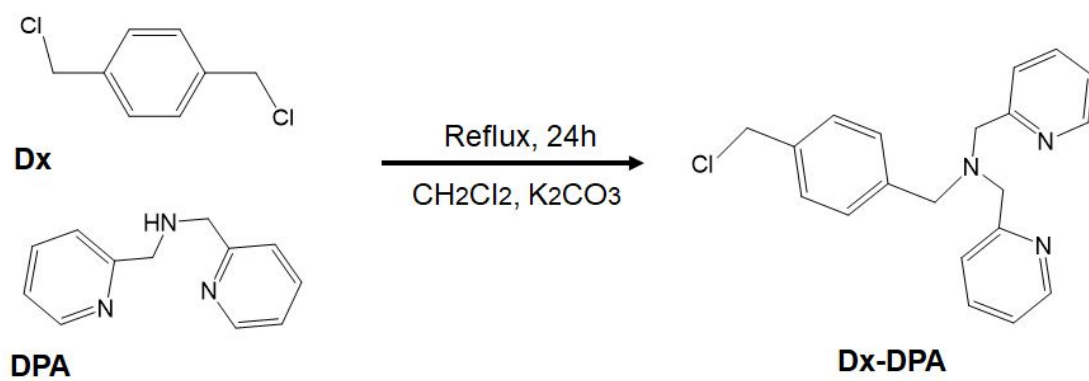
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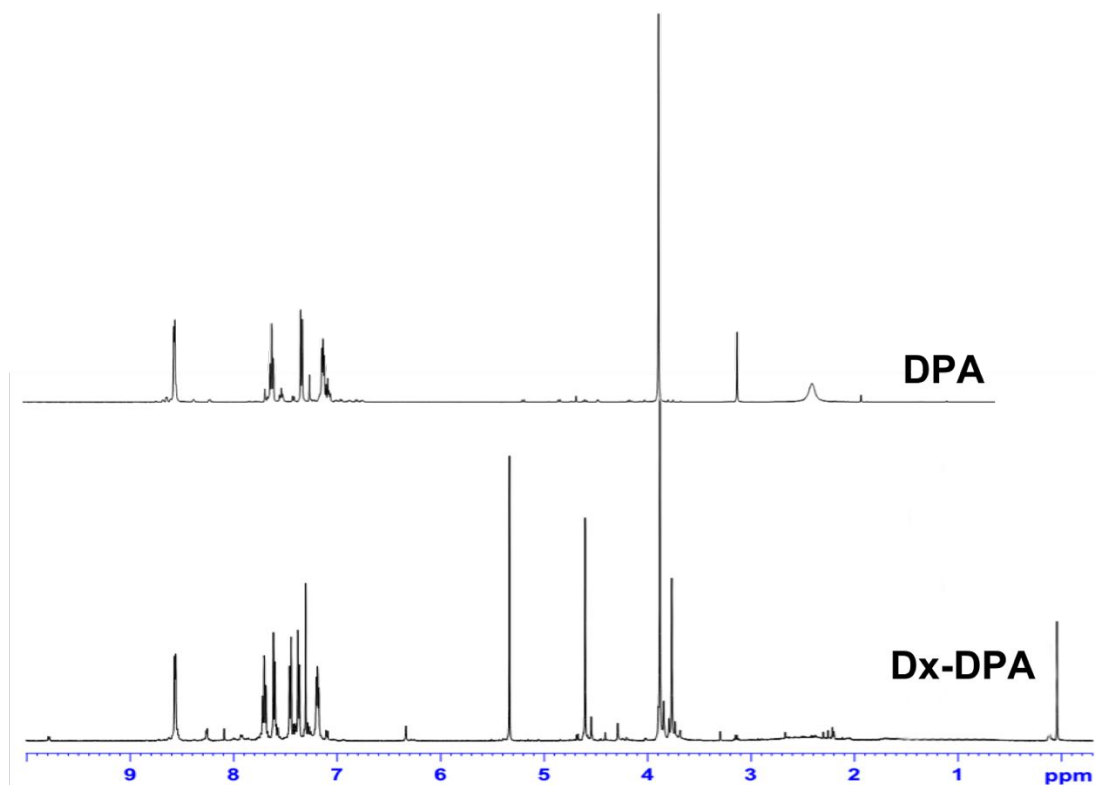
\* Corresponding authors:

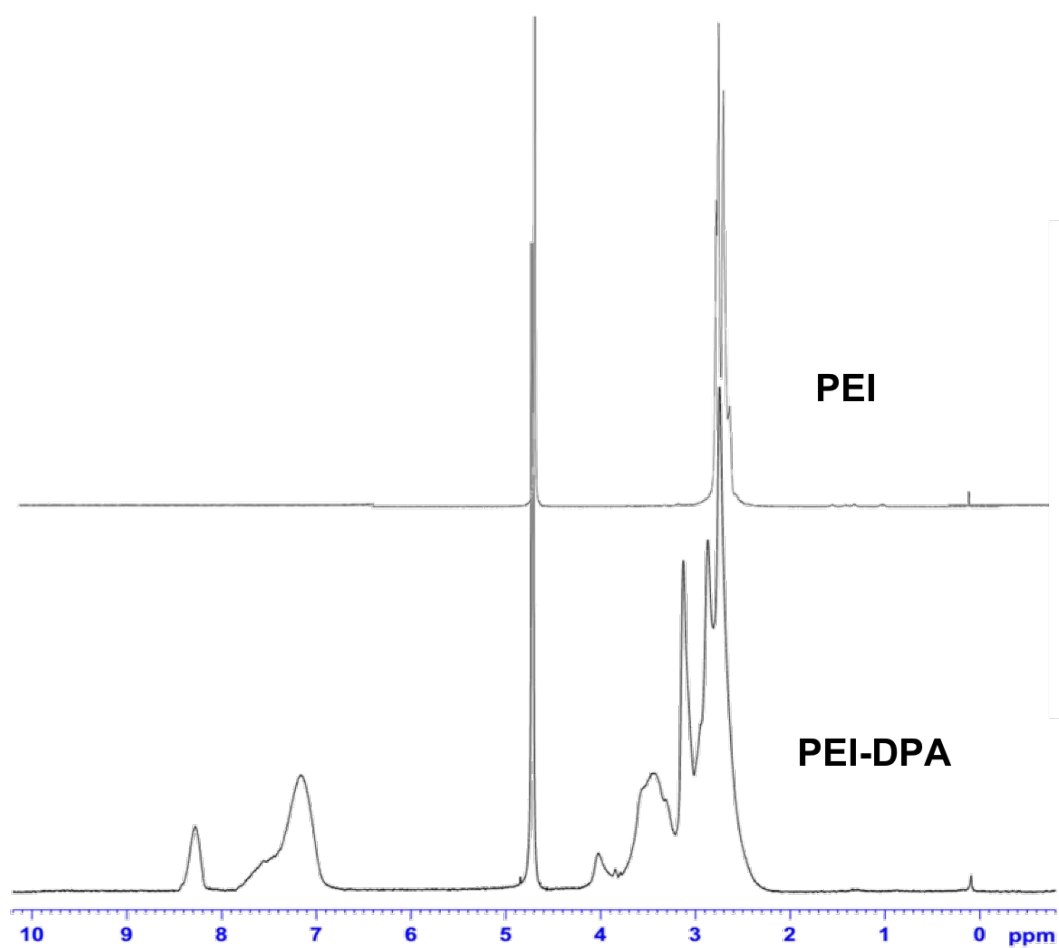
Prof. Minjie Sun, Phone /Fax: +86 25 83271098, Email: [msun@cpu.edu.cn](mailto:msun@cpu.edu.cn)

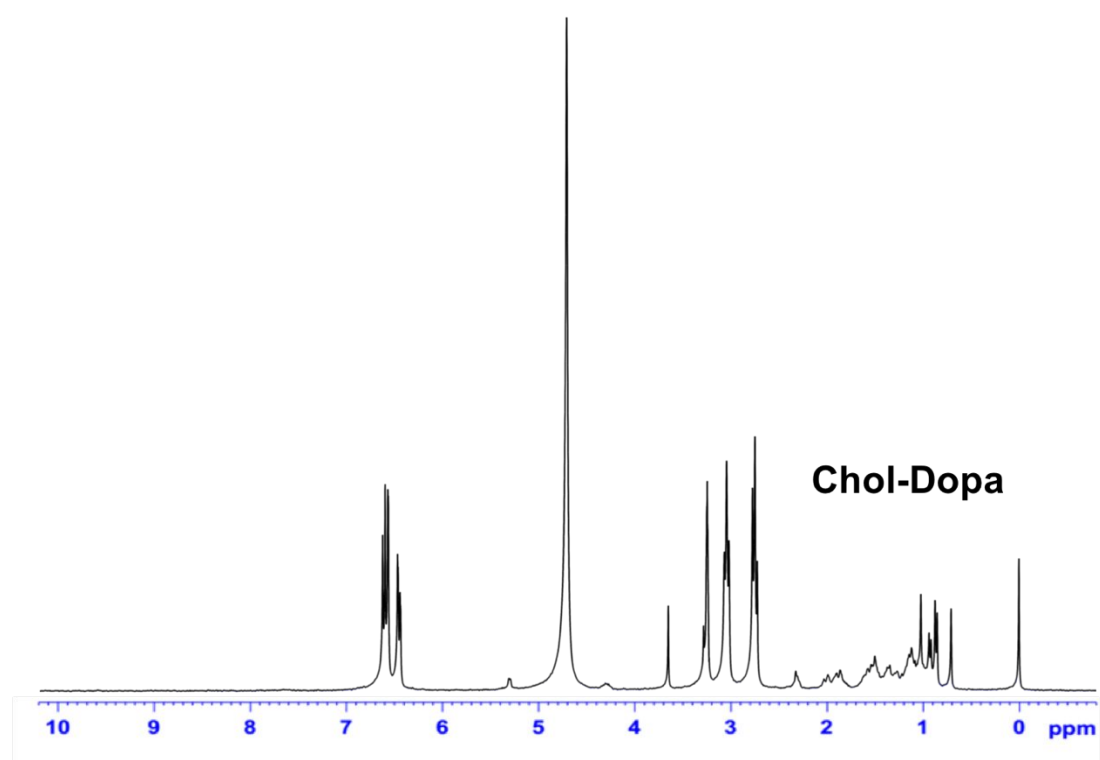
§ The authors contributed equally to the manuscript.



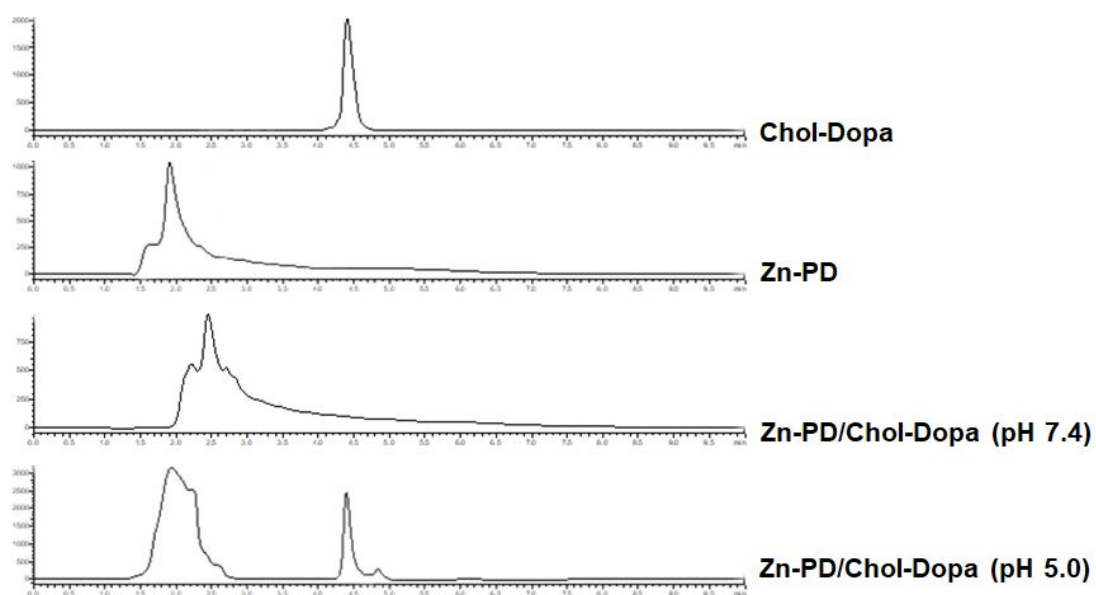
**Figure S1.** Synthesis procedures of Dx-DPA.



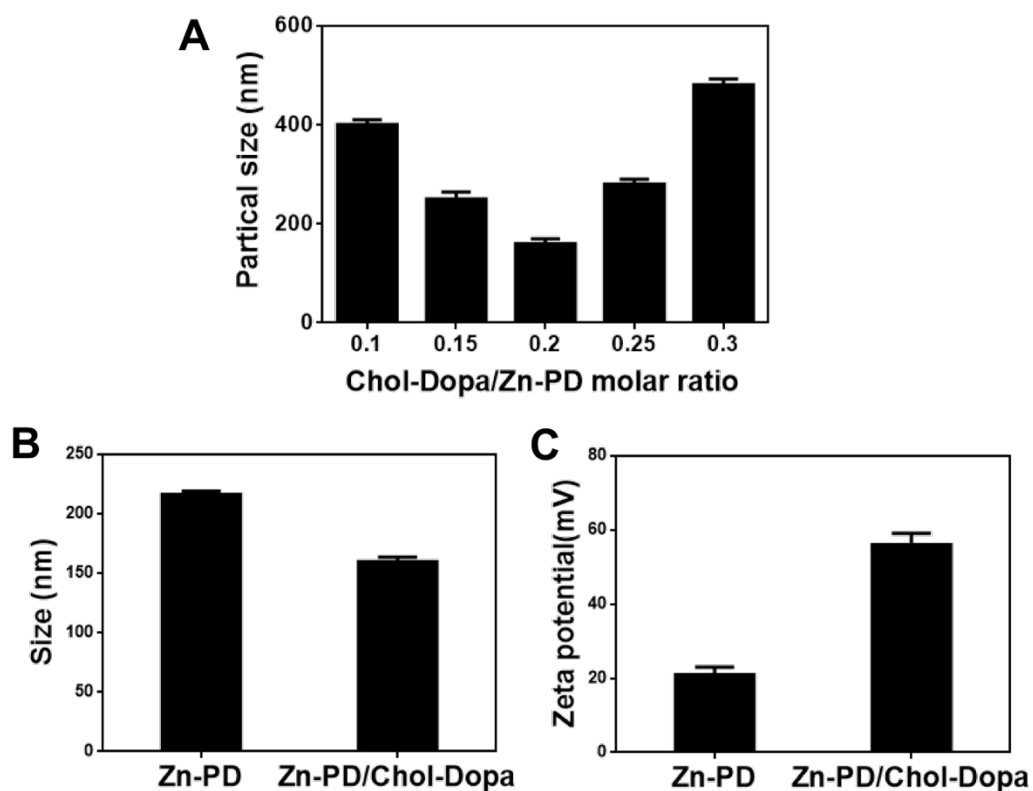




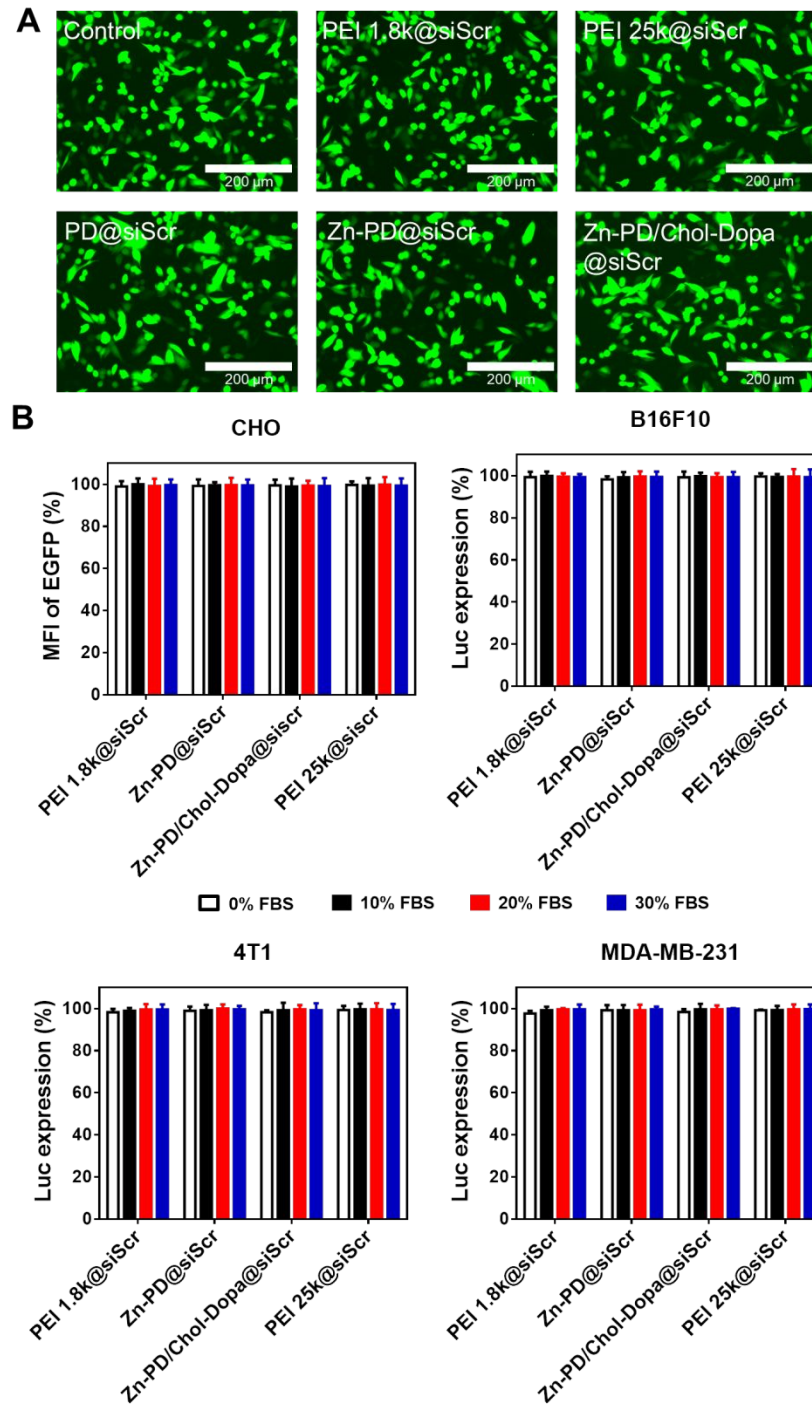
**Figure S2.**  $^1\text{H}$  NMR spectra of DPA and Dx-DPA, solvent:  $\text{CDCl}_3$ , PEI and PEI-DPA, solvent:  $\text{D}_2\text{O}$ , Chol-Dopa, solvent:  $\text{CD}_3\text{OD}$ .



**Figure S3.** HPLC spectrum of Chol-Dopa, Zn-PD, Zn-PD/Chol-Dopa (pH 7.4), and Zn-PD/Chol-Dopa (pH 5.0).



**Figure S4.** (A) Particle size determination of Zn-PD/Chol-Dopa at various molar ratio of Dopa: DPA. (B) Size and (C) Zeta potential of Zn-PD and Zn-PD/Chol-Dopa micelles.



**Figure S5.** (A) Fluorescence images of EGFP protein expression after different treatments detected by fluorescence microscopy, and the control group was treated with PBS. Scale bar = 200  $\mu$ m. (B) EGFP silencing of PEI 1.8k@siScr, Zn-PD@siScr, Zn-

PD/Chol-Dopa@siScr and PEI 25k@siScr on CHO cell lines and luciferase silencing of PEI 1.8k@siScr, Zn-PD@siScr, Zn-PD/Chol-Dopa@siScr and PEI 25k@siScr on B16F10-Luc, 4T1-Luc and MDA-MB-231-Luc cell lines in the presence of 0%, 10%, 20% and 30% FBS.