Electronic Supplementary Information
Submitted to New Journal of Chemistry

PLL/PAE/DNA Ternary Complexes with Enhanced Endosomal Escape Ability for Efficient and Safe Gene Transfection

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Figure S1. SEC curves of PAE oligomers before purification.
Figure S2. SEC curves of PAE oligomers after purification.
Figure S3. $^1$H NMR spectrums of PAE oligomers.
Figure S4. (a) Size of PLL/DNA binary complexes (20:0:1) and PLL/B4-DMDA/DNA ternary complexes (20:60:1) after preparation for 0 h, 0.5 h, 1 h and 2 h in deionized water; (b) Size of PLL/DNA binary complexes (20:0:1) and PLL/B4-S5/DNA ternary complexes (20:60:1) after preparation for 0 h and 4 h in DMEM with 10% FBS.
**Figure S5.** Fluorescence images of HeLa cells after incubation with PLL/DNA binary complexes and PLL/B4-DMDA/DNA ternary complexes for 2 hours, the w/w ratio of PLL/DNA was 10:1, the w/w ratio of PLL/B4-DMDA was 1:3, the scale bars are 200 μm.
Figure S6. Relative viability of HeLa cells after transfection with various complexes.
Figure S7. Comparison of gene transfection efficiency of PLL/B4-DMDA/DNA (10:30:1) ternary complexes with PEI/DNA (4:1) complexes.
Figure S8. Comparison of gene transfection efficiency of PLL/B4-DMDA/DNA (10:30:1) ternary complexes with PEI/DNA (4:1) complexes.