Photothermal-assisted surface-mediated gene delivery for enhancing transfection efficiency

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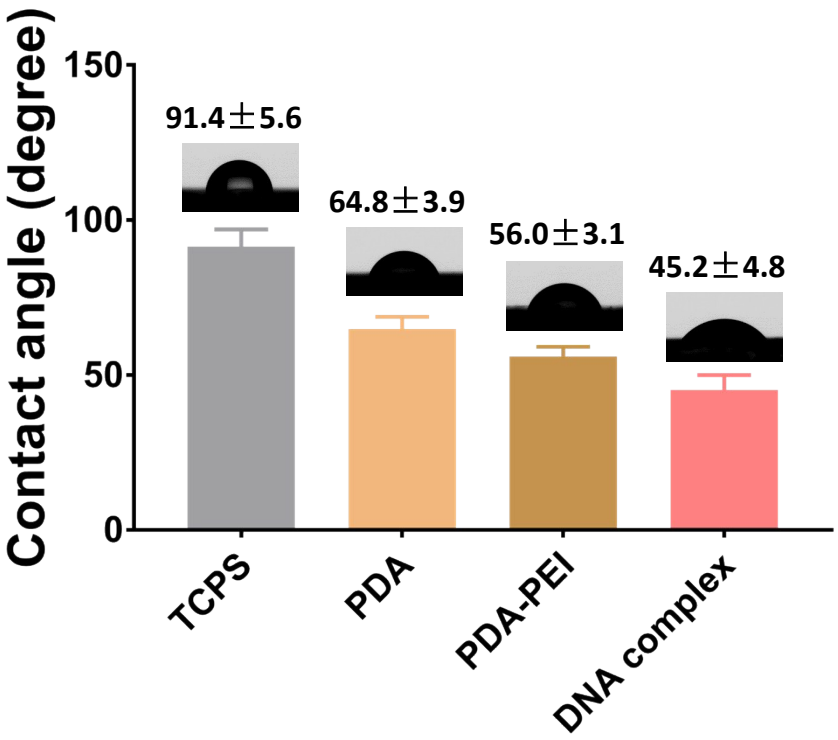

Figure S1. Water contact angles and digital photographs of water drops on TCPS, PDA, PDA-PEI, and pDNA-immobilized PDA-PEI surfaces. Experiments were repeated five times independently.

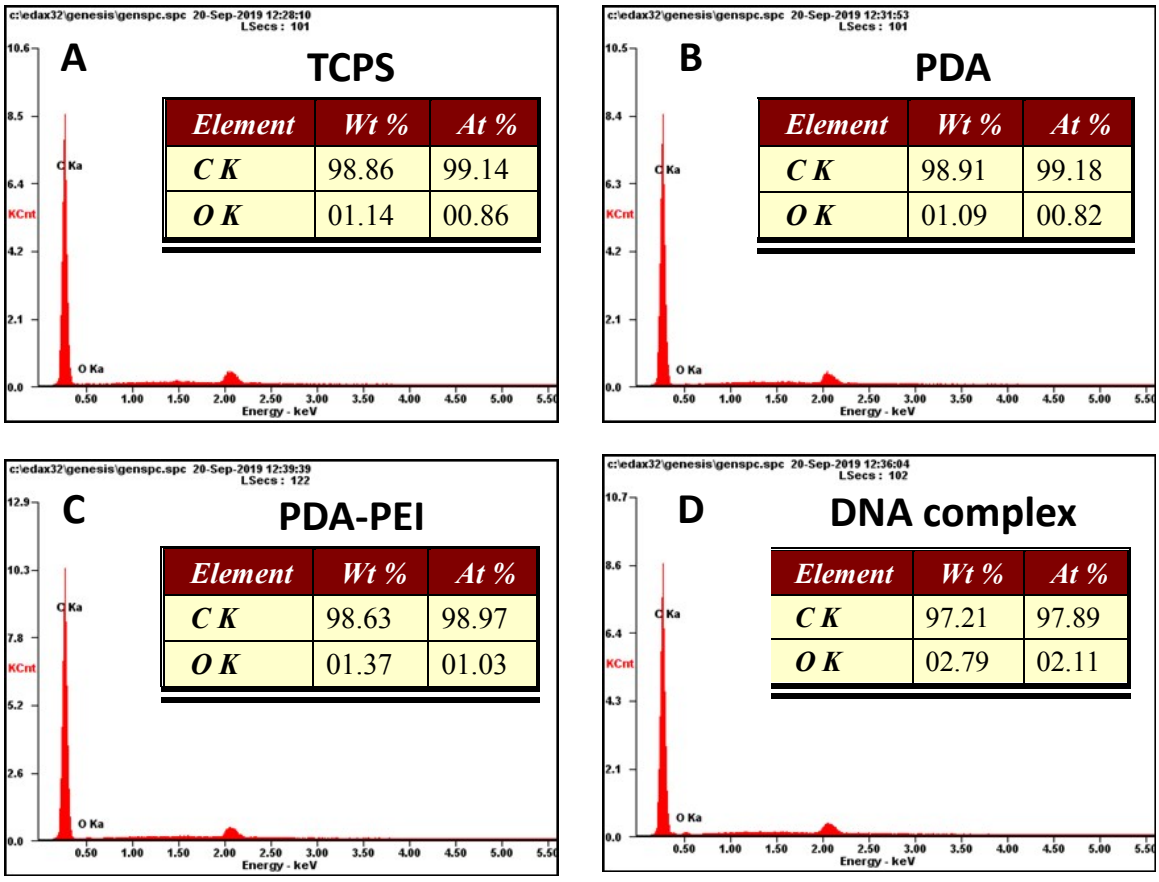

Figure S2. The elemental compositions of TCPS (A), PDA (B), PDA-PEI (C), and pDNA-immobilized PDA-PEI (D) surfaces examined by EDX.

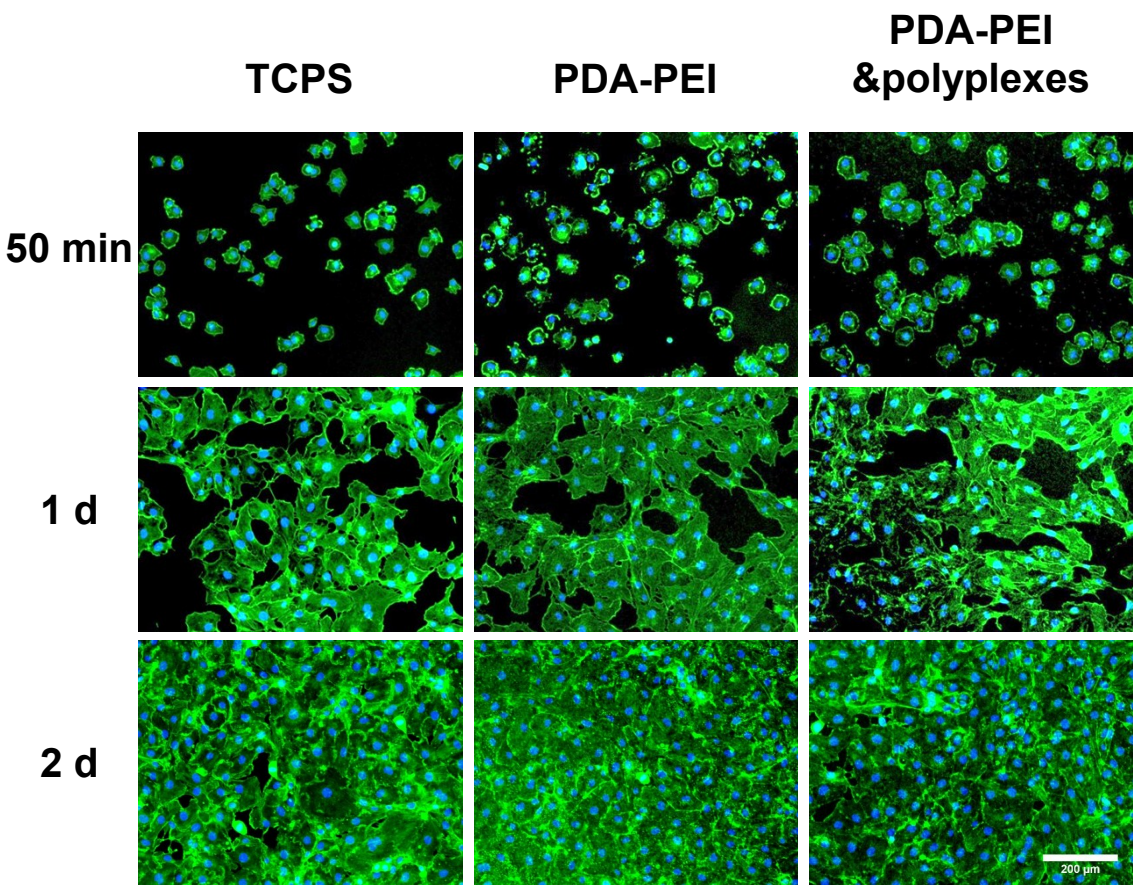

Figure S3. Fluorescence images of ECs stained by F-actin (green) and nuclei (blue) on TCPS, PDA, PDA-PEI, and PDA-PEI-polyplexes. The scale bar is 200 μm.

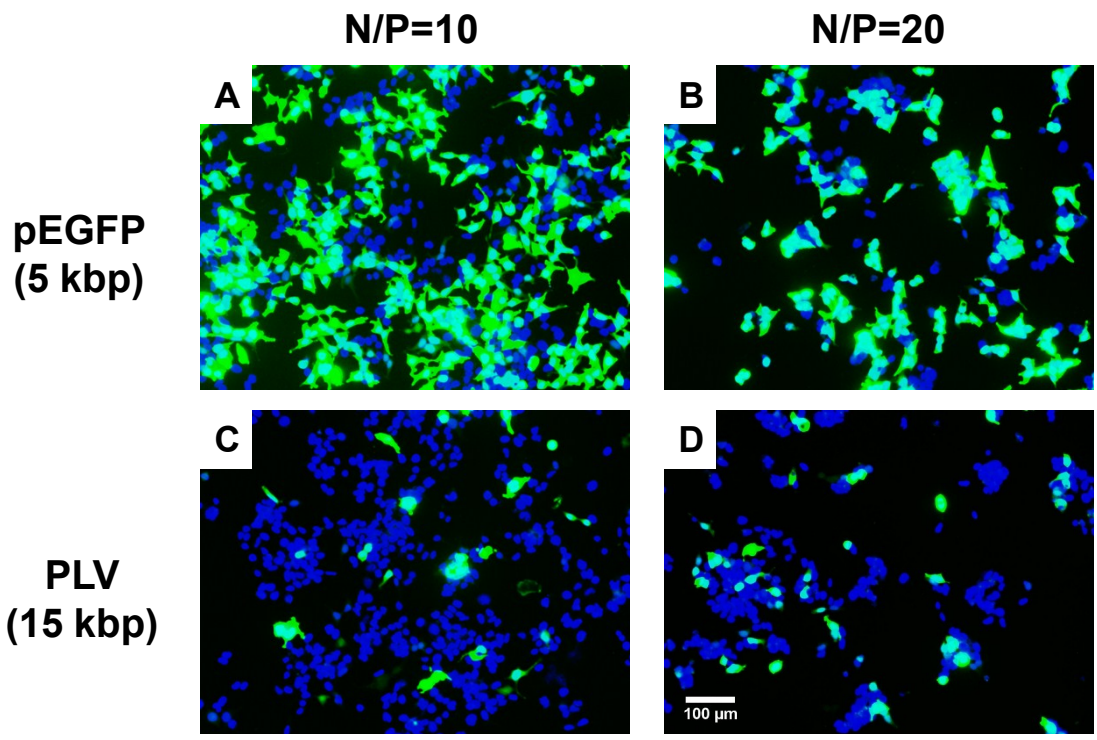

Figure S4. Transfection of pEGFP (A-B) and a large size pDNA (PLV-CAG-EGFP, C-D) to 293T cells by traditional bolus transfection with N/P values of 10 (A, C) and 20 (B, D). Cell nuclei were counterstained by DAPI (blue). The scale bar is 100 µm.

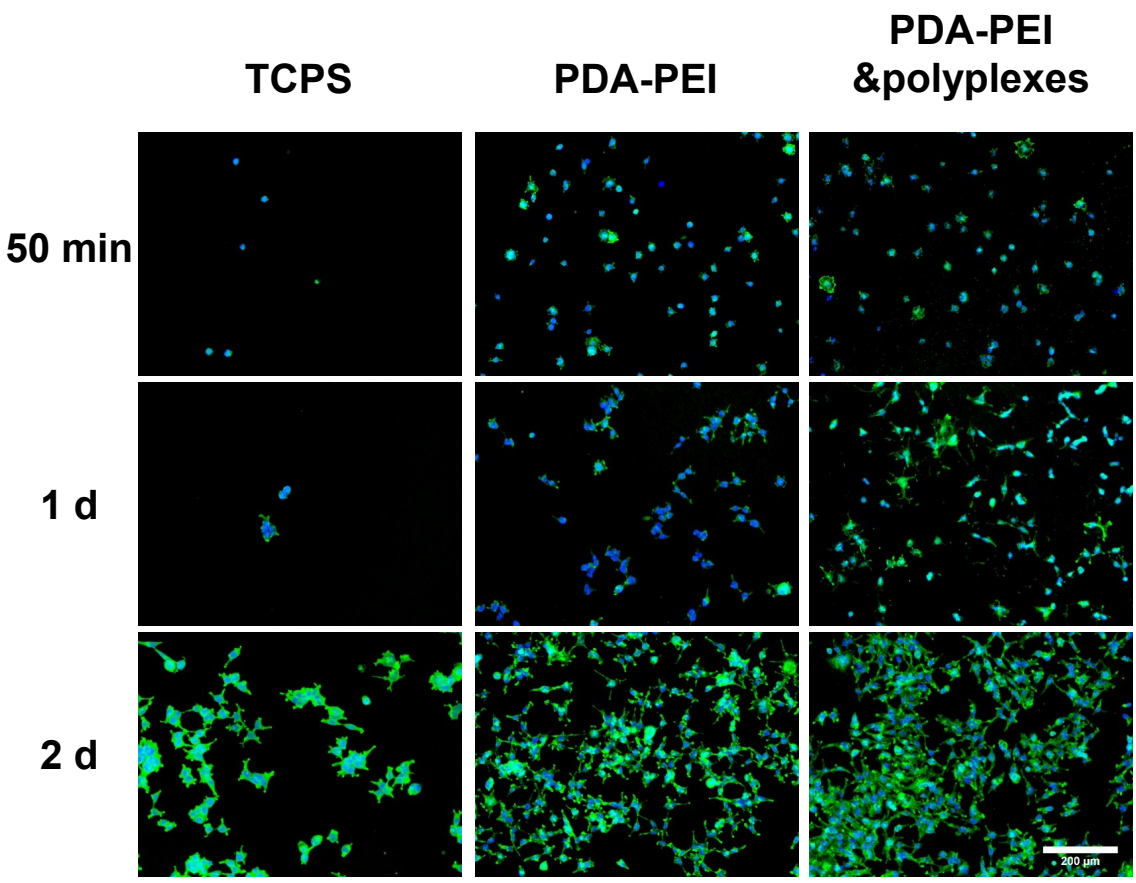

Figure S5. Fluorescence images of 293T stained by F-actin (green) and nuclei (blue) on TCPS, PDA, PDA-PEI, and PDA-PEI-polyplexes. The scale bar is 200 μm.

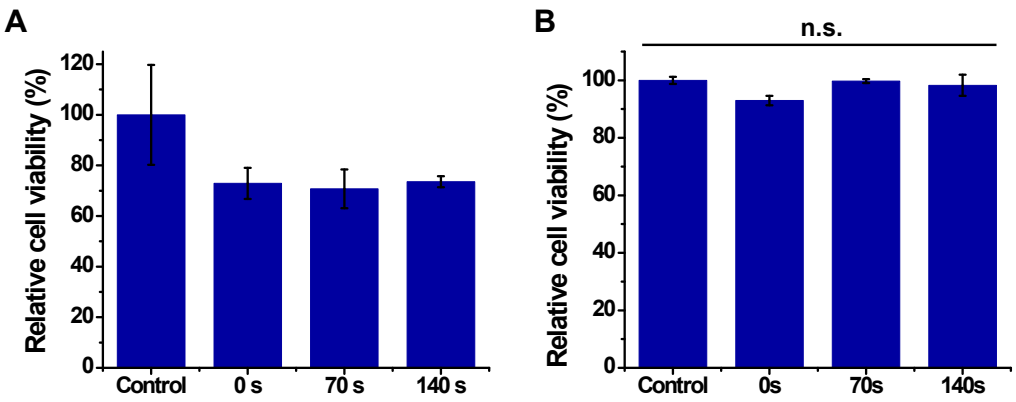

Figure S6. Viability of ECs (A) and 293T cells (B) following various irradiation time (0 s, 70 s, and 140s). Experiments were repeated five times independently.