Supporting Information

Membrane-Anchoring, Comb-Like Pseudopeptides for Efficient, pH-Mediated Membrane Destabilization and Intracellular Delivery

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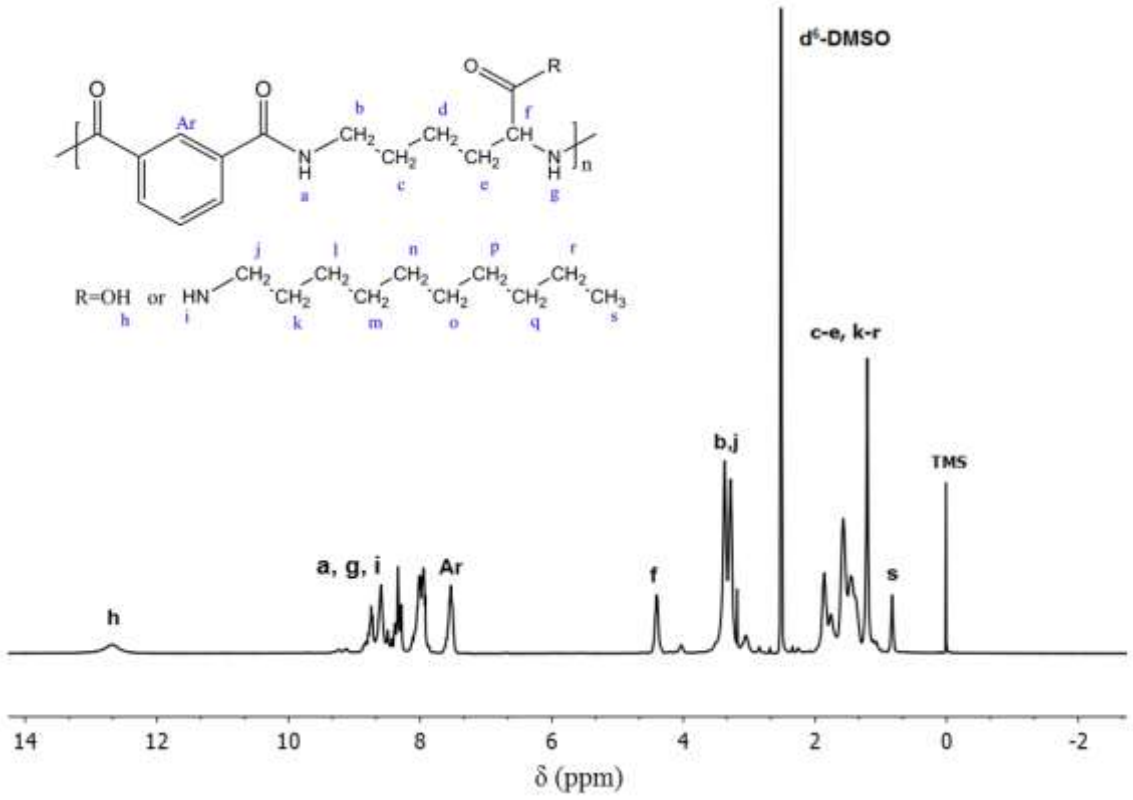

Figure S1.[1]H-NMR spectrum of PLP-NDA 18% in acidic form in d_6-DMSO at room temperature.

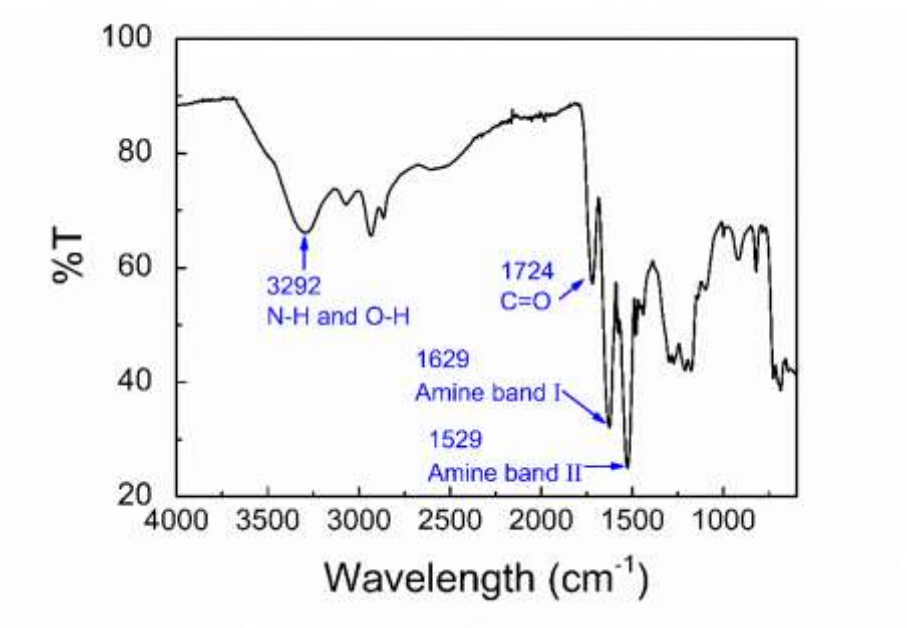

Figure S2. FT-IR spectrum of PLP-NDA 18% in acid form.

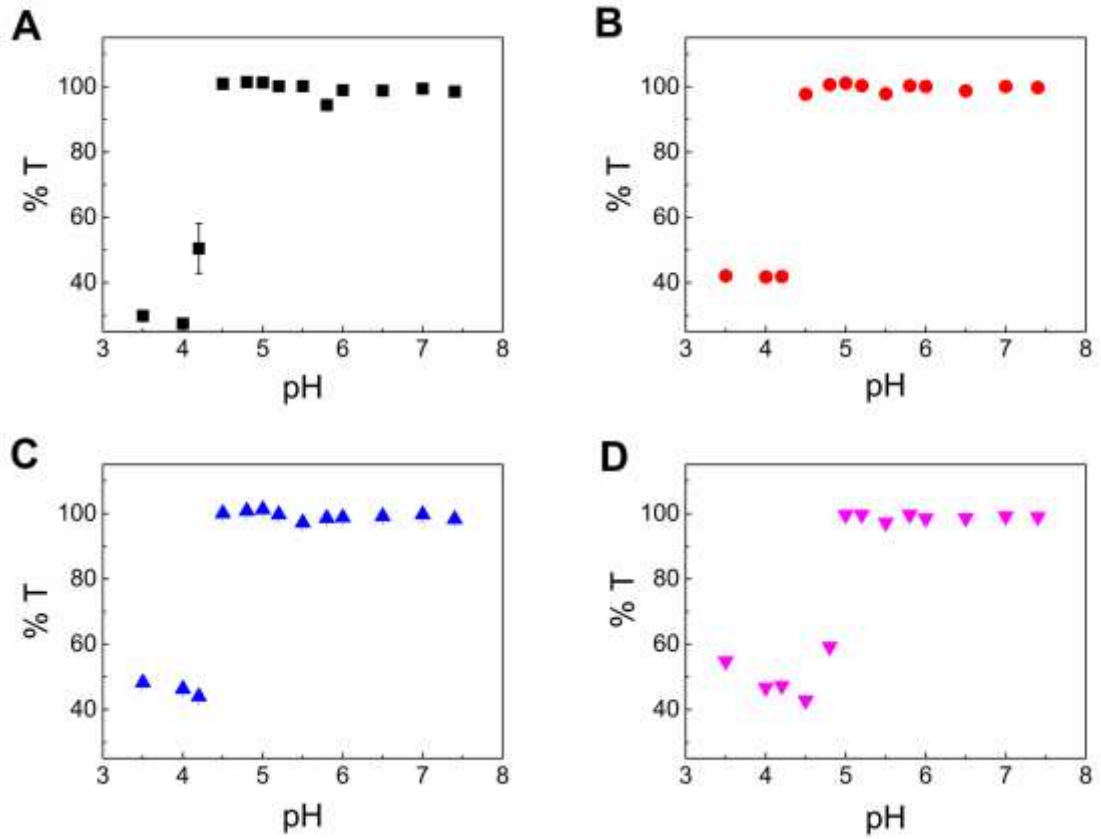

Figure S3. pH-dependent transmittance of the aqueous solutions of (A) PLP, (B) PLP-NDA 3%, (C) PLP-NDA 10% and (D) PLP-NDA 18% at 1.0 mg mL^{-1} in 100 mM phosphate or citrate buffer.

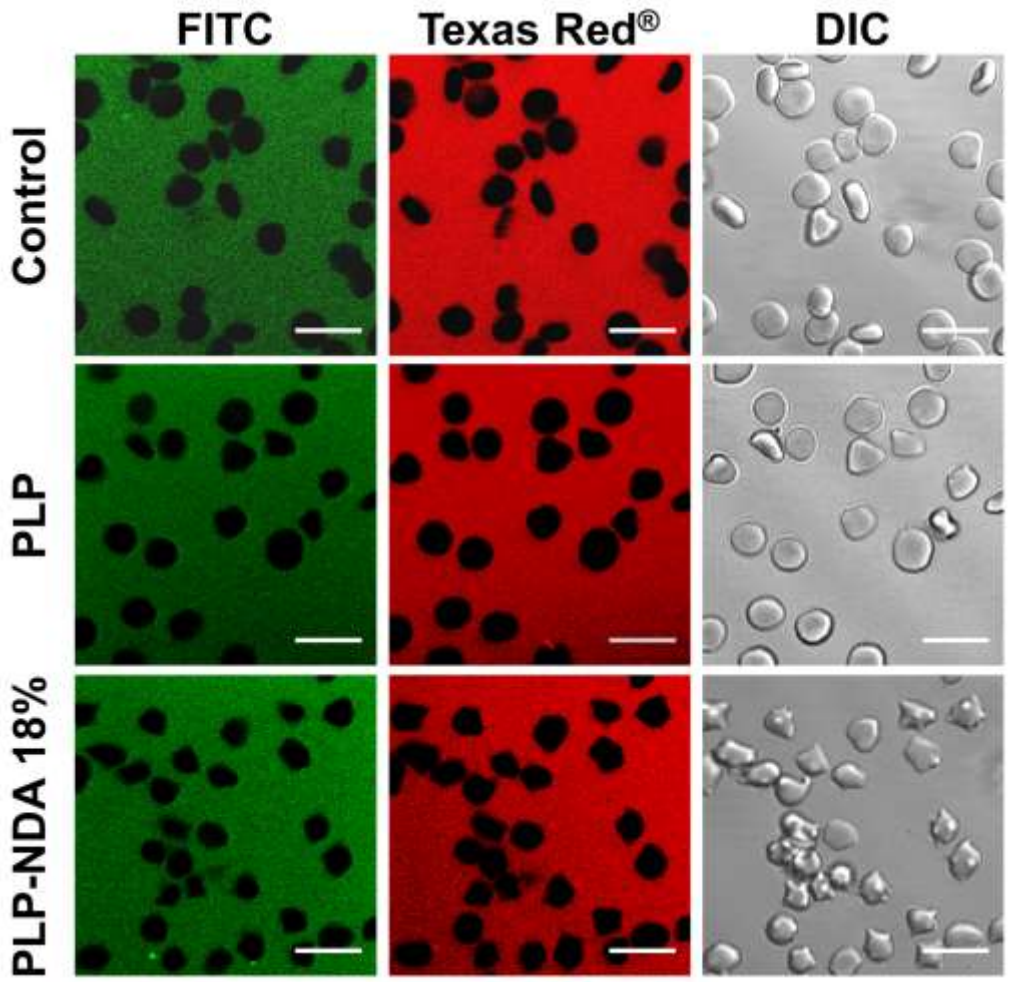

Figure S4. Confocal microscopy fluorescence and differential interference contrast (DIC) images of RBCs incubated with 10 µM FITC-dextran (M_w = 4 kDa) and 1 µM Texas Red hydrazide in the absence or presence of the comb-like polymer PLP-NDA 18% and its linear counterpart PLP (0.5 mg mL^{-1}) at pH 7.4 for 30 min. Scale bar 10 µm.

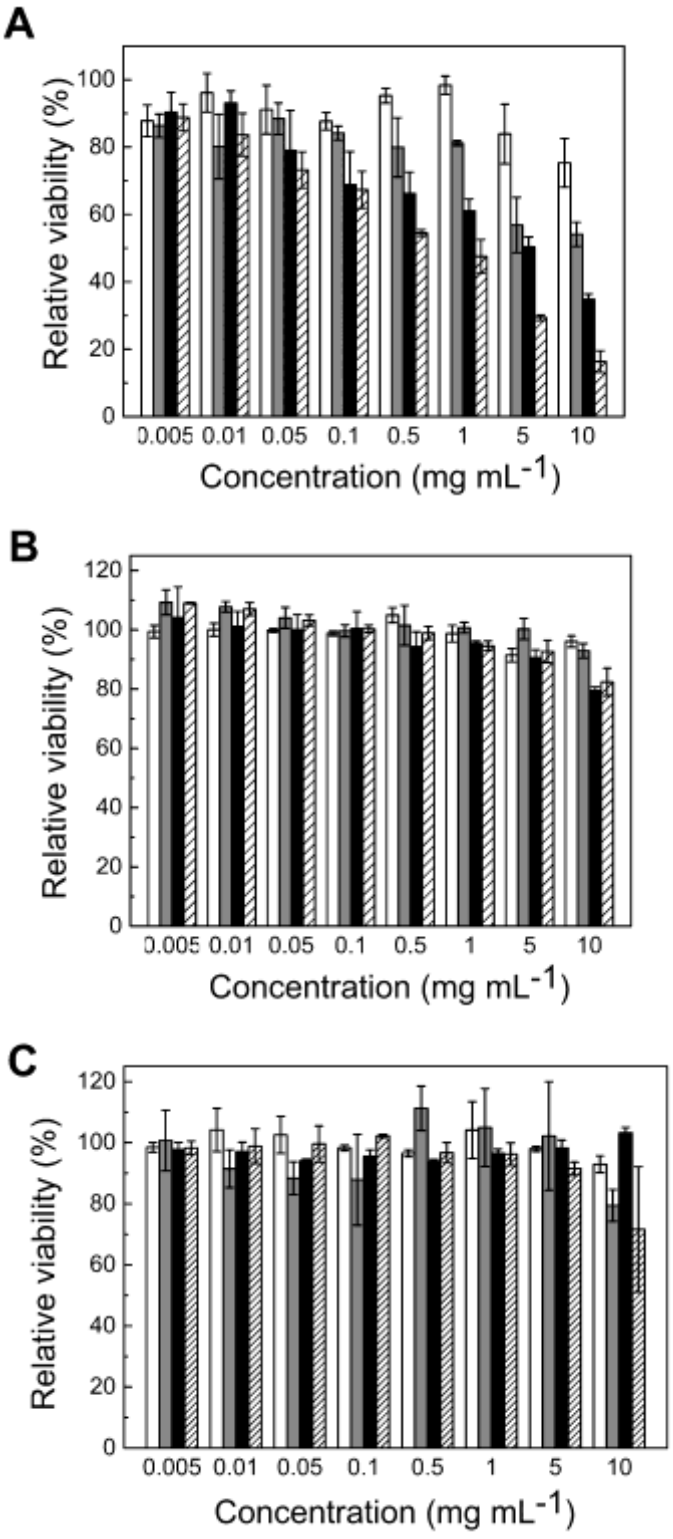

Figure S5. Relative viabilities of (A) HeLa, (B) CHO and (C) A549 cells incubated with PLP at various concentrations for 4 (blank columns), 12 (gray columns), 24 (black columns), and 48 h (striped columns).

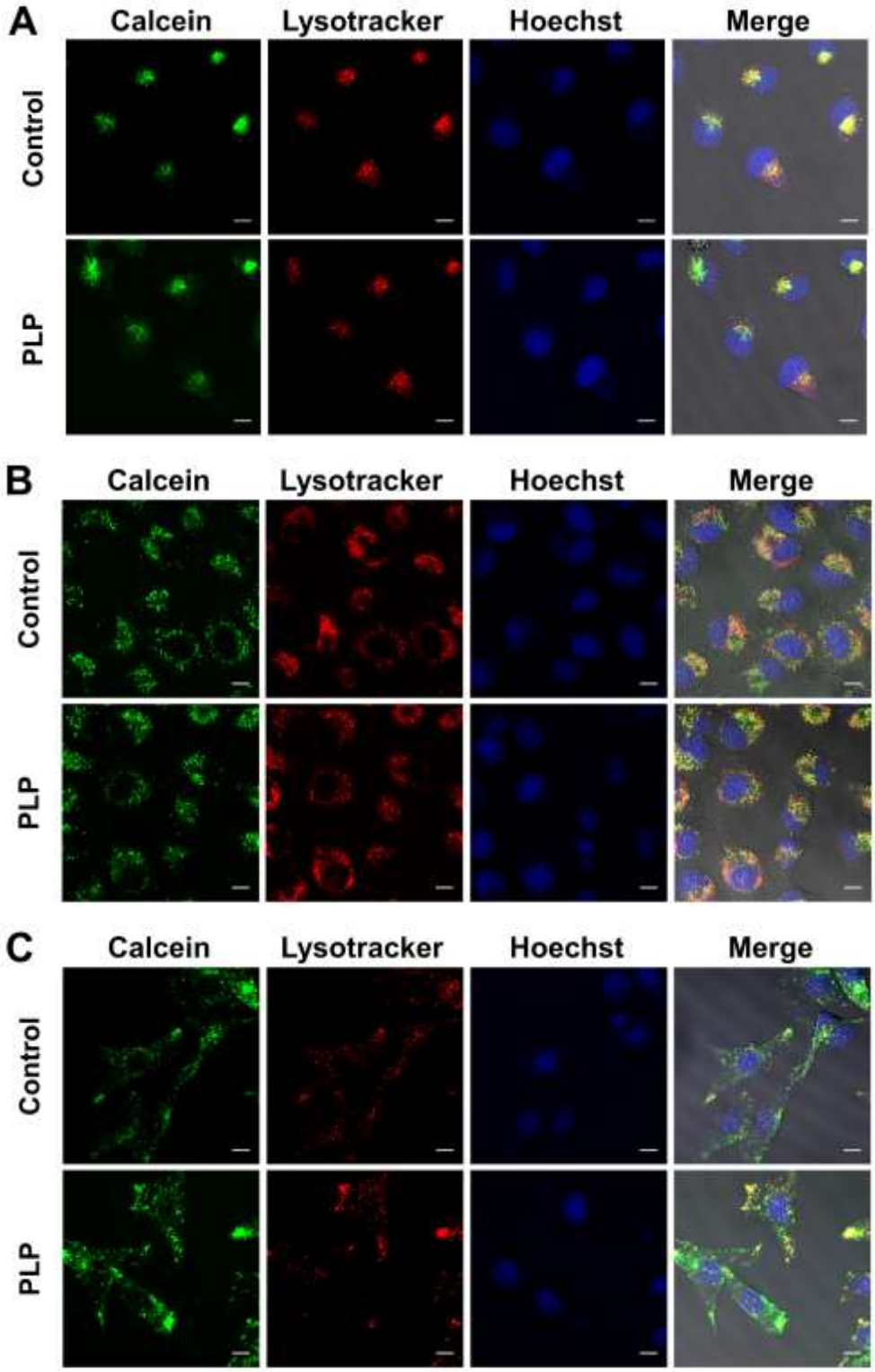

Figure S6. Confocal microscopy images of (A) Hela, (B) A549 and (C) CHO cells showing the subcellular distribution of calcein fluorescence. The cells were treated with 2.0 mg mL^{-1} calcein only (top), or both 2.0 mg mL^{-1} calcein and 0.5 mg mL^{-1} PLP (bottom). Images were acquired after 1 h of uptake and 3 h of further incubation in fresh DMEM for HeLa and CHO cells (2 h of uptake and 2 h of further incubation for A549 cells). Scale bar 10 μm.