Supplementary information

Structurally Precise Cationic Polythiophene–*b*– Polyglutamate Diblock Copolymers with Tunable Polyplex Morphologies for Efficient PCI–Mediated Gene Delivery

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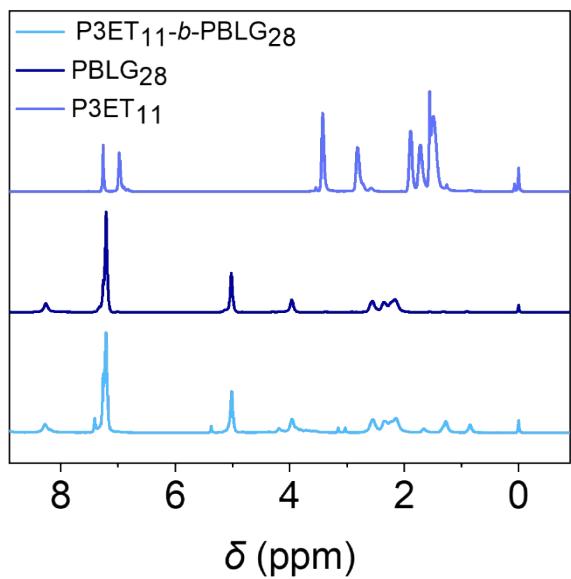
Fig. S1 ^{1}H NMR spectra of P3ET$_{11}$, PBLG$_{28}$, and P3ET$_{11}$–b–PBLG$_{28}$ in CDCl$_3$.
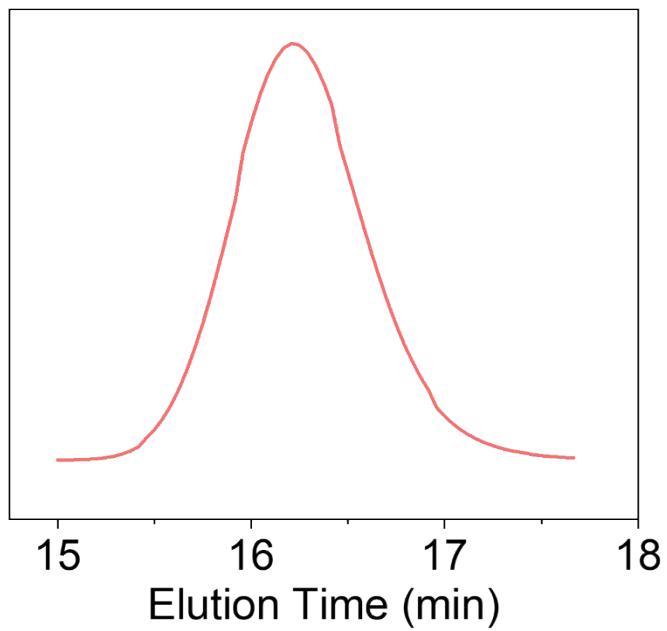
Fig. S2 GPC trace of PBLG$_{28}$.
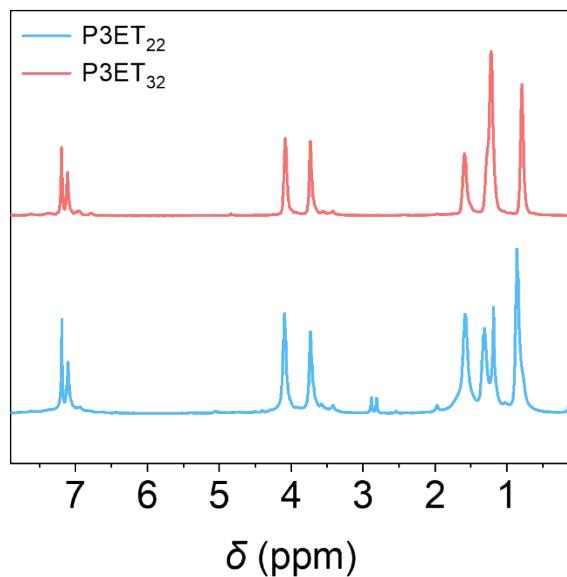
Fig. S3 ^{1}H NMR spectra of P3ET$_{22}$ and P3ET$_{32}$ in CDCl$_3$.
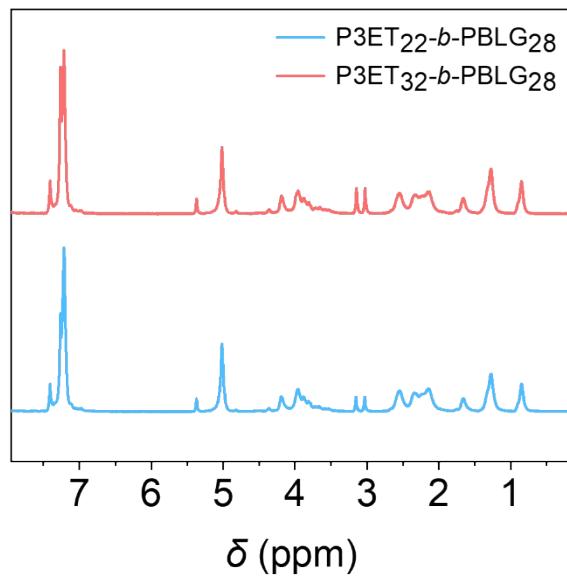
Fig. S4 ^{1}H NMR spectra of P3ET$_{22}$–b–PBLG$_{28}$ and P3ET$_{32}$–b–PBLG$_{28}$ in CDCl$_3$.
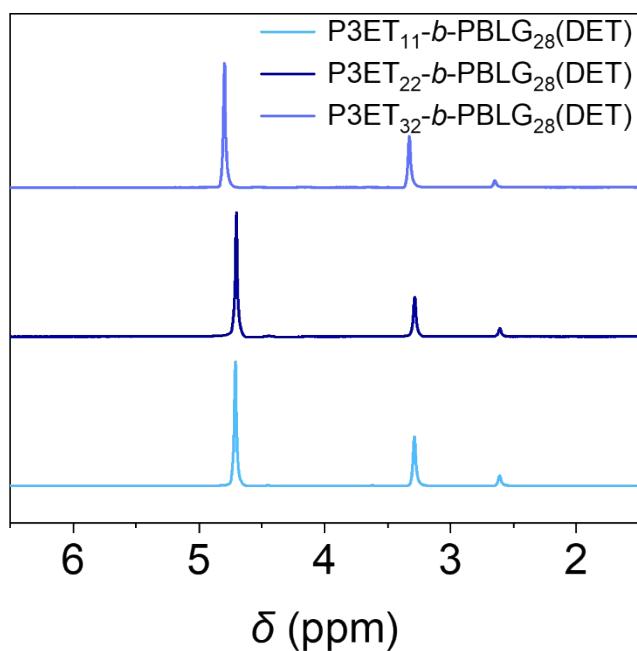
**Fig. S5** ^{1}H NMR spectrum of P3ET$_n$–b–PBLG$_m$(DET)s in water.
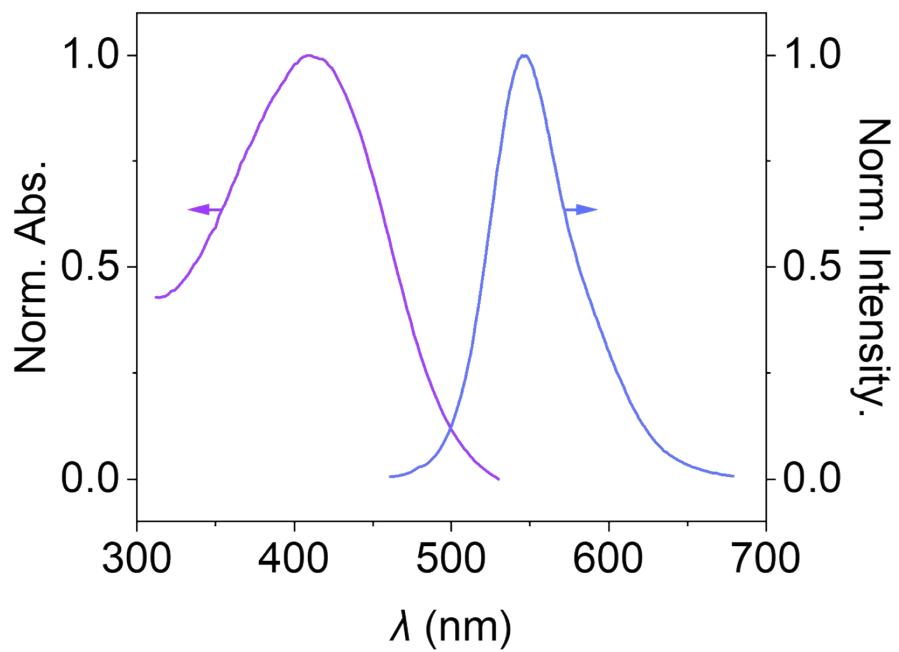
**Fig. S6** Normalized UV–vis and fluorescence spectra of P3ET$_{11}$ in THF.
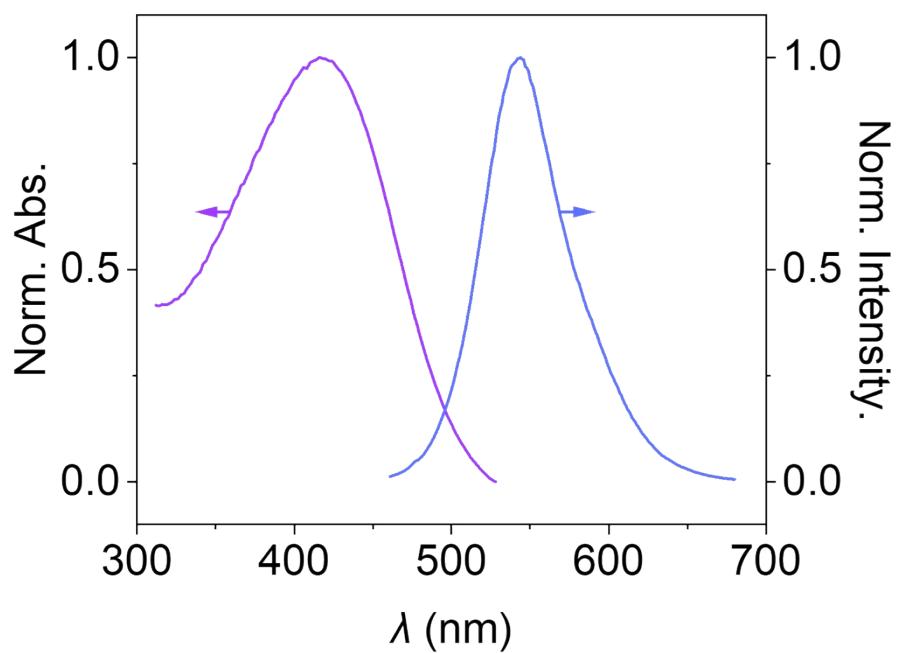
**Fig. S7**   Normalized UV–vis and fluorescence spectra of P3ET$_{22}$ in THF.
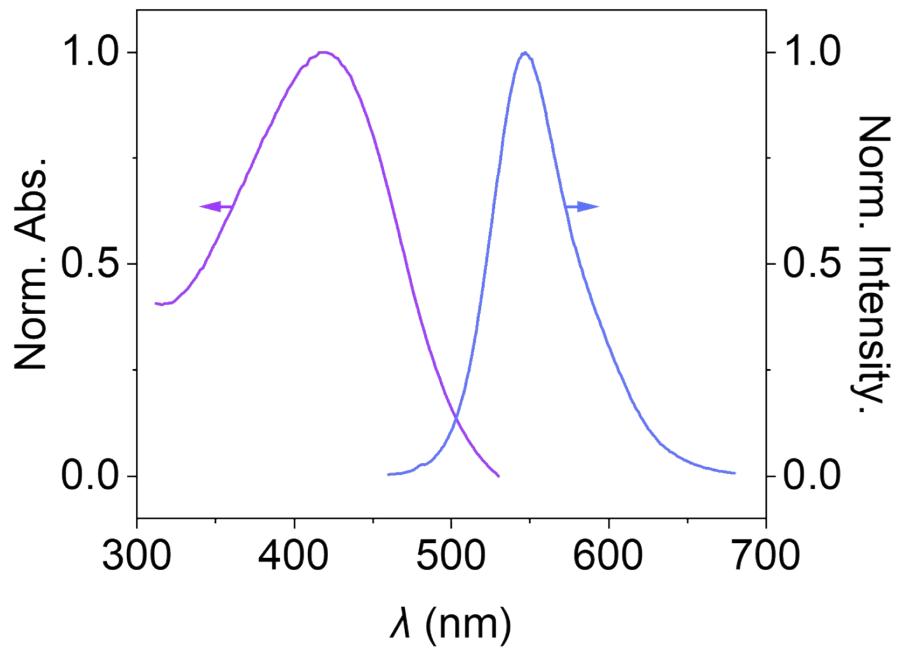
**Fig. S8**   Normalized UV–vis and fluorescence spectra of P3ET$_{32}$ in THF.
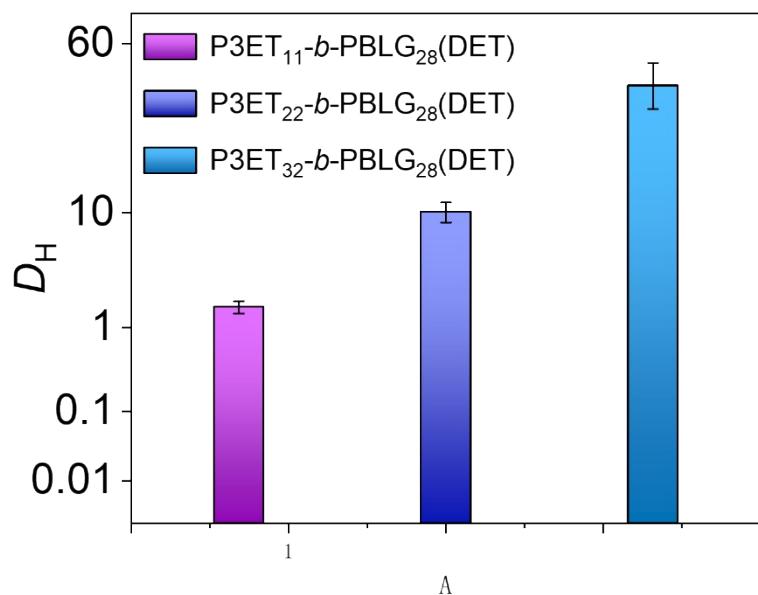
Fig. S9 D_{H}s of the cationic diblock copolymers P3ET$_{11}$–b–PBLG$_{28}$(DET), P3ET$_{22}$–b–PBLG$_{28}$(DET), and P3ET$_{32}$–b–PBLG$_{28}$(DET) in aqueous solution. Data are presented as mean ± standard deviation (n = 3 independent measurements).
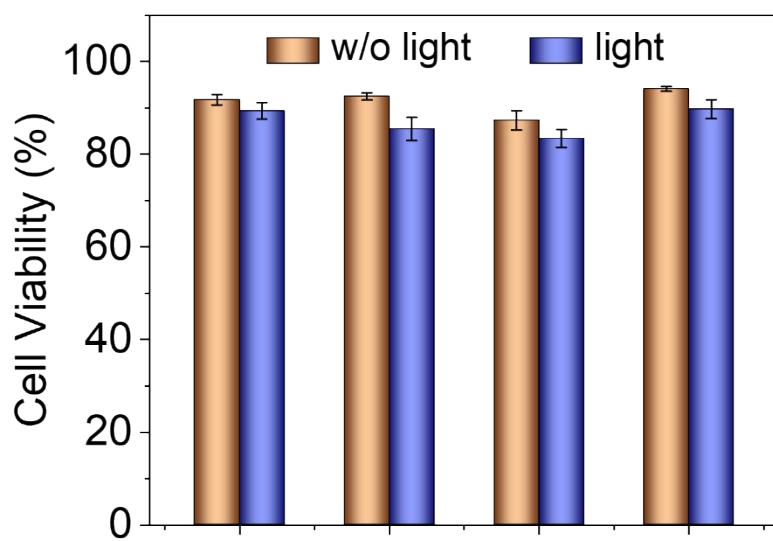
Fig. S10 In vitro cytotoxicity of polyplexes with or without PCI treatment ($\lambda > 400$ nm, 300 mW·cm^{-2}, 2 min).