Supporting Information

Reconfiguring the architectures of cationic helical polypeptides to control non-viral gene delivery

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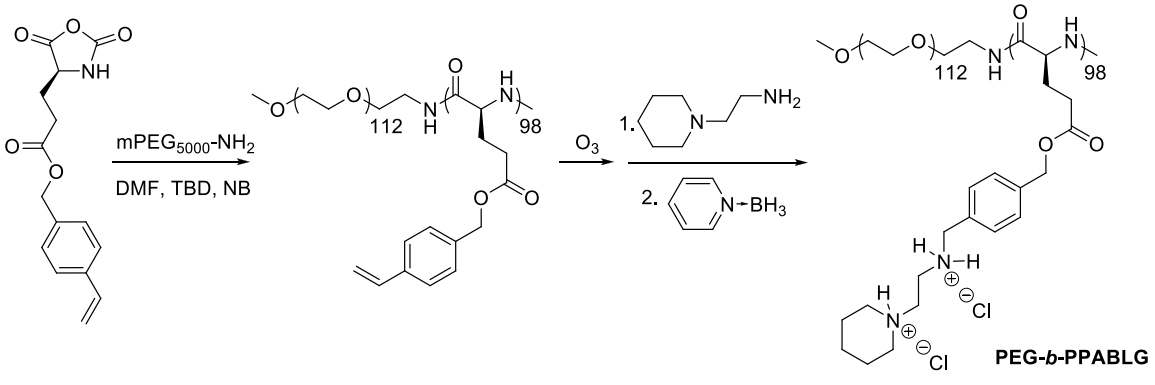
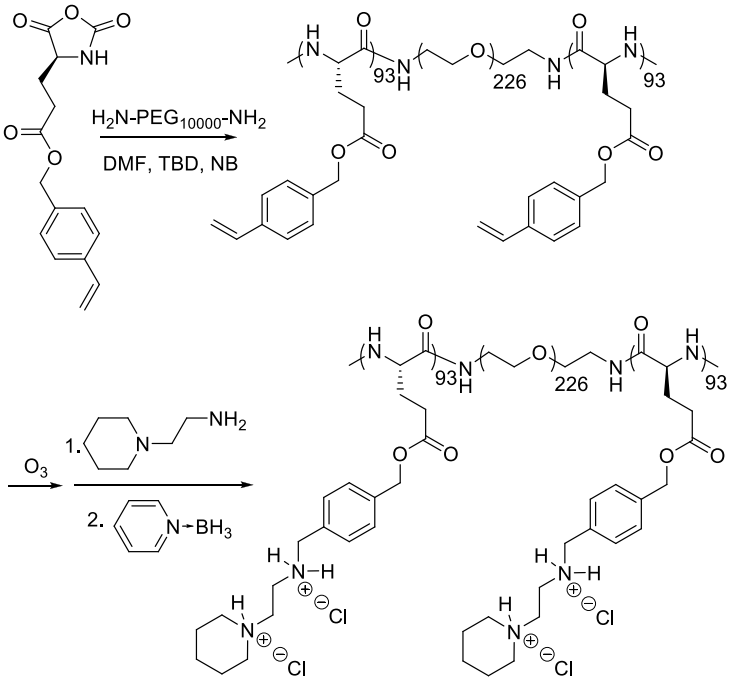
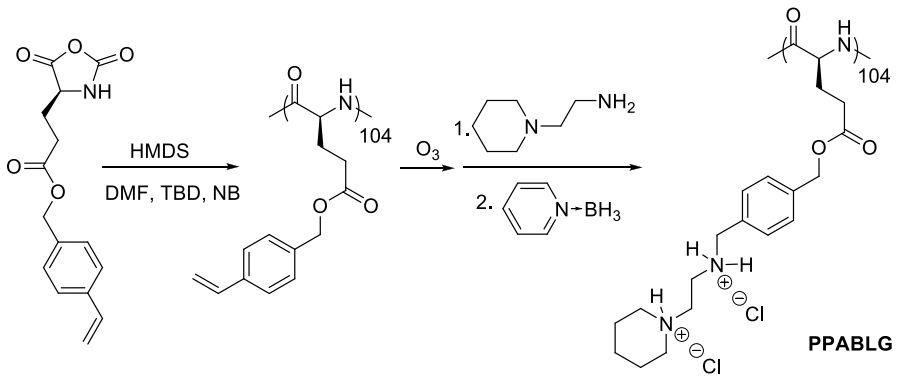


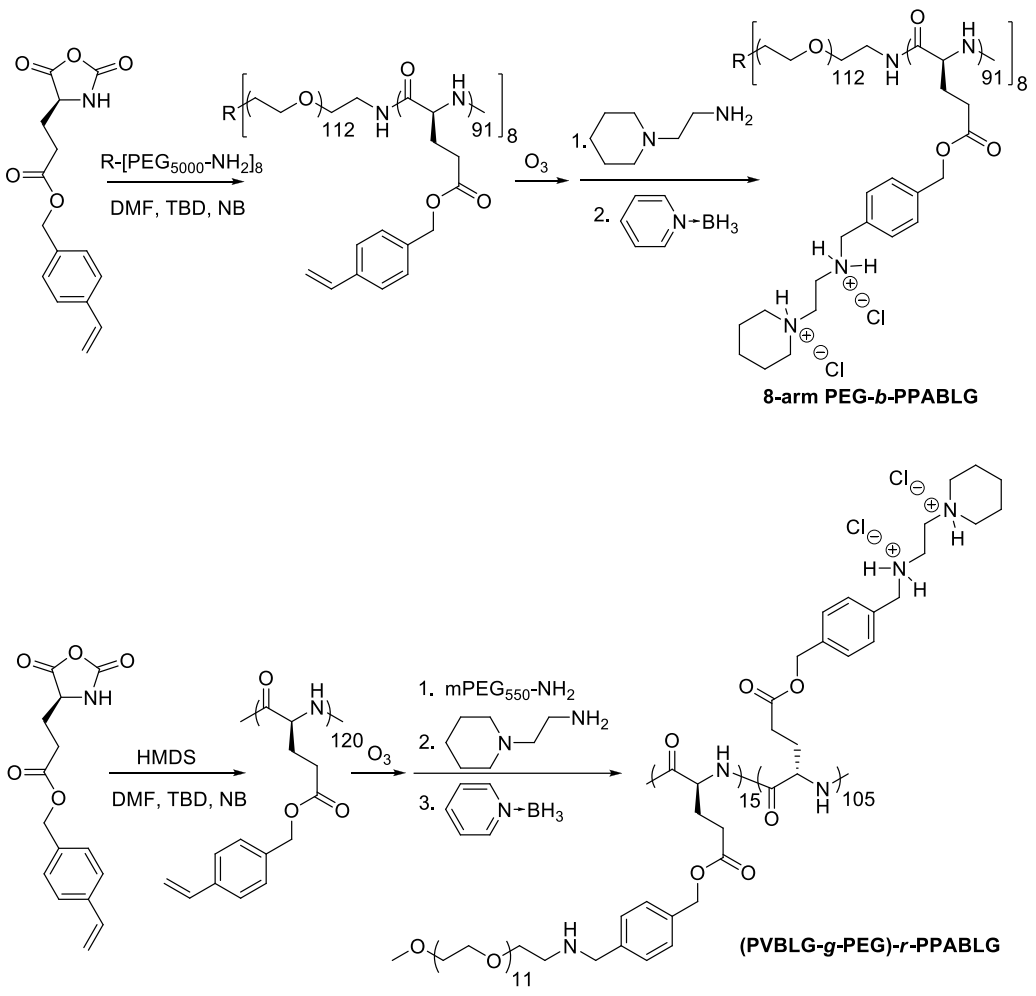
PEG-*b*-PPABLG



PPABLG-*b*-PEG-*b*-PPABLG



PPABLG



Scheme S1. Synthetic routes of polypeptides with different architectures.

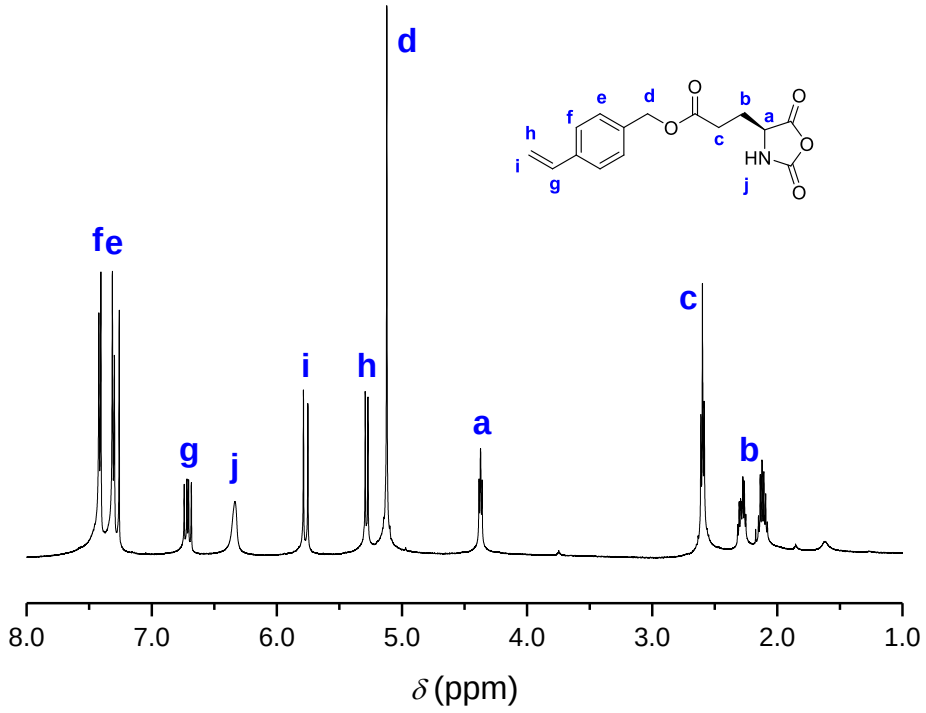


Fig. S1. ^{1}H NMR spectrum of VB-$_{L}$-glu-NCA monomer in $CDCl_3$.

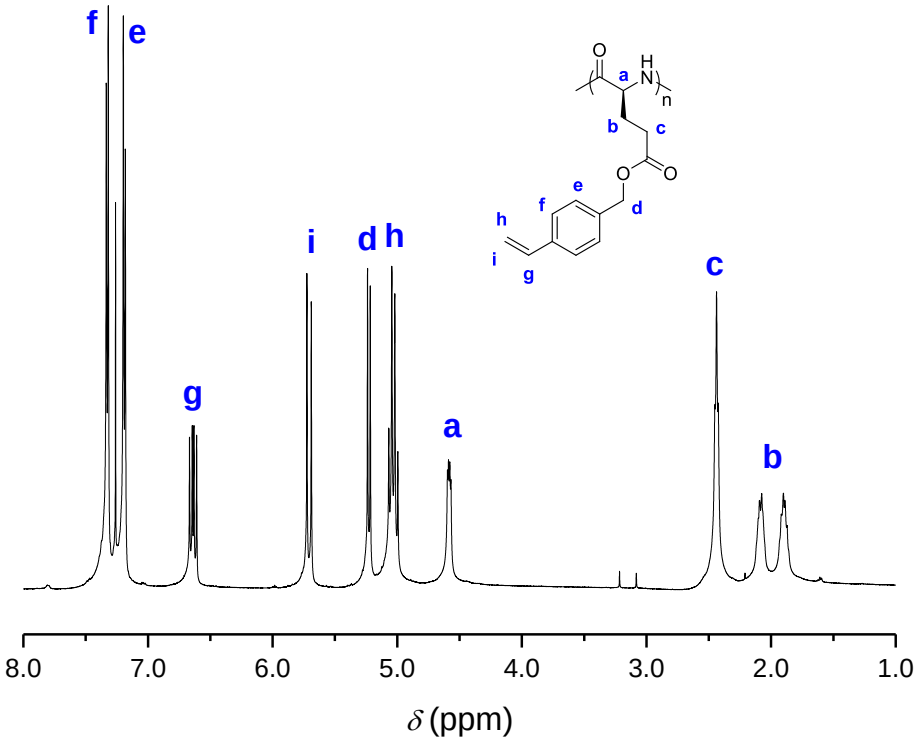


Fig. S2. Representative ^{1}H NMR spectrum of PVBLG precursor in $CDCl_3$/TFA-*d* (85:15, v/v).

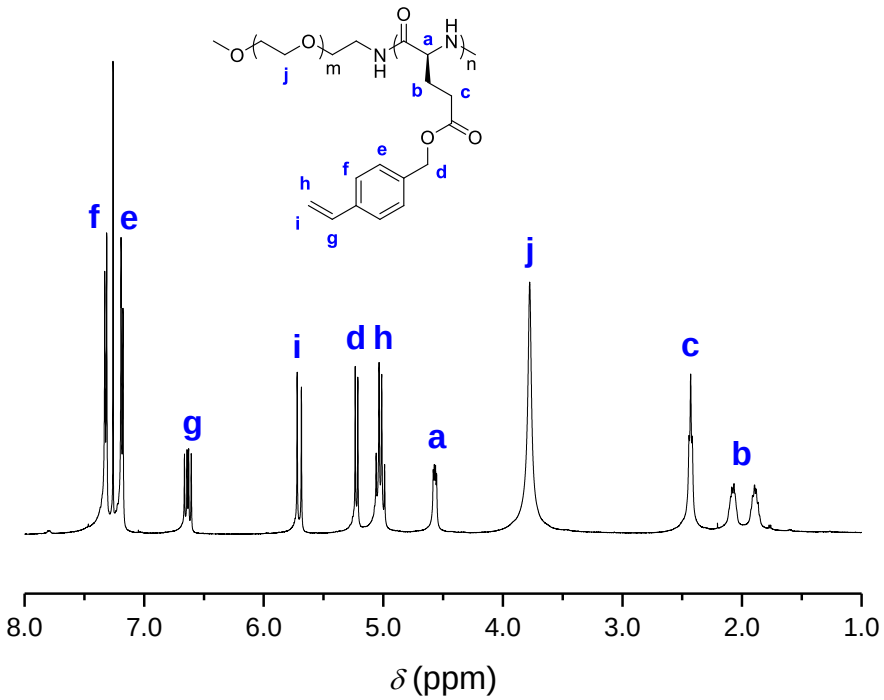


Fig. S3. Representative ^{1}H NMR spectrum of PEG-PVBLG conjugates precursor in $CDCl_3$/TFA-*d* (85:15, v/v). The copolymer composition was calculated by the integral ratio of PEG methylene protons (peak **j**) to the benzylic ester protons (peak **d**).

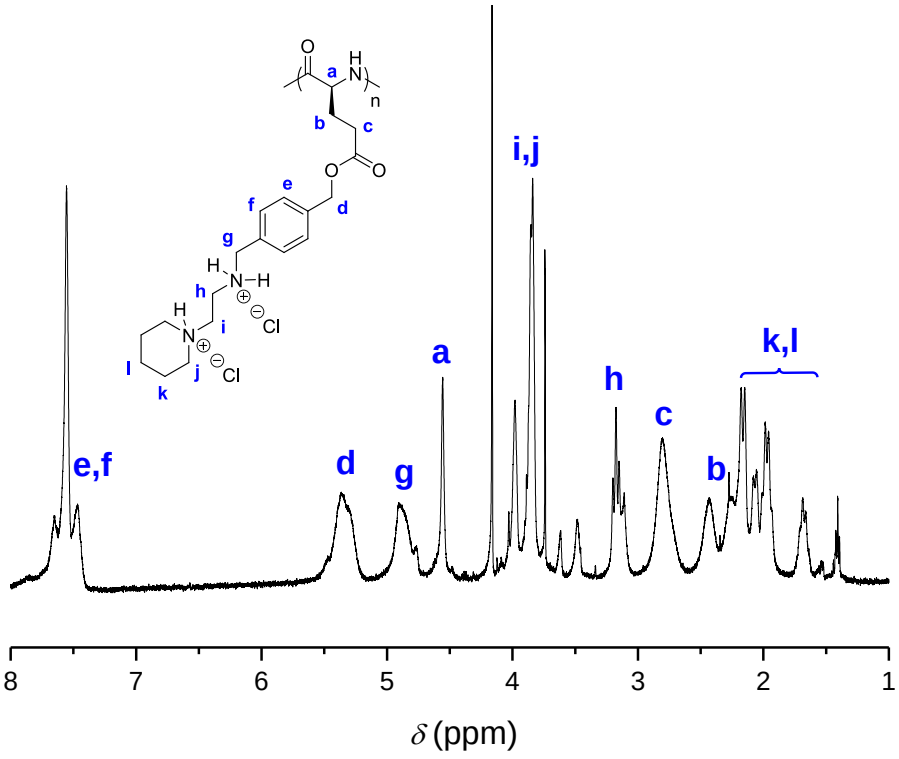


Fig. S4. ^{1}H NMR spectrum of PPABLG homopolymer in TFA-*d*.

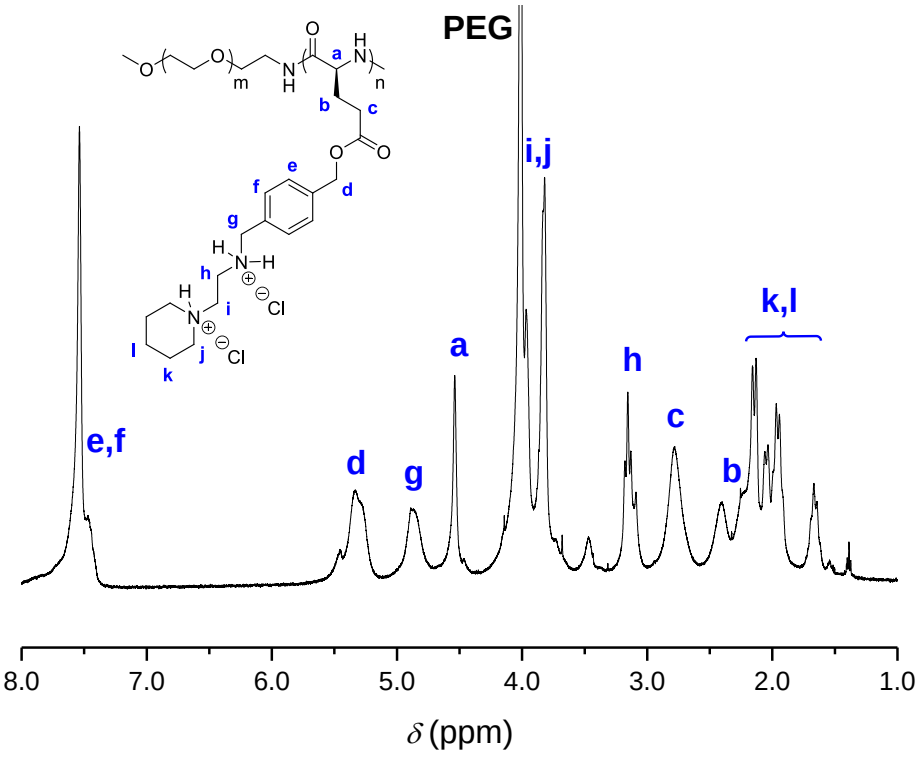


Fig. S5. ^{1}H NMR spectrum of PEG-*b*-PPABLG diblock copolymer in TFA-*d*.

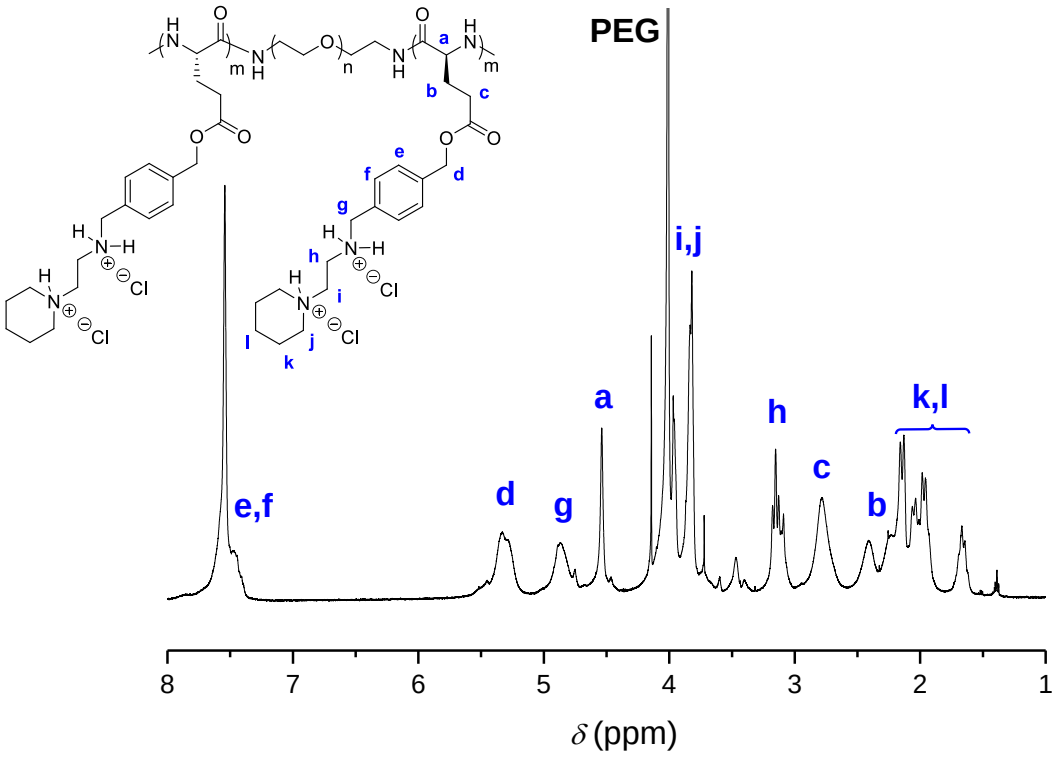


Fig. S6. ^{1}H NMR spectrum of PPABLG-*b*-PEG-*b*-PPABLG triblock copolymer in TFA-*d*.

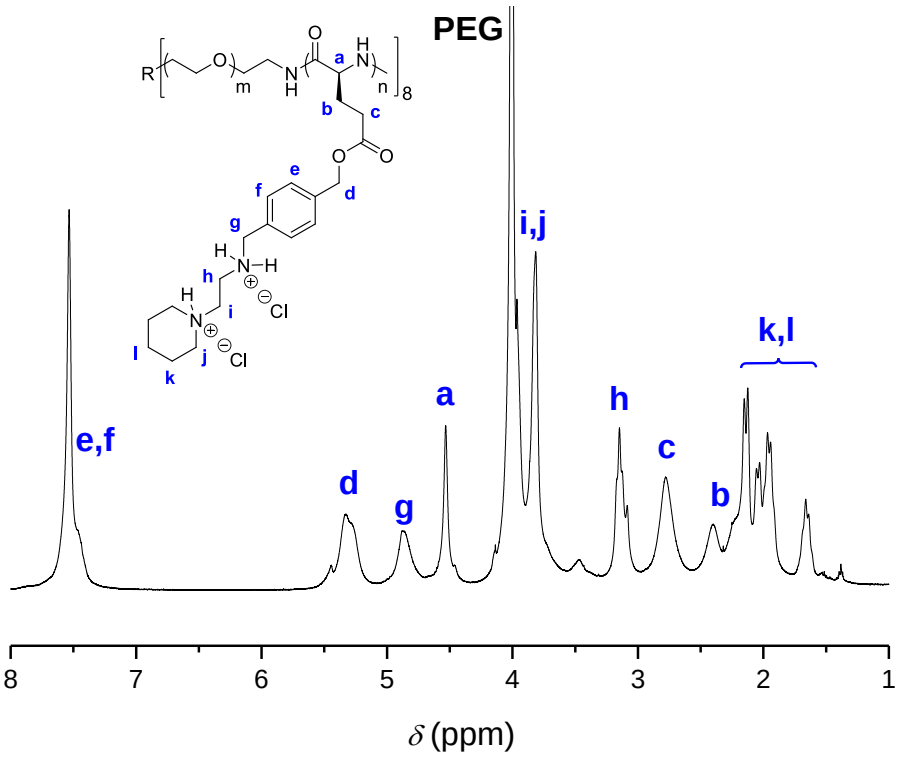


Fig. S7. ^{1}H NMR spectrum of 8-arm PEG-*b*-PPABLG star copolymer in TFA-*d*.

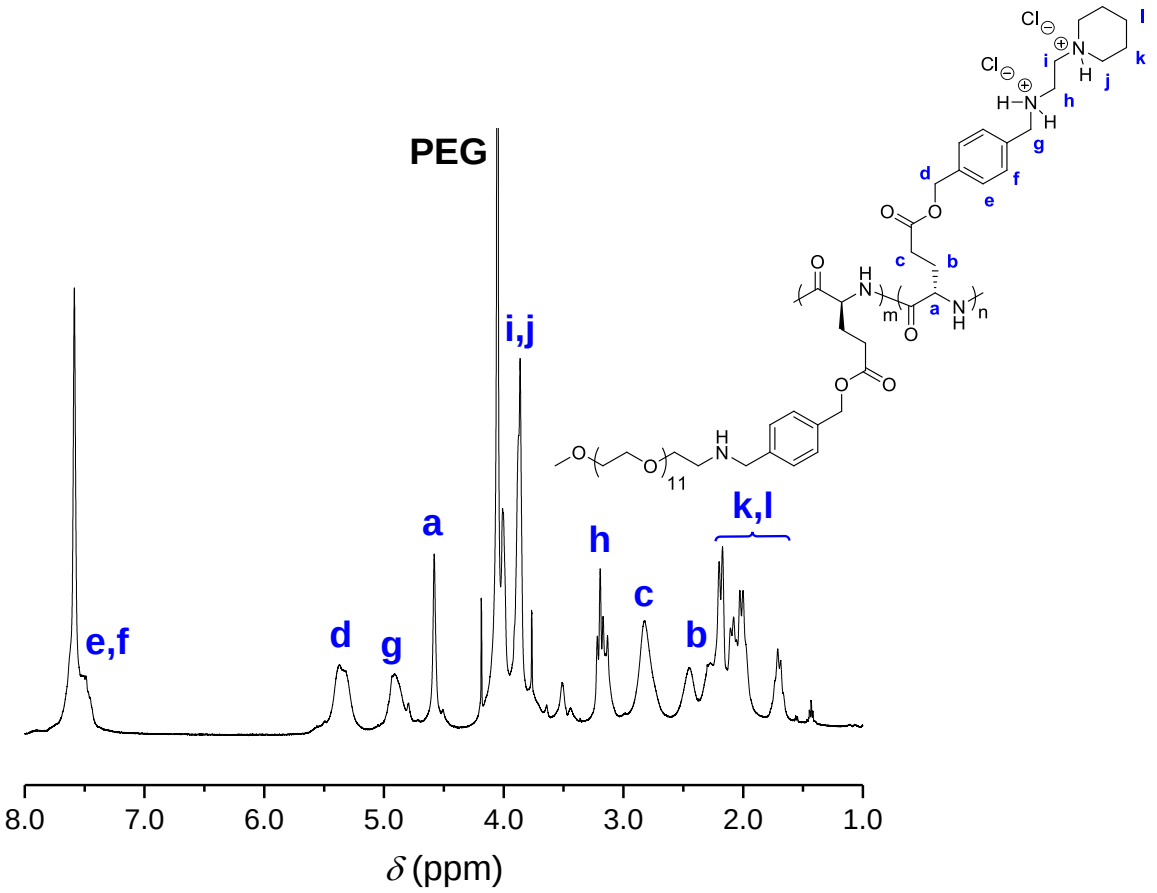


Fig. S8. ^{1}H NMR spectrum of (PVBLG-*g*-PEG)-*r*-PPABLG graft copolymer in TFA-*d*.