

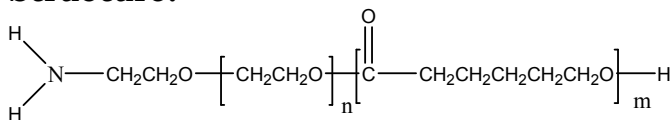
Sample Name:

**Amino end functionalized**

**Poly(ethylene oxide-b-caprolactone)**

Sample #: **P10343C-NH2EGCL**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> NH2 EG-b-PCL	PDI	NH2 functionality
4.0-b-10.0	1.15	>95%

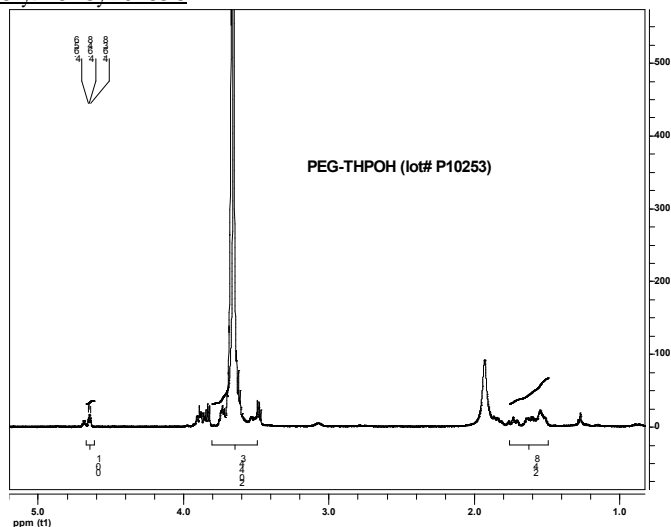
**Characterization:**

An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of caprolactone and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The polymer obtained at each step and the final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the ε-caprolactone protons at about 4.1 ppm.

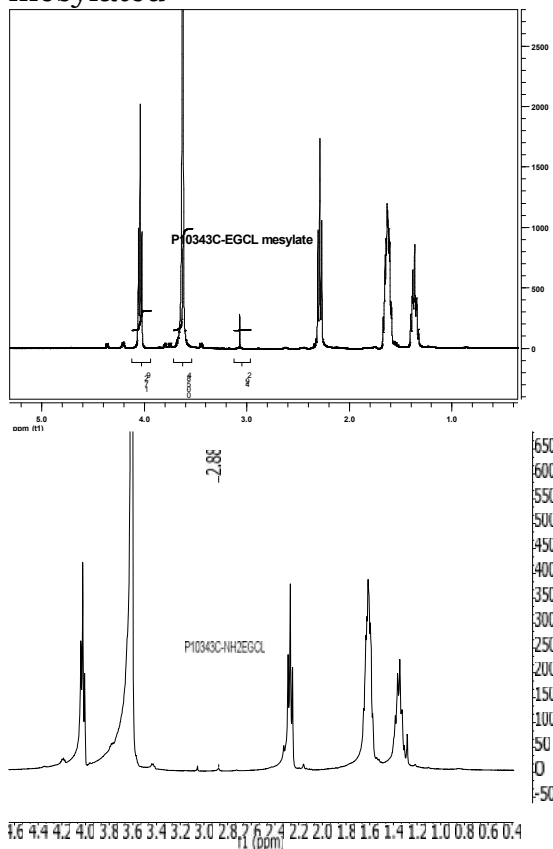
Terminal mesylate group was converted to amino group and the reaction was monitored by disappearance of mesylate absorbance at 1175Cm<sup>-1</sup>. Titration: the degree of functionality was confirmed by titration with HClO<sub>4</sub> using crystal violet as the indicator.

### <sup>1</sup>H-NMR Spectrum of the polymer

α-Mesylate-ω-pyran terminated PEG used in this polymer synthesis

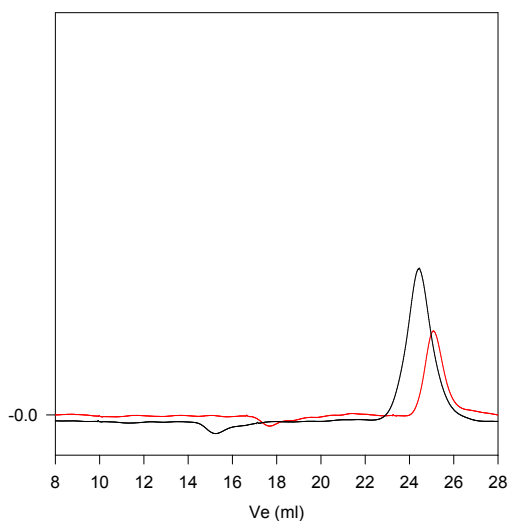


<sup>1</sup>H NMR of the diblock copolymer:  
mesylated



### SEC of the block copolymer:

**P10343C-NH2EGCL**



Size exclusion chromatograph of NH2 terminated PEG-b-CL

PEG Block: M<sub>n</sub>=4000, M<sub>w</sub>=4300, PI=1.08

NH2-EG-b-CL: 4,000-b-10,000 Mw/Mn:1.15