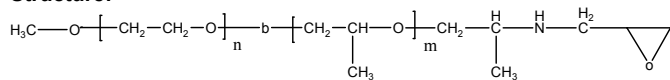


Sample Name: Epoxy terminated Poly(ethylene oxide -b- propylene oxide)

Sample #: P10393-mPEGPOEpoxy

Structure:



Composition:

Mn x 10 ³ PEO-b-PPO	PDI
0.3-b-1.7	1.10

Synthesis Procedure:

Poly(ethylene oxide -b- propylene oxide) is prepared by living anionic polymerization with sequence addition of ethylene oxide followed by propylene oxide or **vise versa depending on the chemical compositions**. The end groups were converted to epoxy.

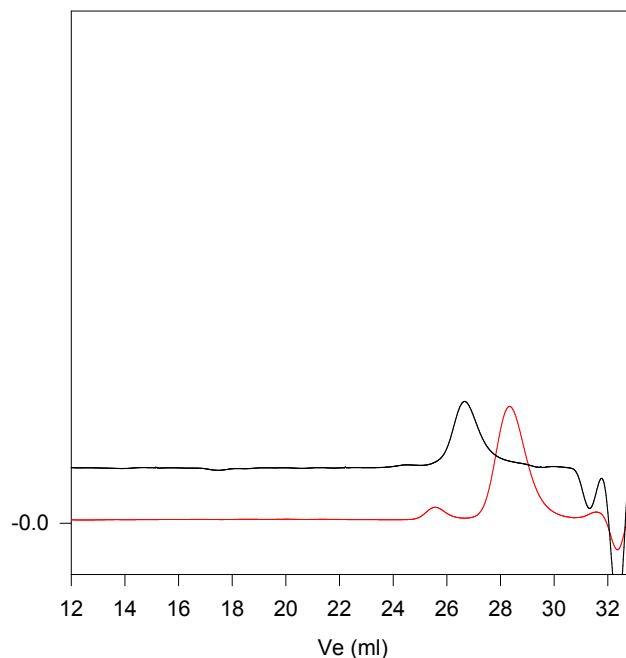
Characterization:

An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of propylene oxide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the propylene oxide protons (CH(CH₃)) at about 1.08 ppm.

Solubility:

Poly(ethylene oxide -b- propylene oxide) is soluble in CHCl₃, THF and methanol ethanol.

Amino end terminated PEO-PO-NH₂



Size exclusion chromatograph of poly(ethylene glycol):

mPEG: M_n=400, M_w=450, PI=1.10

mPEG-b-PO-Br: 400-b-1,000 PI 1.2

SEC of the block copolymer: