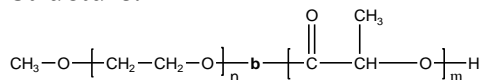


**Sample Name:**

Poly(ethylene oxide -b- lactide) (DL form)

**Sample #: P7326-EOLA (DL form)****Structure:****Composition:**

Mn x 10 <sup>3</sup> PEO-b-PLA	PDI
10-b-7	1.16

**Synthesis Procedure:**

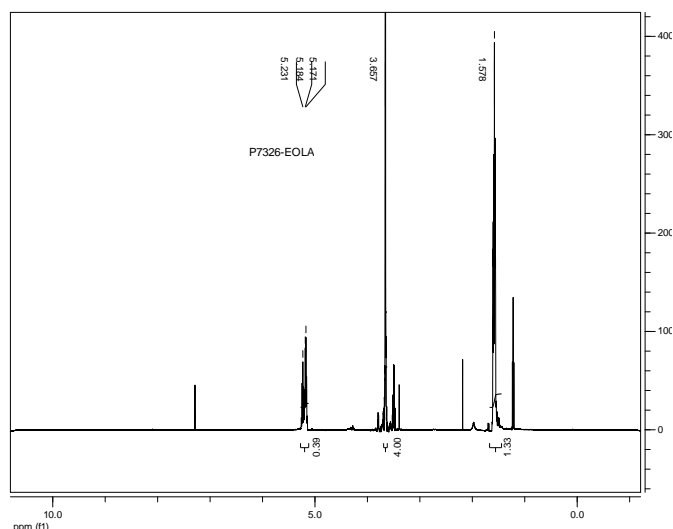
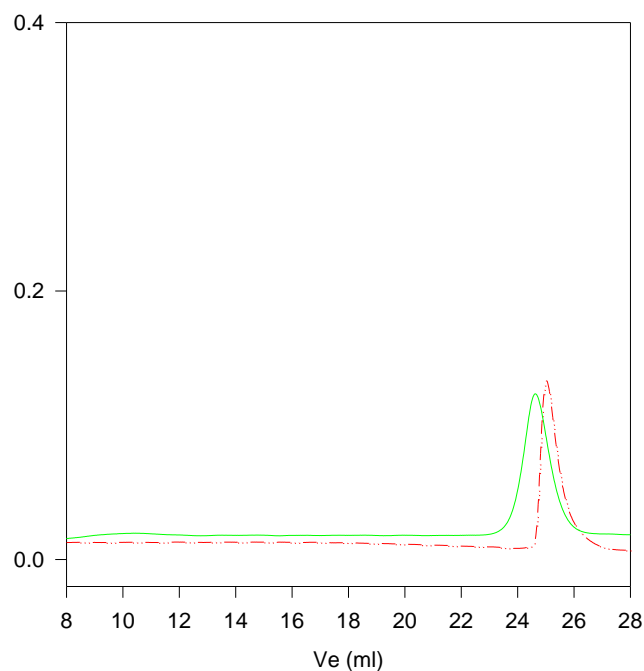
Poly(ethylene oxide -b- lactide) is prepared by living anionic polymerization of ethylene oxide and coordination polymerization of lactide with Tin octoate as catalyst.

**Characterization:**

An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of lactide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the methoxyl protons of poly(ethylene oxide) at about 3.6 ppm with the polylactide protons at about 5.1 and 1.55 ppm.

**Solubility:**

The polymer is soluble in chloroform, THF, DMF, toluene and precipitates from ethanol, ether and hexane.

**<sup>1</sup>H-NMR Spectrum of the block copolymer:****SEC of the block copolymer:****P7326- EOLA (DL form)****Size exclusion chromatography:**

--- Poly(ethylene glycol) monomethyl ether,  
M<sub>n</sub>=10000, M<sub>w</sub>=10600, PI=1.06

— Block Copolymer PEO(10000)-b-PLA(7000), PI=1.16  
Composition from <sup>1</sup>H NMR  
Dp: EO( 228 units)-b-LA ( 98 units)