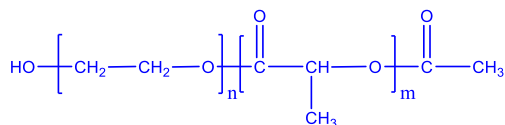


Sample Name:

**Poly(ethylene oxide)-b-poly(lactide), ( $\alpha$ -hydroxy,  $\omega$ -acetal)-terminated**

Sample #: **P6792-HOEOLAAc (DL form)**

**Structure:**

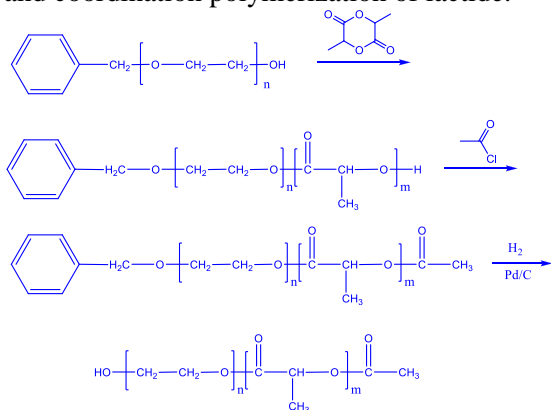


**Composition:**

$M_n \times 10^3$ PEO-b-PLA	PDI
5.0-b-4.0	1.09

**Synthesis Procedure:**

Poly(ethylene oxide -b- lactide) is prepared by living anionic polymerization of ethylene oxide and coordination polymerization of lactide.



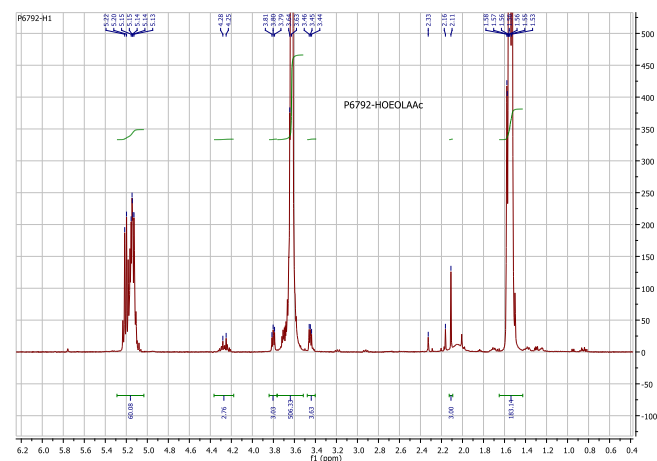
**Characterization:**

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  $^1\text{H}$ -NMR spectroscopy by comparing the peak area of the methoxyl protons of poly(ethylene oxide) at about 3.6 ppm with the lactide protons at about 5.1 and 1.55 ppm.

**Solubility:**

Poly(ethylene oxide -b- lactide) is soluble in chloroform, THF, DMF, toluene and precipitates from ethanol, ether and hexane.

**$^1\text{H}$ -NMR Spectrum of the block copolymer:**



**SEC of the block copolymer:**

**P6792- HO-EOLA-Ac (DL form)**

