

Product Profile

Identification

Product Name: Methoxy poly(ethylene glycol)-*b*-poly(D,L-lactide)

Or Poly(ethylene glycol -*b*- lactide) (DL form)

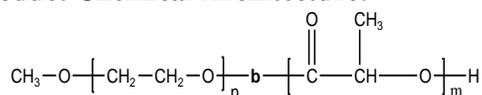
Or Polyethyleneglycol methylether-*block*-Poly DL lactide

Linear Formula:



Product Lot Number: P44530A-EOLA

Product Chemical Architecture:



Composition:

Mn x 10 ³ mPEG- <i>b</i> -LA (dl form)	Mw/Mn (PDI)	Lactide
0.75- <i>b</i> -3.5	1.4	(dl form)
Dp of each block: mPEG ₁₆ - <i>b</i> -LA ₄₈)		

Method of Synthesis

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

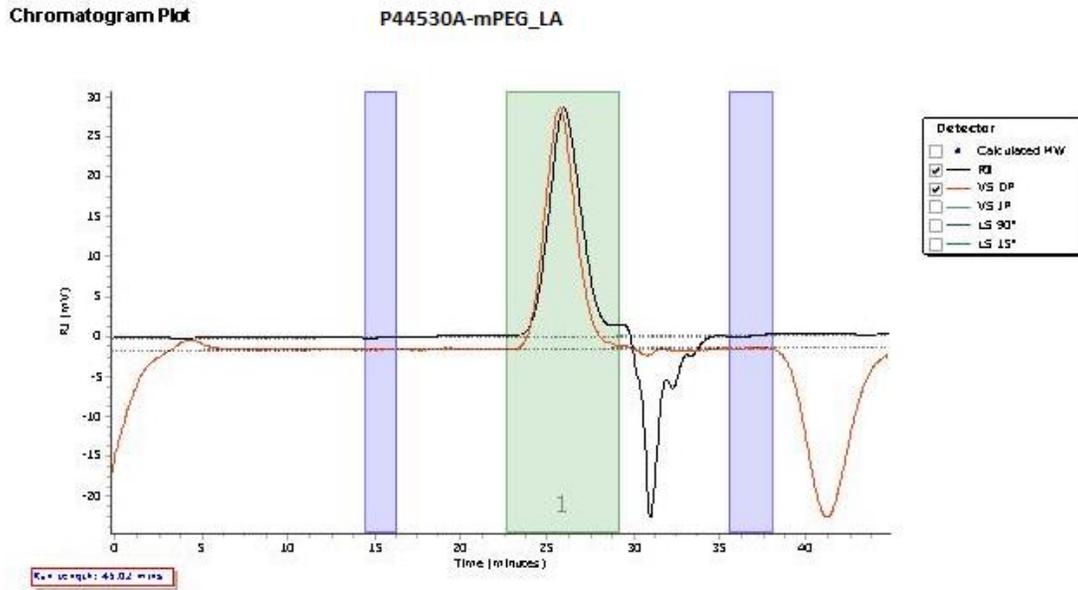
Solubility in different solvents

THF (warm)	√		
CHCl ₃	√	CHCl ₃	√
Toluene-(warm)	√		

Important biocompatible, amphiphilic block copolymer composed of a hydrophilic PEG block and a hydrophobic poly(D,L-lactide) (PLA) block. These materials are for control release and nanoparticle formulation for drug encapsulation and delivery applications.

Architecturally controlled well-defined materials with varying properties can be prepared by controlling the relative length of each polymer block. OH, SH and NH₂ end terminated polymers allows for facile further chemical modification of these materials.

A. Gel Permeation Chromatography (GPC), SEC- Profile:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	5867	4409	6402	8963	12852	8138	1.452

B. NMR (HNMR) of Polymer:

