

Product Profile

Identification

Product Name: Poly(ethylene oxide)-b-poly(lactide), (α -methoxy, ω -hydroxy)-terminated

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

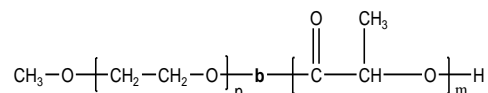
Or Polyethyleneglycol methylether-*block*-Poly DL lactide

Linear Formula:

$\text{HO}[\text{CH}(\text{CH}_3)\text{COO}]_m[\text{CH}_2\text{CH}_2\text{O}]_n\text{CH}_3$

Product Lot Number: P44576A-EOLA

Product Chemical Architecture:



Composition:

Mn x 10 ³ mPEG-b-LA (dl form)	Mw/Mn (PDI)	Lactide
0.55-b-2.0	1.28	(dl form)
Dp of each block: mPEG ₁₃ -b-LA ₂₈)		

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.

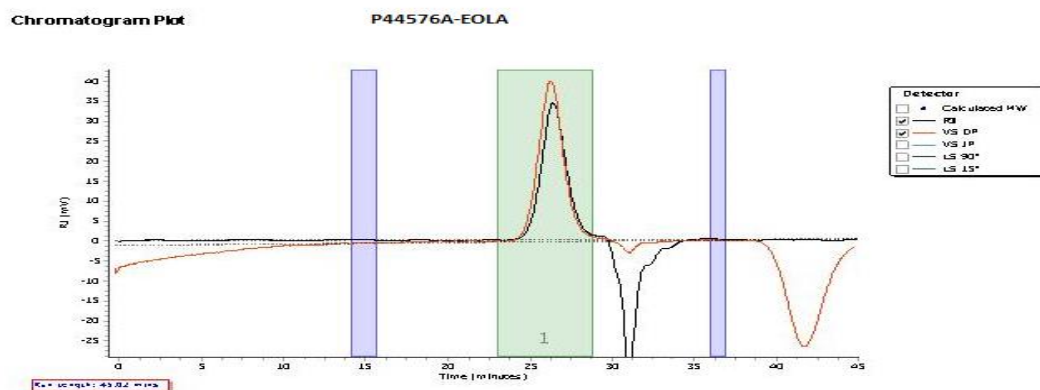
Solubility in different solvents

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	3131	2592	3329	4171	5127	3885	1.284

B. NMR (HNMR) of polymer:

