

Product Profile

Identification

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

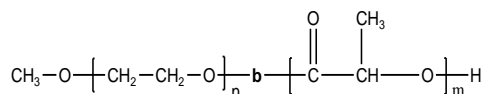
Or Poly(ethylene glycol -*b*- lactide) (L form)
or Polyethyleneglycol methylether-*block*-Poly L lactide

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: P6684R-EOLA

Product Chemical Architecture:



Composition:

$\text{Mn} \times 10^3$ mPEG- <i>b</i> -LA (l form)	Mw/Mn (PDI)	Lactide
11.0- <i>b</i> -6.5	1.29	(L form)
Dp of each block: mPEG ₂₅₀ - <i>b</i> -LA ₉₀)		

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.

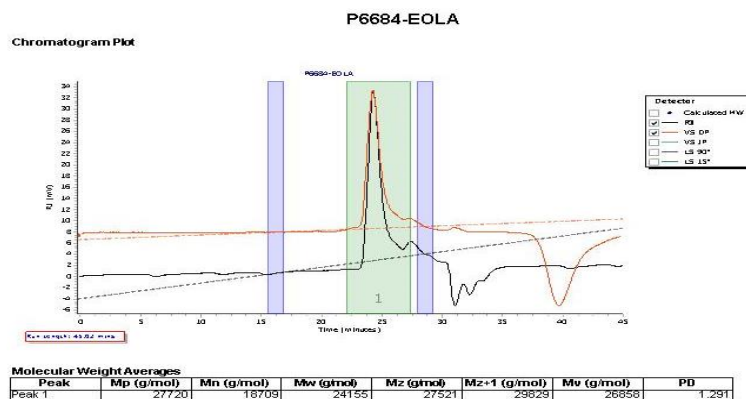
Solubility in different solvents

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:



B. NMR (HNMR) of OH terminated Polymer:

