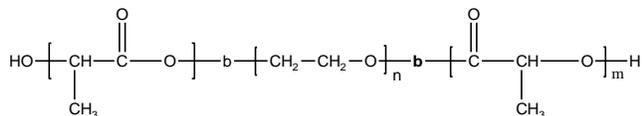


Sample Name:

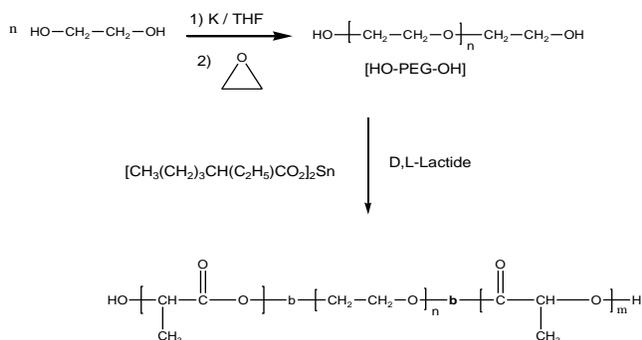
Poly(lactide -b- ethylene oxide -b- lactide)

Sample #: P7096-LAEOLA (DL form)**Structure:****Composition:**

Mn x 10 ³	PDI
6.3-1.2-6.3	1.2

Synthesis Procedure:

Poly(lactide -b- ethylene oxide -b- lactide) was prepared by living anionic polymerization of ethylene oxide (EO) followed by living coordination polymerization of D,L-lactide (LA) using tin catalyst. The scheme of the reaction is illustrated below:

**Characterization:**

The molecular weight and polydispersity index of the poly(ethylene oxide) block was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. The composition of the lactide ABA triblock copolymer was determined using ¹H-NMR spectroscopy by comparing the integration of the lactide peaks (5.2ppm) with that of the ethylene oxide peaks (3.6ppm).

Thermal analysis:

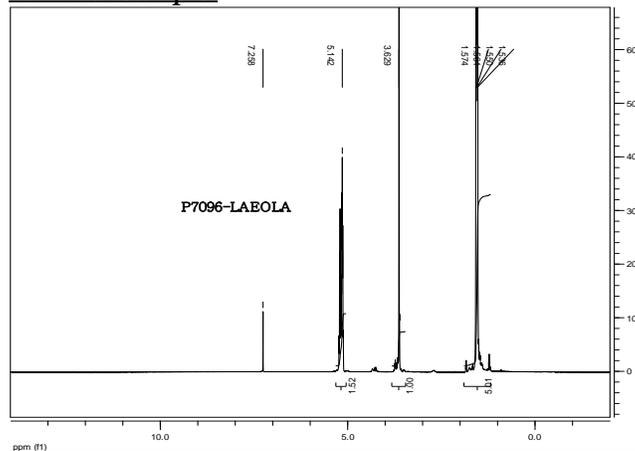
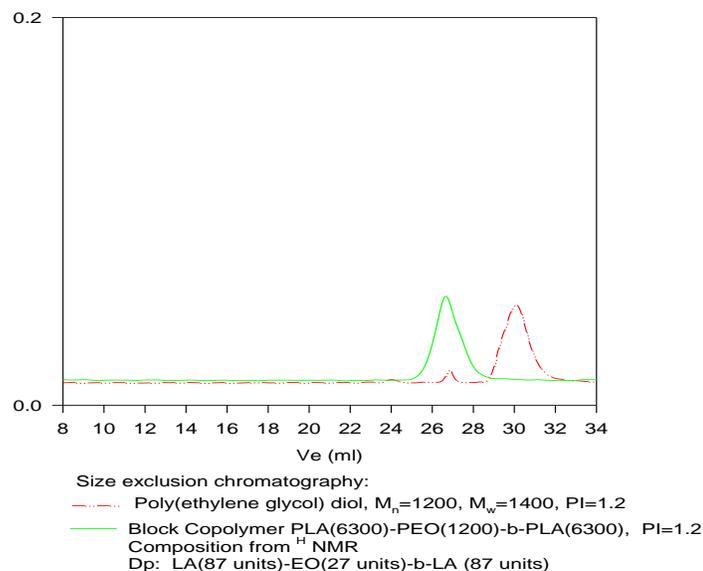
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

The polymer is soluble in THF, chloroform, DMF and toluene, but not soluble in hexane.

Thermal analysis results at a glance

For PLA block (DL)		
T _g : 33°C	T _m : -	T _c : -
For PEO block		
T _g : Not found	T _m : -	T _c : -

NMR of Sample:**SEC of Sample:****P7096- LAEOLA (DL form)****For PLA block**