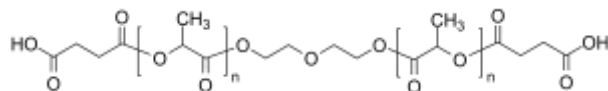


Sample Name:  
**Poly (DL-lactide),  $\alpha,\omega$ -bis(carboxy)-terminated**

Sample # **P18511CC-LA2COOH**

**Structure:**

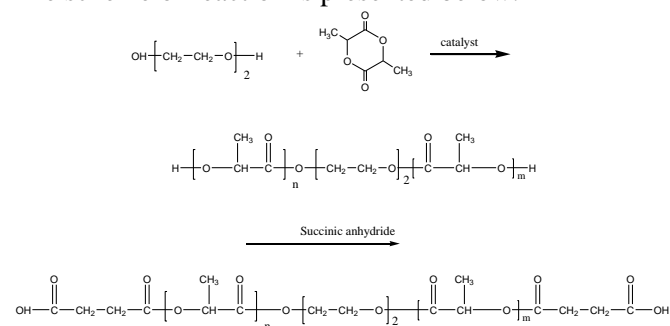


**Composition:**

$M_n \times 10^3$ (g/mol) [acc. to NMR]	$M_w/M_n$
5.4	1.5

**Synthesis procedure:**

The scheme of reaction is presented below:



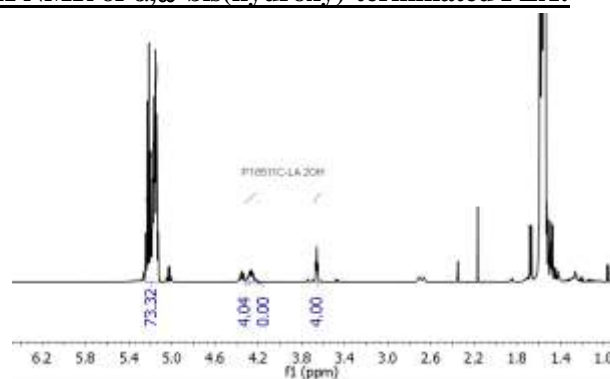
**Characterization:**

The molecular weight was calculated from  $^1\text{H}$  NMR data by comparing peak areas of ethylene glycol protons at  $\sim 4.3$  ppm and polylactide protons at  $\sim 5.1$  ppm. The polydispersity index ( $M_w/M_n$ ) was obtained by size exclusion chromatography (SEC) of the polymer before its functionalization.

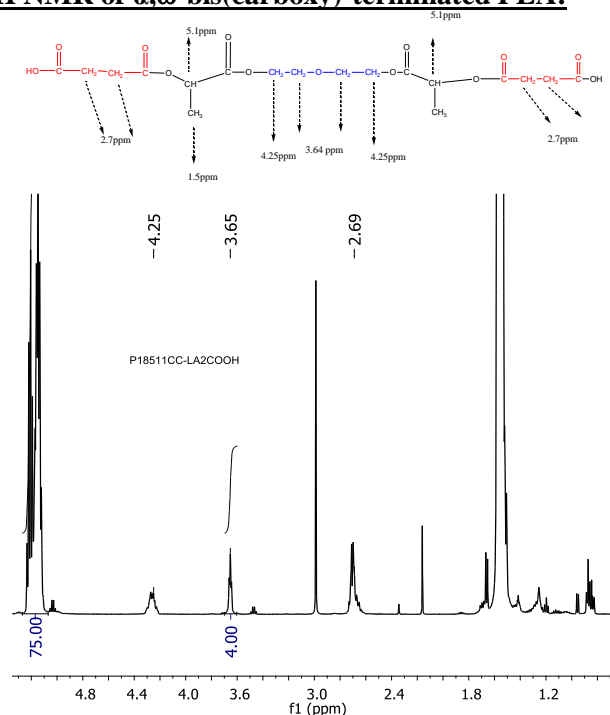
**Solubility:**

The polymer is soluble in toluene, THF, chloroform, DCM; and is insoluble in methanol, hexanes and ether.

**$^1\text{H}$  NMR of  $\alpha,\omega$ -bis(hydroxy)-terminated PLA:**



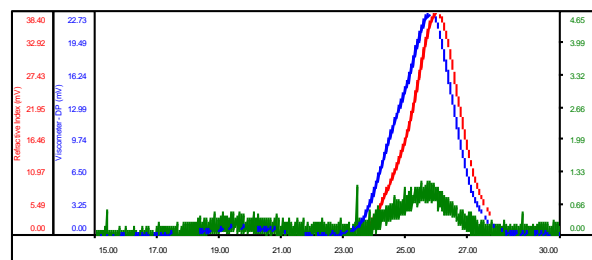
**$^1\text{H}$  NMR of  $\alpha,\omega$ -bis(carboxy)-terminated PLA:**



**SEC of  $\alpha,\omega$ -bis(hydroxy)-terminated poly(lactide):**

Sample ID: P18511C-LA2OH

Concentration (mg/mL)	3.9112
Sample dn/dc (mL/g)	0.0450
Method File	PS80K-Feb25-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	$M_n$	$M_w$	$M_p$	$M_w/M_n$	IV
P18511C-CL_01.vdt	5,421	8,147	5,763	1.503	0.2441