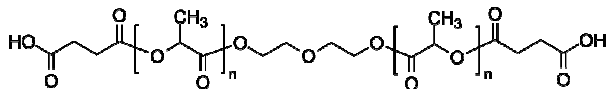


Sample Name:

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

Sample # **P18511DD-LA2COOH**

**Structure:**

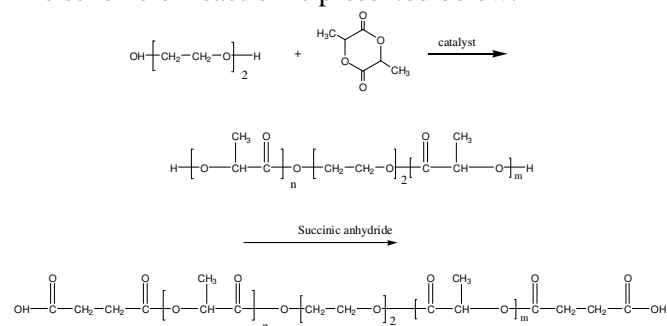


**Composition:**

$M_n \times 10^3$ (g/mol) [acc. to NMR]	$M_w/M_n$
5.8	1.46

**Synthesis procedure:**

The scheme of reaction is presented below:



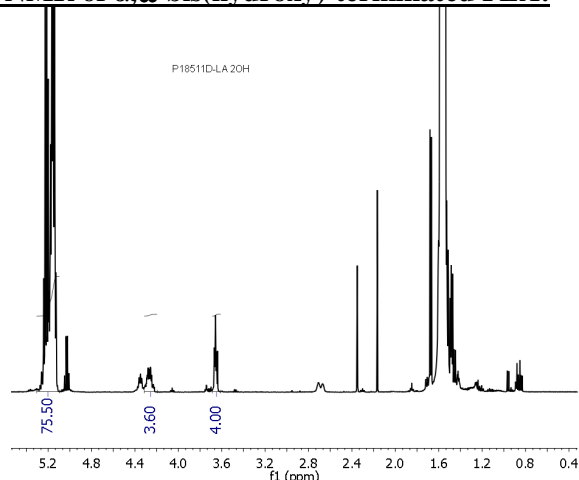
**Characterization:**

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

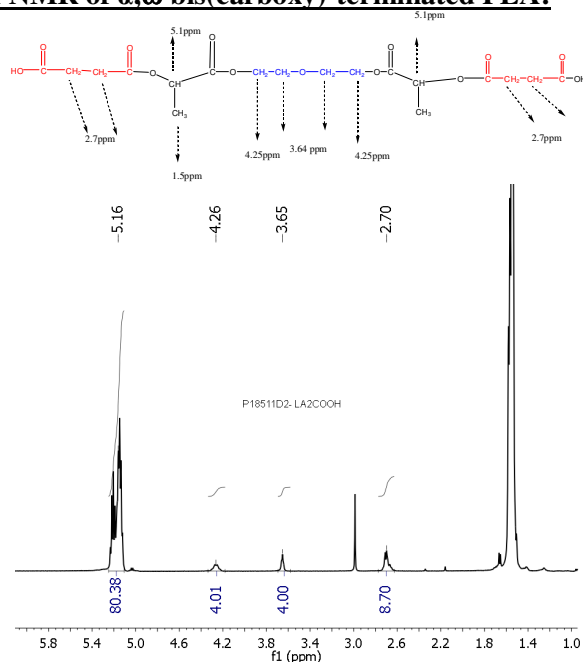
**Solubility:**

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:**



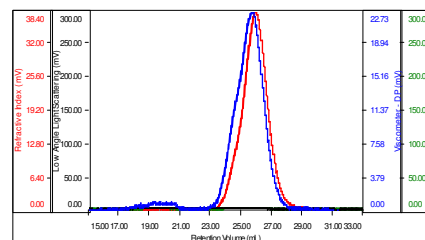
**$^1\text{H}$  NMR of  $\alpha,\omega$ -bis(carboxy)-terminated PLA:**



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

Sample ID: P18511DLA

Concentration (mg/mL)	3.7206
Sample dwtc (mL/g)	0.0460
Method File	PS80K-March13-2014-0000.vcm
Column Set	3x PL 11136300
System	System 1



Sample	Mh	Mw	Mp	Mw/Mh	IV
P18511CQ_01.vcl	5.237	7.686	6.061	1.468	0.2566