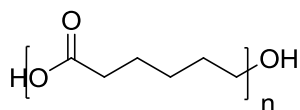


**Sample Name:**  $\alpha$ -Carboxy- $\omega$ -Hydroxy-terminated Poly( $\epsilon$ -caprolactone)

**Sample #:** P20110A-CL-COOH-OH

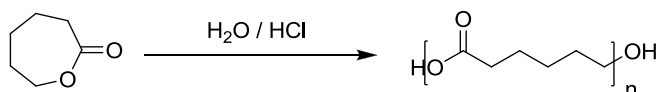


**Composition:**

$M_n \times 10^3$ HOOC-PCL-OH	PDI
2.2 (NMR)	
1.9 (SEC)	1.1

**Synthetic Procedure:**

HOOC-PCL-OH is prepared by ring-opening polymerization of  $\epsilon$ -caprolactone according to the scheme illustrated below:



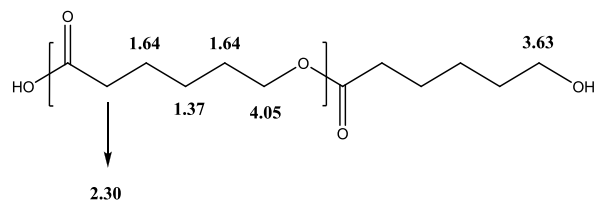
**Solubility:**

Poly( $\epsilon$ -caprolactone) is soluble in  $\text{CHCl}_3$ , Acetone, THF, insoluble in methanol, ethanol, ether. Precipitated from Acetone or DCM into hexane or ether.

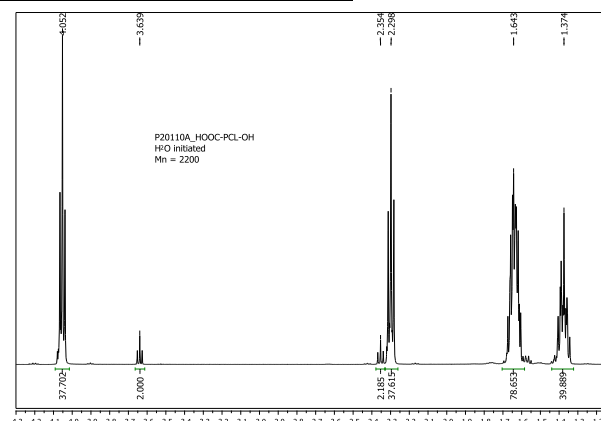
**Characterization:**

PCL, bearing carboxylic terminal unit, was analyzed by size exclusion chromatography (SEC) to obtain the polydispersity index (PDI) and  $M_n$ .  $M_n$  was also determined by NMR.

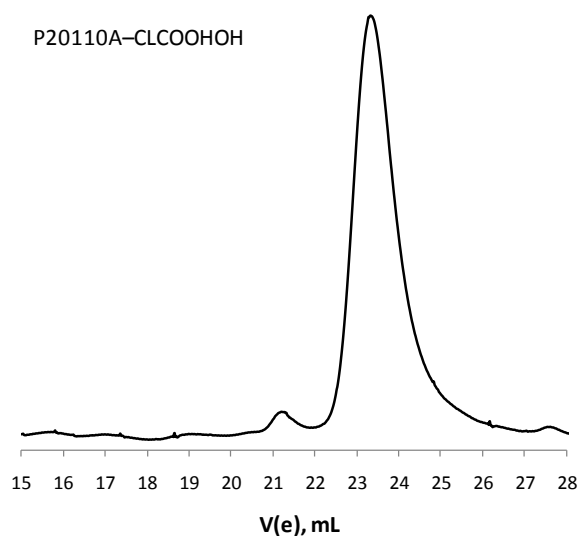
**Chemical shifts assignments**



**$^1\text{H}$  NMR of HOOC-PCL-OH**



**SEC of the polymer:**



N.B.: Certain broadening of the elugram might be due to the strong interaction of COOH-group with the column packing material