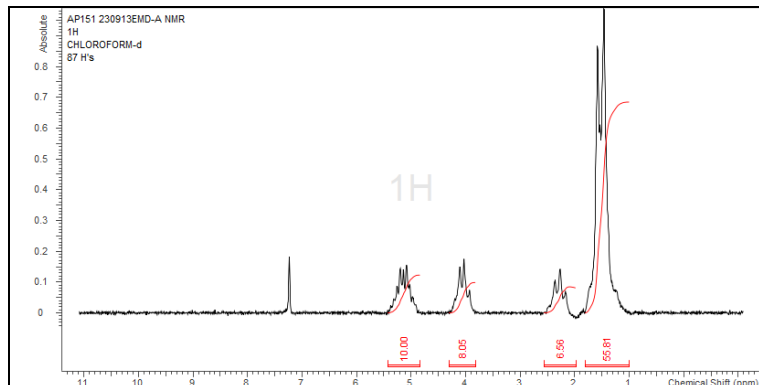


# No. AP151

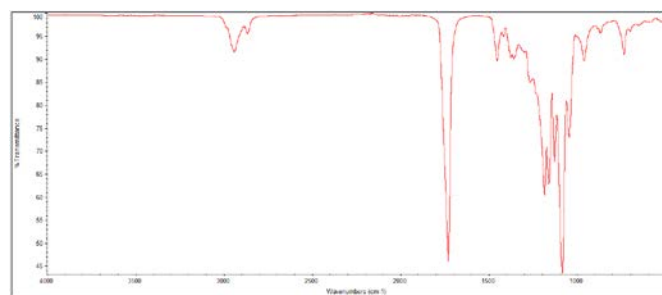
# Certificate of Analysis



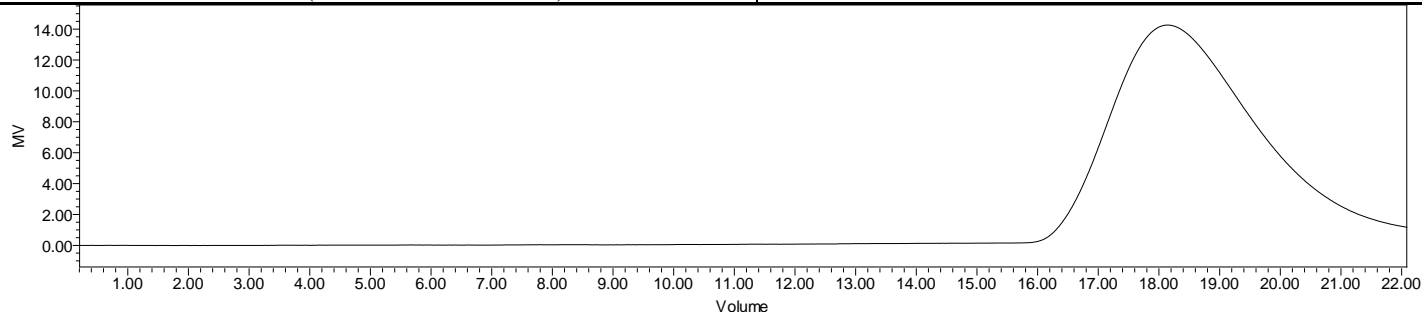
Product Name: Poly((D,L)Lactic-co-caprolactone) Copolymers acid end-capped (70:30 LA:CL,  $M_n$ : 75,000-85,000 Da) (Lot#: 230913EMD-A)



H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (NMReady-60e, Nanalysis 60 MHz) NMR of PLCL Copolymer: LA:CL 71%:29% molar ratio (LA:CL 61%:39% w-w)



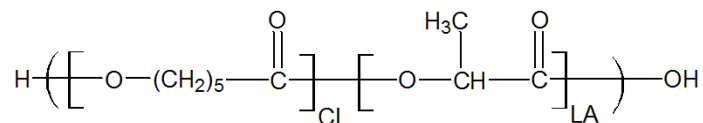
FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (ThermoFisher) and analyzed in transmission mode.



GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

Polymer	$M_n$ (from GPC)	$M_w$ (from GPC)	PDI
PLCL	75,965	98,210	1.29

## • Structure of P(D,L)LaCL copolymers



Approved By:  
*Amie Tyler*  
Quality Manager