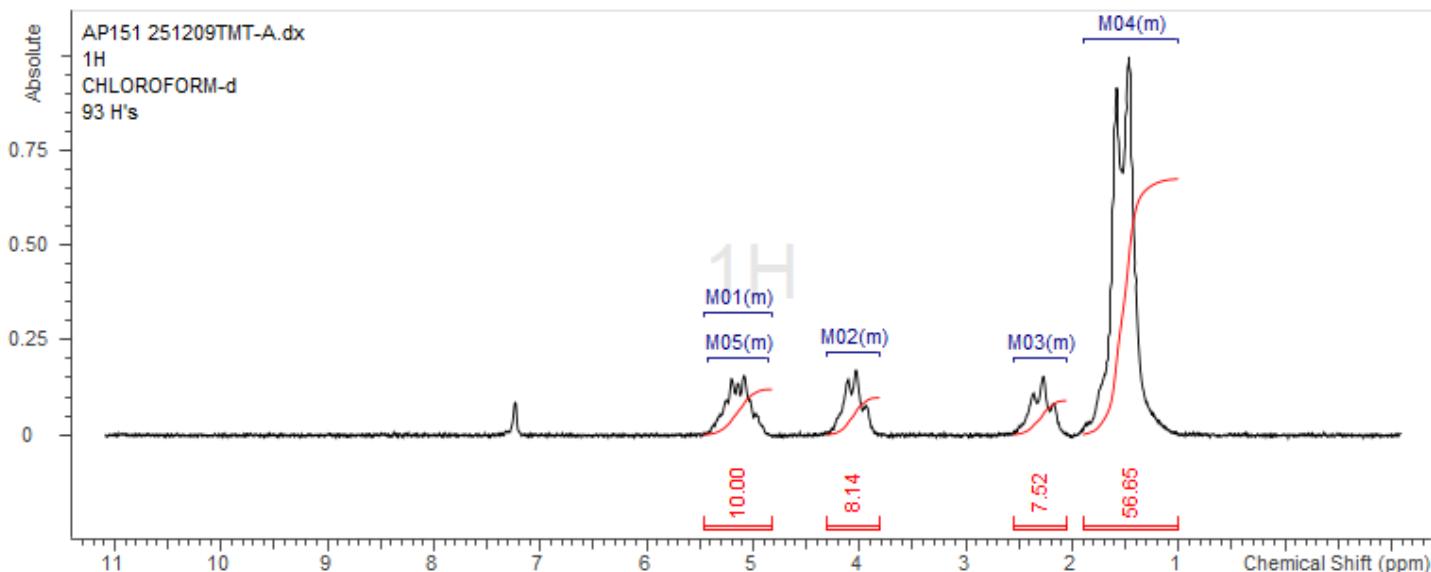


No. AP151

Certificate of Analysis

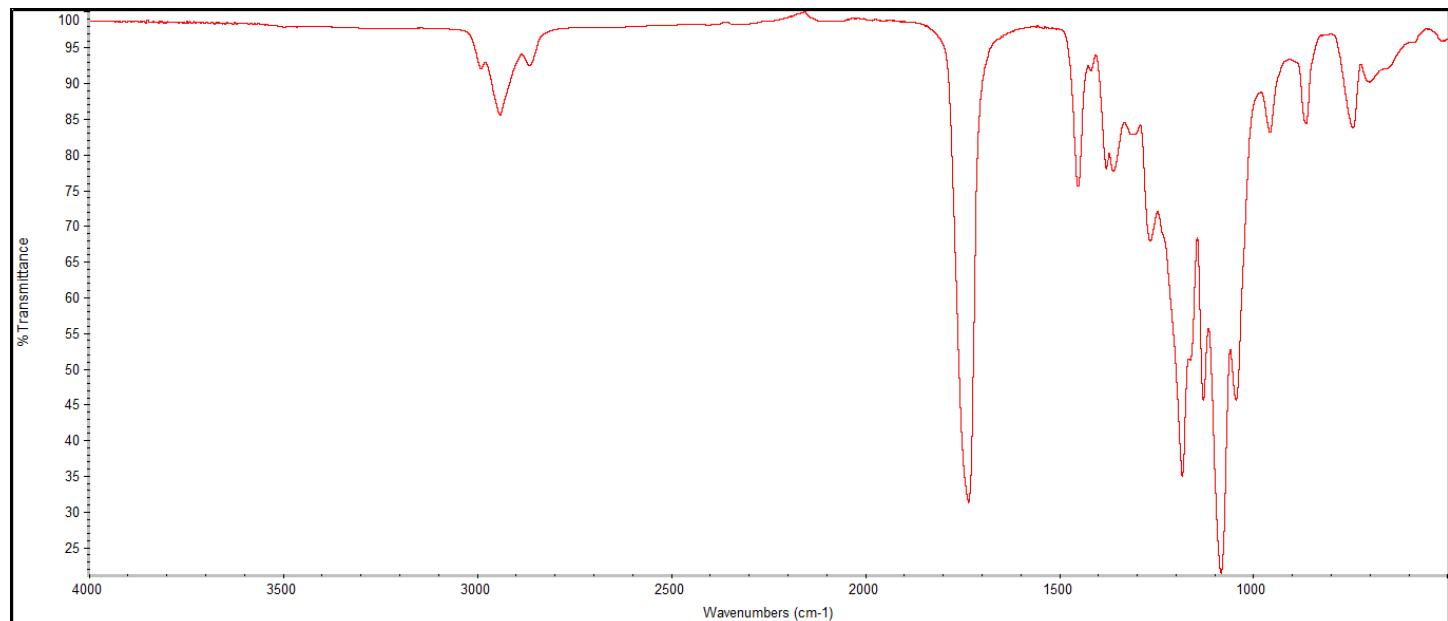
 Product Name: Poly((D,L)Lactic-co-caprolactone) Copolymers acid end-capped
 (70:30 LA:CL, M_n: 75,000-85000 Da) (Lot#: 251124RAI-A)

H-NMR



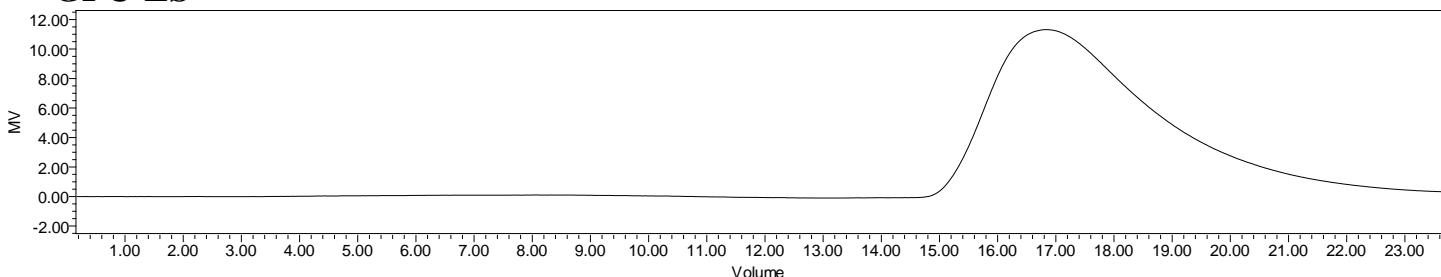
H-NMR Spectrum of copolymers in CDCl₃ (NMReady-60e, Nanalysis 60 MHz) NMR of PDLCL copolymer: LA-CL =71%-29% molar ratio (LA:CL 75%:25% w:w)

FTIR



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

GPC-ES



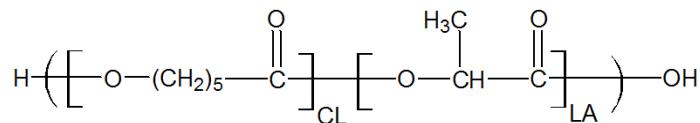
| Polymer | M_n (from GPC) | M_w (from GPC) | PDI |
|---------|------------------|------------------|------|
| PDLCL | 77,598 | 99,499 | 1.28 |

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.

IV

Inherent Viscosity: 0.451 ± 0.006 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager