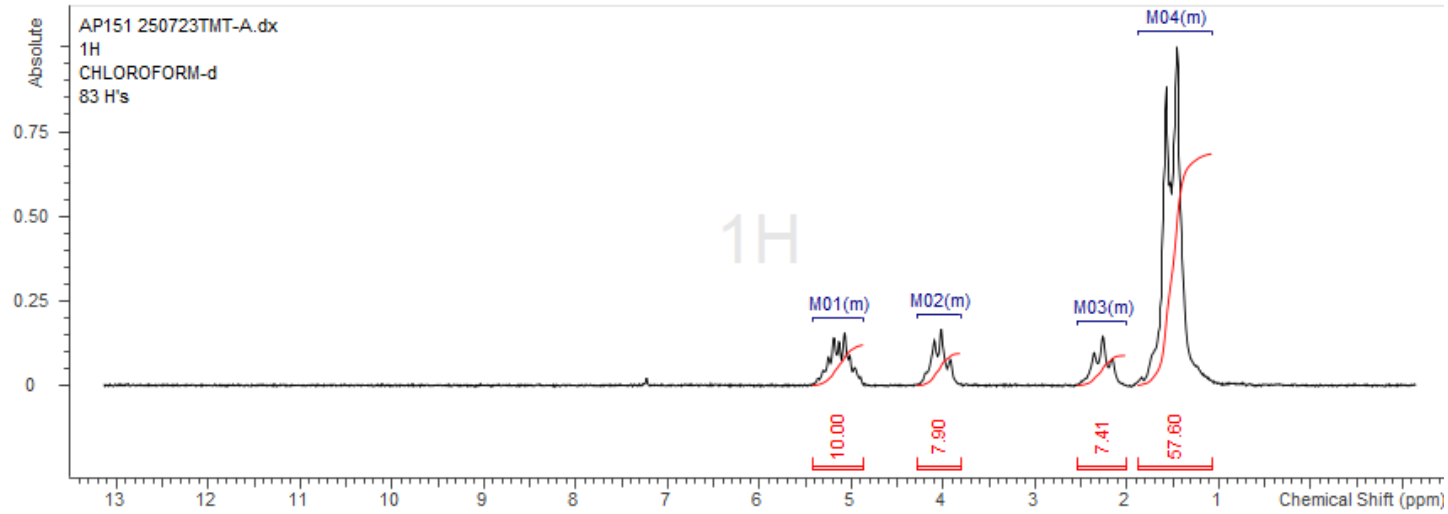
No. AP151 Certificate of Analysis

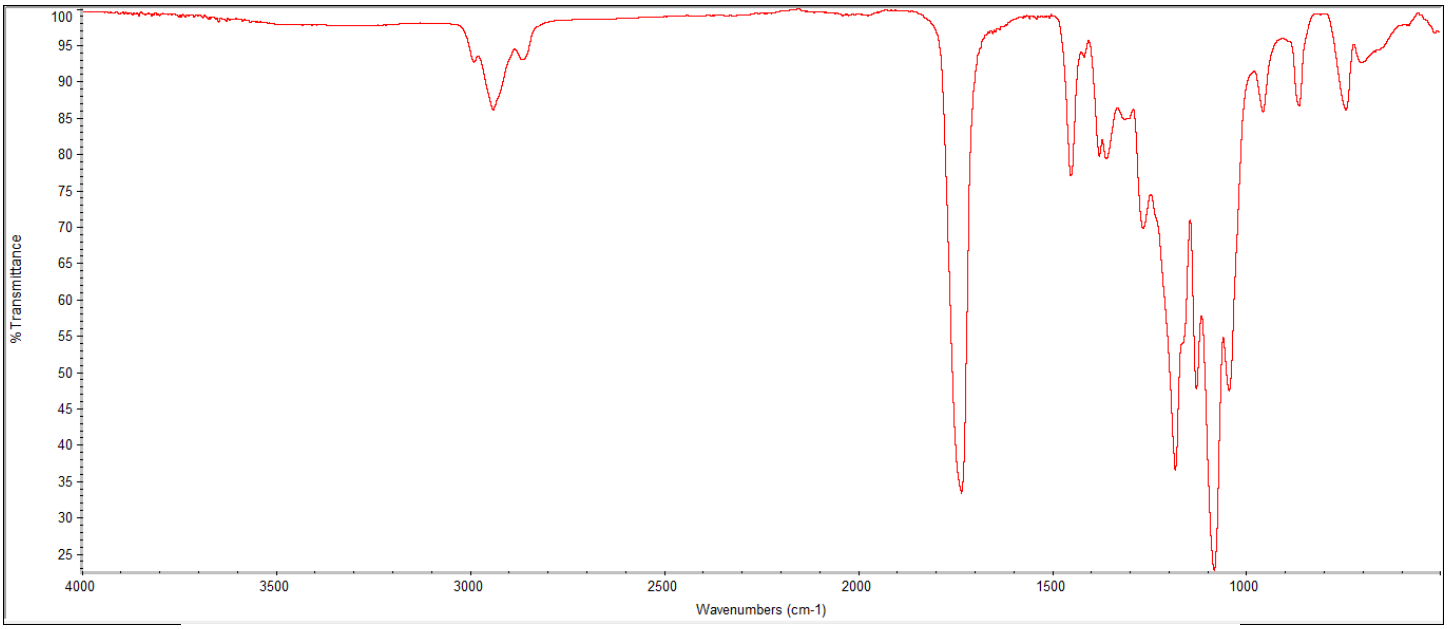
Product Name: Poly((D,L)Lactic-co-caprolactone) Copolymers acid end-capped (70:30 LA:CL, M_n: 75,000-85,000 Da) Lot#: 250723TMT-A)

H-NMR



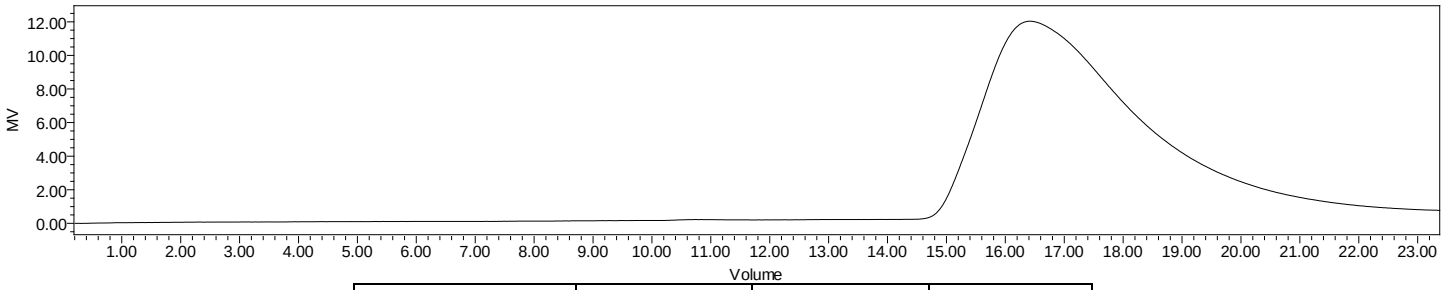
H-NMR Spectrum of copolymers in CDCl3 (NMReady-60e, Nanalysis 60 MHz) NMR of P(DL)LCL copolymer: LA-GA =72%-28% molar ratio (LA:GA 76%;24% w:w)

FTIR



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

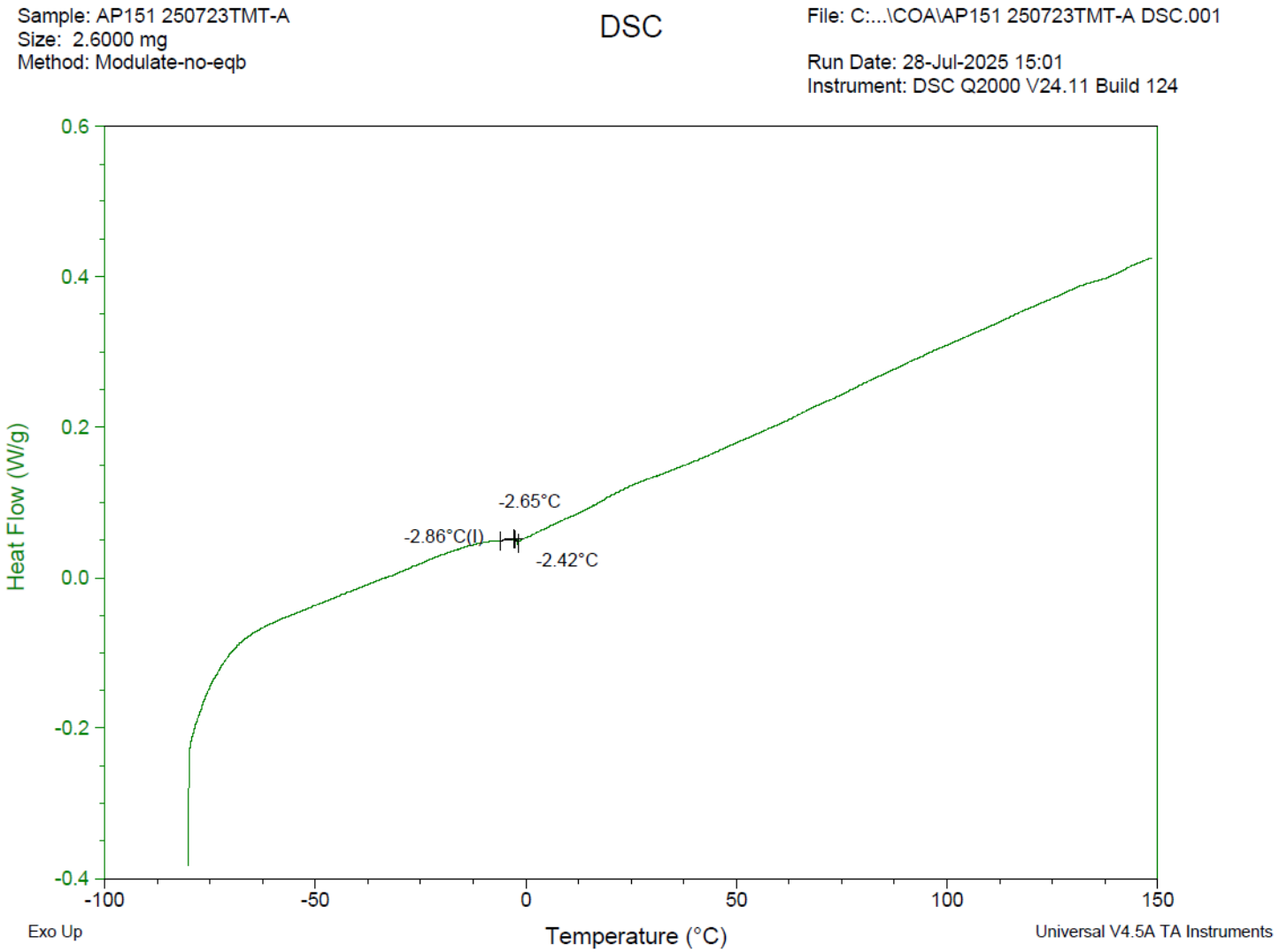
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
P(DL)LCL	72,069	106,460	1.48

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.

DSC

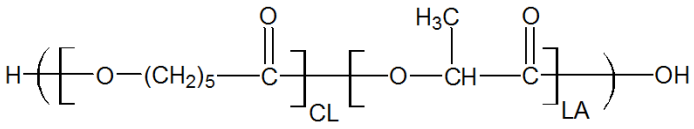


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = -2.65 °C

IV

Inherent Viscosity: 0.394 ± 0.079 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25ºC.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager