

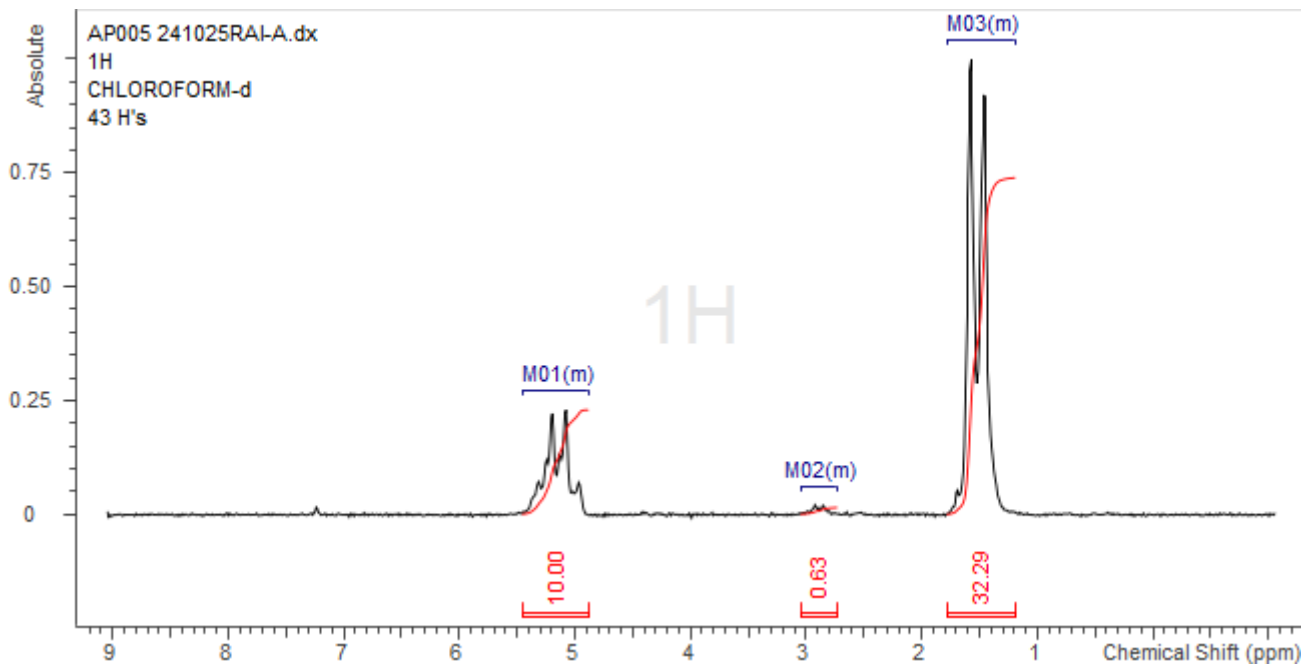
No. AP005

Certificate of Analysis



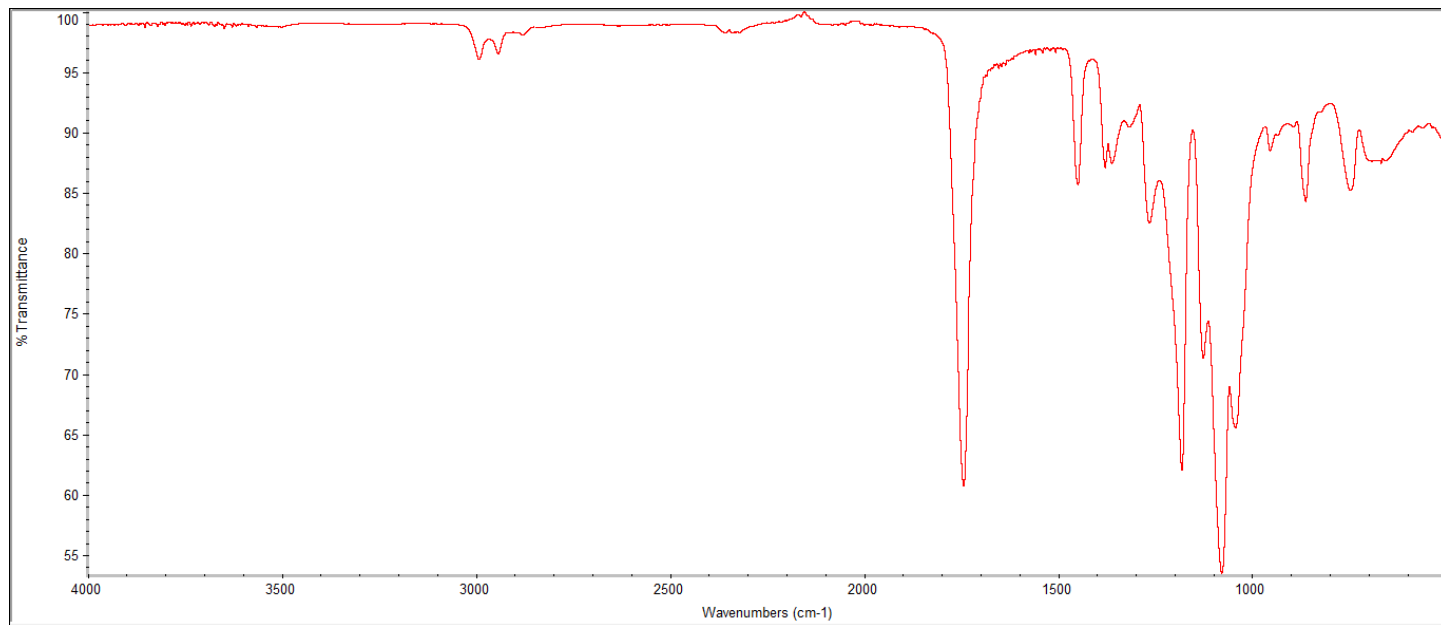
Product Name: Poly((D,L) Lactic acid) acid endcap (Mn: 1,000-5,000 Da) (Lot#: 241025RAI-A)

H-NMR



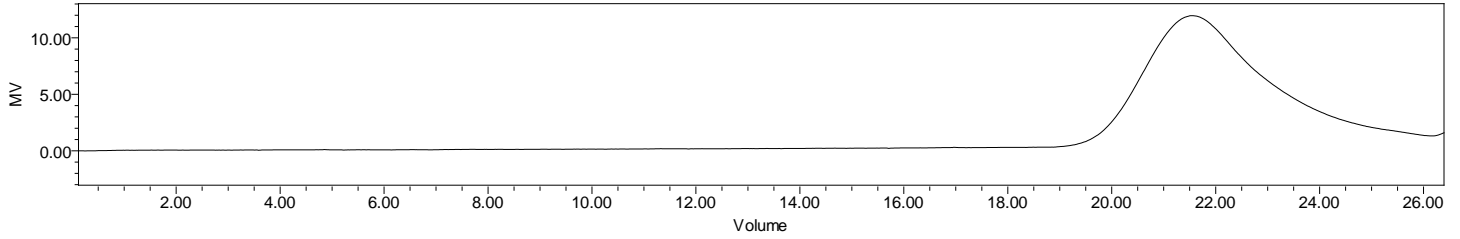
H-NMR Spectrum of copolymers in CDCl₃ (NMReady-60e, Nanalysis 60 MHz) NMR of PDLLA copolymer.

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
PDLLA	4818	8239	1.71

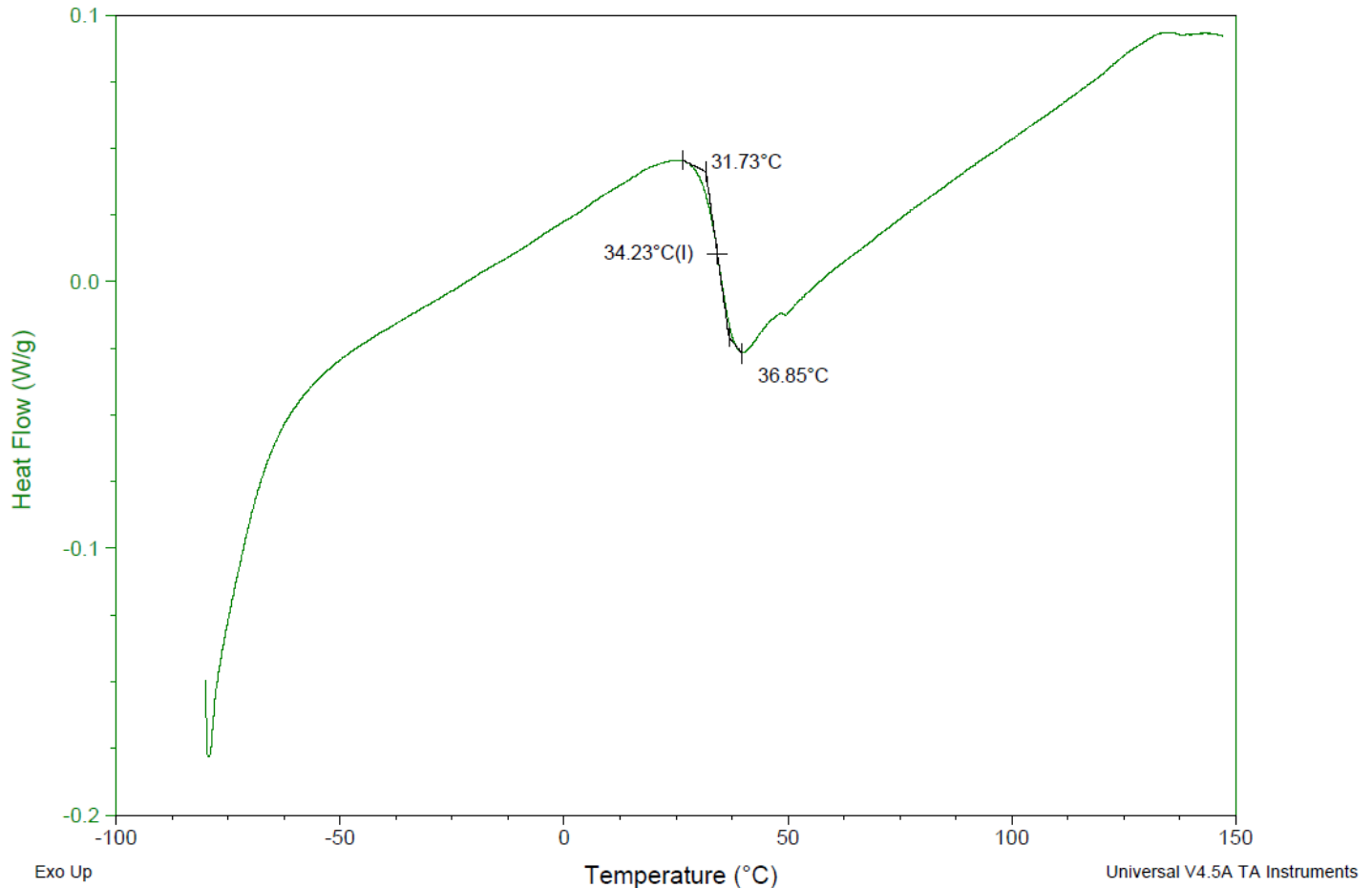
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC

Sample: AP005 241025RAI-A DSC
Size: 5.5000 mg
Method: Glass Transition-simple

DSC

File: C:\...\COA\AP005 241025RAI-A DSC.001
Run Date: 30-Oct-2024 13:23
Instrument: DSC Q2000 V24.11 Build 124

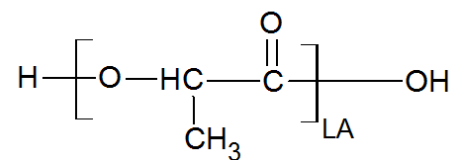


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 34.23 °C

IV

Inherent Viscosity: 0.099 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

Structure of PDLLA copolymers



Approved By:
Amie Tyler
Quality Manager