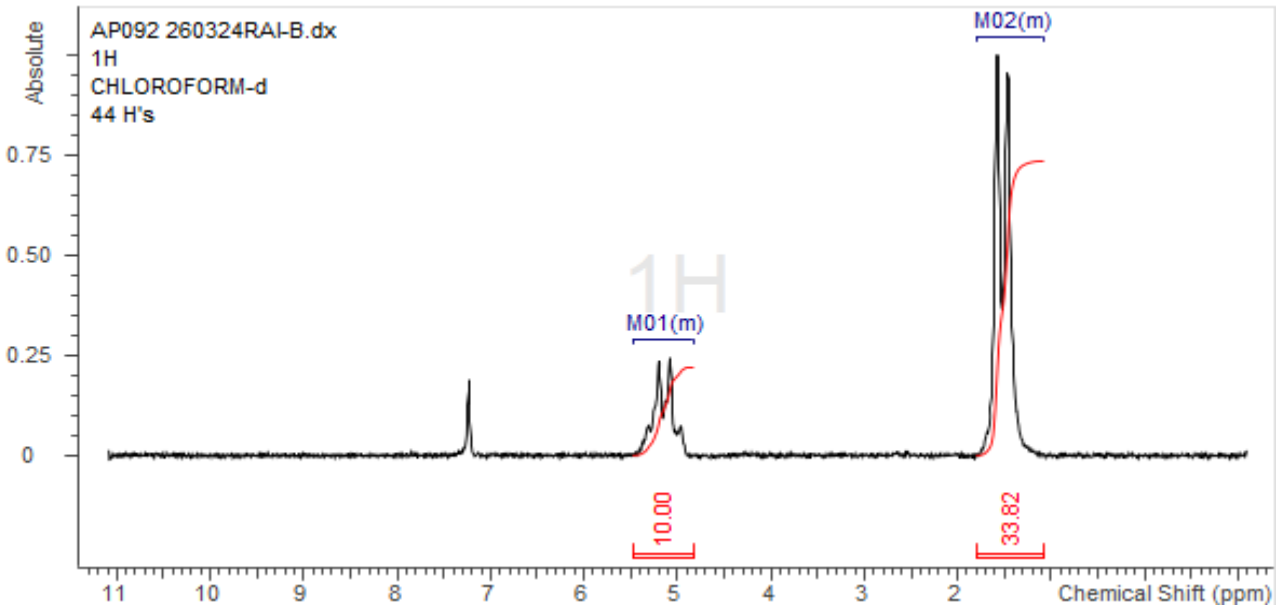
No. AP092 Certificate of Analysis

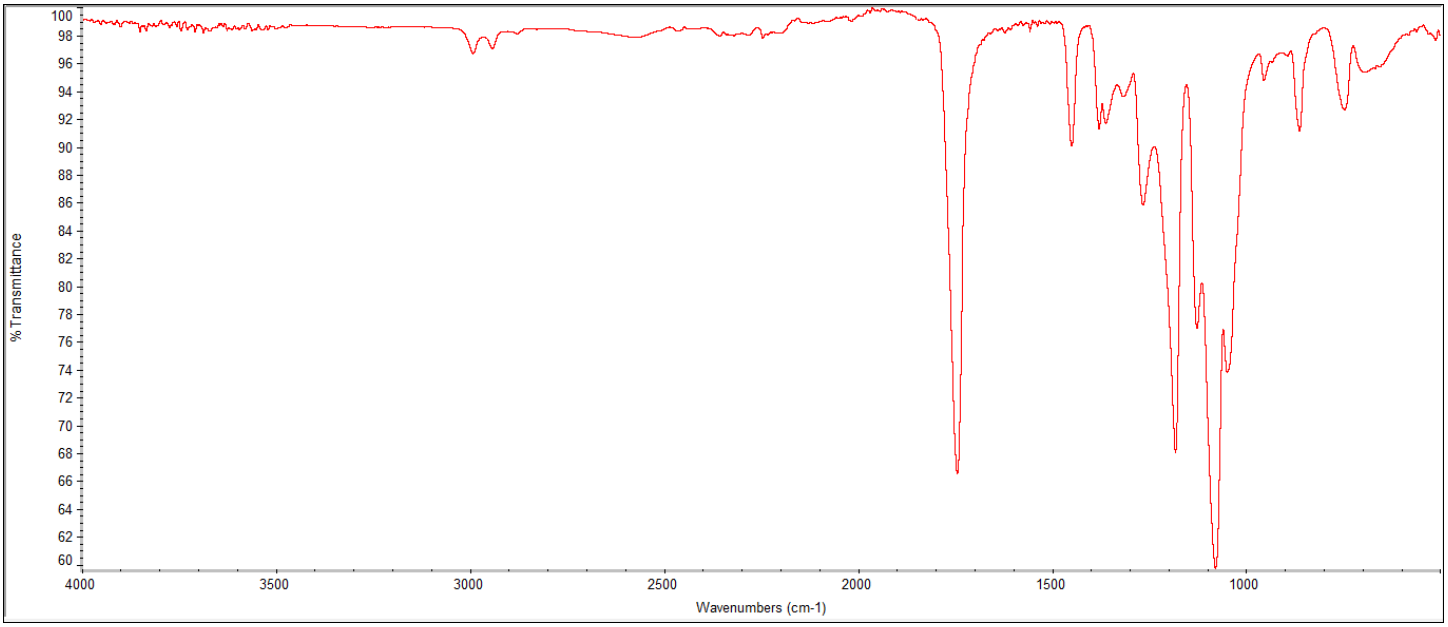
Product Name: Poly((D,L)lactic acid)-Glycerol star polymer (Mn ~ 10,000 – 20,000 Da)
(Lot#: 260324RAI-B)

H-NMR



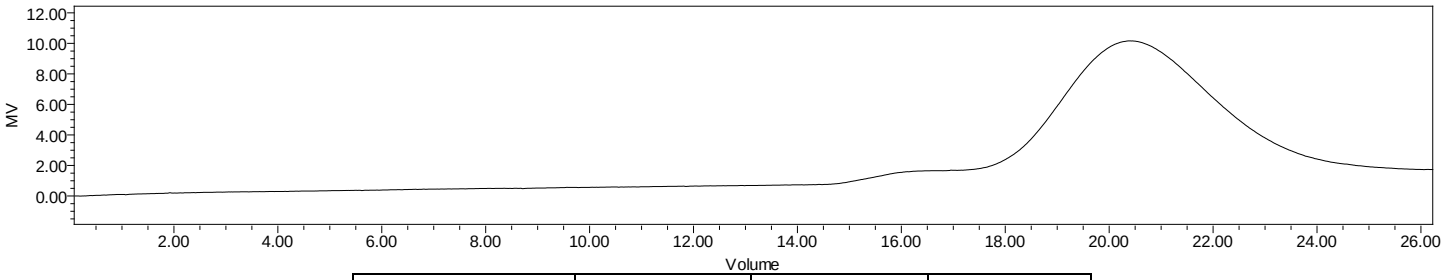
H-NMR Spectrum of copolymers in CDCl3 (NMReady-60e, Nanalysis 60 MHz) NMR of PDLLA copolymer

FTIR



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

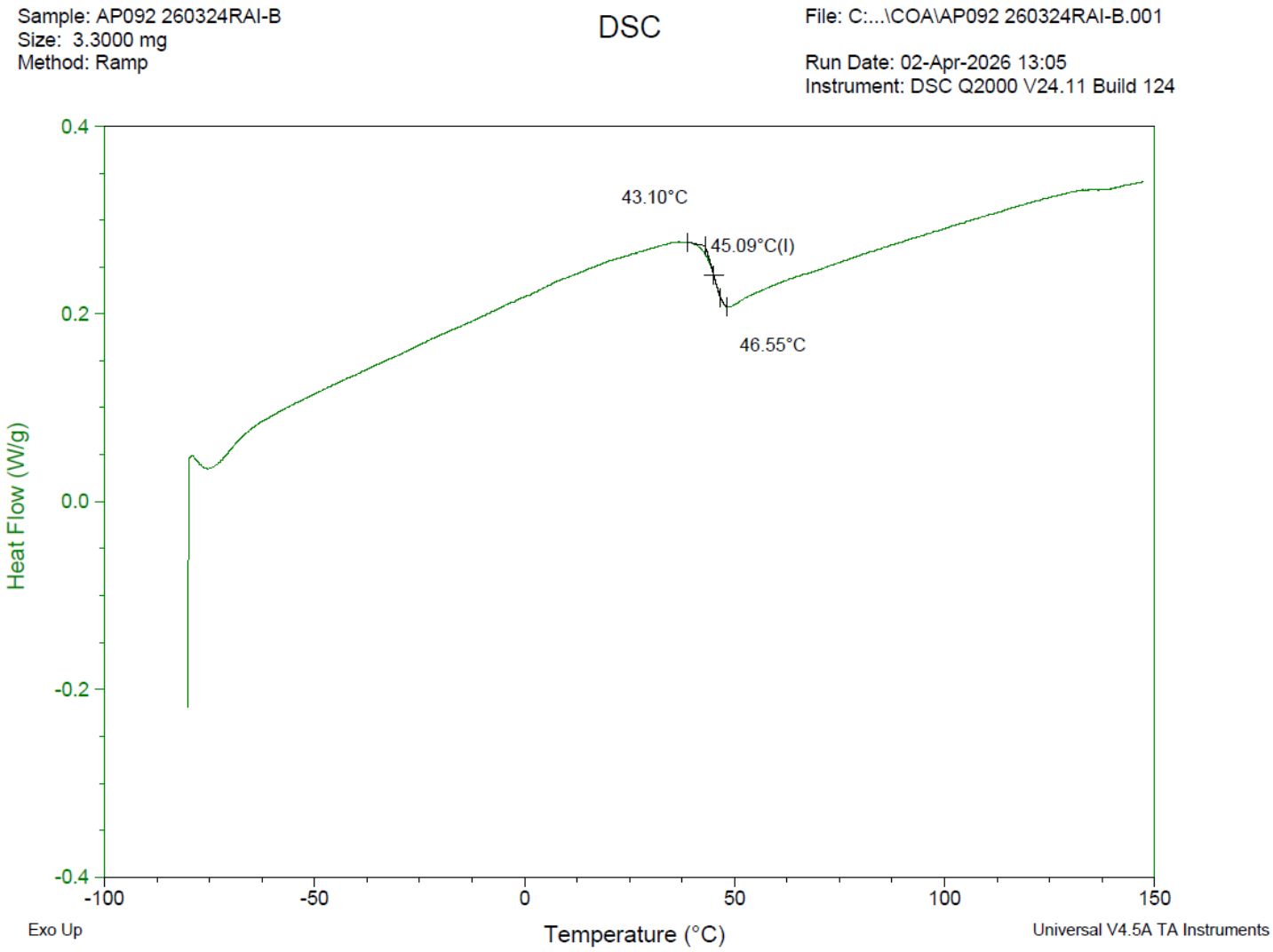
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
PDLLA	15,676	20,081	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.

DSC

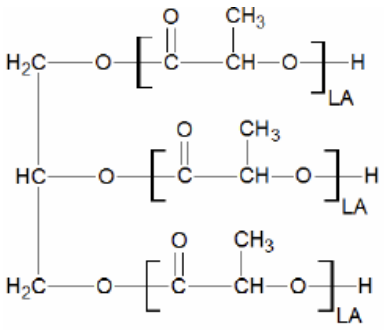


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 45.09 °C

IV

Inherent Viscosity: 0.178 ± 0.005 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