

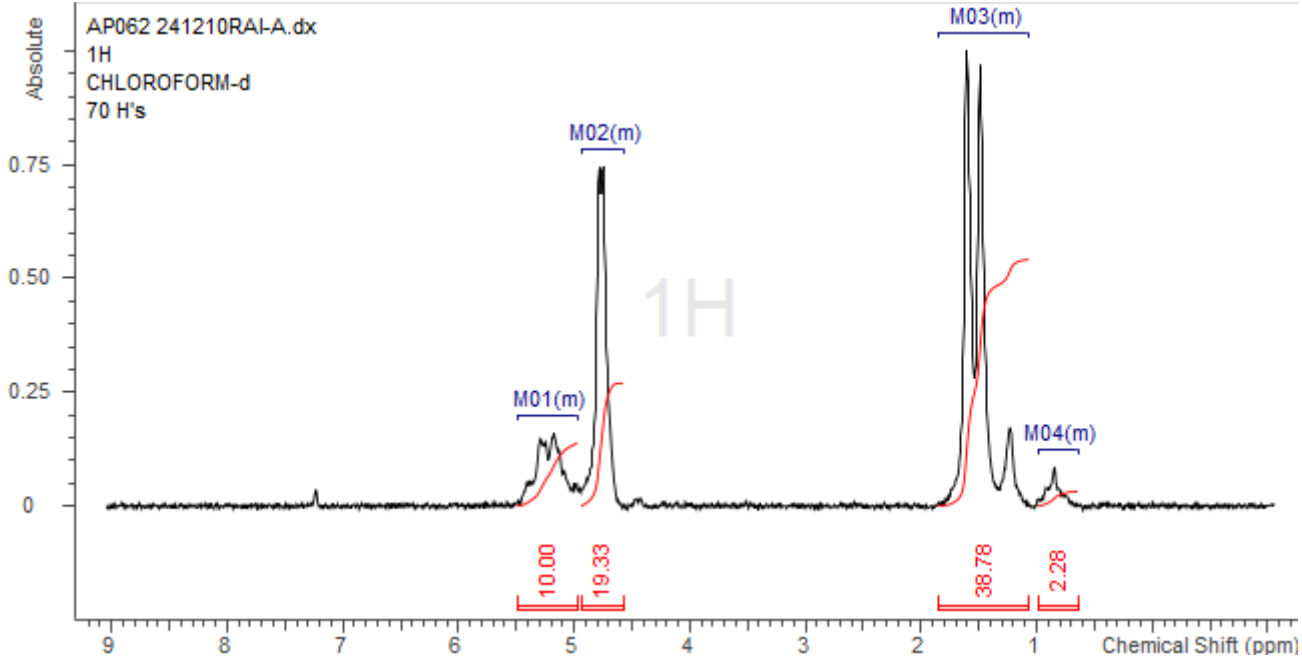
No. AP062

Certificate of Analysis



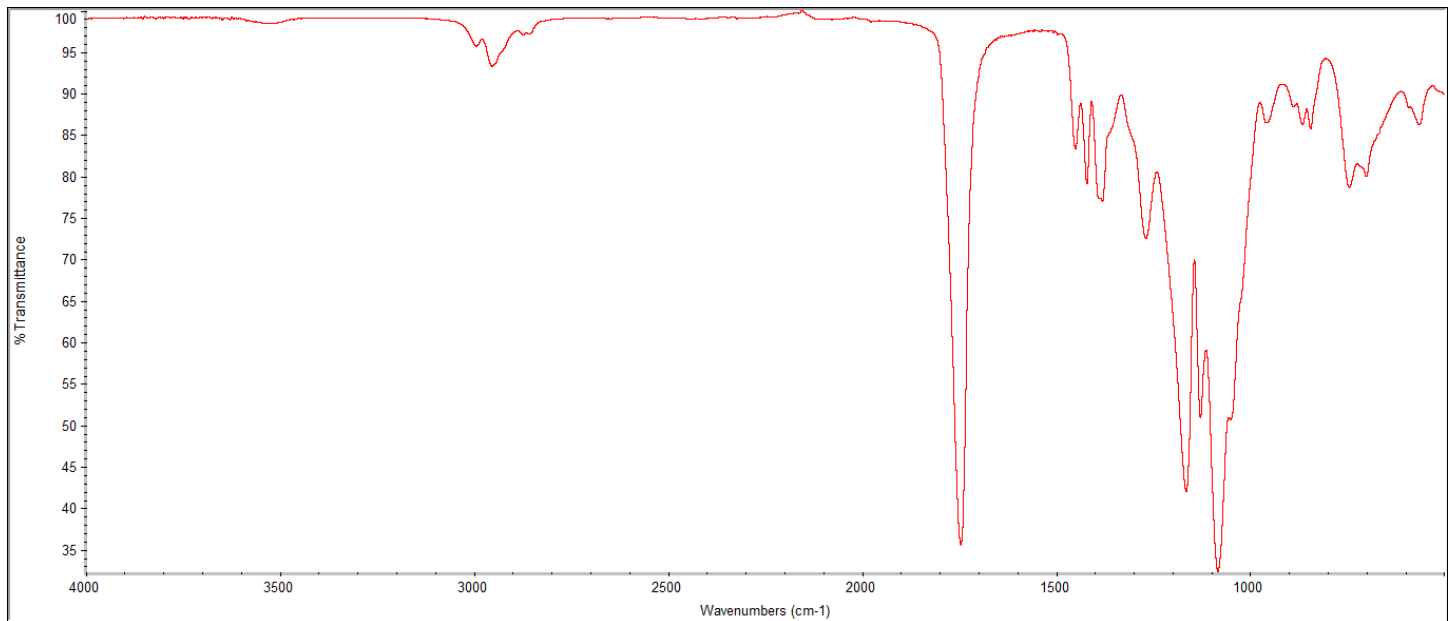
Product Name: Poly(lactic-co-glycolic acid) copolymers, ester endcap
(50:50 LA:GA, M_n : 5,000-10,000 Da) (Lot#: 241210RAI-A)

H-NMR



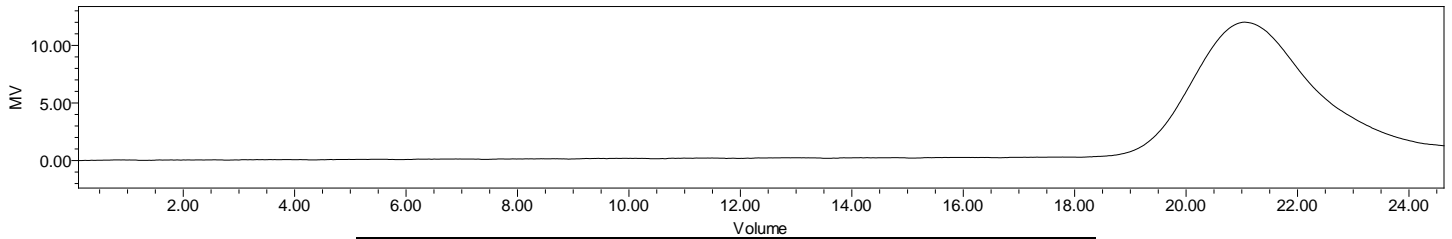
H-NMR Spectrum of copolymers in $CDCl_3$ (NMReady-60e, Nanalysis 60 MHz) NMR of PLGA copolymer: LA-GA =51%:49% (LA:GA 56%:44% Da)

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
PLGA	7641	12,358	1.62

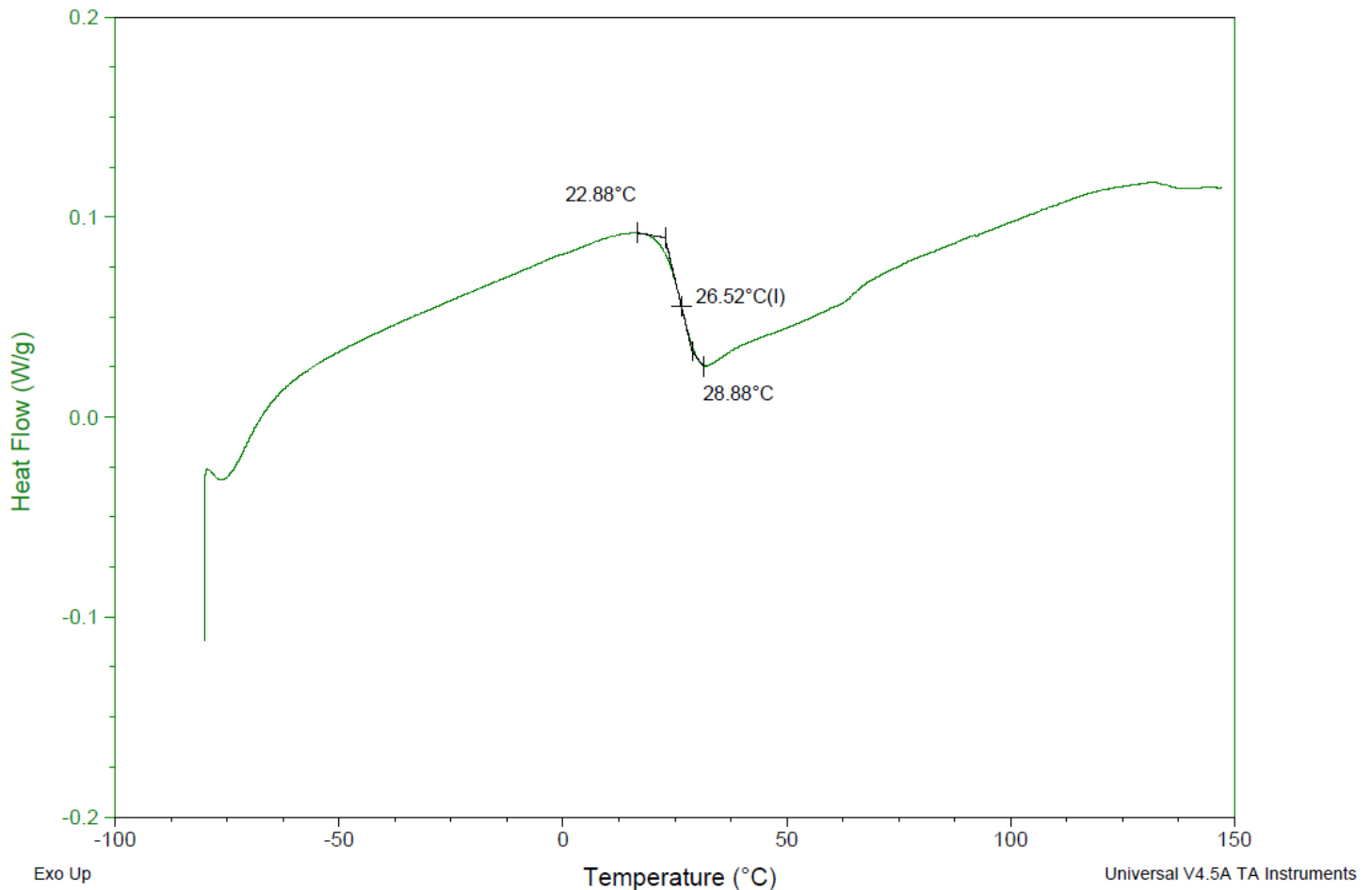
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC

Sample: AP062 241210RAI-A
Size: 6.2000 mg
Method: Glass Transition-simple

DSC

File: C:\...\COA\AP062 241210RAI-A.003
Run Date: 17-Dec-2024 11:11
Instrument: DSC Q2000 V24.11 Build 124

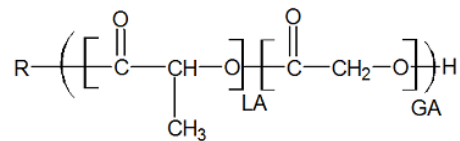


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. T_g = 26.52 °C

IV

Inherent Viscosity: $0.130 \pm .003$ 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