

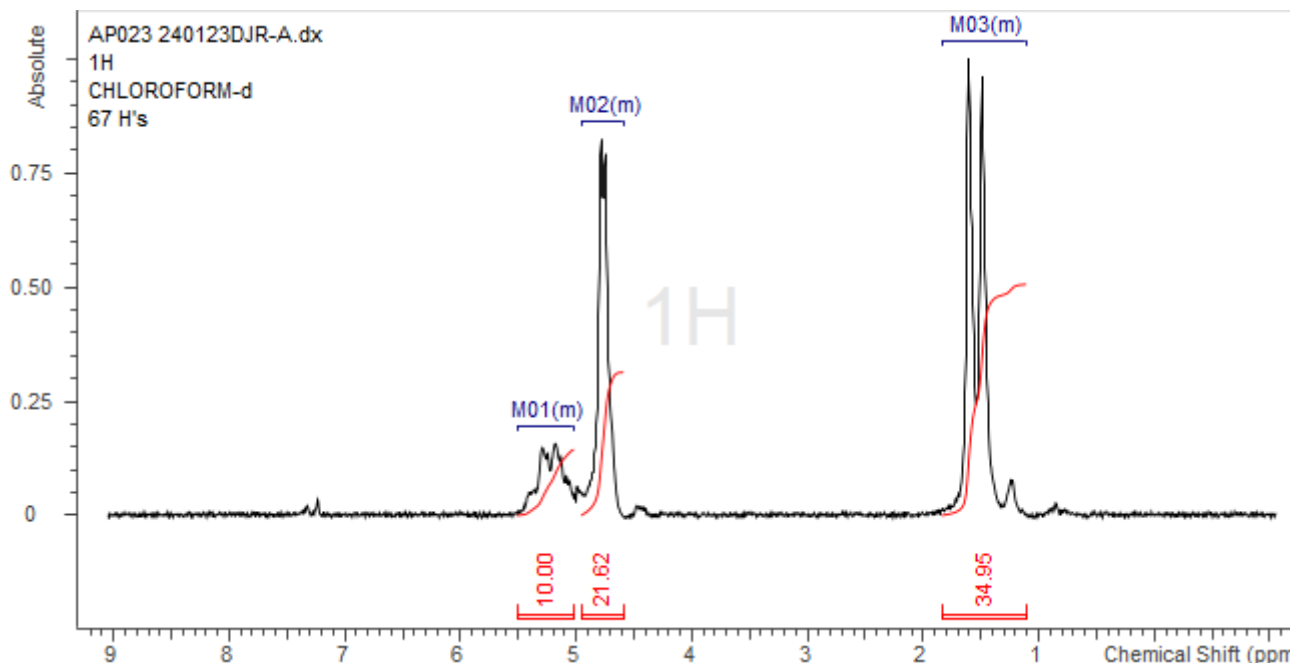
No. AP023

# Certificate of Analysis



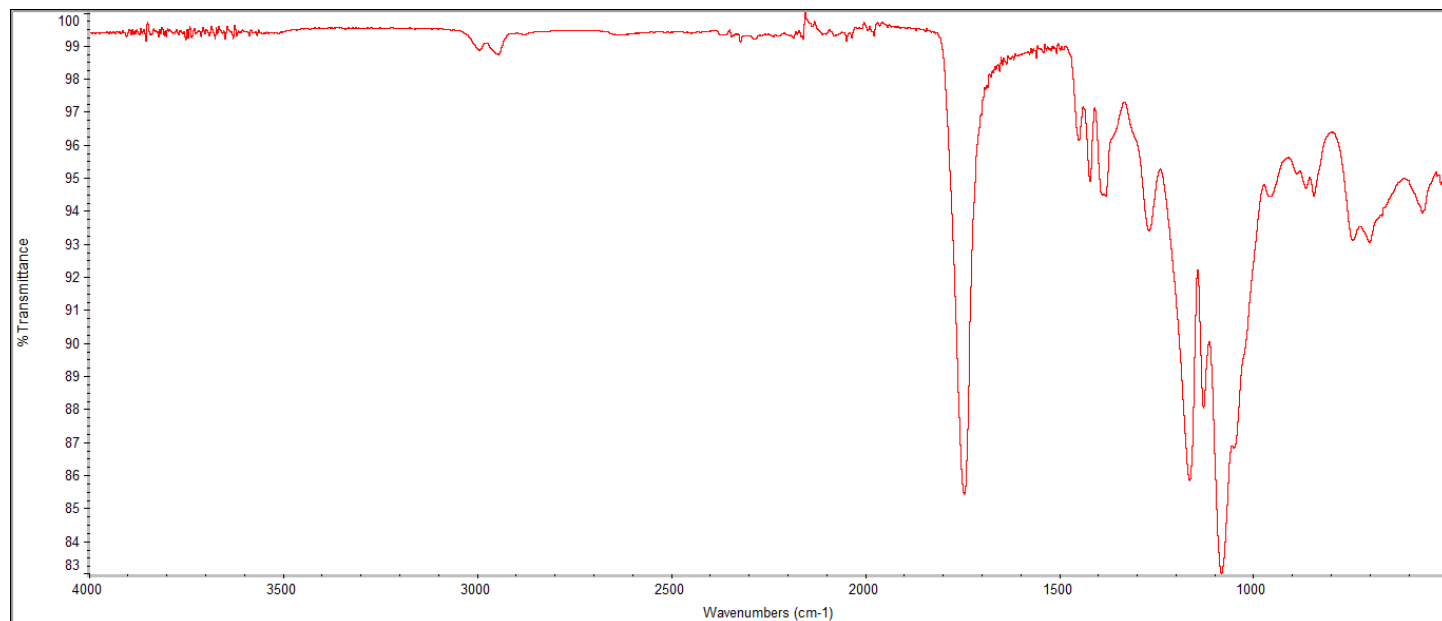
Product Name: Poly (lactic-co-glycolic acid) 50:50 LA:GA (Mn: 10,000-15,000Da)  
(Lot#: 250123DJR-A)

## H-NMR



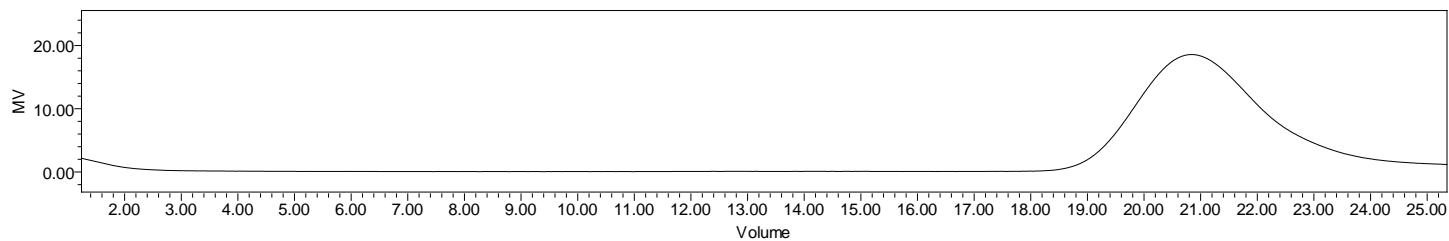
H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (NMReady-60e, Nanalysis 60 MHz) NMR of PLGA copolymer: LA-GA =48%-52% molar ratio (LA:GA 53%:47% w:w)

## FTIR



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

## GPC-ES



Polymer	M <sub>n</sub> (from GPC)	M <sub>w</sub> (from GPC)	PDI
PLGA	10,404	15,213	1.46

**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.

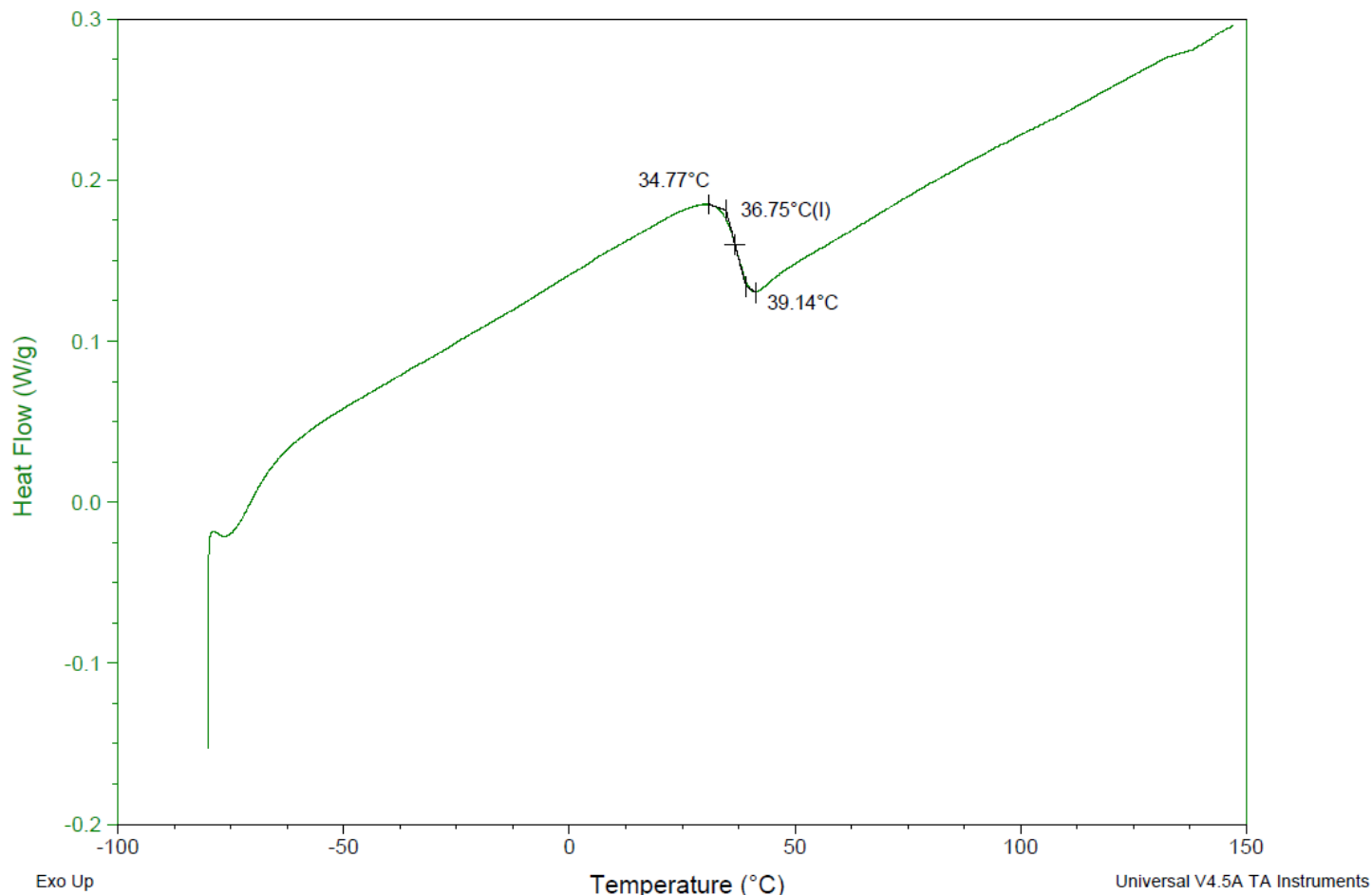
# DSC

Sample: AP023 250123DJR-A  
Size: 4.8000 mg  
Method: Glass Transition-simple

DSC

File: C:\COA\AP023 250123DJR-A DSC.001

Run Date: 28-Jan-2025 10:16  
Instrument: DSC Q2000 V24.11 Build 124

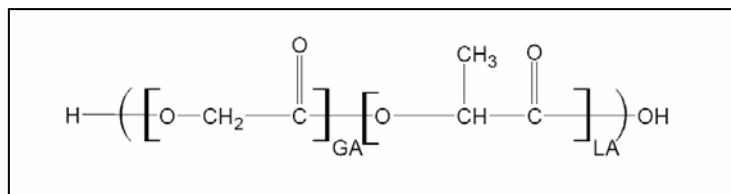


**DSC:** Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 36.75 °C

## IV

**Inherent Viscosity:**  $0.134 \pm 0.012$  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