

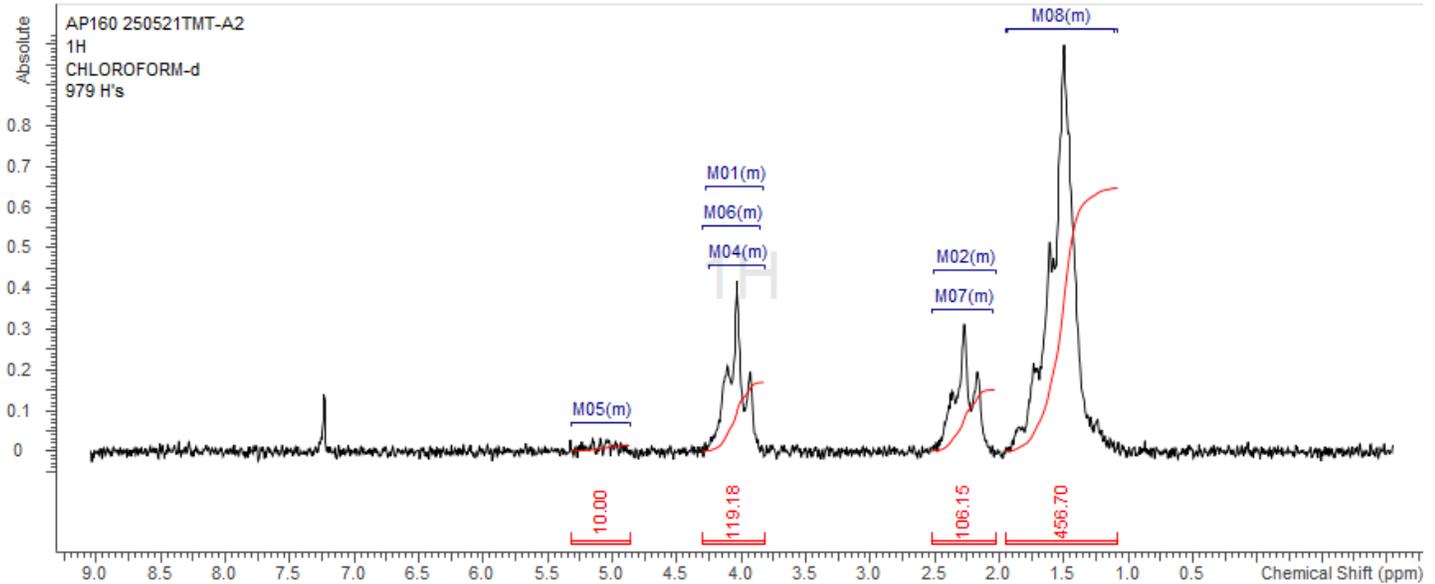
No. AP322

# Certificate of Analysis



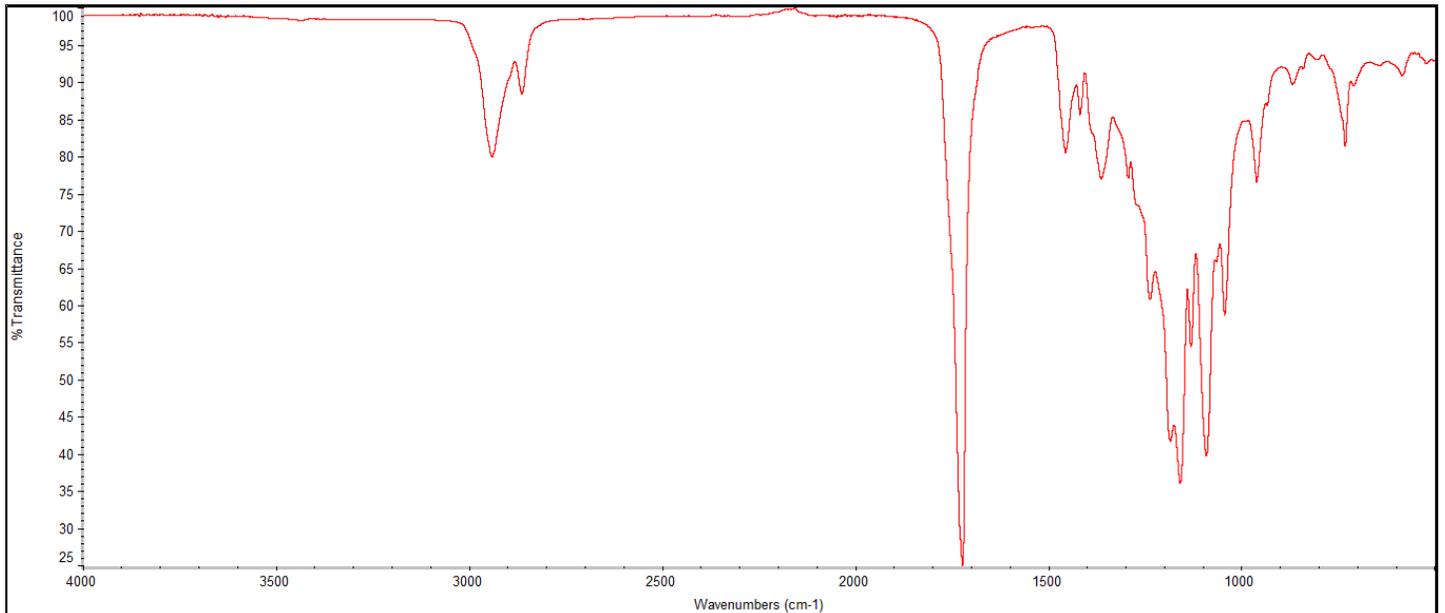
Product Name: Poly(L-lactide-co-caprolactone) copolymer acid endcap (15:85 LA:CL,  
 $M_n$ : 75,000-85,000 Da) (Lot#: 250521TMT-A)

## H-NMR



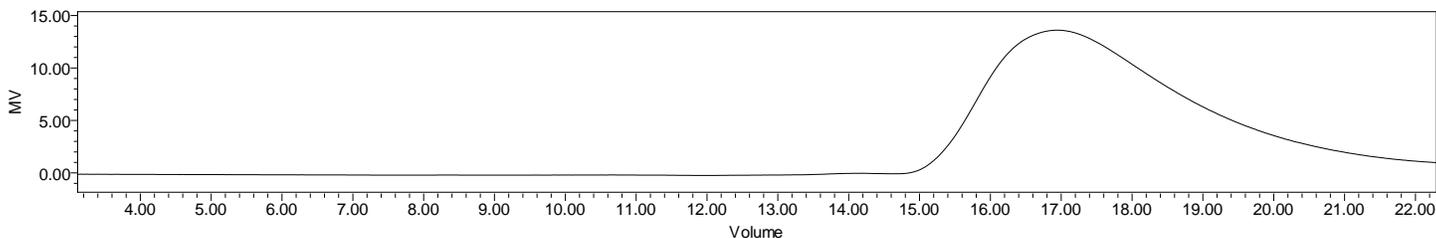
H-NMR Spectrum of copolymers in  $CDCl_3$  (NMReady-60e, Nanalysis 60 MHz) NMR of PLGA copolymer: LA-GA = 14%:86 % molar ratio (LA:GA 10%:90% w:w)

## 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
PLLCL	66,532	87,989	1.32

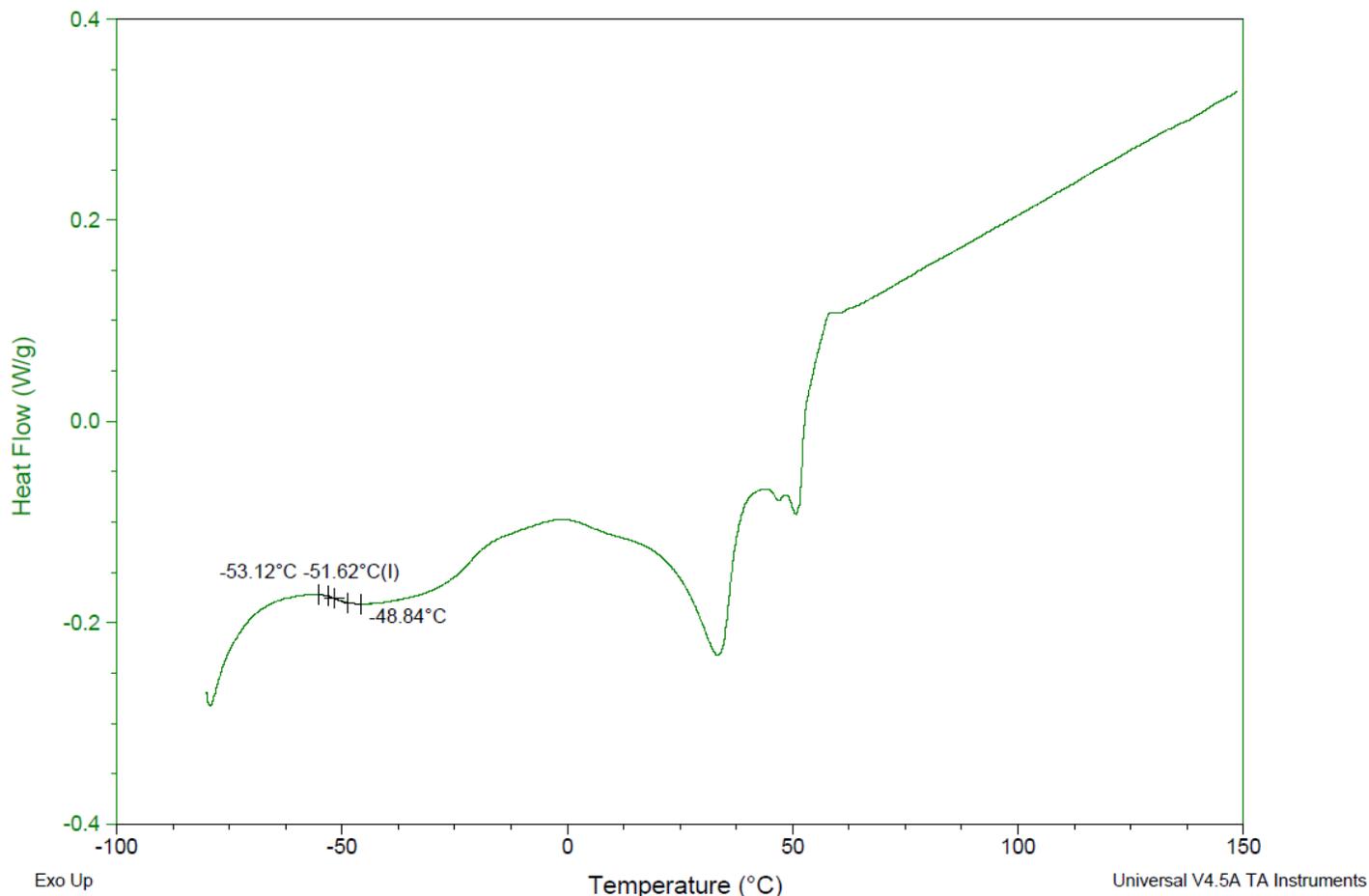
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

## DSC

Sample: AP160 250516TMT-A  
 Size: 3.8000 mg  
 Method: Modulate-no-eqb

### DSC

File: C:\...\COA\AP160 250516TMT-A DSC.001  
 Run Date: 27-May-2025 14:13  
 Instrument: DSC Q2000 V24.11 Build 124

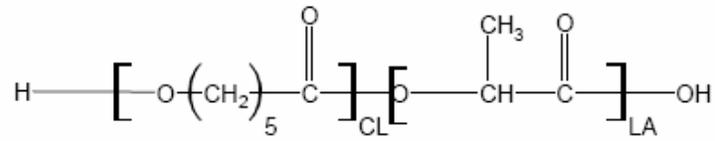


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. T<sub>g</sub> = -51.62 °C

## IV

**Inherent Viscosity:**  $0.381 \pm 0.017$  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