

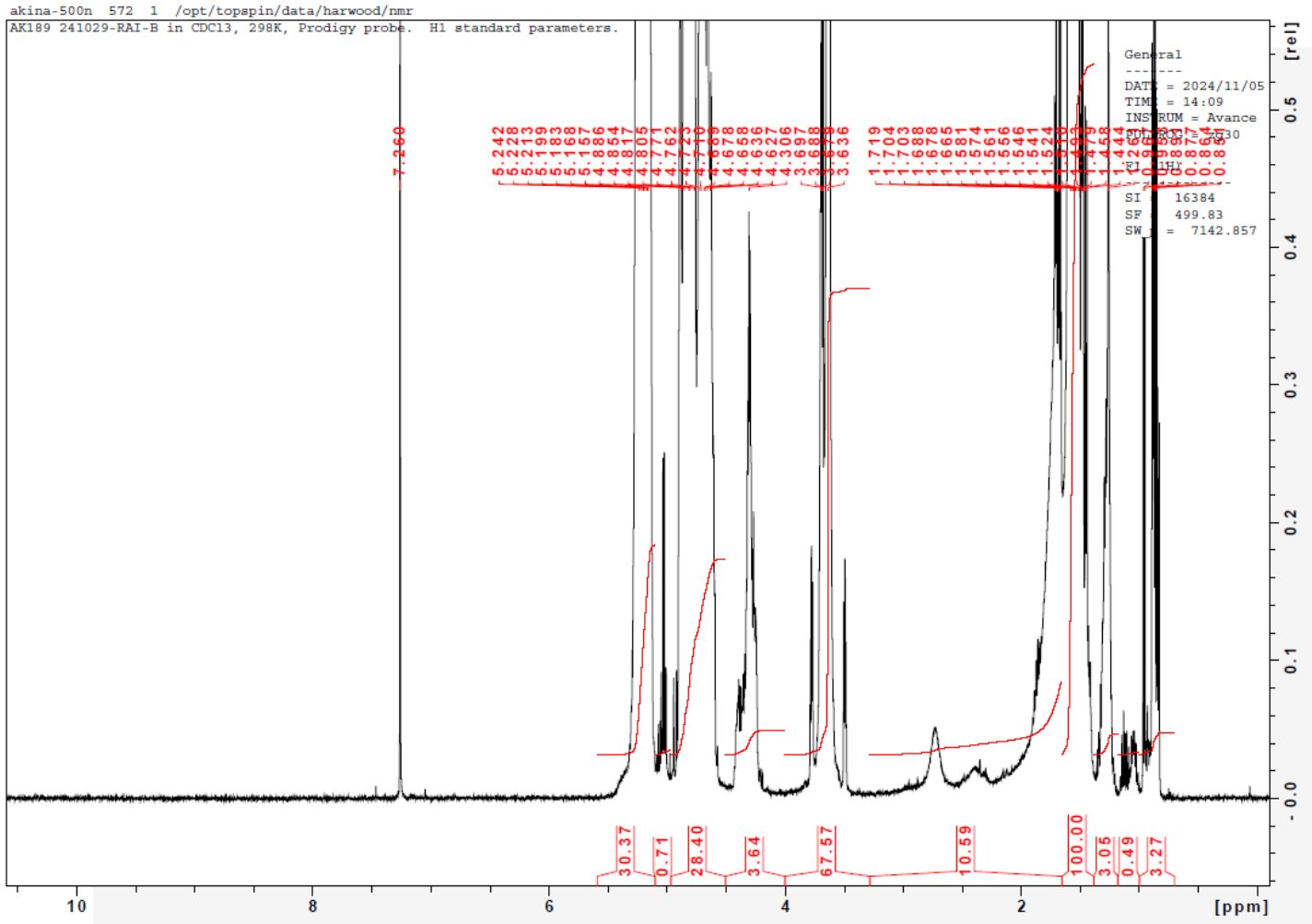
No. AK189

# Certificate of Analysis



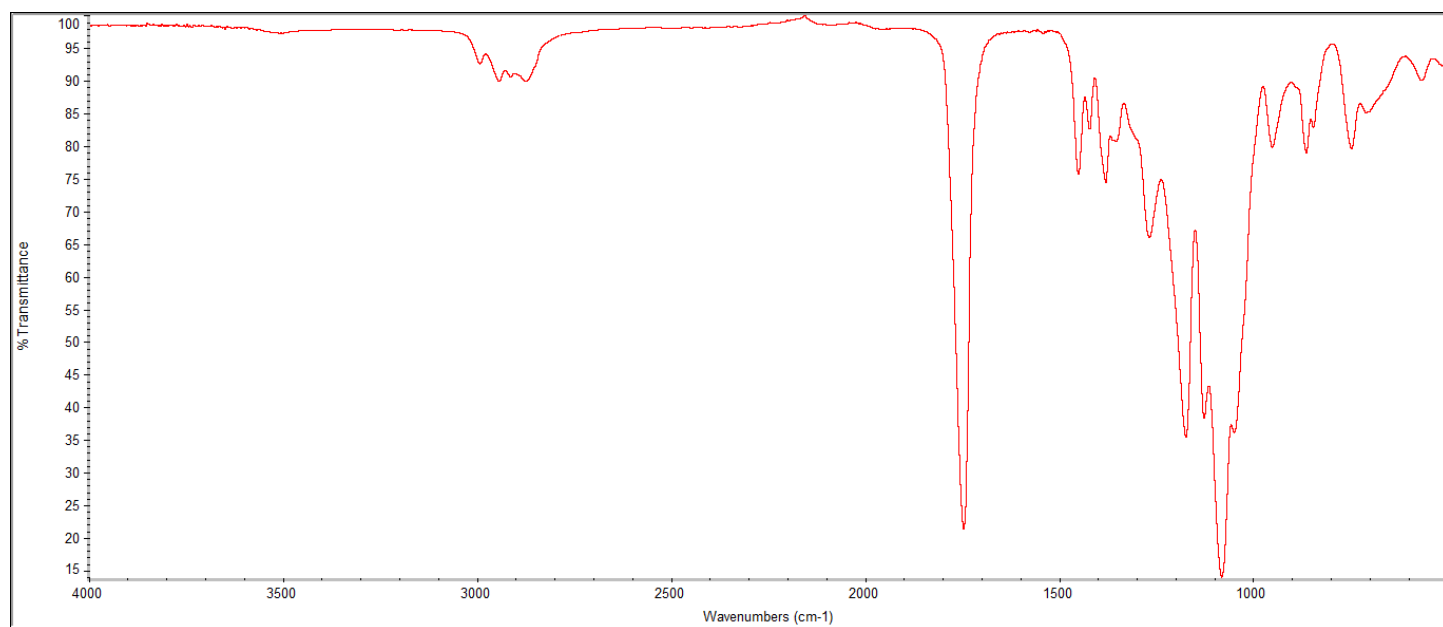
Product Name: Poly(lactic-co-glycolic acid)-*b*-Poly(ethylene glycol)-*b*-Poly(lactic-co-glycolic acid) copolymers (75:25 LA:GA, 3,000-1,500-3,000 Da)  
(Lot#: 241029RAI-B)

## H-NMR



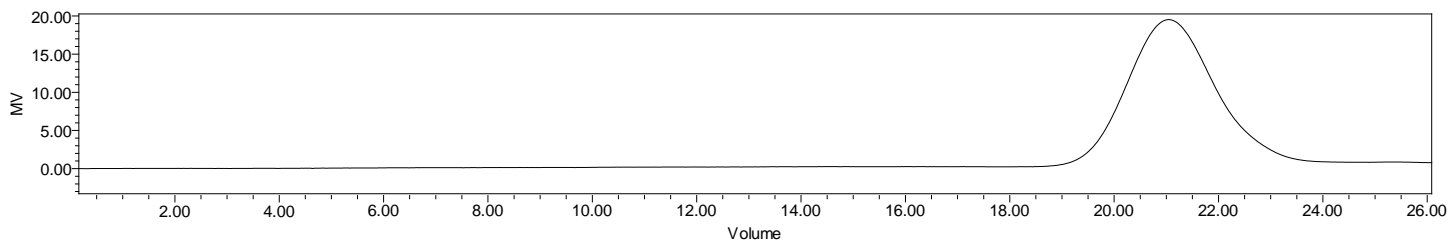
H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (Bruker ≥300 MHz, PINMRF) NMR of PLGA-PEG-PLGA copolymer: EG\*/LA-GA =34\*/61-29 (Mn EG\*/LA-GA 1498\*/4401-1659 Da) LA:GA 73%:27% \*-from MFG data

## 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-PEG-PLGA	9006	12,629	1.40
PEG-Precursor*	1472*		

\*- from MFG data

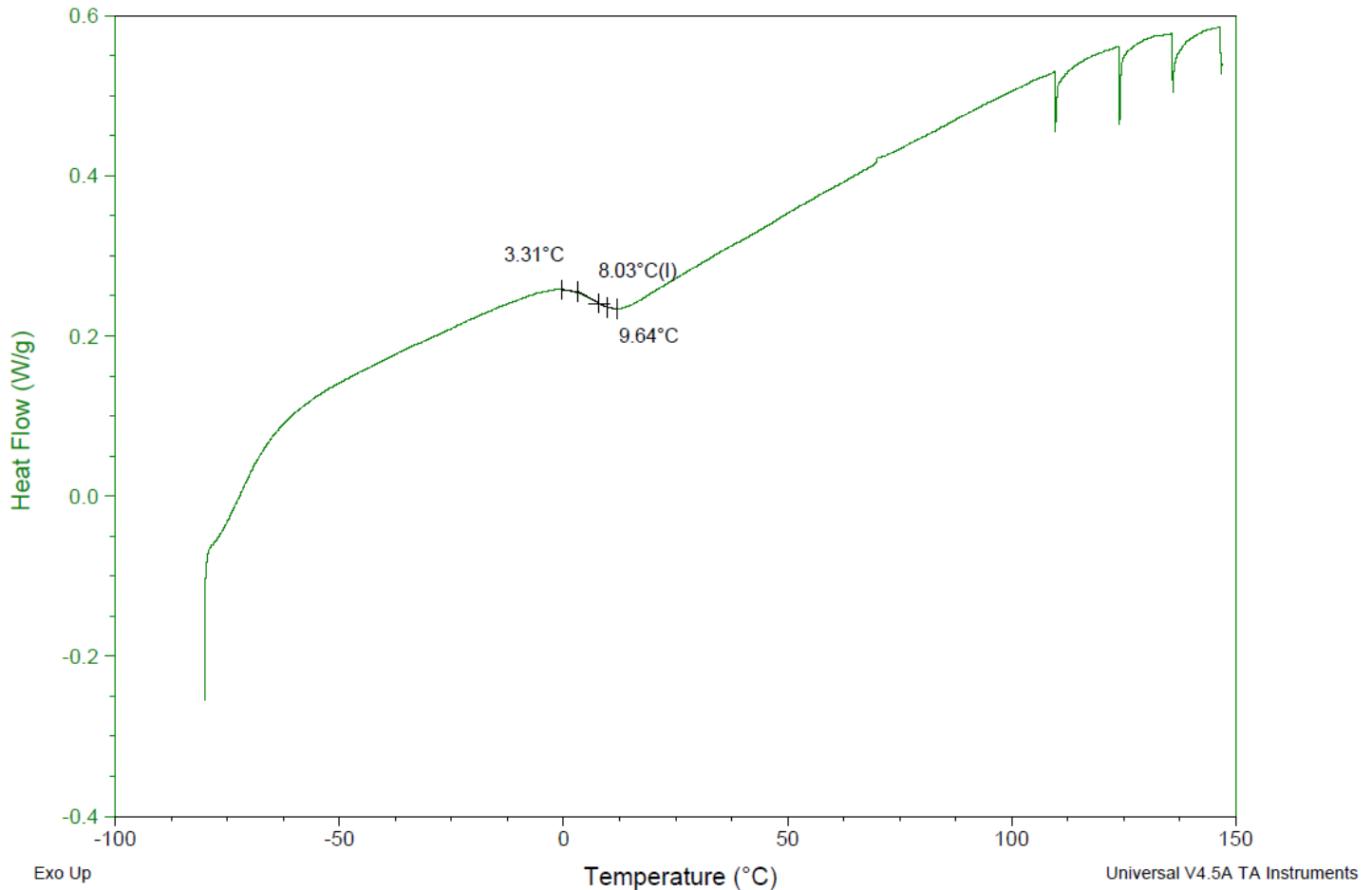
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

# DSC

Sample: AK141 241029RAI-B  
Size: 4.0000 mg  
Method: Glass Transition-simple

## DSC

File: C:\COA\AK141 241029RAI-B.001  
Run Date: 13-Nov-2024 11:37  
Instrument: DSC Q2000 V24.11 Build 124

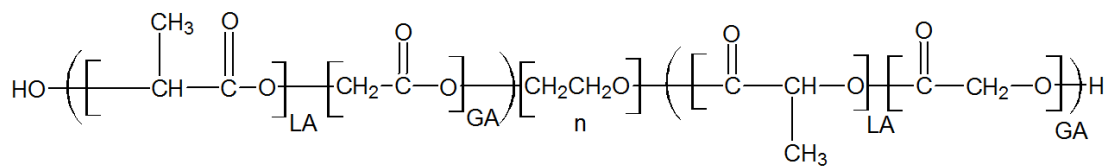


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 8.03 °C

## IV

**Inherent Viscosity:** 0.125 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

### Structure of PLGA-PEG-PLGA copolymers



Approved By:  
Amie Tyler  
Quality Manager