

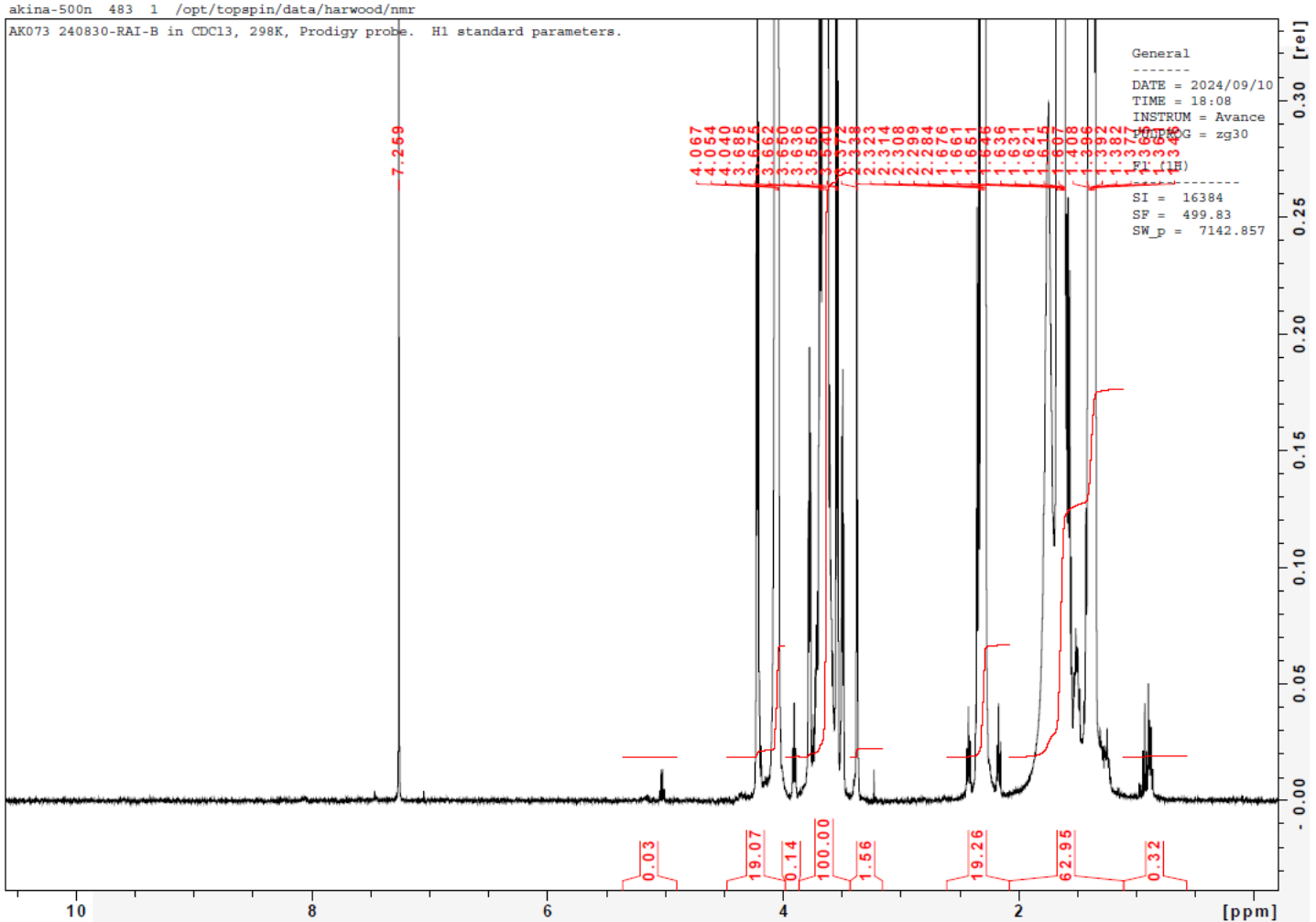
No. AK073

# Certificate of Analysis



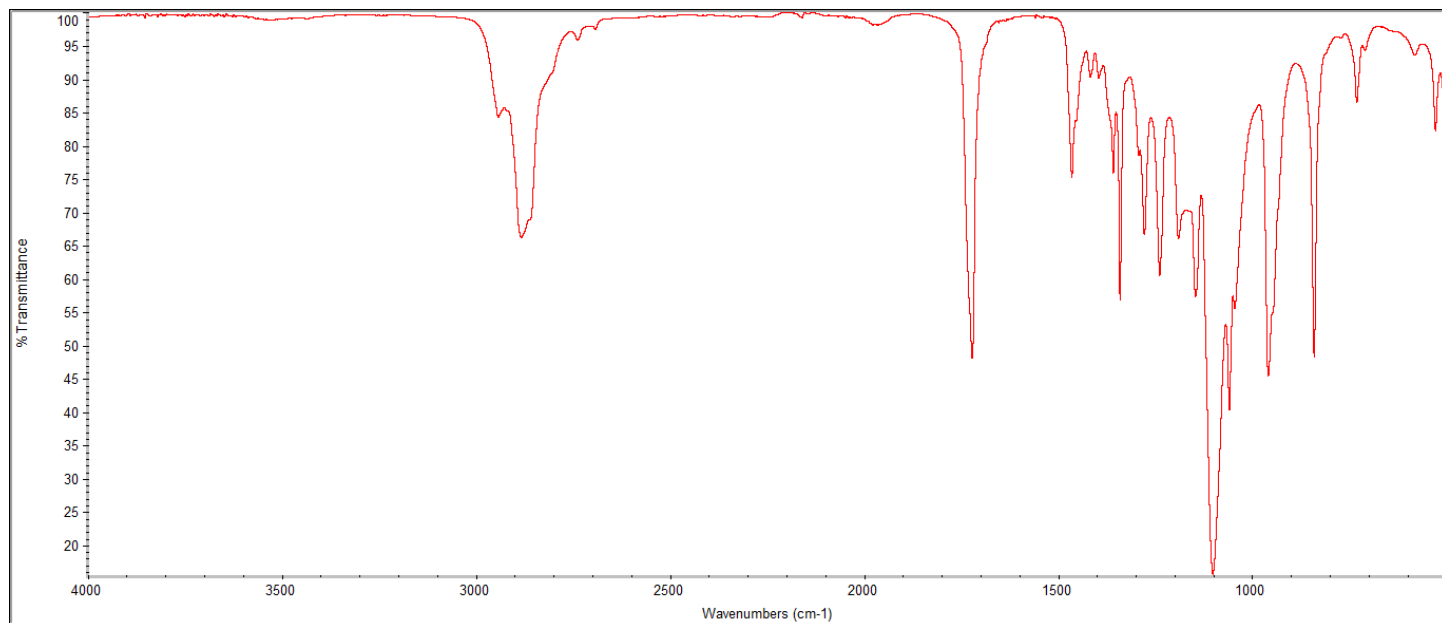
Product Name: Methoxy Poly(ethylene glycol)-*b*-Polycaprolactone copolymers (2,000:2,000 Da) (Lot#: 240830RAI-B)

## H-NMR



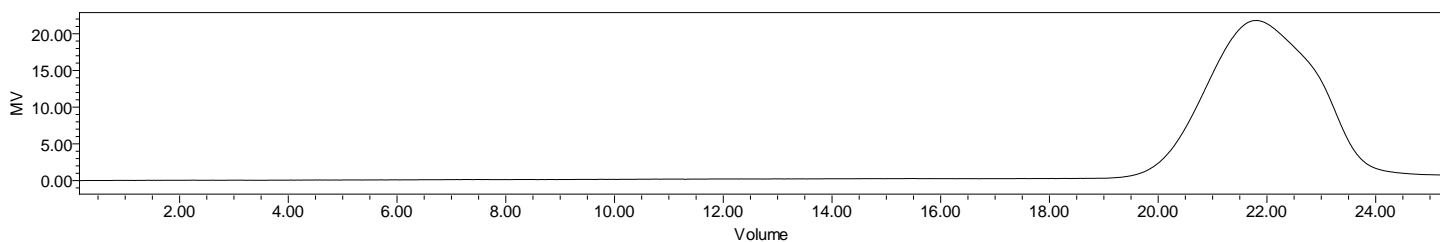
H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (Bruker ≥300 MHz, PINMRF) NMR of PLGA-PEG copolymer: EG\*/CL = 46:18 (Mn EG\*/CL 2026\*/2003) \*- from MFG data

## 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	5075	7377	1.45
PEG-Precursor*	2044*		

\*- 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

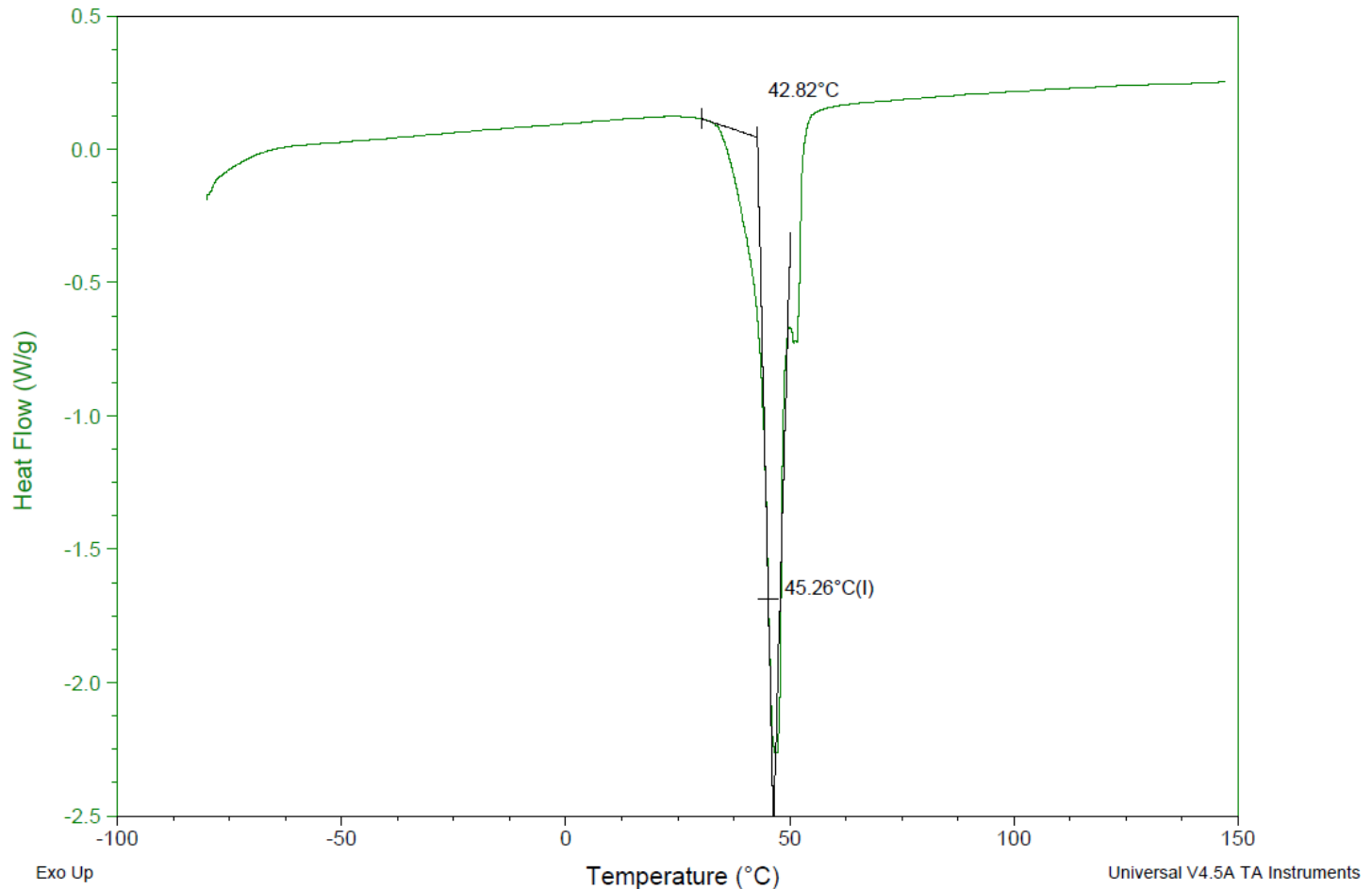
Sample: AK073 240830RAI-B  
Size: 4.4000 mg  
Method: Ramp

## DSC

File: \\... \COA\AK073 240830RAI-B DSC.002

Run Date: 04-Sep-2024 11:49

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 = 45.26 °C

## IV

**Inherent Viscosity:** 0.122 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

### Structure of mPEG-PCL copolymers



Approved By:  
Amie Tyler  
Quality Manager