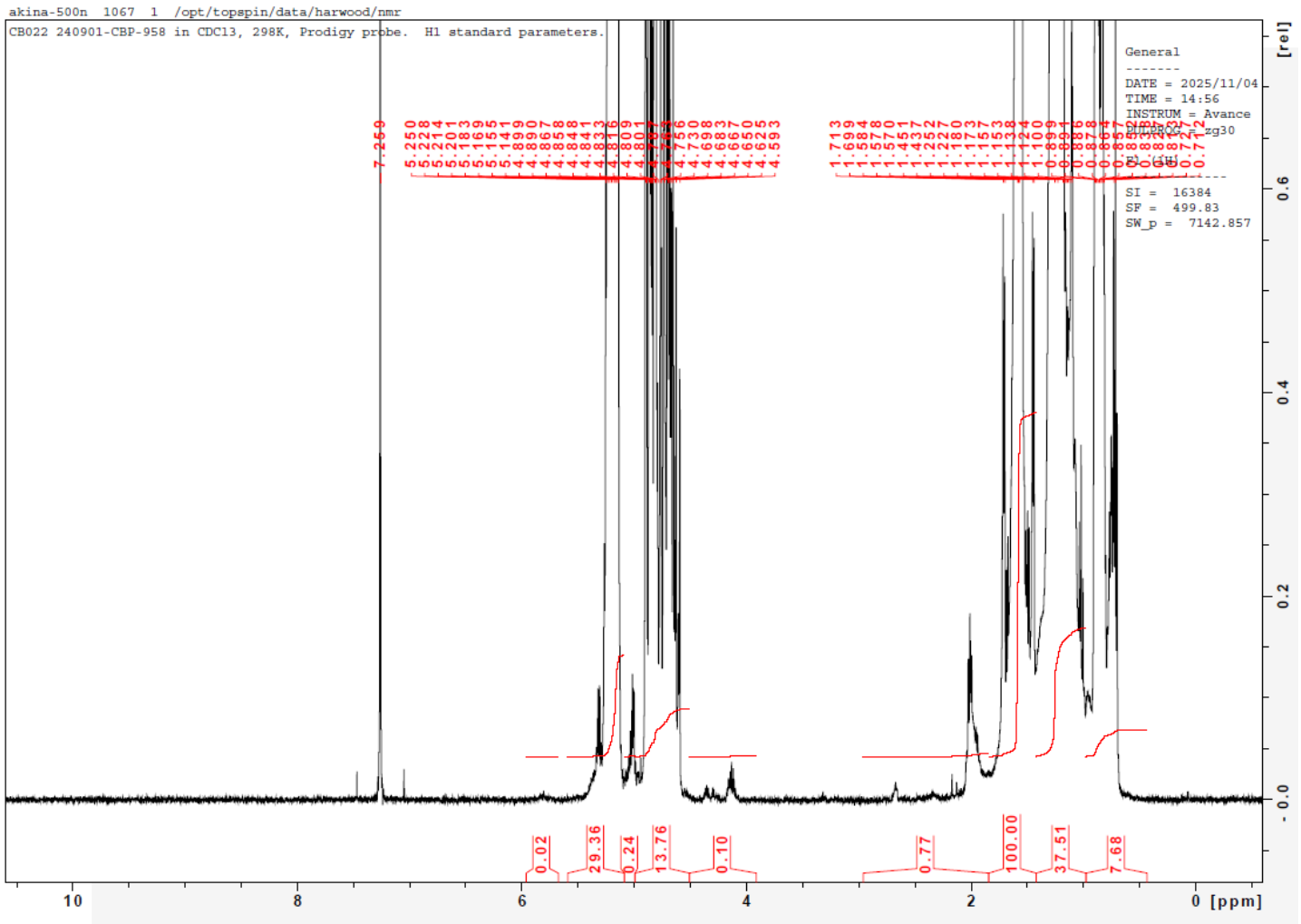
No. CB022 Certificate of Analysis

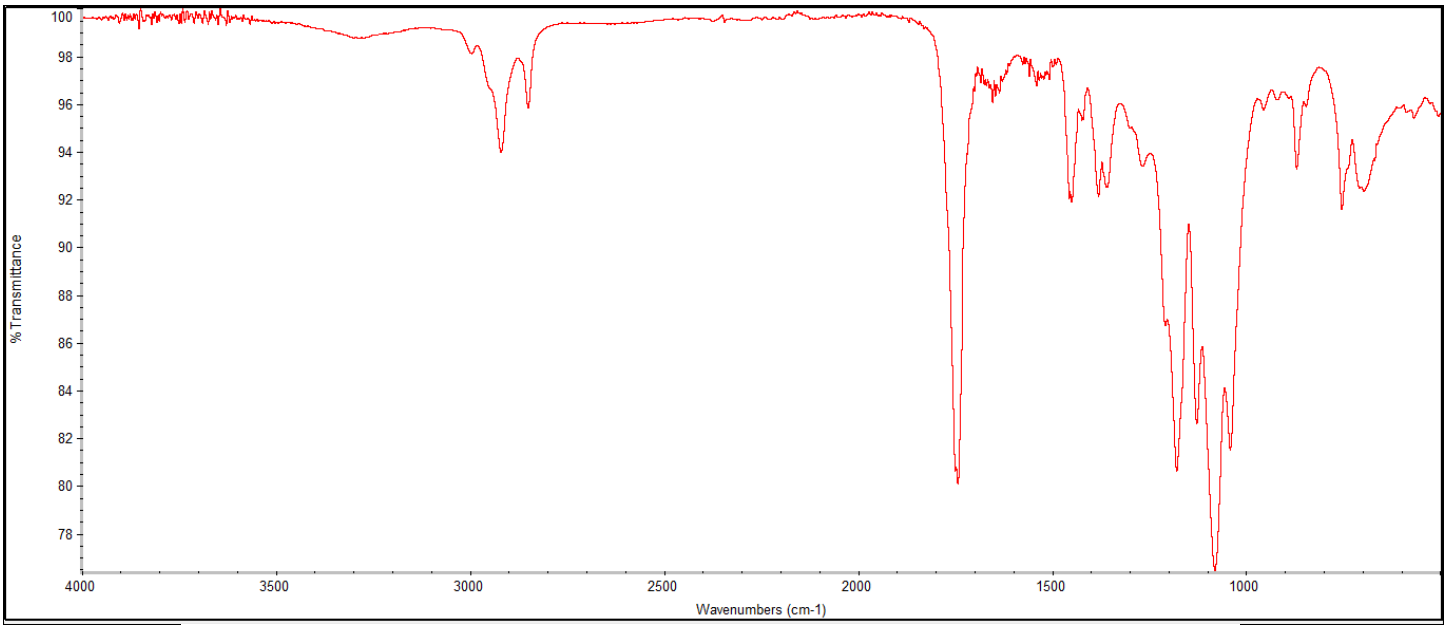
Product Name: Poly(L-Lactide-co-glycolide) I.V. 1.50 – 2.00 dl/g, LG 82:18, ester endcap (PLG 8218) (Lot # 240901CPB-958)

H-NMR



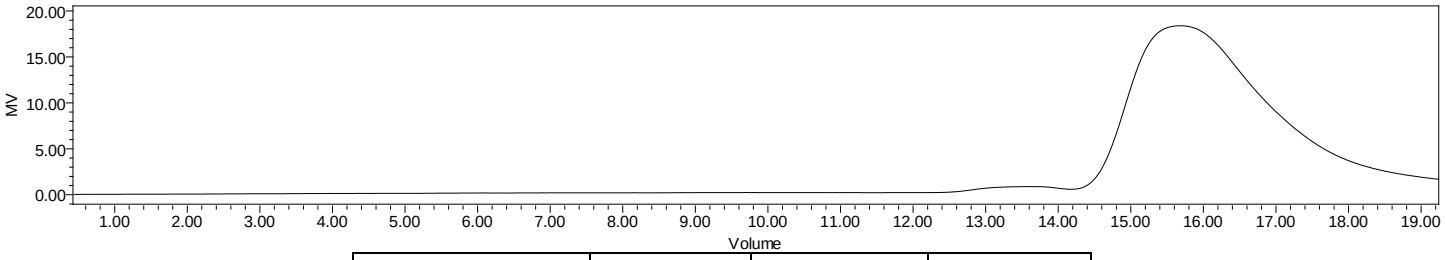
H-NMR Spectrum of copolymers in CDCl3 (NMReady-60e, Nanalysis 60 MHz) NMR of P(L)LGA copolymer: LA-GA =81%-19% molar ratio (LA:GA 84%:16% w:w)

FTIR



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

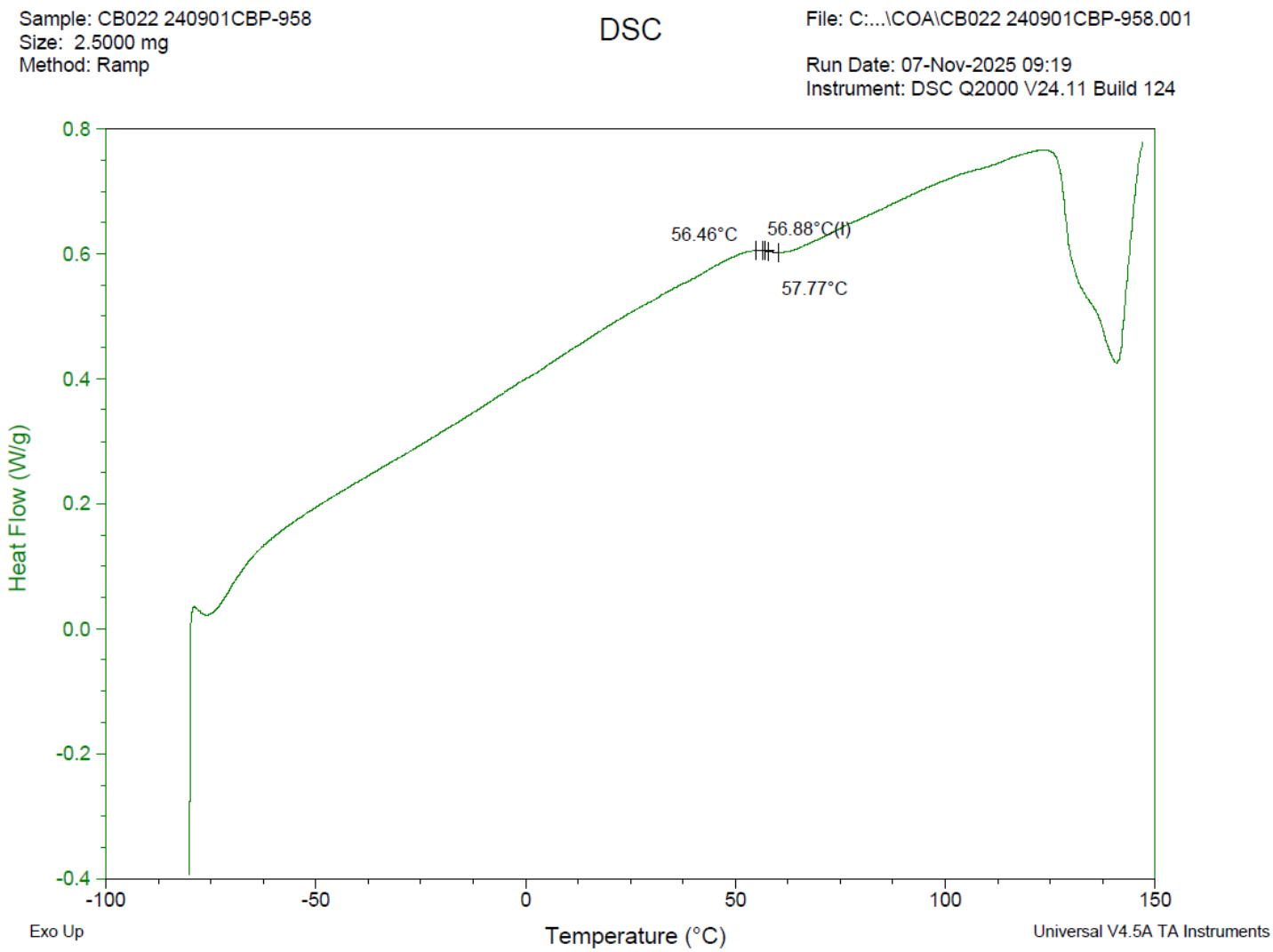
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
P(L)LGA	130,027	193,210	1.49

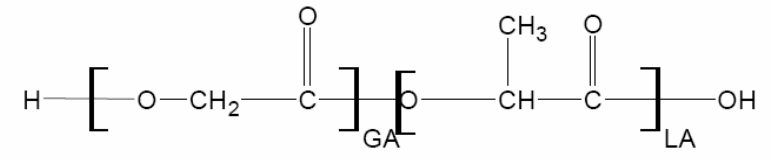
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC



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 = 56.88 °C

Structure of copolymers



Manufacturer Provided Data

Assay	Specification	Result
Melting onset, DSC, 10 °C/min	125.00 °C	128.1 °C
Melting peak, DSC, 10 °C/min	150.00 °C	144.4 °C
Tin content	<50ppm	7 ppm
Water content[1]	<0.50%	0.06%
Residual monomer, L Lactide	<0.1%	0.06%
Residual monomer, Glycolide	<0.1%	<0.04%
Inherent Viscosity[2]	1.50-2.00 dL/g	1.77 dL/g
Residual solvent, total	<0.01%	0.00 %
Residual solvent, Toluene	<890 ppm	<0 ppm

1 – Measured by titration

2 – Measured at 25 ºC in Chloroform c=0.1 g/dL

Approved By:
Amie Tyler
Quality Manager