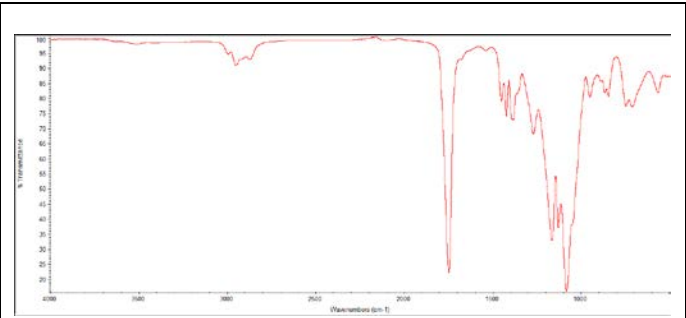
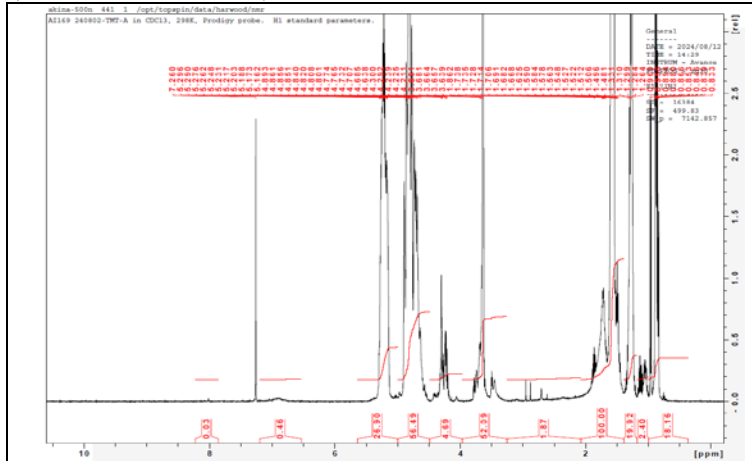


No. AI169

Certificate of Analysis

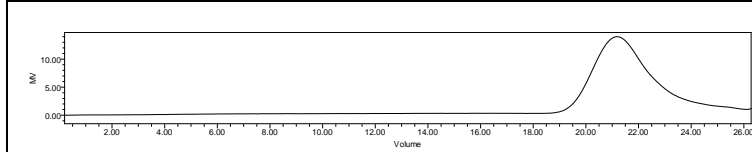


Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-amine
(12,000-2,000Da) LA:GA 50:50 Lot #240802TMT-A



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

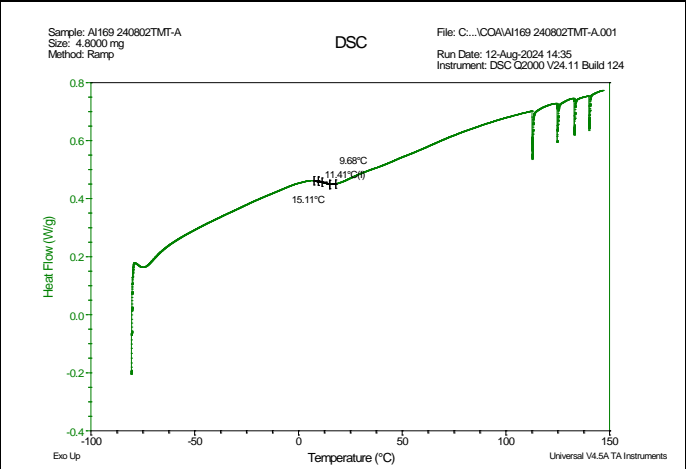
H-NMR Spectrum of copolymers in CDCl3 (Bruker ≥300 MHz, PINMRF)
NMR of PLGA-PEG-amine copolymer: EG*/LA-GA = 54*/112-117 (Mn EG*/LA:GA 2379*/8031-6798 Da) LA:GA 54%:46%



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.

Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PLGA-PEG-Amine	8530	11,749	1.38
PEG-Precursor*	2400*		

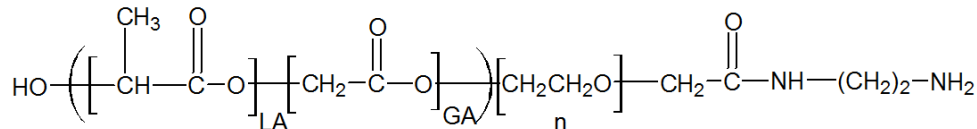
*- from MFG data



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_g = 11.41 °C

Inherent Viscosity: 0.194 dL/g (calculated from kinematic viscosity at 2% w/v acetone on Rheosense microVISC, n=3) at 25°C.

Structure of PLGA-PEG-Amine



Approved By:
Amie Tyler
Quality Manager