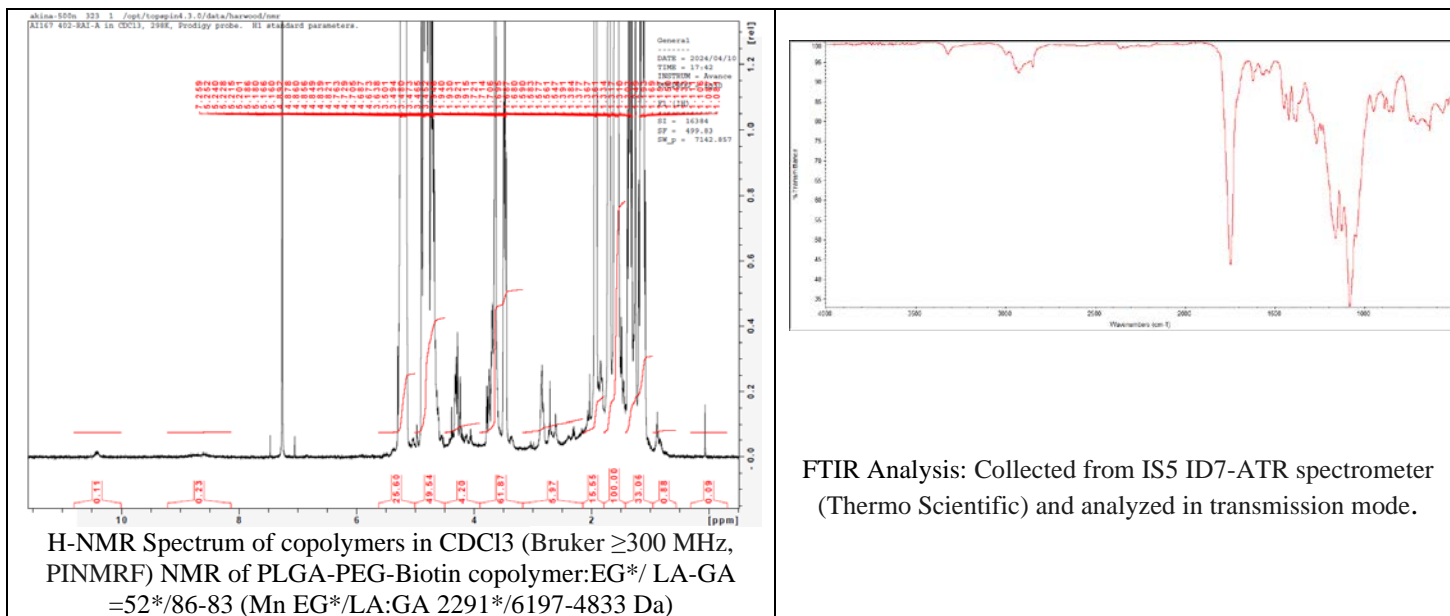


No. AI167

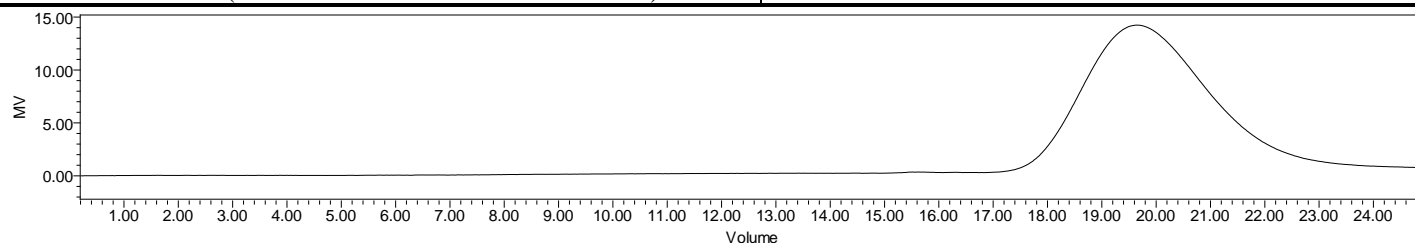
Certificate of Analysis



Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-biotin
(10,000-2,000Da) Lot #240402RAI-A



H-NMR Spectrum of copolymers in CDCl₃ (Bruker \geq 300 MHz, PINMRF) NMR of PLGA-PEG-Biotin copolymer:EG*/ LA-GA =52*/86-83 (Mn EG*/LA:GA 2291*/6197-4833 Da)

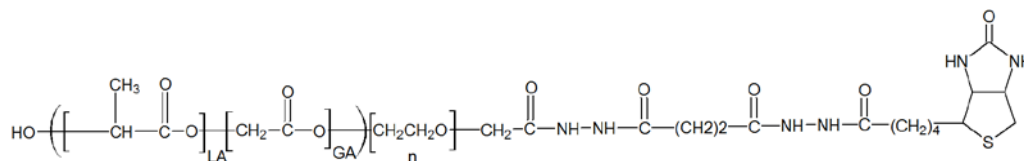


GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PLGA-PEG-Biotin	19,921	33,336	1.67
PEG-Precursor*	M _n = 2300*		

*- from MFG data

Structure of PLGA-PEG-biotin



Approved By:
Amie Tyler
Quality Manager