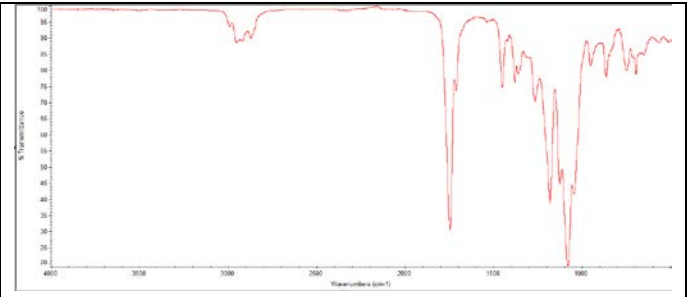
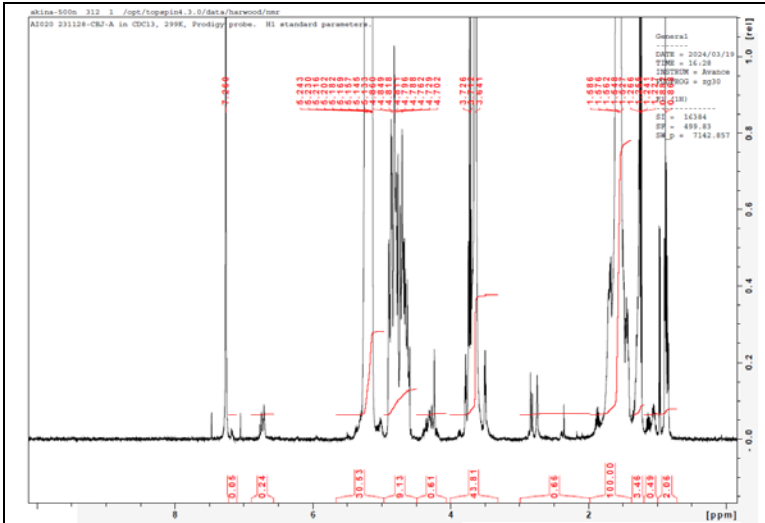


# No. AI020

# Certificate of Analysis

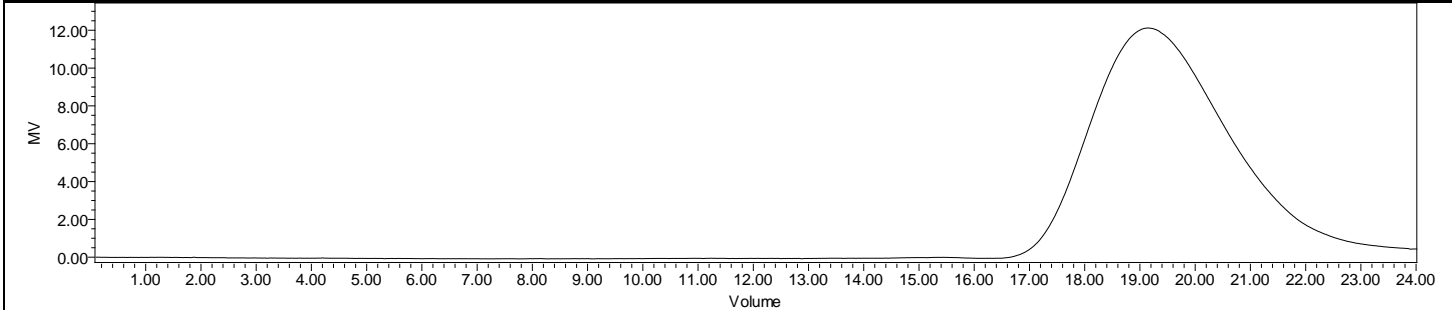


Product Name: Poly(lactic-co-glycolic)-b-Poly(ethylene glycol)-Maleimide Copolymers ( $M_w \sim 20,000-5,000Da$ ) (Lot#: 231128CEJ-A)



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

H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (Bruker  $\geq 300$  MHz, PINMRF)  
NMR of PLGA-PEG-Mal copolymer: EG\*/LA-GA = 107\* - 298-45 (Mn EG\*/LA:GA 4717\*/21475-2588 Da) \*- from MFG data

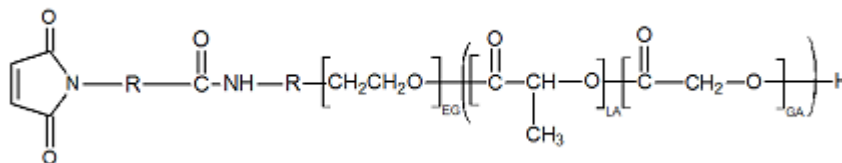


GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

Polymer	$M_n$ (from GPC)	$M_w$ (from GPC)	PDI
PLGA-PEG-Mal	27,278	46,882	1.72
PEG-Precursor*	$M_n$ 4700		

\*- from MFG data

## Structure of PLGA-PEG-Mal



Approved By:  
*Amie Tyler*  
Quality Manager