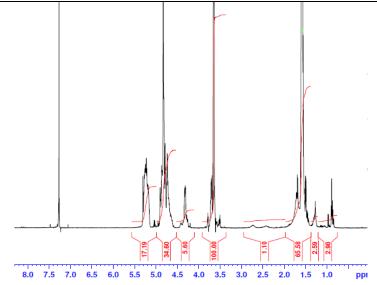
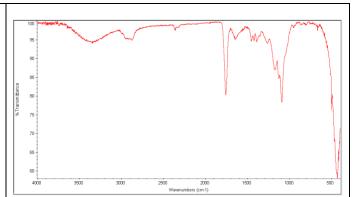
## No. AK019

## Certificate of Analysis

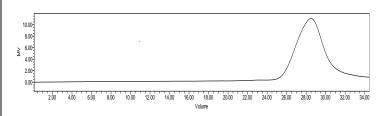
Product Name: Poly(lactic-co-glycolic acid)-*b*-Poly(ethylene glycol)-*b*-Poly (lactic-co-glycolic acid) copolymers (1,500-1,500-1,500,1:1 LA:GA) (Lot# 180905RAI-B)



H-NMR Spectrum of copolymers in CDCl3 (Varian Inova 500 MHz instrument) NMR of PLGA copolymer: EG-LA/GA: 34\*-23/23, Mn: EG-LA/GA: 1497\*-1683/1365 \*-MFG data



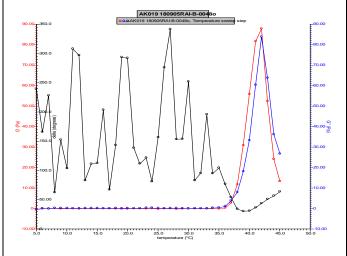
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicollet Avatar 320 spectrometer and analyzed in transmission mode.



GPC 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	M <sub>w</sub> (from	PDI
	GPC)	GPC)	
PLGA-PEG-PLGA	4359	5345	1.23
PEG precursor		1497*	

<sup>\*-</sup> from MFG data



Rheology performed on AR2000 (TA instruments) with 60mm 2degree cone on 20% w/v polymer in water dissolved over 3 days with stirring at 4°C. Viscosity of solution at 0.1 (sec<sup>-1</sup>) and 5°C was measured (1minute peak hold 5 second test intervals). Rheology performed by oscillating at constant 6.283 rad/s, 0.1% strain, in increments of 1°C ranging from 5-45°C with 1 minutes of temperature equilibration at each point.

Viscosity 20% w/v solution at 5°C | 0.06026 Pa/s

## Structure of PLGA-PEG-PLGA triblock copolymers

