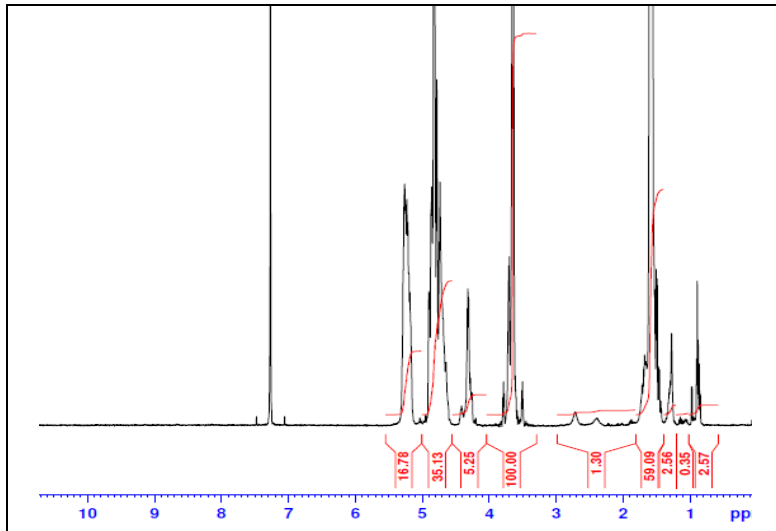


No. AK019

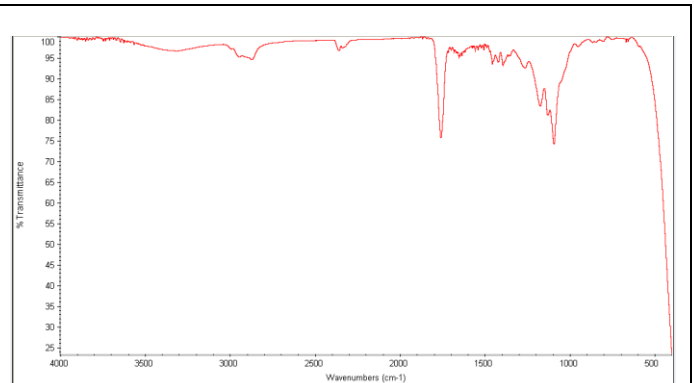
Certificate of Analysis



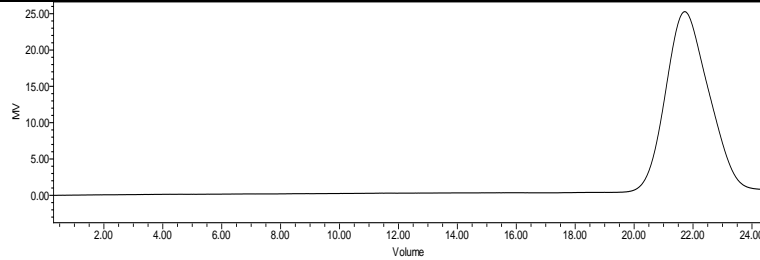
Product Name: Poly(lactide-co-glycolide)-*b*-Poly(ethylene glycol)-*b*-Poly(lactide-co-glycolide) copolymers (1,500-1,500-1,500, 50:50 LA:GA) (Lot# 181212RAI-A)



¹H-NMR Spectrum of copolymers in CDCl₃ (Varian Inova 500 MHz instrument) NMR of PLGA-PEG-PLGA copolymers: EG/LA-GA =34/23-24 (Mn EG/LA:GA 1498/1643:1386)



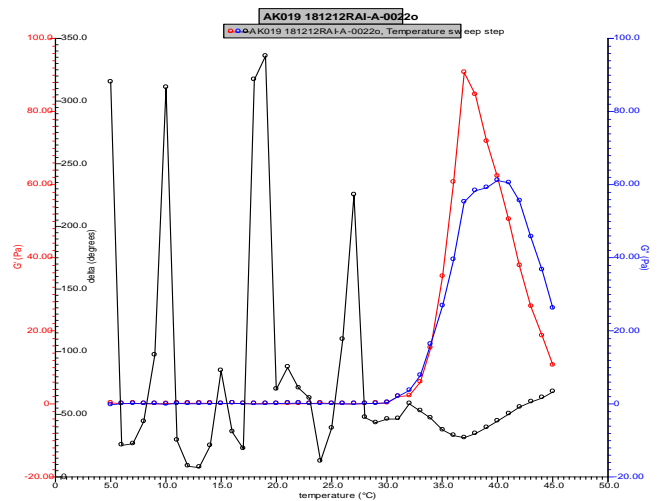
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicolet Avatar 320 spectrometer and analyzed in transmission mode.



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 GPC)	M _w (from GPC)	PDI
PLGA-PEG-PLGA	5646	7052	1.25
PEG-precursor*		1498*	

*- 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⁻¹) 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 **0.02876 Pa/s**

• Structure of PLGA-PEG-PLGA triblock copolymers

