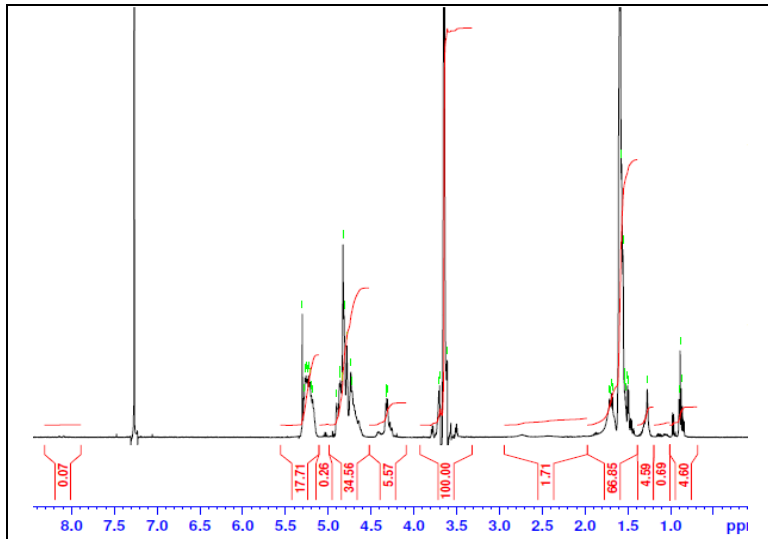


No. AK019

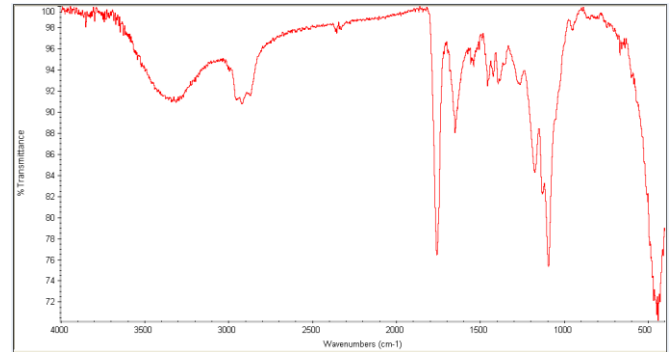
Certificate of Analysis



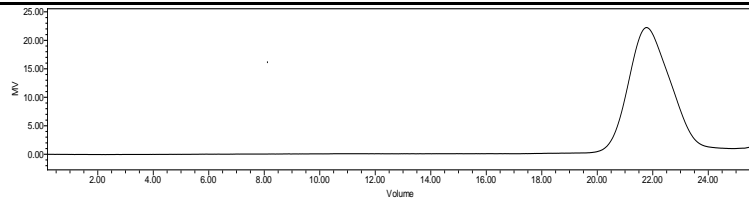
Product Name: Poly(lactide-co-glycolide)-*b*-Poly(ethylene glycol)-*b*-Poly(lactide-co-glycolide) copolymers (1,500-1,500-1,500,1:1 LA:GA) (Lot# 180920RAI-A)



H-NMR Spectrum of copolymers in CDCl₃ (Varian Inova 500 MHz instrument) NMR of PLGA copolymer: EG-LA/GA =34-24/24 (Mn EG-LA/GA 1498*-1734/1364)



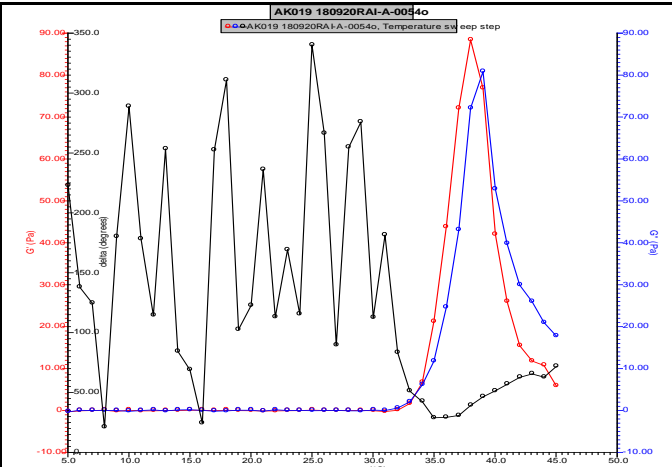
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicolet Avatar 320 spectrometer and analyzed in transmission mode.



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	5362	6656	1.24
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 (1 minute 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 **.03725 Pa/s**

Structure of PLGA-PEG-PLGA triblock copolymers

