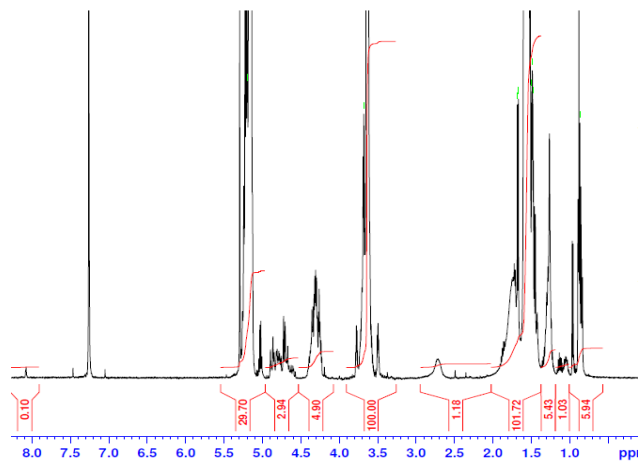


No. AK142

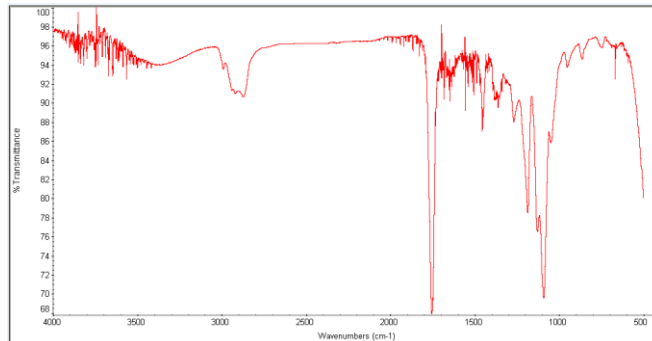
Certificate of Analysis



Product Name: Poly(lactic-co-glycolic acid)-*b*-Poly(ethylene glycol)-*b*-Poly(lactic-co-glycolic acid) copolymers (M_n 1,500:1,500:1,500 Da, LA:GA 95:5 (20:1)) (Lot# 170927SLG-A)

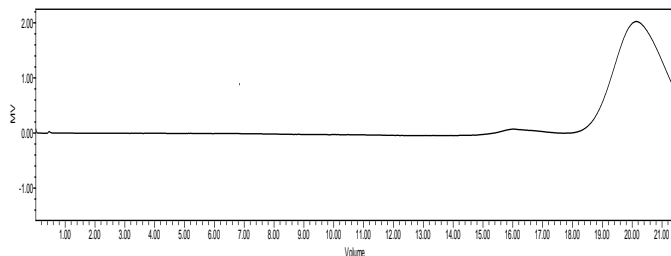


H-NMR Spectrum of copolymers in CDCl₃ (Varian Inova 500 MHz instrument), M_n NMR of PLGA copolymers: EG-LA/GA: 1,497*/2,908/116 (34-40/2), LA/GA ratio *- MFG data



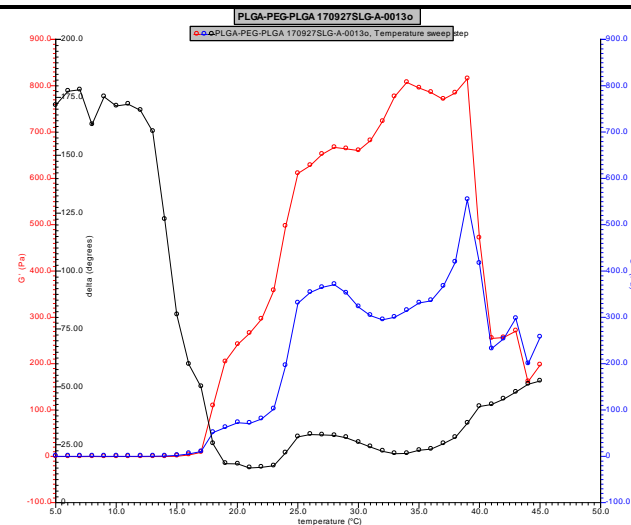
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Protégé 460 spectrometer and analyzed in transmission E.S.P. mode.

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	5,480	6,709	1.22

*- from MFG data



Rheology performed on AR550 (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 | 0.02403 Pa*s

Structure of PLGA-PEG-PLGA copolymer

