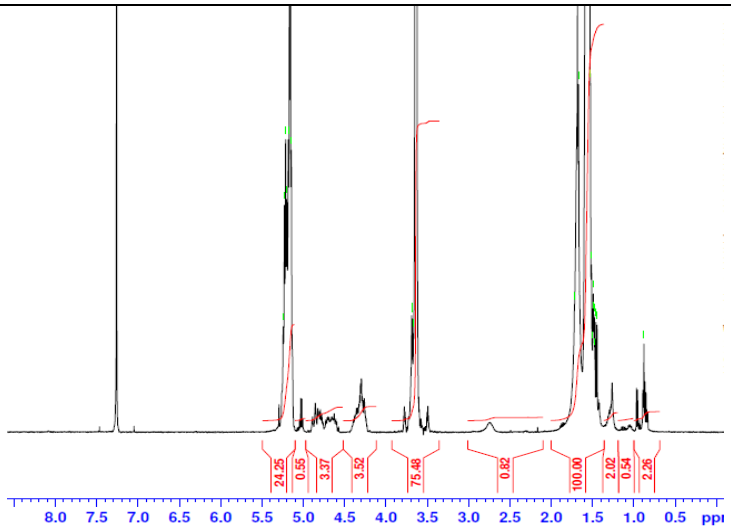
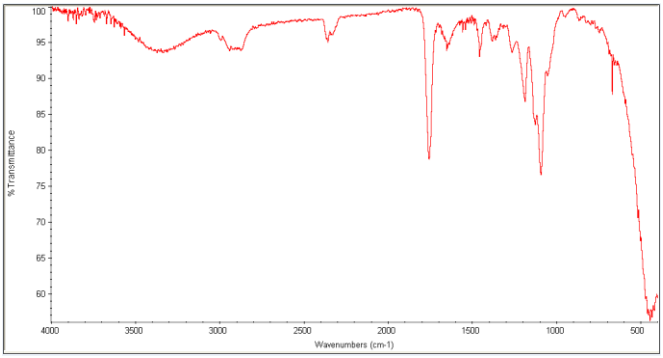
No. AK097 Certificate of Analysis

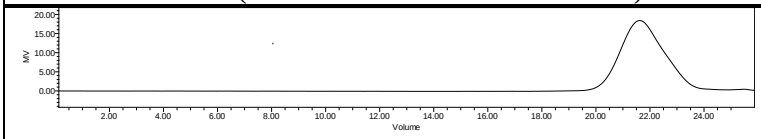
Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-b-Poly(lactide-co-glycolide) 1700-1500-1700Da (LA:GA 15:1 (94%/6% LA/GA) (w:w))
Lot #190828AHT-A



H-NMR Spectrum of copolymers in CDCl3 (Bruker 500 MHz, PINMRF) NMR of PLGA-PEG-PLGA copolymer: EG/LA-GA =34/44-3 (Mn EG/LA:GA 1498*/3146:176 Da)



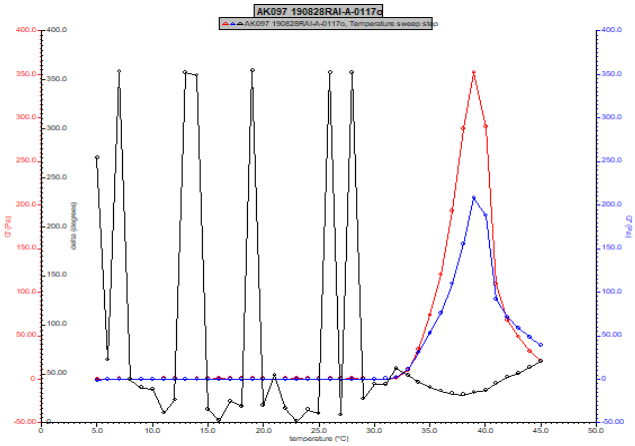
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicollet Avatar 320 spectrometer and analyzed in transmission mode.



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 GPC)	M_w (from GPC)	PDI
PLGA-PEG-PLGA	5981	7811	1.31
PEG precursor*	1484*		

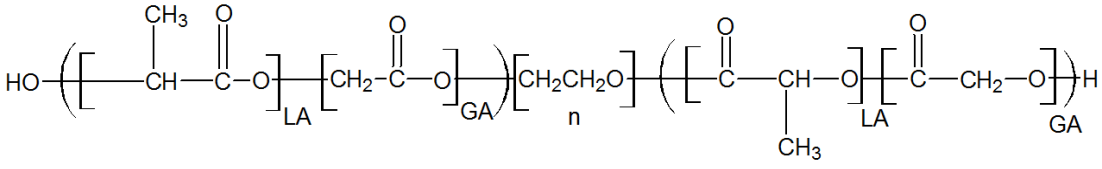
*- from MFG data



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	Below detectable limit

- **Structure of PLGA-PEG-PLGA**



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