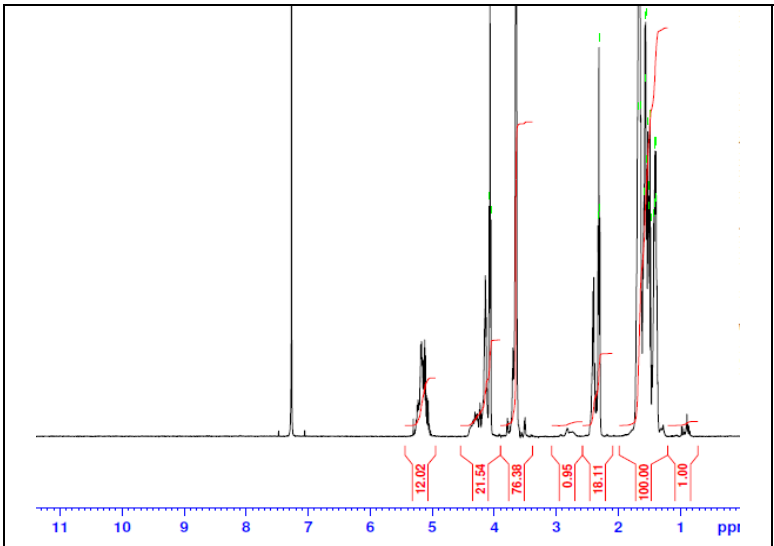
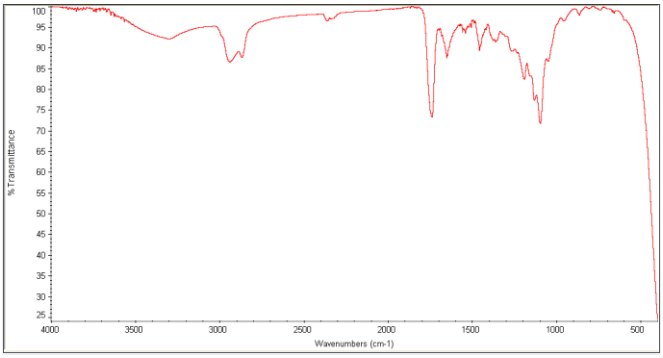
No. AK109 Certificate of Analysis

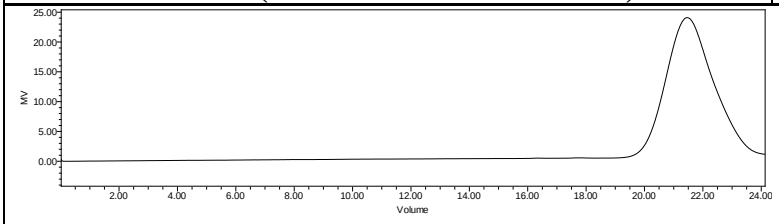
Product Name: Poly(lactide-co-caprolactone)-b-Poly(ethylene glycol) -b-Poly(lactide-co-caprolactone) (~1700-1500-1700 Da, 60:40 CL:LA) (Lot#:181213RAI-A)



H-NMR Spectrum of copolymers in CDCl3 (Varian Inova 500 MHz instrument) NMR of PLCL-PEG-PLCL copolymers: EG/LA-CL =34/21-19 (Mn EG/LA:CL 1497*/1541:2189)



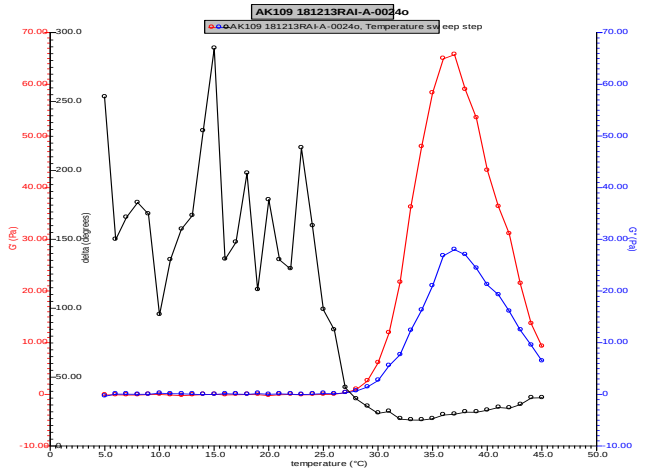
FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicollet Avatar 320 spectrometer and analyzed in transmission mode.



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
PLCL-PEG-PLCL	6541	8571	1.31
PEG precursor*	1484*		

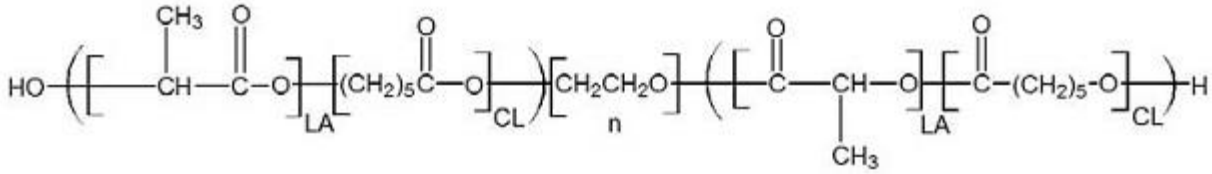
*- from MFG data



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	**0.0133 Pa/s**

- **Structure of PLCL-PEG-PLCL copolymers**



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