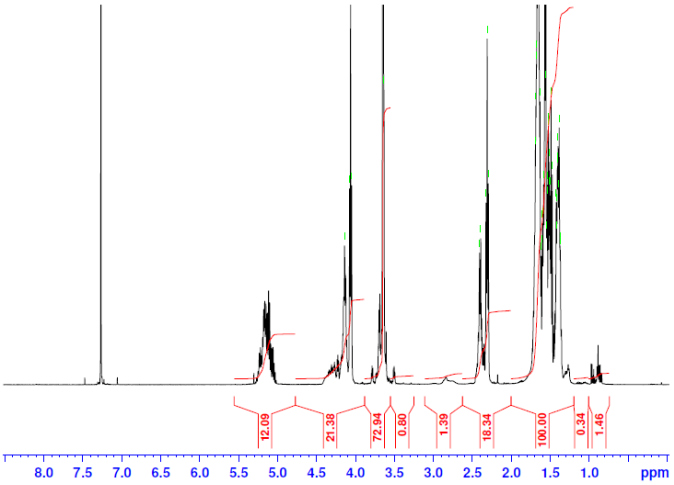
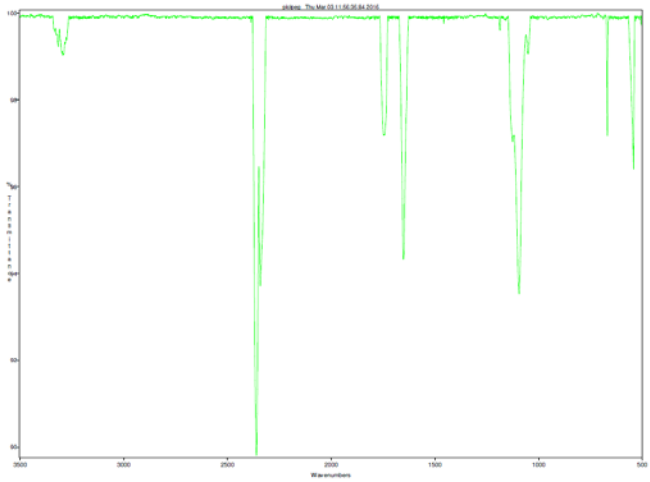
No. AK109 Certificate of Analysis

Product Name: Poly(lactide-co-caprolactone)-b-Poly(ethylene glycol)-b-Poly(lactide-co-caprolactone) (~1700-1500-1700 Da, 60:40 CL:LA) (Lot#: 60301ELH-A)

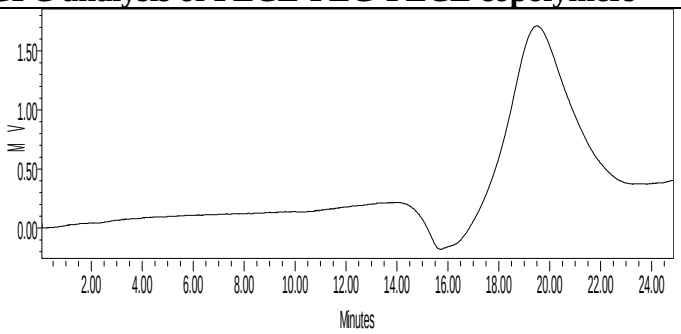


H-NMR Spectrum of PLCL-PEG-PLCL copolymers in CDCl3 (Varian Inova 500 MHz instrument),), NMR of PLCL-PEG-PLCL repeat units: EG-LA/CL =34-23/20 (Mn EG-LA/CL: 1,498-1,623/2,275)



FTIR Analysis: Collected from cast-film on KBR salt-plate placed in Satellite FTIR (Thermo-Mattson) and analyzed in transmission mode. FTIR analysis of PLCL-PEG-PLCL copolymers

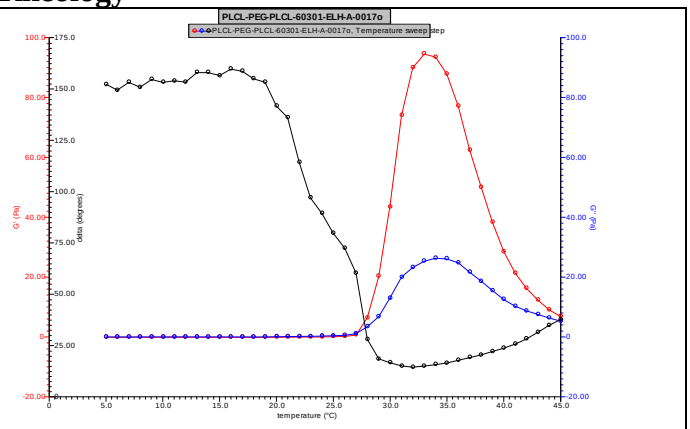
GPC analysis of PLCL-PEG-PLCL copolymers



Analysis Method: Waters Breeze 2 system with 1 ml/min DCM flow across three Phenogel 5um columns (Phenomenex). Detection via refractive index, calibrated against polystyrene standards.

Polymer	Mn (from GPC)	Mw (from GPC)	PDI
PLCL-PEG-PLCL	8,290	14,196	1.71
PEG precursor	Mn=1,484 (MFG data)		

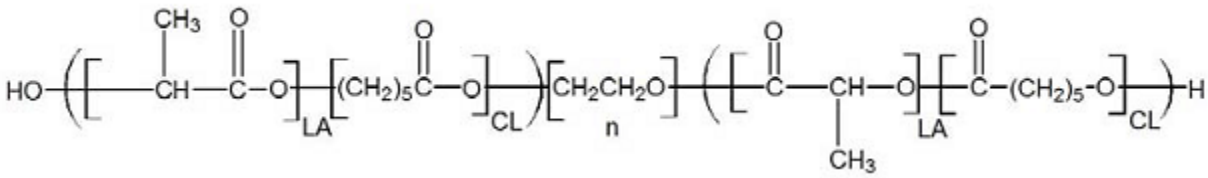
Rheology



Rheology performed on AR550 (TA instruments) with 60mm 2degree cone on 20% w/v polymer in distilled water dissolved over 2 days with shaking at 4C. Viscosity of solution at 0.1 (sec-1) and 5C 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 2.5C ranging from 5-45C with 3 minutes of temperature equilibration at each point

Viscosity 20% w/v solution at 5C	0.09092 Pa.s

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



Material provided for research use only. Not for human use.

PolySciTech Division of Akina, Inc. | 3495 Kent Avenue, West Lafayette, IN 47906
765-464-0390 | www.polyscitech.com
For research use only.