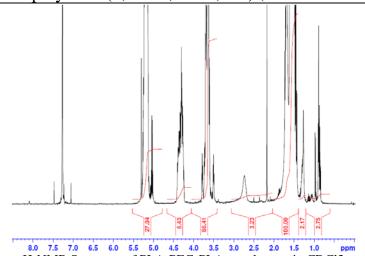
No. AK046

Certificate of Analysis

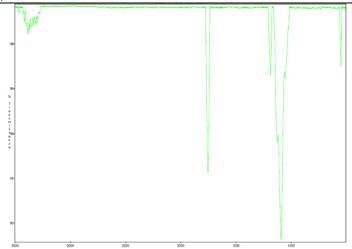


Product Name: Poly(DL-lactide)-b-Poly(ethylene glycol)-b-Poly(DL-lactide) triblock

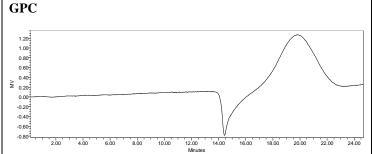
copolymers (1,000:1,000:1,000) (Lot#: 60523EJF-B)



H-NMR Spectrum of PLA-PEG-PLA copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of PLA-PEG-PLA repeat units: EG/LA = 23/29 (1013/2073)

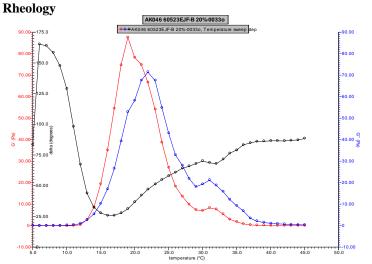


FTIR Analysis: Collected from cast-film on KBR salt-plate placed in Satellite FTIR (Thermo-Mattson) and analyzed in transmission mode.



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	M _n (from GPC)	Mw (from GPC)	PDI
PLA-PEG-PLA	4,824	6,610	1.37
PEG1000 Initiation	1011*	1020*	1.01*



Rheology performed on AR550 (TA instruments) with 60mm 2degree cone on 20% w/v polymer in water dissolved over 3 dayst 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 2.5°C ranging from 5-45°C with 3 minutes of temperature equilibration at each point.

Viscosity 20% w/v solution at 5°C Below detection

• Structure of PLA-PEG-PLA copolymers