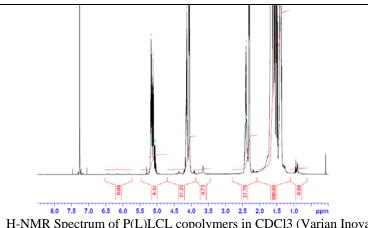
No. AP189

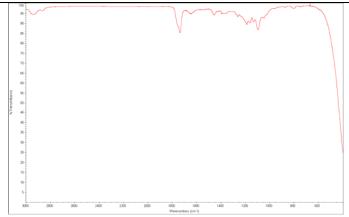
Certificate of Analysis



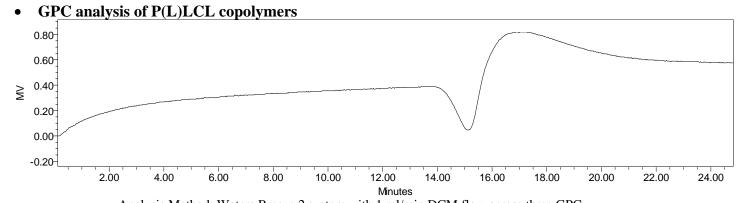
Product Name: Poly(L-lactide-co-caprolactone) Copolymer acid endcap (50:50 LA:CL, M_n: 25,000-35,000 Da) (Lot#: 60907ELH-A)



H-NMR Spectrum of P(L)LCL copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of P(L)LCL copolymers: $LA/CL = 47\%/53\% \ molar \ ratio \ (36\%/64\% \ w/w)$



FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Protégé 460 Spectrometer (Nicolet) and analyzed in Transmission E.S.P. mode.



Analysis Method: Waters Breeze 2 system with 1 ml/min DCM flow across three GPC columns (7.6 x 300 mm, mixed porosities). Detection via refractive index, calibrated against polystyrene standards.

Polymer	M _n (from GPC)	M _w (from GPC)	PDI
P(L)LCL	32,294	52,725	1.63

• Structure of P(L)LCL copolymers