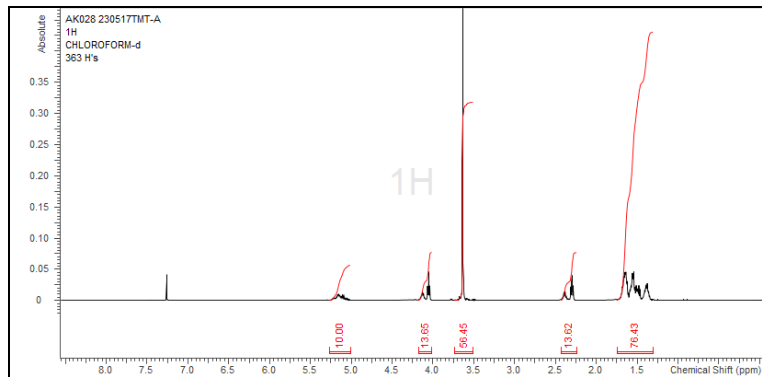


No. AK028

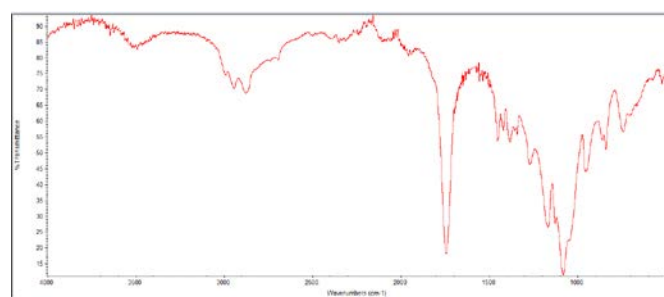
Certificate of Analysis



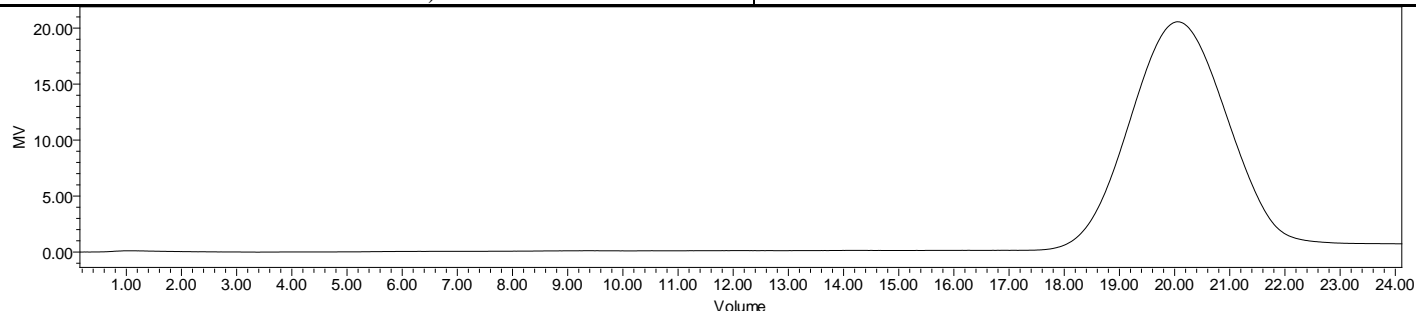
Product Name: Poly(lactide-co-caprolactone)-b-Poly(ethylene glycol)-b-Poly(lactide-co-caprolactone) (~5700-4600-5700Da 1:1 LA:CL) (Lot#: 230517TMT-A)



H-NMR Spectrum of copolymers in CDCl₃ (Bruker ≥300 MHz, PINMRF)
NMR of PLCL-PEG-PLCL copolymer: EG/CL:LA =103*/50-73 (Mn EG/CL:LA 4538/5686-5255 Da) *- from MFG data



FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (ThermoFisher) and analyzed in transmission mode.

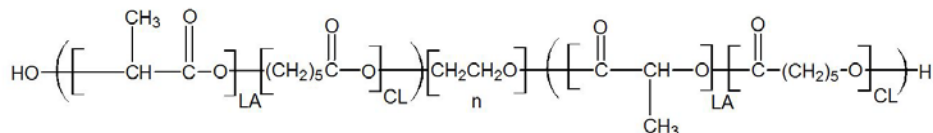


GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PLCL-PEG-PLCL	20,527	27,273	1.33
PEG precursor*		4536*	

*- from MFG data

• Structure of PLCL-PEG-PLCL copolymers



Approved By:
Amie Tyler
Quality Manager