No. AK097

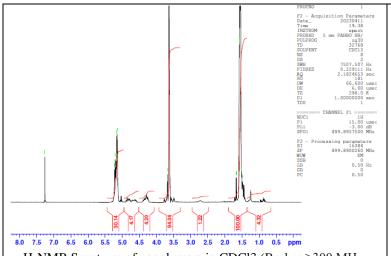
Certificate of Analysis

PolySciTech A Division of Akina, Inc.

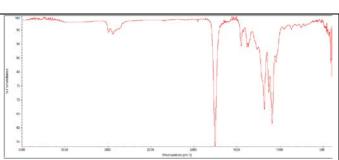
Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-b-

Poly(lactide-co-glycolide) 1700-1500-1700Da (LA:GA 15:1 (94%/6% LA/GA) (w:w))

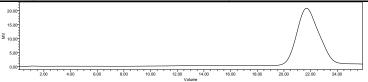
Lot #230405RAI-A



H-NMR Spectrum of copolymers in CDCl3 (Bruker ≥300 MHz, PINMRF) NMR of PLGA-PEG copolymer: EG/LA-GA =34*/44-3 (Mn EG/LA:GA 1498*/3138-175 Da) *- from MFG data

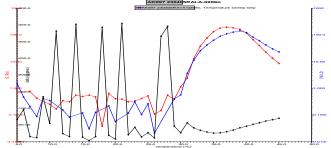


FTIR Analysis: Collected from cast-film on KBr salt-plate placed in IS5 ID7-ATR spectrometer (ThermoFisher) and analyzed in transmission mode.



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	M _w (from	PDI
	GPC)	GPC)	
PLGA-PEG- PLGA	5880	7639	1.30
PEG precursor*		1472*	
*- 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 room temperature. 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 .00023 Pa-s

• Structure of PLGA-PEG-PLGA

$$+O \xrightarrow{CH_3} O \\ -CH - C - O \xrightarrow{LA} CH_2 - C - O \xrightarrow{GA} CH_2 CH_2 O \xrightarrow{C} CH - O \xrightarrow{C} CH_2 - O \xrightarrow{C} H_2 CH_2 O \xrightarrow{C} CH_3 O \xrightarrow{C} CH_2 - O \xrightarrow{C} H_3 O \xrightarrow{C} CH_2 O \xrightarrow{C} CH_2 O \xrightarrow{C} CH_2 O \xrightarrow{C} CH_3 O \xrightarrow{C} C$$
 O C} CH_3 O \xrightarrow{C} C O C} CH_3 O C

Approved By:
Amie Tyler
Quality Manager