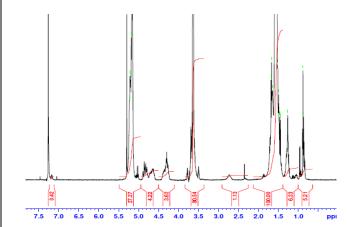
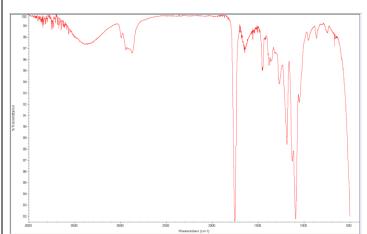
No. AK141 Certificate of Analysis

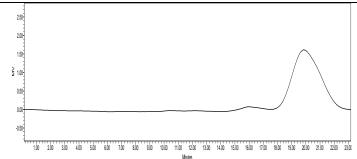
Product Name: Poly(lactic-co-glycolic acid)-*b*-Poly(ethylene glycol)-*b*-Poly(lactic-co-glycolic acid) copolymers (15:1 LA:GA, 1,750-1,500-1,750 Da) (Lot# 170713NAE-C)



H-NMR Spectrum of PLGA-PEG-PLGA triblock copolymer in CDCl3 (Varian Inova 500 MHz instrument), NMR of PLGA-PEG-PLGA copolymers: EG-LA/GA: 34-46/4 (Mn: 1498-3315/207Da)



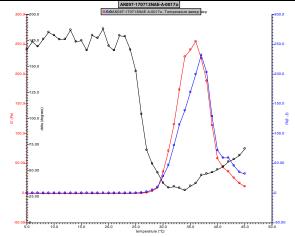
FTIR Analysis Method: Collected from cast-film on salt-plate placed in Protégé 460 Spectrometer (Nicolet) and analyzed in Transmission E.S.P. mode



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

Polymer	M _n (GPC)	M _w (GPC)	PDI
PLGA-PEG-PLGA	5987	7549	1.26
PEG Precursor	*1484		

*per manufacturer information



Rheology performed on AR550 (TA instruments) with 60mm 2degree cone on 20% w/v polymer in water dissolved over 3 days with stirring at $4^{\circ}C$. Viscosity of solution at 0.1 (sec $^{-1}$) and $5^{\circ}C$ was measured (1 minute peak hold 10 second test intervals). Rheology performed by oscillating at constant 6.283 rad/s, 0.1% strain, in increments of $1^{\circ}C$ ranging from 5-45°C with 1 minutes of temperature equilibration at each point.

Viscosity 20% w/v solution at 5°C | 0.006272

Structure of PLGA-PEG-PLGA triblock copolymers

$$HO - \left(\begin{array}{c|c} CH_3 & O \\ CH - C - O \end{array} \right) \begin{array}{c|c} CH_2 - C - O \end{array} \\ CH_2 CH_2 O \end{array} - \left(\begin{array}{c|c} CH_2 - CH_2 - O \\ CH_3 \end{array} \right) \begin{array}{c|c} CH_2 - CH_2 - O \\ CH_3 \end{array} - CH_2 - O \end{array} + CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_2 - O \begin{array}{c|c} CH_2 - O \\ CH_3 - O \end{array} - CH_3 - O \end{array}$$

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