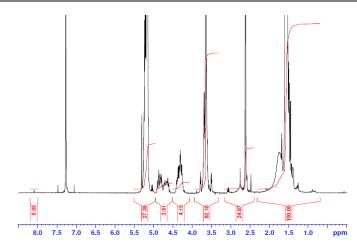
No. AV025

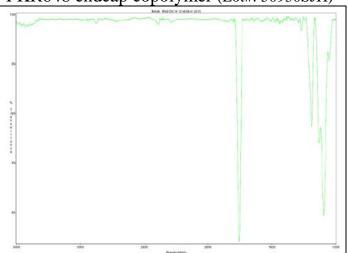
Certificate of Analysis



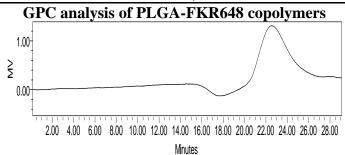
Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-b-Poly(lactide-co-glycolide) (1700-1500-1700Da (LA:GA 15:1) Flamma Fluor FKR648 endcap copolymer (Lot#: 50930SJH)



H-NMR Spectrum of PLGA-PEG-PLGA-FKR648 copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of PLGA-PEG-PLGA-FKR648 copolymers: EG-LA/GA = 34-45/3 (Mn: 1498-3262/173Da)



FTIR Analysis: Collected from cast-film on 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 two Phenogel 5µm columns and one Resipore column (Agilent). Detection via UV/Vis, calibrated against polystyrene standards.

Polymer	M _n (GPC)	$M_{\rm w}$ (GPC)	PDI
PLGA-PEG- PLGA-FKR648	5398	7900	1.46
PEG precursor	Mn – Da* (MFG) 1485		
*-MFG data			

Rheology Output Outp

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 | 0.0394 Pa/s

Structure of PLGA-FKR648 copolymers

$$RO = \begin{pmatrix} CH_{3} & O & O \\ CH_{2} & CH_{$$

Dye Content: Testing of absorbance of polymer in DMSO solution at 660 nm as compared to series of FPR648 standards has indicated a dye content of: $0.0250~\mu g/mg$ polymer.

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