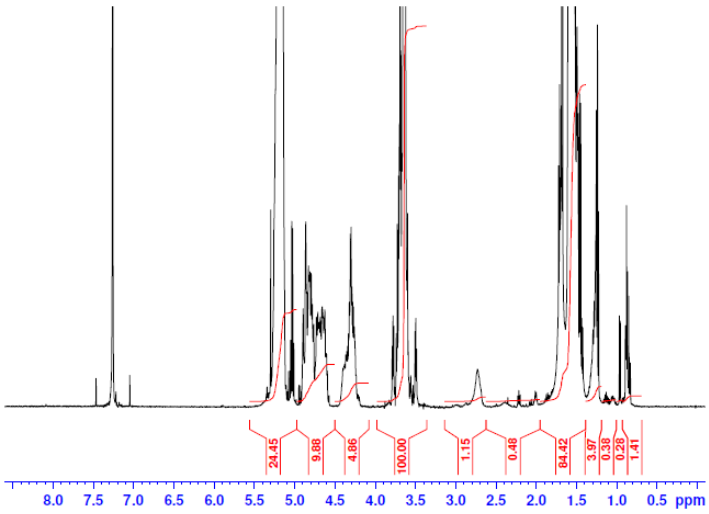
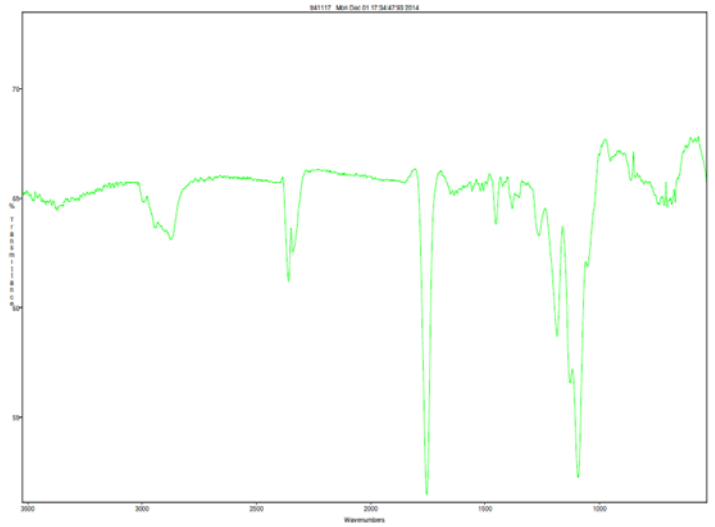
# No. AK91 Certificate of Analysis

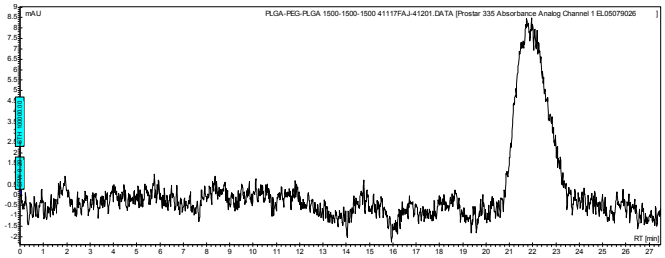
Product Name: Poly(lactic-co-glycolic acid)-*b*-Poly(ethylene glycol)-*b*-Poly(lactic-co-glycolic acid) copolymers ($M_n$ 1,500:1,500:1,500 Da, 6:1, LA:GA) (Lot# 41117FAJ)




H-NMR Spectrum of PLGA-PEG-PLGA copolymer in $CDCl_3$ (Varian Inova 500 MHz instrument), $M_n$ NMR of PLGA copolymers:EG-LA/GA: 1,498*-2,394/390 (34-33/7), LA/GA ratio: 86%/14% *Data provided by MFG (Purity by HNMR 98%)



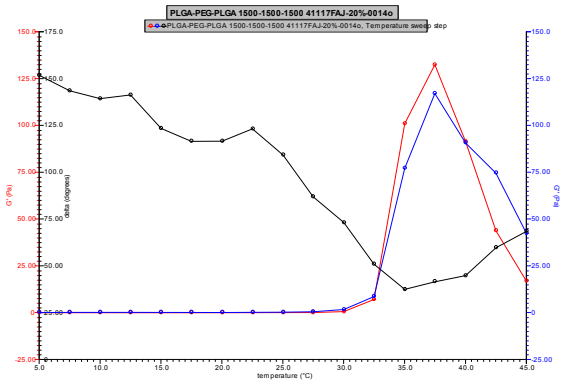
FTIR Analysis: Collected from cast-film on salt-plate placed in Satellite FTIR (Thermo-Mattson) and analyzed in transmission mode.



GPC Analysis Method: Varian Prostar system with 1 ml/min DCM flow across two Phenogel 5 µm columns and one Resipore column (Agilent). Detection via UV/Vis, calibrated against polystyrene standards.

| Polymer | $M_n$ (GPC) | $M_w$ (GPC) | PDI |
|---|---|---|---|
| PLGA-PEG-PLGA | 5,385 | 6,438 | 1.20 |
| PEG precursor* | 1,485 | | |

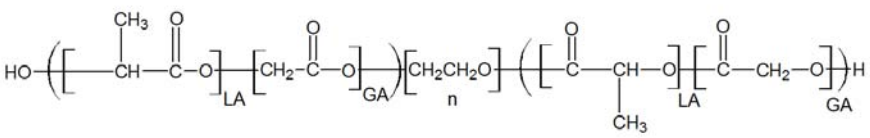
*Data provided by MFG.




Rheology performed on AR550 (TA instruments) with 60 mm 2 degree cone on 20% w/v polymer in water dissolved overnight with stirring at 4 °C. Viscosity of solution at 0.1 ($sec^{-1}$) and 5 °C was measured (1 minute 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 | 0.2499 Pa.s |
|---|---|

- **Structure of PLGA-PEG-PLGA copolymer**

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