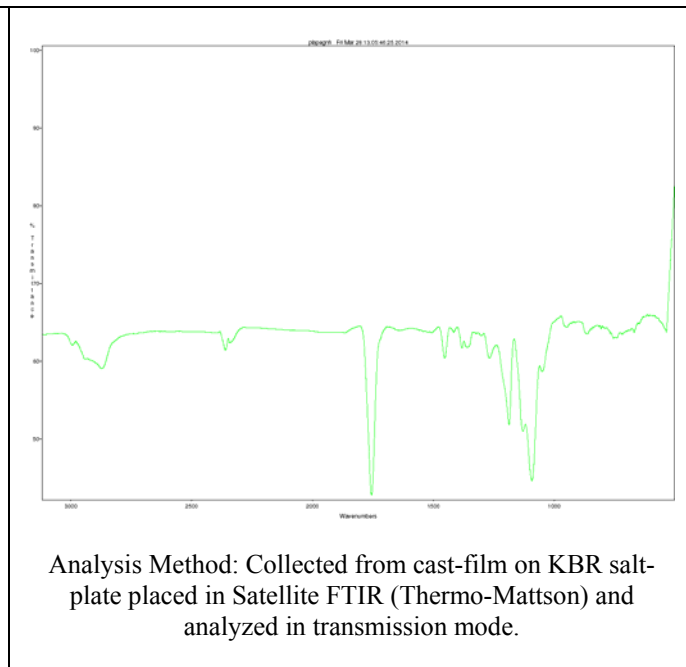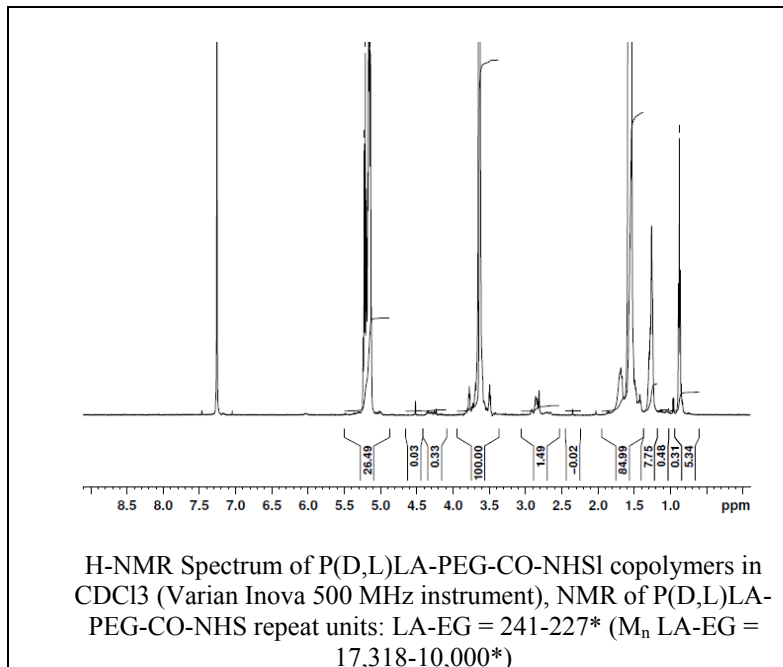# No. AI68     Certificate of Analysis
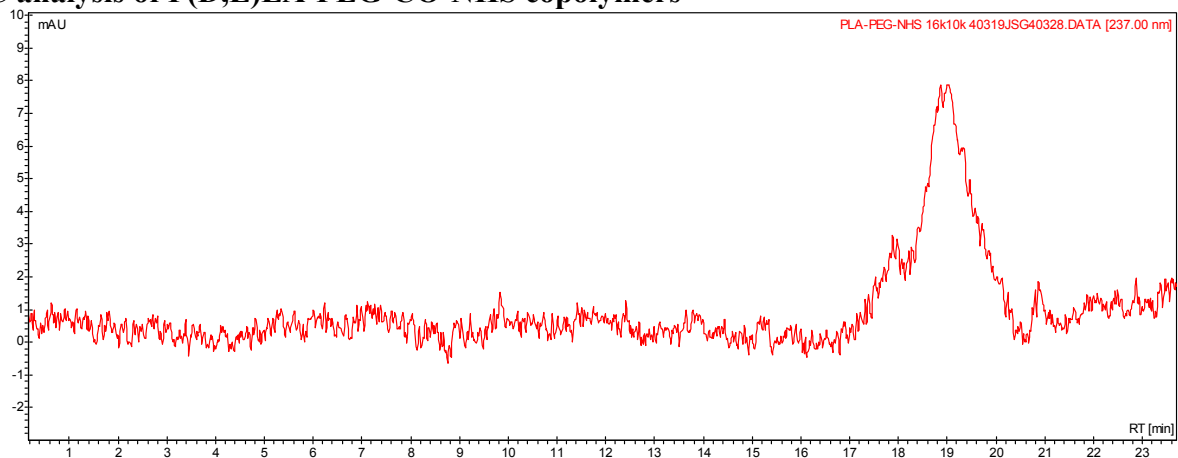
Product Name: Poly(D,L-lactide)-b-Poly(ethylene glycol)-carbonyl-n-hydroxysuccinimide copolymers ($M_W$ 16,000:10,000 Da) (Lot#: 40319JSG) (REV-A, updated HNMR calculations)

| **H-NMR** | **FTIR** |
|---|---|
|  |  |
| H-NMR Spectrum of P(D,L)LA-PEG-CO-NHSl copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of P(D,L)LA-PEG-CO-NHS repeat units: LA-EG = 241-227* ($M_n$ LA-EG = 17,318-10,000*) | Analysis Method: Collected from cast-film on KBR salt-plate placed in Satellite FTIR (Thermo-Mattson) and analyzed in transmission mode. |

- **GPC analysis of P(D,L)LA-PEG-CO-NHS copolymers**



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

| Polymer | $M_n$ (from GPC) | $M_w$ (from GPC) | PDI |
|---|---|---|---|
| P(D,L)LA-PEG-CO-NHS | 24,086 | 32,729 | 1.36 |
| PEG  Precursor | Average Mn (GFC) 10,300* | | |

*-data provided by manufacturer

- **Structure of P(D,L)LA-PEG-CO-NHS copolymers**