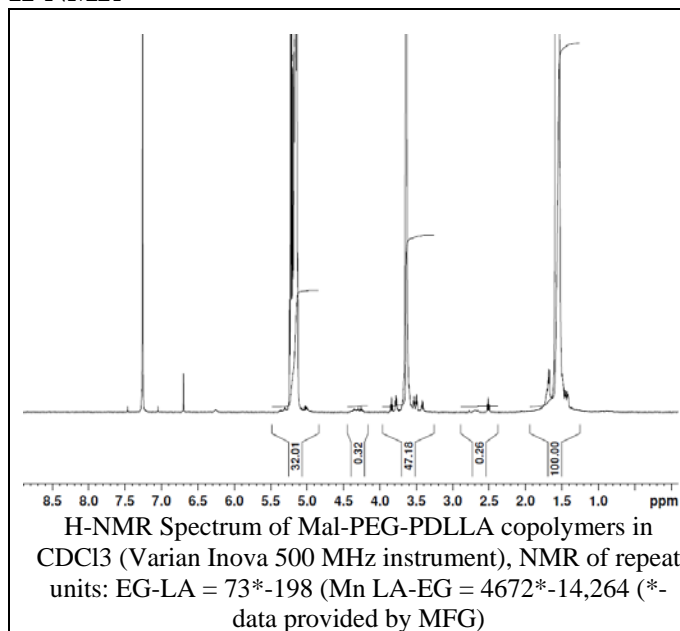# No. AI065     Certificate of Analysis
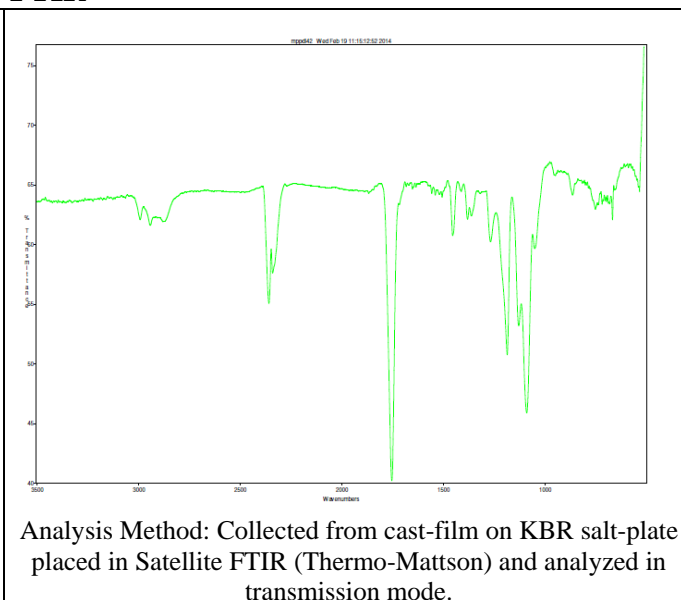
Product Name: Maleimide-Poly(ethylene glycol)-b-Poly(D,L-lactide) (MW 5,000:16,000 Da)
(Lot#: 40210JSG) (*Original*)
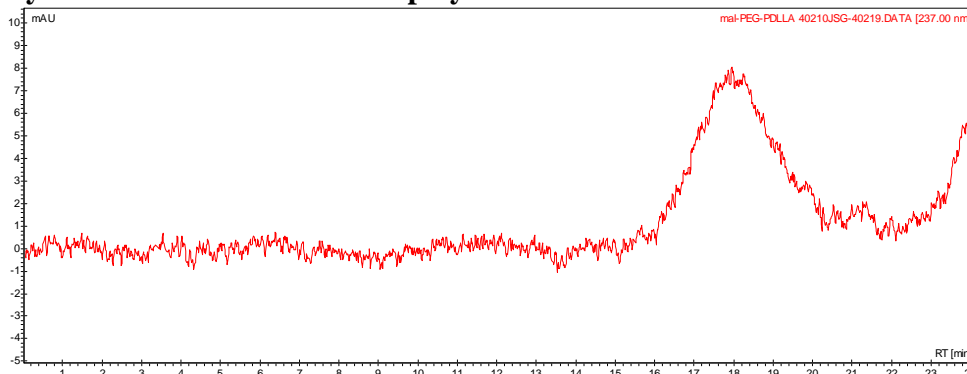
**H-NMR**



H-NMR Spectrum of Mal-PEG-PDLLA copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of repeat units: EG-LA = 73*-198 (Mn LA-EG = 4672*-14,264 (*-data provided by MFG)

**FTIR**



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

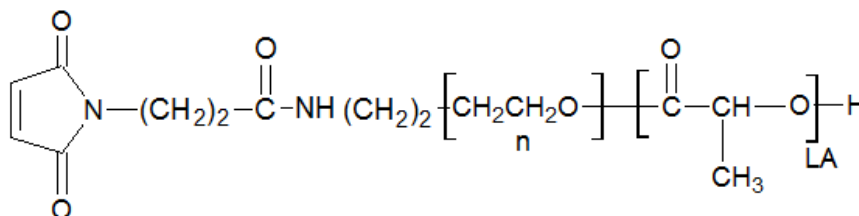- **GPC analysis of Mal-PEG-PDLLA copolymers**



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

| Polymer | Mn (from GPC) | Mw (from GPC) | PDI |
|---|---|---|---|
| Mal-PEG-PDLLA | 20,678 | 34,433 | 1.67 |
| PEG Precursor | Average Mn (GFC) *4600 | | |

*-data provided by manufacturer

- **Structure of Mal-PEG-PDLLA copolymers**



Material provided for research use only. Not for human use.
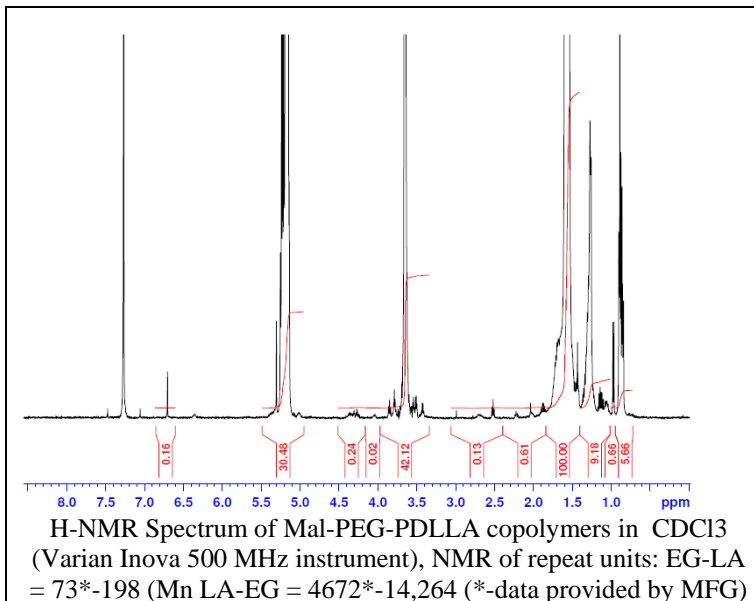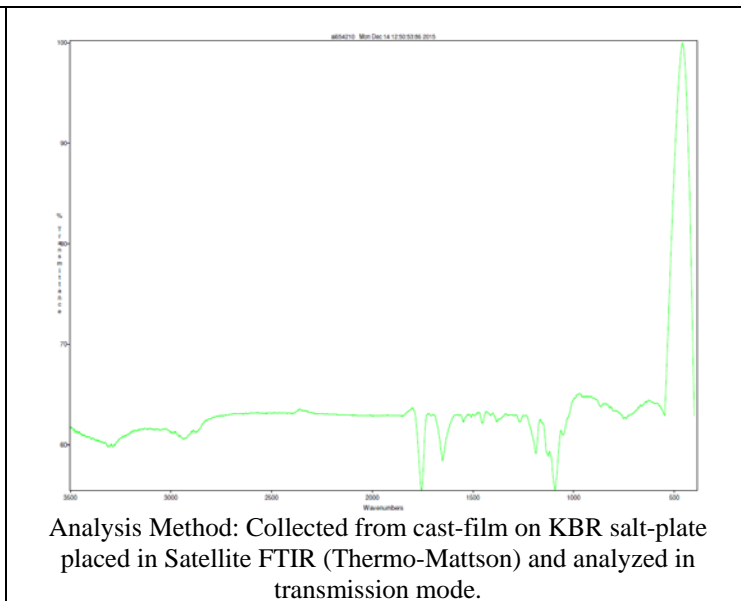
# No. AI065    Certificate of Analysis

Product Name: Maleimide-Poly(ethylene glycol)-b-Poly(D,L-lactide) (MW 5,000:16,000 Da)
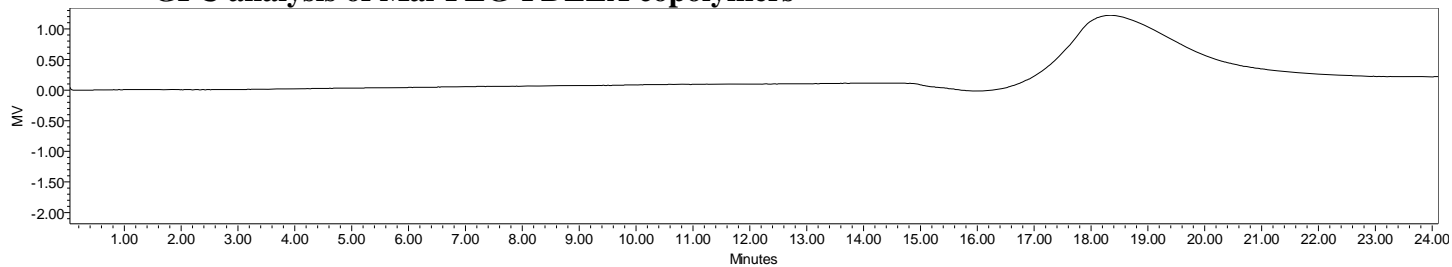
(Lot#: 40210JSG-D) (*Repurified*)

**H-NMR**                                                                                  **FTIR**



H-NMR Spectrum of Mal-PEG-PDLLA copolymers in CDCl3 (Varian Inova 500 MHz instrument), NMR of repeat units: EG-LA = 73*-198 (Mn LA-EG = 4672*-14,264 (*-data provided by MFG)

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

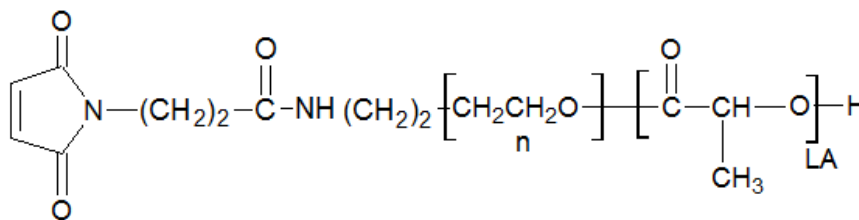- **GPC analysis of Mal-PEG-PDLLA copolymers**



Analysis Method: Waters Breeze 2 system with 1 ml/min DCM flow across three Phenogel 5um columns (Phenomenex). Detection via refractive index, calibrated against polystyrene standards.

| Polymer | Mn (from GPC) | Mw (from GPC) | PDI |
|---|---|---|---|
| Mal-PEG-PDLLA | 19,190 | 27,999 | 1.46 |
| PEG  Precursor | Average Mn (GFC) *4600 | | |

*-data provided by manufacturer

- **Structure of Mal-PEG-PDLLA copolymers**



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