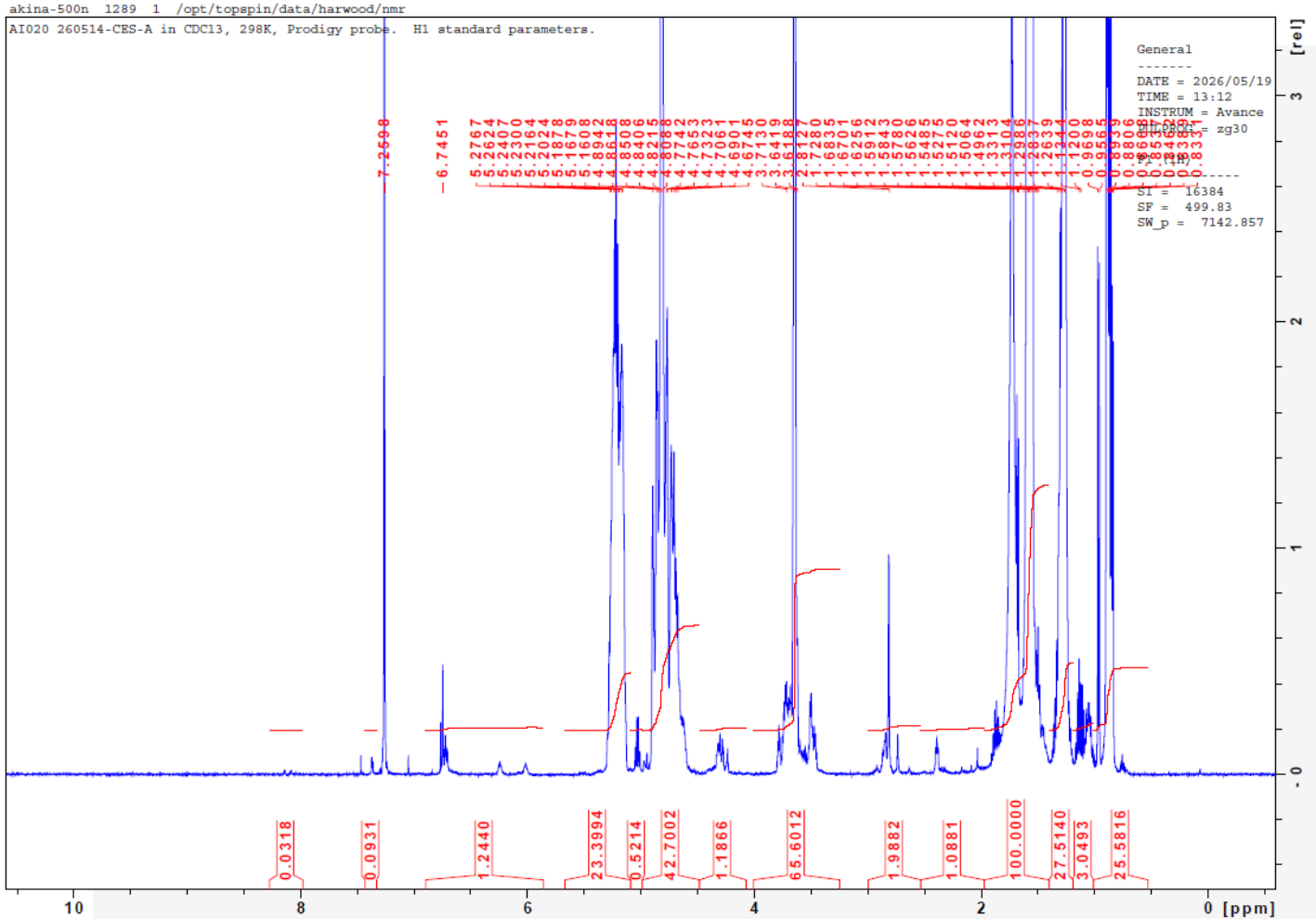


# No. AI020 Certificate of Analysis

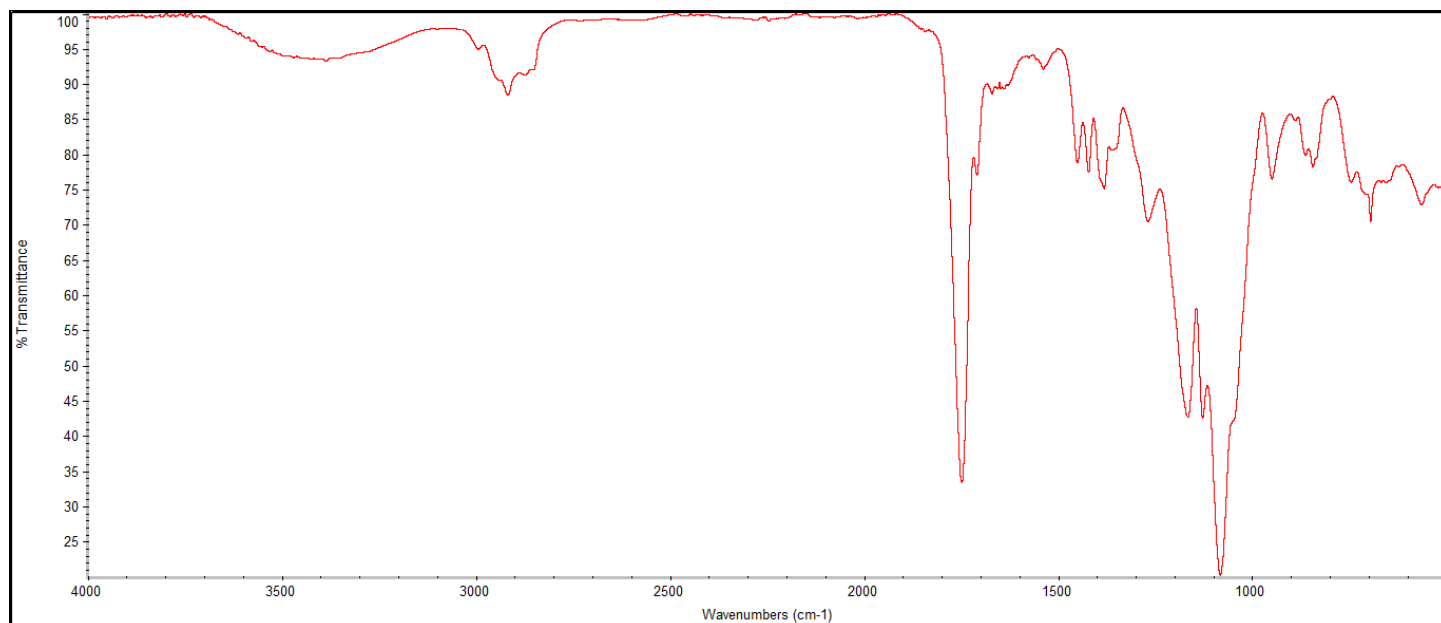
Product Name: Poly(lactic-co-glycolic)-b-Poly(ethylene glycol)-Maleimide Copolymers  
 LA:GA 50:50 ( $M_w \sim 20,000-5,000\text{Da}$ ) (Lot#: 260514CES-A)

## H-NMR



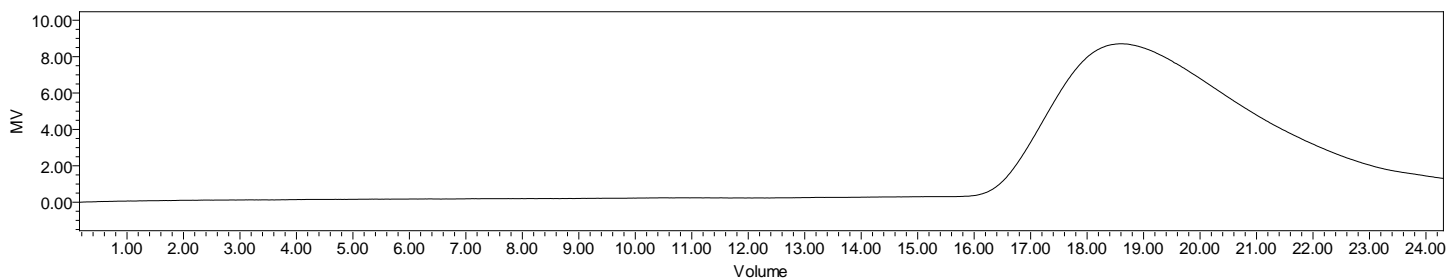
**H-NMR** Spectrum of copolymers in CDCl<sub>3</sub> (Bruker  $\geq 300$  MHz, PINMRF) NMR of PLGA copolymer: EG\*/LA-GA =102\*/146-133 (Mn EG\*/LA:GA 4494\*/10478-7707 Da) LA:GA 58%:42% \*from MFG data

## FTIR



FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (Thermo Scientific) and analyzed in transmission mode.

## GPC-ES



| Polymer        | $M_n$ (from GPC) | $M_w$ (from GPC) | PDI  |
|----------------|------------------|------------------|------|
| PLGA-PEG-Mal   | 28,733           | 38,643           | 1.34 |
| PEG-Precursor* | 4500*            |                  |      |

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

## IV

**Inherent Viscosity:**  $0.193 \pm 0.010$  dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

## Structure of copolymers

