

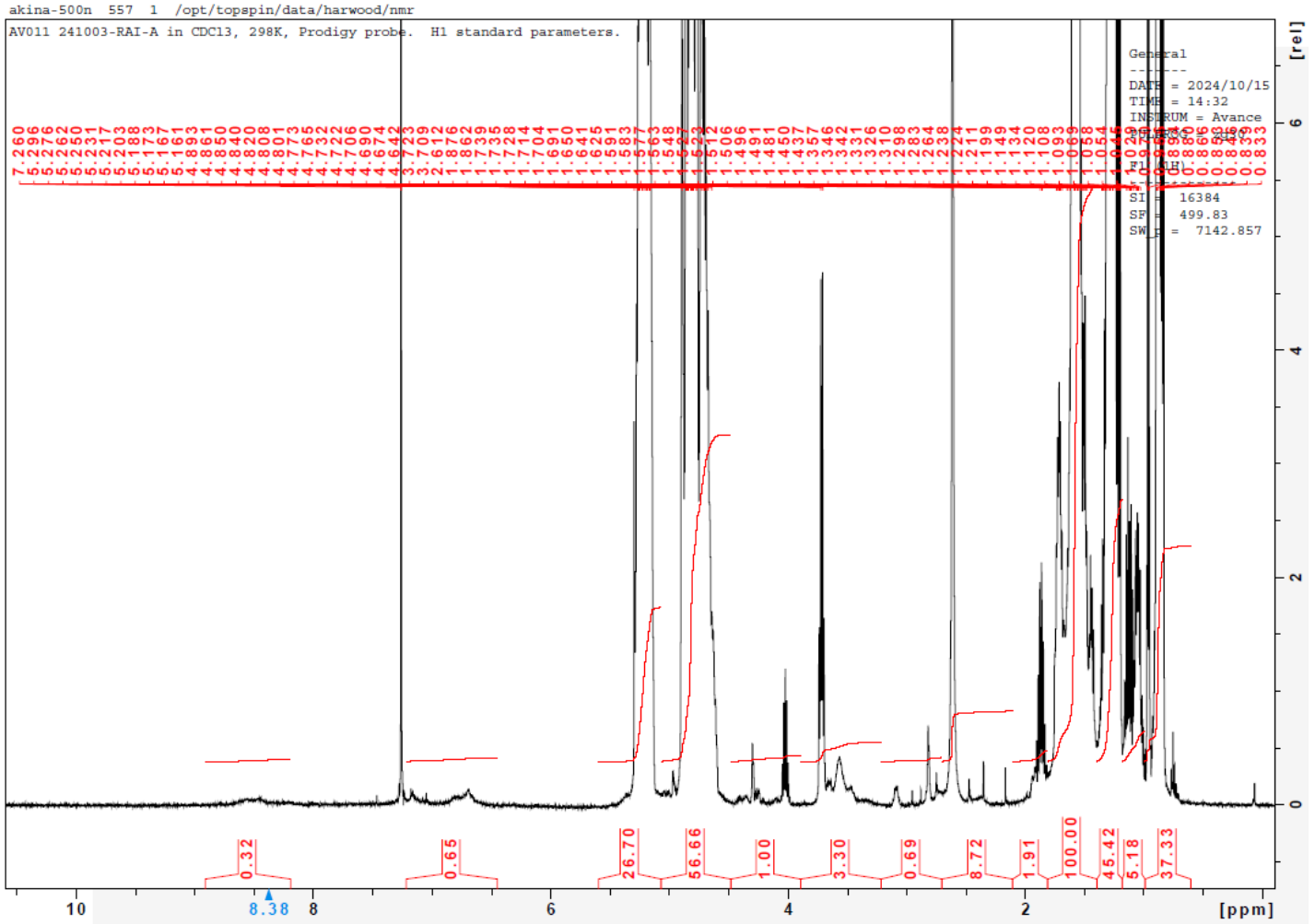
No. AV011

Certificate of Analysis



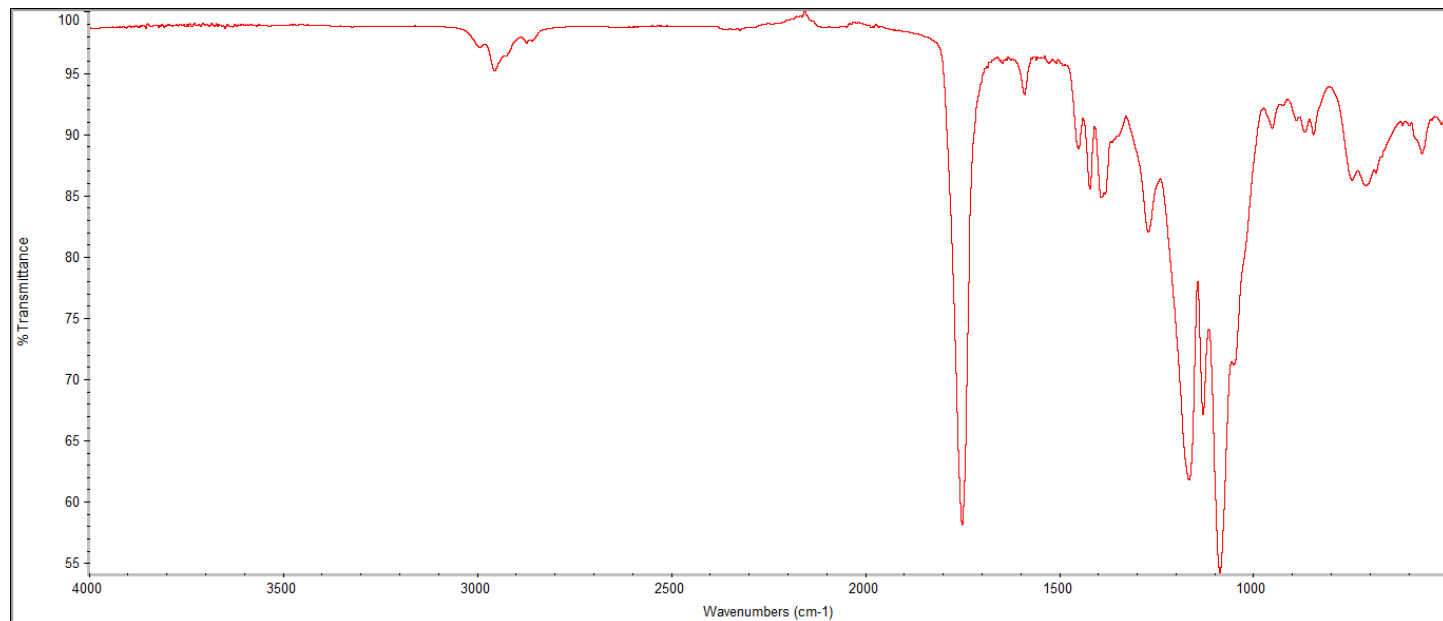
Product Name: Poly(lactic-co-glycolic acid) copolymer-Rhodamine-B conjugate
(M_n 10,000 - 30,000 Da) LA:GA 50:50 (Lot#: 241003RAI-A)

H-NMR



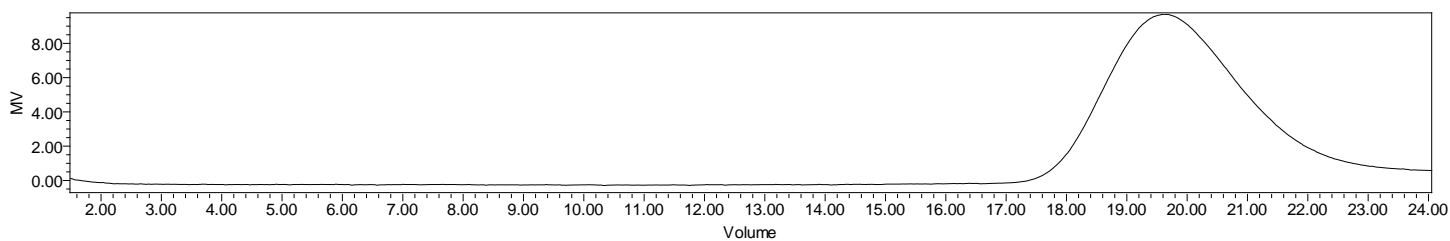
H-NMR Spectrum of copolymers in CDCl₃ (Bruker ≥300 MHz, PINMRF) NMR of PLGA-Rhod copolymer: LA:GA = 49%:51% molar ratio (LA:GA 54%:46% w:w)

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-Rhod | 19,898 | 33,062 | 1.66 |

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.

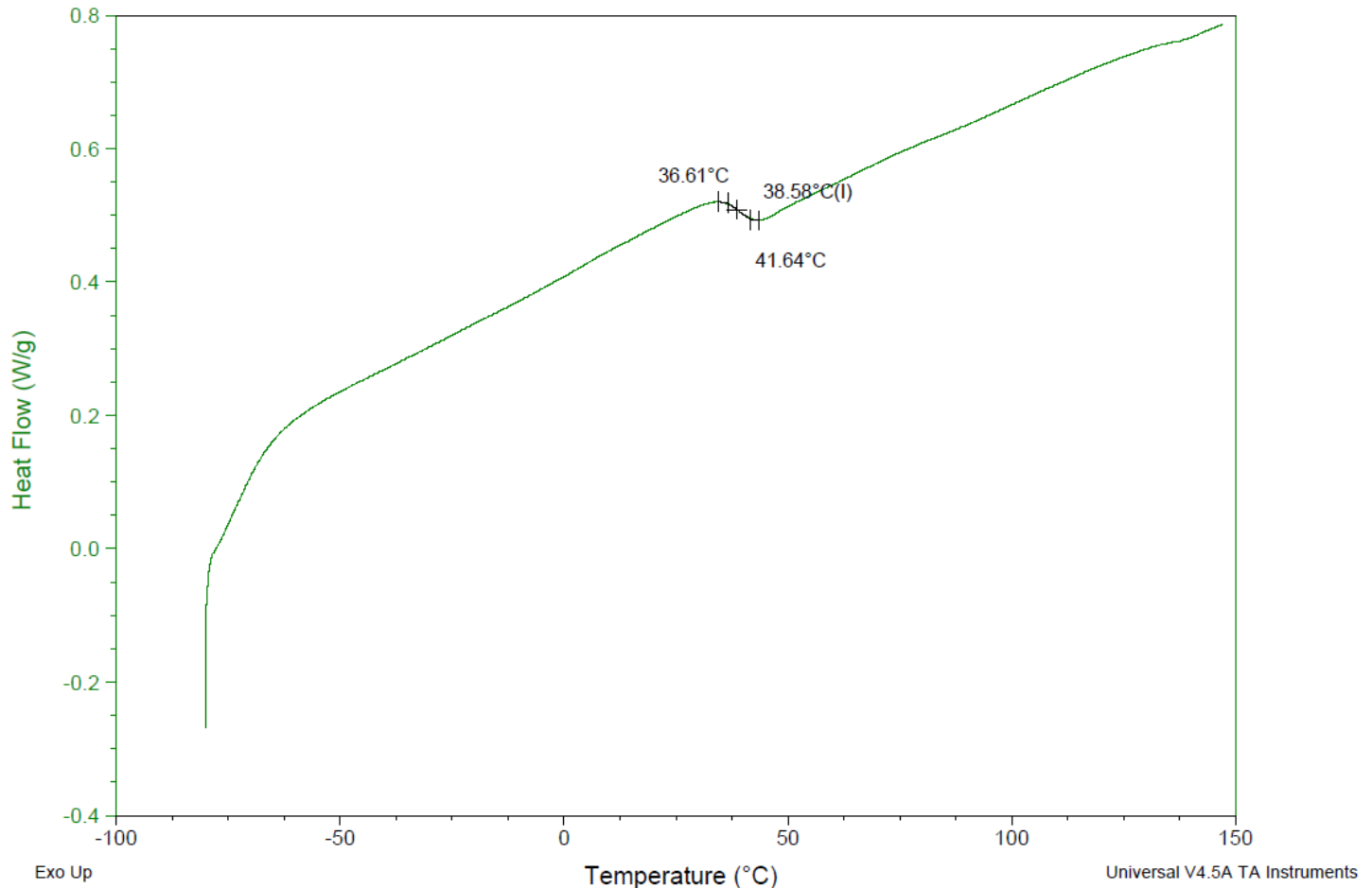
DSC

Sample: AV011 241003RAI-A
Size: 3.3000 mg
Method: Ramp

DSC

File: C:\COA\AV011 241003RAI-A DSC.001

Run Date: 15-Oct-2024 15:10
Instrument: DSC Q2000 V24.11 Build 124



DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 38.58 °C

IV

Inherent Viscosity: 0.183 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

DYE CONTENT

Dye Content: Testing of absorbance of polymer in DCM solution at 543 nm as compared to series of Rhodamine-B isothiocyanate standards has indicated a dye content of: 16.29 µg/mg polymer

Structure of PLGA-Rhodamine B copolymers

