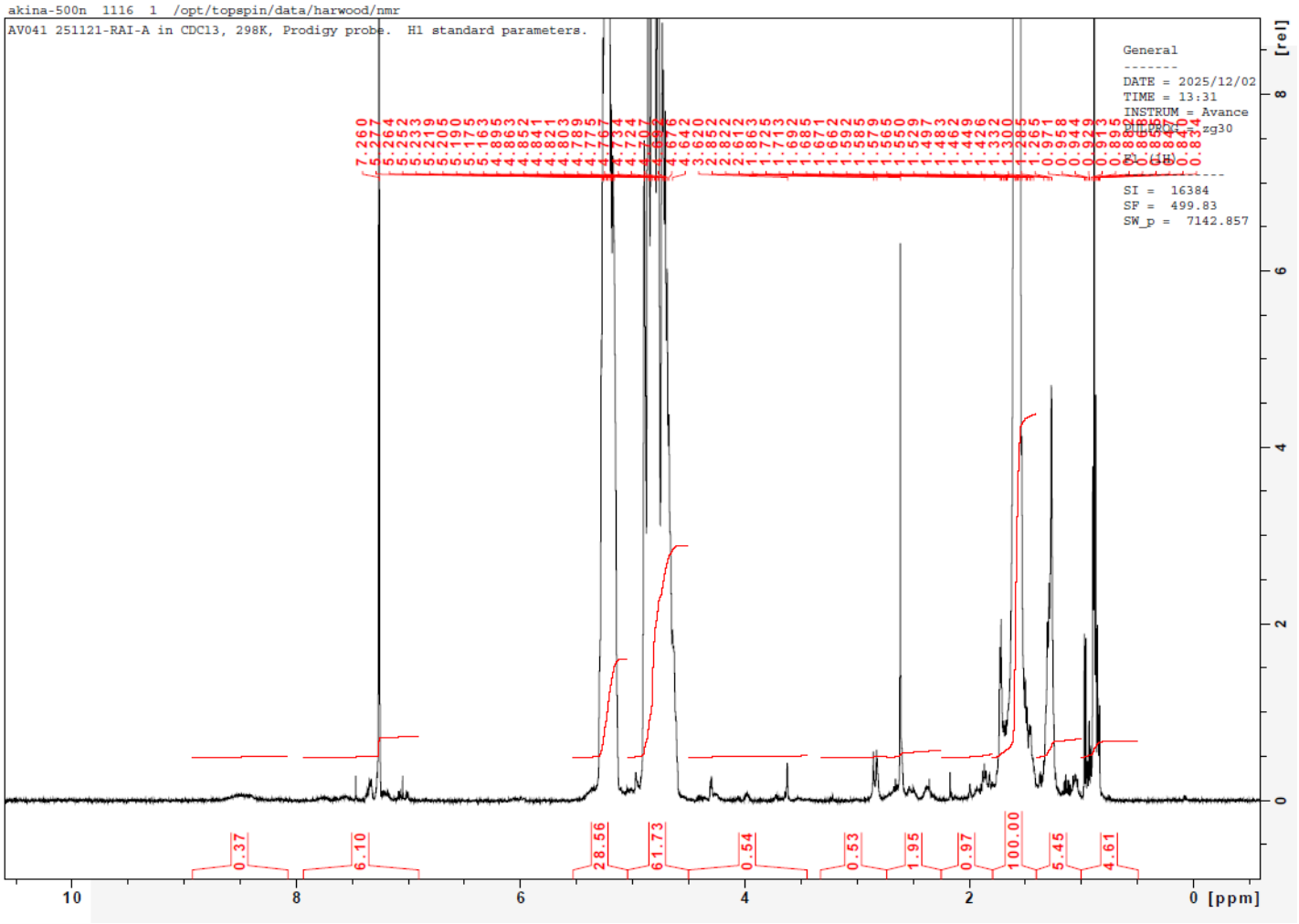
No. AV041 Certificate of Analysis

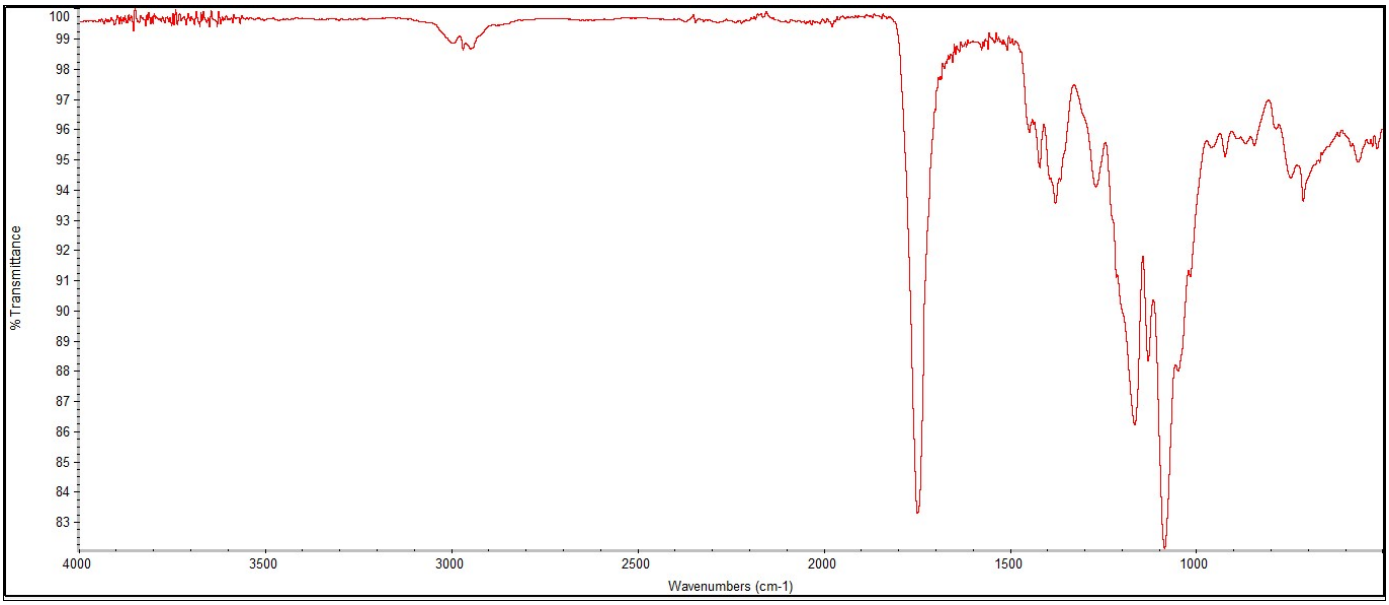
Product Name: Poly(lactide-co-glycolide)-Cyanine 7 (L:G 50:50) (Mn 15,000-35,000Da)
(Lot#: 251121RAI-A)

H-NMR



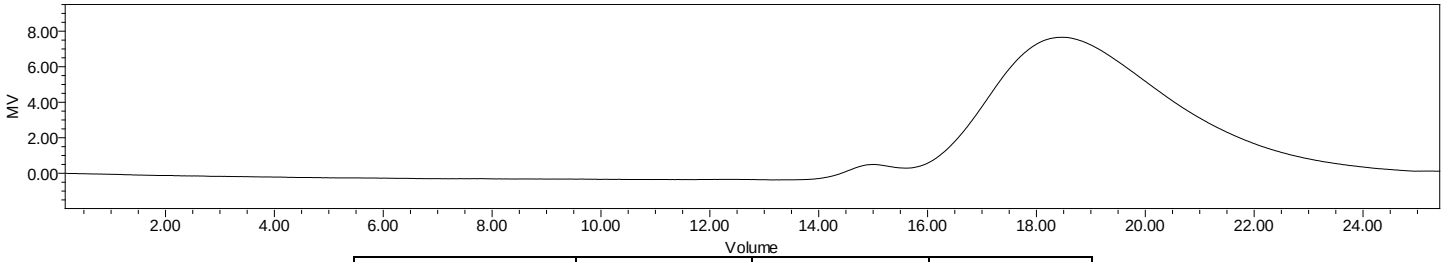
H-NMR Spectrum of copolymers in CDCl3 (NMReady-60e, Nanalysis 60 MHz) NMR of PLGA-CY7 copolymer: LA-GA =48%-52% molar ratio (LA:GA 53%:47% w:w)

FTIR



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

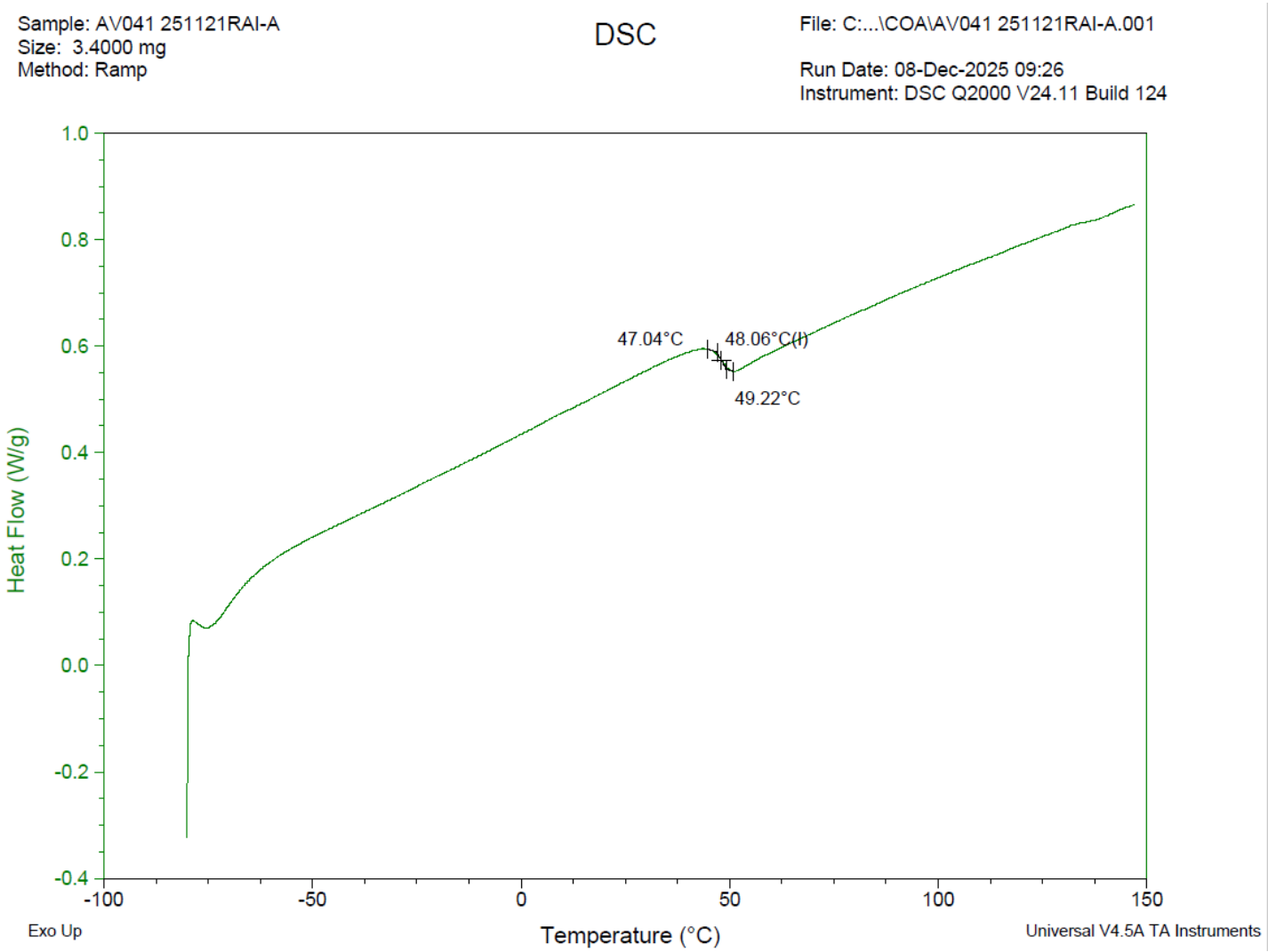
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
PLGA-CY7	29,965	41,352	1.38

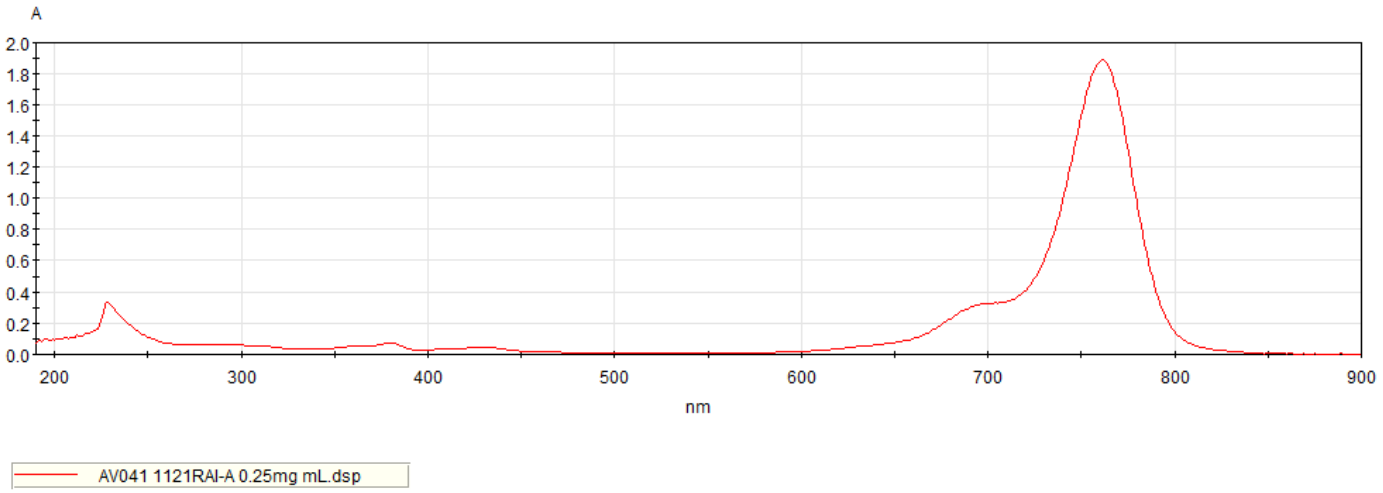
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC



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 = 48.06 °C

UV-Vis Analysis PLGA-CY7

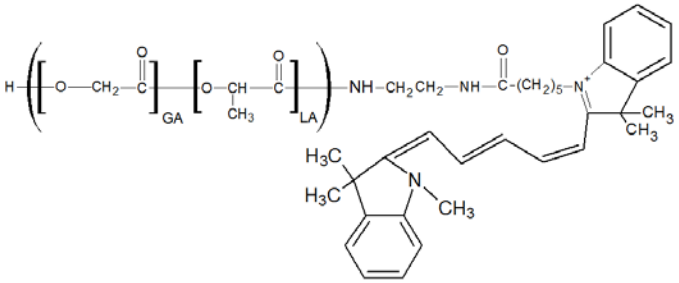


Analysis method: Scan from 190-900nm in 1nm increments of 0.25 mg/ml PLGA-CY7 solution in DCM against DCM blank. 13.70 µg/mg

IV

Inherent Viscosity: 0.257 ± 0.002 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25ºC.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager