

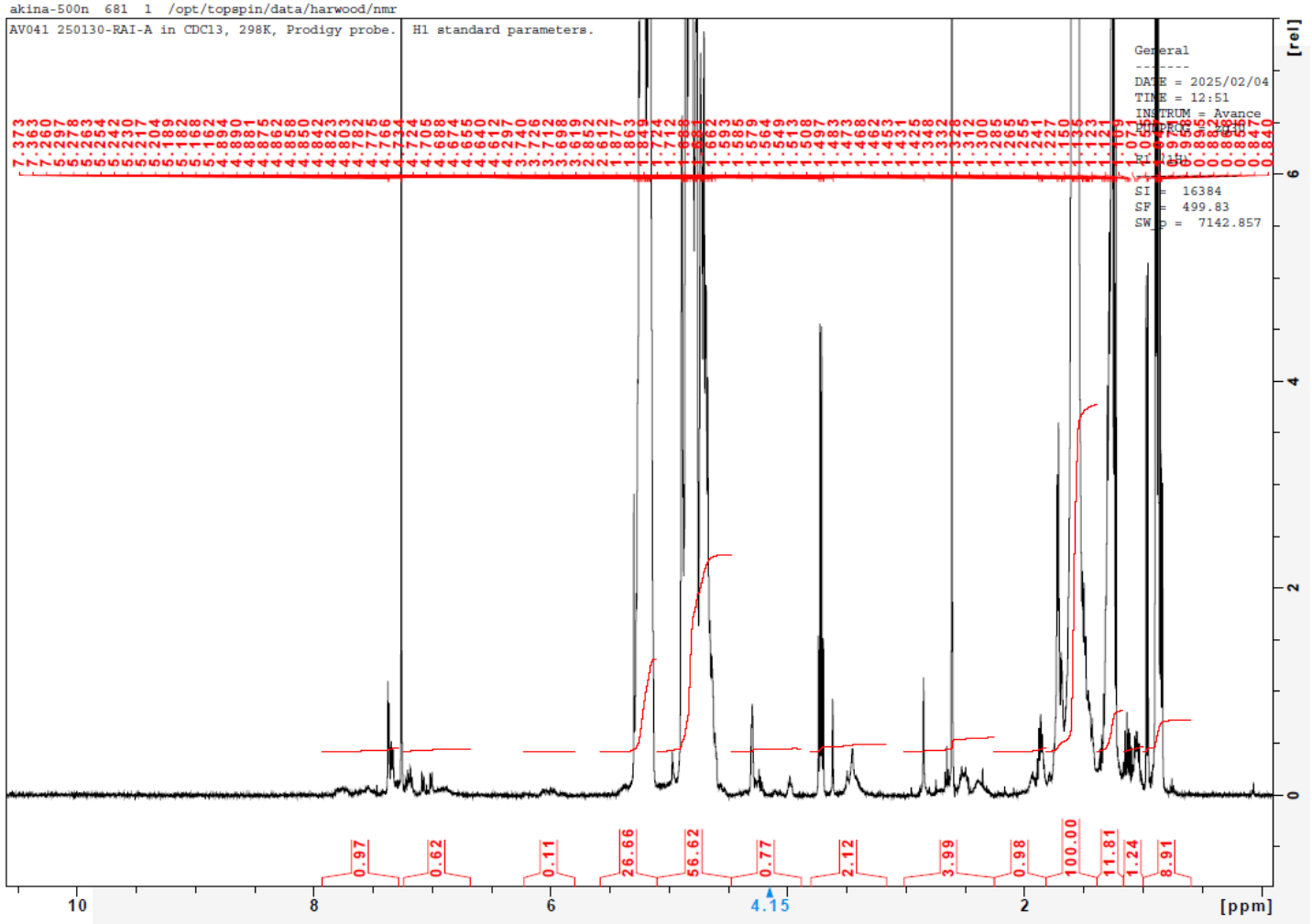
No. AV041

Certificate of Analysis



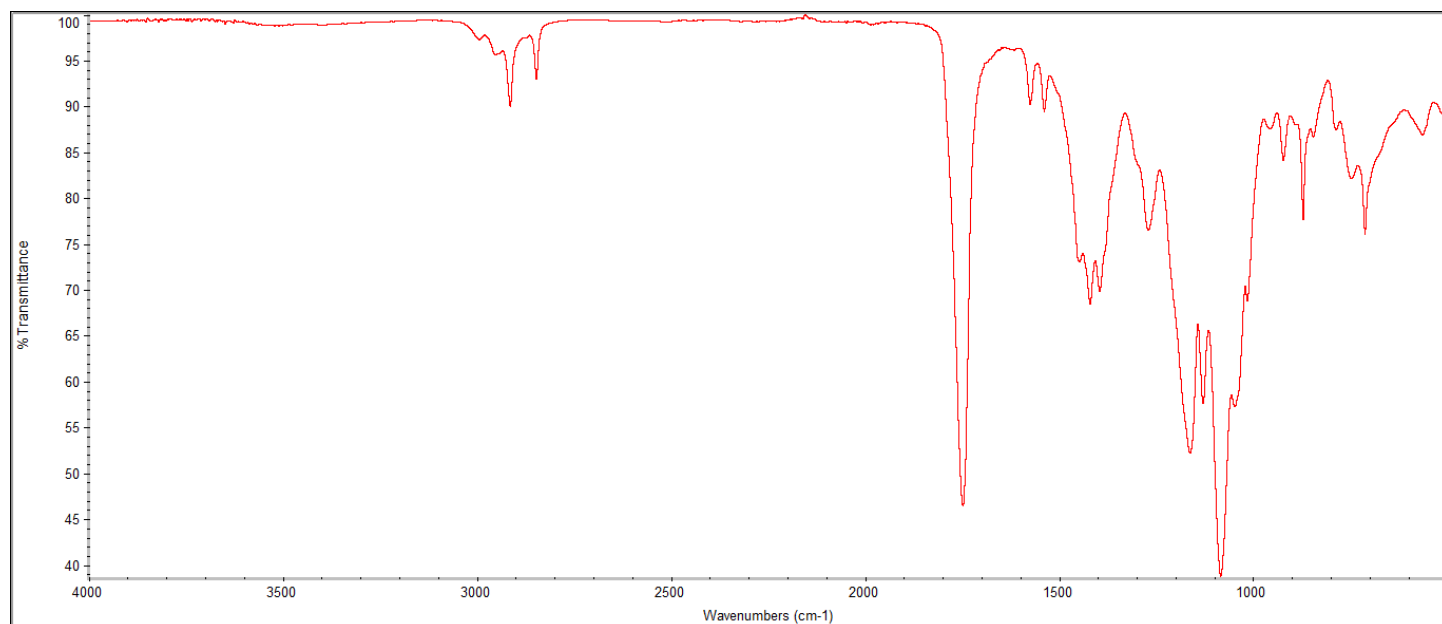
Product Name: Poly(lactide-co-glycolide)-Cyanine 7 (L:G 50:50) (Mn 15,000-35,000Da)
(Lot#: 250130RAI-A)

H-NMR



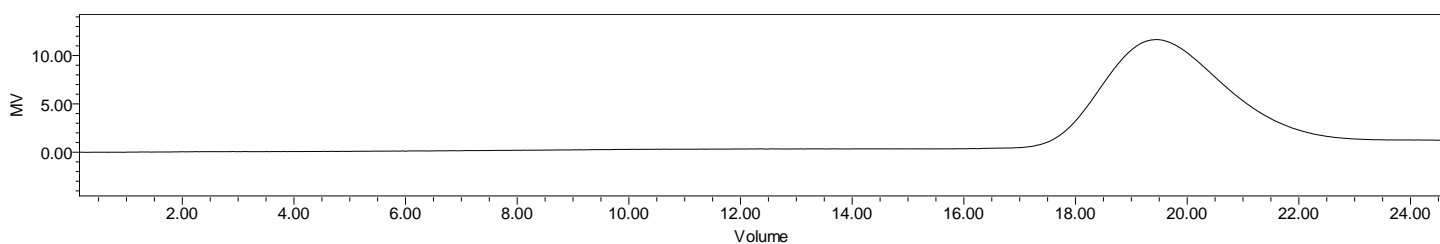
H-NMR Spectrum of copolymers in CDCl₃ (Bruker ≥300 MHz, PINMRF) NMR of PLGA copolymer: LA-GA =48%-52% molar ratio (LA:GA 54%:46% w:w)

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-CY7	24,111	38,146	1.58

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

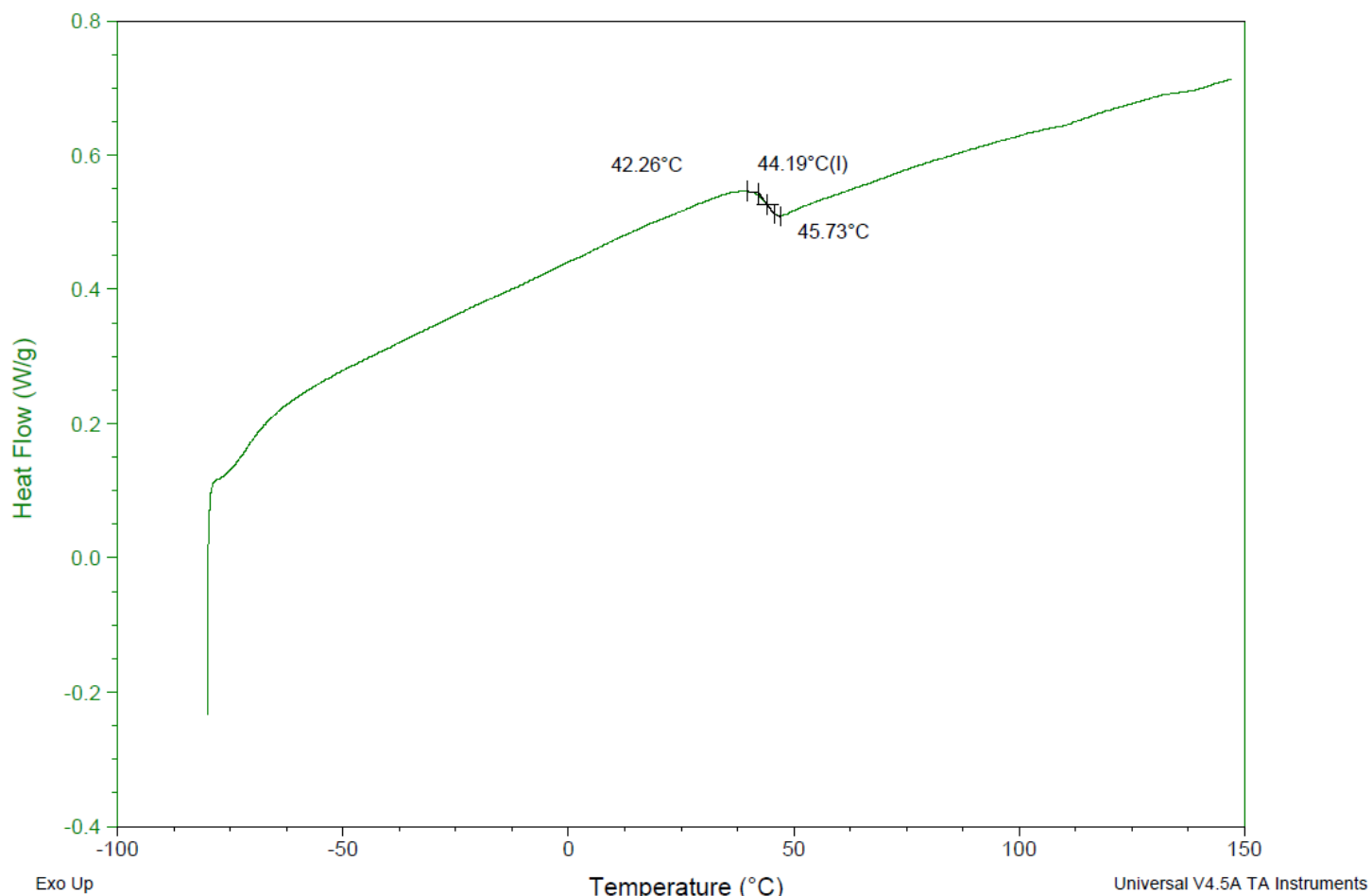
Sample: AV041 250130RAI-A
Size: 2.9000 mg
Method: Glass Transition-simple

DSC

File: C:\...\COA\AV041 250130RAI-A DSC.001

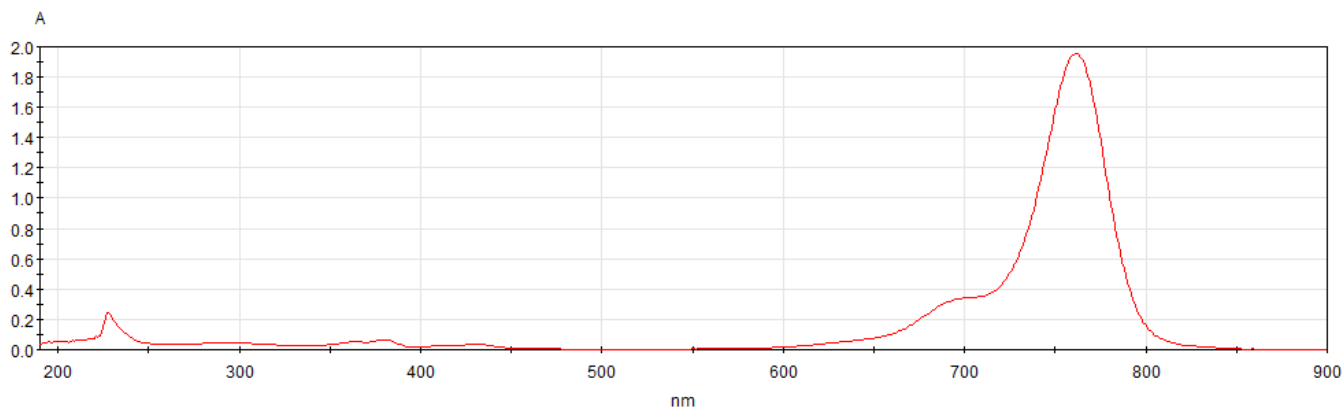
Run Date: 04-Feb-2025 08:55

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 = 44.19 °C

UV-Vis



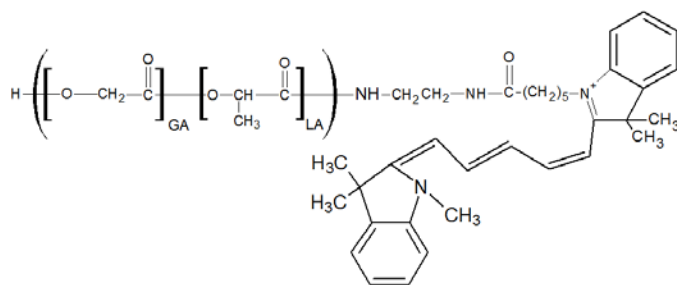
UV-Vis Analysis PLGA-CY5

Analysis method: Scan from 190-900nm in 1nm increments of 0.25 mg/ml PLGA-CY5 solution in DCM against DCM blank. 14.18 $\mu\text{g}/\text{mg}$

IV

Inherent Viscosity: 0.201 ± 0.026 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager