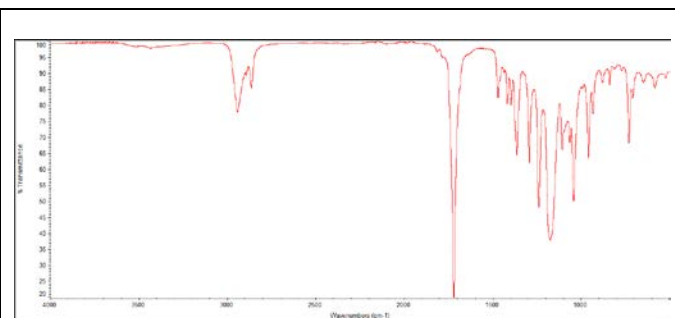
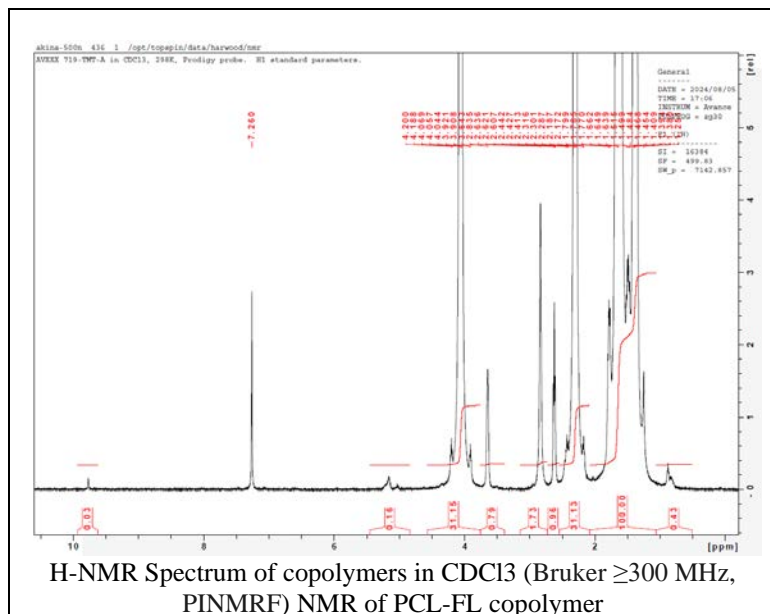


No. AV054

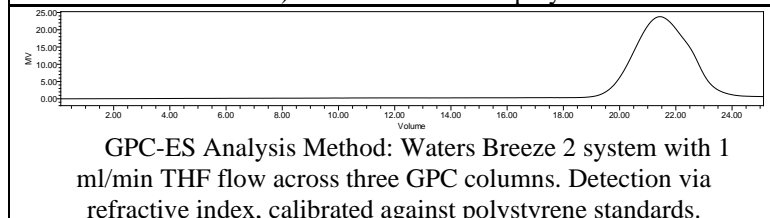
Certificate of Analysis



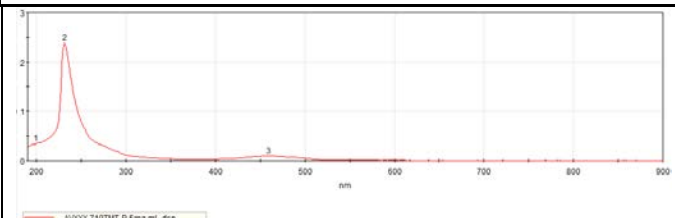
Product Name: Poly(Caprolactone)-Fluorescein acid end-capped
(Mn 5,000-10,000 Da) (Lot # 240719TMT-A)



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



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.

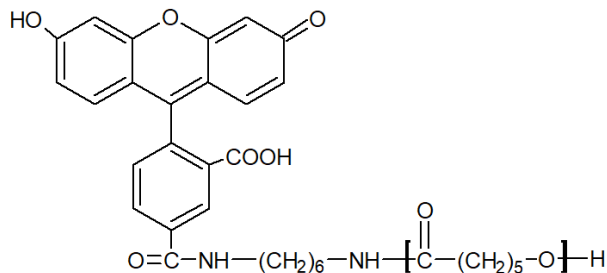


UV-Vis Analysis PCL-FL

Analysis Method: Scan from 190-900nm in 2nm increments of 5 mg/ml PCL-FL solution in DCM against DCM blank.

| Polymer | M _n (from GPC) | M _w (from GPC) | PDI |
|---------|---------------------------|---------------------------|------|
| PCL-FL | 6695 | 9943 | 1.49 |

Structure of PCL-FL copolymer



Approved By:
Amie Tyler
Quality Manager