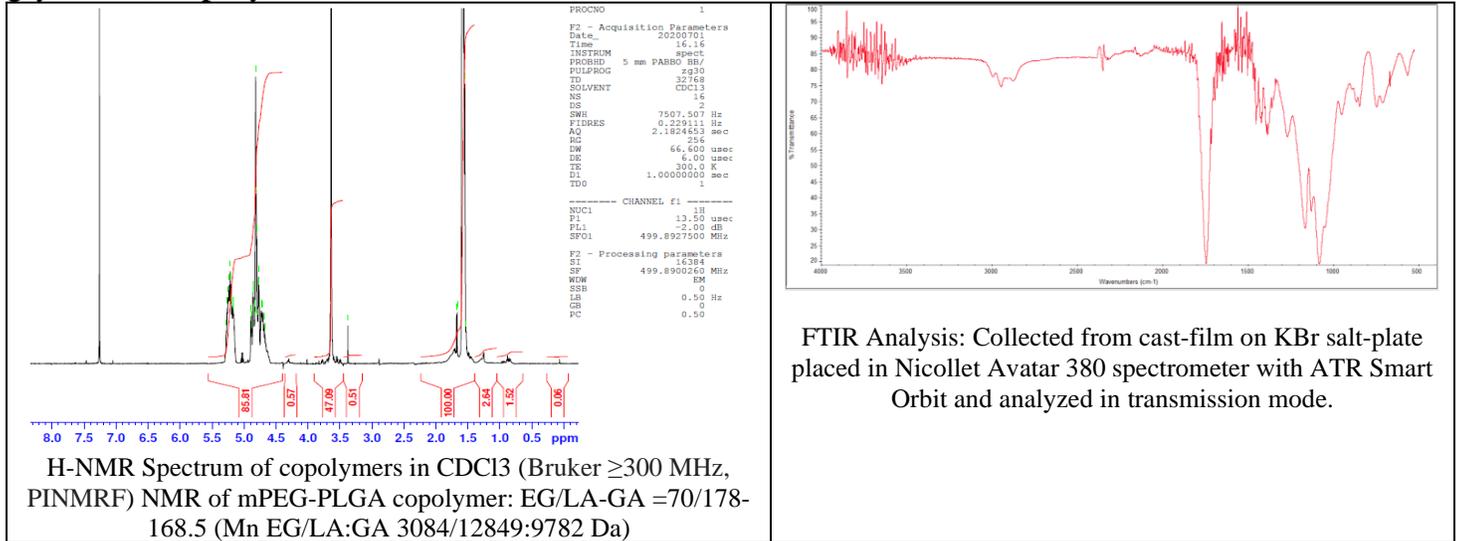


# No. AK101

# Certificate of Analysis

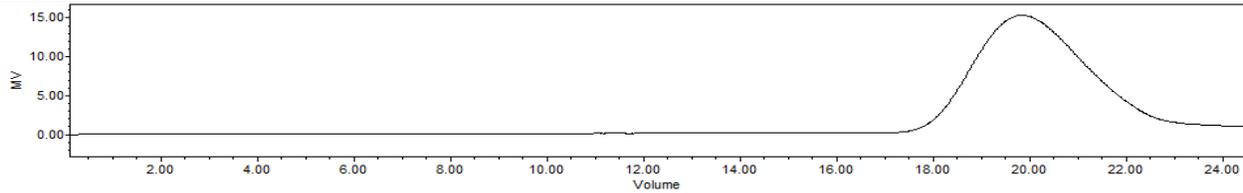


Product Name: Methoxy Poly(ethylene glycol)-*b*-Poly(D,L-lactide-co-glycolide) copolymer ( $M_w$  3,000:20,000 Da, 50:50 LA:GA) (Lot#: 200622RAI-A)



FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicolet Avatar 380 spectrometer with ATR Smart Orbit and analyzed in transmission mode.

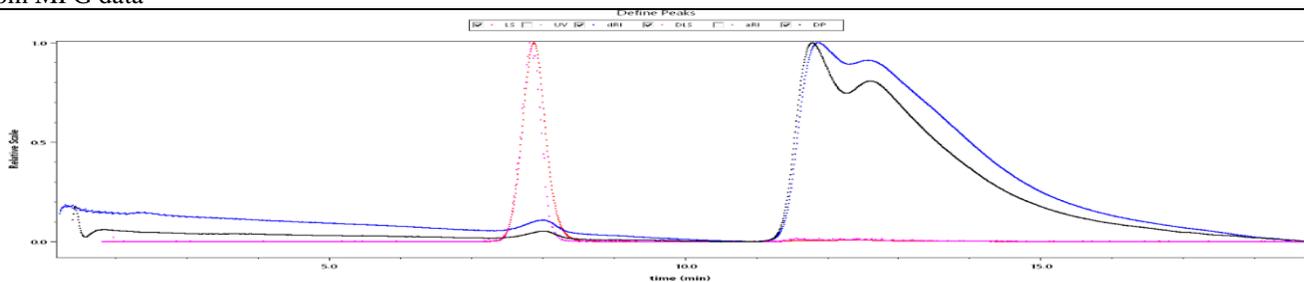
H-NMR Spectrum of copolymers in CDCl<sub>3</sub> (Bruker ≥300 MHz, PINMRF) NMR of mPEG-PLGA copolymer: EG/LA-GA =70/178-168.5 ( $M_n$  EG/LA:GA 3084/12849:9782 Da)



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

Polymer	$M_n$ (from GPC)	$M_w$ (from GPC)	PDI
mPEG-PLGA	18,021	30,316	1.68
PEG precursor*		3072*	

\*- from MFG data



GPC-4D Analysis Method: Agilent 1260 Infinity II system 0.6 ml/min Acetone flow across TSKgel GMHHR-L, 7.8 mm x 30 cm. Detection Dawn Heleos II (MALLS), Optilab T-rex (RI), Dynapro nanostar (DLS), and Viscostar III (viscosity), universal calibration (Wyatt).

Polymer	$M_n$ (from GPC-4D)	$M_p$ (from GPC-4D)	$M_w$ (from GPC-4D)	Radius (r(avg), nm)	Intrinsic viscosity ([ $\eta$ ](avg), mL/g)	dn/dc (source)
mPEG-PLGA	27,848	67,711	61,932	4.4	27.422	0.0920**

\* - Due to differences in methodology, Results from GPC-4D universal calibration will be different from those obtained from GPC-ES. The data from GPC-4D analysis is provided for customer information only. \*\*(previous reference)

## Structure of mPEG-PLGA copolymers

