No. AK097
Certificate of Analysis
Product Name: Poly(lactide-co-glycolide)-b-Poly(ethylene glycol)-b-Poly(lactide-co-glycolide) 1700-1500-1700Da (LA:GA 15:1 (94\%/6\% LA/GA) (w:w)) Lot \#240322TMT-A

| H-NMR Spectrum PINMRF) NMR =33*/42:3 (Mn EG | copolymers in <br> GA-PEG-PL <br> GA 1454*/30 | DCl3 (Bruker A copolymer: :181 Da) *fro |  |  <br> FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (Thermo Scientific) and analyzed in transmission mode. |
| :---: | :---: | :---: | :---: | :---: |
| 10.00 <br>  <br> GPC-ES Ana $\mathrm{ml} / \mathrm{min}$ THF flo refractive inde | Method: Wa oss three GP brated again | s Breeze 2 sys columns. Dete polystyrene st | $\qquad$ <br> tem with 1 ction via ndards. | Rheology performed on AR2000 (TA instruments) with 60mm 2degree cone on $20 \% \mathrm{w} / \mathrm{v}$ polymer in water dissolved over 3 days with stirring at $4^{\circ} \mathrm{C}$. Viscosity of solution at $0.1\left(\mathrm{sec}^{-1}\right)$ and $5^{\circ} \mathrm{C}$ was measured (1minute peak hold 5 second test intervals). Rheology performed by oscillating at constant 6.283 $\mathrm{rad} / \mathrm{s}, 0.1 \%$ strain, in increments of $1^{\circ} \mathrm{C}$ ranging from $5-45^{\circ} \mathrm{C}$ with 1 minutes of temperature equilibration at each point. |
| Polymer | $\begin{gathered} \mathrm{M}_{\mathrm{n}} \text { (from } \\ \text { GPC) } \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{M}_{\mathrm{w}} \text { (from } \\ \text { GPC) } \\ \hline \end{gathered}$ | PDI |  |
| $\begin{gathered} \hline \text { PLGA-PEG- } \\ \text { PLGA } \end{gathered}$ | 5733 | 7421 | 1.29 |  |
| PEG precursor* $\quad \mathrm{Mn}=1472 \mathrm{Da}$ |  |  |  |  |
| *- from MFG data |  |  |  | Viscosity $20 \% \mathrm{w} / \mathrm{v}$ solution at $5^{\circ} \mathrm{C}$ $\mathbf{. 0 1 8 3 3 ~ P a / s ~}$ |

- Structure of PLGA-PEG-PLGA



## Approved By: <br> Amie Tyler <br> Quality Manager

