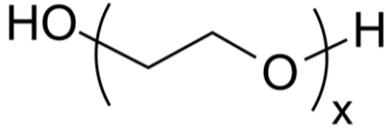


Sample Name: **Oligo(ethylene glycol)**

Sample #: **P43527F1-EG-3.5mer**

Structure:



Composition:

Mn x 10 <sup>3</sup>	PDI
0.150	1.08

Synthesis Procedure:

The polymer was synthesized by anionic polymerization process.

Characterization:

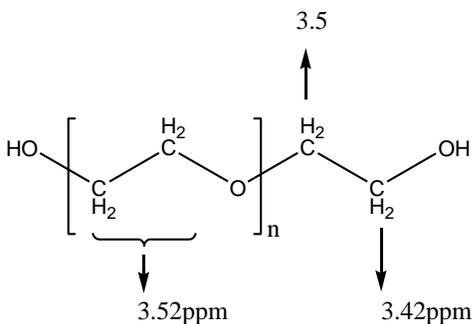
The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR data analysis.

Purification of the obtained polymer:

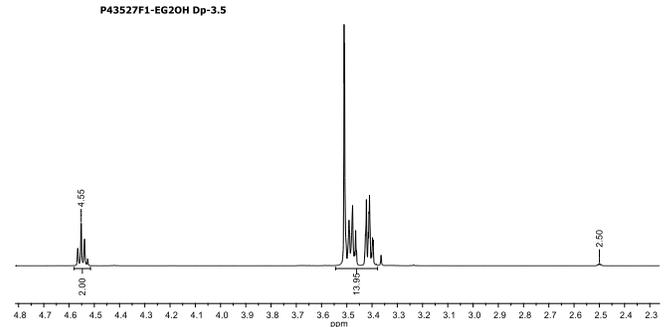
Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product:

1. Dissolved the polymer in de-ionized distilled water to remove the any insoluble organic catalyst side product.
2. Polymer extracted from water with dichloromethane.
3. Polymer solution in dichloromethane was dried over anhydrous sodium sulfate.
4. Solution filtered and than passed through a column packed with basic Al<sub>2</sub>O<sub>3</sub>.
5. Solution concentrated on rota-evaporator
6. Solution precipitated in cold diethyl ether.
7. Dried under vacuum for 48h at 38 °C.

<sup>1</sup>H NMR chemical shifts:



<sup>1</sup>H NMR spectrum of the Oligomer:



SEC elugram of the Oligomer:

**SEC Profile for PEG Oligomers**

