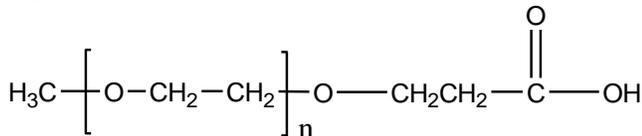


Sample Name:

α -propionic acid ω -methoxy Terminated Poly(ethylene glycol)

Sample #: **P20175-EGOCH3COOH**

Structure:



Composition:

$M_n \times 10^3$	PDI
7.0	1.05

Synthesis Procedure:

α -Carboxy ω -methoxy terminated poly(ethylene glycol) was synthesized by a simple procedure discovered in our lab. The details can be found in the US patent published.¹

Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

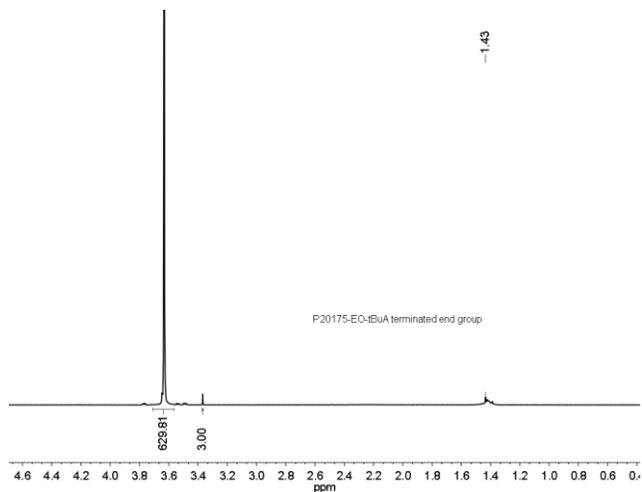
Functionality:

Functionality of the polymer was determined by acid base titration and from H NMR analysis.

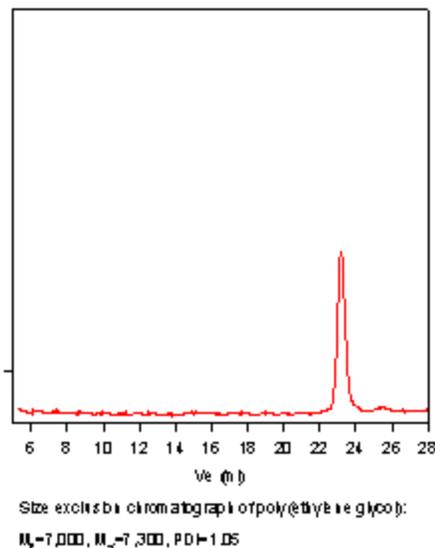
Solubility:

Polymer is soluble in water, methanol and ethanol, THF, CHCl_3 . It is precipitated out from cold ethanol, isopropanol, hexane and ether.

NMR of the product



SEC of the product: before converting the terminal end group to COOH



Reference (s):

S. K. Varshney, J.X. Zhang, US patent 7,009,033 B2, 2006. Assigned to Polymer source, Inc. Canada Heterofunctional Polyethylene glycol and Poly ethylene oxide, process for their Manufacture