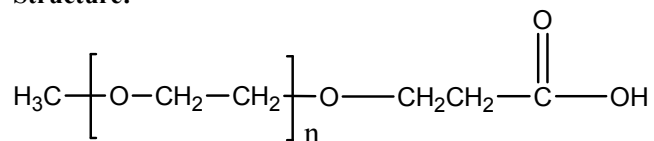


Sample Name:

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

Sample #: **P8881-EGOCH3COOH**

Structure:



Composition:

Mn x 10 ³	PDI
1.10	1.09

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:

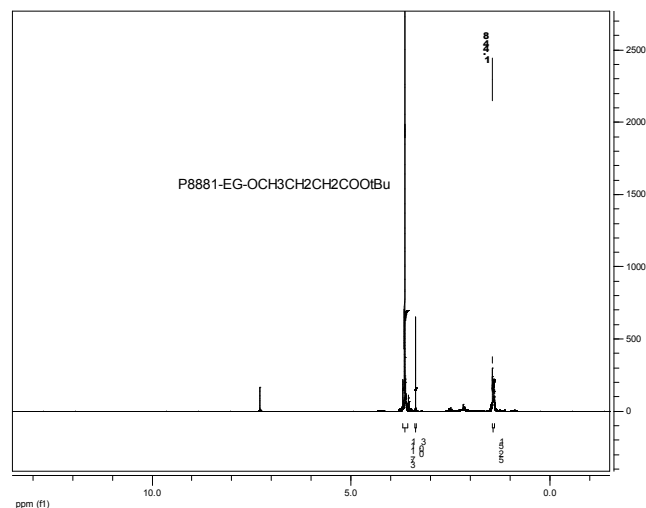
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

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

Solubility:

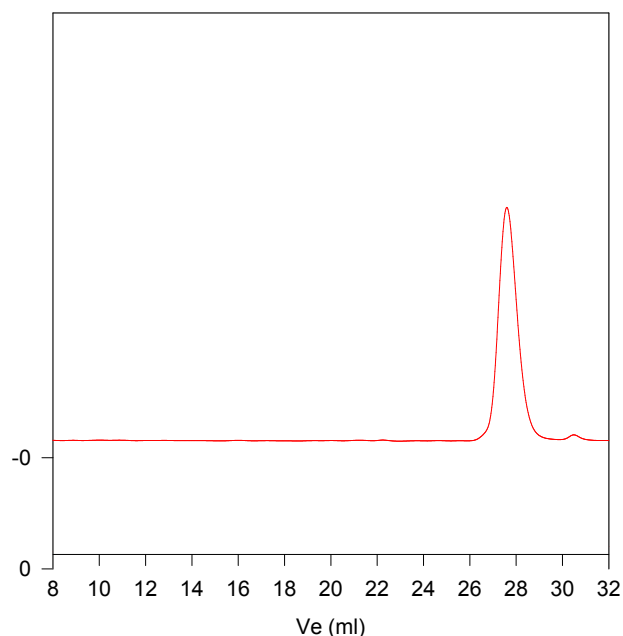
Polymer is soluble in water, methanol and ethanol, THF, CHCl₃. It is precipitated out from cold ethanol, isopropanol, hexane and ether.

NMR of the product



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

P8881-EGOCH3



Size exclusion chromatograph of Poly(ethylene glycol) before converting terminal OH to COOH:

M_n=1100, M_w=1200 Mw/Mn =1.09

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