

Sample Name:

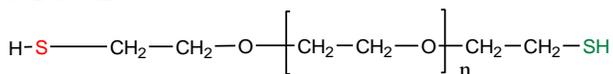
Poly (ethylene glycol) dithiol

or

α - ω -dithiol Terminated Poly (ethylene glycol)

Sample#: **P42485-EG2SH**

Structure:



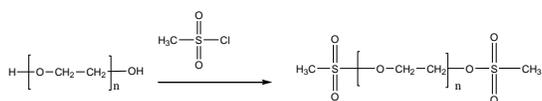
Composition:

Mn x 10 ³	PDI	SH functionality
8.0	1.04	> 90%

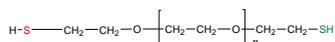
(Mn is based on starting material)

Synthesis Procedure:

The polymer was synthesized by anionic process and modifications of terminal OH to SH.



- 1) Na₂S / DMF at 45 °C
- 2) Reducing Agent / DTT



Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR analysis.

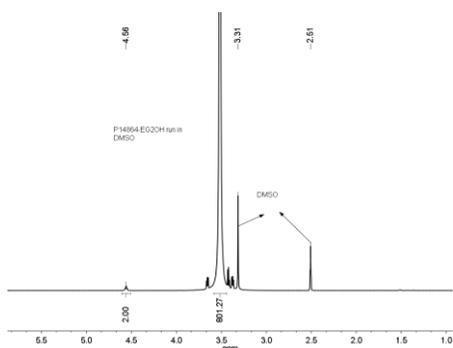
Functionality:

Functionality of the polymer was determined by ¹H NMR analysis or FT-IR spectroscopy or by titration.

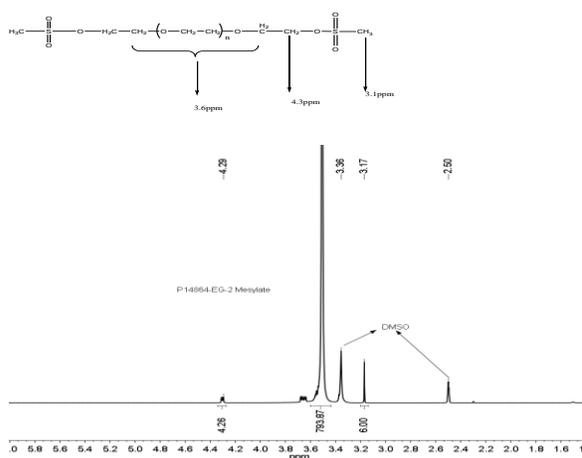
Solubility:

Polymer is soluble in water, methanol and ethanol.

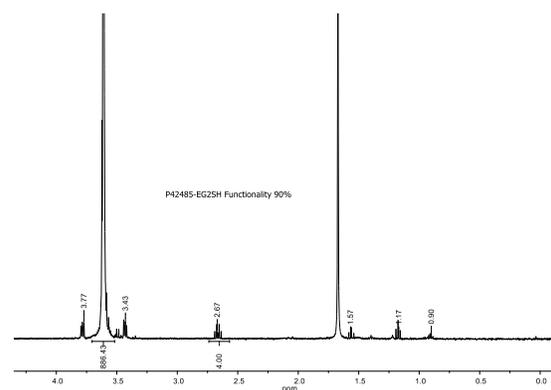
¹H NMR spectrum of P14864-EG2OH:



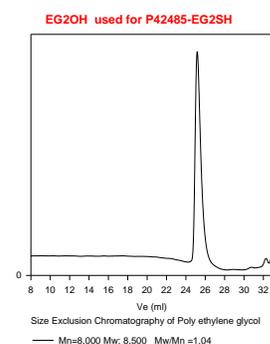
¹H NMR spectrum of P14864-EG-2 Mesylate:



¹H NMR spectrum of P42485-EG2SH:



SEC elugram of Sample:



References:

S. K. Varshney, J.X. Zhang, Apply US patent 09/895,323, 2001. Heterofunctional Polyethylene glycol and Polyethylene oxide, process for their Manufacture.