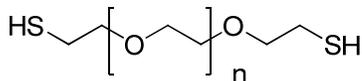


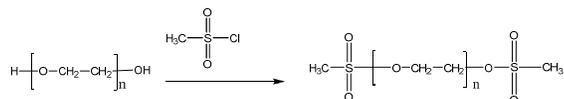
Sample Name:

Poly (ethylene glycol) dithiol or
 α,ω -dithiol Terminated Poly(ethylene glycol)
 Sample: P20237-EG2SH

Structure:**Composition:**

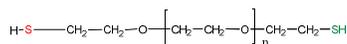
$M_n \times 10^3$	PDI	SH functionality
3.4*	1.04	70%
		Free OH : 30%

* - starting material

Synthetic Procedure:

1) NaHS / DMF at 45 °C

2) Reducing Agent / DTT

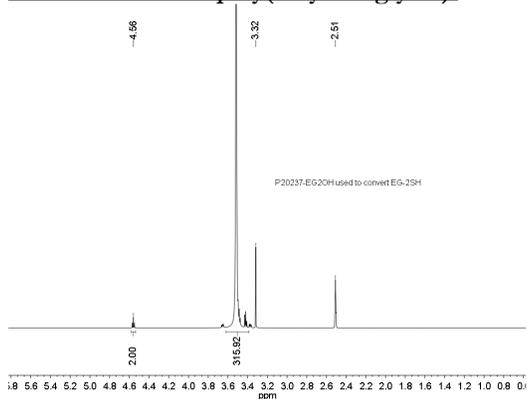
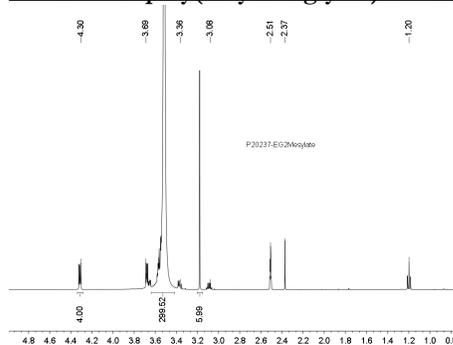
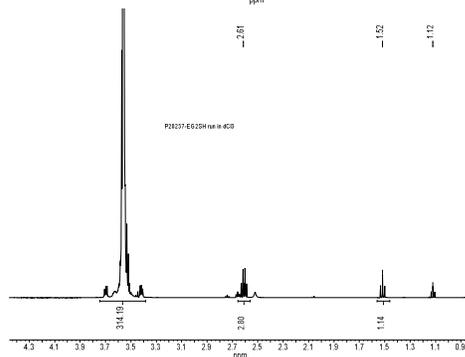
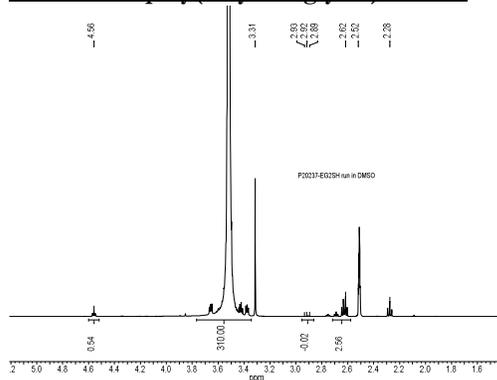
**Characterization:**

The molecular weight and polydispersity index were determined by ^1H NMR and size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with UV and refractive index detector.

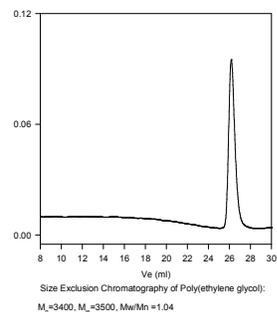
Functionality: Functionality of the polymer was determined by ^1H NMR.

Solubility:

Polymer is soluble in water, acetone, THF, CHCl_3 .
 It was precipitated from hexane / ether.

 ^1H NMR of initial poly(ethylene glycol): **^1H NMR of poly(ethylene glycol) dimesylate:** **^1H NMR of poly(ethylene glycol) dithiol:****SEC of Sample PEG2OH:**

P4790-EG2OH

**References:**

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