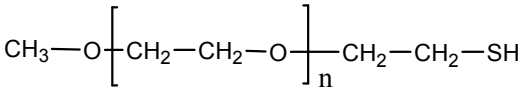
Sample Name:
Thiol Terminated Poly(ethylene glycol)

Sample #: **P9839-EGOCH3SH**

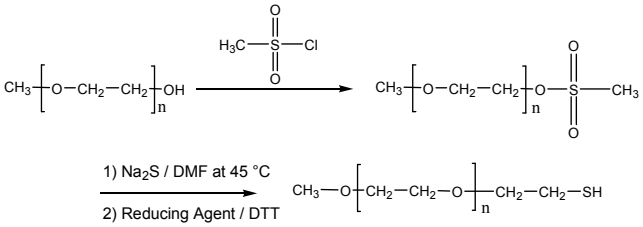
Structure:



Composition:

Mn x 10^3	PDI
0.9	1.09

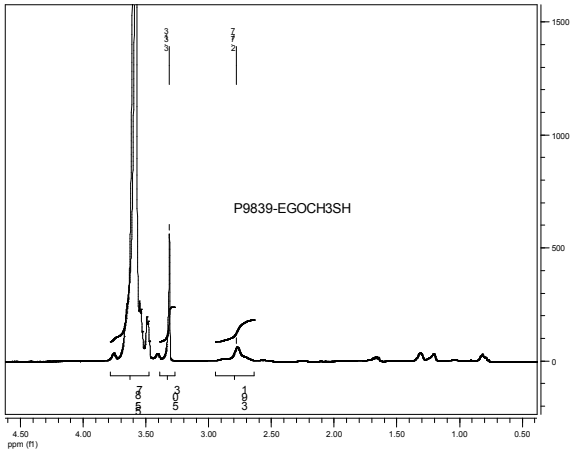
Synthesis Procedure:
Thiol terminated Poly(ethylene glycol methyl ether) was prepared by mesytalation of OH terminated PEG reacting it with Na_2S in polar solvent. The product was stabilized with DTT to avoid the formation of disulfide. The scheme of the reaction is illustrated below.



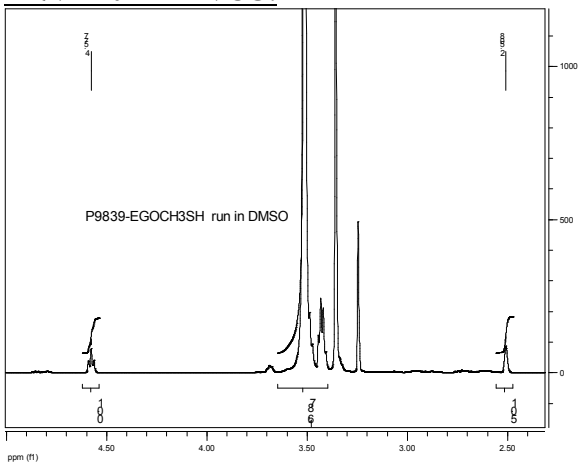
Characterization:
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was verified by oxidation of the thiol to disulfide.

Solubility:

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

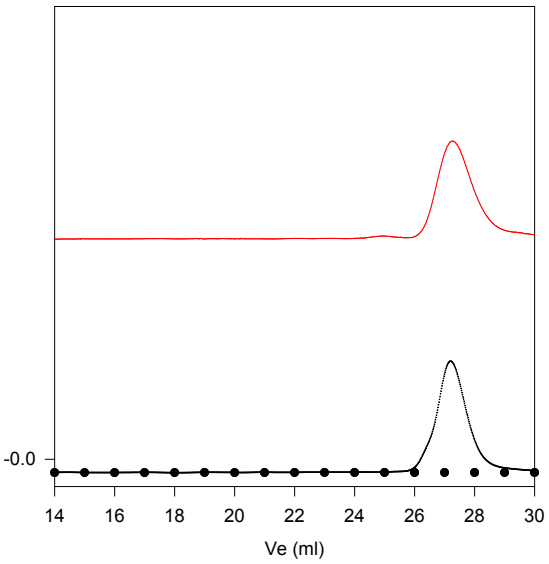


HNMR run in DMSO:



SEC of Sample:

P9839A-EGOCH3SH



Size exclusion chromatograph of Thiol-terminatedPoly(ethylene oxide):

M_n=900, M_w=1,000, PI=1.09

After oxidation with iodine - showing quantitative functionality