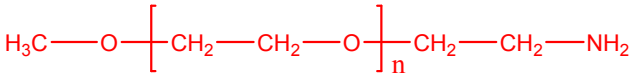
Sample Name:
∝ Methoxy ω- amino end functionalized Poly(ethylene glycol)

Sample #: **P4313-EGOCH3NH2**

Structure:



Composition:

Mn x 10^3	PDI	Functionality **NH2**
14.0	1.10	> 98%

Synthesis Procedure:

Mesylate end functionalized Poly(ethylene glycol) methyl ether is prepared by living anionic polymerization of ethylene oxide followed by reaction of OH terminated polymethylene glycol methyl ether with methanesulfonyl chloride (mesyl chloride).

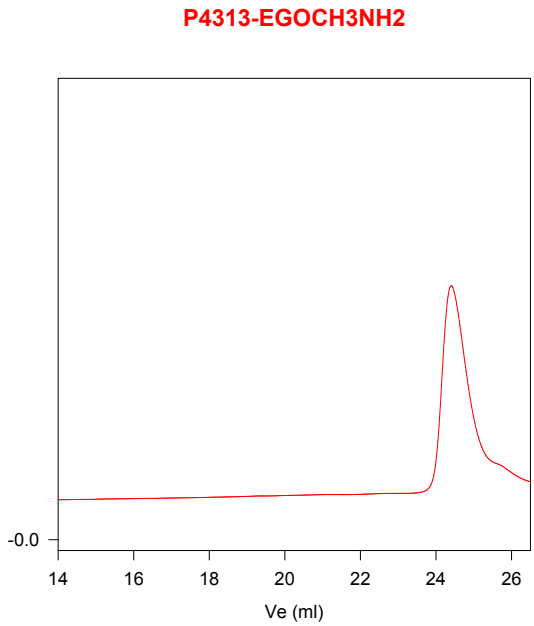
Characterization:

Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The end functionality was calculated from ^{1}H-NMR spectroscopy.

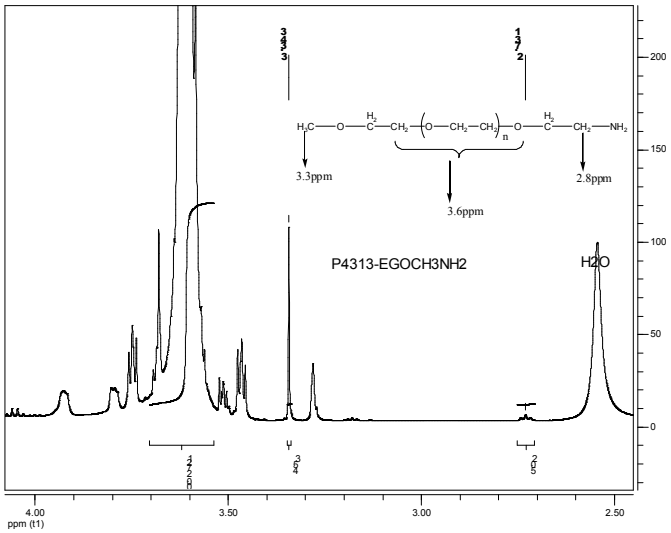
Solubility:

Functionalized Poly(ethylene oxide) is soluble in $CHCl_3$, THF, and precipitated out from cold diethyl ether.

SEC of the polymer before terminating with mesyl chloride (methane sulfonyl chloride):



Size exclusion chromatograph of
α, methoxy ω amino terminated poly(ethylene glycol):

M_n=14000, M_w=15400, PI=1.10 NH2 functionality> 99%
Solution Viscosity in THF at 30 °C : 0.252 dl/g
radius of Gyration: 5.05 nm

^{1}H-NMR Spectrum of the polymer :