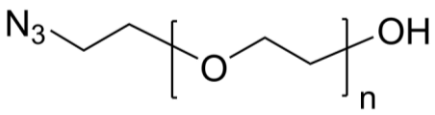
Sample Name:
Poly(ethylene glycol), (α-azide, ω-hydroxy)-terminated

Or azide terminated Tetraethylene glycol

Sample #: **P43620A- EGOHN3**

Structure:

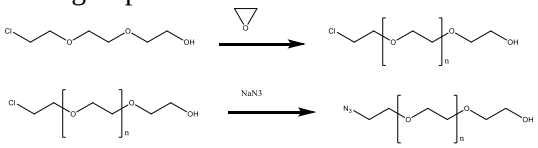


Composition:

Mn x 10^3	PDI
1.0	1.3

Azide functionality by HNMR Over 98 %

Synthesis Procedure: In this case the initiator was azido ethoxy ethanol:
Azide end functionalized Poly(ethylene glycol)methyl ether is prepared by living anionic polymerization of ethylene oxide, followed by modification of OH terminal to azide group.

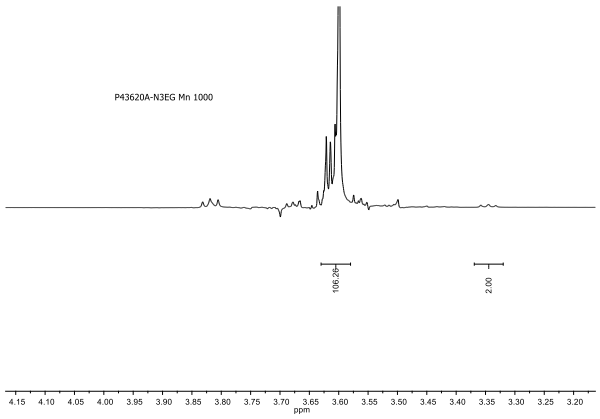


Characterization:
An aliquot of the poly(ethylene oxide) before addition of mestyl chloride was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The polymer obtained at each step and the final block copolymer composition was calculated from ^{1}H-NMR spectroscopy.

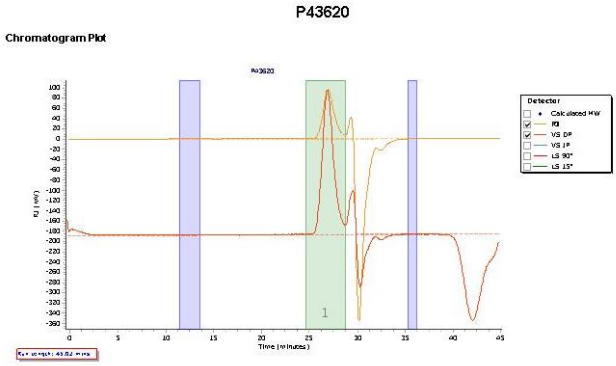
FTIR:
N3 characteristic appears at 2101 cm^{-1}.

Solubility:
N3 end functionalized poly(ethylene oxide) is soluble in CHCl3, THF and precipitated out from hexanes.

HNMR spectrum of α-azide-ω-OH terminated PEG:



SEC elugram of the polymer:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	1322	1014	1336	1725	2310	1576	1.318

FTIR spectrum of the Polymer: