Sample Name: Bromo end functionalized Poly (ethylene glycol) methyl ether

Sample #: P41476-EGOCH3Br

Structure:

Composition:

Mn x 10 ³	PDI	
13.5	1.06	
Functionality Br	>99%	

Synthesis Procedure:

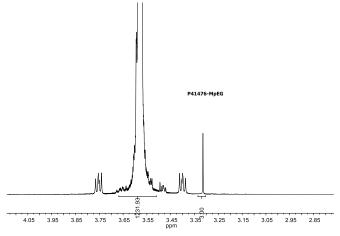
Bromo terminated Poly(ethylene glycol methyl ether) was prepared by reaction of OH terminated PEG with α-Bromoisobutyryl bromide in DCM or in THF in the presence of triethyl amine. The scheme of the reaction is illustrated below.

$$\begin{array}{c} O & \text{CH}_3 \\ Br & C & C & Br \\ \hline & CH_3 \\ \hline & CH_3 \\ \end{array} \\ \begin{array}{c} CH_3 \\ \hline \end{array} \\ \begin{array}$$

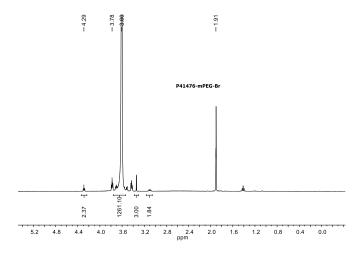
Characterization:

The product was characterized by size exclusion chromatography (SEC), ¹HNMR and FTIR.

HNMR Spectrum of the mPEG Sample:

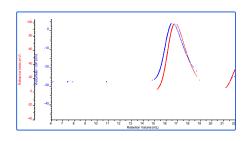


HNMR Spectrum of the mPEG-Br Sample:



SEC profile of the Sample:

dn/dc	0.0350
Flow	0.7000
Solvent	DMF with LiBr
Method	PSS



Sample	Mn	Mw	Mz	IV	Mw/Mn
P41476-EO_1_2018-1	13,302	14,051	14,851	0.2092	1.056

FTIR Spectrum of the Product:

