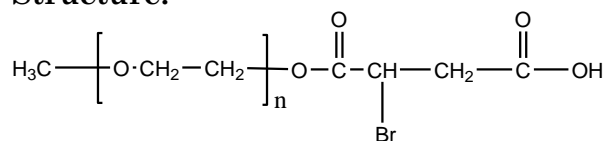


Sample Name:

α -Bromo α' -COOH end functionalized
Poly(ethylene glycol) methyl ether

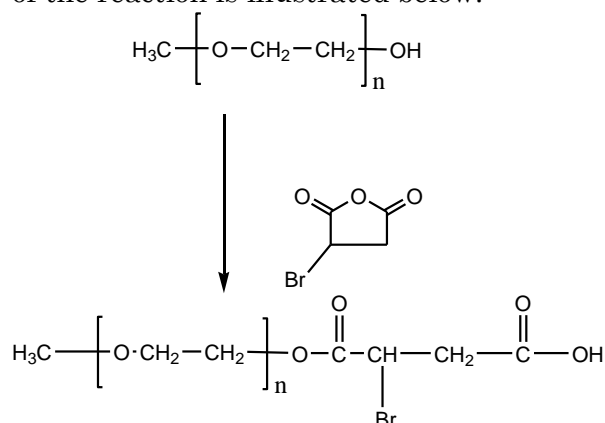
Sample #: P8243-EGBrCOOH

Structure:**Composition:**

| $M_n \times 10^3$ | PDI |
|-------------------|------|
| 2.0 | 1.10 |

Synthesis Procedure:

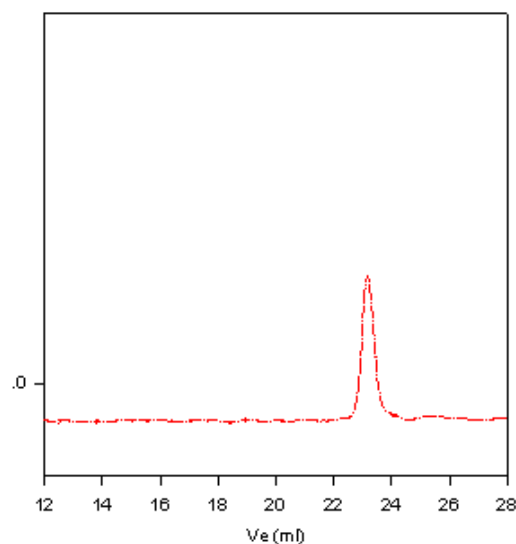
α -Bromo α' -COOH end functionalized Poly(ethylene glycol methyl ether) was prepared by reaction of OH terminated PEG with α -Bromo succinic anhydride. The scheme of the reaction is illustrated below.

**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 FTIR/H NMR depending on the molecular weights.

Solubility:

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

SEC of Sample: The starting PEG before reaction with bromosuccinic anhydride

Size exclusion chromatograph of α -OH ω -Methoxy terminated poly(ethylene glycol):

$M_n=2000$, $M_w=2200$, $PI=1.10$

HNMR of the Polymer: