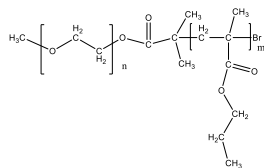


**Sample Name:** Poly(ethylene oxide)-b-(N-propyl methacrylate)

**Sample #:** P43931B-EOnPrMA

**Structure:**

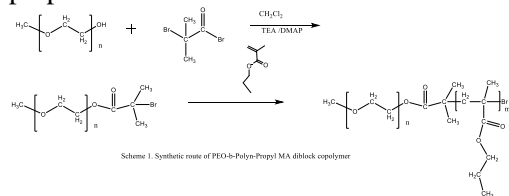


**Composition:**

Mn x 10 <sup>3</sup> PEO-b-In-PrMA	PDI
5.0-b-5.0	1.38
Microstructure of Poly NPrMA block S:H:I=60:38:2	

**Synthesis Procedure:**

Poly(Ethylene oxide-n-Propyl methacrylate) is prepared as shown in the scheme below:



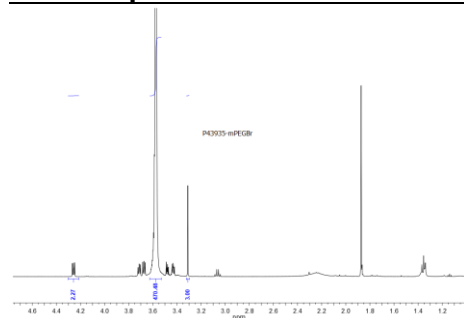
**Characterization:**

Polymer composition was determined by H NMR taking the integration of PEG block at 3.66 ppm and methyl ester of PMMA block at 3.62 ppm. Molecular weights of the first block and the Mw/Mn of the final and the first block was determined by SEC in THF.

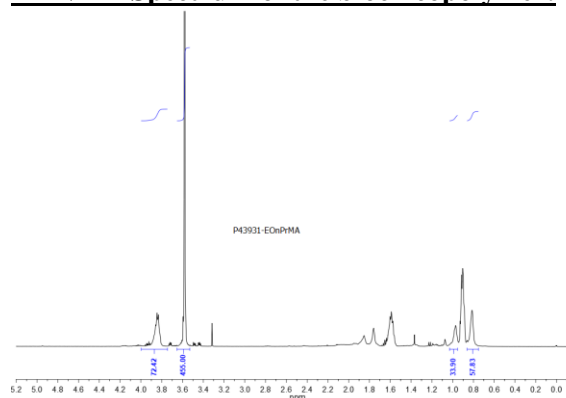
**Solubility:**

Poly(ethylene oxide -b- isoBuMA) is soluble in CHCl<sub>3</sub>, THF, toluene. The polymer precipitated out from hexane.

**H NMR spectrum of the PEGBr Mn of 5000**

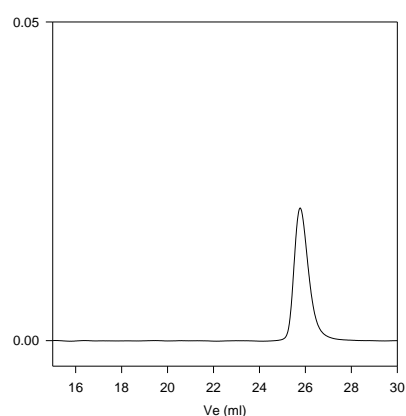


**1H-NMR Spectrum of the block copolymer:**



**SEC profile of the PEG Sample:**

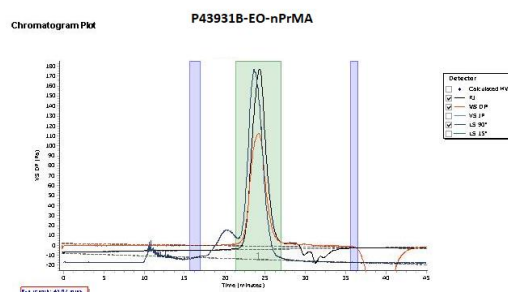
P43935-EGOCH3Br



Size exclusion chromatography:

— Bromo terminated Poly(ethylene glycol methyl ether),  
M<sub>n</sub>=5,000, M<sub>w</sub>=5,400, PDI=1.06

**SEC elugram of the block copolymer:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mz (g/mol)	PDI
Peak 1	11865	10235	14058	18643	24307	18994	1.374