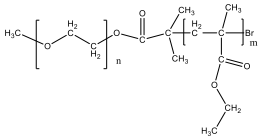
Sample Name:
Poly(ethylene oxide)-b-Poly(ethyl methacrylate)

Sample #: **P43945-EOEtMA**

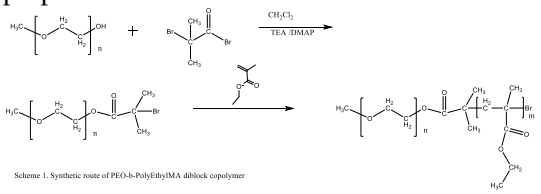
Structure:



Composition:

Mn x 10^3 PEO-b-EtMA	PDI
5.0-b-3.0	1.8

Synthesis Procedure:
Poly(Ethylene oxide-ethyl methacrylate) is prepared as shown in the scheme below:

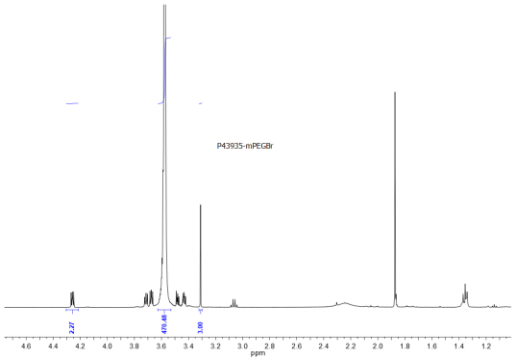


Scheme 1. Synthetic route of PEO-b-PolyEthylMA diblock copolymer

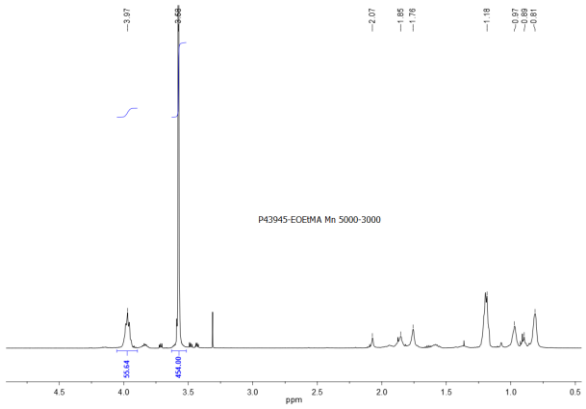
Characterization:
Polymer composition was determined by H NMR taking the integration of PEG block at 3.66 ppm and methyl ester of EtMA block at 3.92 ppm. Molecular weights of the first block and the Mw/Mn of the final and the first block was determined by SEC in THF.

Solubility:
Poly(ethylene oxide -b- EtMA) is soluble in CHCl3, THF, toluene. The polymer precipitated out from hexane.

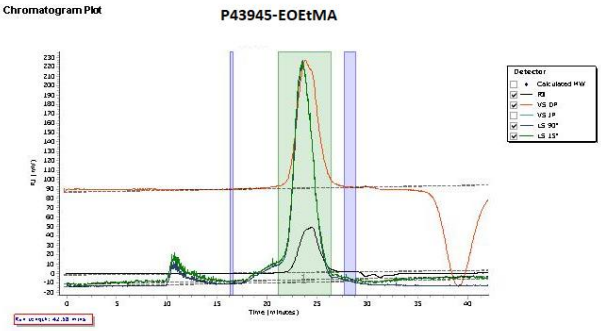
H NMR spectrum of the PEGBr Mn of 5000:



^{1}H-NMR Spectrum of the block copolymer:



SEC profile of the Sample:



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	9167	8466	15327	26064	39978	22782	1.81