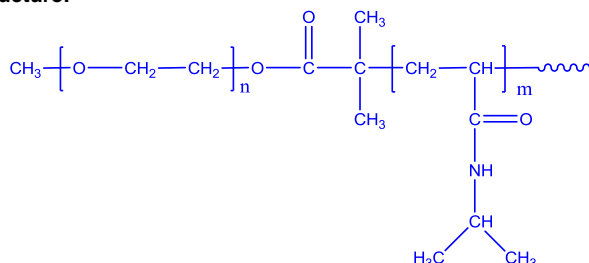


**Sample Name:** Poly(ethylene oxide -b- N-isopropylacrylamide)

**Sample #:** P6702-EONIPAM

**Structure:**

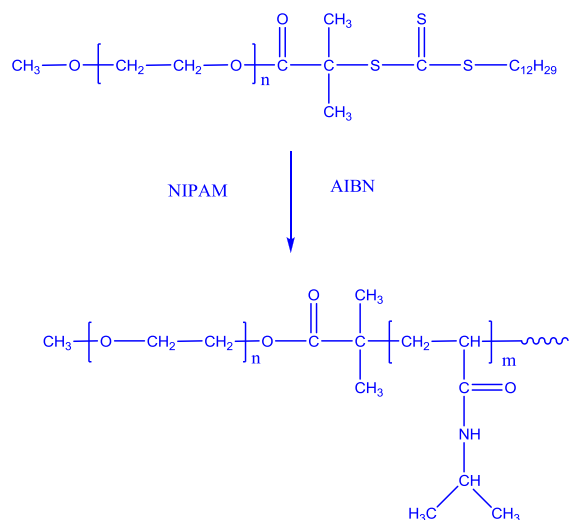


**Composition:**

Mn x 10 <sup>3</sup> PEO-b-PNIPAM	PDI
5.0-22.0	1.34

**Synthesis Procedure:**

Poly(ethylene oxide -b- N-isopropylacrylamide) is prepared by RAFT using trithiocarbonate-terminated poly(ethylene glycol) as CTA. The scheme of the reaction is illustrated below:



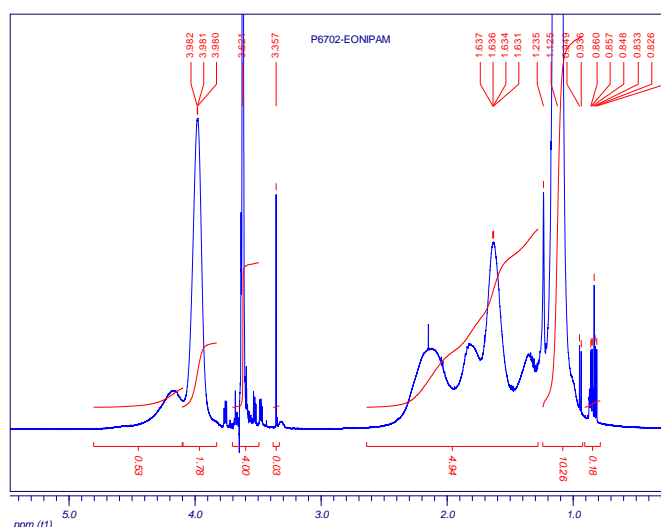
**Characterization:**

PEG-CTA and final block copolymer were analyzed by size exclusion chromatography (SEC) to obtain the molecular weight of PEG and polydispersity index (PDI) for both PEG and block copolymer. The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the isopropyl protons at 1.1 ppm.

**Solubility:**

Poly(ethylene oxide -b- N-isopropylacrylamide) is soluble in DMF, methanol, and cold water and it precipitates out in hexane or ether.

**<sup>1</sup>H-NMR Spectrum of the block copolymer:**



**SEC of the block copolymer:**

