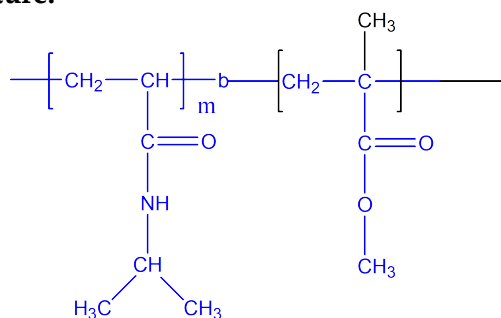


Sample Name:

Poly(N-isopropylacrylamide-b-Methylmethacrylate)

Sample #: P9993-NIPAMMMA

Structure:



Composition:

| Mn x 10 ³ PNIPAM-b-MMA | PDI |
|--------------------------------------|--|
| 10.0-82.0 | 1.2 |
| T _g for MMA block: 127 °C | T _g for NIPAM: Not distinct |

Synthesis Procedure:

Poly(N-isopropylacrylamide-b-methylmethacrylate) is prepared by anionic process using protected NIPAM monomer.

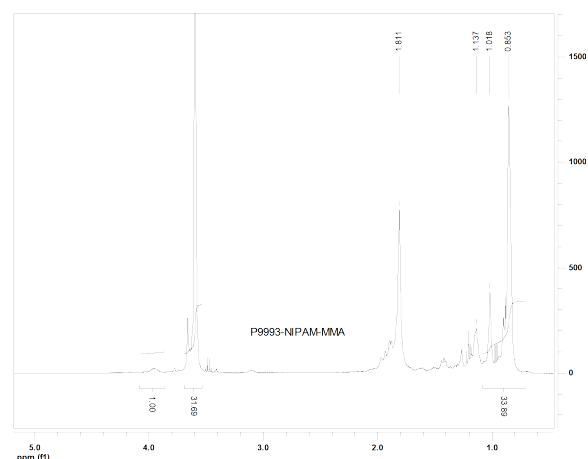
Characterization:

Block copolymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI) for both NIPAM macroinitiator and block copolymer. The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the CH protons of NIPAM at about 3.9ppm with the OCH₃ of MMA 3.6ppm.

Solubility:

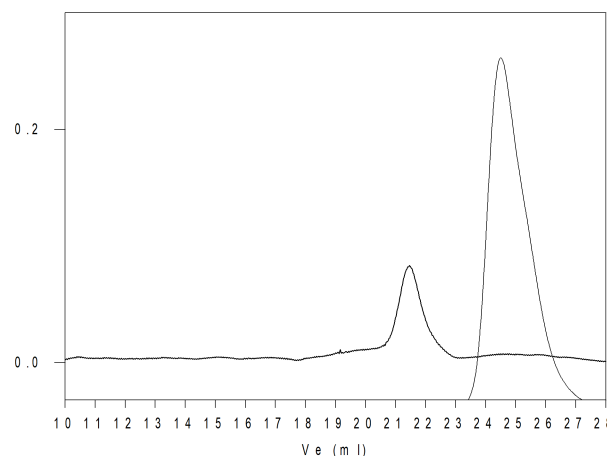
Polymer is soluble in DMF and CHCl₃.

¹H-NMR Spectrum of the block copolymer:



SEC of homo- and block copolymer:

P 9 9 9 3 - N I P A M M M A



Size Exclusion Chromatography of Poly(NIPAM-b-MMA)
Mn 10,000 Mw/Mn 1.3
PNIPAM-b-MMA: Mn 10,000-b-82,000 Mw/Mn 1.2

DSC thermogram for the polymer:

