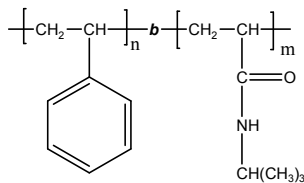
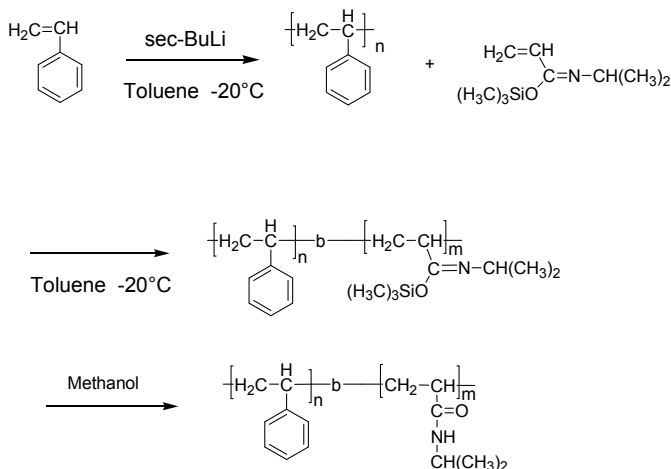


Sample Name:**Poly(styrene-b-N-isopropyl acrylamide)****Sample #: P14132-SNIPAM****Structure:****Composition:**

Mn x 10 ³ S-b-NIPAM	Mw/Mn (PDI)
13.5-b-1.8	1.22

Synthesis Procedure:

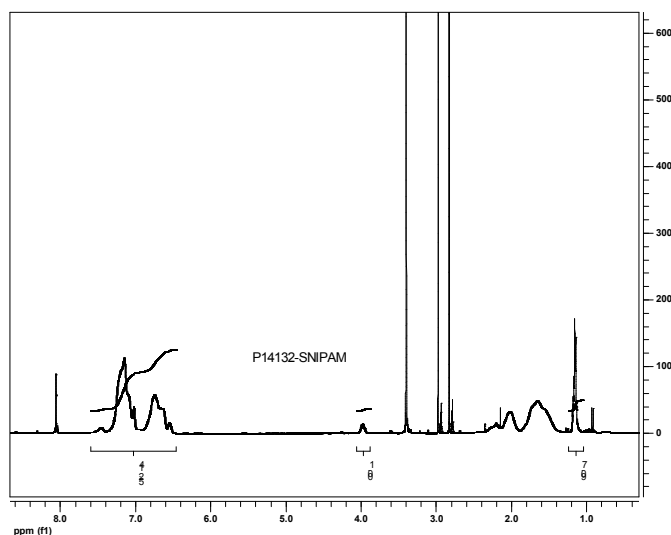
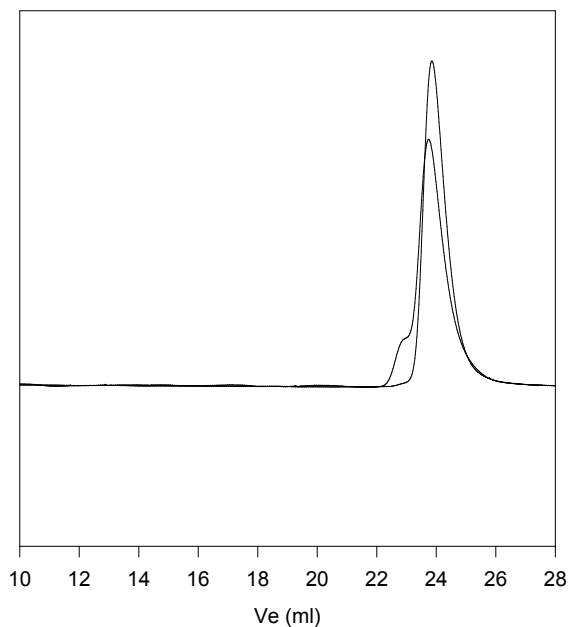
Poly(styrene-b-N-isopropyl acrylamide) is prepared by living anionic polymerization with sequence addition of styrene followed by trimethylsilane-protected N-isopropyl acrylamide. The polymer was obtained by cleaving the trimethylsilane group by adding acidic methanol and precipitating into hexane.

**Characterization:**

The final block copolymer composition was calculated from ¹H-NMR (in DMF at 40 °C) spectroscopy by comparing the peak area of the aromatic protons on styrene between about 6.5-7.5 ppm with the proton of NCH on NIPAM at 3.9 ppm. The PDI of block copolymer is determined by SEC.

Solubility:

Poly(styrene-b-N-isopropyl acrylamide) block copolymer is soluble in DMF, THF, CHCl₃.

¹H NMR spectrum of the block copolymer**SEC of block copolymer****P14132-SNIPAM****Size exclusion chromatography of polystyrene-b-N-isopropylacrylamide)**

- Polystyrene, M_n=13500, M_w=14500, PI=1.05
- Block Copolymer PS(13,500)-b-NIPAM(1,800), PI=1.22 (Composition from ¹H NMR analysis)