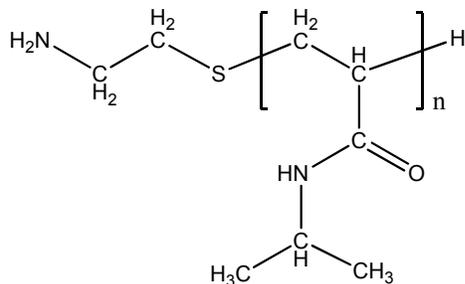


Sample Name:

Amino-terminated poly(N-isopropyl acrylamide)

Sample # **P18035-NIPAMNH2**

Structure:

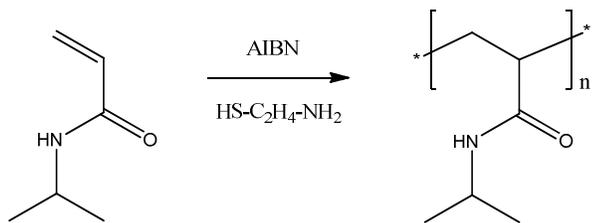


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
43.0	1.6
Syndio : Hetero+iso contents	66:34

Synthesis Procedure:

Amino-terminated poly(N-isopropyl acrylamide) was prepared by free-radical polymerization of N-isopropyl acrylamide in presence of an amino-group containing chain-transfer agent. The product was purified by fractionation. The scheme of reaction is shown below:



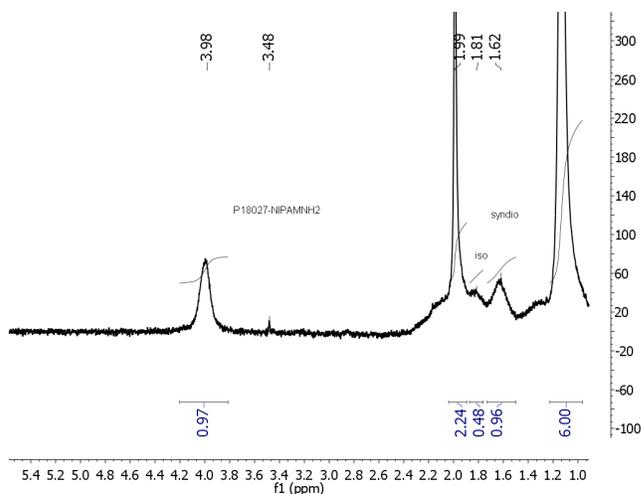
Characterization:

The molecular weight and functionality degree of the polymer were calculated by titration using HClO₄/Crystal violet in CHCl₃/acetic acid. The polydispersity index (M_w/M_n) was determined by size exclusion chromatography (SEC) on a Varian liquid chromatograph equipped with a triple detector. The tacticity of the polymer was calculated from ¹H NMR analysis.

Solubility:

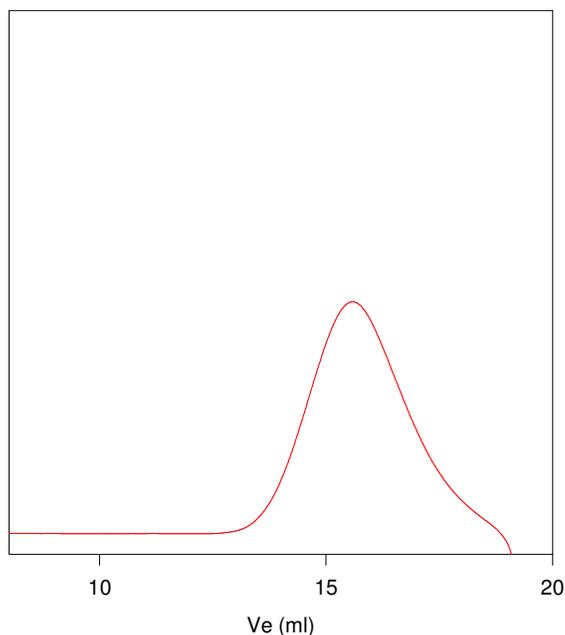
The polymer is soluble in water, THF, chloroform and dichloromethane; and is insoluble in hexane and ether.

¹H NMR spectrum of the polymer:



SEC elugram of the polymer:

P18035-NIPAMNH2



Size exclusion chromatography of poly(N-isopropylacrylamide) with respect to polystyrene standards:
Eluent: DMF
 $M_w/M_n=1.6$, M_n by titration: 43,000