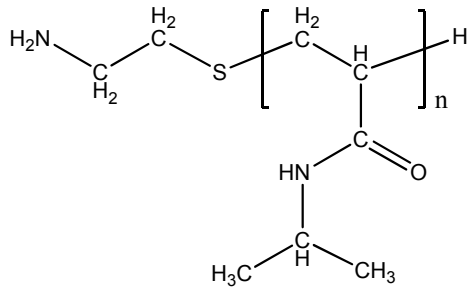
Sample Name:

Amino-terminated poly(N-isopropyl acrylamide)

Sample # **P10405F-NIPAMNH2**

Structure:

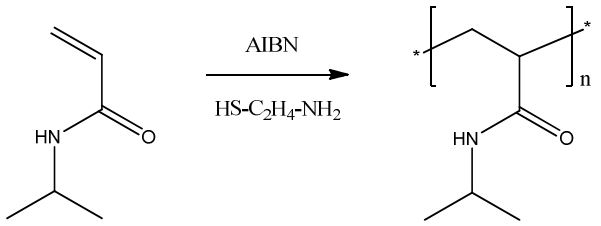


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
56.0	2.0

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:



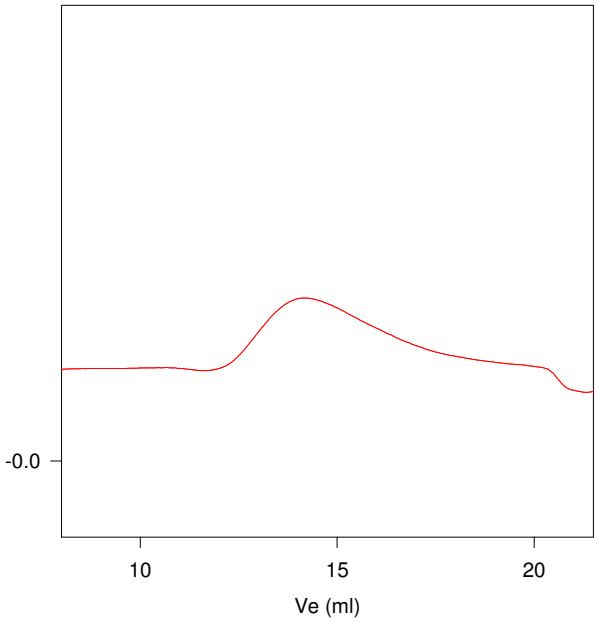
Characterization:

The molecular weight and functionality degree of the polymer were calculated by titration using $HCLO_4$/Crystal violet in $CHCl_3$/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.

Solubility:

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

SEC elugram of the polymer:



Size exclusion chromatography of poly(N-isopropylacrylamide)
With respect to polystyrene (Mn:190,000) Eluent: DMF
M_w/M_n=2.0 M_n by titration: 56,000