

Sample Name:

Amino-terminated poly(N-isopropyl acrylamide)

Sample # **P20150C-NIPAMNH2**

Structure:

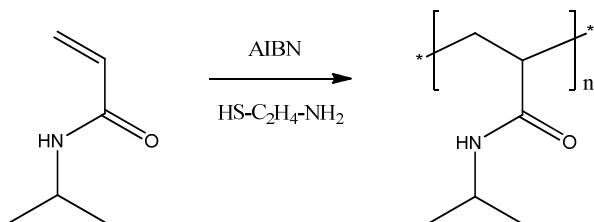


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
91.0	1.5
Syndio: Hetero+iso contents	

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.

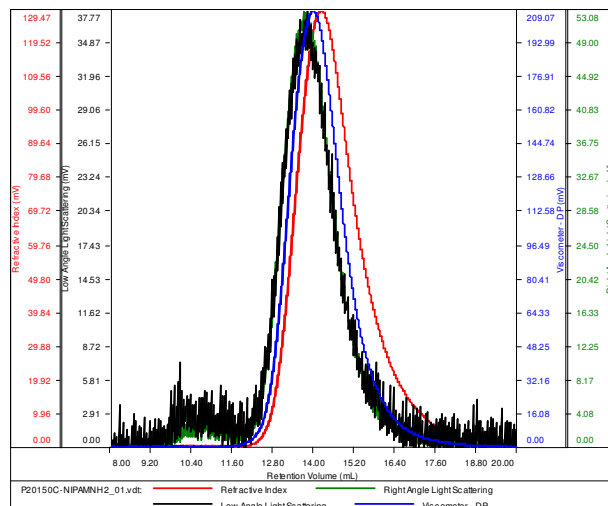
Solubility:

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

SEC elugram of the polymer:

SAMPLE ID: P20150C-NIPAM-NH2

Conc (mg/mL)	10.7729
dn/dc (mL/g)	0.0770
Method	PS80K-17SEP2014-0000.vcm
Solvent	DMF w 0.03MLiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P20150C-NIPAMNH2_01.vdt	90,829	136,453	127,898	1.502	0.4028