

Sample Name:

Amino-terminated poly(N-isopropyl acrylamide)

Sample # **P20148C-NIPAMNH2**

Structure:

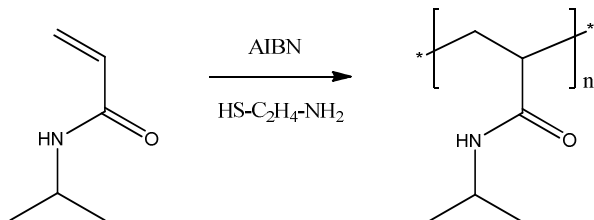


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
88.0	1.6

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.

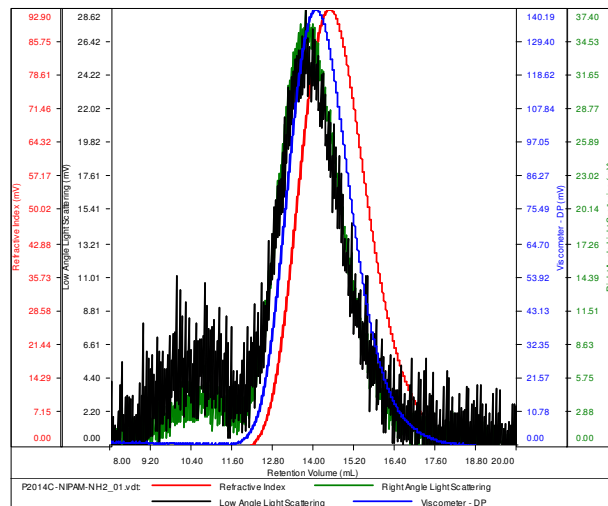
Solubility:

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

SEC elugram of the polymer:

SAMPLE ID: P20148C-NIPAM-NH2

Conc (mg/mL)	8.5507
dn/dc (mL/g)	0.0770
Method	PS80K-17SEP2014-0000.vcm
Solvent	DMF w 0.03M LiBr
Column	PSS



Sample	M_n	M_w	M_p	M_w/M_n	IV
P2014C-NIPAM-NH2_01.vdt	87,656	138,907	116,655	1.585	0.3986