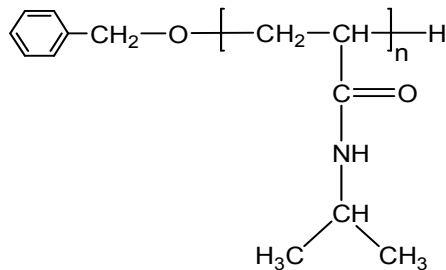


Sample Name: Poly (N-isopropyl acrylamide)

Sample #: P16042-NIPAM  
(By Controlled radical process)

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
9.5	1.50

**Synthesis Procedure:**

The product was prepared by controlled radical process.

**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) using DMF as an eluant and HNMR.

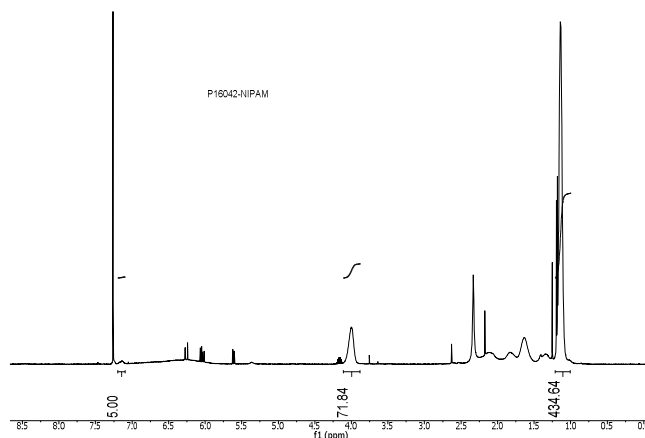
**Thermal analysis:**

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of  $10^\circ\text{C}/\text{min}$ . The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature ( $T_g$ ).

**Solubility:**

Poly (N-isopropyl acrylamide) is soluble in water, DMF, THF, and acetone. It is insoluble in hexane and ether.

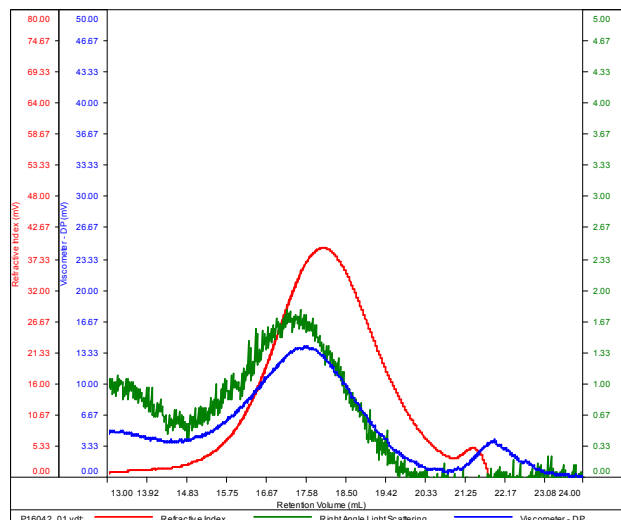
**$^1\text{H}$  NMR spectrum of the polymer:**



**SEC elugram of Homopolymer:**

**P16042-NIPAM**

Conc (mg/mL)	9.0236
dn/dc (mL/g)	0.0770
Method	PS80k, December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16042_01.vdt	9,438	14,156	10,025	1.500	0.0544