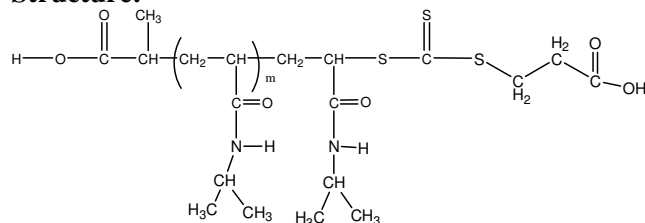


**Sample Name:**  $\alpha,\omega$ -dicarboxy terminated poly(N-isopropyl acrylamide)

**Sample #:** P16039B-NIPAM2COOH

**Structure:**



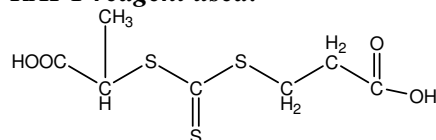
**Composition:**

Mn x 10 <sup>3</sup>	PDI
21.0	1.16

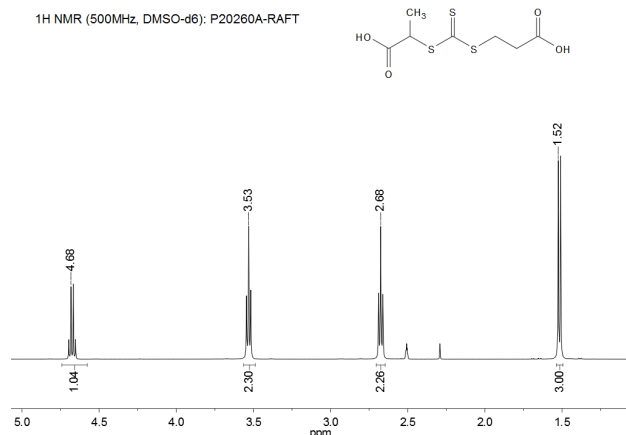
**Synthesis Procedure:**

$\alpha,\omega$ -dicarboxy Terminated Poly(N-isopropyl acrylamide) was prepared by RAFT process:

**RAFT reagent used:**



**<sup>1</sup>H NMR spectrum of the RAFT reagent:**



**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector with triple detector in DMF at 50°C.

**Thermal analysis:**

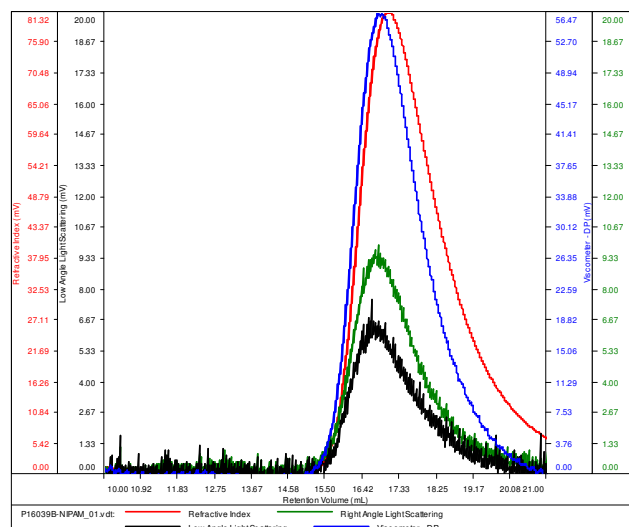
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a

heating rate of 10°C/min. The inflection glass transition temperature ( $T_g$ ) has been considered.

**SEC elugram of the polymer:**

**P16039B-NIPAM-COOH**

Conc (mg/mL)	9.6489
dn/dc (mL/g)	0.0770
Method	PS80k May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16039B-NIPAM_01.vdt	21,240	24,684	26,874	1.162	0.1298

**DSC thermogram of the polymer:**

