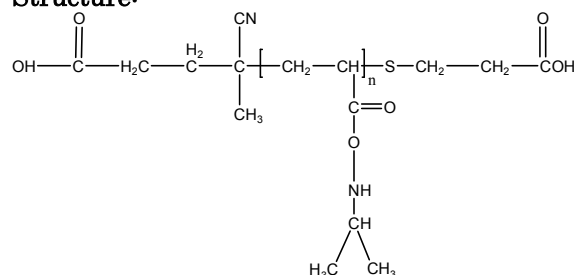


Sample Name:  **$\alpha,\omega$ -dicarboxy terminated poly(N-isopropyl acrylamide)**

Sample #: **P6141C-NIPAM2COOH**

**Structure:**

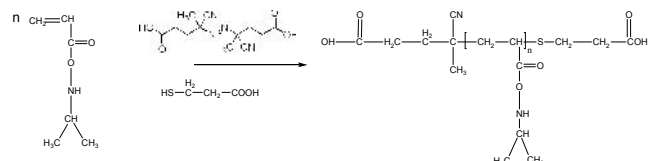


**Composition:**

Mn x 10 <sup>3</sup> By acid base titration	PDI	Mn with reference to Polystyrene Calibration
4.6	1.55	9000
T <sub>g</sub> (°C)	127	

**Synthesis Procedure:**

**$\alpha,\omega$ -dicarboxy Terminated Poly(N-isopropyl acrylamide)** was prepared by free-radical polymerization of N-isopropyl acrylamide with a carboxyl containing chain-transfer agent. The final polymer was purified by fractionation and the scheme of the reaction is illustrated below:



**Characterization:**

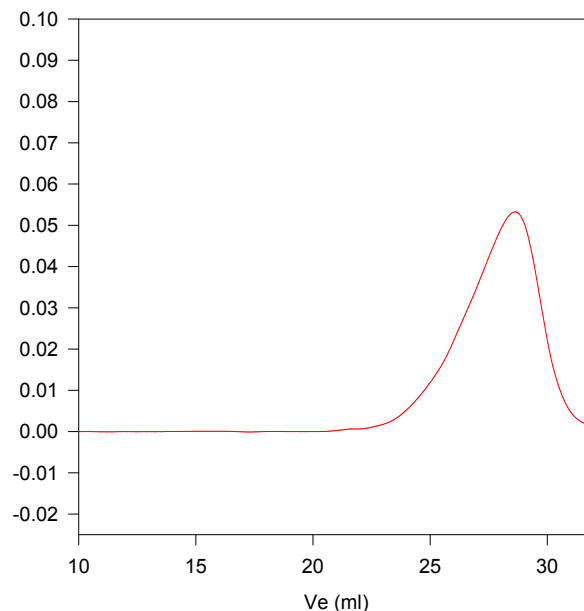
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

**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<sub>g</sub>) has been considered.

SEC of Sample:

**P6141C-NIPAM2COOH**



Size exclusion chromatography of poly(N-isopropylacrylamide) with respect to polystyrene standards:  
Eluent: DMF  
M<sub>w</sub>/M<sub>n</sub>=1.55, M<sub>n</sub> by titration: 4600

**DSC thermogram for the sample:**

