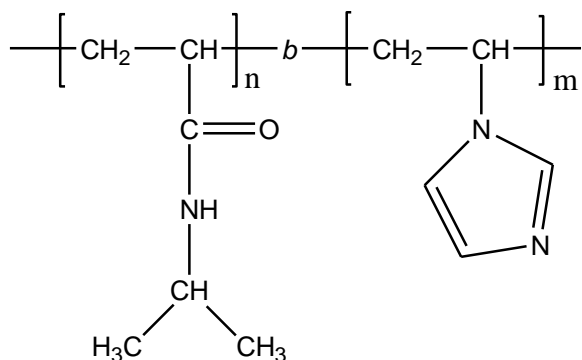


Sample Name:

**Poly( N-isopropylacrylamide-*b*-N-vinylimidazole)**

Sample #: **P14635-NIPAMVIMDZ**

**Structure:**



**Composition:**

Mn of NIPAM	20,400
PDI of PNIPAM	1.62
Mn of PNIPAM- <i>b</i> -PVIMDZ	20,400- <i>b</i> -10,200

**Synthesis Procedure:**

Diblock was prepared by RAFT process by first preparing PNIPAM macroinitiator, followed by adding N-vinyl imidazole monomer.

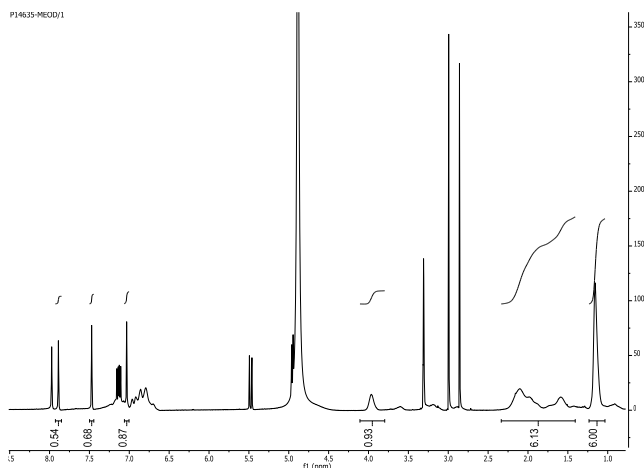
**Characterization:**

Block copolymer were analyzed by <sup>1</sup>H-NMR spectroscopy in MEDO by comparing either the NCH protons at 4.0ppm or the proton of (CH<sub>3</sub>)<sub>2</sub>CH at 1.16 of NIPAM with the aromatic proton of imidazole. The size exclusion chromatography (SEC) was used to obtain the molecular weight of the first block of PNIPAM. and the molecular weight of diblock polymer was calculated based on the composition and the molecular weight of PNIPAM.

**Solubility:**

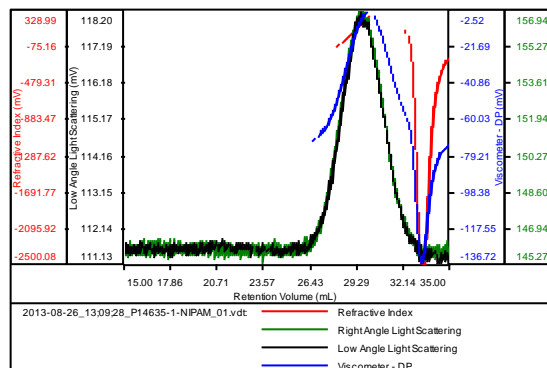
Polymer is soluble in methanol.

**<sup>1</sup>H-NMR Spectrum of the diblock copolymer:**



**SEC of the first block PNIPAM**

ID	P14635-1-NIPAM
Conc	2.4710
Recovery	17.6501
dn/dc	0.0750
Method	PS80K-AUG2013-0000.vcm
Solvent	DMF w 0.05M LiBr
Column	PSS



Sample	Mn	Mw	Mz	Mp	Mw/Mn	Ret Time
2013-08-26_13:09:28_P14635-1-N	20,428	33,033	51,181	23,609	1.617	30.627