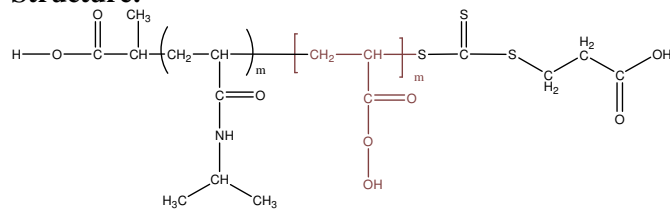


Sample Name: Poly(acrylic acid -b- N-isopropylacrylamide)

Sample #: P16016D-AANIPAM

Structure:



Composition:

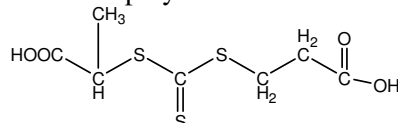
Mn x 10 ³ PAA-b-PNIPAM	3.5-b-8.0
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PDI	1.1
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DP of each block: PAA-b-PNIPAM	49-b-70
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Synthesis Procedure:

Poly(acrylic acid-b-N-isopropylacrylamide) is prepared by RAFT polymerization and sequential addition of acrylic acid monomer and N-isopropylamide monomer. The CTA used in polymerization is shown as follows:

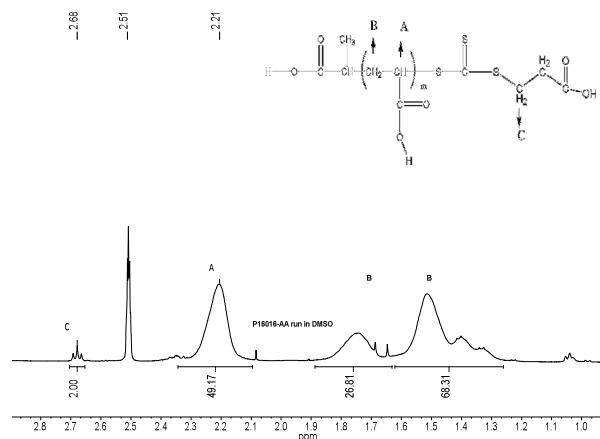


Characterization:

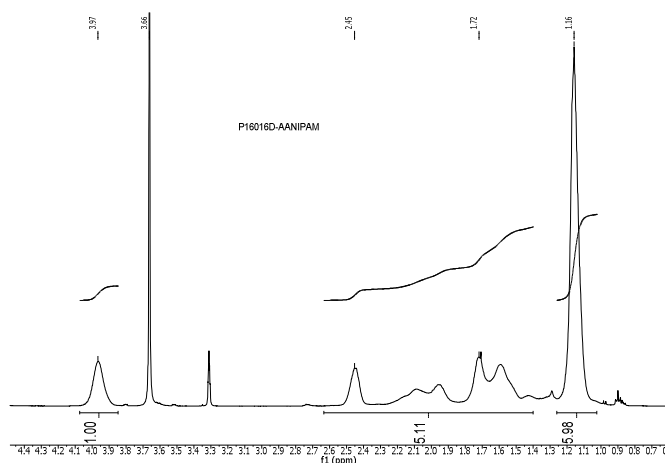
The molecular weight, polydispersity and composition of polymer were characterized by SEC and ¹H NMR.

Solubility: Poly(acrylic acid -b- N-isopropylacrylamide) is soluble in MeOH and water.

¹H-NMR Spectrum of the PAA-RAFT macroinitiator in DMSO-d₆



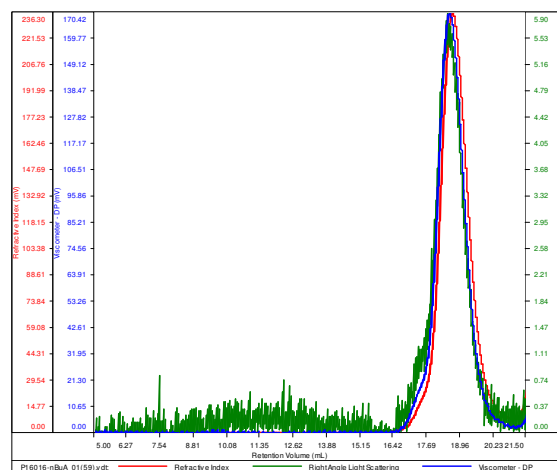
¹H NMR spectrum of the diblock copolymer PAA-NIPAM in MeOH-d₄



SEC of first block was carried out to convert PAA into poly n-Butylacrylate to determine molecular weight of the poly acrylic acid.

SEC elugram of the first block of poly(n-butyl acrylate):

P16016-nBuA	
Conc (mg/mL)	17.7332
dn/dc (mL/g)	0.0650
Method	ps80k-May2016-0002.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16016-nBuA_01(59).vcl	6,947	7,544	7,157	1.086	0.1350