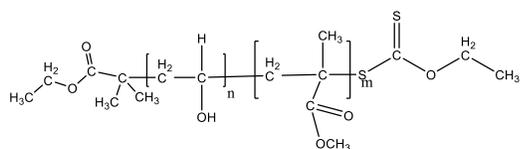


Sample Name:

**Poly(vinyl alcohol-b-methyl methacrylate)**

Sample #: **P42345AH-VAMMA**

Structure:



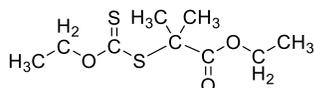
Composition:

$M_n \times 10^3$ VA-b-MMA	PDI
5.5-b-37.0	2.8
Solubility: Methanol Cloudy; DMSO clear solution	

Synthesis Procedure:

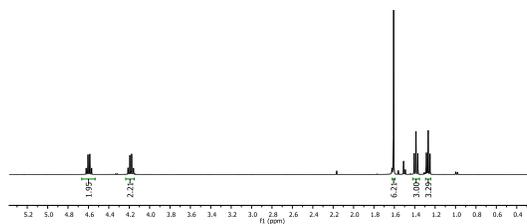
The polymer was synthesized by RAFT polymerization process using following RAFT reagent:

Structure:



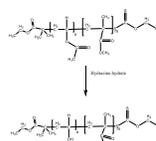
Chemical Formula:  $C_9H_{16}O_3S_2$   
Exact Mass: 236.05

**$^1H$  NMR spectrum of RAFT (400 MHz,  $CDCl_3$ ):**

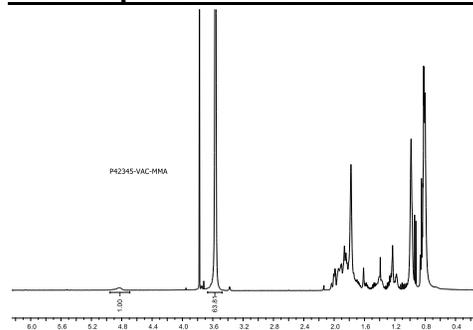


Characterization:

The product was characterized by size exclusion chromatography (SEC),  $^1H$  NMR and FTIR.



**HNMR spectrum of PVAc-b-PMMA:**

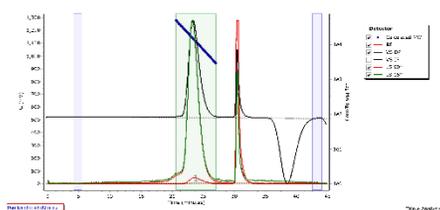


**SEC of PVAc-RAFT Macroinitiator:**

Agilent GPC/SEC Software

P42345-VAC-RAFT

Chromatogram Plot



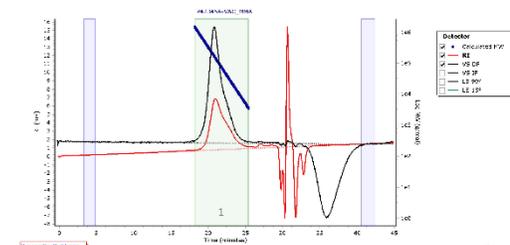
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz-1 (g/mol)	Mv (g/mol)	PD
Peak 1	13001	4200	2141	4560	11901	14500	2.07

**SEC of the block copolymer:**

Agilent GPC/SEC Software

P42345A-VAC\_MMA

Chromatogram Plot



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz-1 (g/mol)	Mv (g/mol)	PD
Peak 1	48628	47620	137858	280288	457590	211033	2.789

**FTIR spectrum of the Polymer:**

