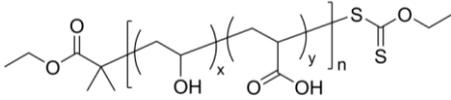


Sample Name:
Poly(vinyl alcohol-co-acrylic acid), random

Sample #: P42363A-VAAArAn

Structure:



Composition:

| | |
|-------------------|-------|
| $M_n \times 10^3$ | PDI |
| 60.0 | 3.0 |
| VA: AA | 90:10 |

Synthesis Procedure:

Random Copolymer poly(vinyl acetate-co-acrylic acid) is prepared by RAFT polymerization process. The degree of acid content was determined by ¹H NMR analysis in DMSO.

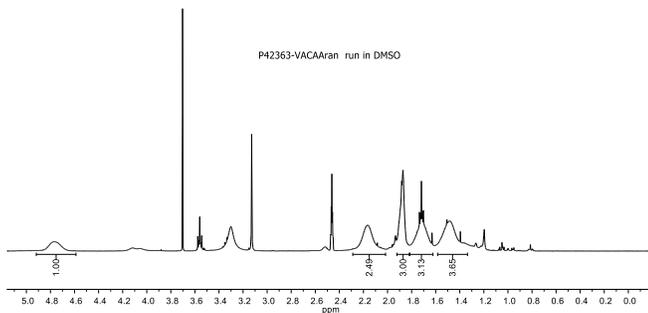
Characterization:

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

Solubility:

Random Copolymer is soluble in THF and methanol.

Proton NMR spectrum of the VACAAran copolymer:

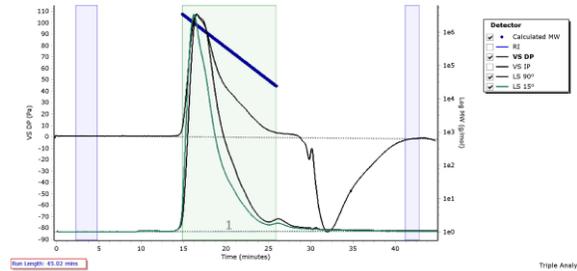


SEC elugram of the VACAAran Sample:

Agilent GPC/SEC Software

P42363-VACAA ran

Chromatogram Plot



Molecular Weight Averages

| Peak | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mv (g/mol) | PD |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 116225 | 137442 | 356776 | 929239 | 1444159 | 875271 | 3.038 |

After Hydrolysis of VAC group to Vinyl Alcohol:
Mn around: 60,000