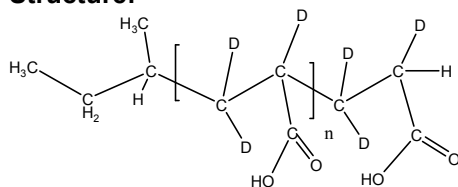


Sample Name:
Deuterated (d3) Poly (acrylic acid)
 Backbone protons are deuterated
 Sample #: **P19281-d3PAA**

Structure:

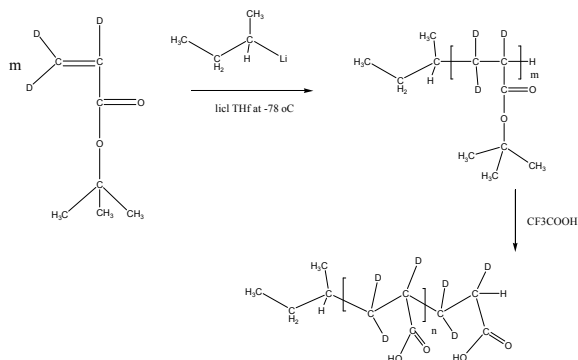


Composition:

Mn x 10 ³	PDI
3.3	1.10

Synthesis Procedure:

Poly (d3 acrylic acid) is obtained by anionic polymerization of d3 tBuA monomer.



Characterization:

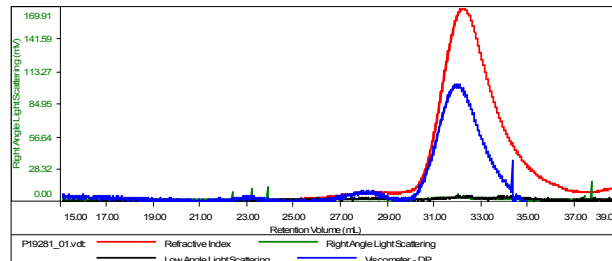
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THFF at 30 °C. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Polymer is soluble in methanol, ethanol, and water.

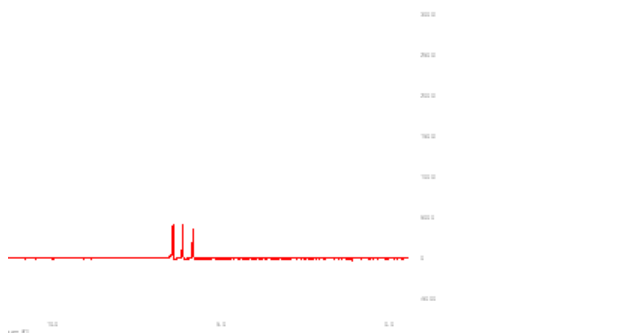
SEC of Sample: in ester form
Sample ID: P19281-d3 tBuA

Concentration (mg/mL)	1.5448
Sample dry/c: (mL/g)	0.1050
Method File	PS80K-April29-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19281_01.vcl	5,734	6,359	5,601	1.109	0.3491

D NMR of the d3 tert butyl acrylate monomer



HNMR of the polymer to calculate its Dp using terminal protons from its initiator.

