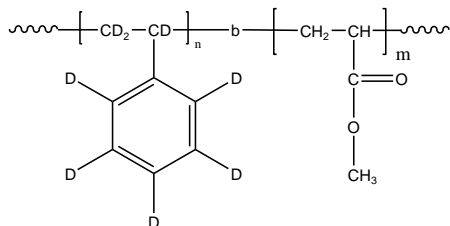


Sample Name:

Deuterated polystyrene (d₈)- poly methylacrylate(protonated)

Sample #: P18284A-dPSMA**Structure:****Composition:**

Mn x 10 ³	PDI
19.0-b-19.5	1.06
T _g for dPS block	80 °C
T _g for MA block	12 °C

Synthesis Procedure:

Deuterated poly(styrene (D₈)-b-methylacrylate) is prepared by living anionic polymerization. For further details please see our published articles.¹⁻³

Characterization:

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

Thermal analysis

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

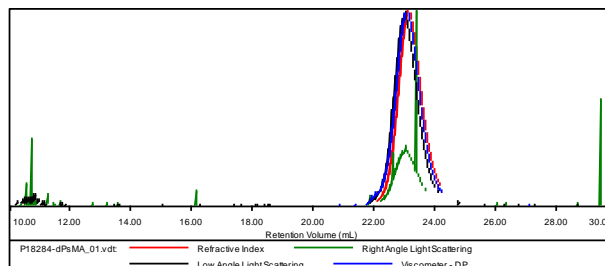
Solubility:

Deuterated polystyrene-b-MA is soluble in THF, dioxane, Toluene, benzene and CHCl₃. It precipitates out from methanol/water.

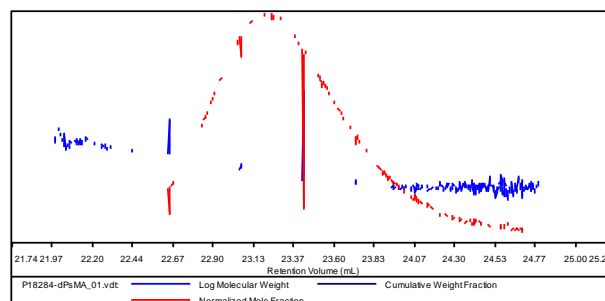
SEC of the product:

Sample ID: P18284A-dPSMA

Concentration (mg/mL)	1.8043
Sample dn/dc (mL/g)	0.1420
Method File	PS80K-NOV-2013-0001.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18284-dPSMA_01.vdt	38,793	41,154	39,944	1.061	0.5342

**DSC thermogram for dPS block:**