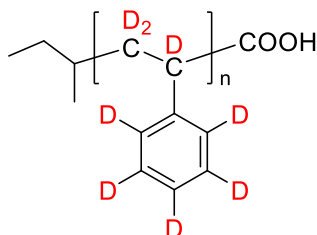


Sample Name: **Deuterated Poly(styrene-d<sub>8</sub>),  
ω-carboxy-terminated**

Sample #: **P6024-dPS**

**Structure:**



**Composition:**

$M_n \times 10^3$ (g/mol)	$M_w/M_n$
55.5	1.05

**Synthesis procedure:**

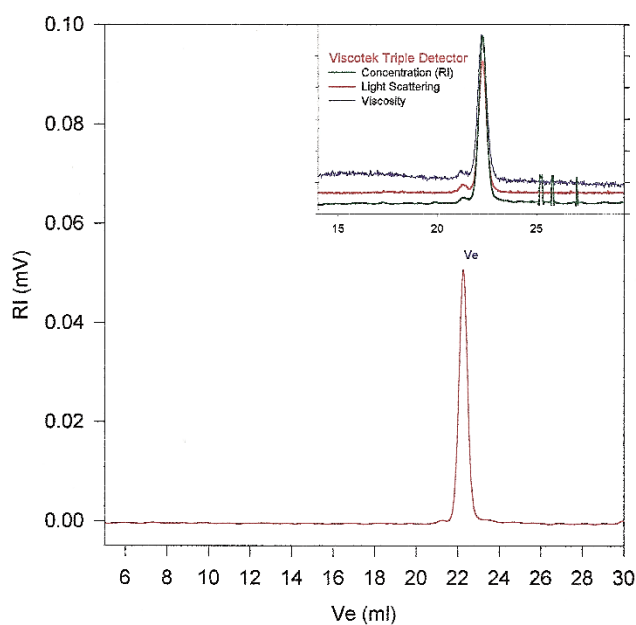
Deuterated polystyrene-d<sub>8</sub> was obtained by free radical polymerization process.

**Characterization:**

The molecular weight and polydispersity index ( $M_w/M_n$ ) were obtained by size exclusion chromatography (SEC) in THF. Degree of functionality (-COOH end-group, %) was determined by titration.

**SEC chromatogram:**

**P6024-dSCOOH**



Size Exclusion Chromatography of deuterated polystyrene:  
(before addition of CO<sub>2</sub>)

—  $M_w/M_n = 1.05$  (calculated from polystyrene calibration)

$M_n = 55500$ ,  $[\eta] = 0.373$  dL/g (THF, 30°C),  $R_g = 9.16$  nm  
(from Viscotek Triple detector)

Functionality verified by titration:  $f > 0.95$