

Sample Name:

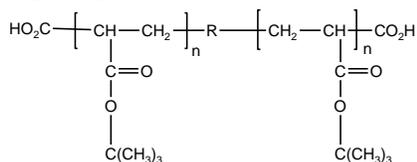
α - ω - Dicarboxy Terminated Poly(t-butyl acrylate)

SEC of Sample:

P8817-tBuA2COOH

Sample #: P8817-tBuA2COOH

Structure:

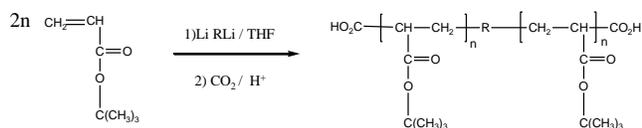


Composition:

$M_n \times 10^3$	PDI	COOH functionality
10.0	1.15	1.9

Synthesis Procedure:

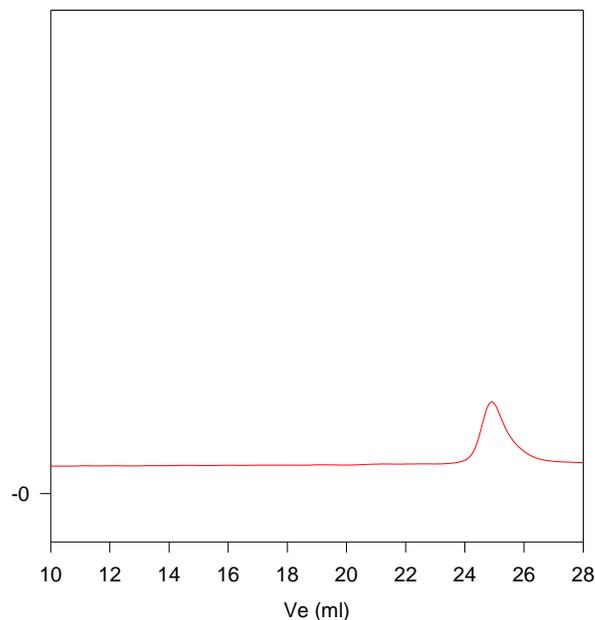
Carboxy Terminated Poly(t-butyl acrylate) is synthesized by living anionic polymerization of methyl methacrylate using a bifunctional initiator (oligomer \square -methylstyrene lithium) in THF followed by termination with dry ice.



Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) before inclusion of the CO₂H function using a Varian liquid chromatograph equipped with a UV and refractive index detector. The functionality of polymer was determined by the titration with NaOH, using phenolphthalein as the indicator.

Solubility: Soluble in THF, CHCl₃.



Size exclusion chromatography of α - ω dicarboxy terminated poly(tert.butylacrylate) (before terminating reaction with CO₂).
 $M_n=10,000$, $M_w=11,500$ PI=1.15, functionality=1.90