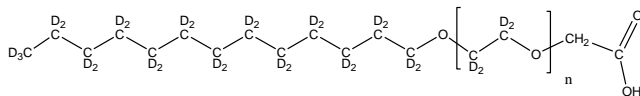


Sample Name:

$\alpha$ - tridecanol,  $\omega$ - acetic acid Terminated Poly(ethylene glycol)

Sample #: P10044-EGTridecanolCOOH

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
1.3	1.09
Hydrolysis of Tert.butyl ester to COOH	<50%
Physical Appearance at room temperature	Wax like and light off white color

**Synthesis Procedure:**

$\alpha$ - tridecanol,  $\omega$ - Propionic acid terminated poly(ethylene glycol) was synthesized by anionic living polymerization of ethylene oxide.

**Characterization:**

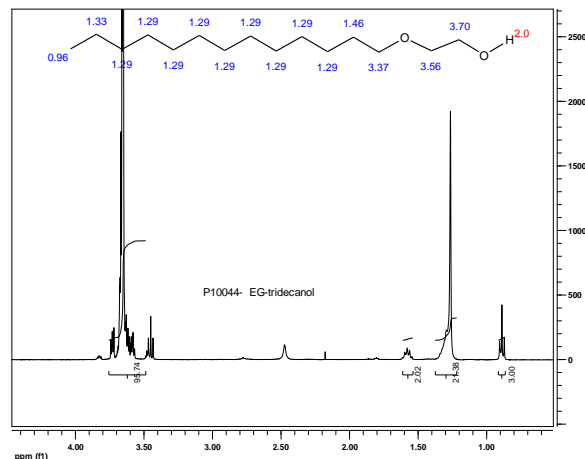
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

**Functionality:** Functionality of the polymer was determined by H NMR analysis.

**Solubility:**

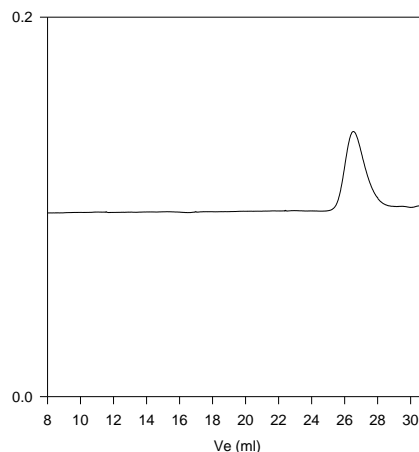
Polymer is soluble in chloroform and THF; it will be also soluble in water, methanol and ethanol. It is precipitated out from cold hexane and ether (-20°C).

**H NMR of the product:**



**SEC of product:**

P10044A-EGTridecanol-OH Before converting to Propionic acid end group



Size exclusion chromatography:

— Tridecanol terminated Poly(ethylene glycol)  
M<sub>n</sub>=1300, M<sub>w</sub>=1400, PI=1.09

**FTIR spectrum:**

