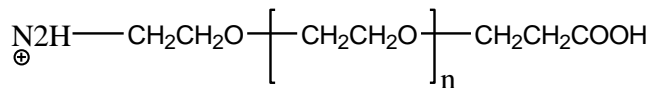


**Sample Name:** **$\alpha$ -Amino,  $\omega$ -carboxylic acid Terminated Poly(ethylene glycol)****Sample #:** P9837-EGNH2COOH**Structure:****Composition:**

Mn x 10 <sup>3</sup>	PDI
1.9	1.16

**Synthesis Procedure:**

$\alpha$ -NH<sub>2</sub>,  $\omega$ -COOH terminated poly(ethylene glycol) was synthesized by anionic living polymerization of ethylene oxide using amino protected as an initiator followed by deprotection of the end group (hydrolysis in presence of acetic acid). The procedure proprietary.

**Characterization:**

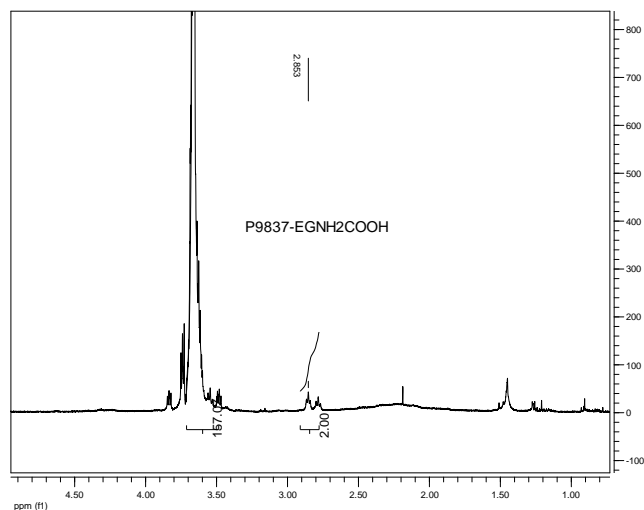
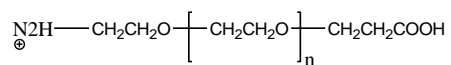
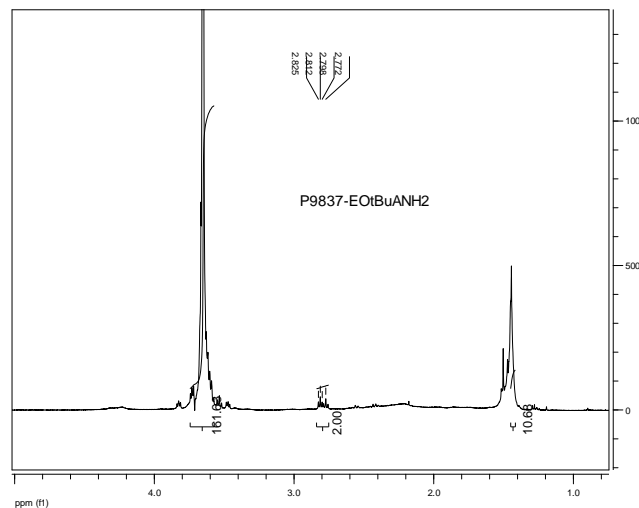
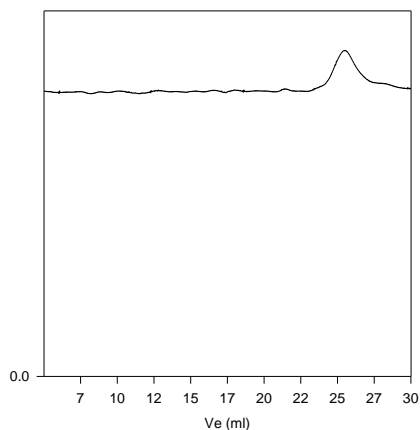
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

**Functionality:**

Functionality of the polymer was determined by H NMR analysis or FT-IR spectroscopy.

**Solubility:**

Polymer is soluble in water, methanol and ethanol, and found insoluble or swell in THF and in CHCl<sub>3</sub>. This may because of the presence of charge on terminal amino group. It is precipitated out from cold hexane and ether.

**HNMR of the product:**EG-NH<sub>2</sub>tBuA end functionalized:**SEC of Sample:****P9837-EGNH2COOH**

Size exclusion chromatography of functionalized  
 $\alpha$ -Amino- $\omega$ -Carboxy terminated Poly(ethylene glycol):

M<sub>n</sub>=1900, M<sub>w</sub>=2200, Mw/Mn = 1.16

**FTIR-Spectrum of the product:**