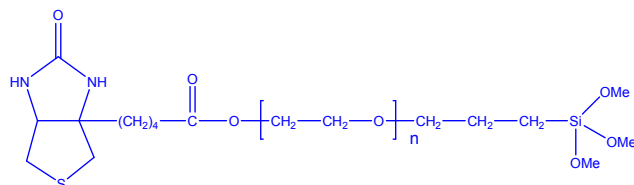
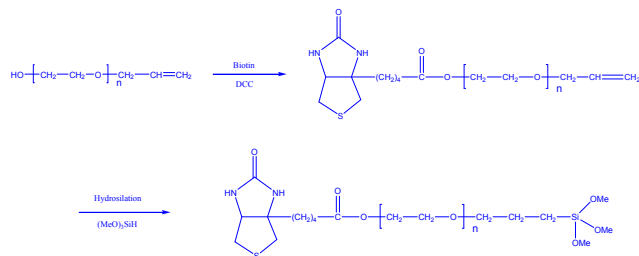


Sample Name: **α -Biotinyl- ω -trimethoxysilyl terminated Polyethylene glycol****Sample #: P5672-EGBIOTMS****Structure:****Composition:**

Mn x 10 ³	PDI (Mw/Mn)
1.0 (23 units)	1.10

*Hydrosilation degree: 75%***Synthesis Procedure:**

Allyl Terminated Poly(ethylene glycol) was prepared by anionic living polymerization of ethylene oxide using a hydroxyl protected alcohol potassium salt as initiator. The obtained polymer was hydrosilated in the presence of platinum catalyst. The scheme of the reaction is illustrated below:

**Characterization:**

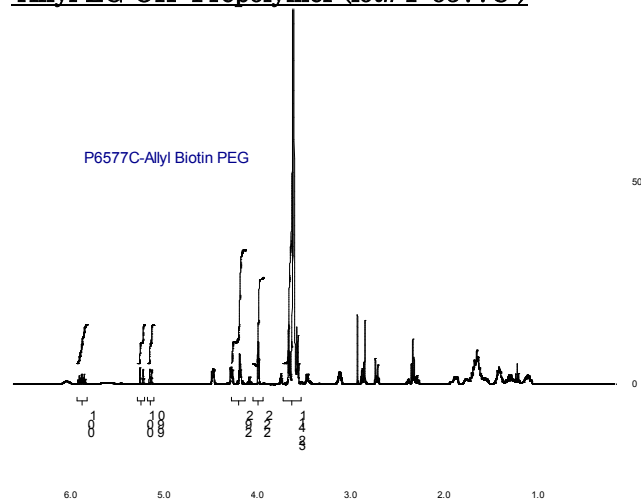
By Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 1 vol% (Et)₃N as the eluent. The molecular weights were determined using light scattering detector and viscosity detector.

An aqueous GPC column from Supelco(G5000 PWXL) was also used with 0.5 M acetic acid and 0.8 M NaNO₃ as the eluent. It was kept at a constant temperature of 50°C. The flow rate was 1.0 ml/min. The column was calibrated with monodisperse poly(ethylene oxide) standards. The molecular weights and the polydispersity index of polyethylene oxide were calculated by using GPC software.

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

Solubility:

Polymer is soluble in water (reacted), methanol(reacted) and ethanol(reacted), THF, CHCl₃, Acetone. It is precipitated out from cold hexane and ether.

SEC of Sample:**NMR Spectrum:****Allyl EG-OH Prepolymer (lot# P 6577C-)****EGBiotinTMS:**