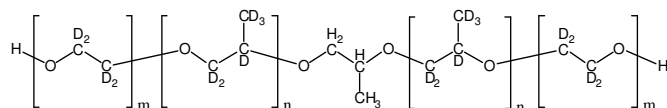


Sample Name: Poly(deuterated ethylene oxide-*b*-deuterated propylene oxide-*b*-deuterated ethylene oxide)

Sample # P18094-dPEOdPPOdPEO

Structure:



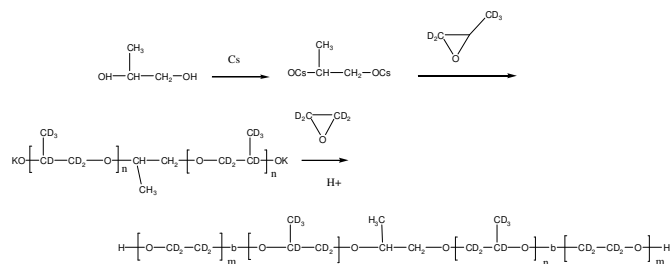
Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
0.5- <i>b</i> -2.1- <i>b</i> -0.5	1.18

Dp:	dPEO(10)- <i>b</i> -dPPO(34)- <i>b</i> -dPEO(10)
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Synthesis procedure:

Poly(deuterated ethylene oxide-*b*-deuterated propylene oxide-*b*-deuterated ethylene oxide) triblock copolymer was prepared by anionic polymerization using propylene oxide and ethylene oxide deuterated monomers. The scheme of the reaction is shown below:



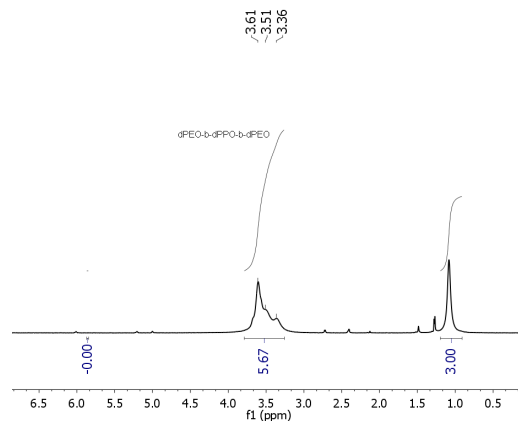
Characterization:

Molecular structure of the polymer was confirmed by ^1H and ^2H (D) NMR spectroscopy. The molecular weight and polydispersity index of the polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with UV and refractive index detectors.

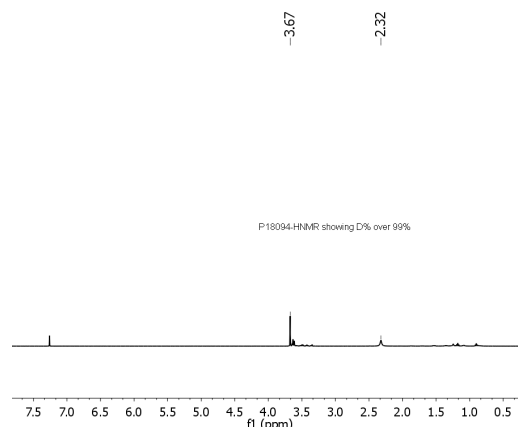
Solubility:

dPEO-dPPO-dPEO polymer is soluble in chloroform, THF, and toluene.

D-NMR spectrum of dPEO-dPPO-dPEO in CHCl_3 :

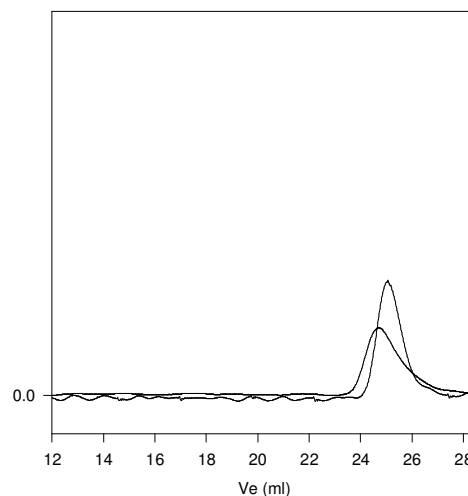


^1H -NMR spectrum of dPEO-dPPO-dPEO in CDCl_3 :



SEC elugrams of PPO (middle block) and PEO-PPO-PEO triblock copolymer:

P18094-dPEOdPPOdPEO



Size exclusion chromatography of:
(deuterated ethylene oxide-*d*₄-deuterated propylene oxide-*d*₆-deuterated ethylene oxide-*d*₄)triblock copolymer):

- dPPO center Block $M_n=2100$, $M_w=2,400$, $PI=1.18$
- Block Copolymer dEO(500)-*b*-dPPO(2,100)-*b*-dEO(500), $PI=1.18$
- Dp: dEO(10)-*b*-dPPO(35)-*b*-dEO(10)

(v. I-01)