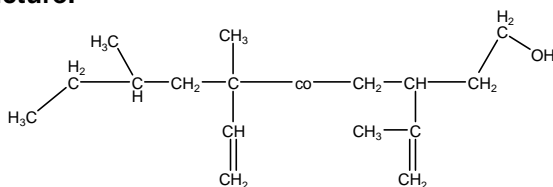


Sample Name:

**Hydroxy-terminated Polyisoprene,  
1,2 and 3,4 -microstructure rich**

Sample #: **P18833B-IPOH**

**Structure:**

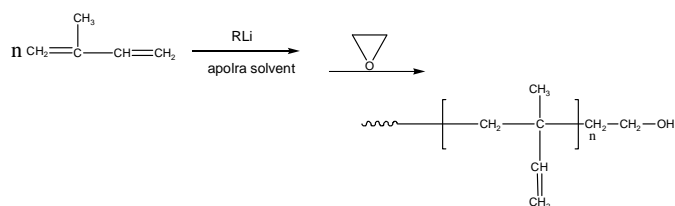


**Composition:**

Mn x 10 <sup>3</sup>	PDI
18.0	1.10

**Synthesis Procedure:**

1,2 and 3, 4 -addition hydroxy terminated polyisoprene was prepared by anionic living polymerization in a apolar solvent (THF) followed by termination with ethylene oxide. The scheme of the reaction is illustrated below:



**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

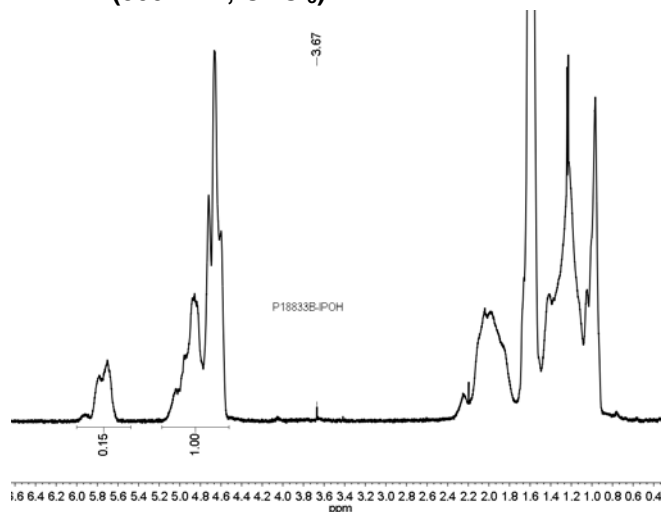
**Functionality:**

Functionality of the obtained polymer was determined by reacting polymer in dried non quantity of acetic anhydride in the presence of pyridine as a catalyst and the liberated COOH was titrated by acid-base titration.

**Solubility:**

Hydroxy-terminated polyisoprene is soluble in DMF, THF, toluene, hexane, cyclohexane, and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water.

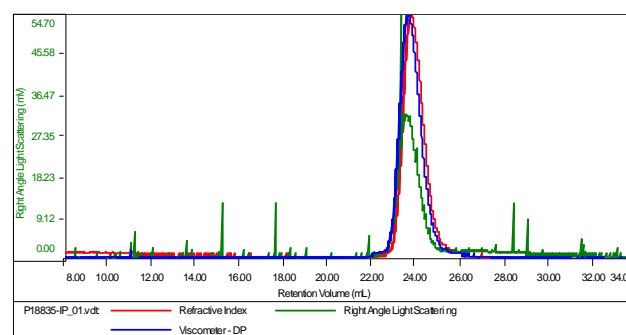
**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>):**



**SEC elugram:**

**Sample ID: P18833-IPOH**

Concentration (mg/mL)	9.1678
Sample ch/dc (mL/g)	0.1250
Method File	PS80K-august 5-2014-0000.vcm
Column Set	3xPL 1113-6300
Solvent	THF



Sample	Mh	Mw	Mp	Mw/Mh	IV
P18833-IP_01.vdt	17,921	19,752	18,306	1.102	0.1895

