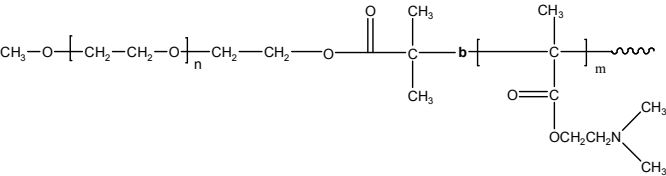


Sample Name:
Poly(ethylene oxide -b- 2-(dimethylamino)ethyl methacrylate)

Sample #: P14910- EODMAEMA

Structure:



Composition:

$\text{Mn} \times 10^3$ PEO-b-PDMAEMA	PDI
0.6-b-1.0	1.8

Synthesis Procedure:

Poly [ethylene oxide–b-2-(dimethylamino) ethyl methacrylate] is prepared by living anionic polymerization of ethylene oxide followed by control radical process for 2-(dimethyl amino) ethyl methacrylate polymerization .

Characterization:

By SEC and HNMR

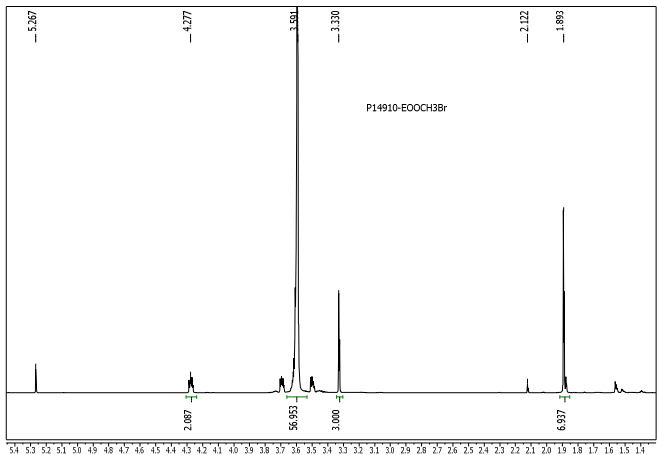
Purification of the polymer and removal of any un-reacted homopolyethylene oxide from the diblock copolymer:

Polymer dissolved in water and the pH of the medium increased to about 13 by addition of NaOH. The polymer precipitated out by warming the solution at 80°C. The process was repeated twice to remove homo PEO completely. The obtained polymer dissolved in methanol and pH was adjusted to about 8 by adding HCL and filtered. The solvent was removed by rota-evaporator. The highly viscous solution was cold precipitated by hexane/ether mixture and finally dried under vacuum at 40°C.

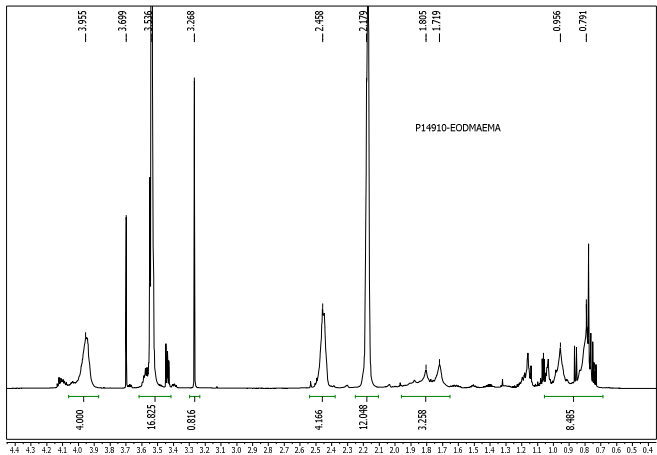
Solubility:

The polymer is soluble in water.

HNMR mPEG-Br

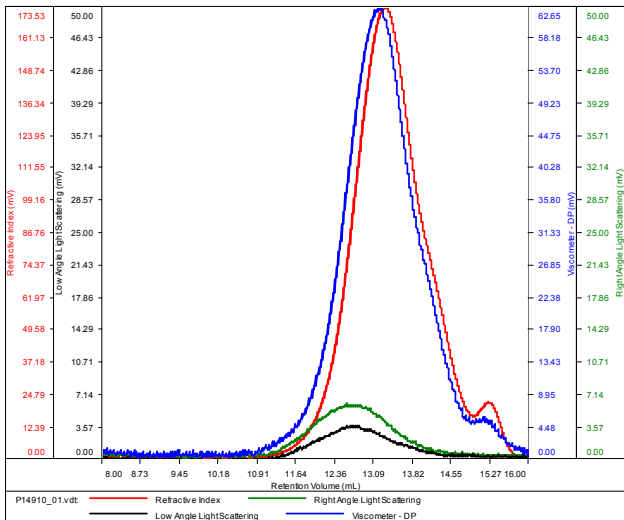


$^1\text{H-NMR}$ Spectrum of the block copolymer:



SAMPLE ID: P14910-EODMAEMA

Conc (mg/mL)	5.2513
dn/dc (mL/g)	0.1400
Method	ps80k-July292015-0000.vcm
Solvent	DMF w 0.03MLIBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P14910_01.vdt	4,554	8,254	4,813	1.812	0.1430

Composition determine from HNMR Sec values illustrate Mw/Mn