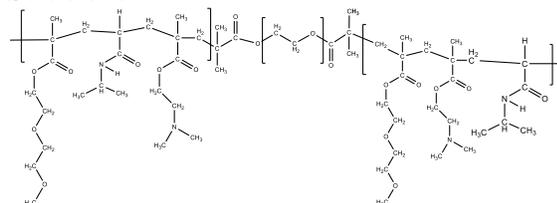


**Sample Name:** Poly (Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate-co-N-isopropyl acrylamide)-b-Poly ethylene glycol-b- Poly (Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate-co-N-isopropyl acrylamide),random

**Sample #:**  
**P43856B-DEGMEOMADMAEMANIPAM-EG-DEGMEOMADMAEMANIPAM**

**Structure:**



**Composition:**

Mn PEG Block	Mn total	Mw/Mn
20,000	71,500	1.5
DEGMEOMADMAEMANIPAM-PEG-DEGMEOMADMAEMANIPAM DP: 99-17-3-b-454-b-99-17-3		
Feed mole DEG-MeOMA: 0.180 mole DMAEMA: 0.038 NIPAM: 0.05		

**Synthesis Procedure:**

The polymer is prepared by ATRP process using  $\alpha,\omega$ -dibromo PEG.

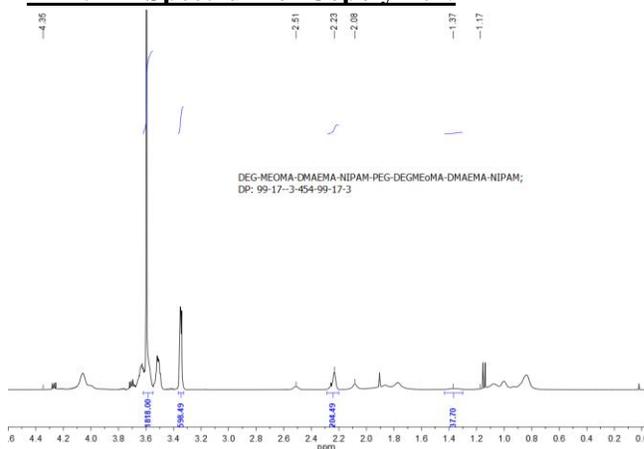
**Characterization:**

The molecular weight and polydispersity index (PDI) were calculated by SEC using water as an eluent. The copolymer composition was calculated from  $^1\text{H-NMR}$  spectroscopy.

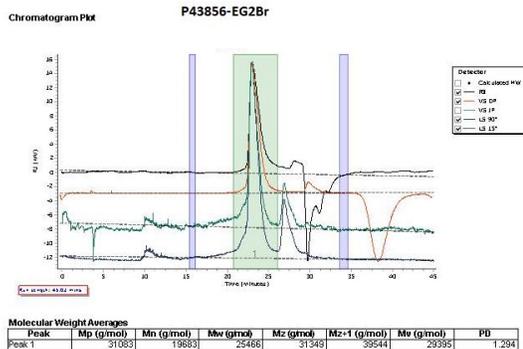
**Solubility:**

The polymer is soluble in water. **1mg polymer in Water does not give a clear solution, by heating solution to about 40 °c with bubbling CO<sub>2</sub>, it gives clear solution immediately.**

**$^1\text{H-NMR}$  Spectrum of Copolymer:**



**SEC elugram of the PEG block:**



**SEC elugram of the random copolymer:**

