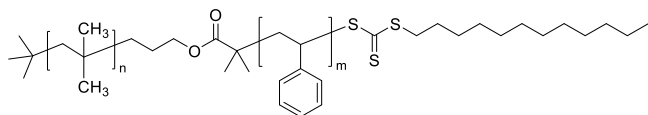


**Sample Name: Poly(isobutylene)-b-poly(styrene)**

**Sample #: P42369-IB-S**

**Structure:**

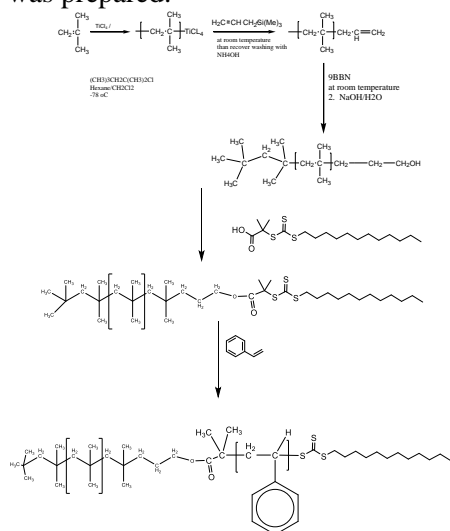


**Composition:**

|                             |                 |
|-----------------------------|-----------------|
| $M_n \times 10^3$<br>Ib-b-S | $M_w/M_n$ (PDI) |
| 8.5-b-24.0                  | 1.18            |

**Synthesis Procedure:**

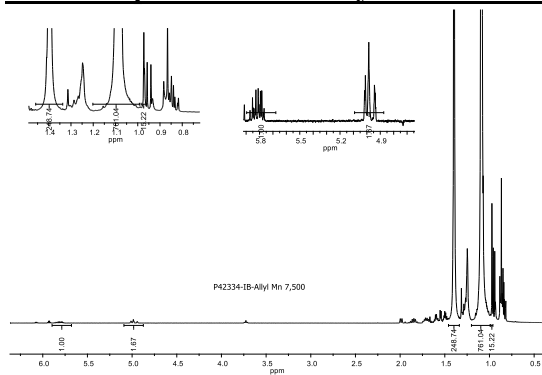
The following reaction scheme shows how the product was prepared:



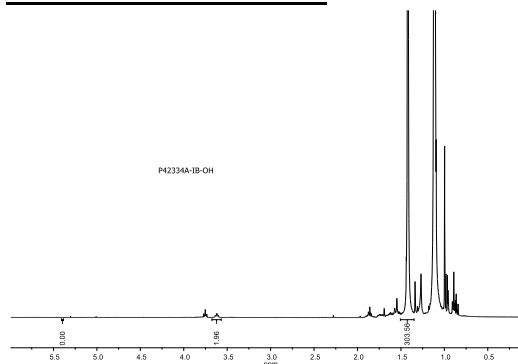
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and  $^1\text{H}$  NMR.

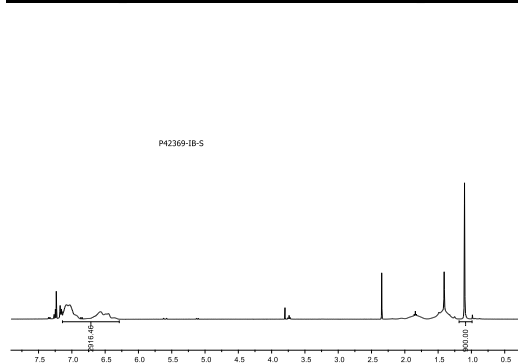
**$^1\text{H}$  NMR spectrum of the allyl terminated IB:**



**$^1\text{H}$  NMR spectrum of the Sample used to convert IB-RAFT macroinitiator:**



**$^1\text{H}$  NMR spectrum of the Block copolymer:**

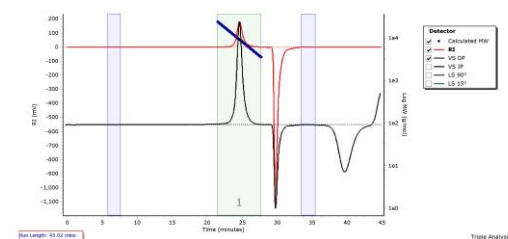


**SEC elugram of the allyl terminated PIB Used to prepare RAFT macromonomer:**

Agilent GPC/SEC Software

P42369-IB-RAFT

Chromatogram Plot



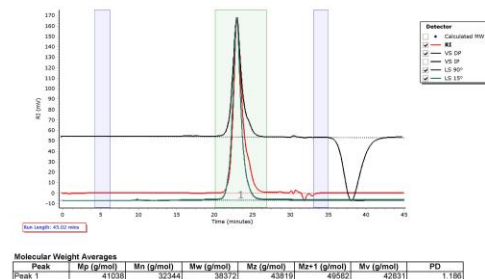
| Peak   | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mz (g/mol) | PD    |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 9201       | 8759       | 9031       | 9339       | 9604         | 9268       | 1.035 |

**SEC elugram of the Sample:**

Agilent GPC/SEC Software

P42369-IB-S

Chromatogram Plot



| Peak   | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mz (g/mol) | PD    |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 41038      | 32344      | 38372      | 43819      | 49562        | 42831      | 1.186 |