

## Support Information

**Synthesis of Diblock copolymer.** A well-defined PS-*block*-PBMA (SB) diblock copolymer was prepared by the anionic addition polymerization using *n*-BuLi as an initiator in THF at  $-78^{\circ}\text{C}$ . Typical GPC profiles of PS precursor and SB are shown in Figure 1. Both GPC curves shows a unimodal distribution and the elution peak of SB shifts to the high-molecular-weight side compared to that of PS precursor. The molecular weight distribution ( $M_w/M_n = 1.18$ ) of SB is relatively narrow.

The composition of SB was determined by  $^1\text{H}$  NMR in  $\text{CDCl}_3$  (see Figure 2). The spectrum exhibits the expected resonances assignable to methyl protons ( $\delta$  1.41 ppm) of *t*-butyl groups of PBMA and aromatic protons (6.3-7.2 ppm) of PS. PS composition (66 mol%) was evaluated from the integration ratio of both peaks.

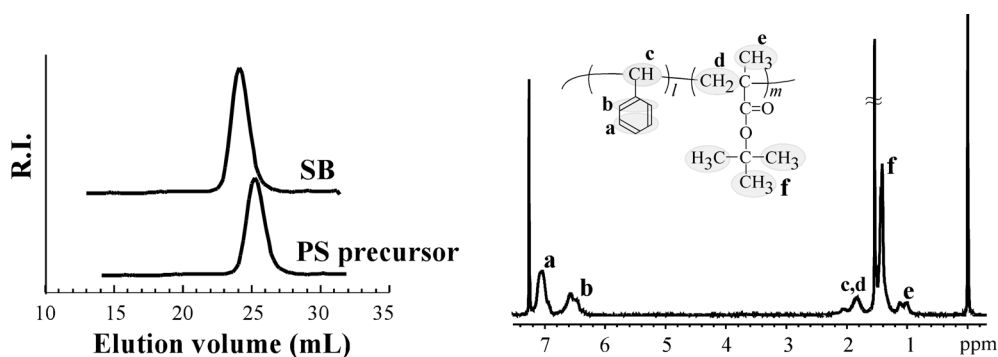


Figure 1. GPC profiles of PS precursor and SB diblock copolymer. Figure 2.  $^1\text{H}$ -NMR spectrum of SB diblock copolymer in  $\text{CDCl}_3$ .