BOS1 encodes an essential v-SNAREinvolved in forward transport between the endoplasmic reticulumand the Golgi. Bos1p is an integral ER membrane protein, and can be found on 50nm vesicles budded from the ER. Regions of the v-SNAREs Bos1p and Sec22p that are homologous to mammalian synaptobrevins bind to the t-SNARE Sed5p, which has similarity to mammalian syntaxin. Bos1p and Sec22p interact in a Ypt1p-dependent manner. BOS1 was identified as a suppressor of mutations in the v-SNARE Bet1p, and both Bos1p and Bet1p interact with COPII, the coat protein complex found on ER transport vesicles. The interaction between Bos1p and Bet1p is also dependent on Ypt1p. Antibodies against Bos1p block protein export after vesicles bud from the ER but prior to fusion with the Golgi.