

**Name:** Protein translocase subunit SecY

**Function:**

The central subunit of the protein translocation channel SecYEG. Consists of two halves formed by TMs 1-5 and 6-10. These two domains form a lateral gate at the front which open onto the bilayer between TMs 2 and 7, and are clamped together by SecE at the back. The channel is closed by both a pore ring composed of hydrophobic SecY residues and a short helix (helix 2A) on the extracellular side of the membrane which forms a plug. The plug probably moves laterally to allow the channel to open. The ring and the pore may move independently.

**Source:**

We searched on NCBI with the accession number obtained and confirmed on Uniprot our Blast results:

GO - Biological process:

intracellular protein transmembrane transport Source: UniProtKB-HAMAP

protein targeting Source: UniProtKB-HAMAP

protein transport by the Sec complex Source: UniProtKB-HAMAP

We found also information about the interaction with other structures:

“Component of the Sec protein translocase complex. Heterotrimer consisting of SecY, SecE and SecG subunits. The heterotrimers can form oligomers, although 1 heterotrimer is thought to be able to translocate proteins. Interacts with the ribosome. Interacts with SecDF, and other proteins may be involved. Interacts with SecA.”

This protein has a subcellular location in Cell inner membrane

Score of 2 out 5 “-Protein inferred from homology”