SANTA CRUZ BIOTECHNOLOGY, INC.

Sec61β (G-15): sc-27695

BACKGROUND

The Sec61 complex forms the core element of the protein translation complex in the rough endoplasmic reticulum membrane. The complex also associates with two ubiquitous ER membrane proteins: Sec62 (also designated human translocation protein 1 or HTP1) and Sec63. The complex forms a two-way channel that transports proteins both into the ER and back to the cytosol for degradation. Specifically, it appears the β subunit facilitates the escort of proteins back to the cytoplasm for degradation by the proteasome or by other proteolytic systems.

REFERENCES

1. Rapoport, T.A., et al. 1996. Protein transport across the eukaryotic endoplasmic reticulum and bacterial inner membranes. Annu. Rev. Biochem. 65: 271-303.
2. Daimon, M., et al. 1997. Identification of a human cDNA homologue to the *Drosophila* translocation protein 1 (Dtrp1). Biochem. Biophys. Res. Commun. 230: 100-104.
3. Bebok, Z., et al. 1998. The mechanism underlying cystic fibrosis transmembrane conductance regulator transport from the endoplasmic reticulum to the proteasome includes Sec61β and a cytosolic, deglycosylated intermediary. J. Biol. Chem. 273: 29873-29878.
4. Romisch, K. 1999. Surfing the Sec61 channel: bidirectional protein translocation across the ER membrane. J. Cell Sci. 112: 4185-4191.
5. Raden, D., et al. 2000. Role of the cytoplasmic segments of Sec61α in the ribosome-binding and translocation-promoting activities of the Sec61 complex. J. Cell Biol. 150: 53-64.
6. Meyer, H.A., et al. 2000. Mammalian Sec61 is associated with Sec62 and Sec63. J. Biol. Chem. 275: 14550-14557.
7. Levy, R., et al. 2001. *In vitro* binding of ribosomes to the β subunit of the Sec61p protein translocation complex. J. Biol. Chem. 276: 2340-2346.
8. Alder, N.N., et al. 2005. The molecular mechanisms underlying BiP-mediated gating of the Sec61 translocon of the endoplasmic reticulum. J. Cell Biol. 168: 389-399.

CHROMOSOMAL LOCATION

Genetic locus: SEC61B (human) mapping to 9q22.33; Sec61b (mouse) mapping to 4 B1.

SOURCE

Sec61β (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Sec61β of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27695 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

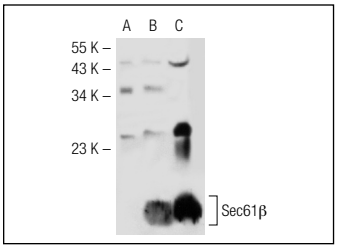
Sec61β (G-15) is recommended for detection of Sec61β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Sec61β siRNA (h): sc-106868, Sec61β siRNA (m): sc-155966, Sec61β shRNA Plasmid (h): sc-106868-SH, Sec61β shRNA Plasmid (m): sc-155966-SH, Sec61β shRNA (h) Lentiviral Particles: sc-106868-V and Sec61β shRNA (m) Lentiviral Particles: sc-155966-V.

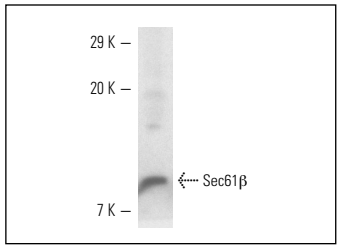
Molecular Weight of Sec61β: 9 kDa.

Positive Controls: mouse pancreas extract: sc-364244, Sec61β (m): 293T Lysate: sc-125973 or HeLa whole cell lysate: sc-2200.

DATA



Sec61β (G-15): sc-27695. Western blot analysis of Sec61β expression in non-transfected: sc-117752 (**A**) and mouse Sec61β transfected: sc-125973 (**B**) 293T whole cell lysates and mouse pancreas tissue extract (**C**).



Sec61β (G-15): sc-27695. Western blot analysis of Sec61β expression in mouse pancreas tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.