SANTA CRUZ BIOTECHNOLOGY, INC.

SR-α (yV-20): sc-28100

BACKGROUND

The targetting of nascent secretory proteins to the endoplasmic reticulum membrane requires a protein designated the signal recognition particle receptor. In yeast, the α subunit of the receptor, designated SR-α, localizes to the peripheral membrane and contains a GTP binding active site. Disruption of the gene encoding SR-α results in impaired translocation of soluble and membrane proteins across the ER membrane, and also a significant reduction in the growth rate of cells.

REFERENCES

1. Ogg, S.C., et al. 1992. Signal recognition particle receptor is important for cell growth and protein secretion in *Saccharomyces cerevisiae*. Mol. Biol. Cell 3: 895-911.
2. Wilkinson, B.M., et al. 2001. Ssh1p determines the translocation and dislocation capacities of the yeast endoplasmic reticulum. Dev. Cell 1: 401-409.
3. Grosshans, H., et al. 2001 Biogenesis of the signal recognition particle (SRP) involves import of SRP proteins into the nucleolus, assembly with the SRP-RNA, and Xpo1p-mediated export. J. Cell Biol.153: 745-762.
4. Mutka, S.C., et al. 2001. Multifaceted physiological response allows yeast to adapt to the loss of the signal recognition particle-dependent protein-targeting pathway. Mol. Biol. Cell 12: 577-588.
5. Young, B.P., et al. 2001. Sec63p and Kar2p are required for the translocation of SRP-dependent precursors into the yeast endoplasmic reticulum *in vivo*. EMBO J. 20: 262-271.
6. Willer, M., et al. 2003. An *in vitro* assay using overexpressed yeast SRP demonstrates that cotranslational translocation is dependent upon the J-domain of Sec63p. Biochemistry 42: 7171-7177.
7. Willer, M., et al. 2003. Identification of novel protein-protein interactions at the cytosolic surface of the Sec63 complex in the yeast ER membrane. Yeast 20:133-148.
8. Van Nues, R.W., et al. 2004. *Saccharomyces* SRP RNA secondary structures: a conserved S-domain and extended Alu-domain. RNA 10: 75-89.

SOURCE

SR-α (yV-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of signal recognition particle receptor α of *Saccharomyces cerevisiae* 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-28100 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SR-α (yV-20) is recommended for detection of SR-α of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

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.