



Sec4 (yL-13): sc-26758

BACKGROUND

A number of components are involved in the secretory pathway of *Saccharomyces cerevisiae*, which are collectively known as the SEC gene products. Polarized secretion requires proper targeting of secretory vesicles to specific sites on the plasma membrane. Sec4, a secretory vesicle associated Rab/Ypt-family GTPase, is involved in Golgi to cell surface transport, which is the last step of the exocytic pathway. Sec15, an exocyst component, can associate with secretory vesicles and interact specifically with Sec4 in its GTP-bound form. A chain of protein-protein interactions leads from Sec4 and Sec15 on the vesicle, through various subunits of the exocyst, to Sec3, which marks the sites of exocytosis on the plasma membrane. Sec4 may control the assembly of the exocyst. In addition, the 23.5 kDa Sec4 protein forms a complex with Myo2 and Mlc1, which is required for actomyosin ring assembly and cytokinesis. Sec4 is associated with the cytoplasmic surface of secretory vesicles and the plasma membrane.

REFERENCES

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2. Vahlensieck, Y., et al. 1995. Transcriptional studies on yeast SEC genes provide no evidence for regulation at the transcriptional level. *Yeast* 11: 901-911.
3. Collins, R.N., et al. 1997. Interactions of nucleotide release factor Dss4p with Sec4p in the post-Golgi secretory pathway of yeast. *J Biol Chem.* 272: 18281-18289.
4. Guo, W., et al. 1999. The exocyst is an effector for Sec4p, targeting secretory vesicles to sites of exocytosis. *Embo J.* 18: 1071-1080.
5. Jones, S., et al. 2000. The TRAPP complex is a nucleotide exchanger for Ypt1 and Ypt31/32. *Mol Biol Cell.* 11: 4403-4411.
6. Toikkanen, J.H., et al. 2003. The β subunit of the Sec61p ER translocon interacts with the exocyst complex in *Saccharomyces cerevisiae*. *J Biol Chem.* 278: 20946-53.
7. Wagner, W., et al. 2002. Mlc1p promotes septum closure during cytokinesis via the IQ motifs of the vesicle motor Myo2p. *Embo J.* 21: 6397-6408.
8. SWISS-PROT/TrEMBL ("P07560"). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

SOURCE

Sec4 (yL-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sec4 of *Saccharomyces cerevisiae* origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26758 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Sec4 (yL-13) is recommended for detection of Sec4 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).

Molecular Weight of Sec4: 23.5 kDa.

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.

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.