

SEC13 (S-13): sc-103197



The Power to Question

BACKGROUND

There are a number of components involved in the secretory pathway of *Saccharomyces cerevisiae*, which are collectively also known as the SEC gene products. Among these proteins, the yeast SAR1 gene encodes a low-molecular-weight GTPase that is essential for the formation of transport vesicles from the endoplasmic reticulum (ER). Vesicular traffic within the early secretory pathway is mediated by COPI- and COPII-coated vesicles. The COPII vesicle coat protein promotes the formation of ER derived transport vesicles that carry secretory proteins to the Golgi complex in yeast. This coat protein consists of Sar1, the Sec23 protein complex containing Sec23 and Sec24, and the Sec13 protein complex containing Sec13 and p150. p150 is encoded by the gene SEC31, which was initially isolated in a genetic screen for mutations that accumulate unprocessed forms of the secretory protein α -factor.

REFERENCES

- Vahlensieck, Y., et al. 1995. Transcriptional studies on yeast SEC genes provide no evidence for regulation at the transcriptional level. *Yeast* 11: 901-911.
- Shaywitz, D.A., et al. 1997. COPII subunit interactions in the assembly of the vesicle coat. *J. Biol. Chem.* 272: 25413-25416.
- Salama, N.R., et al. 1997. Sec31 encodes an essential component of the COPII coat required for transport vesicle budding from the endoplasmic reticulum. *Mol. Biol. Cell* 8: 205-217.
- Nickel, W., et al. 1998. Protein and lipid sorting between the endoplasmic reticulum and the Golgi complex. *Semin. Cell Dev. Biol.* 9: 493-501.
- Saito, Y., et al. 1999. Identification of SEC12, SED4, truncated SEC16, and EKS1/HRD3 as multicopy suppressors of ts mutants of Sar1 GTPase. *J. Biochem.* 125: 130-137.

CHROMOSOMAL LOCATION

Genetic locus: SEC13 (human) mapping to 3p25.3.

SOURCE

SEC13 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SEC13 of human 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-103197 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

SEC13 (S-13) is recommended for detection of SEC13 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other SEC family members.

Suitable for use as control antibody for SEC13 siRNA (h): sc-78504, SEC13 shRNA Plasmid (h): sc-78504-SH and SEC13 shRNA (h) Lentiviral Particles: sc-78504-V.

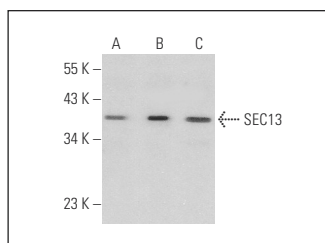
Molecular Weight of SEC13: 36 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SEC13 (S-13): sc-103197. Western blot analysis of SEC13 expression in Jurkat (A), K-562 (B) and Hep G2 (C) whole cell lysates.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **SEC13 (F-6): sc-514308**, our highly recommended monoclonal alternative to SEC13 (S-13).