

SEC13 (C-14): sc-103195

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

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- Salama, N.R., Chuang, J.S. and Schekman, R.W. 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.
- Shaywitz, D.A., Espenshade, P.J., Gimeno, R.E. and Kaiser, C.A. 1997. COPII subunit interactions in the assembly of the vesicle coat. *J. Biol. Chem.* 272: 25413-25416.
- Nickel, W., Brugger, B. and Wieland, F.T. 1998. Protein and lipid sorting between the endoplasmic reticulum and the Golgi complex. *Semin. Cell Dev. Biol.* 9: 493-501.
- Saito, Y., Yamanushi, T., Oka, T. and Nakano, A. 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; Sec13 (mouse) mapping to 6 E3.

SOURCE

SEC13 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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-103195 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.

APPLICATIONS

SEC13 (C-14) is recommended for detection of SEC13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

SEC13 (C-14) is also recommended for detection of SEC13 in additional species, including equine and canine.

Suitable for use as control antibody for SEC13 siRNA (h): sc-78504, SEC13 siRNA (m): sc-153298, SEC13 shRNA Plasmid (h): sc-78504-SH, SEC13 shRNA Plasmid (m): sc-153298-SH, SEC13 shRNA (h) Lentiviral Particles: sc-78504-V and SEC13 shRNA (m) Lentiviral Particles: sc-153298-V.

Molecular Weight of SEC13: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 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) 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.

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.



Try **SEC13 (F-6): sc-514308**, our highly recommended monoclonal alternative to SEC13 (C-14).