SANTA CRUZ BIOTECHNOLOGY, INC.

Sar1 (yN-20): sc-20184

BACKGROUND

There are a number of components that are 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 p150, the Sec13 protein complex containing Sec13 and a 150 kDa protein. 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

1. Vahlensieck, Y., Riezman, H. and Meyhack, B. 1995. Transcriptional studies on yeast SEC genes provide no evidence for regulation at the transcriptional level. Yeast 11: 901-911.
2. 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.
3. 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.
4. 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.
5. 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.

SOURCE

Sar1 (yN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Sar1 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-20184 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.

RESEARCH USE

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

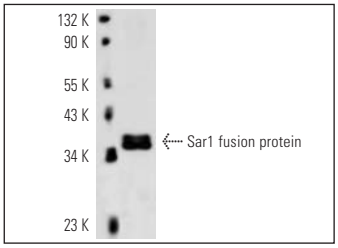
APPLICATIONS

Sar1 (yN-20) is recommended for detection of Sar1 of *Saccharomyces cerevisiae* 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)] 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Sar1 (yN-20): sc-20184. Western blot analysis of yeast recombinant Sar1 fusion protein.

PROTOCOLS

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