



Spa2 (yN-17): sc-15576

BACKGROUND

Spa2 and Bni1, a formin family member, are two coil-coil-related proteins that are involved in the timing and other aspects of mating projection formation. Spa2 localizes to growth sites and is important for polarized morphogenesis during budding, mating, and pseudohyphal growth; it is one of the first proteins to localize to sites of polarized growth, such as the shmoo tip and the incipient bud. Spa2 localizes to one edge of unbudded cells and subsequently is observable in the bud tip. Finally, during cytokinesis, Spa2 is present as a ring at the mother-daughter bud neck. Bni1 localization at the bud tips is largely dependent on Spa2; Bni1 regulates polarized growth within the bud through its unique and dynamic pattern of localization, dependent on multiple factors, including Cdc42, Spa2, Bud6, and the actin cytoskeleton.

REFERENCES

1. Arkowitz, R.A. and Lowe, N. 1997. A small conserved domain in the yeast Spa2p is necessary and sufficient for its polarized localization. *J. Cell Biol.* 138: 17-36.
2. Buehrer, B.M. and Errede, B. 1997. Coordination of the mating and cell integrity mitogen-activated protein kinase pathways in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 17: 6517-6525.
3. Sheu, Y.J., Santos, B., Fortin, N., Costigan, C. and Snyder, M. 1998. Spa2p interacts with cell polarity proteins and signaling components involved in yeast cell morphogenesis. *Mol. Cell. Biol.* 18: 4053-4069.
4. Fujiwara, T., Tanaka, K., Mino, A., Kikyo, M., Takahashi, K., Shimizu, K. and Takai, Y. 1998. Rho1p-Bni1p-Spa2p interactions: implication in localization of Bni1p at the bud site and regulation of the actin cytoskeleton in *Saccharomyces cerevisiae*. *Mol. Biol. Cell* 9: 1221-1233.
5. Ozaki-Kuroda, K., Yamamoto, Y., Nohara, H., Kinoshita, M., Fujiwara, T., Irie, K. and Takai, Y. 2001. Dynamic localization and function of Bni1p at the sites of directed growth in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 21: 827-839.

SOURCE

Spa2 (yN-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Spa2 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-15576 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

Spa2 (yN-17) is recommended for detection of Spa2 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.