SANTA CRUZ BIOTECHNOLOGY, INC.

Las17 (yN-16): sc-26655

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Several processes, including cell motility and cell polarization, require the generation of cortical actin filaments. In *Saccharomyces cerevisiae*, actin-related proteins Arp2 and Arp3, essential components of the actin cytoskeleton, form a complex that localizes to cortical actin patches, which are required for polarized cell growth. A high molecular weight protein complex, which includes Las17, Myo3, Myo5, and Vrp1, regulates Arp2/Arp3 complex-dependent actin polymerization. Las17, also designated Bee1, is the yeast homolog of human WASP (Wiskott-Aldrich syndrome protein), a disorder characterized by immuno-deficiencies and defects in blood cell morphogenesis. Deletion of Las17 produces a change in the organization of actin filaments, and results in defects in budding and cytokinesis. Las17 interacts with several proteins associated with the actin filament to mediate cell motility functions, such as endocytosis, polarized morphogenesis, and cell migration.

REFERENCES

1. Schroer, T.A., et al. 1994. Actin-related protein nomenclature and classification. J. Cell. Biol. 127: 1777-1778.
2. McCollum, D., et al. 1996. The Schizosaccharomyces pombe actin-related protein, Arp3, is a component of the cortical actin cytoskeleton and interacts with profilin. EMBO J. 15: 6438-46.
3. Li, R. 1997. Bee1, a yeast protein with homology to Wiscott-Aldrich syndrome protein, is critical for the assembly of cortical actin cytoskeleton. J. Cell Biol. 136: 649-58. 9024694
4. Morrell, J.L., et al. 1999. A mutant of Arp2p causes partial disassembly of the Arp2/3 complex and loss of cortical actin function in fission yeast. Mol. Biol. Cell 10: 4201-15.
5. Evangelista, M., et al. 2000. A role for myosin-I in actin assembly through interactions with Vrp1p, Bee1p, and the Arp2/3 complex. J. Cell Biol. 148: 353-62.
6. Soulard, A., et al. 2002. *Saccharomyces cerevisiae* Bzz1p is implicated with type I myosins in actin patch polarization and is able to recruit actin-polymerizing machinery *in vitro*. Mol. Cell. Biol. 22: 7889-906.
7. Chang, F.S., et al. 2003. A WASp homolog powers actin polymerization-dependent motility of endosomes *in vivo*. Curr. Biol. 13: 455-63.

SOURCE

Las17 (yN-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Las17 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-26655 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Las17 (yN-16) is recommended for detection of Las17 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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