SANTA CRUZ BIOTECHNOLOGY, INC.

Lte1 (yK-15): sc-25913

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The spindle position checkpoint in *Saccharomyces cerevisiae* delays mitotic exit until the spindle has moved into the mother-bud neck, ensuring that each daughter cell inherits a nucleus. The budding yeast mitotic exit network (MEN) is a signal transduction cascade that controls exit from mitosis by facilitating the release of the cell cycle phosphatase Cdc14 from the nucleolus. The small GTP-binding protein Tem1 is critical in promoting mitotic exit and is concentrated at the spindle pole destined for the bud. Lte1, the Tem1 guanine nucleotide exchange factor, associates with the cortex of the bud and activates the MEN upon the formation of an anaphase spindle. Lte1's spatial separation from Tem1 at the spindle pole body (SPB) prevents untimely exit from mitosis. Lte1, a homolog of GDP-GTP exchange factors for the Ras superfamily, is required at low temperatures for cell cycle progression at the termination of M phase.

REFERENCES

1. Shirayama, M., Matsui, Y. and Toh-e, A. 1996. Dominant mutant alleles of yeast protein kinase gene Cdc15 suppress the Lte1 defect in termination of M phase and genetically interact with Cdc14. Mol. Gen. Genet. 251: 176-185.
2. Adames, N.R., Oberle, J.R. and Cooper, J.A. 2001. The surveillance mechanism of the spindle position checkpoint in yeast. J. Cell Biol. 153: 159-168.
3. Mah, A.S., Jang, J. and Deshaies, R.J. 2001. Protein kinase Cdc15 activates the Dbf2-Mob1 kinase complex. Proc. Natl. Acad. Sci. USA. 98: 7325-7330.
4. Jensen, S., Geymonat, M., Johnson, A.L., Segal, M. and Johnston, L.H. 2002. Spatial regulation of the guanine nucleotide exchange factor Lte1 in *Saccharomyces cerevisiae*. J. Cell. Sci. 115: 4977-4991.
5. Hofken, T. and Schiebel, E. 2002. A role for cell polarity proteins in mitotic exit. EMBO J. 21: 4851-4862.

SOURCE

Lte1 (yK-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Lte1 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-25913 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.

PROTOCOLS

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

APPLICATIONS

Lte1 (yK-15) is recommended for detection of Lte1 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.