SANTA CRUZ BIOTECHNOLOGY, INC.

Ime2 (yD-18): sc-26444

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Vegetative cell division of yeast characteristically occurs by budding, in which a daughter cell is initiated as an outgrowth from the mother cell, followed by nuclear division, cell-wall formation, and finally cell separation. In the budding yeast *Saccharomyces cerevisiae*, entry into meiosis and its successful completion depend on two positive regulators, Ime1 and Ime2. Ime1 is a transcriptional activator that is required for transcription of Ime2. Ime2, a serine/threonine protein kinase, is essential for the induction of meiosis-specific genes and for the activation of meiotic DNA replication in *S. cerevisiae*. The yeast meiosis-specific transcription factor Ndt80 is responsible for the induction of a class of genes referred to as middle sporulation genes. The expression of Ndt80 is itself highly regulated by Ime2. Ime2 represents an unstable, meiosis-specific regulator of the anaphase-promoting complex. Biochemical characterization of Ime2 has been hindered by its low abundance and short half-life.

REFERENCES

1. Guttmann-Raviv, N., Martin, S., and Kassir, Y. 2002. Ime2, a meiosis-specific kinase in yeast, is required for destabilization of its transcriptional activator, Ime1. Mol. Cell. Biol. 22: 2047-2056.
2. Pak, J., and Segall, J. 2002. Regulation of the premiddle and middle phases of expression of the Ndt80 gene during sporulation of *Saccharomyces cerevisiae*. Mol. Cell. Biol. 22: 6417-6429.
3. Sopko, R., Raithatha, S., and Stuart, D. 2002. Phosphorylation and maximal activity of *Saccharomyces cerevisiae* meiosis-specific transcription factor Ndt80 is dependent on Ime2. Mol. Cell. Biol. 22: 7024-7040.
4. Hui, C.M., Campistrous, A., and Stuart, D.T. 2002. Purification and some properties of *Saccharomyces cerevisiae* meiosis-specific protein kinase Ime2. Protein Expr. Purif. 26: 416-424.
5. Bolte, M., Steigemann, P., Braus, G.H., and Irniger, S. 2002. Inhibition of APC-mediated proteolysis by the meiosis-specific protein kinase Ime2. Proc. Natl. Acad. Sci. USA 99: 4385-4390.

SOURCE

Ime2 (yD-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ime2 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-26444 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

Ime2 (yD-18) is recommended for detection of Ime2 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.

PROTOCOLS

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