SANTA CRUZ BIOTECHNOLOGY, INC.

Cdc5 (yC-19): sc-6733

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cell cycle progression is controlled at a point late in G_1 designated Start. Passage through Start requires the activity of the cyclin-dependent protein kinase Cdc28. Transition from G_1 to S phase requires the association of Cdc28 with members of the G_1 cyclin family. Exit from mitosis and initiation of the next cell cycle requires a complex of proteins designated the anaphase-promoting complex (APC). This complex consists of two proteins, Cdc16 and Cdc27 (also referred to as Snb1), which are involved in limiting DNA replication to once per cell cycle. Cdc23, another component of the APC, is required for both entering and exiting anaphase, and is important for the proper separation of sister chromatids. The APC is thought to be stabilized by Cdc26 (also known as Scd26). In addition to APC proteins mentioned, Cdc5 is also required for completion of mitosis. In contrast, Cdc20 acts as a DNA-damage induced checkpoint, preventing mitosis when DNA damage has occurred.

REFERENCES

1. Sherlock, G. and Rosamond, J. 1993. Starting to cycle: G_1 controls regulating cell division in budding yeast. J. Gen. Microbiol. 139: 2531-2541.
2. Irniger, S., et al. 1995. Genes involved in sister chromatid separation are needed for B-type cyclin proteolysis in budding yeast. Cell 81: 269-278.
3. Levine, K., et al. 1996. *Saccharomyces cerevisiae* G_1 cyclins differ in their intrinsic functional specificities. Mol. Cell. Biol. 16: 6794-6803.
4. Heichman, K.A. and Roberts, J.M. 1996. The yeast Cdc16 and Cdc27 genes restrict DNA replication to once per cell cycle. Cell 85: 39-48.
5. Zachariae, W., et al. 1996. Identification of subunits of the anaphase-promoting complex of *Saccharomyces cerevisiae*. Science 274: 1201-1204.
6. Hardy, C.F. and Pautz, A. 1996. A novel role for Cdc5p in DNA replication. Mol. Cell. Biol. 16: 6775-6782.

SOURCE

Cdc5 (yC-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Cdc5 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-6733 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdc5 (yC-19) is recommended for detection of Cdc5 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of Cdc5: 85 kDa.

Positive Controls: *Saccaromyces cerevisiae* whole cell lysate.

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.

SELECT PRODUCT CITATIONS

1. Sourirajan, A. and Lichten, M. 2008. Polo-like kinase Cdc5 drives exit from pachytene during budding yeast meiosis. Genes Dev. 22: 2627-2632.
2. Robbins, J.A. and Cross, F.R. 2010. Regulated degradation of the APC coactivator Cdc20. Cell Div. 5: 23.
3. Refolio, E., et al. 2011. The Ddc2/ATRIP checkpoint protein monitors meiotic recombination intermediates. J. Cell Sci. 124: 2488-2500.
4. Kerr, G.W., et al. 2011. Meiotic nuclear divisions in budding yeast require PP2A(Cdc55)-mediated antagonism of Net1 phosphorylation by Cdk. J. Cell Biol. 193: 1157-1166.

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.

PROTOCOLS

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