



Cdc20 (yC-20): sc-6731

BACKGROUND

Cell cycle progression is controlled at a point late in G₁ designated Start. Passage through Start requires the activity of the cyclin-dependent protein kinase Cdc28. Transition from G₁ to S phase requires the association of Cdc28 with members of the G1 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 these APC proteins, 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: G₁ controls regulating cell division in budding yeast. *J. Gen. Microbiol.* 139: 2531-2541.
2. Imniger, 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* G1 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

Cdc20 (yC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Cdc20 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-6731 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

Cdc20 (yC-20) is recommended for detection of Cdc20 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.

SELECT PRODUCT CITATIONS

1. Gieffers, C., et al. 1999. Expression of the CDH1-associated form of the anaphase-promoting complex in postmitotic neurons. *Proc. Natl. Acad. Sci. USA* 96: 11317-11322.
2. van Leuken, R., et al. 2009. Polo-like kinase-1 controls Aurora A destruction by activating APC/C-Cdh1. *PLoS ONE* 4: e5282.
3. Foe, I.T., et al. 2011. Ubiquitination of Cdc20 by the APC occurs through an intramolecular mechanism. *Curr. Biol.* 21: 1870-1877.

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.