

# Cdc26 (B-6): sc-377338

## BACKGROUND

Cell cycle progression is controlled at a point late in G<sub>1</sub> designated start. Passage through start requires the activity of the cyclin-dependent protein kinase Cdc28. Transition from G<sub>1</sub> to S phase requires the association of Cdc28 with members of the G<sub>1</sub> 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

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2. Imniger, S., Pitatti, S., Michaelis, C. and Nasmyth, K. 1995. Genes involved in sister chromatid separation are needed for B-type cyclin proteolysis in budding yeast. *Cell* 81: 269-278.
3. Hardy, C.F. and Pautz, A. 1996. A novel role for Cdc5p in DNA replication. *Mol. Cell. Biol.* 16: 6775-6782.
4. Levine, K., Huang, K. and Cross, F.R. 1996. *Saccharomyces cerevisiae* G<sub>1</sub> cyclins differ in their intrinsic functional specificities. *Mol. Cell. Biol.* 16: 6794-6803.
5. 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.
6. Zachariae, W., Shin, T.H., Galova, M., Obermaier, B. and Nasmyth, K. 1996. Identification of subunits of the anaphase-promoting complex of *Saccharomyces cerevisiae*. *Science* 274: 1201-1204.
7. Lim, H.H. and Surana, U. 1996. Cdc20, a  $\beta$ -transducin homologue, links Rad9-mediated G<sub>2</sub>/M checkpoint control to mitosis in *Saccharomyces cerevisiae*. *Mol. Gen. Genet.* 253: 138-148.
8. Imniger, S. and Nasmyth, K. 1997. The anaphase-promoting complex is required in G<sub>1</sub> arrested yeast cells to inhibit B-type cyclin accumulation and to prevent uncontrolled entry into S-phase. *J. Cell Sci.* 110: 1523-1531.

## CHROMOSOMAL LOCATION

Genetic locus: CDC26 (human) mapping to 9q32; Cdc26 (mouse) mapping to 4 B3.

## SOURCE

Cdc26 (B-6) is a mouse monoclonal antibody raised against amino acids 1-85 representing full length Cdc26 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cdc26 (B-6) is recommended for detection of Cdc26 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cdc26 siRNA (h): sc-92927, Cdc26 siRNA (m): sc-142208, Cdc26 shRNA Plasmid (h): sc-92927-SH, Cdc26 shRNA Plasmid (m): sc-142208-SH, Cdc26 shRNA (h) Lentiviral Particles: sc-92927-V and Cdc26 shRNA (m) Lentiviral Particles: sc-142208-V.

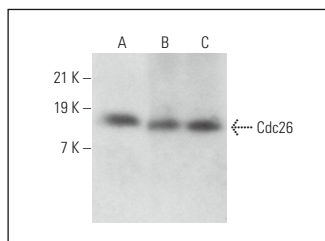
Molecular Weight of Cdc26: 10 kDa.

Positive Controls: Cdc26 (m): 293T Lysate: sc-125119, HeLa whole cell lysate: sc-2200 or SK-N-SH cell lysate: sc-2410.

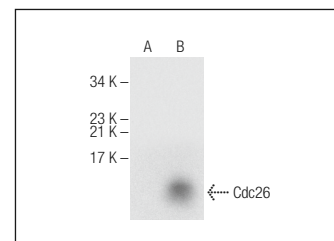
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Cdc26 (B-6): sc-377338. Western blot analysis of Cdc26 expression in HeLa (A), C6 (B) and SK-N-SH (C) whole cell lysates.



Cdc26 (B-6): sc-377338. Western blot analysis of Cdc26 expression in non-transfected: sc-117752 (A) and mouse Cdc26 transfected: sc-125119 (B) 293T whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.