SANTA CRUZ BIOTECHNOLOGY, INC.

Nap1 (B-8): sc-55462

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 the G_1 cyclin family, including Cln1, Cln2 and Cln3 (also designated Daf1 or Whi1). The G_2 to M phase transition requires the M phase cyclins, Clb1 (also referred to as SCB1) and Clb2, as well as the G_2 cyclins, Clb3 and Clb4. CLB2 is bound by Nap1, a protein required for Clb2 to function in specific mitotic events. Nap1 is also required for Clb2 to induce the transition from polar to isotropic bud growth.

REFERENCES

1. Amon, A., Tyers, M., Futcher, B. and Nasmyth, K. 1993. Mechanisms that help the yeast cell cycle clock tick: G_2 cyclins transcriptionally activate G_2 cyclins and repress G_1 cyclins. Cell 74: 993-1007.
2. Nasmyth, K. 1993. Control of the yeast cell cycle by the Cdc28 protein kinase. Curr. Opin. Cell Biol. 5: 166-179.
3. Sherlock, G. and Rosamond, J. 1993. Starting to cycle: G_1 controls regulating cell division in budding yeast. J. Gen. Microbiol. 139: 2531-2541.
4. Kellogg, D.R., Kikuchi, A., Fujii-Nakata, T., Turck, C.W. and Murray, A.W. 1995. Members of the Nat/Set family of proteins interact specifically with B-type cyclins. J. Cell Biol. 130: 661-673.
5. Kellogg, D.R. and Murray, A.W. 1995. Nap1 acts with Clb1 to perform mitotic functions and to suppress polar bud growth in budding yeast. J. Cell Biol. 130: 675-685.
6. Levine, K., Huang, K. and Cross, F.R. 1996. *Saccharomyces cerevisiae* G_1 cyclins differ in their intrinsic functional specificities. Mol. Cell. Biol. 16: 6794-6803.
7. Blondel, M. and Mann, C. 1996. G_2 cyclins are required for the degradation of G_1 cyclins in yeast. Nature 384: 279-282.
8. Altman, R. and Kellogg, D. 1997. Control of mitotic events by Nap1 and the Gin4 kinase. J. Cell Biol. 138: 119-130.

SOURCE

Nap1 (B-8) is a mouse monoclonal antibody raised against amino acids 1-417 of Nap1 of *S. cerevisciae* origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

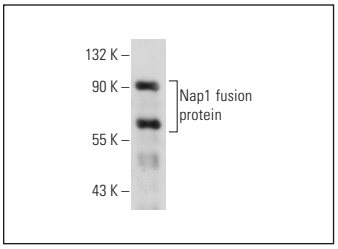
Nap1 (B-8) is recommended for detection of Nap1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Nap1: 60 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Nap1 (B-8): sc-55462. Western blot analysis of human recombinant Nap1 fusion protein.

RESEARCH USE

For research use only, not for use in diagnostic procedures.