SANTA CRUZ BIOTECHNOLOGY, INC.

Nap1 (y-417): sc-7165

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. Nasmyth, K. 1993. Control of the yeast cell cycle by the Cdc28 protein kinase. Curr. Opin. Cell Biol. 5: 166-179.
2. Sherlock, G., et al. 1993. Starting to cycle: G1 controls regulating cell division in budding yeast. J. Gen. Microbiol. 139: 2531-2541.
3. Amon, A., et al. 1993. Mechanisms that help the yeast cell cycle clock tick: G2 cyclins transcriptionally activate G_2 cyclins and repress G_1 cyclins. Cell 74: 993-1007.
4. Kellogg, D.R., et al. 1995. NAP1 acts with Clb1 to perform mitotic functions and to suppress polar bud growth in budding yeast. J. Cell Biol. 130: 675-685.
5. Kellogg, D.R., et al. 1995. Members of the NAP/SET family of proteins interact specifically with B-type cyclins. J. Cell Biol. 130: 661-673.
6. Levine, K., et al. 1996. *Saccharomyces cerevisiae* G_1 cyclins differ in their intrinsic functional specificities. Mol. Cell. Biol. 16: 6794-6803.
7. Blondel, M., et al. 1996. G_2 cyclins are required for the degradation of G_1 cyclins in yeast. Nature 384: 279-282.
8. Altman, R., et al. 1997. Control of mitotic events by Nap1 and the Gin4 kinase. J. Cell Biol. 138: 119-130.

SOURCE

Nap1 (y-417) is a rabbit polyclonal antibody raised against amino acids 1-417 of Nap1 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.

APPLICATIONS

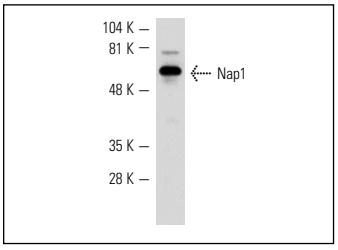
Nap1 (y-417) is recommended for detection of Nap1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Nap1: 60 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml).

DATA



Nap1 (y-417): sc-7165. Western blot analysis of Nap1 expression in *S. cerevisiae* whole cell lysate.

SELECT PRODUCT CITATIONS

1. Mosammaparast, N., et al. 2001. Nuclear import of histone H2A and H2B is mediated by a network of karyopherins. J. Cell Biol. 153: 251-262.
2. Mosammaparast, N., et al. 2002. A role for nucleosome assembly protein 1 in the nuclear transport of histones H2A and H2B. EMBO J. 21: 6527-6538.
3. Seebart, C., et al. 2010. New nuclear partners for nucleosome assembly protein 1: unexpected associations. Biochem. Cell Biol. 88: 927-936.

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.