SANTA CRUZ BIOTECHNOLOGY, INC.

Snf2 (y-300): sc-33629

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The Power to Question

BACKGROUND

Maximal expression of G_1 cyclins is induced by the heterodimeric transcription factor complex, which is composed of the DNA-binding subunit, Swi4 (also designated Art1), and Swi6. In addition to binding Swi4, Swi6 forms a complex with Mbp1 that activates S-phase cyclins and genes involved in DNA synthesis. Rpb1 is the largest subunit of the yeast RNA polymerase II. Srb4 is a basal transcription factor that is essential for the establishment of the transcription initiation apparatus. Ssn6, a tandem tetratricopeptide repeat-containing protein, associates with Tup1 to form a general transcriptional repression complex. The yeast SNF-SWI complex is required for transcriptional activation of diverse genes and has been shown to alter chromatin structure. This complex has at least 10 components, including Snf2 (alternatively designated Swi2, Ric1, or Gam1), Snf5, Snf6, Swi1 (alternatively designated Adr6 or Gam3) and Swi3, and has been widely conserved. Transcrip-tional activators, Snf2 and Snf5, function by antagonizing repression mediated by nucleosomes.

REFERENCES

1. Hirschhorn, J.N., et al. 1992. Evidence that SNF2/SWI2 and SNF5 activate transcription in yeast by altering chromatin structure. Genes Dev. 6: 2288-2298.
2. Koch, T., et al. 1993. A role for the transcription factors Mbp1 and Swi4 in progression from G_1 to S phase. Science 261: 1551-1557.
3. Treich, I.,et al. 1995. Snf11, a new component of the yeast Snf-Swi complex that interacts with a conserved region of Snf2. Mol. Cell. Biol. 15: 4240-4248.
4. Koch, C., et al. 1996. Switching transcription on and off during the yeast cell cycle: Cln/Cdc28 kinases activate bound transcription factor SBF (Swi4/Swi6) at start, whereas Clb/Cdc28 kinases displace it from the promoter in G_2. Genes Dev. 10: 129-141.
5. Siegmund, R.F. and Nasmyth, K.A. 1996. The *Saccharomyces cerevisiae* Start-specific transcription factor Swi4 interacts through the ankyrin repeats with the mitotic Clb2/Cdc28 kinase and through its conserved carboxy terminus with Swi6. Mol. Cell. Biol. 16: 2647-2655.
6. Harrington, L.A. and Andrews, B.J. 1996. Binding to the yeast Swi4, 6-dependent cell cycle box, CACGAAA, is cell cycle regulated *in vivo*. Nucleic Acids Res. 24: 558-565.
7. Holstege, F.C., et al. 1998. Dissecting the regulatory circuitry of a eukaryotic genome. Cell 95: 717-728.
8. Limbach, M.P. and Zitomer, R.S. 2000. The isolation and characterization of missense mutants in the general repressor protein Ssn6 of *Saccharomyces cerevisiae*. Mol. Gen. Genet. 263: 455-462.

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.

SOURCE

Snf2 (y-300) is a rabbit polyclonal antibody raised against amino acids 1404-1703 mapping at the C-terminus of Snf2 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

Snf2 (y-300) is recommended for detection of Snf2 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 Snf2: 194 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Yang, Y., et al. 2013. Megakaryocytic leukemia 1 (MKL1) ties the epigenetic machinery to hypoxia-induced transactivation of endothelin-1. Nucleic Acids Res. 41: 6005-6017.

PROTOCOLS

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