SANTA CRUZ BIOTECHNOLOGY, INC.

Nop1 (yA-17): sc-26175

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nop1 is a phylogenetically conserved protein essential for efficient processing of pre-rRNA through its association with a class of small nucleolar RNAs during ribosomal biogenesis. Small nucleolar RNAs (snoRNAs) are associated in ribonucleoprotein particles localized to the nucleolus (snoRNPs). Nop1 (nucleolar protein 1) is structurally and functionally homologous to vertebrate fibrillarin and is essential for viability. The *Saccharomyces cerevisiae* NOP1 gene encodes a 327 amino acid protein of 34 kDa located within nucleolar structures resembling the dense fibrillar region of mammalian nucleoli. The yeast Nop1 gene codes for a protein which contains glycine/arginine rich sequence repeats at the amino terminus. Human fibrillarin mi-grates as a 36 kDa protein that is specifically immunoprecipitated by antisera from humans with scleroderma autoimmune disease. In addition to its association with small nucleolar RNA, Nop1 is required for ribosome biogenesis.

REFERENCES

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3. Tollervey, D., Lehtonen, H., Carmo-Fonseca, M., and Hurt, E.C. 1991. The small nucleolar RNP protein Nop1 (fibrillarin) is required for pre-rRNA processing in yeast. Embo J. 10: 573-583.
4. Aris, J.P., and Blobel, G. 1991. cDNA cloning and sequencing of human fibrillarin, a conserved nucleolar protein recognized by autoimmune antisera. Proc Natl Acad Sci USA. 88: 931-935.
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6. Wang, H., Boisvert, D., Kim, K.K., Kim, R., and Kim, S.H. 2000. Crystal structure of a fibrillarin homologue from Methanococcus jannaschii, a hyperthermophile, at 1.6 A resolution. Embo J. 19: 317-323.
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SOURCE

Nop1 (yA-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nop1 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-26175 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nop1 (yA-17) is recommended for detection of Nop1 of *Saccaromyces 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.

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.