SANTA CRUZ BIOTECHNOLOGY, INC.

NOP17 (A-10): sc-514127

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NOP17 (nucleolar protein 17), also known as PIH1D1, is a phylogenetically conserved protein essential for efficient processing of pre-rRNA through its association with a class of small nucleolar RNAs (snoRNAs) during ribosomal biogenesis. SnoRNAs are associated in ribonucleoprotein particles localized to the nucleolus. NOP17 is a 290 amnio acid unstable protein that is stabilized through an interaction with HSP 90α/β. NOP17 interacts with a core box C/D snoRNP protein Nop58, indicating a function of NOP17 in mediating the nucleolar retention or proper assembly of the box C/D snoRNP. A mutation in NOP17 gene may lead to a temperature-sensitive phenotype along with delocalization of key NOP proteins that are essential for snoRNP assembly.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611480. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. Nature 437: 1173-1178.
3. Granato, D.C., et al. 2005. Nop53p, an essential nucleolar protein that interacts with NOP17p and Nip7p, is required for pre-rRNA processing in *S. cerevisiae*. FEBS J. 272: 4450-4463.
4. Gonzales, F.A., et al. 2005. Characterization of *Saccharomyces cerevisiae* NOP17p, a novel NOP58p-interacting protein that is involved in pre-rRNA processing. J. Mol. Biol. 346: 437-455.
5. Bennett, D., et al. 2006. Towards a comprehensive analysis of the protein phosphatase 1 interactome in *Drosophila*. J. Mol. Biol. 364: 196-212.
6. McKeegan, K.S., et al. 2007. A dynamic scaffold of pre-snoRNP factors facilitates human box C/D snoRNP assembly. Mol. Cell. Biol. 27: 6782-6793.

CHROMOSOMAL LOCATION

Genetic locus: PIH1D1 (human) mapping to 19q13.33.

SOURCE

NOP17 (A-10) is a mouse monoclonal antibody raised against amino acids 88-164 mapping within an internal region of NOP17 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOP17 (A-10) is available conjugated to agarose (sc-514127 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514127 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514127 PE), fluorescein (sc-514127 FITC), Alexa Fluor® 488 (sc-514127 AF488), Alexa Fluor® 546 (sc-514127 AF546), Alexa Fluor® 594 (sc-514127 AF594) or Alexa Fluor® 647 (sc-514127 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514127 AF680) or Alexa Fluor® 790 (sc-514127 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NOP17 (A-10) is recommended for detection of NOP17 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NOP17 siRNA (h): sc-97385, NOP17 shRNA Plasmid (h): sc-97385-SH and NOP17 shRNA (h) Lentiviral Particles: sc-97385-V.

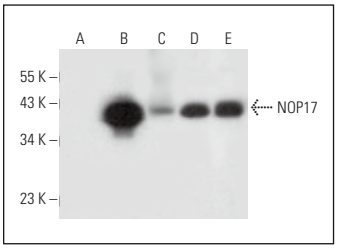
Molecular Weight of NOP17: 32 kDa.

Positive Controls: NOP17 (h): 293T Lysate: sc-177634, HeLa whole cell lysate: sc-2200 or HL-60 whole cell lysate: sc-2209.

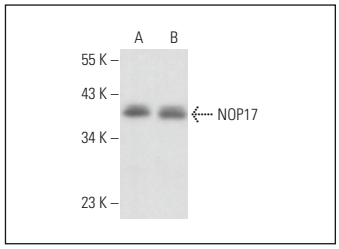
RECOMMENDED SUPPORT REAGENTS

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



NOP17 (A-10): sc-514127. Western blot analysis of NOP17 expression in non-transfected 293T: sc-117752 (**A**), human NOP17 transfected 293T: sc-177634 (**B**), A-431 (**C**), HL-60 (**D**) and HeLa (**E**) whole cell lysates.



NOP17 (A-10): sc-514127. Western blot analysis of NOP17 expression in HeLa (**A**) and MOLT-4 (**B**) 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 for detailed protocols and support products.