SANTA CRUZ BIOTECHNOLOGY, INC.

NOP17 (F-7): sc-514131

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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

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7. Zhao, R., et al. 2008. Molecular chaperone HSP 90 stabilizes PIH1/NOP17 to maintain R2TP complex activity that regulates snoRNA accumulation. J. Cell Biol. 180: 563-578.
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CHROMOSOMAL LOCATION

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

SOURCE

NOP17 (F-7) 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

NOP17 (F-7) 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.

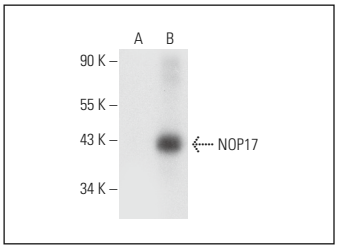
Molecular Weight of NOP17: 32 kDa.

Positive Controls: NOP17 (h): 293T Lysate: sc-177634.

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 (F-7): sc-514131. Western blot analysis of NOP17 expression in non-transfected: sc-117752 (**A**) and human NOP17 transfected: sc-177634 (**B**) 293T 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.

PROTOCOLS

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