SANTA CRUZ BIOTECHNOLOGY, INC.

# Nop132 (D-7): sc-390011

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*The Power to Question*

## BACKGROUND

Nop132, also known as NOL8 (nucleolar protein 8), is a 1,167 amino acid nuclear protein that contains one RRM (RNA recognition motif) domain and exists as four alternatively spliced isoforms. While playing an essential role in the survival of diffuse-type gastric cancer cells, Nop132 may also be involved in the regulation of post-transcriptional gene expression and ribosome biogenesis of cancer cells. Although it is expressed at low levels in skeletal muscle, Nop132 is upregulated in diffuse-type gastric cancers. Nop132 interacts with NIP7, as well as the GTP form of Rag A/B, Rag C and Rag D. The gene that encodes Nop132 consists of approximately 28,237 bases and maps to human chromosome 9q22.31. Housing over 900 genes, chromosome 9 comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

## REFERENCES


1. Sekiguchi, T., et al. 2001. Novel G proteins, Rag C and Rag D, interact with GTP-binding proteins, Rag A and Rag B. J. Biol. Chem. 276: 7246-7257.
2. Jinawath, N., et al. 2004. Identification of NOL8, a nucleolar protein containing an RNA recognition motif (RRM), which was overexpressed in diffuse-type gastric cancer. Cancer Sci. 95: 430-435.
3. Sekiguchi, T., et al. 2004. A novel human nucleolar protein, Nop132, binds to the G proteins, RRAG A/C/D. J. Biol. Chem. 279: 8343-8350.
4. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.
5. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). Respiration 74: 361-378.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611534. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/


## CHROMOSOMAL LOCATION

Genetic locus: NOL8 (human) mapping to 9q22.31; Nol8 (mouse) mapping to 13 A5.

## SOURCE

Nop132 (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 181-215 within an internal region of Nop132 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-390011 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Nop132 (D-7) is recommended for detection of Nop132 of human origin and NOL8 of mouse and rat 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).

Nop132 (D-7) is also recommended for detection of Nop132 in additional species, including bovine.

Suitable for use as control antibody for Nop132 siRNA (h): sc-92977, NOL8 siRNA (m): sc-150026, Nop132 shRNA Plasmid (h): sc-92977-SH, NOL8 shRNA Plasmid (m): sc-150026-SH, Nop132 shRNA (h) Lentiviral Particles: sc-92977-V and NOL8 shRNA (m) Lentiviral Particles: sc-150026-V.

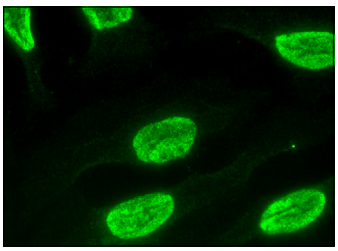
Molecular Weight of Nop132 isoforms: 132/124/118/127 kDa.

Molecular Weight of NOL8 isoforms: 129/34 kDa.

## 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 L-Agarose: sc-2336 (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



Nop132 (D-7): sc-390011. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization.

## SELECT PRODUCT CITATIONS


1. Jung, M., et al. 2019. Unified single-cell analysis of testis gene regulation and pathology in five mouse strains. Elife 8: e43966.


## 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.