

# NSUN6 (D-5): sc-393446

## BACKGROUND

The nucleolus consists of a number of specific proteins that play a critical role in the assembly of ribosomes, as well as in the maintenance and structural integrity of the nucleolus. NSUN6 (NOL1/NOP2/Sun domain family member 6), also known as NOPD1 (NOL1/NOP2/Sun and PUA domain-containing protein 1), is a 469 amino acid protein that belongs to the methyltransferase superfamily. NSUN6 contains one PUA domain and may have S-adenosyl-L-methionine-dependent methyl-transferase activity. The gene encoding NSUN6 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

## REFERENCES

1. Henríquez, R., et al. 1990. Isolation and sequencing of NOP1. A yeast gene encoding a nucleolar protein homologous to a human autoimmune antigen. *J. Biol. Chem.* 265: 2209-2215.
2. Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. *Cytogenet. Cell Genet.* 90: 1-12.
3. Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. *Nature* 429: 375-381.
4. Nonneman, D. and Rohrer, G.A. 2004. Comparative mapping of human chromosome 10 to pig chromosomes 10 and 14. *Anim. Genet.* 35: 338-343.
5. Sakita-Suto, S., et al. 2007. Aurora-B regulates RNA methyltransferase NSUN2. *Mol. Biol. Cell* 18: 1107-1117.
6. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.
7. SWISS-PROT/TrEMBL (Q8TEA1). World Wide Web URL: <http://www.uniprot.org/uniprot/Q8TEA1>

## CHROMOSOMAL LOCATION

Genetic locus: NSUN6 (human) mapping to 10p12.31; Nsun6 (mouse) mapping to 2 A2.

## SOURCE

NSUN6 (D-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 388-402 within an internal region of NSUN6 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393446 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-393446 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

NSUN6 (D-5) is recommended for detection of NSUN6 of mouse, rat and 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 NSUN6 siRNA (h): sc-75968, NSUN6 siRNA (m): sc-75969, NSUN6 shRNA Plasmid (h): sc-75968-SH, NSUN6 shRNA Plasmid (m): sc-75969-SH, NSUN6 shRNA (h) Lentiviral Particles: sc-75968-V and NSUN6 shRNA (m) Lentiviral Particles: sc-75969-V.

NSUN6 (D-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

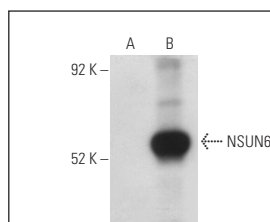
Molecular Weight of NSUN6: 52 kDa.

Positive Controls: NSUN6 (h): 293T Lysate: sc-115359.

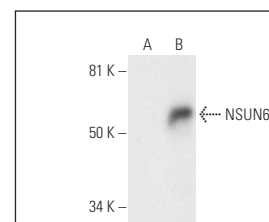
## RECOMMENDED SUPPORT REAGENTS

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



NSUN6 (D-5): sc-393446. Western blot analysis of NSUN6 expression in non-transfected: sc-117752 (A) and human NSUN6 transfected: sc-115359 (B) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



NSUN6 (D-5): sc-393446. Western blot analysis of NSUN6 expression in non-transfected: sc-117752 (A) and human NSUN6 transfected: sc-115359 (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.

## RESEARCH USE

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