

# NSUN1 (E-20): sc-83439



The Power to Question

## BACKGROUND

The nucleolus consist of a number of specific proteins that play a critical role in the assembly of the ribosome, in the maintenance structural integrity of the nucleolus and in the regulation proliferating cells. NSUN1 (NOL1/NOP2/Sun domain family, member 1), also known as NOL1, p120, NOP120, NOP2 or Nucleolar protein 1, is an 812 amino acid nucleolar protein belonging to the methyltransferase superfamily. It is expressed in the G<sub>1</sub> phase of the cell cycle and peaks during the early S phase. Considered a ribosomal RNA methyltransferase, NSUN1 may be involved in regulating the cell cycle and in increasing nucleolar activity that is associated with cell proliferation. NSUN1 is a possible marker for proliferation in neoplastic cells and in several cancer cells. Two isoforms exist due to alternative splicing events.

## REFERENCES

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3. Bocker, T., Bittinger, A., Wieland, W., Buettner, R., Fauser, G., Hofstaedter, F. and Rüschoff, J. 1995. *In vitro* and *ex vivo* expression of nucleolar proteins B23 and p120 in benign and malignant epithelial lesions of the prostate. *Mod. Pathol.* 8: 226-231.
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## CHROMOSOMAL LOCATION

Genetic locus: NOP2 (human) mapping to 12p13.31; Nop2 (mouse) mapping to 6 F2.

## SOURCE

NSUN1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NSUN1 of human origin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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-83439 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-83439 X, 200 µg/0.1 ml.

## APPLICATIONS

NSUN1 (E-20) is recommended for detection of NSUN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other NSUN family members.

NSUN1 (E-20) is also recommended for detection of NSUN1 of human origin and Nol1 of mouse and rat origin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NSUN1 siRNA (h): sc-75962, NSUN1 siRNA (m): sc-75963, NSUN1 shRNA Plasmid (h): sc-75962-SH, NSUN1 shRNA Plasmid (m): sc-75963-SH, NSUN1 shRNA (h) Lentiviral Particles: sc-75962-V and NSUN1 shRNA (m) Lentiviral Particles: sc-75963-V.

Molecular Weight of NSUN1: 89 kDa.

## 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.