

Nopp140 (3B4): sc-101101

BACKGROUND

Nopp140, previously named p130, is a nucleolar phosphoprotein that has been shown to exist in multiple forms with different sizes. Nopp140 functions both as a chaperone for import and/or export from the nucleolus and as a transcription factor. Nopp140 was originally identified from rat liver as an NLS (nuclear localization signal)-binding protein and has been further characterized as an RNAP (RNA polymerase)-interacting protein. Nopp140 also associates with the general transcription factor TFIIIB, and the protein kinase, casein kinase II (CKII). CKII heavily phosphorylates Nopp140 to mediate binding of Nopp140 to NLS. Nopp140 co-localizes with another nucleolar protein, NAP57, in the nucleolus and coiled bodies, and is thought to be involved in activities carried out within the nucleolus.

REFERENCES

1. Poli, V., et al. 1990. IL-6DBP, a nuclear protein involved in interleukin-6 signal transduction, defines a new family of leucine zipper proteins related to C/EBP. *Cell* 63: 643-653.
2. Meier, U.T., et al. 1992. Nopp140 shuttles on tracks between nucleolus and cytoplasm. *Cell* 70: 127-138.
3. Pai, C.Y., et al. 1995. Cell-cycle-dependent alterations of a highly phosphorylated nucleolar protein p130 are associated with nucleogenesis. *J. Cell Sci.* 108: 1911-1920.
4. Chen, H.K. et al. 1997. The nucleolar phosphoprotein p130 is a GTPase/ATPase with intrinsic property to form large complexes triggered by F- and Mg²⁺. *Biochem. Biophys. Res. Commun.* 230: 370-375.
5. Li, D., et al. 1997. Specific interaction between casein kinase II and the nucleolar protein Nopp140. *J. Biol. Chem.* 272: 3773-3779.
6. Miao, L.H., et al. 1997. Identification and characterization of a nucleolar phosphoprotein, Nopp140, as a transcription factor. *Mol. Cell. Biol.* 17: 230-239.
7. Chen, H.K., et al. 1999. Human Nopp140, which interacts with RNA polymerase I: implications for rRNA gene transcription and nucleolar structural organization. *Mol. Cell. Biol.* 19: 8536-8546.

CHROMOSOMAL LOCATION

Genetic locus: NOLC1 (human) mapping to 10q24.32; Nolc1 (mouse) mapping to 19 C3.

SOURCE

Nopp140 (3B4) is a mouse monoclonal antibody raised against recombinant Nopp140 of human origin.

PRODUCT

Each vial contains 100 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Nopp140 (3B4) is recommended for detection of Nopp140 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), immunohistochemistry (including paraffin-embedded sections) (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 Nopp140 siRNA (h): sc-38127, Nopp140 siRNA (m): sc-38128, Nopp140 shRNA Plasmid (h): sc-38127-SH, Nopp140 shRNA Plasmid (m): sc-38128-SH, Nopp140 shRNA (h) Lentiviral Particles: sc-38127-V and Nopp140 shRNA (m) Lentiviral Particles: sc-38128-V.

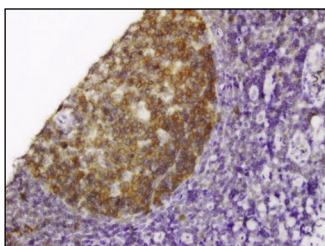
Molecular Weight of Nopp140: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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, 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 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



Nopp140 (3B4): sc-101101. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing nuclear and cytoplasmic localization.

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.