SANTA CRUZ BIOTECHNOLOGY, INC.

Nopp140 (V-19): sc-10690

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The Power to Question

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 TFIIB, and the protein kinase casein kinase II (CKII). CKII heavily phosphorylates Nopp140 to mediate binding of Nopp140 to NLS. Nopp 140 colocalizes 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 Mg^{2+}. Biochem. Biophys. Res. Commun. 230: 370-375.
5. Li, D., et al. 1997. Specific interaction between casein kinase 2 and the nucleolar protein Nopp140. J. Biol. Chem. 272: 3773-3779.
6. Miau, 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 (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Nopp140 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.

PROTOCOLS

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

PRODUCT

Each vial contains 200 µg IgG 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-10690 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-10690 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nopp140 (V-19) 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), 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).

Nopp140 (V-19) is also recommended for detection of Nopp140 in additional species, including equine, canine, bovine, porcine and avian.

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.

Nopp140 (V-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Nopp140: 140 kDa.

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

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) 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.

SELECT PRODUCT CITATIONS

1. Claus, P., et al. 2003. Differential intranuclear localization of fibroblast growth factor-2 isoforms and specific interaction with the survival of motoneuron protein. J. Biol. Chem. 278: 479-485.

RESEARCH USE

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