SANTA CRUZ BIOTECHNOLOGY, INC.

NNP-1B (C-12): sc-398162

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NNP-1B (novel nuclear protein 1B), also known as RRP1-like protein B (Rrp1b) in mouse and rat, is a 758 amino acid protein belonging to the RRP1 family. Localized to the nucleolus, NNP-1B is expressed as two isoforms produced by alternative splicing. Ubiquitously expressed, the N-terminus of NNP-1B is 80% homologous to fellow RRP1 family member NNP-1, but has a divergent C-terminus. NNP-1 has been found to play an important role in the generation of 28S rRNA in the late processing steps of ribosome biogenesis. At the end of mitosis, nucleolar proteins assemble in a sequential order during the rebuilding of the nucleolus. NNP-1 assembles after fibrillarin and C23, and simultaneously with B23 and POP1 in the prenucleolar body pathway.

REFERENCES

1. Savino, T.M., et al. 1999. The nucleolar antigen Nop52, the human homologue of the yeast ribosomal RNA processing RRP1, is recruited at late stages of nucleologenesis. J. Cell Sci. 112: 1889-1900.
2. Savino, T.M., et al. 2001. Nucleolar assembly of the rRNA processing machinery in living cells. J. Cell Biol. 153: 1097-1110.
3. Scherl, A., et al. 2002. Functional proteomic analysis of human nucleolus. Mol. Biol. Cell 13: 4100-4109.
4. Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. Nature 433: 77-83.
5. Hu, Y.H., et al. 2006. Cell array-based intracellular localization screening reveals novel functional features of human chromosome 21 proteins. BMC Genomics 7: 155.
6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610654. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: RRP1B (human) mapping to 21q22.3.

SOURCE

NNP-1B (C-12) is a mouse monoclonal antibody raised against amino acids 459-758 mapping at the C-terminus of NNP-1B of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NNP-1B (C-12) is available conjugated to agarose (sc-398162 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398162 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398162 PE), fluorescein (sc-398162 FITC), Alexa Fluor® 488 (sc-398162 AF488), Alexa Fluor® 546 (sc-398162 AF546), Alexa Fluor® 594 (sc-398162 AF594) or Alexa Fluor® 647 (sc-398162 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398162 AF680) or Alexa Fluor® 790 (sc-398162 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NNP-1B (C-12) is recommended for detection of NNP-1B of 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 NNP-1B siRNA (h): sc-91515, NNP-1B shRNA Plasmid (h): sc-91515-SH and NNP-1B shRNA (h) Lentiviral Particles: sc-91515-V.

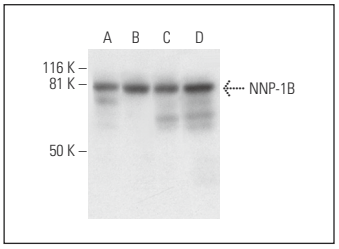
Molecular Weight of NNP-1B: 84 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, K-562 nuclear extract: sc-2130 or HeLa nuclear extract: sc-2120.

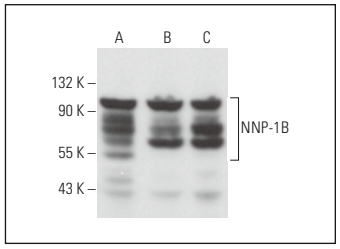
RECOMMENDED SUPPORT REAGENTS

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 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



NNP-1B (C-12): sc-398162. Western blot analysis of NNP-1B expression in HeLa (**A**), Jurkat (**B**) and K-562 (**C**) nuclear extracts and HEK293 whole cell lysate (**D**).



NNP-1B (C-12): sc-398162. Western blot analysis of NNP-1B expression in Jurkat nuclear extract (**A**) and HUV-EC-C (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chiang, S.K., et al. 2019. DOCK1 regulates growth and motility through the RRP1B-claudin-1 pathway in claudin-low breast cancer cells. Cancers 11: 1762.

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.