SANTA CRUZ BIOTECHNOLOGY, INC.

NNP-1B (K-19): sc-83327

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.

CHROMOSOMAL LOCATION

Genetic locus: RRP1B (human) mapping to 21q22.3; Rrp1b (mouse) mapping to 17 B1.

SOURCE

NNP-1B (K-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of NNP-1B of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NNP-1B (K-19) is recommended for detection of NNP-1B of human origin and Rrp1b of mouse and rat 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 RRP family members.

NNP-1B (K-19) is also recommended for detection of NNP-1B in additional species, including canine and bovine.

Suitable for use as control antibody for NNP-1B siRNA (h): sc-91515, Rrp1b siRNA (m): sc-153131, NNP-1B shRNA Plasmid (h): sc-91515-SH, Rrp1b shRNA Plasmid (m): sc-153131-SH, NNP-1B shRNA (h) Lentiviral Particles: sc-91515-V and Rrp1b shRNA (m) Lentiviral Particles: sc-153131-V.

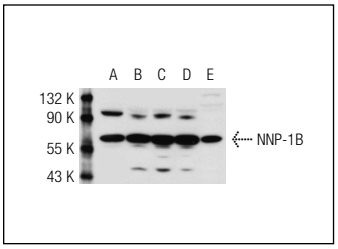
Molecular Weight of NNP-1B: 84 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, K-562 nuclear extract: sc-2130 or NIH/3T3 nuclear extract: sc-2138.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NNP-1B (K-19): sc-83327. Western blot analysis of NNP-1B expression in HEK293 whole cell lysate (**A**) and HeLa (**B**), Jurkat (**D**), K-562 (**E**) and NIH/3T3 (**F**) nuclear extracts.

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.

PROTOCOLS

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