

NIP7 (X-16): sc-102038

BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of a small subunit (40S) and a large subunit (60S) that consist of over 80 distinct ribosomal proteins. Mammalian ribosomal proteins are encoded by multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Nip7 is a nucleolar protein involved in ribosome biogenesis, specifically 27S pre-rRNA processing and 60S ribosome subunit assembly in *Saccharomyces cerevisiae*. NIP7 is a conserved protein among eukaryotes, including human, mouse, rat and pig that is essential for cell growth. In humans, NIP7 interacts with the Shwachman-Bodian-Diamond syndrome (SBDS) protein, which mediates accurate gene expression essential for proper brain, skeletal, and blood cell development. Mutations in the SBDS gene results in an autosomal disorder (SDS) characterized by pleiotropic phenotypes including pancreatic, skeletal and bone marrow deficiencies and predisposition to hematological dysfunctions.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NIP7 (human) mapping to 16q22.1; Nip7 (mouse) mapping to 8 D3.

SOURCE

NIP7 (X-16) is a purified rabbit polyclonal antibody raised against NIP7 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 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

NIP7 (X-16) is recommended for detection of NIP7 of mouse, human and dog 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 NIP7 siRNA (h): sc-93339, NIP7 siRNA (m): sc-149977, NIP7 shRNA Plasmid (h): sc-93339-SH, NIP7 shRNA Plasmid (m): sc-149977-SH, NIP7 shRNA (h) Lentiviral Particles: sc-93339-V and NIP7 shRNA (m) Lentiviral Particles: sc-149977-V.

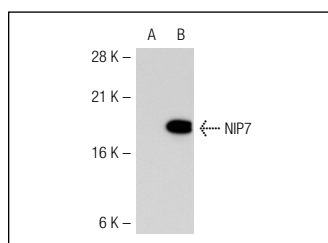
Molecular Weight of NIP7: 21 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or NIP7 (h): 293 Lysate: sc-112267.

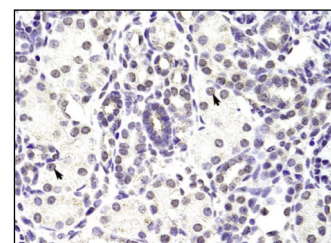
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NIP7 (X-16): sc-102038. Western blot analysis of NIP7 expression in non-transfected: sc-110760 (A) and human NIP7 transfected: sc-112267 (B) 293 whole cell lysates.



NIP7 (X-16): sc-102038. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear staining.

RESEARCH USE

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