SANTA CRUZ BIOTECHNOLOGY, INC.

NIP7 (L-13): sc-131997

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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7. Liu, G.Y. and Xiong, Y.Z. 2007. Isolation, sequence analysis and expression profile of a novel porcine gene, NIP7, differentially expressed in the Longissimus dorsi muscle tissues from Meishan, Meishan x Large White cross and Large White pigs. Mol. Biol. Rep. 34: 213-219.

CHROMOSOMAL LOCATION

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

SOURCE

NIP7 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 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 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131997 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NIP7 (L-13) is recommended for detection of NIP7 isoforms 1 and 2 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); non cross-reactive with other NIP family members.

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.

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.

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.