SANTA CRUZ BIOTECHNOLOGY, INC.

NDH II (H-300): sc-66997

BACKGROUND

Pre-mRNA splicing is a critical step in the posttranscriptional regulation of gene expression. Several protein complexes are involved in proper mRNA splicing and transport. The small nuclear ribonucleoprotein particles (snRNPs) interact with the SRm160/300 splicing coactivator complex to form a large RNA spliceosome. The heterogeneous nuclear ribonucleoproteins (hnRNPs) contribute to the processing and transport of pre-mRNA within the spliceosome. Also, the exon junction complex (EJC), which includes Y14, Aly/REF and Magoh, mediates mRNA export, cytoplasmic localization and nonsense-mediated mRNA decay. The effect on pre-mRNA splicing involves a nuclear complex (CBC). CBC consists of two cap binding proteins, CBP20 and CBP80, which mediate the stimulatory functions of the cap in pre-mRNA splicing, 3'-end formation and U snRNA export. The splicing factor 1 is a nuclear protein that binds the branch point sequence of pre-mRNA in the first step of spliceosome assembly. SRp55 modulates the selection of alternative splice sites in constitutive splicing and NDH II generates secondary structures that interact with RNA-binding proteins. MDA5 is an ATP-dependent RNA helicase associated with the growth, differentiation and death of human melanoma cells.

CHROMOSOMAL LOCATION

Genetic locus: DHX9 (human) mapping to 1q25.3; Dhx9 (mouse) mapping to 1 G3.

SOURCE

NDH II (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of NDH II of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NDH II (H-300) is recommended for detection of nuclear DNA helicase II of mouse, rat and human 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).

NDH II (H-300) is also recommended for detection of nuclear DNA helicase II in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NDH II siRNA (h): sc-45706, NDH II siRNA (m): sc-45707, NDH II shRNA Plasmid (h): sc-45706-SH, NDH II shRNA Plasmid (m): sc-45707-SH, NDH II shRNA (h) Lentiviral Particles: sc-45706-V and NDH II shRNA (m) Lentiviral Particles: sc-45707-V.

NDH II (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

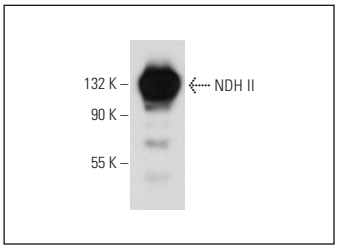
Molecular Weight of NDH II: 130 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

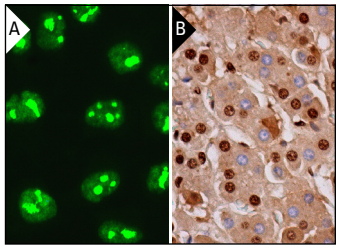
RECOMMENDED SECONDARY REAGENTS

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



NDH II (H-300): sc-66997. Western blot analysis of NDH II expression in HeLa nuclear extract.



NDH II (H-300): sc-66997. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing nucleolar, nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Kar, B., et al. 2011. Quantitative nucleolar proteomics reveals nuclear reorganization during stress-induced senescence in mouse fibroblast. BMC Cell Biol. 12: 33.

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.