SANTA CRUZ BIOTECHNOLOGY, INC.

NOL4 (Q-22): sc-133837

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The nucleolus consists of a number of specific proteins that play a critical role in the assembly of ribosomes, as well as in the maintenance and structural integrity of the nucleolus. NOL4 (Nucleolar protein 4), also known as NOLP (Nucleolar-localized protein), is a 524 amino acid protein that is predominantly expressed in testis and brain. NOL4 contains at least two domains that direct it to subnuclear locations. The gene encoding NOL4 is located on human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas. There are two isoforms of NOL4 that are produced as a result of alternative splicing events.

REFERENCES

1. Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. Proc. Natl. Acad. Sci. USA 90: 2002-2004.
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3. Ueki, N., et al. 1998. Selection system for genes encoding nuclear-targeted proteins. Nat. Biotechnol. 16: 1338-1342.
4. Zhu, L., et al. 2003. Examination of sequence homology between human chromosome 20 and the mouse genome: intense conservation of many genomic elements. Hum. Genet. 113: 60-70.
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7. Wang, S.S., et al. 2008. Identification of novel methylation markers in cervical cancer using restriction landmark genomic scanning. Cancer Res. 68: 2489-2497.
8. Cerminara, C., et al. 2008. Epilepsy and deletion syndromes of chromosome 18: do not forget the short arm! Epilepsia 49: 1813-1814.

CHROMOSOMAL LOCATION

Genetic locus: NOL4 (human) mapping to 18q12.1.

SOURCE

NOL4 (Q-22) is an affinity purified rabbit polyclonal antibody raised against synthetic NOL4 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

NOL4 (Q-22) is recommended for detection of NOL4 of 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).

Suitable for use as control antibody for NOL4 siRNA (h): sc-75943, NOL4 shRNA Plasmid (h): sc-75943-SH and NOL4 shRNA (h) Lentiviral Particles: sc-75943-V.

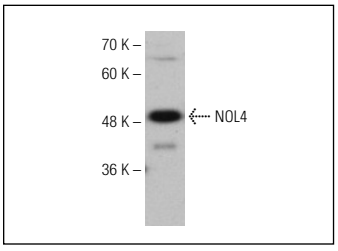
Molecular Weight of NOL4 isoforms: 58/46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

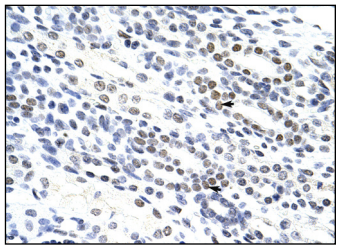
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use 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



NOL4 (Q-22): sc-133837. Western blot analysis of NOL4 expression in Hep G2 whole cell lysate.



NOL4 (Q-22): sc-133837. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing nuclear localization.

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.