SANTA CRUZ BIOTECHNOLOGY, INC.

NIPBL (I-17): sc-69437

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NIPBL (Nipped-B-like protein), also known as IDN3, Delangin or CDLS, is a 2,804 amino acid nuclear protein that is the mammalian homolog of the *Drosophila* Nipped-B gene product, a protein that plays a role in developmental regulation by facilitating the communication between promoters and transcriptional enhancers. Widely expressed with particularly high levels present in skeletal muscle, heart, liver and kidney, NIPBL contains five HEAT repeats and interacts with HP1α, possibly playing a role in sister chromatid adhesion and in the maintenance of proper chromatin structure. NIPBL exists as three isoforms and is subject to DNA damage-dependent phosphorylation, probably by ATM or ATR. Mutations in the gene encoding NIPBL are the cause of Cornelia de Lange syndrome type 1 (CDLS1), a developmental disorder that is characterized by facial dysmorphisms, abnormal hands and feet, growth delay, cognitive retardation and various other malformations, including gastroesophageal dysfunction and cardiac, ophthalmologic and genitourinary anomalies.

REFERENCES

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7. Borck, G., et al. 2006. Father-to-daughter transmission of Cornelia de Lange syndrome caused by a mutation in the 5' untranslated region of the NIPBL gene. Hum. Mutat. 27: 731-735.
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CHROMOSOMAL LOCATION

Genetic locus: NIPBL (human) mapping to 5p13.2; Nipbl (mouse) mapping to 15 A1.

SOURCE

NIPBL (I-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NIPBL 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.

Blocking peptide available for competition studies, sc-69437 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NIPBL (I-17) is recommended for detection of NIPBL 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).

NIPBL (I-17) is also recommended for detection of NIPBL in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NIPBL siRNA (h): sc-75921, NIPBL siRNA (m): sc-75922, NIPBL shRNA Plasmid (h): sc-75921-SH, NIPBL shRNA Plasmid (m): sc-75922-SH, NIPBL shRNA (h) Lentiviral Particles: sc-75921-V and NIPBL shRNA (m) Lentiviral Particles: sc-75922-V.

Molecular Weight of NIPBL: 316 kDa.

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.

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.