

NDEL1 (H-65): sc-134517

BACKGROUND

NUDE-like protein (NDEL1) is expressed in the testis, brain, heart, hypothalamus, liver, lung, spleen and stomach, specifically in the interphase centrosome and mitotic spindle. It positively regulates minus-end directed dynein. Evidence suggests that NDEL1 interacts with LIS1 to sustain the function of dynein, thereby impacting microtubule organization, nuclear translocation and neuronal positioning. NDEL1 is phosphorylated during mitosis and seems to tether dynactin and dynein to the mother centriole for microtubule anchoring. Loss of function of NDEL1 in the developing neocortex impairs neuronal positioning and uncouples the centrosome and nucleus. NDEL1 may also impair mitochondrial transport or function, initiating a cascade of events culminating in psychiatric illness such as lissencephaly and schizophrenia.

REFERENCES

- Niethammer, M., et al. 2001. NUDEL is a novel Cdk5 substrate that associates with LIS1 and cytoplasmic dynein. *Neuron* 28: 697-711.
- Yan, X., et al. 2003. Human NUDEL and NUDE as regulators of cytoplasmic dynein in poleward protein transport along the mitotic spindle. *Mol. Cell. Biol.* 23: 1239-1250.

CHROMOSOMAL LOCATION

Genetic locus: NDEL1 (human) mapping to 17p13.1; Ndel1 (mouse) mapping to 11 B3.

SOURCE

NDEL1 (H-65) is a rabbit polyclonal antibody raised against amino acids 181-245 mapping within an internal region of NDEL1 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

NDEL1 (H-65) is recommended for detection of NDEL1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NDEL1 (H-65) is also recommended for detection of NDEL1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NDEL1 siRNA (h): sc-61162, NDEL1 siRNA (m): sc-61163, NDEL1 shRNA Plasmid (h): sc-61162-SH, NDEL1 shRNA Plasmid (m): sc-61163-SH, NDEL1 shRNA (h) Lentiviral Particles: sc-61162-V and NDEL1 shRNA (m) Lentiviral Particles: sc-61163-V.

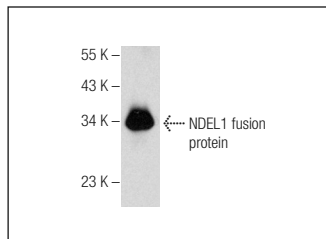
Molecular Weight of NDEL1: 40 kDa.

Positive Controls: HeLa + nocodazole cell lysate: sc-2274, MCF7 whole cell lysate: sc-2206 or SK-N-SH + nocodazole cell lysate: sc-2289.

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.

DATA



NDEL1 (H-65): sc-134517. Western blot analysis of human recombinant NDEL1 fusion protein.

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.



Try **NDEL1 (D-5): sc-365094**, our highly recommended monoclonal alternative to NDEL1 (H-65).