

NEDD1 (H-300): sc-67263

BACKGROUND

NEDD1 (neural precursor cell expressed, developmentally downregulated 1), also known as GCP-WD, is a homolog of the *Drosophila* protein known as Dgp71WD. It is a ubiquitously expressed, evolutionarily conserved protein and contains eight WD40 repeats and a coiled-coil domain at the C-terminus. NEDD1 is a subunit of the γ -tubulin ring complex (γ TuRC) and plays an important role in mitosis. During mitosis NEDD1 is phosphorylated and functions in forming the association of γ -tubulin with the spindle. The state of phosphorylation of NEDD1 is also important for determining its cellular localization. NEDD1 is responsible for targeting γ TuRC to the centrosome and spindle and is therefore required for centrosomal and chromatin-mediated microtubule nucleation. The inhibition of NEDD1 results in the loss of γ TuRC from the centrosome and a sequential loss of microtubule nucleation. Due to its critical role in mitosis, NEDD1 may be a potential target for anticancer therapies.

REFERENCES

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2. Kumar, S., et al. 1994. Molecular cloning and biological activity of a novel developmentally regulated gene encoding a protein with β transducin-like structure. *J. Biol. Chem.* 269: 11318-11326.
3. Takai, S., et al. 1995. Assignment of the developmentally regulated gene NEDD1 to human chromosome 12q22 by fluorescence *in situ* hybridization. *Hum. Genet.* 95: 96-98.
4. Koul, S., et al. 2004. Characteristic promoter hypermethylation signatures in male germ cell tumors. *Mol. Cancer* 1: 8.
5. Lüders, J., et al. 2006. GCP-WD is a γ -tubulin targeting factor required for centrosomal and chromatin-mediated microtubule nucleation. *Nat. Cell Biol.* 8: 137-147.
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CHROMOSOMAL LOCATION

Genetic locus: NEDD1 (human) mapping to 12q23.1; Nedd1 (mouse) mapping to 10 C2.

SOURCE

NEDD1 (H-300) is a rabbit polyclonal antibody raised against amino acids 61-360 mapping near the N-terminus of NEDD1 of human origin.

PRODUCT

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

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NEDD1 (H-300) is recommended for detection of NEDD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

NEDD1 (H-300) is also recommended for detection of NEDD1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for NEDD1 siRNA (h): sc-72378, NEDD1 siRNA (m): sc-72379, NEDD1 shRNA Plasmid (h): sc-72378-SH, NEDD1 shRNA Plasmid (m): sc-72379-SH, NEDD1 shRNA (h) Lentiviral Particles: sc-72378-V and NEDD1 shRNA (m) Lentiviral Particles: sc-72379-V.

Molecular Weight of NEDD1: 74 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.

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 **NEDD1 (H-3): sc-398733** or **NEDD1 (39-J): sc-100961**, our highly recommended monoclonal alternatives to NEDD1 (H-300).