

# NEDD1 (39-J): sc-100961

## BACKGROUND

NEDD1 (neural precursor cell expressed, developmentally down-regulated 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  $\gamma$ -Tubulin ring complex ( $\gamma$ TuRC) and plays an important role in mitosis. During mitosis NEDD1 is phosphorylated and functions in forming the association of  $\gamma$ -Tubulin with the spindle. The state of phosphorylation of NEDD1 is also important for determining its cellular localization. NEDD1 is responsible for targeting  $\gamma$ 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  $\gamma$ 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NEDD1 (39-J) is a mouse monoclonal antibody raised against recombinant NEDD1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2b</sub> kappa light chain 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

NEDD1 (39-J) 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  $\mu$ g per 100-500  $\mu$ g 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 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.

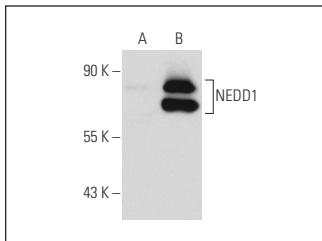
Molecular Weight of NEDD1: 74 kDa.

Positive Controls: NEDD1 (m): 293T Lysate: sc-121989, U-2 OS cell lysate: sc-2295 or HeLa nuclear extract: sc-2120.

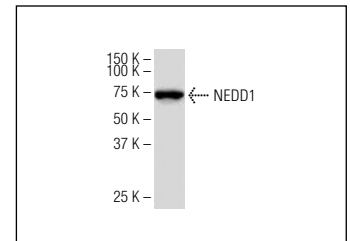
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

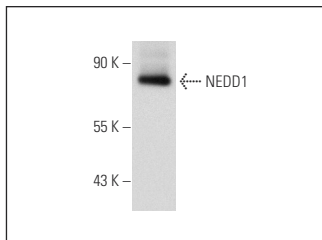
## DATA



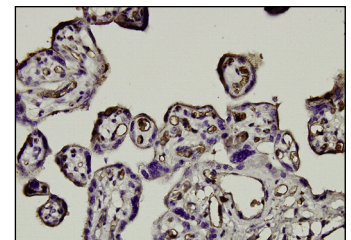
NEDD1 (39-J): sc-100961. Western blot analysis of NEDD1 expression in non-transfected: sc-117752 (A) and mouse NEDD1 transfected: sc-121989 (B) 293T whole cell lysates.



NEDD1 (39-J): sc-100961. Western blot analysis of NEDD1 expression in HeLa nuclear extract.



NEDD1 (39-J): sc-100961. Western blot analysis of NEDD1 expression in U-2 OS whole cell lysate.



NEDD1 (39-J): sc-100961. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human placenta tissue showing membrane localization.

## SELECT PRODUCT CITATIONS

- De Zio, D., et al. 2015. Apaf1-deficient cortical neurons exhibit defects in axonal outgrowth. *Cell. Mol. Life Sci.* 72: 4173-4191.
- Chu, C.W., et al. 2016. Prickle3 synergizes with Wtip to regulate basal body organization and cilia growth. *Sci. Rep.* 6: 24104.
- Chen, J.V., et al. 2017. A splice variant of centrosomin converts mitochondria to microtubule-organizing centers. *Curr. Biol.* 27: 1928-1940.
- Muroyama, A., et al. 2018. Genetically induced microtubule disruption in the mouse intestine impairs intracellular organization and transport. *Mol. Biol. Cell* 29: 1533-1541.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.