

# Ndfip1 (H-6): sc-515417

## BACKGROUND

Nedd4 family interacting protein-1 (Ndfip1), also referred to as N4WBP5, is a member of a family of highly conserved proteins. It has three transmembrane domains in its carboxy terminal and two PY motifs in its amino terminal. Ndfip1 is a 221 amino acid, Golgi-associated protein that may play a role in Golgi structure and function. Ndfip1 binds the WW domains of a number of Nedd4 family members called HECT-type E3 ubiquitin ligases. Ndfip1 is strongly expressed in surviving neurons around a site of injury. This suggests that ubiquitination may be a possible survival strategy and Ndfip1 may act as a neuroprotective protein. Ndfip1 may also have an effect on the function of Itch, another E3 ubiquitin ligase. Expression of Ndfip1 and its association with Itch may be promoted by T cell activation. Mice lacking Ndfip1 exhibit inactivation of Itch and accumulation of JunB causing them to die prematurely with severe skin and lung inflammation.

## REFERENCES

1. Harvey, K.F., et al. 2002. N4WBP5, a potential target for ubiquitination by the Nedd4 family of proteins, is a novel Golgi-associated protein. *J. Biol. Chem.* 277: 9307-9317.
2. Donnison, M., et al. 2004. Isolation of genes associated with developmentally competent bovine oocytes and quantitation of their levels during development. *Biol. Reprod.* 71: 1813-1821.

## CHROMOSOMAL LOCATION

Genetic locus: NDFIP1 (human) mapping to 5q31.3; Ndfip1 (mouse) mapping to 18 B3.

## SOURCE

Ndfip1 (H-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 85-110 within a cytoplasmic domain of Ndfip1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ndfip1 (H-6) is available conjugated to agarose (sc-515417 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515417 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515417 PE), fluorescein (sc-515417 FITC), Alexa Fluor® 488 (sc-515417 AF488), Alexa Fluor® 546 (sc-515417 AF546), Alexa Fluor® 594 (sc-515417 AF594) or Alexa Fluor® 647 (sc-515417 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515417 AF680) or Alexa Fluor® 790 (sc-515417 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515417 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

Ndfip1 (H-6) is recommended for detection of Ndfip1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Ndfip1 siRNA (h): sc-75886, Ndfip1 siRNA (m): sc-75887, NDFIP1 shRNA Plasmid (h): sc-75886-SH, NDFIP1 shRNA Plasmid (m): sc-75887-SH, NDFIP1 shRNA (h) Lentiviral Particles: sc-75886-V and NDFIP1 shRNA (m) Lentiviral Particles: sc-75887-V.

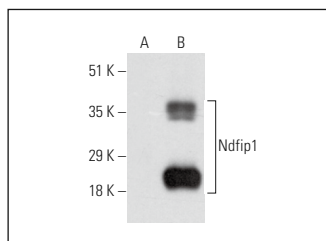
Molecular Weight of Ndfip1: 26 kDa.

Positive Controls: NDFIP1 (h): 293T Lysate: sc-370558 or NDFIP1 (m): 293T Lysate: sc-121959.

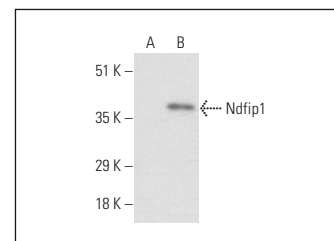
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Ndfip1 (H-6): sc-515417. Western blot analysis of Ndfip1 expression in non-transfected: sc-117752 (A) and mouse Ndfip1 transfected: sc-121959 (B) 293T whole cell lysates.



Ndfip1 (H-6): sc-515417. Western blot analysis of Ndfip1 expression in non-transfected: sc-117752 (A) and human Ndfip1 transfected: sc-370558 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Asanuma, M., et al. 2025. Differentially expressed Nedd4-binding protein Ndfip1 protects neurons against methamphetamine-induced neurotoxicity. *Neurotox. Res.* 43: 4.

## RESEARCH USE

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

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