

# Ndfip1 (C-18): sc-69514

## 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

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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.
3. Shearwin-Whyatt, L.M., et al. 2004. N4WBP5A (NDFIP2), a NEDD4-interacting protein, localizes to multivesicular bodies and the Golgi, and has a potential role in protein trafficking. *J. Cell Sci.* 117: 3679-3689.
4. Bennett, C.L., et al. 2005. Genetic heterogeneity for autosomal recessive pyridoxine-dependent seizures. *Neurogenetics* 6: 143-149.
5. Oliver, P.M., et al. 2006. NDFIP1 protein promotes the function of Itch ubiquitin ligase to prevent T cell activation and T helper 2 cell-mediated inflammation. *Immunity* 25: 929-940.
6. Zhang, Y., et al. 2006. Differential expression profiling between the relative normal and dystrophic muscle tissues from the same LGMD patient. *J. Transl. Med.* 4: 53.
7. Sang, Q., et al. 2006. NEDD4-WW domain-binding protein 5 (Ndfip1) is associated with neuronal survival after acute cortical brain injury. *J. Neurosci.* 26: 7234-7244.
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## CHROMOSOMAL LOCATION

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

## SOURCE

Ndfip1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of Ndfip1 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-69514 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Ndfip1 (C-18) is recommended for detection of Ndfip1 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).

Ndfip1 (C-18) is also recommended for detection of Ndfip1 in additional species, including equine, canine, bovine and porcine.

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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Ndfip1 (D-4): sc-398469** or **Ndfip1 (H-6): sc-515417**, our highly recommended monoclonal alternatives to Ndfip1 (C-18).