

# Ndfip1 (NiNterm20-5): sc-53956

## BACKGROUND

NEDD4 is an E3 ubiquitin-protein ligase that contains several family members including NEDD4-1 and NEDD4-2, both of which are HECT-type E3 ligases with similar structure and function. Located primarily in muscle fibers, NEDD4 is a ubiquitin acceptor that transports ubiquitin from E2 ligase enzymes to various substrates throughout the body, helping to regulate degradation of plasma membranes. Thought to play a role in the budding of many retroviruses, NEDD4 interacts with the viral protein motif P-P-P-Y, an interaction that is important for viral maturation. NEDD4 contains three WW domains to which many ubiquitin-receiving proteins, including NEDD4 family interacting protein-1 (Ndfip1), bind and interact. Ndfip1 is strongly expressed in surviving neurons around a site of injury, suggesting that ubiquitination may be a possible survival strategy and Ndfip1 may act as a neuroprotective protein.

## 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.
3. Shearwin-Whyatt, L.M., et al. 2004. N4WBP5A (NDFIP1), 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.
8. Shearwin-Whyatt, L., et al. 2006. Regulation of functional diversity within the NEDD4 family by accessory and adaptor proteins. *Bioessays* 28: 617-628.

## CHROMOSOMAL LOCATION

Genetic locus: Ndfip1 (mouse) mapping to 18 B3.

## 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.

## SOURCE

Ndfip1 (NiNterm20-5) is a Armenian hamster monoclonal antibody raised against a synthetic peptide corresponding to amino acids 11-30 of Ndfip1 of murine origin.

## PRODUCT

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

Ndfip1 (NiNterm20-5) is available conjugated to phycoerythrin (sc-53956 PE), 200 µg/ml, for IF, IHC(P) and FCM.

## APPLICATIONS

Ndfip1 (NiNterm20-5) is recommended for detection of Ndfip1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells); non cross-reactive with Ndfip2.

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

Molecular Weight of Ndfip1: 26 kDa.

## PROTOCOLS

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