

Ndfip1 (h): 293T Lysate: sc-370558

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.
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.
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 (human) mapping to 5q31.3.

PRODUCT

Ndfip1 (h): 293T Lysate represents a lysate of human NDFIP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Ndfip1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NDFIP1 antibodies. Recommended use: 10-20 µl per lane.

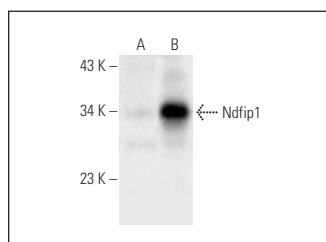
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ndfip1 (D-4): sc-398469 is recommended as a positive control antibody for Western Blot analysis of enhanced human NDFIP1 expression in NDFIP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

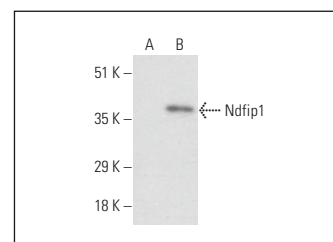
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Ndfip1 (D-4): sc-398469. Western blot analysis of Ndfip1 expression in non-transfected: sc-117752 (A) and human Ndfip1 transfected: sc-370558 (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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.