

NEDD4-1 (A-16): sc-14429

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 Jun B 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 (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.

CHROMOSOMAL LOCATION

Genetic locus: NEDD4 (human) mapping to 15q21.3; Nedd4 (mouse) mapping to 9 D.

SOURCE

NEDD4-1 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NEDD4 -1 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-14429 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NEDD4-1 (A-16) is recommended for detection of NEDD4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

NEDD4-1 (A-16) is also recommended for detection of NEDD4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NEDD4 siRNA (h): sc-41079, NEDD4 siRNA (m): sc-41080, NEDD4 shRNA Plasmid (h): sc-41079-SH, NEDD4 shRNA Plasmid (m): sc-41080-SH, NEDD4 shRNA (h) Lentiviral Particles: sc-41079-V and NEDD4 shRNA (m) Lentiviral Particles: sc-41080-V.

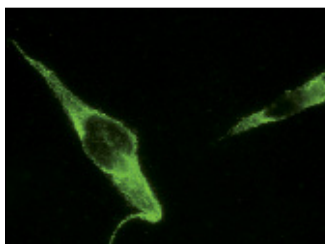
Molecular Weight of NEDD4-1: 120 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NEDD4 (A-16): sc-14429. Immunofluorescence staining of methanol-fixed Caki-1 cells showing cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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