SANTA CRUZ BIOTECHNOLOGY, INC.

NEDD4 (F-11): sc-518160

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NEDD4 family interacting protein-1 (NDFIP1), also known as N4WBP5, is a member of a family of highly conserved proteins. NEDD4 is a 221 amino acid, Golgi-associated protein which contains three transmembrane domains in its carboxy-terminus and two PY motifs in its amino-terminus. NEDD4 may play a role in Golgi structure and function. It binds the WW domains of a number of NEDD4 family members called HECT-type E3 ubiquitin ligases. NEDD4 is strongly expressed in surviving neurons around an injury site, which suggests that ubiquitination may be a possible survival strategy and that NEDD4 may act as a neuroprotective protein. It may also have an effect on the function of Itch, another E3 ubiquitin ligase. Expression of NEDD4 and its association with Itch may be promoted by T cell activation. Mice lacking NEDD4 exhibit inactivation of Itch and accumulation of Jun B, causing severe skin and lung inflammation and premature death.

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.

CHROMOSOMAL LOCATION

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

SOURCE

NEDD4 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1196-1218 of NEDD4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NEDD4 (F-11) is available conjugated to agarose (sc-518160 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518160 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518160 PE), fluorescein (sc-518160 FITC), Alexa Fluor® 488 (sc-518160 AF488), Alexa Fluor® 546 (sc-518160 AF546), Alexa Fluor® 594 (sc-518160 AF594) or Alexa Fluor® 647 (sc-518160 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518160 AF680) or Alexa Fluor® 790 (sc-518160 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

NEDD4 (F-11) is recommended for detection of NEDD4 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 NEDD4 siRNA (h): sc-41079, NEDD4 siRNA (m): sc-41080, NEDD4 siRNA (r): sc-270215, NEDD4 shRNA Plasmid (h): sc-41079-SH, NEDD4 shRNA Plasmid (m): sc-41080-SH, NEDD4 shRNA Plasmid (r): sc-270215-SH, NEDD4 shRNA (h) Lentiviral Particles: sc-41079-V, NEDD4 shRNA (m) Lentiviral Particles: sc-41080-V and NEDD4 shRNA (r) Lentiviral Particles: sc-270215-V.

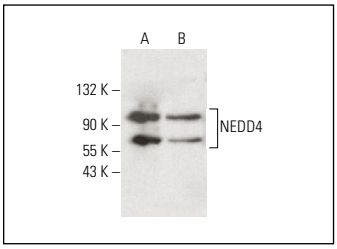
Molecular Weight of NEDD4: 116-120 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214 or C6 whole cell lysate: sc-364373.

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



NEDD4 (F-11): sc-518160. Western blot analysis of NEDD4 expression in KNRK (**A**) and C6 (**B**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Dong, G., et al. 2023. Mechanical stress induced EndoMT in endothelial cells through PPARγ downregulation. Cell. Signal. 110: 110812.

RESEARCH USE

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