SANTA CRUZ BIOTECHNOLOGY, INC.

Ndfip2 (C-6): sc-515327

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The Power to Question

BACKGROUND

Ndfip2 (NEDD4 family interacting protein 2), also known as N4WBP5A, is a 336 amino acid protein that localizes to the membrane of both the endosome and the Golgi apparatus. Expressed in kidney, heart, brain, lung, liver, placenta and skeletal muscle, Ndfip2 interacts with NEDD4 and NEDD4-L and is thought to be involved in endocytosis and in the NFκB and MAPK signaling pathways. Additionally, Ndfip2 may function as an adaptor protein that may recruit NEDD4 ubiquitin-protein ligases to protein trafficking machinery in the Golgi. Ndfip2 is activated by T cells and may be ubiquitinated by NEDD4 or NEDD4-L, an event that does not affect Ndfip2 function. The gene encoding Ndfip2 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

REFERENCES

1. Konstas, A.A., et al. 2002. Regulation of the epithelial sodium channel by N4WBP5A, a novel Nedd4/Nedd4-2-interacting protein. J. Biol. Chem. 277: 29406-29416.
2. Cristillo, A.D., et al. 2003. Cloning and characterization of N4WBP5A, an inducible, cyclosporine-sensitive, Nedd4-binding protein in human T lymphocytes. J. Biol. Chem. 278: 34587-34597.
3. Matsuda, A., et al. 2003. Large-scale identification and characterization of human genes that activate NFκB and MAPK signaling pathways. Oncogene 22: 3307-3318.
4. Palmada, M., et al. 2004. Regulation of intestinal phosphate cotransporter NaPi IIb by ubiquitin ligase Nedd4-2 and by serum- and glucocorticoid-dependent kinase 1. Am. J. Physiol. Gastrointest. Liver Physiol. 287: G143-G150.
5. 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: Ndfip2 (mouse) mapping to 14 E2.3.

SOURCE

Ndfip2 (C-6) is a mouse monoclonal antibody raised against amino acids 1-150 mapping within an N-terminal cytoplasmic domain of Ndfip2 of mouse 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.

Ndfip2 (C-6) is available conjugated to agarose (sc-515327 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515327 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515327 PE), fluorescein (sc-515327 FITC), Alexa Fluor® 488 (sc-515327 AF488), Alexa Fluor® 546 (sc-515327 AF546), Alexa Fluor® 594 (sc-515327 AF594) or Alexa Fluor® 647 (sc-515327 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515327 AF680) or Alexa Fluor® 790 (sc-515327 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ndfip2 (C-6) is recommended for detection of Ndfip2 of mouse 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 Ndfip2 siRNA (m): sc-149862, Ndfip2 shRNA Plasmid (m): sc-149862-SH and Ndfip2 shRNA (m) Lentiviral Particles: sc-149862-V.

Molecular Weight (predicted) of Ndfip2: 32 kDa.

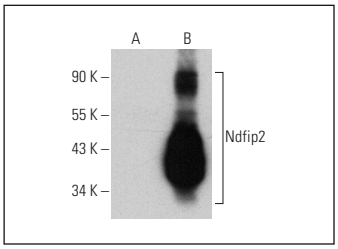
Molecular Weight (observed) of Ndfip2: 32-50 kDa.

Positive Controls: Ndfip2 (m): 293T Lysate: sc-121960.

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



Ndfip2 (C-6): sc-515327. Western blot analysis of Ndfip2 expression in non-transfected: sc-117752 (**A**) and mouse Ndfip2 transfected: sc-121960 (**B**) 293T whole cell lysates.

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 for detailed protocols and support products.