10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NDFIP1 / N4WBP5 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS15644

Specification

NDFIP1 / N4WBP5 Antibody (N-Terminus) - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9BT67
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**25kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A**

NDFIP1 / N4WBP5 Antibody (N-Terminus) - Additional Information

Gene ID 80762

Other Names
NEDD4 family-interacting protein 1, Breast cancer-associated protein SGA-1M, NEDD4 WW domain-binding protein 5, Putative MAPK-activating protein PM13, Putative NF-kappa-B-activating protein 164, Putative NFKB and MAPK-activating protein, NDFIP1, N4WBP5

Target/Specificity
Human NDFIP1. At least two isoforms of NDFIP1 are known to exist. NDFIP1 antibody is predicted to not cross-react with NDFIP2.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
NDFIP1 / N4WBP5 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

NDFIP1 / N4WBP5 Antibody (N-Terminus) - Protein Information

Name NDFIP1

Synonyms N4WBP5

Function
Activates HECT domain-containing E3 ubiquitin-protein ligases, including NEDD4 and ITCH, and consequently modulates the stability of their targets. As a result, controls many cellular processes. Prevents chronic T-helper cell-mediated inflammation by activating ITCH and thus controlling JUNB degradation (By similarity). Promotes pancreatic beta cell death through degradation of JUNB and inhibition of the unfolded protein response, leading to reduction of insulin secretion (PubMed:26319551). Restricts the

production of pro- inflammatory cytokines in effector Th17 T-cells by promoting ITCH- mediated ubiquitination and degradation of RORC (By similarity). Together with NDFIP2, limits the cytokine signaling and expansion of effector Th2 T-cells by promoting degradation of JAK1, probably by ITCH- and NEDD4L-mediated ubiquitination (By similarity). Regulates peripheral T-cell tolerance to self and foreign antigens, forcing the exit of naive CD4+ T-cells from the cell cycle before they become effector T-cells (By similarity). Negatively regulates RLR-mediated antiviral response by promoting SMURF1-mediated ubiquitination and subsequent degradation of MAVS (PubMed:23087404). Negatively regulates KCNH2 potassium channel activity by decreasing its cell-surface expression and interfering with channel maturation through recruitment of NEDD4L to the Golgi apparatus where it mediates KCNH2 degradation (PubMed:26363003). In cortical neurons, mediates the ubiquitination of the divalent metal transporter SLC11A2/DMT1 by NEDD4L, leading to its down-regulation and protection of the cells from cobalt and iron toxicity (PubMed:19706893). Important for normal development of dendrites and dendritic spines in cortex (By similarity). Enhances the ubiquitination of BRAT1 mediated by: NEDD4, NEDD4L and ITCH and is required for the nuclear localization of ubiquitinated BRAT1 (PubMed:25631046). Enhances the ITCH-mediated ubiquitination of MAP3K7 by recruiting E2 ubiquitin-conjugating enzyme UBE2L3 to ITCH (By similarity). Modulates EGFR signaling through multiple pathways. In particular, may regulate the ratio of AKT1-to-MAPK8 signaling in response to EGF, acting on AKT1 probably through PTEN destabilization and on MAPK8 through ITCH-dependent MAP2K4 inactivation. As a result, may control cell growth rate (PubMed:20534535). Inhibits cell proliferation by promoting PTEN nuclear localization and changing its signaling specificity (PubMed:25801959).

Cellular Location
Endosome membrane; Multi-pass membrane protein. Golgi apparatus membrane. Synapse, synaptosome {ECO:0000250|UniProtKB:Q8R0W6}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q5U2S1}. Secreted Note=Detected in exosomes and secreted via the exosomal pathway (PubMed:18819914)

Tissue Location
Widely expressed. Higher levels are detected in cerebellum, pituitary, thalamus, kidney, liver, testis, salivary glands and placenta. Also expressed in fetal brain, kidney and lung

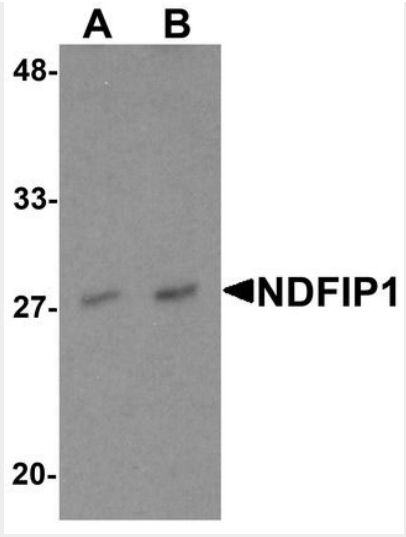
NDFIP1 / N4WBP5 Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NDFIP1 / N4WBP5 Antibody (N-Terminus) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot analysis of NDFIP1 in PC-3 cell lysate with NDFIP1 antibody at (A) 0.5 and (B) 1 ug/ml.

NDFIP1 / N4WBP5 Antibody (N-Terminus) - Background

Activates HECT domain-containing E3 ubiquitin-protein ligases, including NEDD4 and ITCH, and consequently modulates the stability of their targets. As a result, controls many cellular processes. Prevents chronic T-helper cells-mediated inflammation by activating ITCH and thus controlling JUNB degradation (By similarity). In cortical neurons, mediates the ubiquitination of SLC11A2/DMT1 by NEDD4L, leading to down-regulation of the divalent metal transporter and protection of the cells from cobalt and iron toxicity. Modulates EGFR signaling through multiple pathways. In particular, may regulate the ratio of AKT1-to-MAPK8 signaling in response to EGF, acting on AKT1 probably through PTEN destabilization and on MAPK8 through ITCH-dependent MAP2K4 inactivation. As a result, may control cell growth rate.

NDFIP1 / N4WBP5 Antibody (N-Terminus) - References

Petroziello J.M.,et al.Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
Matsuda A.,et al.Oncogene 22:3307-3318(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Otsuki T.,et al.DNA Res. 12:117-126(2005).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.