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

NDFIP1 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13449c

Specification

NDFIP1 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q9BT67

NDFIP1 Antibody (Center) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP13449c was selected from the Center region of NDFIP1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NDFIP1 Antibody (Center) Blocking peptide - 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 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

NDFIP1 Antibody (Center) Blocking peptide - Images

NDFIP1 Antibody (Center) Blocking peptide - Background

The protein encoded by this gene belongs to a small groupof evolutionarily conserved proteins with three transmembranedomains. It is a potential target for ubiquitination by the Nedd4family of proteins. This protein is thought to be part of a familyof integral Golgi membrane proteins.

NDFIP1 Antibody (Center) Blocking peptide - References

Mund, T., et al. Proc. Natl. Acad. Sci. U.S.A. 107(25):11429-11434(2010)Howitt, J., et al. Proc. Natl. Acad. Sci. U.S.A. 106(36):15489-15494(2009)Rapley, E.A., et al. Nat. Genet. 41(7):807-810(2009)Mund, T., et al. EMBO Rep. 10(5):501-507(2009)Putz, U., et al. J. Biol. Chem. 283(47):32621-32627(2008)