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NDFIP2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57376

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9NV92
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36390
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NDFIP2
Epitope Specificity	261-336/336
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endosome membrane. Golgi apparatus membrane. Endosome > multivesicular body membrane.
SUBUNIT	Forms heterodimers with NDFIP1. Interacts with HECT domain-containing E3 ubiquitin-protein ligases, including NEDD4. Interacts with NEDD4L By similarity. Interacts with PTEN. When phosphorylated at Tyr-167, interacts with SRC and LYN SH2 domain. May thus act as a scaffold that recruits SRC to NDFIP1, enhancing NDFIP1 phosphorylation. Interacts with SLC11A2/DMT1. May interact with phosphorylated EGFR.
Post-translational modifications	Ubiquitinated by NEDD4 and ITCH. Also ubiquitinated by NEDD4L. Ubiquitination by NEDD4 or NEDD4L does not affect turnover. Undergoes transient tyrosine-phosphorylation following EGF stimulation, most probably catalyzed by SRC. Also phosphorylated by LYN and FYN.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NDFIP2 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 NF x B 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.

Additional Information

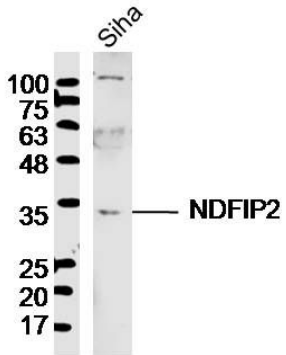
Gene ID	54602

Other Names	NEDD4 family-interacting protein 2, NEDD4 WW domain-binding protein 5A, Putative MAPK-activating protein PM04/PM05/PM06/PM07, Putative NF-kappa-B-activating protein 413, NDFIP2, KIAA1165, N4WBP5A
Target/Specificity	Expressed in brain, lung, heart, skeletal muscle, kidney, liver and placenta.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NDFIP2
Synonyms	KIAA1165, N4WBP5A
Function	Activates HECT domain-containing E3 ubiquitin-protein ligases, including ITCH, NEDD4, NEDD4L, SMURF2, WWP1 and WWP2, and consequently modulates the stability of their targets. As a result, may control many cellular processes. Recruits ITCH, NEDD4 and SMURF2 to endosomal membranes. 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 and multivesicular body where it mediates KCNH2 degradation (PubMed:26363003). May modulate EGFR signaling. Together with NDFIP1, 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).
Cellular Location	Endosome membrane; Multi-pass membrane protein. Golgi apparatus membrane. Endosome, multivesicular body membrane
Tissue Location	Expressed in brain, lung, heart, skeletal muscle, kidney, liver and placenta.

Images



Sample: Siha Cell (Human) Lysate at 40 ug
Primary: Anti- NDFIP2 (AP57376) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 36 kD
Observed band size: 34 kD