

N4BP1 Antibody

Catalog # ASC11278

Product Information

Application	WB, IF, ICC, E
Primary Accession	O75113
Other Accession	NP_694574 , 48928019
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	100379
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	N4BP1 antibody can be used for detection of N4BP1 by Western blot at 0.5 μ g/mL. Antibody can also be used for immunocytochemistry starting at 10 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	9683
Other Names	NEDD4-binding protein 1, N4BP1, N4BP1, KIAA0615
Target/Specificity	N4BP1; At least three isoforms of N4BP1 are known to exist; this antibody will only detect the longest isoform.
Reconstitution & Storage	N4BP1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	N4BP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	N4BP1 (HGNC:29850)
Function	Potent suppressor of cytokine production that acts as a regulator of innate immune signaling and inflammation. Acts as a key negative regulator of select cytokine and chemokine responses elicited by TRIF-independent Toll-like receptors (TLRs), thereby limiting inflammatory cytokine responses to minor insults. In response to more threatening pathogens, cleaved by CASP8 downstream of TLR3 or TLR4, leading to its inactivation, thereby allowing production of inflammatory cytokines (By similarity). Acts as a restriction factor against some viruses, such as HIV-1: restricts HIV-1 replication by binding to HIV-1 mRNAs and mediating their degradation via its ribonuclease

activity (PubMed:[31133753](#)). Also acts as an inhibitor of the E3 ubiquitin-protein ligase ITCH: acts by interacting with the second WW domain of ITCH, leading to compete with ITCH's substrates and impairing ubiquitination of substrates (By similarity).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q6A037}. Nucleus {ECO:0000250|UniProtKB:Q6A037} Nucleus, nucleolus {ECO:0000250|UniProtKB:Q6A037}. Nucleus, PML body {ECO:0000250|UniProtKB:Q6A037}. Note=Primarily localizes to the nucleolus. Also localizes to the PML nuclear bodies, when desumoylated {ECO:0000250|UniProtKB:Q6A037}

Tissue Location

Detected in heart, lung, brain, liver, skeletal muscle, pancreas, kidney, spleen, testis and ovary

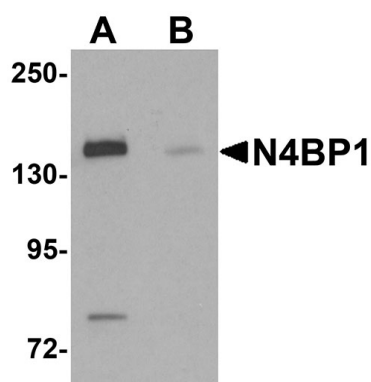
Background

N4BP1 Antibody: Nedd4-binding partner-1 (N4BP1) is a developmentally expressed protein interactor and monoubiquitylation substrate of Nedd4, a HECT domain-containing ubiquitin ligase that mediates ubiquitylation and proteasome degradation of target proteins and may have a fundamental role to play in embryonic processes. N4BP1 can undergo Nedd4-mediated polyubiquitylation and proteasomal degradation. N4BP1 also functions as a negative regulator of AIF4 (also known as ITCH or Atrophin-1), an E3-ubiquitin ligase, by interacting with the second WW domain of AIF4 and impairing ubiquitination of substrates.

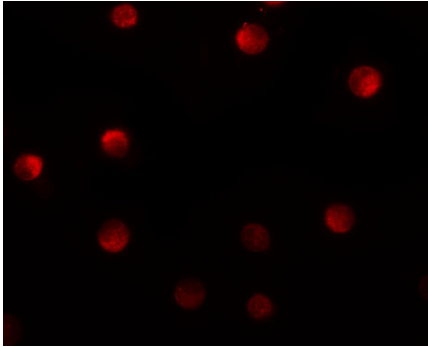
References

Murillas R, Simms KS, Hatakeyama S, et al. Identification of developmentally expressed proteins that functionally interact with Nedd4 ubiquitin ligase. *J. Biol. Chem.* 2002; 277:2897-907.
Sharma P, Murillas R, Zhang H, et al. N4BP1 is a newly identified nucleolar protein that undergoes SUMO-regulated polyubiquitylation and proteasomal turnover at promyelocytic leukemia nuclear bodies. *J. Cell Sci.* 2010; 123:1227-34.
Oberst A, Malatesta M, Aqeilan RI, et al. The Nedd4-binding partner 1 (N4BP1) protein is an inhibitor of the E3 ligase Itch. *Proc. Natl. Acad. Sci. USA* 2007; 104:11280-5.

Images



Immunocytochemistry of N4BP1 in HeLa cells with N4BP1 antibody at 10 µg/mL.



Immunofluorescence of N4BP1 in HeLa cells with N4BP1 antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.