

N4BP1 Antibody
Catalog # ASC11278**Specification**

N4BP1 Antibody - Product Information

Application	WB, ICC, IF
Primary Accession	O75113
Other Accession	NP_694574 , 48928019
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	N4BP1 antibody can be used for detection of N4BP1 by Western blot at 0.5 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.

N4BP1 Antibody - Additional InformationGene ID **9683****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.

N4BP1 Antibody - Protein InformationName 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

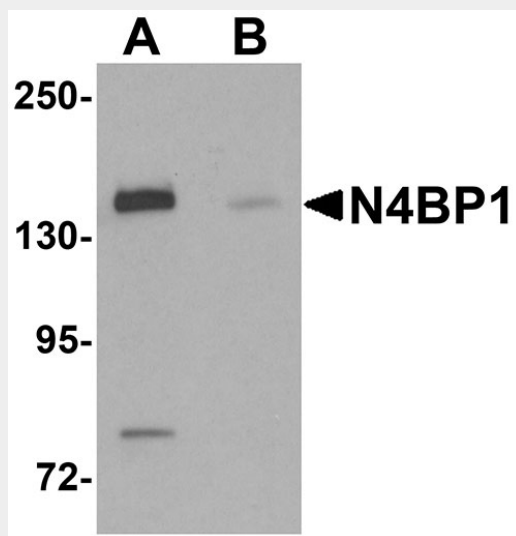
Detected in heart, lung, brain, liver, skeletal muscle, pancreas, kidney, spleen, testis and ovary

N4BP1 Antibody - Protocols

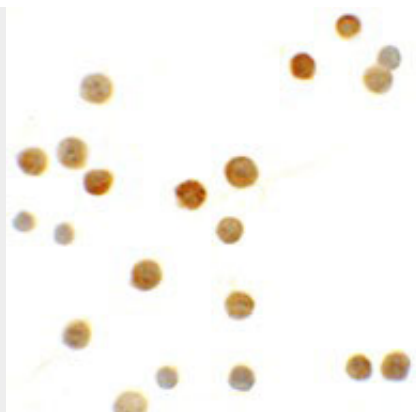
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

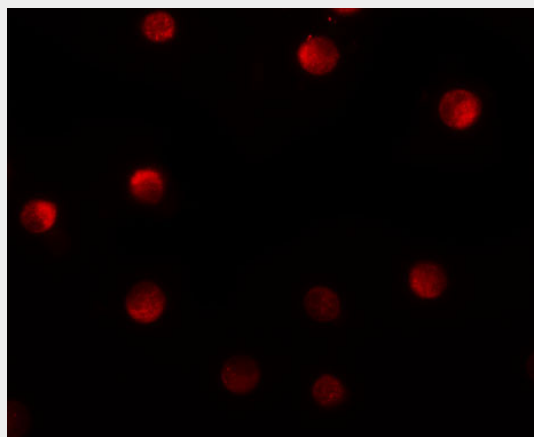
N4BP1 Antibody - Images



Western blot analysis of N4BP1 in HeLa cell lysate with N4BP1 antibody at 0.5 µg/mL in (A) the absence and (B) the presence of blocking peptide.



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



Immunofluorescence of N4BP1 in HeLa cells with N4BP1 antibody at 20 µg/mL.

N4BP1 Antibody - 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.

N4BP1 Antibody - 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.