abcam

ab248576

Anti-N4BP1 antibody [EPNCIR118] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPNCIR118
Purification technique	Affinity purification Protein A
Concentration	1.047 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information N4bp1

Function	Potent suppressor of cytokine production that acts as a regulator of innate immune signaling and inflammation (PubMed:32971525). 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 (PubMed:32971525). In response to more threatening pathogens, cleaved by CASP8 downstream of TLR3 or TLR4, leading to its inactivation, thereby allowing production of inflammatory cytokines (PubMed:32971525). Acts as a restriction factor against some viruses: restricts viral replication by binding to mRNA viruses and mediating their degradation via its ribonuclease activity (By similarity). 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 (PubMed:17592138).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248576 is the carrier-free version of ab133610.
This antibody was developed as part of a collaboration between Epitomics, the National Cancer Institute's Center for Cancer Research and the lab of Michael Kuehn. View antibodies from NCI Center for Cancer Research Collaboration.

Species reactivity
Human: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes,

oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	N4BP1 also known as NEDD4-binding protein 1 is a protein with a molecular mass of approximately 67 kDa. It is ubiquitously expressed with notable levels in kidney liver and brain tissues. Mechanically N4BP1 acts as an adaptor molecule involved in protein-protein interactions especially noted for its role in ubiquitination processes. The protein has interactions with the E3 ubiquitin ligase NEDD4 influencing protein turnover and cellular homeostasis.
Biological function summary	N4BP1 plays a role in cellular signaling pathways that maintain protein stability and degradation. It is part of multiprotein complexes mediating ubiquitin-dependent protein processing. Through these complexes N4BP1 participates in the regulation of protein levels impacting various cellular processes such as cell cycle progression and stress response.
Pathways	N4BP1 is integral to the ubiquitin-proteasome system a critical pathway for protein catabolism in cells. It interacts with components of the NEDD4-mediated pathway impacting proteins such as SMAD4. This modulation affects signal transduction processes that control cellular fate decisions. Additionally N4BP1 is involved in pathways regulating inflammatory responses linking it to immune response modulation.
Associated diseases and disorders	N4BP1 has associations with cancer and neurodegenerative diseases. Alterations in N4BP1's function or expression can affect the ubiquitination process influencing tumor suppressor proteins and cellular proliferation in cancer. In neurodegenerative conditions N4BP1's interactions with ubiquitin-related proteins such as NEDD4 play a role in protein aggregation dynamics contributing to disease pathology by potentially impacting the clearance of misfolded proteins.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

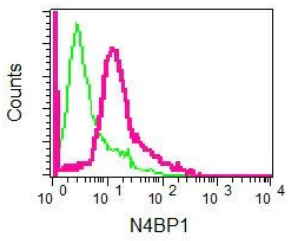
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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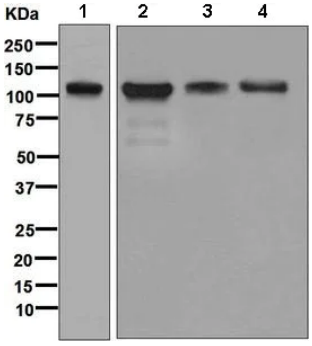
2 product images



Flow Cytometry (Intracellular) - Anti-N4BP1 antibody [EPNCIR118] - BSA and Azide free (ab248576)

N4BP1 Flow Cytometry (Intracellular) staining using rabbit Anti-N4BP1 antibody

This data was developed using ab133610, the same antibody clone in a different buffer formulation.
Intracellular flow cytometrical analysis of N4BP1 in permeabilized F9 cells, using ab133610 at a dilution of 1/100 (red) or a rabbit IgG (negative) (green).



Western blot - Anti-N4BP1 antibody [EPNCIR118] - BSA and Azide free (ab248576)

This data was developed using ab133610, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-N4BP1 antibody [EPNCIR118] (ab133610) at 1/1000 dilution

Lane 1:
F9 cell lysate at 10 µg

Lane 2:
Mouse brain cell lysate at 10 µg

Lane 3:
B16 F0 cell lysate at 10 µg

Lane 4:
PC12 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 100 kDa

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