abcam

ab249633

Anti-NUB1 antibody [EPR10716] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR10716
Purification technique	Affinity purification
Concentration	1.06 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NUB1

Function	Specific down-regulator of the NEDD8 conjugation system. Recruits NEDD8, UBD, and their conjugates to the proteasome for degradation. Isoform 1 promotes the degradation of NEDD8 more efficiently than isoform 2.

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

ab249633 is the carrier-free version of ab171077.

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	NUB1 also known as NEDD8 ultimate buster-1 functions as a negative regulator of NEDD8 conjugation. This protein weighs around 65 kDa. Researchers find NUB1 to be widely expressed in the human body with higher expression levels observed in organs like the heart and brain. NUB1 interacts mainly with ubiquitin-like proteins including NEDD8 and facilitates their degradation by the proteasome reducing NEDD8's presence in cells.
Biological function summary	NUB1 influences protein homeostasis and signal transduction. It associates with the proteasome to target and eliminate neddylated proteins contributing to the regulation of protein turnover. NUB1 also forms part of a complex that affects the cellular levels of specific proteins through the ubiquitin-proteasome system. This action helps maintain cellular protein balance and impacts various cellular functions.
Pathways	The ubiquitin-proteasome system revolves around NUB1 as it regulates neddylation and ubiquitination processes. NUB1 connects to the neddylation pathway which includes proteins like NEDD8 and UBA3 influencing protein activities and degradation. Through its association with ubiquitination it regulates the stability and function of key cellular proteins ensuring proper cell function and preventing harmful protein accumulation.
Associated diseases and disorders	NUB1 shows a connection with neurodegenerative diseases and certain cancers. In neurodegenerative conditions like Alzheimer's disease NUB1's regulatory function impacts protein aggregates' formation potentially influencing disease progression. NUB1 also interacts with proteins linked to cancer pathways such as ubiquitin

implicating it in the development of certain malignancies. Adequate function and regulation of NUB1 may therefore play a role in mitigating these diseases.

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

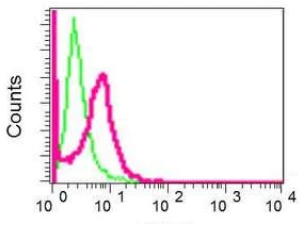
We do not recommend this combination. It is not covered by our product promise.

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.

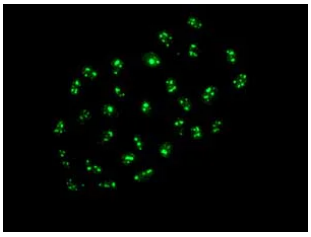
4 product images



Flow Cytometry (Intracellular) - Anti-NUB1 antibody [EPR10716] - BSA and Azide free (ab249633)

NUB1 Flow Cytometry (Intracellular) staining using rabbit Anti-NUB1 antibody

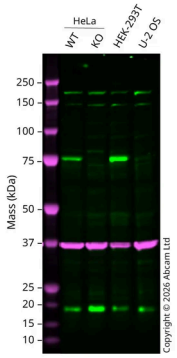
This data was developed using ab171077, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized Raji cells labeling NUB1 using ab171077 at 1/10 dilution (red) or a rabbit IgG negative (green).



Immunocytochemistry/ Immunofluorescence - Anti-NUB1 antibody [EPR10716] - BSA and Azide free (ab249633)

NUB1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NUB1 antibody

This data was developed using ab171077, the same antibody clone in a different buffer formulation.
Immunofluorescent staining of HeLa cells labeling NUB1 using ab171077 at 1/100 dilution.



Western blot - Anti-NUB1 antibody [EPR10716] - BSA and Azide free (ab249633)

NUB1 Western blot staining using rabbit Anti-NUB1 antibody

This data was developed using ab171077, the same antibody clone in a different buffer formulation.

Western blot: Anti-NUB1 antibody [EPR10716] ab171077 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 78 kDa in Wild-type HeLa cell lysates with no signal observed at this size in NUB1 knockout HeLa cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5% Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-NUB1 antibody [EPR10716] (ab171077) at 1/1000 dilution

Lane 1:
Western blot - Human wild-type HeLa cell line (ab271142) at 20 µg

Lane 2:
Western blot - Human NUB1 knockout HeLa cell line (ab273709) at 20 µg

Lane 3:
HEK-293T at 20 µg

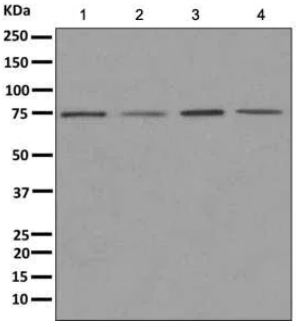
Lane 4:
U-2 OS at 20 µg

Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 78 kDa



Western blot - Anti-NUB1 antibody [EPR10716] - BSA and Azide free (ab249633)

This data was developed using ab171077, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NUB1 antibody [EPR10716] (ab171077) at 1/1000 dilution

Lane 1:
Raji cell lysate at 10 µg

Lane 2:
SH-SY5Y cell lysate at 10 µg

Lane 3:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Lane 4:
HeLa cell lysate at 10 µg

Predicted band size: 71 kDa

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