abcam

ab250899

Anti-NDUFB2 antibody [EPR15569] - 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	EPR15569
Purification technique	Affinity purification Protein A

Reactivity data

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 2, mitochondrial

Function Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed not to be involved in catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone.

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

ab250899 is the carrier-free version of ab186748.

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	NDUFB2 also known as NADH:Ubiquinone Oxidoreductase Subunit B2 is a component of the mitochondrial complex I. This protein has a molecular mass of approximately 12.7 kDa. It primarily expresses in tissues with high energy demands such as the heart and brain due to its role in energy production. NDUFB2 integrates into the mitochondrial membrane where it participates in electron transport for ATP synthesis.

Biological function summary	NDUFB2 acts as a subunit of complex I the first enzyme complex in the mitochondrial electron transport chain. By facilitating the transfer of electrons from NADH to ubiquinone NDUFB2 is essential for initiating the process that leads to the generation of ATP. Complex I itself comprises 44 subunits and NDUFB2 interacts closely with other subunits to perform its function. The protein's activity influences mitochondrial function and the efficiency of ATP production.
Pathways	NDUFB2 plays a pivotal role in mitochondrial oxidative phosphorylation. This pathway underlies cellular respiration which is key to converting the energy stored in nutrients into ATP. NDUFB2's function is closely linked with cytochrome c oxidase a component of complex IV as these complexes sequentially facilitate electron transport and energy conversion. Proper functioning of complex I where NDUFB2 resides is critical for maintaining the proton gradient and overall balance of the oxidative phosphorylation pathway.
Associated diseases and disorders	Defects in NDUFB2 associate with mitochondrial disorders primarily affecting the nervous system and muscles such as Leigh syndrome. Dysfunctional NDUFB2 impairments lead to deficits in ATP production exacerbating symptoms in these energy-demanding tissues. Moreover the protein's role in oxidative phosphorylation suggests potential interactions with other proteins like succinate dehydrogenase which are involved in energy metabolism disorders increasing the complexity of disease mechanisms associated with mitochondrial dysfunction.

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

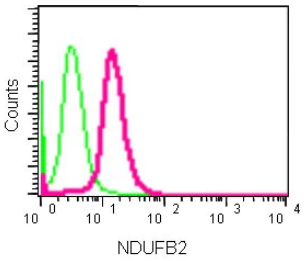
We do not recommend this combination. It is not covered by our product promise.

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.

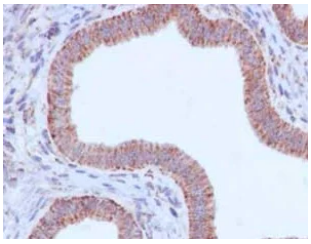
6 product images



Flow Cytometry (Intracellular) - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

NDUFB2 Flow Cytometry (Intracellular) staining using rabbit Anti-NDUFB2 antibody

This data was developed using ab186748, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of HeLa cells (2% paraformaldehyde-fixed) labeling NDUFB2 with ab186748 at 1/50 dilution (red) or a rabbit IgG (negative) (green), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution.

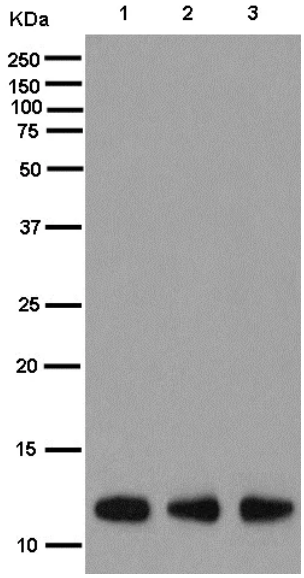


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

NDUFB2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFB2 antibody

This data was developed using ab186748, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human endometrium tissue labeling NDUFB2 with ab186748 at 1/100 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

NDUFB2 Western blot staining using rabbit Anti-NDUFB2 antibody

This data was developed using ab186748, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFB2 antibody [EPR15569] (ab186748) at 1/1000 dilution

Lane 1:
Human skeletal muscle tissue lysate at 10 µg

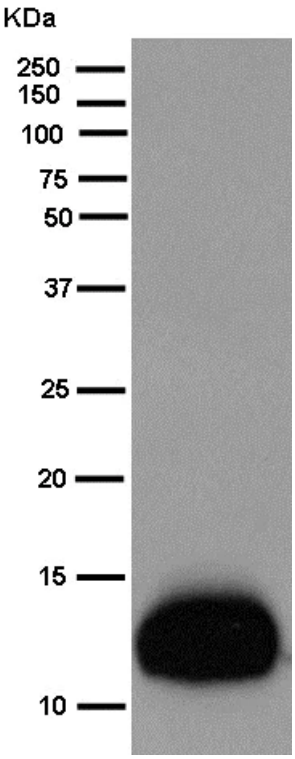
Lane 2:
Human fetal brain tissue lysate at 10 µg

Lane 3:
Human fetal kidney tissue lysate at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 12 kDa



Western blot - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

NDUFB2 Western blot staining of Human fetal heart lysate using rabbit Anti-NDUFB2 antibody

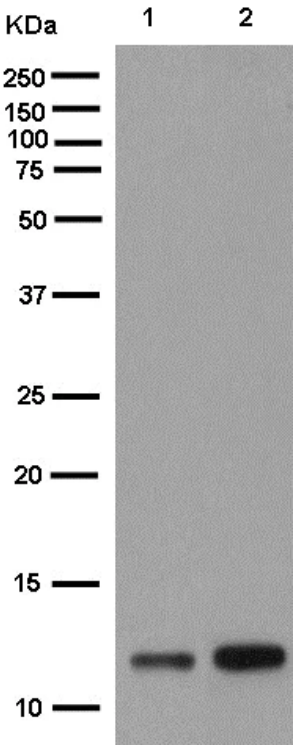
This data was developed using ab186748, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFB2 antibody [EPR15569] (ab186748) at 1/10000 dilution

All lanes:
Human fetal heart lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 12 kDa



Western blot - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

This data was developed using ab186748, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFB2 antibody [EPR15569] (ab186748) at 1/1000 dilution

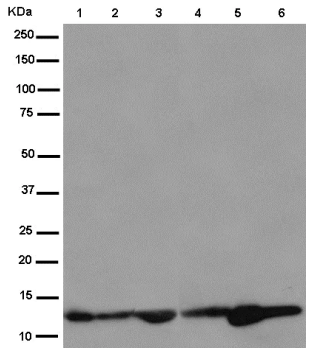
Lane 1:
293 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 12 kDa



Western blot - Anti-NDUFB2 antibody [EPR15569] - BSA and Azide free (ab250899)

NDUFB2 Western blot staining using rabbit Anti-NDUFB2 antibody

This data was developed using ab186748, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFB2 antibody [EPR15569] (ab186748) at 1/2000 dilution

Lane 1:
Mouse heart tissue lysate at 10 µg

Lane 2:
Mouse kidney tissue lysate at 10 µg

Lane 3:
Mouse spleen tissue lysate at 10 µg

Lane 4:
Rat brain tissue lysate at 10 µg

Lane 5:
Rat heart tissue lysate at 10 µg

Lane 6:
Rat kidney tissue lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

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