abcam

ab247510

Anti-NDUFAF1 antibody [EPR2796] - 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	EPR2796
Purification technique	Affinity purification Protein A
Concentration	1.028 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

Target data

See full target information NDUFAF1

Function	As part of the MCIA complex, involved in the assembly of the mitochondrial complex I.

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

ab247510 is the carrier-free version of ab79826.

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	NDUFAF1 also known as NADH dehydrogenase (ubiquinone) complex I assembly factor 1 plays an essential role in the mitochondrial respiratory chain by assisting the assembly of complex I. This protein has a mass of approximately 36 kDa. NDUFAF1 expression occurs mainly in tissues with high metabolic activity like the brain heart and skeletal muscle. It facilitates the proper formation and function of the complex I assembly allowing efficient electron transport essential for cellular respiration.
Biological function summary	NDUFAF1 is a critical assembly factor integral to forming the mitochondrial complex I also known as NADH:ubiquinone oxidoreductase. NDUFAF1 contributes to the stability and proper function of this multi-component enzyme system which is important in cellular energy production. As part of the complex it ensures efficient ATP generation through oxidative phosphorylation which is the primary source of energy in aerobic eukaryotic cells.
Pathways	NDUFAF1 functions predominantly in the oxidative phosphorylation pathway. This involvement connects NDUFAF1 to the fundamental molecular processes sustaining life. The protein plays a role alongside others like NDUFV1 and NDUFS1 in maintaining complex I activity. These relationships ensure the effective transfer of electrons from NADH to ubiquinone promoting efficient energy production throughout the cell.
Associated diseases and disorders	NDUFAF1 mutations or dysfunction have been linked to mitochondrial disorders such as Leigh syndrome and complex I deficiency. These conditions are often characterized by a disruption in mitochondrial energy metabolism leading to severe neurological and muscular symptoms. Furthermore NDUFAF1 dysfunction can indirectly affect other proteins like NDUFS4 which is also involved in complex I assembly and function exacerbating the disease phenotypes. Mitochondrial diseases often arise from impaired pathways involving several network proteins highlighting the significance of proper NDUFAF1 function.

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

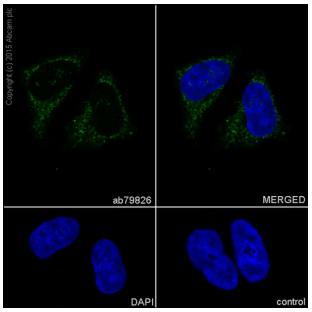
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

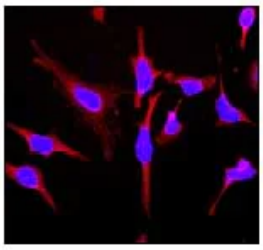


Immunocytochemistry/ Immunofluorescence - Anti-NDUFAF1 antibody [EPR2796] - BSA and Azide free (ab247510)

NDUFAF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NDUFAF1 antibody

This data was developed using ab79826, the same antibody clone in a different buffer formulation. Immunocytochemistry/Immunofluorescence analysis of HeLa (human cervix adenocarcinoma) labelling NDUFAF1 with purified 79826 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (ab150077). Nuclei counterstained with DAPI (blue).

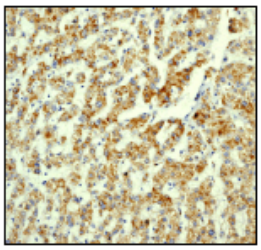
Control: PBS only



Immunocytochemistry/ Immunofluorescence - Anti-NDUFAF1 antibody [EPR2796] - BSA and Azide free (ab247510)

NDUFAF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NDUFAF1 antibody

This data was developed using ab79826, the same antibody clone in a different buffer formulation.Immunofluorescence analysis of HeLa cells using 1/100 ab79826.

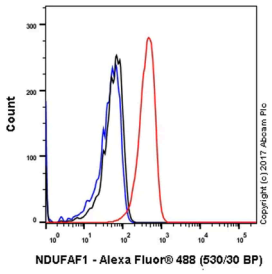


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFAF1 antibody [EPR2796] - BSA and Azide free (ab247510)

NDUFAF1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFAF1 antibody

This data was developed using ab79826, the same antibody clone in a different buffer formulation. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded Human liver tissue using 1/100 ab79826.

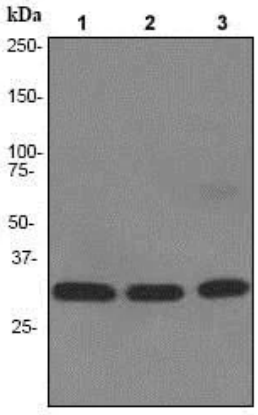
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-NDUFAF1 antibody [EPR2796] - BSA and Azide free (ab247510)

NDUFAF1 Flow Cytometry (Intracellular) staining using rabbit Anti-NDUFAF1 antibody

This data was developed using ab79826, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling NDUFAF1 (red) with ab79826 at a 1/250 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Western blot - Anti-NDUFAF1 antibody [EPR2796] - BSA and Azide free (ab247510)

NDUFAF1 Western blot staining using rabbit Anti-NDUFAF1 antibody

This data was developed using ab79826, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFAF1 antibody [EPR2796] (ab79826) at 1/10000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
Human heart tissue lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP-conjugated at 1/2000 dilution

Predicted band size: 37 kDa

Observed band size: 33 kDa

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