abcam

ab251211

Anti-NDUFS6 antibody [EPR15957-37] - 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	EPR15957-37
Purification technique	Affinity purification Protein A
Concentration	1.018 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Rat, Human
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] iron-sulfur protein 6, 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

ab251211 is the carrier-free version of ab195808.

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	NDUFS6 also known as NADH:ubiquinone oxidoreductase subunit S6 serves a critical role in mitochondrial function. It forms a component of the mitochondrial complex I which is the first enzyme of the electron transport chain. NDUFS6 has a molecular weight of approximately 15 kDa. Researchers found this protein expressed in a variety of tissues though it is typically higher in metabolically active tissues such as heart liver and skeletal muscles.
Biological function summary	NDUFS6 contributes to the generation of ATP by participating in oxidative phosphorylation. It is part of the mitochondrial complex I a multisubunit assembly essential for electron transfer from NADH to ubiquinone. The proper function of this subunit is necessary for the activity of complex I which significantly impacts the production of cellular energy. Disruptions in this protein's function can impair energy metabolism affecting numerous cell processes.
Pathways	NDUFS6 plays a role in the electron transport chain and oxidative phosphorylation pathway. By facilitating electron transfer it helps maintain the electrochemical gradient across the inner mitochondrial membrane which is important for ATP synthesis. NDUFS6 works closely with other complex I proteins like NDUFS1 and NDUFS7 ensuring efficient energy production and cellular respiration. Its activity impacts broader cellular processes reflecting in energy homeostasis and cellular growth.
Associated diseases and disorders	NDUFS6 mutations have connections with mitochondrial diseases and disorders like Leigh syndrome. This protein's dysfunction can lead to defects in energy generation resulting in neuromuscular symptoms and systemic issues. Researchers also correlate improper NDUFS6 function with complex I deficiencies where other proteins such as NDUFS1 are often implicated. Understanding the role of NDUFS6 in these disorders aids the investigation of mitochondrial dysfunction and offers pathways for potential therapeutic targets.

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

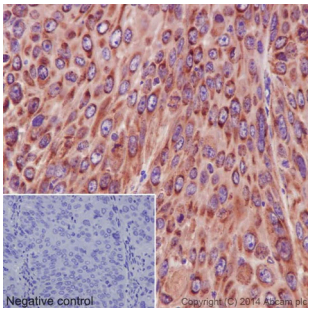
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images



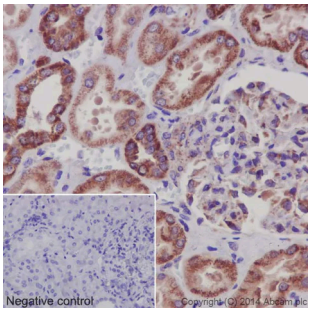
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human cervix squamous cell carcinoma tissue labeling NDUFS6 with ab195808 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).

Note: Cytoplasm staining on human squamous cell carcinoma of cervix tissue was observed.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



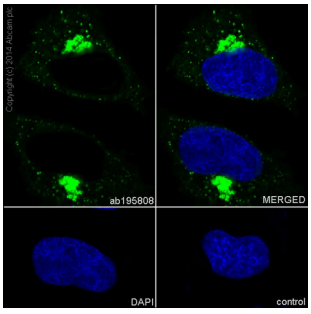
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling NDUFS6 with ab195808 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).

Note: Cytoplasm staining on human kidney tissue was observed.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

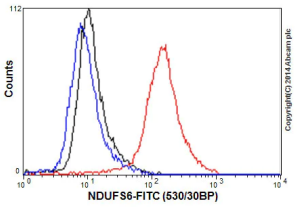


Immunocytochemistry/ Immunofluorescence - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of HeLa cells (100% methanol-fixed, 0.1% tritonX-100 permeabilized) labeling NDUFS6 with ab195808 at 1/200 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) (ab150077) secondary at 1/400 dilution and counter-stained with DAPI (blue).

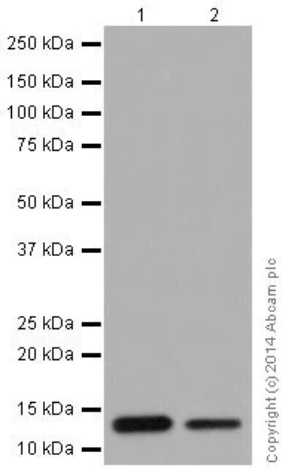
Note: Cytoplasm staining on HeLa cell line was observed.



Flow Cytometry (Intracellular) - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Flow Cytometry (Intracellular) staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of NIH 3T3 cells (paraformaldehyde-fixed, 2%) labeling NDUFS6 with ab195808 at 1/90 dilution (red) or a Rabbit monoclonal IgG (negative) (black), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution. Unlabeled cells (Blue).



Western blot - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Western blot staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFS6 antibody [EPR15957-37] (ab195808) at 1/10000 dilution

Lane 1:
Human fetal heart lysate at 20 µg

Lane 2:
Human skeletal muscle lysate at 20 µg

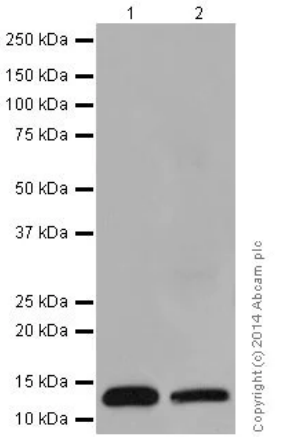
Secondary

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

Developed using the ECL technique.

Predicted band size: 13 kDa

Exposure time: 30s



Western blot - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Western blot staining using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFS6 antibody [EPR15957-37] (ab195808) at 1/10000 dilution

Lane 1:
Human fetal kidney lysate at 20 µg

Lane 2:
Human fetal brain lysate at 20 µg

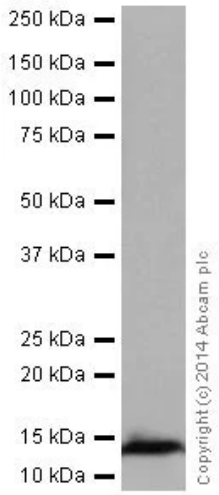
Secondary

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

Developed using the ECL technique.

Predicted band size: 13 kDa

Exposure time: 3min



Western blot - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

NDUFS6 Western blot staining of PC-12 cell lysate using rabbit Anti-NDUFS6 antibody

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFS6 antibody [EPR15957-37] (ab195808) at 1/1000 dilution

All lanes:
PC-12 cell lysate

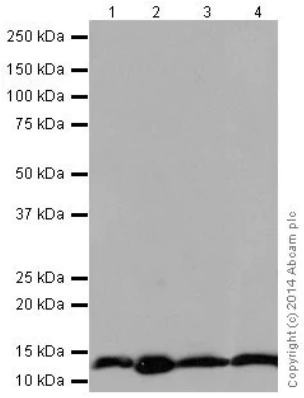
Secondary

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

Developed using the ECL technique.

Predicted band size: 13 kDa

Exposure time: 3min



Western blot - Anti-NDUFS6 antibody [EPR15957-37] - BSA and Azide free (ab251211)

This data was developed using ab195808, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NDUFS6 antibody [EPR15957-37] (ab195808) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 10 µg

Lane 2:
Mouse heart tissue lysate at 10 µg

Lane 3:
Mouse kidney tissue lysate at 10 µg

Lane 4:
Rat brain tissue lysate at 10 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 13 kDa

Exposure time: 10s

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