abcam

ab192878

Anti-NDUFB8 antibody [EPR15961]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR15961
Purification technique	Affinity purification Protein A
Concentration	0.301 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/20
Notes	-

Expected

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

WB

Tested

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

Target data

See full target information NDUFB8

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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	The NDUFB8 protein also known as NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8 is an integral component of the mitochondrial inner membrane. It is a part of the electron transport chain and plays a role in mitochondrial oxidative phosphorylation. NDUFB8 has a molecular weight of approximately 19 kDa. It is broadly expressed in tissues with high-energy demands like the heart brain skeletal muscle and liver. This expression indicates its significant involvement in energy metabolism.
Biological function summary	NDUFB8 is an accessory subunit of the mitochondrial Complex I the largest enzyme of the respiratory chain. It assists in the transfer of electrons from NADH to ubiquinone a critical step in cellular respiration that contributes to ATP

	production. Though not directly involved in catalysis its presence is essential for the structural integrity and assembly of Complex I. By maintaining this complex's structure NDUFB8 helps ensure efficient energy production in cells.
Pathways	NDUFB8 participates in the oxidative phosphorylation pathway playing a significant role in the mitochondrial respiratory chain. It influences the production of ATP the primary energy carrier in cells. Its association with Complex I links it to other subunits and proteins like NDUFA9 and NDUFA1 in the same pathway. These connections emphasize NDUFB8's importance within the pathway and its contribution to cellular energy management.
Associated diseases and disorders	Dysfunction in NDUFB8 is linked to mitochondrial disorders often resulting in neurological diseases or muscle weakness such as Leigh syndrome. Mutations affecting NDUFB8 or its associated proteins like NDUFA13 could disrupt the assembly or function of Complex I leading to impaired energy production. This connection highlights the role of NDUFB8 in maintaining cellular energy balance and its impact on health when malfunctioning.

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

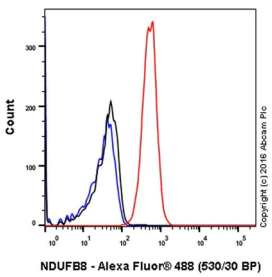
We do not recommend this combination. It is not covered by our product promise.

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.

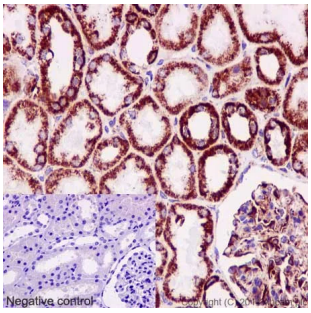
11 product images



Flow Cytometry (Intracellular) - Anti-NDUFB8 antibody [EPR15961] (ab192878)

NDUFB8 Flow Cytometry (Intracellular) staining using rabbit Anti-NDUFB8 antibody

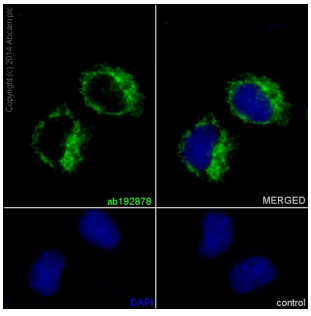
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labelling NDUFB8 antibody (red) with purified ab192878 at a dilution of 1/30. Goat anti rabbit IgG (Alexa Fluor® 488) was used as the secondary antibody at 1/2000. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFB8 antibody [EPR15961] (ab192878)

NDUFB8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFB8 antibody

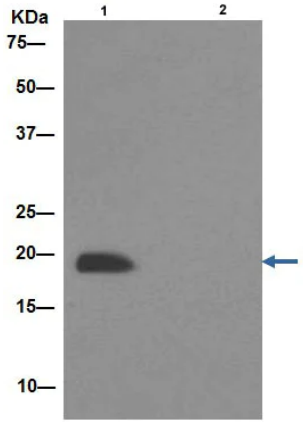
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling NDUFB8 with ab192878 at 1/500 dilution followed by pre-diluted HRP Polymer for Rabbit/Mouse IgG. Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-NDUFB8 antibody [EPR15961] (ab192878)

NDUFB8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NDUFB8 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% tritonX-100 permeabilized HeLa cells labeling NDUFB8 with ab192878 at 1/50 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) (ab150077) secondary antibody at 1/400 dilution. Nuclear counter stained is DAPI (blue).

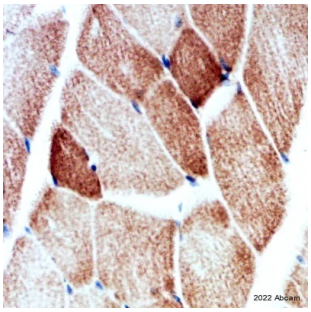


Immunoprecipitation - Anti-NDUFB8 antibody [EPR15961] (ab192878)

Western blot analysis of NDUFB8 immunoprecipitated from Human fetal heart lysate using ab192878 at 1/20 dilution. Lane 1: Human fetal liver lysate. Lane 2: PBS instead of Human fetal liver lysate.
Secondary: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1500 dilution.
Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-NDUFB8 antibody [EPR15961] (ab192878)

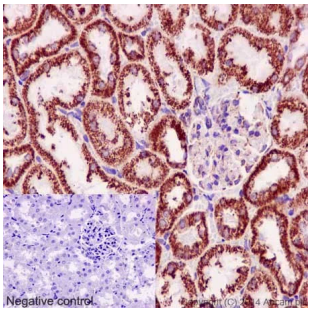
Predicted band size: 22 kDa



This image is courtesy of a customer review submitted by Diego Perez Rodriguez

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFB8 antibody [EPR15961] (ab192878)

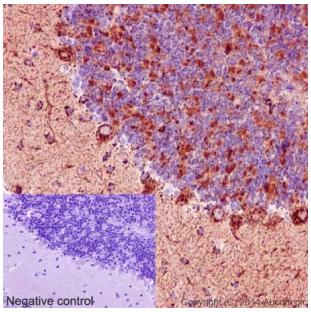
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of paraformaldehyde-fixed mouse skeletal muscle tissue permeabilized with 0.3% Triton X100 in PBS stained with ab192878 at 1/50 dilution. Secondary antibody was Goat Anti-Rabbit IgG Antibody (H+L), Biotinylated at 1/3000 dilution. Samples were incubated with the primary antibody with 5% goat serum in 0.2% Triton X100 in PBS for 16 hours at 4°C. Blocking was done using 5% serum for 1 hour at 21°C. Heat mediated antigen retrieval with Tris/EDTA pH 9.0. ABC system used for signal amplification. Chromogenic reaction developed with DAB Substrate Kit (ab64238).Cell nuclei counterstained with Gill's hematoxylin I.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFB8 antibody [EPR15961] (ab192878)

NDUFB8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFB8 antibody

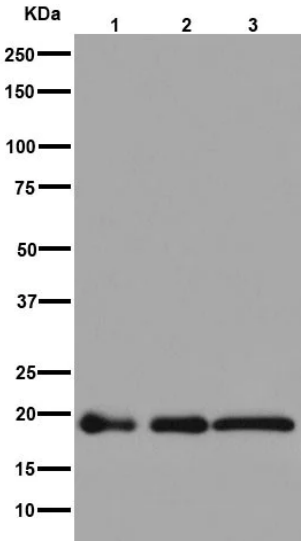
Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling NDUFB8 with ab192878 at 1/500 dilution followed by pre-diluted HRP Polymer for Rabbit/Mouse IgG. Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDUFB8 antibody [EPR15961] (ab192878)

NDUFB8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NDUFB8 antibody

Immunohistochemical analysis of paraffin-embedded Mouse brain tissue labeling NDUFB8 with ab192878 at 1/500 dilution followed by pre-diluted HRP Polymer for Rabbit/Mouse IgG. Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878) at 1/5000 dilution

Lane 1:
Human fetal liver lysate at 20 µg

Lane 2:
Human tonsil lysate at 20 µg

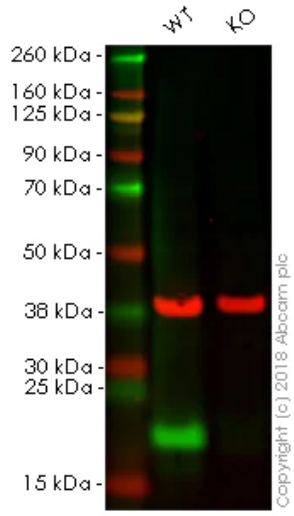
Lane 3:
HeLa cell lysate at 20 µg

Secondary

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

Predicted band size: 22 kDa

Observed band size: 19 kDa



Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878)

Lanes 1 - 2: Merged signal (red and green). Green - ab192878 observed at 19 kDa. Red - loading control, ab9484, observed at 37 kDa.
ab192878 was shown to specifically react with NDUFB8 in wild-type HAP1 cells as signal was lost in NDUFB8 knockout cells. Wild-type and NDUFB8 knockout samples were subjected to SDS-PAGE. ab192878 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

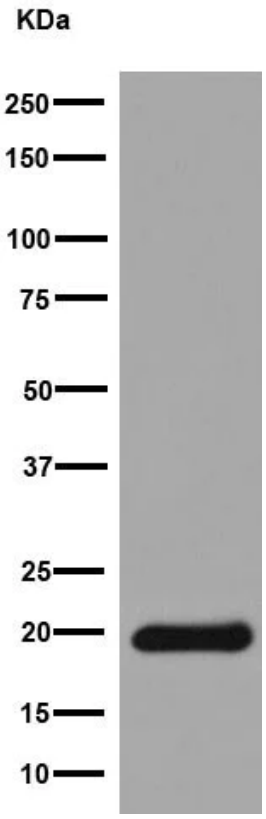
All lanes:
Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878) at 1/1000 dilution

Lane 1:
Wild-type HAP1 whole cell lysate at 20 µg

Lane 2:
NDUFB8 knockout HAP1 whole cell lysate at 20 µg

Predicted band size: 22 kDa

Observed band size: 19 kDa



Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878) at 1/20000 dilution

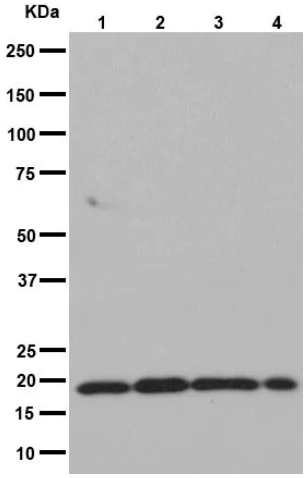
All lanes:
Human fetal heart lysate at 20 µg

Secondary

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

Predicted band size: 22 kDa

Observed band size: 19 kDa



Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-NDUFB8 antibody [EPR15961] (ab192878) at 1/5000 dilution

Lane 1:
C6 cell lysate at 10 µg

Lane 2:
RAW 264.7 cell lysate at 10 µg

Lane 3:
PC-12 cell lysate at 10 µg

Lane 4:
NIH/3T3 cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa

Observed band size: 19 kDa

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