abcam

ab250689

Anti-NDUFV2 antibody [EPR15351(B)] - 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	EPR15351(B)
Purification technique	Affinity purification Protein A
Concentration	0.998 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial

Function	Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) which catalyzes electron transfer from NADH through the respiratory chain, using ubiquinone as an electron acceptor (Probable). Parts of the peripheral arm of the enzyme, where the electrons from NADH are accepted by flavin mononucleotide (FMN) and then passed along a chain of iron-sulfur clusters by electron tunnelling to the final acceptor ubiquinone (Probable). Contains one iron-sulfur cluster (Probable).

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

ab250689 is the carrier-free version of ab183715.

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	NDUFV2 also known as NADH dehydrogenase [ubiquinone] flavoprotein 2 functions as a core subunit of complex I in the mitochondrial electron transport chain. This protein has a mass of approximately 24 kDa and plays a pivotal role in electron transfer by linking flavin mononucleotide and iron-sulfur centers. It is

	expressed in various tissues but shows high levels in cells with elevated energy demands such as muscle and brain tissues.
Biological function summary	NDUFV2 contributes to energy production in the cell by facilitating the transfer of electrons from NADH to the ubiquinone pool. As part of complex I which is the first enzyme complex in the respiratory electron transport chain it helps in establishing the proton gradient across the inner mitochondrial membrane. The activity of NDUFV2 is essential for ATP synthesis and its proper function ensures efficient cellular respiration.
Pathways	NDUFV2 operates in the oxidative phosphorylation pathway an important energy production route. This protein is intricately linked with other complex I subunits including NDUFS1 which work together to initiate the process of oxidative phosphorylation. Another key component in this pathway is ubiquinone which serves as the electron transfer intermediary continuing the electron passage through the chain.
Associated diseases and disorders	Mutations in NDUFV2 have associations with neurodegenerative diseases and cardiac dysfunction. For instance patients with Leber Hereditary Optic Neuropathy often present alterations in complex I that involve NDUFV2. Additionally disruptions in its function can influence the onset of conditions such as cardiomyopathy where complex I perturbation including proteins like NDUFS1 can compromise mitochondrial energy production leading to heart muscle inefficiency.

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

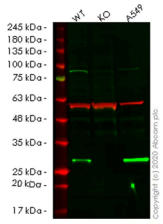
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Western blot - Anti-NDUFV2 antibody [EPR15351(B)] - BSA and Azide free (ab250689)

NDUFV2 Western blot staining using rabbit Anti-NDUFV2 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab183715).
Lanes 1-3: Merged signal (red and green). Green - ab183715 observed at 27 kDa. Red - loading control ab7291 observed at 50 kDa.

ab183715 Anti-NDUFV2 antibody [EPR15351(B)] was shown to specifically react with NDUFV2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265619 (knockout cell lysate ab258068) was used. Wild-type and NDUFV2 knockout samples were subjected to SDS-PAGE. ab183715 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-NDUFV2 antibody [EPR15351(B)] (ab183715) at 1/1000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
NDUFV2 knockout HeLa cell lysate at 20 µg

Lane 3:
A549 cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 27 kDa

Observed band size: 27 kDa

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