abcam

ab251300

# Anti-NDUFB9 antibody [EPR15955-78] - 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** | EPR15955-78 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.06 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Expected

| | |
|---|---|
| **Species** | Mouse, Rat, Human |
| **Dilution info** | Use at an assay dependent concentration. |

| | |
|---|---|
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Expected

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

## ICC/IF

### Expected

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

## Flow Cyt (Intra)

### Expected

| | |
|---|---|
| **Species** | Mouse, Rat, Human |
| **Dilution info** | Use at an assay dependent concentration. |

| | |
|---|---|
| **Notes** | - |

## Target data

See full target information NDUFB9

| | |
|---|---|
| **Function** | Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed to be not 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

ab251300 is the carrier-free version of ab200198.

**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** | The protein NDUFB9 also known as NADH:ubiquinone oxidoreductase subunit B9 is a part of the mitochondrial respiratory chain. This protein has a molecular mass of approximately 22 kDa. NDUFB9 is expressed in the mitochondria of many tissues serving as an accessory subunit of complex I the first enzyme in the electron transport chain. It does not participate in catalysis but assists in maintaining the integrity and stability of the complex. |
| **Biological function summary** | NDUFB9 plays a role in mitochondrial energy production. As a component of complex I which is the largest of the five mitochondrial complexes NDUFB9 contributes to the process of oxidative phosphorylation. This complex transfers electrons from NADH to ubiquinone facilitating the pumping of protons across the inner mitochondrial membrane. This proton gradient drives ATP production vital for energy metabolism in cells. |
| **Pathways** | The function of NDUFB9 is critical in cellular respiration and energy production pathways. It is integral to the pathway of oxidative phosphorylation closely associated with aerobic energy metabolism. Through its role in complex I NDUFB9 interacts with other mitochondrial proteins such as NDUFA1 and NDUFS1 which are also part of the same complex and contribute to electron transport and energy conservation. |
| **Associated diseases and disorders** | NDUFB9 mutations have been linked to mitochondrial disorders including Leigh syndrome a severe neurological disorder characterized by progressive loss of mental and movement abilities. NDUFB9 dysfunction can also contribute to Complex I deficiency which leads to a range of metabolic syndromes. This protein's interaction with other complex I proteins like NDUFS2 is important for maintaining proper mitochondrial function and disturbances can lead to broader mitochondrial pathologies. |

## 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.

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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.

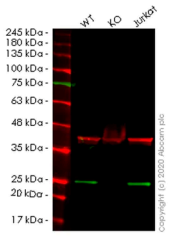
In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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## 1 product image

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### Western blot - Anti-NDUFB9 antibody [EPR15955-78] - BSA and Azide free (ab251300)

NDUFB9 Western blot staining using rabbit Anti-NDUFB9 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab200198).
**Lanes 1-3:** Merged signal (red and green). Green - ab200198 observed at 22 kDa. Red - loading control ab8245 observed at 36 kDa.

ab200198 Anti-NDUFB9 antibody [EPR15955-78] was shown to specifically react with NDUFB9 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265946 (knockout cell lysate ab258065) was used. Wild-type and NDUFB9 knockout samples were subjected to SDS-PAGE. ab200198 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) 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-NDUFB9 antibody [EPR15955-78] (ab200198) at 1/1000 dilution

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

Lane 2:
NDUFB9 knockout HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human NDUFB9 knockout HeLa cell line (ab265946)

Lane 3:
Jurkat 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: 21 kDa

Observed band size: 22 kDa

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