

Product datasheet

Anti-Ndufs4 antibody [EPR7831] ab139178

KO VALIDATED Recombinant RabMAB

[6 References](#) [6 Images](#)

Overview

Product name	Anti-Ndufs4 antibody [EPR7831]
Description	Rabbit monoclonal [EPR7831] to Ndufs4
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Ndufs4 aa 50-150. The exact sequence is proprietary.
Positive control	Human fetal heart, Human fetal kidney, Human fetal brain, 293T, Mouse heart, Mouse kidney and Rat kidney lysates; Human kidney and stomach tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7831

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab139178 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 20 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Use of an HRP/AP polymerized antibody recommended.

Application notes

Is unsuitable for ICC/IF.

Target

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.

Involvement in disease

Defects in *NDUFS4* are a cause of mitochondrial complex I deficiency (MT-C1D) [MIM:252010]. A disorder of the mitochondrial respiratory chain that causes a wide range of clinical disorders, from lethal neonatal disease to adult-onset neurodegenerative disorders. Phenotypes include macrocephaly with progressive leukodystrophy, non-specific encephalopathy, cardiomyopathy, myopathy, liver disease, Leigh syndrome, Leber hereditary optic neuropathy, and some forms of Parkinson disease.

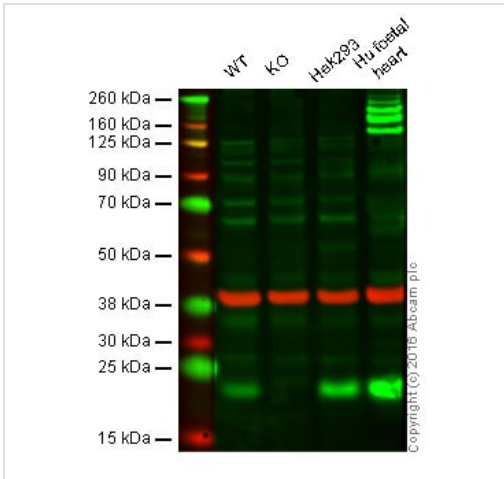
Sequence similarities

Belongs to the complex I *NDUFS4* subunit family.

Cellular localization

Mitochondrion inner membrane.

Images



Western blot - Anti-Ndufs4 antibody [EPR7831] (ab139178)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

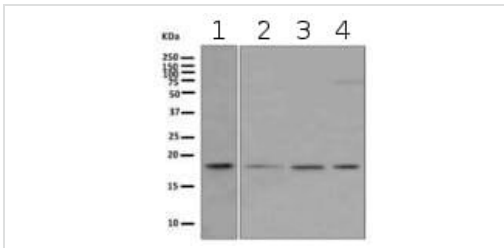
Lane 2: Ndufs4knockout HAP1 cell lysate (20 µg)

Lane 3: HEK293 cell lysate (20 µg)

Lane 4: Hu fetal heart tissue lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab139178 observed at 23 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab139178 was shown to recognize Ndufs4 when Ndufs4 knockout samples were used, along with additional cross-reactive bands. Wild-type and Ndufs4 knockout samples were subjected to SDS-PAGE. ab139178 and **ab8245** (loading control to GAPDH) were diluted to 1/1000 and 1/10000 respectively and incubated overnight at 4°C. 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Ndufs4 antibody [EPR7831] (ab139178)

All lanes : Anti-Ndufs4 antibody [EPR7831] (ab139178) at 1/1000 dilution

Lane 1 : Human fetal heart tissue lysate

Lane 2 : Human fetal kidney tissue lysate

Lane 3 : Human fetal brain tissue lysate

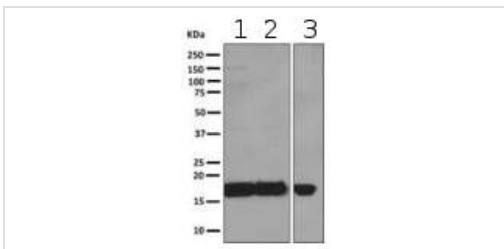
Lane 4 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit

Predicted band size: 20 kDa



Western blot - Anti-Ndufs4 antibody [EPR7831] (ab139178)

All lanes : Anti-Ndufs4 antibody [EPR7831] (ab139178) at 1/1000 dilution

Lane 1 : Mouse heart tissue lysate

Lane 2 : Mouse kidney tissue lysate

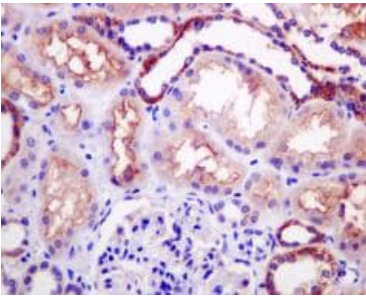
Lane 3 : Rat kidney tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

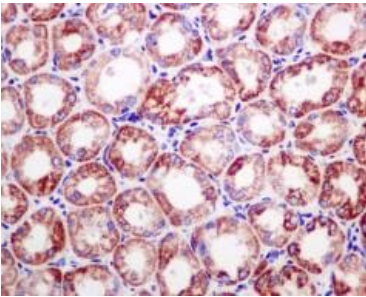
Predicted band size: 20 kDa



Immunohistochemical analysis of paraffin embedded Human kidney tissue labelling Ndufs4 with ab139178 at 1/50 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody [EPR7831] (ab139178)



Immunohistochemical analysis of paraffin embedded Human stomach tissue labelling Ndufs4 with ab139178 at 1/50 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody [EPR7831] (ab139178)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Ndufs4 antibody [EPR7831] (ab139178)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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