


Product datasheet

Anti-Ndufs1 antibody [EPR11521(B)] ab169540

Recombinant RabMAb

★★★★★ [2 Abreviews](#) [23 References](#) [9 Images](#)

Overview

Product name	Anti-Ndufs1 antibody [EPR11521(B)]
Description	Rabbit monoclonal [EPR11521(B)] to Ndufs1
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IHC-P, IP
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Raji, HepG2, HeLa and Jurkat cell lysates. Human cardiac muscle and Human liver tissue. HepG2 and permeabilized Jurkat cells.
General notes	<p>Ndufs1 is a protein encoded by the NDUFS1 gene. The NDUFS1 protein is the largest subunit of complex 1 which is located on the inner mitochondrial membrane. This complex is critical to the oxidative phosphorylation which occurs within the mitochondria.</p> <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 +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR11521(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab169540 in the following tested applications.

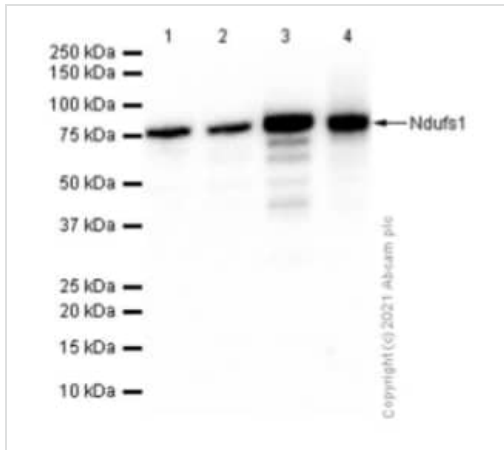
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/10 - 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100 - 1/250.
WB	★★★★★ (2)	1/10000 - 1/50000. Detects a band of approximately 75 kDa (predicted molecular weight: 79 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		1/10 - 1/100.

Target

Function	Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for 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 (By similarity). This is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized.
Involvement in disease	Defects in NDUFS1 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 75 kDa subunit family. Contains 1 2Fe-2S ferredoxin-type domain.
Cellular localization	Mitochondrion inner membrane.

Images



Western blot - Anti-Ndufs1 antibody [EPR11521(B)]
(ab169540)

All lanes : Anti-Ndufs1 antibody [EPR11521(B)] (ab169540) at 1/10000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate

Lane 3 : Mouse brain lysate

Lane 4 : Rat brain lysate

Lysates/proteins at 20 µg per lane.

Secondary

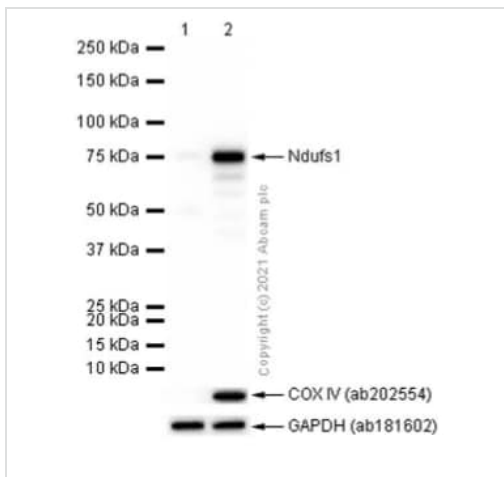
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 79 kDa

Observed band size: 75 kDa

Exposure time: 7 seconds

Blocking and diluting buffer: 5% NFDM/TBST



Western blot - Anti-Ndufs1 antibody [EPR11521(B)]
(ab169540)

All lanes : Anti-Ndufs1 antibody [EPR11521(B)] (ab169540) at 1/10000 dilution

Lane 1 : HepG2 (Human hepatocellular carcinoma epithelial cell) without mitochondria fraction cell lysate

Lane 2 : HepG2 mitochondria fraction cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

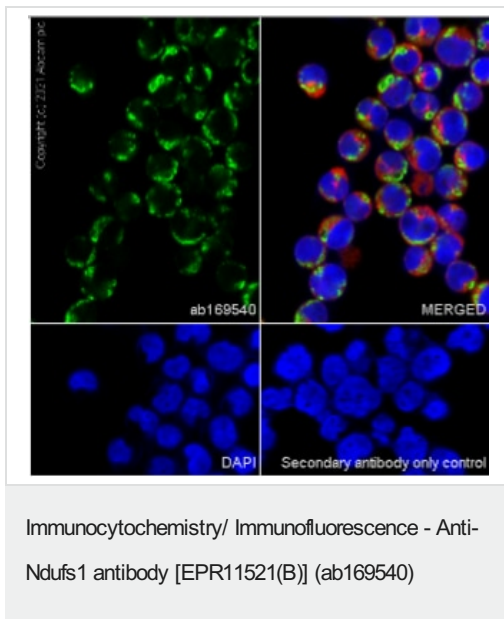
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 79 kDa

Observed band size: 75 kDa

Exposure time: 5 seconds

Blocking and diluting buffer: 5% NFDM/TBST

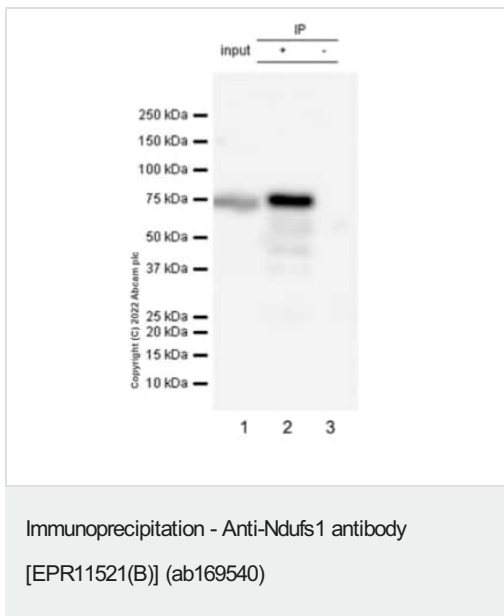


Immunofluorescent analysis of 80% Methanol-fixed, 0.1% Triton X-100 permeabilized Raji (human Burkitt's lymphoma B lymphocyte) cells labelling Ndufs1 with ab169540 at 1/50 dilution (2.6 ug/ml), followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (2 ug/ml) (Green).

Confocal image showing cytoplasmic staining in Raji cell line.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 ug/ml) (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 ug/ml).



Ndufs1 was immunoprecipitated from 0.35 mg Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate with AB169540 at 1/20 dilution (0.6ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using AB169540 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (**ab131366**) was used at 1/5000 dilution.

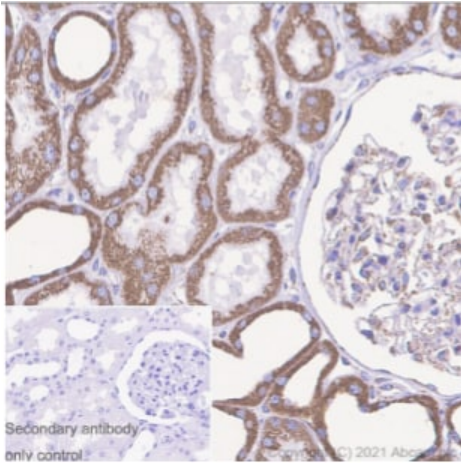
Lane 1: Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lane 2: AB169540 IP in Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of AB169540 in Raji whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 7 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs1 antibody [EPR11521(B)] (ab169540)

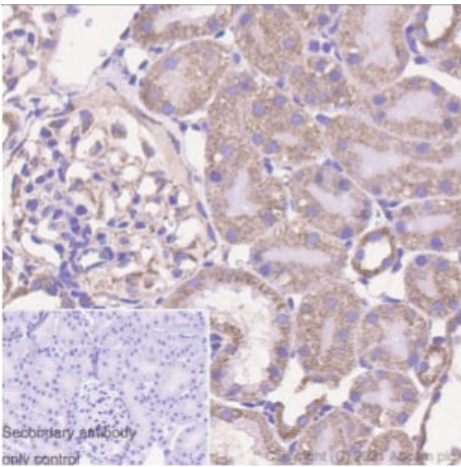
Immunohistochemical analysis of paraffin-embedded human kidney tissue labelling Ndufs1 with ab169540 at 1/100 (1.29 ug/ml) followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Positive staining on human kidney. The section was incubated with ab169540 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#))

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution1) for 20 min.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs1 antibody [EPR11521(B)] (ab169540)

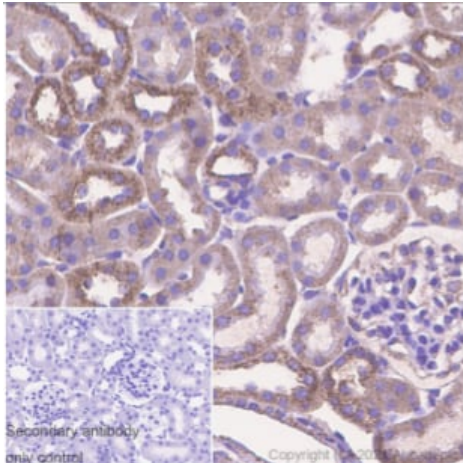
Immunohistochemical analysis of paraffin-embedded rat kidney tissue labelling Ndufs1 with ab169540 at 1/100 (1.29 ug/ml) followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Positive staining on rat kidney. The section was incubated with ab169540 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#))

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution1) for 20 min.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs1 antibody [EPR11521(B)] (ab169540)

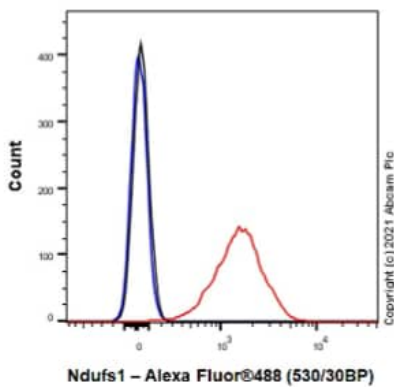
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labelling Ndufs1 with ab169540 at 1/100 (1.29 ug/ml) followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Positive staining on mouse kidney. The section was incubated with ab169540 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**)

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution1) for 20 min.



Flow Cytometry (Intracellular) - Anti-Ndufs1 antibody [EPR11521(B)] (ab169540)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Raji (human Burkitt's lymphoma B lymphocyte) cells labelling Ndufs1 with ab169540 at 1/20 dilution (1 ug) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.

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-Ndufs1 antibody [EPR11521(B)] (ab169540)

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