abcam

Product datasheet

Anti-NDUFS3 antibody [17D95] ab14711

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Overview

Product name	Anti-NDUFS3 antibody [17D95]
Description	Mouse monoclonal [17D95] to NDUFS3
Host species	Mouse
Tested applications	**Suitable for:** WB, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Cow, Human
Immunogen	Tissue, cells or virus. This information is considered to be commercially sensitive.
Positive control	Human heart mitochondria. In Flow Cytometry, this antibody gave a positive signal in methanol fixed/Tween permeabilised HepG2 cells.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As Product was previously marketed under the MitoSciences sub-brand.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	17D95

Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab14711 in the following tested applications.

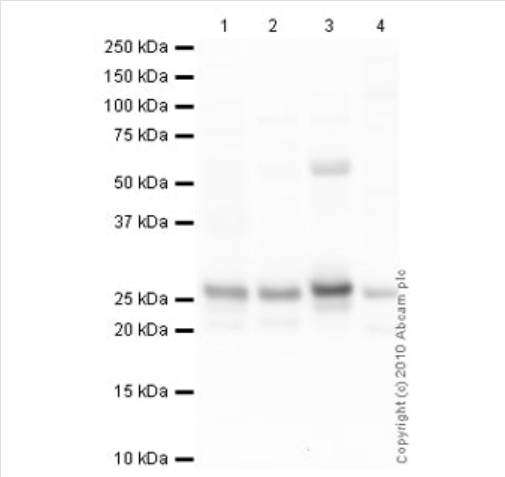
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ **(1)**	Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 30 kDa).
Flow Cyt		Use 1µg for 10^6 cells. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

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.
Sequence similarities	Belongs to the complex I 30 kDa subunit family.
Cellular localization	Mitochondrion inner membrane.

Images



Western blot - Anti-NDUFS3 antibody [17D95] (ab14711)

All lanes : Anti-NDUFS3 antibody [17D95] (ab14711) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (**ab29466**)
Lane 2 : Human heart tissue lysate - total protein (**ab29431**)
Lane 3 : Heart (Mouse) Tissue Lysate
Lane 4 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

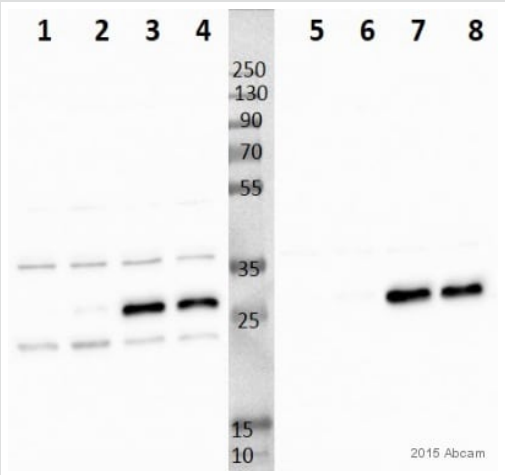
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 30 kDa
Observed band size: 26 kDa
Additional bands at: 57 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 1 minute

The band observed at 26 kDa could potentially be a cleaved form of NDUFS3 due to the presence of a 36 amino acid transit peptide.



Western blot - Anti-NDUFS3 antibody [17D95] (ab14711)

Image is courtesy of an anonymous AbReview

All lanes : Anti-NDUFS3 antibody [17D95] (ab14711) at 1/1000 dilution

Lanes 1-2 : Whole cell lysates from NDUFS3 KO cells.
Lanes 3-4 : Whole cell lysates from NDUFS3 WT cells.
Lanes 5-6 : Isolated mitochondria from NDUFS3 KO cells.
Lanes 7-8 : Isolated mitochondria from NDUFS3 WT cells.

Lysates/proteins at 50 µg per lane.

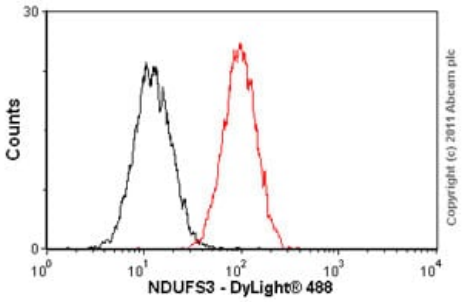
Secondary
All lanes : Goat anti-mouse polyclonal HRP conjugate at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

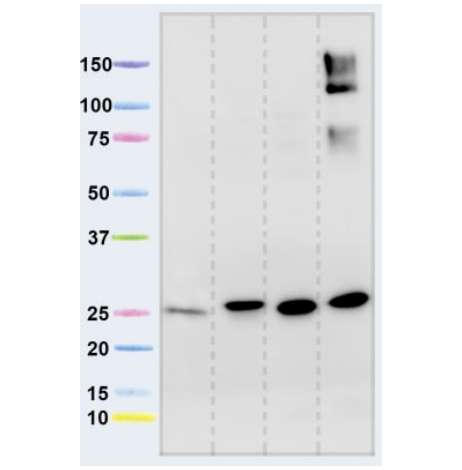
Predicted band size: 30 kDa
Additional bands at: 22 kDa (possible non-specific binding), 40 kDa (possible non-specific binding)

Exposure time: 1 minute



Flow Cytometry - Anti-NDUFS3 antibody [17D95] (ab14711)

Overlay histogram showing HepG2 cells stained with ab14711 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab14711, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-NDUFS3 antibody [17D95] (ab14711)

All lanes : Anti-NDUFS3 antibody [17D95] (ab14711)

Lane 1 : Isolated mitochondria from Human heart at 5 µg
Lane 2 : Isolated mitochondria from Bovine heart at 4 µg
Lane 3 : Isolated mitochondria from Rat heart at 10 µg
Lane 4 : Isolated mitochondria from Mouse heart at 10 µg

Secondary
All lanes : Goat anti-Mouse IgG

Predicted band size: 30 kDa
Observed band size: 26 kDa

Extra bands in the mouse sample (lane 4) are due to the reaction of the IgG-specific goat anti-mouse secondary antibody with residual mouse blood in the heart tissue, as it is very difficult to entirely remove the blood from these small organs.

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