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Product datasheet

Anti-NDUFS2 antibody [7A12BE5AD5] ab110249

KO 評価済

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製品の概要

製品名	Anti-NDUFS2 antibody [7A12BE5AD5]
製品の詳細	Mouse monoclonal [7A12BE5AD5] to NDUFS2
由来種	Mouse
アプリケーション	**適用あり:** WB, ICC/IF, Flow Cyt
種交差性	**交差種:** Mouse, Rat, Cow, Human
免疫原	Tissue, cells or virus. This information is considered to be commercially sensitive.
ポジティブ・コントロール	WB: Isolated mitochondria from Human liver, Bovine heart, H9C2 cells (Rat cardiomyocyte) and MEF cells (Mouse embryo fibroblast). ICC/IF: HAP1, HDFn cultured cells (normal Human dermal fibroblasts, neonatal).
特記事項	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.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
特記事項（精製）	The purity of ab110249 is near homogeneity, as judged by SDS-PAGE. The antibody was produced in vitro using hybridomas grown in serum-free medium, and then purified by

	biochemical fractionation.
ポリ/モノ	**モノクローナル**
クローン名	7A12BE5AD5
アイソタイプ	IgG1
軽鎖の種類	kappa

アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab110249の使用に適用されます**

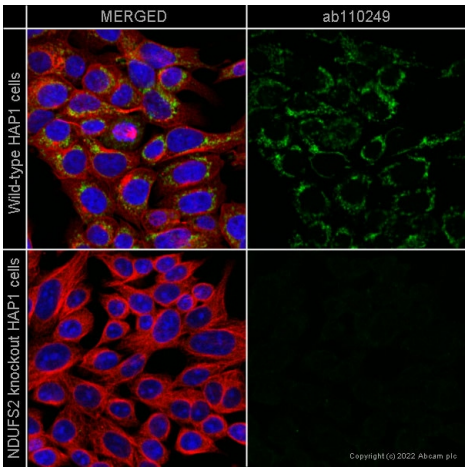
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use a concentration of 0.25 µg/ml. Predicted molecular weight: 53 kDa.
ICC/IF		Use a concentration of 5 µg/ml.
Flow Cyt		Use 1µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ターゲット情報

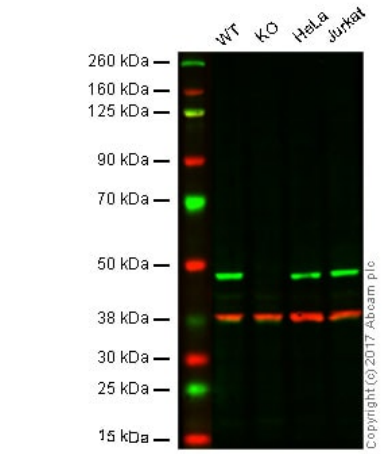
機能	Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone.
関連疾患	Defects in NDUFS2 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.
配列類似性	Belongs to the complex I 49 kDa subunit family.
細胞内局在	Mitochondrion inner membrane.

画像



Immunocytochemistry/ Immunofluorescence - Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249)

ab110249 staining NDUFS2 in wild-type Hap1 cells (top panel) and NDUFS2 knockout Hap1 cells (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab110249 at 0.4µg/ml concentration and **ab6046** (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (**ab150080**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

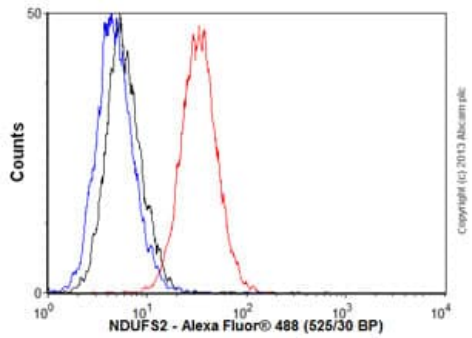


Western blot - Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: NDUFS2 knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: Jurkat whole cell lysate (20 µg)

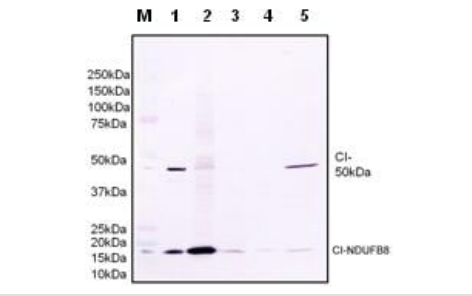
Lanes 1 - 4: Merged signal (red and green). Green - ab110249 observed at 48 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab110249 was shown to specifically react with NDUFS2 in wild-type HAP1 cells whilst signal was lost in NDUFS2 knockout cells. Wild-type and NDUFS2 knockout samples were subjected to SDS-PAGE. ab110249 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 0.25 µg/ml and 1/20,000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry - Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249)

Overlay histogram showing HepG2 cells stained with ab110249 (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 (ab110249, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



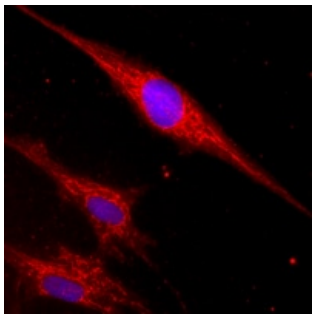
Western blot - Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249)

All lanes : Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249) at 0.25 µg/ml

Lane 1 : Molecular Weight Markers
Lane 2 : Isolated mitochondria from Human liver
Lane 3 : Isolated mitochondria from Bovine heart
Lane 4 : Isolated mitochondria from H9C2 cells (Rat cardiomyocyte)
Lane 5 : Isolated mitochondria from MEF cells (Mouse embryo fibroblast)
Lane 6 : Isolated mitochondria from HepG2

Predicted band size: 53 kDa

Complex I-subunit NDUFS2 is detected in the Human samples with Human specific ab110249, while Complex I-subunit NDUFB8 is detected in all samples (Human, Mouse and Rat) with an anti-NDUFB8.



Immunocytochemistry/ Immunofluorescence - Anti-NDUFS2 antibody [7A12BE5AD5] (ab110249)

Mitochondrial localization of Complex I subunit NDUFS2 visualized by Immunocytochemistry in HDFn cultured cells (normal Human dermal fibroblasts, neonatal), using ab110249 at 5 µg/ml.

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