# abcam

### Product datasheet

## Anti-NDUFS2 antibody [EPR16266] ab192022



ייבע RabMAb

#### 7 References 画像数8

#### 製品の概要

製品名 Anti-NDUFS2 antibody [EPR16266]

製品の詳細 Rabbit monoclonal [EPR16266] to NDUFS2

由来種 Rabbit

アプリケーション 適用あり: ICC/IF, WB, IHC-P, IP 種交差性 交差種: Mouse, Rat, Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: HAP1, HeLa, Jurkat, 293T cell lysate. Mouse brain, kidney and spleen lysate. Rat brain and

kidney lysate. C6, RAW264.7, PC-12 and NIH/3T3 cell lysate. IHC-P: Human brain tissue. Rat

stomach tissue. IP: 293T cell lysate. ICC/IF: Wild-type HAP1 cells.

特記事項 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 production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### 製品の特性

製品の状態 Liquid

保存方法 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.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS

精製度 Protein A purified

ポリモノ モノクローナル クローン名 **EPR16266** 

#### アプリケーション

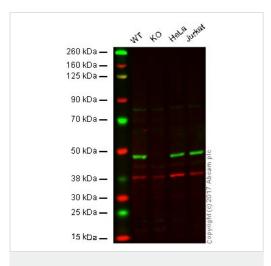
**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab192022の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		Use a concentration of 0.4 µg/ml.
WB		1/1000 - 1/10000. Detects a band of approximately 49 kDa (predicted molecular weight: 53 kDa).
IHC-P		1/200 - 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/40.

#### 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



Western blot - Anti-NDUFS2 antibody [EPR16266] (ab192022)

**Lane 1:** Wild-type HAP1 whole cell lysate (20  $\mu g$ )

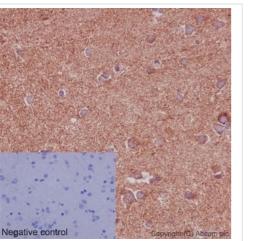
**Lane 2:** NDUFS2 knockout HAP1 whole cell lysate (20  $\mu$ g)

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 - ab192022 observed at 48 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

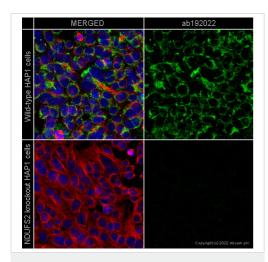
ab192022 was shown to specifically react with NDUFS2 in wild-type HAP1 cells whilst signal was lost in NDUFS2 knockout cells. Wild-type and NDUFS2 knockout samples were subjected to SDS-PAGE. ab192022 and <a href="mailto:ab9484">ab9484</a> (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20,000 dilution respectively. Blots were developed with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preabsorbed (<a href="mailto:ab216773">ab216773</a>) and Goat anti-Mouse lgG H&L (IRDye® 680RD) preabsorbed (<a href="mailto:ab216776">ab216776</a>) secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.



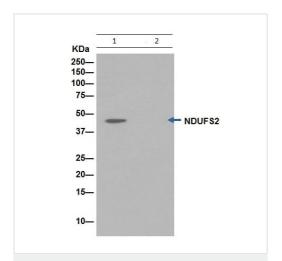
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-NDUFS2 antibody
[EPR16266] (ab192022)

Immunohistochemical analysis of paraffin-embedded human brain tissue sections labeling NDUFS2 using ab192022 at a 1/500 dilution. A ready to use HRP Polymer for Rabbit lgG was used as the secondary. Hematoxylin counterstain. Negative control uses PBS instead of primary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-NDUFS2 antibody [EPR16266] (ab192022)

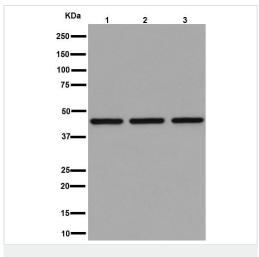


Immunoprecipitation - Anti-NDUFS2 antibody [EPR16266] (ab192022)

ab192022 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 ab192022 at 0.4µg/ml concentration and <a href="mailto:ab7291">ab7291</a> (Mouse monoclonal to alpha 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 rabbit lgG (Alexa Fluor® 488) (ab150081) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse lgG (Alexa Fluor® 594) (ab150120) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

Lane 1: 293T cell lysate was immunoprecipitated using ab192022 at a 1/40 dilution. Secondary used was anti-rabbit lgG (HRP), specific to the non-reduced form of lgG at a 1/1500 dilution.

Lane 2: PBS instead of 293T lysates.



Western blot - Anti-NDUFS2 antibody [EPR16266] (ab192022)

**All lanes :** Anti-NDUFS2 antibody [EPR16266] (ab192022) at 1/10000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : Jurkat cell lysate

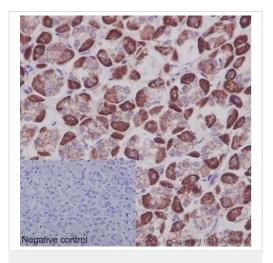
Lane 3: 293T (Human embryonic kidney epithelial cell) cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated at 1/1000 dilution

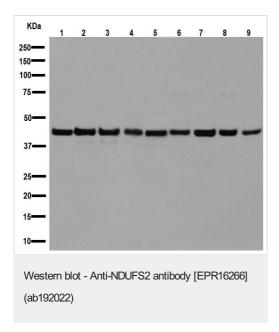
Predicted band size: 53 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-NDUFS2 antibody
[EPR16266] (ab192022)

Immunohistochemical analysis of paraffin-embedded rat stomach tissue sections labeling NDUFS2 using ab192022 at a 1/500 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain. Negative control uses PBS instead of primary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



**All lanes :** Anti-NDUFS2 antibody [EPR16266] (ab192022) at 1/1000 dilution

Lane 1 : Mouse brain lysate
Lane 2 : Mouse kidney lysate
Lane 3 : Mouse spleen lysate
Lane 4 : Rat brain lysate

Lane 5 : Rat kidney lysate

Lane 6: C6 cell lysate

Lane 7 : RAW264.7 cell lysate
Lane 8 : PC-12 cell lysate

Lane 9: NIH3T3 cell lysate

Lysates/proteins at 10 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 53 kDa Observed band size: 49 kDa



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