

### Anti-Ndufs4 antibody [EP7832] ab137064

敲除验证
重组
RabMAb

★★★★★
[13 Abreviews](#)
[6 References](#)
[14 图像](#)

#### 概述

产品名称	Anti-Ndufs4抗体[EP7832]
描述	兔单克隆抗体[EP7832] to Ndufs4
宿主	Rabbit
经测试应用	<b>适用于:</b> Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
种属反应性	<b>与反应:</b> Mouse, Rat, Human <b>预测可用于:</b> Sheep, Goat, Cat, Dog, Pig, Common marmoset  <b>不与反应:</b> Eisenia fetida
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	293T cell lysates, fetal brain and fetal stomach tissue lysates; Human brain and Human stomach tissues Mouse heat lysate, rat heart lysate, mouse kidney, HeLa.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	EP7832

同种型

IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab137064于以下的经测试应用

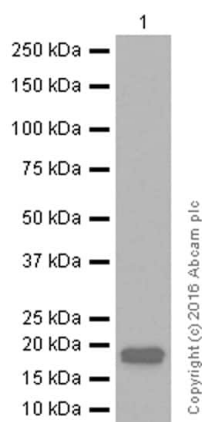
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt (Intra)		1/60. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100 - 1/1000 dilution.
WB	★★★★★ (1)	1/500 - 1/10000. Detects a band of approximately 18 kDa (predicted molecular weight: 20 kDa).
IHC-P	★★★★★ (10)	1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (2)	1/500. <b>For unpurified use at 1/50 - 1/100.</b>
IP		1/10 - 1/100.

靶标

功能	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.
疾病相关	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.
序列相似性	Belongs to the complex I NDUFS4 subunit family.
细胞定位	Mitochondrion inner membrane.

图片



Western blot - Anti-Ndufs4 antibody [EP7832]  
(ab137064)

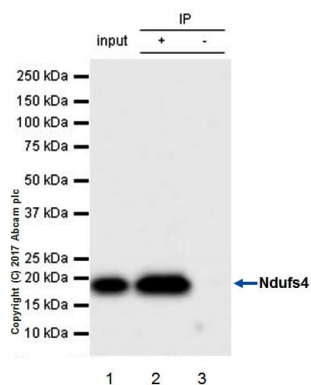
Anti-Ndufs4 antibody [EP7832] (ab137064) at 1/50000 dilution  
(purified) + Rat heart lysates at 15 µg

### Secondary

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

**Predicted band size:** 20 kDa

Blocking and diluting buffer: 5% NFDM/TBST



Immunoprecipitation - Anti-Ndufs4 antibody  
[EP7832] (ab137064)

ab137064 (purified) at 1:30 dilution (2µg) immunoprecipitating  
Ndufs4 in Rat heart lysate.

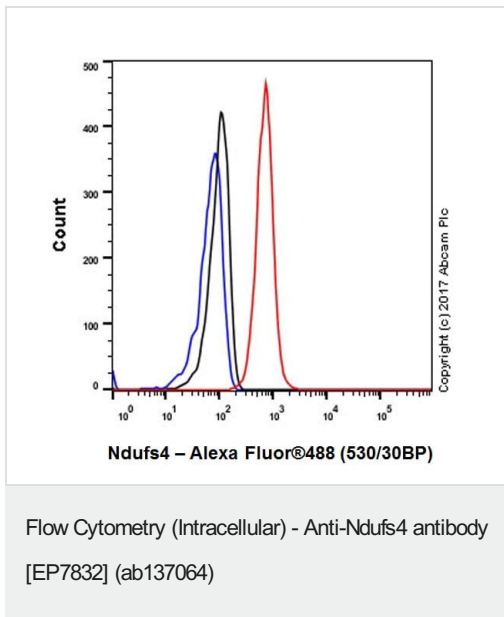
**Lane 1 (input):** Rat heart lysate, 10µg

**Lane 2 (+):** ab137064 & Rat heart lysate

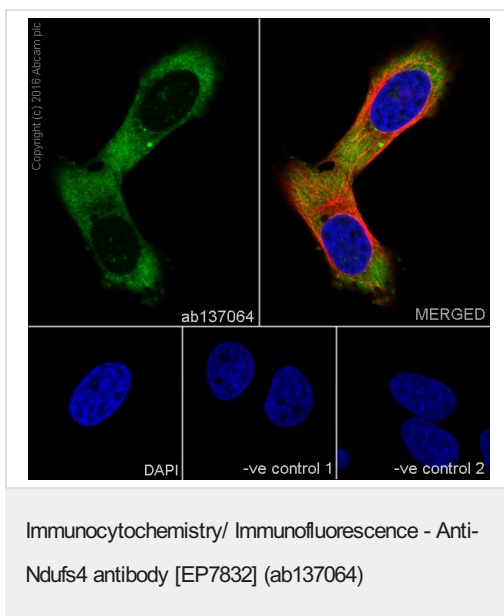
**Lane 3 (-):** Rabbit monoclonal IgG ([ab172730](#)) instead of  
ab137064 in Rat heart lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP)  
([ab131366](#)) was used for detection at 1:1000 dilution.

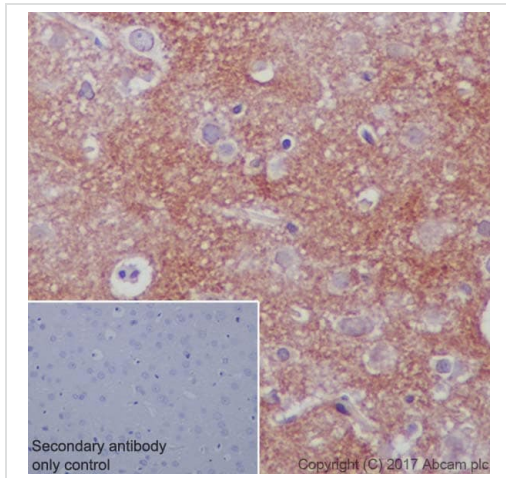
Blocking and diluting buffer: 5% NFDM/TBST.



Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Ndufs4 with purified ab137064 at 1/60 dilution (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

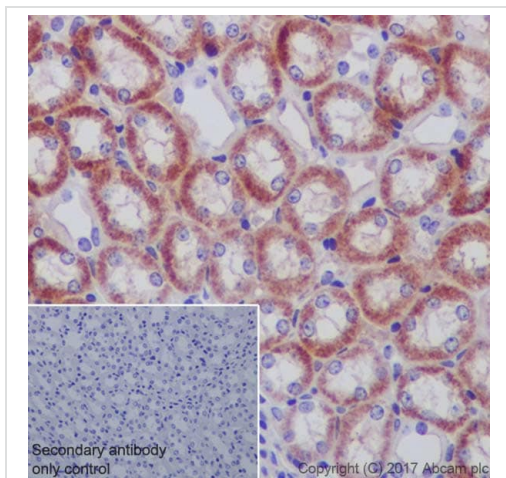


Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Ndufs4 with Purified ab137064 at 1:500 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab7291** anti-Tubulin (mouse mAb) **ab150120** AlexaFluor® 594 Goat anti-Mouse secondary (1:1000, 2 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



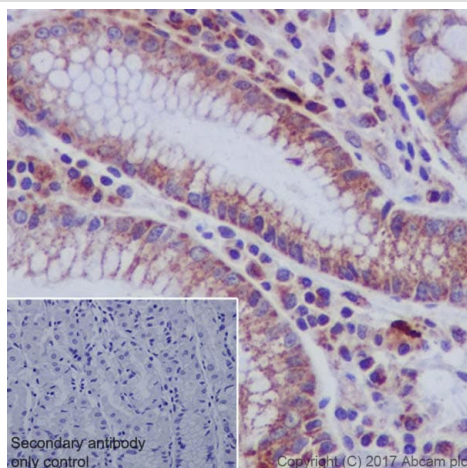
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat cerebrum tissue sections labeling Ndufs4 with Purified ab137064 at 1:50 dilution. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody [EP7832] (ab137064)



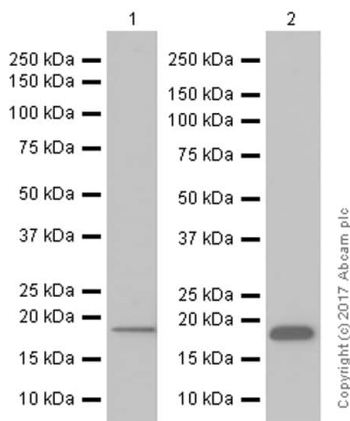
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling Ndufs4 with Purified ab137064 at 1:50 dilution. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody [EP7832] (ab137064)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody [EP7832] (ab137064)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human stomach tissue sections labeling Ndufs4 with Purified ab137064 at 1:50 dilution. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Ndufs4 antibody [EP7832] (ab137064)

**All lanes :** Anti-Ndufs4 antibody [EP7832] (ab137064) at 1/2000 dilution (purified)

**Lane 1 :** Human fetal brain lysates

**Lane 2 :** Mouse heart lysates

Lysates/proteins at 15 µg per lane.

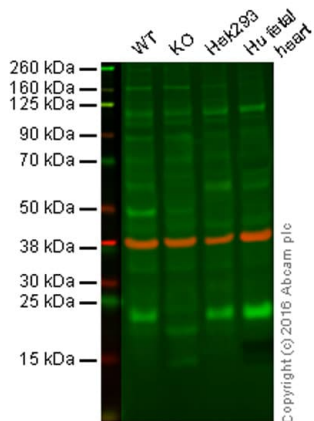
#### Secondary

**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 20 kDa

**Observed band size:** 18 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-Ndufs4 antibody [EP7832]  
(ab137064)

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

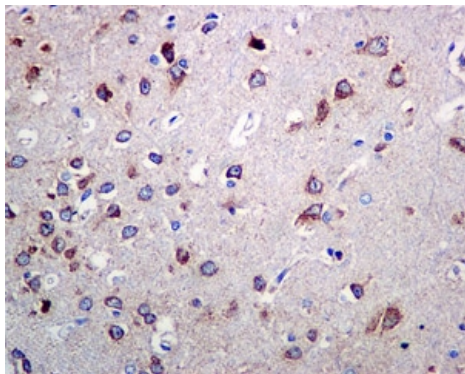
**Lane 2:** Ndufs4 knockout HAP1 cell lysate (20 µg)

**Lane 3:** HEK293 cell lysate (20 µg)

**Lane 4:** Human fetal heart tissue lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab137064 observed at 23 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

Unpurified ab137064 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. ab137064 and [ab8245](#) (loading control to GAPDH) were diluted at 1/500 and 1/10 000 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 h at room temperature before imaging.

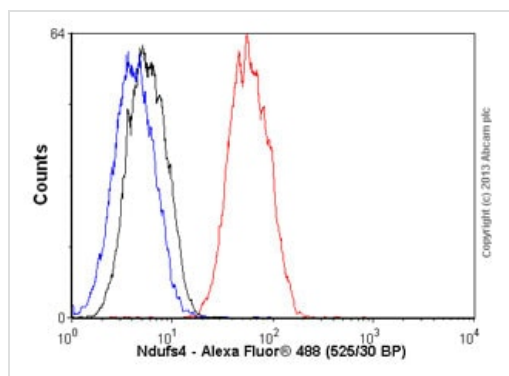


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ndufs4 antibody  
[EP7832] (ab137064)

Immunohistochemical analysis of paraffin-embedded Human brain tissue labelling Ndufs4 with unpurified ab137064 at 1/50 dilution.

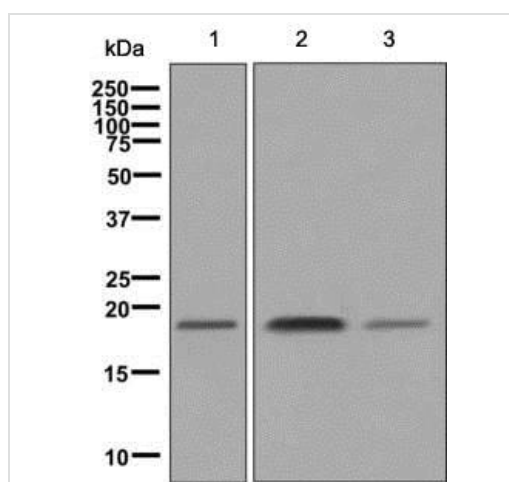
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.





Flow Cytometry (Intracellular) - Anti-Ndufs4 antibody [EP7832] (ab137064)

Overlay histogram showing HepG2 cells stained with unpurified ab137064 (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 (ab137064, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10<sup>6</sup> 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. This antibody gave a positive signal in HepG2 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Ndufs4 antibody [EP7832] (ab137064)

**All lanes :** Anti-Ndufs4 antibody [EP7832] (ab137064) at 1/1000 dilution (unpurified)

**Lane 1 :** 293T cell lysate

**Lane 2 :** Fetal brain tissue lysate

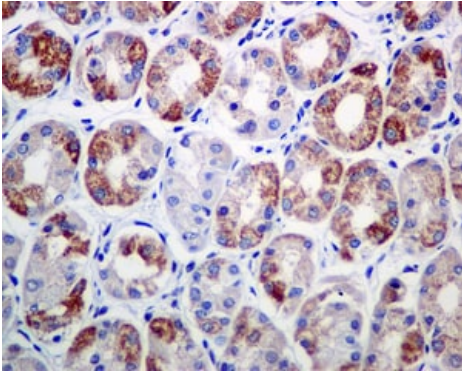
**Lane 3 :** Fetal kidney tissue lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 20 kDa

**Observed band size:** 18 kDa





Immunohistochemical analysis of paraffin-embedded Human stomach tissue labelling Ndufs4 with unpurified ab137064 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 [EP7832] (ab137064)

#### Why choose a recombinant antibody?



Anti-Ndufs4 antibody [EP7832] (ab137064)

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

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