abcam

Product datasheet

Anti-PDHA1 antibody [EPR11098] ab168379

敲除验证 重组 RabMAb

22 References 16 图像

概述

产品名称	Anti-PDHA1抗体[EPR11098]
描述	兔单克隆抗体[EPR11098] to PDHA1
宿主	Rabbit
经测试应用	**适用于:** Flow Cyt (Intra), WB, ICC/IF, IHC-P, IP
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	Human fetal kidney, A549, Jurkat, HepG2 and HeLa lysates; Human kidney and skeletal muscle tissues; HepG2 cells; permeabilized Jurkat cells; HT-29; Mouse kidney; Rat kidney.
常规说明	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**.

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	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR11098
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab168379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)		1/10 - 1/100. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/5000. Predicted molecular weight: 43 kDa.
ICC/IF		1/100 - 1/500.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/10 - 1/100.

靶标

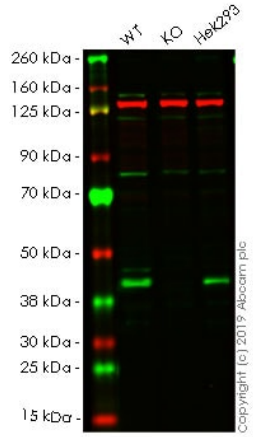
功能 The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2). It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3).

组织特异性 Ubiquitous.

疾病相关 Defects in PDHA1 are a cause of pyruvate decarboxylase E1 component deficiency (PDHE1 deficiency) [MIM:312170]. PDHE1 deficiency is the most common enzyme defect in patients with primary lactic acidosis. It is associated with variable clinical phenotypes ranging from neonatal death to prolonged survival complicated by developmental delay, seizures, ataxia, apnea, and in some cases to an X-linked form of Leigh syndrome (X-LS).
Defects in PDHA1 are the cause of X-linked Leigh syndrome (X-LS) [MIM:308930]. X-LS is an early-onset progressive neurodegenerative disorder with a characteristic neuropathology consisting of focal, bilateral lesions in one or more areas of the central nervous system, including the brainstem, thalamus, basal ganglia, cerebellum, and spinal cord. The lesions are areas of demyelination, gliosis, necrosis, spongiosis, or capillary proliferation. Clinical symptoms depend on which areas of the central nervous system are involved. The most common underlying cause is a defect in oxidative phosphorylation. LS may be a feature of a deficiency of any of the mitochondrial respiratory chain complexes.

细胞定位 Mitochondrion matrix.

图片



Western blot - Anti-PDHA1 antibody [EPR11098] (ab168379)

All lanes : Anti-PDHA1 antibody [EPR11098] (ab168379) at 1/1000 dilution

Lane 1 : Wild-type A549 whole cell lysate
Lane 2 : PDHA1 knockout A549 whole cell lysate
Lane 3 : HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

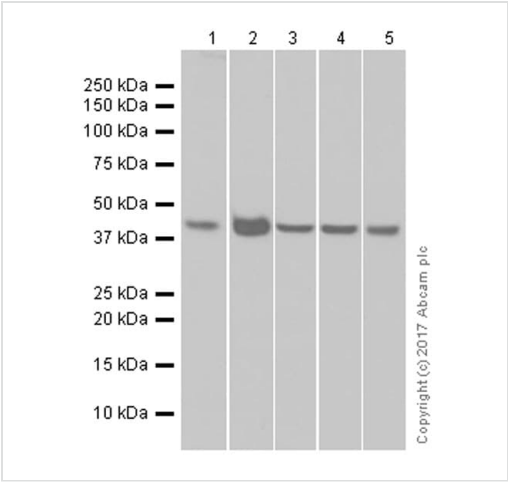
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 43 kDa
Observed band size: 43 kDa

Lanes 1 - 3: Merged signal (red and green). Green - ab168379 observed at 43 kDa. Red - loading control, **ab130007**, observed at 130 kDa.

ab168379 was shown to recognize PDHA1 in wild-type A549 cells as signal was lost at the expected MW in PDHA1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and PDHA1 knockout samples were subjected to SDS-PAGE. Ab168379 and **ab130007** (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-PDHA1 antibody [EPR11098] (ab168379)

All lanes : Anti-PDHA1 antibody [EPR11098] (ab168379) at 1/2000 dilution

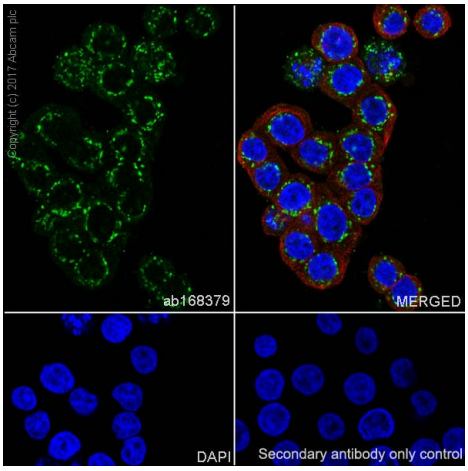
Lane 1 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates
Lane 2 : Mouse brain lysates
Lane 3 : Rat brain lysates
Lane 4 : Mouse kidney lysates
Lane 5 : Rat kidney lysates

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: 43 kDa
Observed band size: 43 kDa

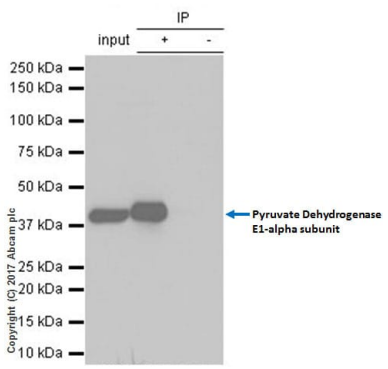
Blocking and diluting buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunocytochemistry/ Immunofluorescence analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labeling PDHA1 with Purified ab168379 at 1:100 dilution (3.5 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 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.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-PDHA1 antibody [EPR11098] (ab168379)

ab168379 (purified) at 1:20 dilution (2ug) immunoprecipitating PDHA1 in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate.

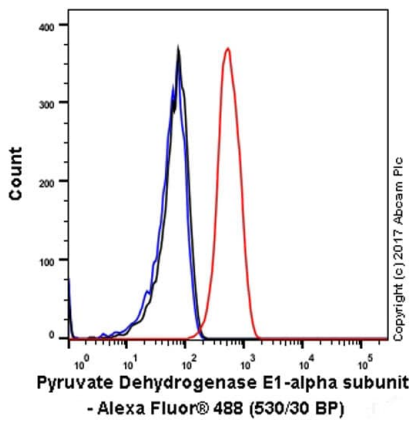
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug

Lane 2 (+): ab168379 & HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab168379 in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

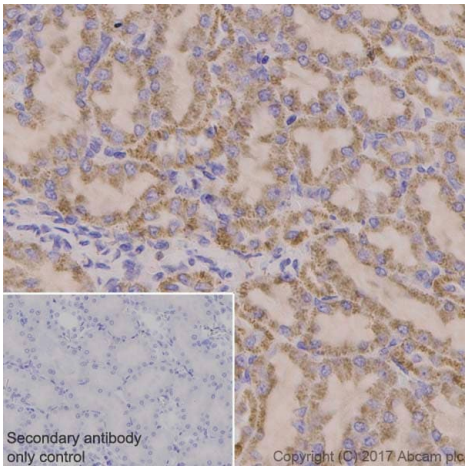
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



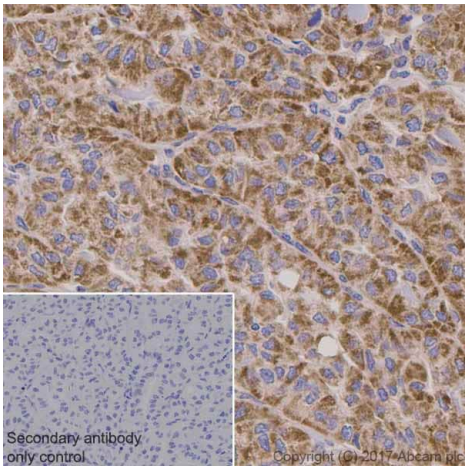
Flow Cytometry (Intracellular) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling PDHA1 with purified ab168379 at 1/40 dilution (10 ug/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilized with 90% methanol. 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).



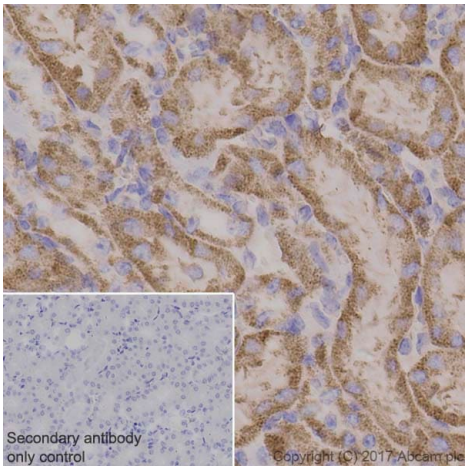
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling PDHA1 with Purified ab168379 at 1:200 dilution (1.76 µg/ml). Heat mediated antigen retrieval was performed using 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.



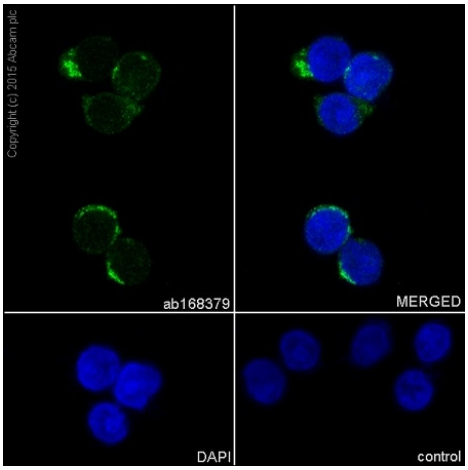
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue sections labeling PDHA1 with Purified ab168379 at 1:200 dilution (1.76 µg/ml). Heat mediated antigen retrieval was performed using 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-PDHA1 antibody [EPR11098] (ab168379)

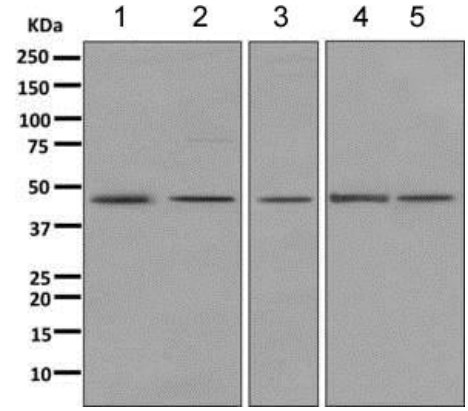
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling PDHA1 with Purified ab168379 at 1:200 dilution (1.76 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe 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.



Immunocytochemistry/ Immunofluorescence - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunocytochemistry/Immunofluorescence analysis Jurkat (human acute T cell leukemia) labelling PDHA1 with purified ab168379 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).

Control: PBS only



Western blot - Anti-PDHA1 antibody [EPR11098] (ab168379)

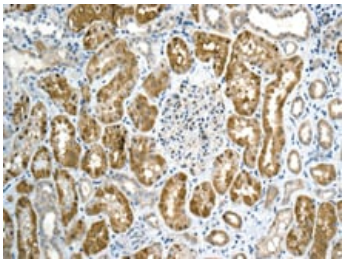
All lanes : Anti-PDHA1 antibody [EPR11098] (ab168379) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal kidney lysate
Lane 2 : A549 lysate
Lane 3 : Jurkat lysate
Lane 4 : HepG2 lysate
Lane 5 : HeLa lysate

Lysates/proteins at 10 µg per lane.

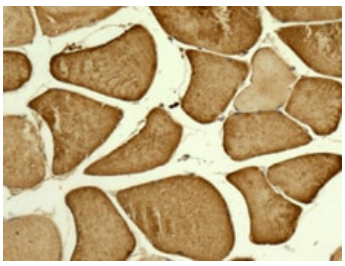
Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 43 kDa



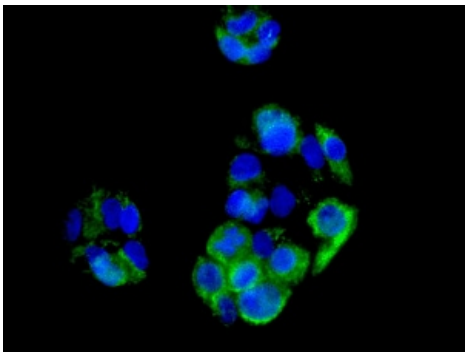
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling PDHA1 with unpurified ab168379 at 1/100 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



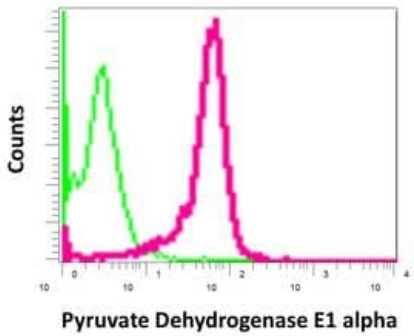
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunohistochemical analysis of paraffin-embedded Human skeletal muscle tissue labeling PDHA1 with unpurified ab168379 at 1/100 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



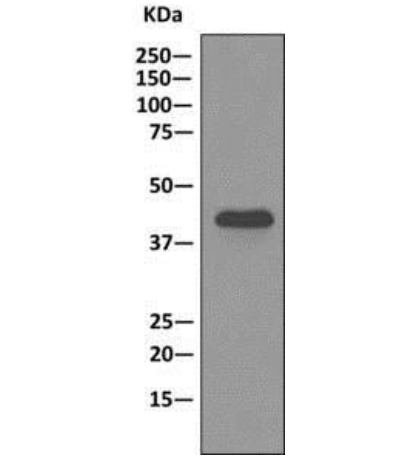
Immunocytochemistry/ Immunofluorescence - Anti-PDHA1 antibody [EPR11098] (ab168379)

Immunofluorescent analysis of HepG2 cells labeling PDHA1 with unpurified ab168379 at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-PDHA1 antibody [EPR11098] (ab168379)

Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling PDHA1 (red) with unpurified ab168379 at 1/10 dilution, or a rabbit IgG (negative) (green).



Immunoprecipitation - Anti-PDHA1 antibody [EPR11098] (ab168379)

Detection of PDHA1 by Western Blot of Immunprecipitate. 293T cell lysate immunoprecipitated using unpurified ab168379 at 1/10 dilution; HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

Anti-PDHA1 antibody [EPR11098] (ab168379)

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