

Anti-PDHA1 antibody [8D10E6] ab110334

敲除验证

★★★★★ [6 Abreviews](#) [68 References](#) [4 图像](#)

概述

产品名称	Anti-PDHA1抗体[8D10E6]
描述	小鼠单克隆抗体[8D10E6] to PDHA1
宿主	Mouse
经测试应用	适用于: WB, ICC/IF, Flow Cyt
种属反应性	与反应: Mouse, Rat, Cow, Human, Drosophila melanogaster 预测可用于: Zebrafish 
免疫原	Full length native protein (purified). This information is considered to be commercially sensitive.
阳性对照	WB: Isolated mitochondria from human, bovine, rat and mouse heart. HepG2 (human liver hepatocellular carcinoma cell line) cell lysate. FACS: HeLa (human epithelial cell line from cervix adenocarcinoma) and HL-60 (human promyelocytic leukemia cell line) cells.
常规说明	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>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.</p> <p>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</p> <p>Product was previously marketed under the MitoSciences sub-brand.</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	<p>pH: 7.5</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: HEPES buffered saline</p>

纯度	IgG fraction
纯化说明	ab110334 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
克隆	单克隆
克隆编号	8D10E6
同种型	IgG1
轻链类型	kappa

应用

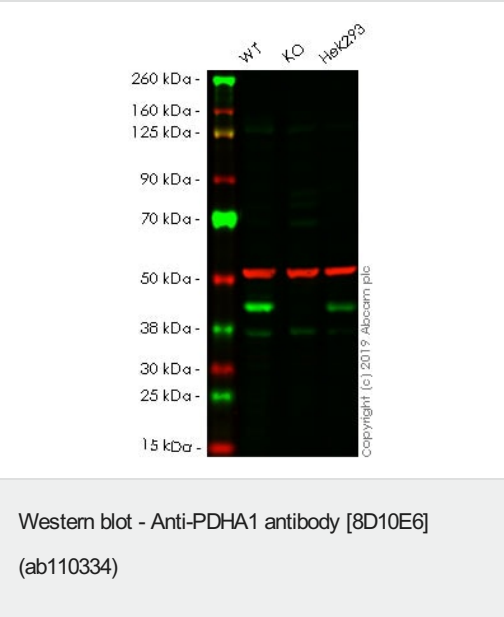
The Abpromise guarantee **Abpromise™**承诺保证使用ab110334于以下的经测试应用

“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
WB	★★★★★ (6)	Use a concentration of 0.5 - 1 µg/ml. Predicted molecular weight: 43 kDa.
ICC/IF		Use a concentration of 1 µg/ml. (heat-induced antigen-retrieval improves signal)
Flow Cyt		Use a concentration of 1 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

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	<p>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).</p> <p>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.</p>
细胞定位	Mitochondrion matrix.



All lanes : Anti-PDHA1 antibody [8D10E6] (ab110334) at 0.5 $\mu\text{g/ml}$

Lane 1 : Wild-type HeLa whole cell lysate

Lane 2 : PDHA1 knockout HeLa whole cell lysate

Lane 3 : HEK-293 whole cell lysate

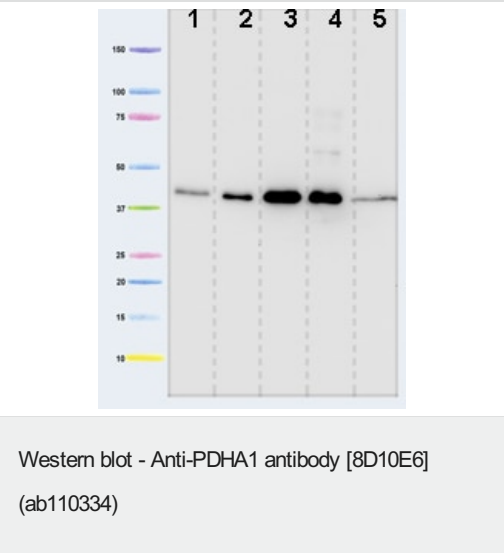
Lysates/proteins at 20 μg per lane.

Predicted band size: 43 kDa

Observed band size: 43 kDa

Lanes 1 - 3: Merged signal (red and green). Green - ab110334 observed at 43 kDa. Red - loading control, [ab52866](#), observed at 50 kDa.

ab110334 was shown to recognize PDHA1 in wild-type HeLa 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. Ab110334 and [ab52866](#) (Rabbit anti alpha Tubulin loading control) were incubated overnight at 4°C at 0.5 $\mu\text{g/ml}$ and 1/20000 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 1/20000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-PDHA1 antibody [8D10E6] (ab110334) at 1 $\mu\text{g/ml}$

Lane 1 : Isolated mitochondria from human heart at 5 μg

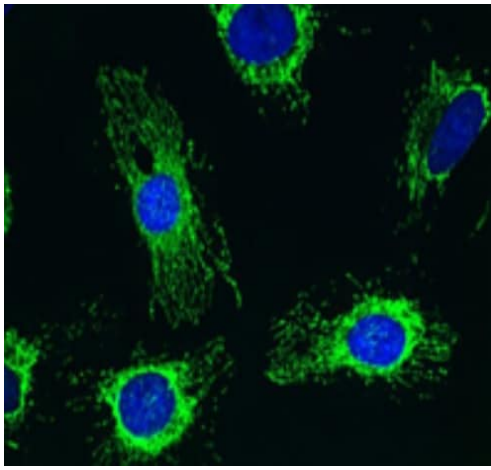
Lane 2 : Isolated mitochondria from bovine heart at 1 μg

Lane 3 : Isolated mitochondria from rat heart at 10 μg

Lane 4 : Isolated mitochondria from mouse heart at 10 μg

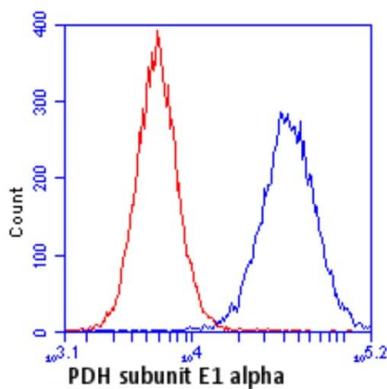
Lane 5 : HepG2 cell lysate at 20 μg

Predicted band size: 43 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PDHA1 antibody [8D10E6] (ab110334)

Immunocytochemistry analysis using ab110334 at 1 µg/ml staining PDHA1 in HeLa (human epithelial cell line from cervix adenocarcinoma) cells (4% paraformaldehyde fixed and Triton X-100 permeabilized). The secondary antibody was (green) Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution. DAPI was used to stain the cell nuclei (blue).



Flow Cytometry - Anti-PDHA1 antibody [8D10E6] (ab110334)

Flow cytometric analysis using ab110334 at 1 µg/ml staining PDHA1 in HL-60 (human promyelocytic leukemia cell line) cells (blue). Isotype control antibody (red).

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