abcam

Product datasheet

Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] ab110332

敲除验证

8 References 7 图像

概述

产品名称	Anti-Pyruvate Dehydrogenase E2抗体[15D3G9C11]
描述	小鼠单克隆抗体[15D3G9C11] to Pyruvate Dehydrogenase E2
宿主	Mouse
经测试应用	**适用于:** WB, ICC/IF, Flow Cyt, IHC-P
种属反应性	**与反应:** Human
免疫原	Full length protein. This information is proprietary to Abcam and/or its suppliers.
阳性对照	Isolated mitochondria from Human heart; Normal Human embryonic lung fibroblasts (strain MRC5); Human cerebellum tissue; HL60 cells.
常规说明	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.

性能

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

纯化说明	ab110332 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	15D3G9C11
同种型	IgG1
轻链类型	kappa

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab110332于以下的经测试应用**

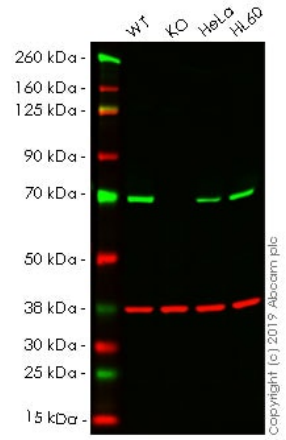
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use a concentration of 0.5 µg/ml. Predicted molecular weight: 69 kDa.
ICC/IF		Use a concentration of 0.2 - 0.5 µg/ml. (heat-induced antigen-retrieval improvessignal).
Flow Cyt		Use a concentration of 1 µg/ml. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		1/100. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

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).
疾病相关	Note=Primary biliary cirrhosis is a chronic, progressive cholestatic liver disease characterized by the presence of antimitochondrial autoantibodies in patients' serum. It manifests with inflammatory obliteration of intra-hepatic bile duct, leading to liver cell damage and cirrhosis. Patients with primary biliary cirrhosis show autoantibodies against the E2 component of pyruvate dehydrogenase complex. Defects in DLAT are the cause of pyruvate dehydrogenase E2 deficiency (PDHE2 deficiency) [MIM:245348]; also known as lactic acidemia due to defect of E2 lipoyl transacetylase of the pyruvate dehydrogenase complex. Pyruvate dehydrogenase (PDH) deficiency is a major cause of primary lactic acidosis and neurological dysfunction in infancy and early childhood. In this form of PDH deficiency episodic dystonia is the major neurological manifestation, with other more common features of pyruvate dehydrogenase deficiency, such as hypotonia and ataxia, being less prominent.
序列相似性	Belongs to the 2-oxoacid dehydrogenase family. Contains 2 lipoyl-binding domains.
细胞定位	Mitochondrion matrix.

图片



Western blot - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

All lanes : Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332) at 0.5 µg

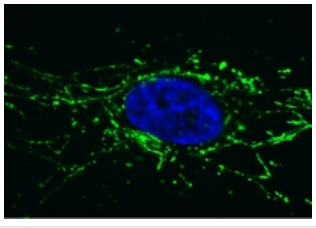
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : DLAT knockout HAP1 whole cell lysate
Lane 3 : HeLa whole cell lysate
Lane 4 : HL-60 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 69 kDa

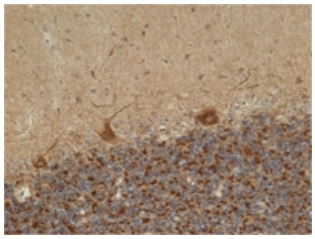
Lanes 1 - 4: Merged signal (red and green). Green - ab110332 observed at 72 kDa. Red - loading control, **ab181602**, observed at 38 kDa.

ab110332 was shown to specifically react with in wild-type HAP1 cells as signal was lost in DLAT knockout cells. Wild-type and DLAT knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab110332 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 0.5 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed **ab216772** 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.



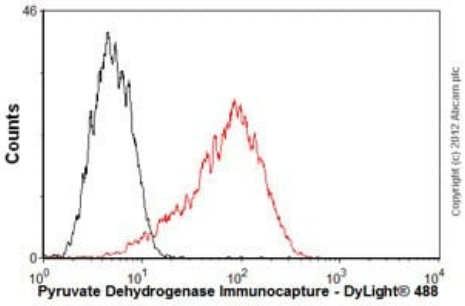
Immunocytochemistry/ Immunofluorescence - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

Immunocytochemistry analysis using ab110332 at 1µg/ml staining Pyruvate Dehydrogenase E2 in cultured, normal Human embryonic lung fibroblasts (strain MRC5) and an AlexaFluor® 488 goat anti-mouse IgG1 secondary antibody (2 ug/ml).



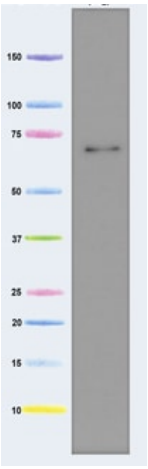
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

Immunohistological analysis using ab110332 at 1/100 dilution staining Pyruvate Dehydrogenase E2 in Human cerebellum tissue (Formalin-fixed, Paraffin-embedded).



Flow Cytometry - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

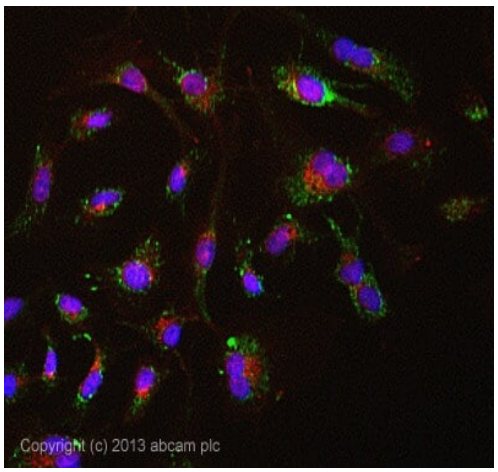
ICC/IF image of **ab109866** stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody **ab109866** at 10µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- mouse (**ab96879**) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

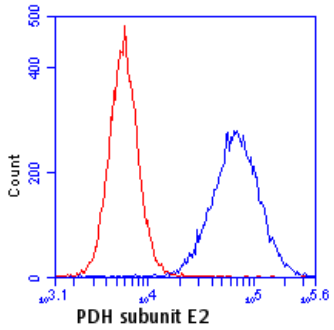
Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332) at 0.5 µg/ml + Isolated mitochondria from Human heart at 5 µg

Predicted band size: 69 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

ICC/IF image of **ab109866** stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody **ab109866** at 10µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- mouse (**ab96879**) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Flow Cytometry - Anti-Pyruvate Dehydrogenase E2 antibody [15D3G9C11] (ab110332)

Flow cytometric analysis using ab110332 at 1µg/ml staining Pyruvate Dehydrogenase E2 in HL60 cells (blue). Isotype control antibody (red).

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