

Product datasheet

Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] ab110333

KO VALIDATED

★★★★☆ [6 Abreviews](#) [41 References](#) [6 Images](#)

Overview

Product name	Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5]
Description	Mouse monoclonal [13G2AE2BH5] to PDHX
Host species	Mouse
Tested applications	Suitable for: WB, ICC/IF, Flow Cyt, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Cow, Human
Immunogen	Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.
Positive control	Isolated mitochondria from Human, Bovine, Rat and Mouse heart and HepG2 lysate; cultured, normal Human embryonic lung fibroblasts (strain MRC5); Human cerebellum tissue; HL60 cells.
General notes	<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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
Purity	IgG fraction

Purification notes	ab110333 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
Clonality	Monoclonal
Clone number	13G2AE2BH5
Isotype	IgG2a
Light chain type	kappa

Applications

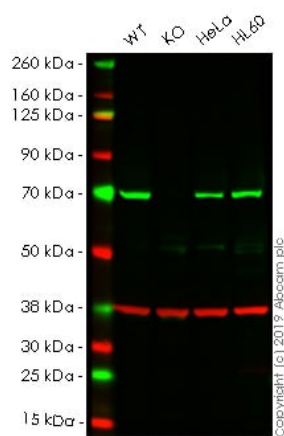
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab110333 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	Use a concentration of 1 µg/ml. Predicted molecular weight: 54 , 69 kDa.
ICC/IF	★★★★★ (2)	Use a concentration of 1 µg/ml. (heat-induced antigen-retrieval improves signal)
Flow Cyt		Use a concentration of 1 µg/ml. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
IHC-P		1/1000. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Target

Function	Required for anchoring dihydrolipoamide dehydrogenase (E3) to the dihydrolipoamide transacetylase (E2) core of the pyruvate dehydrogenase complexes of eukaryotes. This specific binding is essential for a functional PDH complex.
Involvement in disease	Defects in PDHX are the cause of pyruvate dehydrogenase E3-binding protein deficiency (PDHXD) [MM:245349].
Sequence similarities	Belongs to the 2-oxoacid dehydrogenase family. Contains 1 lipoyl-binding domain.
Cellular localization	Mitochondrion matrix.

Images



Western blot - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

All lanes : Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333) at 1 µg/ml

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : DLAT knockout HAP1 whole cell lysate

Lane 3 : HeLa whole cell lysate

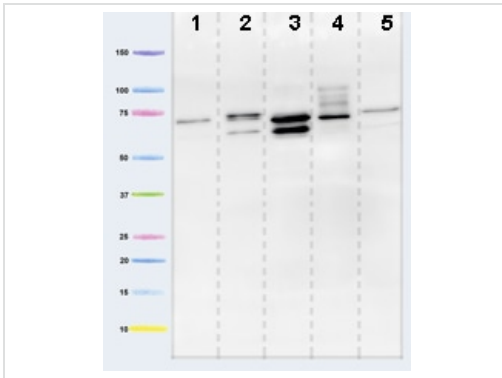
Lane 4 : HL-60 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 54 , 69 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab110333 observed at 72 kDa. Red - loading control, **ab181602**, observed at 38 kDa.

ab110333 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. Ab110333 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 1 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.



Western blot - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

All lanes : Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333) at 1 µg/ml

Lane 1 : Isolated mitochondria from Human heart at 5 µg

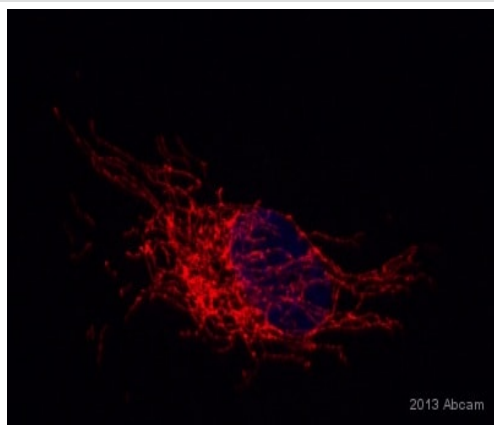
Lane 2 : Isolated mitochondria from Bovine heart at 1 µg

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

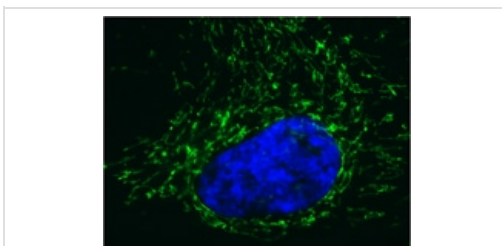
Predicted band size: 54 , 69 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

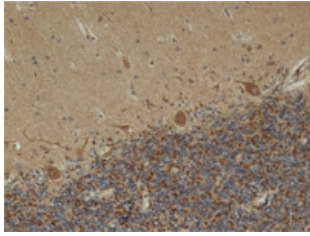
This image is courtesy of an Abreview submitted by Dimitra Kalamida

ab110333 staining Pyruvate dehydrogenase E2/E3bp in Human HUVEC by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 pH 7.4 for 5 minutes and blocked with 5% BSA for 20 minutes at room temperature. Samples were incubated with primary antibody (1/1000 in PBS) for 1 hour. A CF568-conjugated Goat anti-mouse IgG polyclonal (1/500) was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

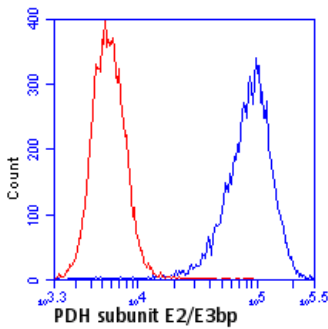
Immunocytochemistry analysis using ab110333 at 1µg/ml staining Pyruvate dehydrogenase E2/E3bp in cultured, normal Human embryonic lung fibroblasts and an AlexaFluor® 488 goat anti-mouse IgG2a secondary antibody (2 ug/ml).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

Immunohistological analysis using ab110333 at 1/1000 dilution staining Pyruvate dehydrogenase E2/E3bp in Human cerebellum tissue (Formalin-fixed, Paraffin-embedded).

Note: Immunoactivity is most intense in neuronal cell bodies, most notably in the large Purkinje cells.



Flow Cytometry - Anti-Pyruvate dehydrogenase E2/E3bp antibody [13G2AE2BH5] (ab110333)

Flow cytometric analysis using ab110333 at 1µg/ml staining Pyruvate dehydrogenase E2/E3b in HL60 cells (blue). Isotype control antibody (red).

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors