

### Anti-PDK1 antibody [2H3AA11] ab110335

敲除验证

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#### 概述

产品名称	Anti-PDK1抗体[2H3AA11]
描述	小鼠单克隆抗体[2H3AA11] to PDK1
宿主	Mouse
特异性	This antibody does not cross-react with other isoforms of human PDK (i.e. PDK2, 3 or 4) and does not cross-react with rat or mouse samples.
经测试应用	适用于: ICC/IF, WB, Flow Cyt
种属反应性	与反应: Human
免疫原	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
阳性对照	HeLa cells; Human heart and liver tissue lysates; and HL-60 cells
常规说明	<p>This monoclonal antibody to PDK1 has been knockout validated in Western blot. The expected band for PDK1 was observed in wild type cells and the band was not seen in knockout cells.</p> <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</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&amp;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>

	Constituent: HEPES buffered saline
纯度	Proprietary Purification
纯化说明	Produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation. Purity >95% by SDS-PAGE.
克隆	单克隆
克隆编号	2H3AA11
同种型	IgG1
轻链类型	kappa

应用

The Abpromise guarantee      **Abpromise™**承诺保证使用ab110335于以下的经测试应用

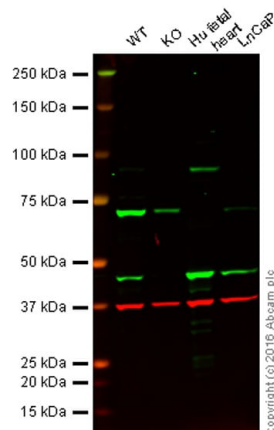
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		Use a concentration of 1 µg/ml.
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 49 kDa.
Flow Cyt		Use a concentration of 1 µg/ml. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

靶标

功能	Inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.
组织特异性	Expressed predominantly in the heart.
序列相似性	Belongs to the PDK/BCKDK protein kinase family. Contains 1 histidine kinase domain.
细胞定位	Mitochondrion matrix.

图片



Western blot - Anti-PDK1 antibody [2H3AA11]  
(ab110335)

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

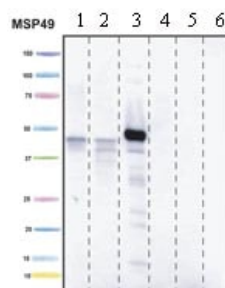
**Lane 2:** PDK1 knockout HAP1 cell lysate (20 µg)

**Lane 3:** Human fetal heart lysate (20 µg)

**Lane 4:** LnCaP cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab110335 observed at 46 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab110335 detected the expected band for PDK1 in wild-type cells and the band was not seen in knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and PDK1 knockout samples were subjected to SDS-PAGE. ab110335 and [ab8245](#) (loading control to GAPDH) were diluted 1 µg/mL and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed ([ab216772](#)) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed ([ab216777](#)) secondary antibodies at 1/10 000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-PDK1 antibody [2H3AA11]  
(ab110335)

**All lanes :** Anti-PDK1 antibody [2H3AA11] (ab110335) at 1 µg/ml

**Lane 1 :** Human heart lysate at 10 µg

**Lane 2 :** Human liver lysate at 10 µg

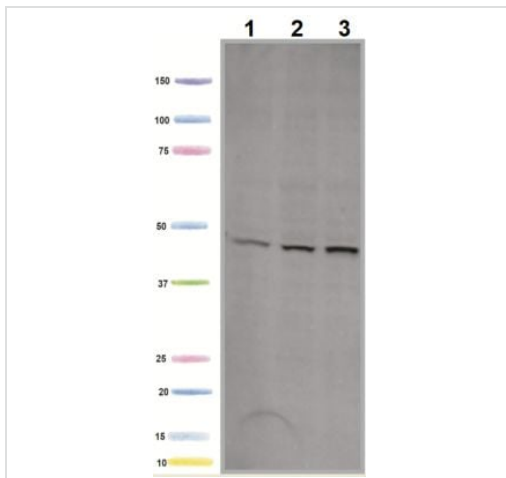
**Lane 3 :** Recombinant Human PDK1 at 0.01 µg

**Lane 4 :** Recombinant Human PDK2 at 0.01 µg

**Lane 5 :** Recombinant Human PDK3 at 0.01 µg

**Lane 6 :** Recombinant Human PDK4 at 0.01 µg

**Predicted band size:** 49 kDa



Western blot - Anti-PDK1 antibody [2H3AA11]  
(ab110335)

**All lanes :** Anti-PDK1 antibody [2H3AA11] (ab110335) at 1  $\mu\text{g/ml}$

**Lane 1 :** HeLa cells incubated for 24 hours with vehicle

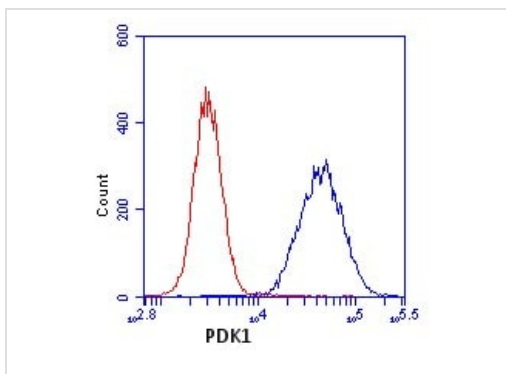
**Lane 2 :** HeLa cells incubated for 24 hours with 100  $\mu\text{M}$  cobalt chloride ( $\text{CoCl}_2$ )

**Lane 3 :** HeLa cells incubated for 24 hours with 1 mM deferoxamine (DFO)

Lysates/proteins at 30  $\mu\text{g}$  per lane.

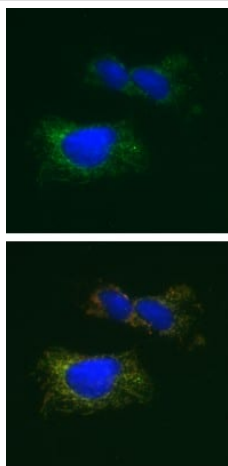
**Predicted band size:** 49 kDa

Treatment with either  $\text{CoCl}_2$  or DFO results in increased expression of PDK1, which is known to be transcriptionally upregulated in response to hypoxia.



Flow Cytometry - Anti-PDK1 antibody [2H3AA11]  
(ab110335)

HL-60 cells were stained with 1  $\mu\text{g/mL}$  PDK1 antibody (ab110335) (blue) or an equal amount of an isotype control antibody (red) and analyzed by flow cytometry.



Immunocytochemistry/ Immunofluorescence - Anti-PDK1 antibody [2H3AA11] (ab110335)

Immunocytochemistry image of PDK1 stained HeLa cells. The Upper image shows cells which were paraformaldehyde fixed (4%, 20 minutes) and Triton X-100 permeabilized (0.1%, 15 minutes). The cells were incubated with the PDK1 antibody (ab110335) at 2 µg/mL for 2 hours at room temperature or over night at 4°C. The secondary antibody was (green) Alexa Fluor® 488 goat anti-mouse IgG (H+L) at a 1/1000 dilution for 1 hour. 10% Goat serum was used as the blocking agent for all blocking steps. The target protein locates to the mitochondrial matrix.

The lower image shows cells co-stained with an antibody against HSP60 (red), an enzyme also located in the mitochondrial matrix. The composite image shows an identical mitochondrial pattern for both antibodies indicated by merged orange color.

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