

Product datasheet

Anti-PDK4 antibody [EPR19727-245] ab214938

Recombinant RabMAb

★★★★☆ **1 Abreviews** **16 References** [6 Images](#)

Overview

Product name	Anti-PDK4 antibody [EPR19727-245]
Description	Rabbit monoclonal [EPR19727-245] to PDK4
Host species	Rabbit
Tested applications	Suitable for: IP, WB, Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse PDK4 recombinant protein; mouse skeletal muscle and heart lysates; rat muscle and heart lysates; C2C12 and C6 whole cell lysate; heart from nonfasting mouse and mouse fasting for 72 hours; gastrocnemius muscle from nonfasting mouse and mouse fasting for 72 hours. Flow Cyt (intra): C2C12 cells. IP: Mouse heart lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19727-245

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab214938 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
IP		1/30.
WB		1/1000. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa).
Flow Cyt (Intra)		1/60. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function

Inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.

Tissue specificity

Ubiquitous; highest levels of expression in heart and skeletal muscle.

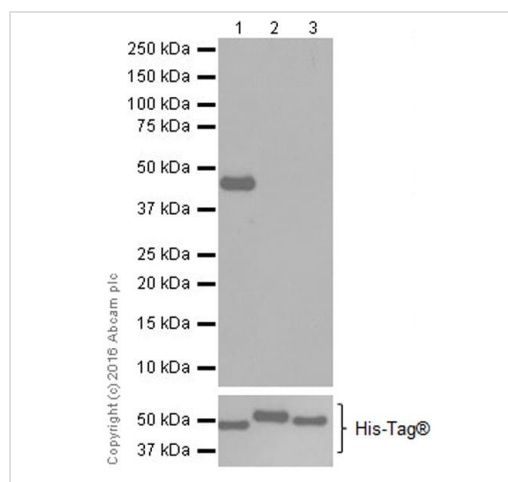
Sequence similarities

Belongs to the PDK/BCKDK protein kinase family.
Contains 1 histidine kinase domain.

Cellular localization

Mitochondrion matrix.

Images



Western blot - Anti-PDK4 antibody [EPR19727-245] (ab214938)

All lanes : Anti-PDK4 antibody [EPR19727-245] (ab214938) at 1/10000 dilution

Lane 1 : Mouse PDK4 recombinant protein

Lane 2 : Mouse PDK1 recombinant protein

Lane 3 : Mouse PDK2 recombinant protein

Lysates/proteins at 0.01 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

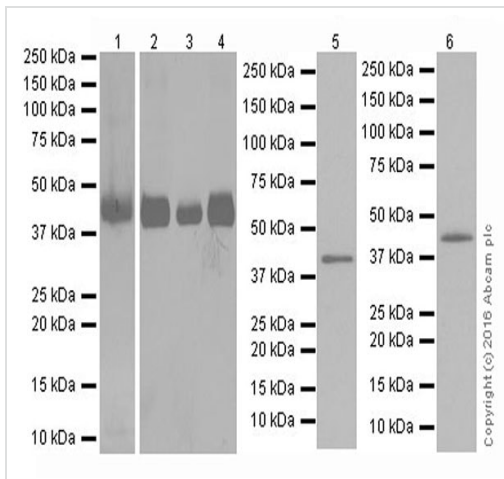
Predicted band size: 47 kDa

Observed band size: 47 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

Mouse PDK4, PDK1 and PDK2 recombinant proteins contain aa8-412, aa1-434 and aa1-407 respectively with a His-Tag®.



Western blot - Anti-PDK4 antibody [EPR19727-245] (ab214938)

All lanes : Anti-PDK4 antibody [EPR19727-245] (ab214938) at 1/1000 dilution

Lane 1 : Mouse skeletal muscle lysate

Lane 2 : Mouse heart lysate

Lane 3 : Rat muscle lysate

Lane 4 : Rat heart lysate

Lane 5 : C2C12 (Mouse myoblast cell line) whole cell lysate

Lane 6 : C6 (Rat glioma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

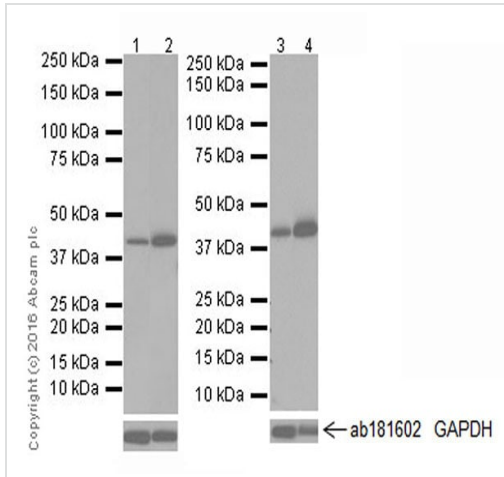
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 47 kDa

Additional bands at: 47 kDa. We are unsure as to the identity of these extra bands.

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 5 seconds; Lane 2-4: 3 minutes; Lane 5: 1 minutes; Lane 6: 10 seconds.



Western blot - Anti-PDK4 antibody [EPR19727-245] (ab214938)

Lanes 1-2 : Anti-PDK4 antibody [EPR19727-245] (ab214938) at 1/10000 dilution

Lanes 3-4 : Anti-PDK4 antibody [EPR19727-245] (ab214938) at 1/1000 dilution

Lane 1 : Heart from nonfasting mouse

Lane 2 : Heart from mouse fasting for 72 hours

Lane 3 : Gastrocnemius muscle from nonfasting mouse

Lane 4 : Gastrocnemius muscle from mouse fasting for 72 hours

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

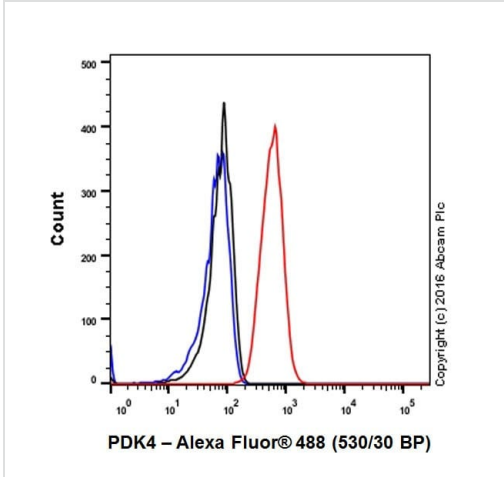
Predicted band size: 47 kDa

Observed band size: 47 kDa

Exposure time: 5 seconds

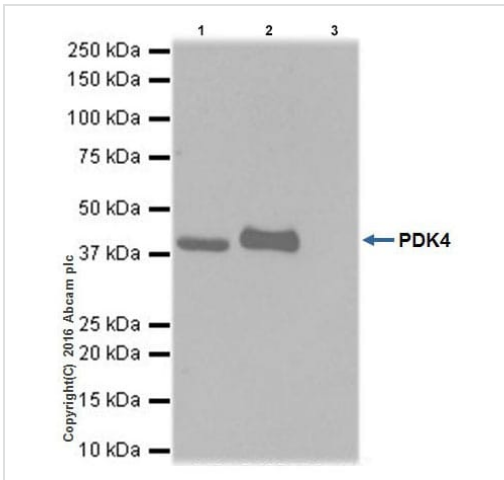
Blocking/Dilution buffer: 5% NFDm/TBST.

The expression level of PDK4 is increased under the fasting state (PMID: 11723055 and PMID: 16606348).



Flow Cytometry (Intracellular) - Anti-PDK4 antibody
[EPR19727-245] (ab214938)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed C2C12 (Mouse myoblast cell line) cells labeling PDK4 with ab214938 at 1/60 dilution (red) compared with Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat Anti-Rabbit IgG (Alexa Fluor[®] 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-PDK4 antibody
[EPR19727-245] (ab214938)

PDK4 was immunoprecipitated from 0.35 mg of mouse heart lysate with ab214938 at 1/30 dilution.

Western blot was performed from the immunoprecipitate using ab214938 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution

Lane 1: Mouse heart lysate 10µg (Input).

Lane 2: ab214938 IP in mouse heart lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) instead of ab214938 in mouse heart lysate.

Blocking and dilution buffer and concentration: 5% NFDN/TBST.

Exposure time: 0.5 second.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-PDK4 antibody [EPR19727-245] (ab214938)

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

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