

Product datasheet

Anti-PDPK1 antibody [EP569Y] ab52893

KO VALIDATED

Recombinant

RabMAb

[25 References](#) [8 Images](#)

Overview

Product name	Anti-PDPK1 antibody [EP569Y]
Description	Rabbit monoclonal [EP569Y] to PDPK1
Host species	Rabbit
Specificity	<p>This antibody detects PDK1 both when phosphorylated and non-phosphorylated on Tyrosine 373 and 376.</p> <p>The mouse, rat and pig recommendation is based on the WB results. We do not guarantee IHC-P for mouse, rat and pig.</p>
Tested applications	<p>Suitable for: WB, IHC-P</p> <p>Unsuitable for: Flow Cyt, ICC/IF or IP</p>
Species reactivity	Reacts with: Mouse, Rat, Human, Pig
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: PC-12, Rat testis, HEK-293, 22Rv1, PIEC, HeLa, K-562, and F9 lysates. IHC-P: human lung carcinoma and human prostate carcinoma tissue.
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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP569Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab52893 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

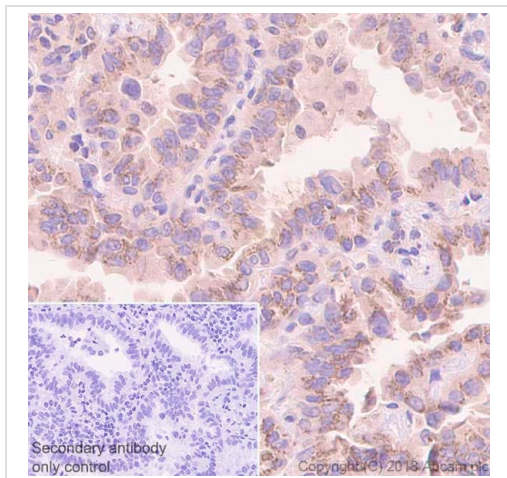
Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 64 kDa (predicted molecular weight: 63 kDa).
IHC-P		1/150. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The mouse, rat and pig recommendation is based on the WB results. We do not guarantee IHC-P for mouse, rat and pig. See <u>IHC antigen retrieval protocols</u> .

Application notes Is unsuitable for Flow Cyt, ICC/IF or IP.

Target

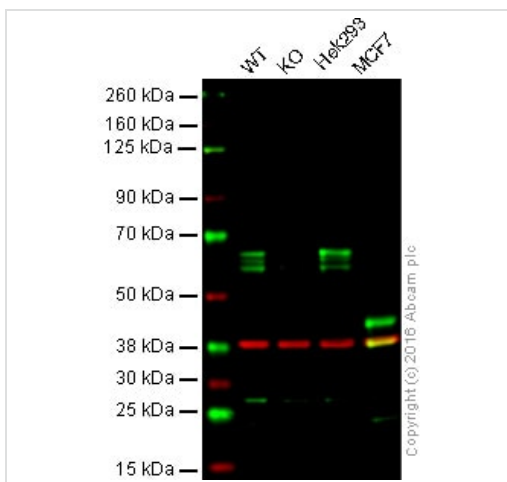
Function	Phosphorylates and activates not only PKB/AKT, but also PKA, PKC-zeta, RPS6KA1 and RPS6KB1. May play a general role in signaling processes and in development (By similarity). Isoform 3 is catalytically inactive.
Tissue specificity	Appears to be expressed ubiquitously.
Sequence similarities	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PDK1 subfamily. Contains 1 PH domain. Contains 1 protein kinase domain.
Post-translational modifications	Phosphorylated on tyrosine and serine/threonine. Phosphorylation on Ser-241 in the activation loop is required for full activity. PDK1 itself can autophosphorylate Ser-241, leading to its own activation.
Cellular localization	Cytoplasm. Membrane. Membrane-associated after cell stimulation leading to its translocation. Tyrosine phosphorylation seems to occur only at the plasma membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDPK1 antibody [EP569Y] (ab52893)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling PDPK1 with Purified ab52893 at 1:150 dilution (2.4 µg/ml). Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Purified ImmunoHistoProbe one step HRP Polymer (ready to use) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-PDPK1 antibody [EP569Y] (ab52893)

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

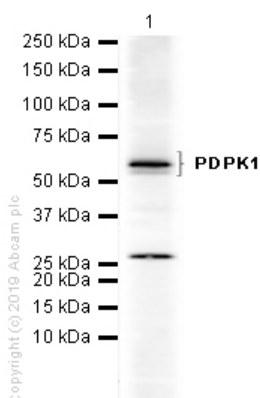
Lane 2: PDPK1 knockout HAP1 cell lysate (20 µg)

Lane 3: HEK293 cell lysate (20 µg)

Lane 4: MCF7 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab52893 observed at 70 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab52893 was shown to recognize PDPK1 when PDPK1 knockout samples were used, along with additional cross-reactive bands. Wild-type and PDPK1 knockout samples were subjected to SDS-PAGE. ab52893 and [ab8245](#) (loading control to GAPDH) were diluted 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-PDPK1 antibody [EP569Y] (ab52893)

Anti-PDPK1 antibody [EP569Y] (ab52893) at 1/1000 dilution (Purified) + F9 (Mouse embryonal carcinoma epithelial cell) whole cell lysates at 15 µg

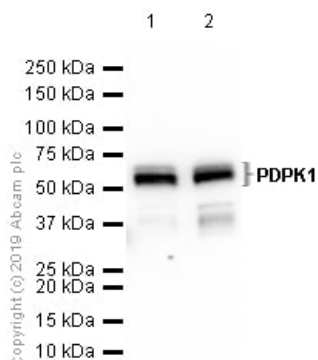
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/5000 dilution

Predicted band size: 63 kDa

Observed band size: 52-65 kDa

The molecular weight observed is consistent with what has been described in PMID: 30171166



Western blot - Anti-PDPK1 antibody [EP569Y] (ab52893)

All lanes : Anti-PDPK1 antibody [EP569Y] (ab52893) at 1/1000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

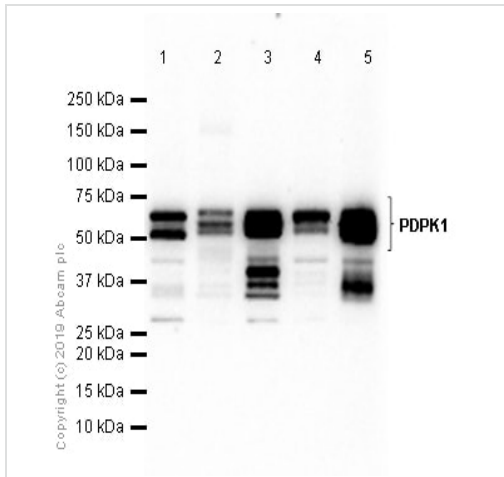
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/5000 dilution

Predicted band size: 63 kDa

Observed band size: 52-65 kDa

The molecular weight observed is consistent with what has been described in PMID: 30171166



Western blot - Anti-PDPK1 antibody [EP569Y] (ab52893)

All lanes : Anti-PDPK1 antibody [EP569Y] (ab52893) at 1/1000 dilution (Purified)

Lane 1 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

Lane 2 : Rat testis lysates

Lane 3 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates

Lane 4 : 22Rv1 (Human prostate carcinoma epithelial cell) whole cell lysates

Lane 5 : PIEC (PIG iliac artery endothelial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

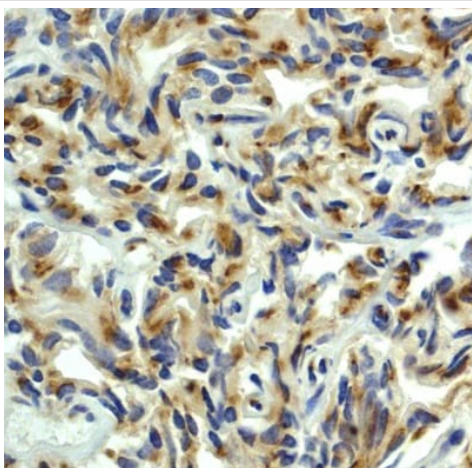
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 63 kDa

Observed band size: 52-65 kDa

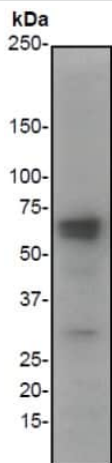
The molecular weight observed is consistent with what has been described in PMID: 30171166



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDPK1 antibody [EP569Y] (ab52893)

Ab52893 (1:100) staining human PDPK1 in human prostate carcinoma tissue by immunohistochemistry using paraffin embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-PDPK1 antibody [EP569Y] (ab52893) at 1/1000 dilution + 293 cell lysate

Predicted band size: 63 kDa

Observed band size: 63 kDa

Western blot - Anti-PDPK1 antibody [EP569Y] (ab52893)

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-PDPK1 antibody [EP569Y] (ab52893)

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

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