

## Product datasheet

### Anti-PDPK1 antibody [5/PDK1] ab280085

Recombinant

[3 Images](#)

#### Overview

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<b>Product name</b>	Anti-PDPK1 antibody [5/PDK1]
<b>Description</b>	Mouse monoclonal [5/PDK1] to PDPK1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: K-562, 22Rv1, F9, C6, RAW264.7, PC-12 and NIH/3T3 whole cell lysate.
<b>General notes</b>	<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>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p>

#### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	5/PDK1
<b>Isotype</b>	IgG1

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab280085 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. Predicted molecular weight: 63 kDa.

### Application notes

Is unsuitable for ICC/IF.

## 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.

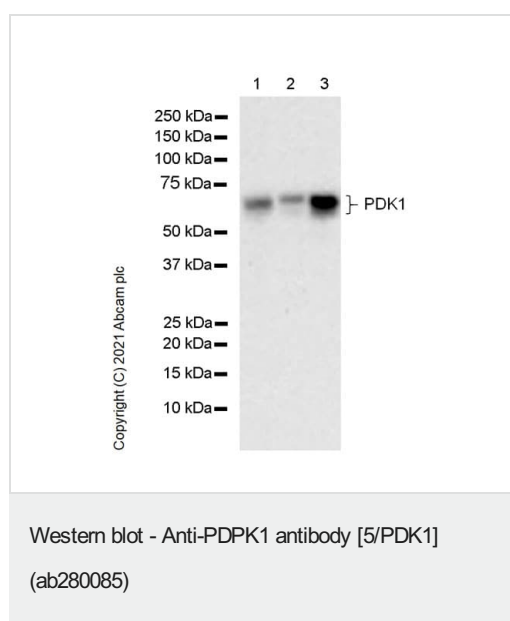
### Post-translational modifications

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



**All lanes** : Anti-PDPK1 antibody [5/PDK1] (ab280085) at 1/1000 dilution

**Lane 1** : K-562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate

**Lane 2** : 22Rv1 (human prostate carcinoma epithelial cell), whole cell lysate

**Lane 3** : F9 (mouse embryonal carcinoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

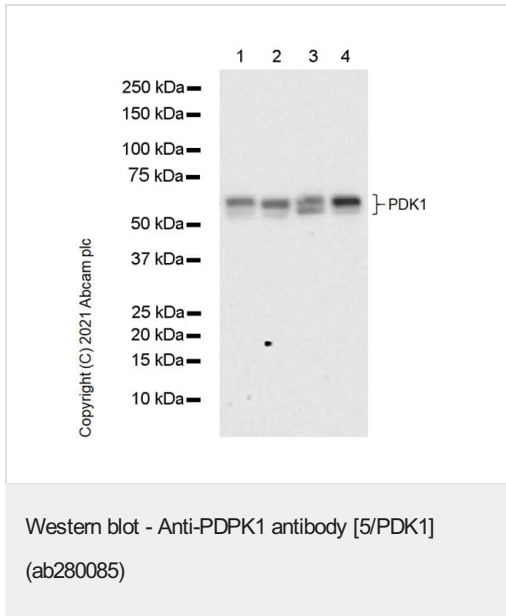
**Predicted band size:** 63 kDa

**Observed band size:** 52-65 kDa

Blocking and diluting buffer: 5% NFDm/TBST

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:30171166).

Exposure time: 3 minutes



**All lanes :** Anti-PDPK1 antibody [5/PDK1] (ab280085) at 1/1000 dilution

**Lane 1 :** C6 (rat glial tumor glial cell), whole cell lysate

**Lane 2 :** RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate

**Lane 3 :** PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate

**Lane 4 :** NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

Lysates/proteins at 20 µg per lane.

#### **Secondary**

**All lanes :** Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

**Predicted band size:** 63 kDa

**Observed band size:** 52-65 kDa

Blocking and diluting buffer: 5% NFDm/TBST

Exposure time: 3 minutes

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 [5/PDK1] (ab280085)

**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

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- 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.

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