

Product datasheet

Human PRKCD (PKC delta) knockout HEK-293T cell lysate ab257042

3 Images

Overview

Product name	Human PRKCD (PKC delta) knockout HEK-293T cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HEK293T
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 1 bp insertion in exon2 and 2 bp deletion in exon2.
Passage number	<20
Knockout validation	Sanger Sequencing
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT. <i>*Usage of SDS sample buffer is not recommended with these lyophilized lysates.</i>

Notes

Lysate preparation: Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found [here](#). Please refer to our lysis protocol for further details on how our lysates are prepared.

User storage instructions: Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage.

Access thousands of knockout cell lysates, generated from commonly used cancer cell lines.

[See here for more information on knockout cell lysates.](#)

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Tested applications **Suitable for:** WB

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
ab262820 - Human PRKCD knockout HEK293T cell lysate	1 x 100µg
ab255553 - Human wild-type HEK293T cell lysate	1 x 100µg

Cell type epithelial

STR Analysis Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01: 7, 9.3 TPOX: 11 CSF1PO: 11, 12

Target

Function This is calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters. May play a role in antigen-dependent control of B-cell function. Phosphorylates MUC1 in the C-terminal and regulates the interaction between MUC1 and beta-catenin.

Sequence similarities Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 C2 domain. Contains 2 phorbol-ester/DAG-type zinc fingers. Contains 1 protein kinase domain.

Domain The C1 domain, containing the phorbol ester/DAG-type region 1 (C1A) and 2 (C1B), is the diacylglycerol sensor. The C2 domain is a non-calcium binding domain. It binds proteins containing phosphotyrosine in a sequence-specific manner.

Post-translational modifications Phosphorylated on Thr-507, within the activation loop. Autophosphorylated and/or phosphorylated. Although the Thr-507 phosphorylation occurs it is not a prerequisite for enzymatic activity.

Cellular localization Cytoplasm. Membrane.

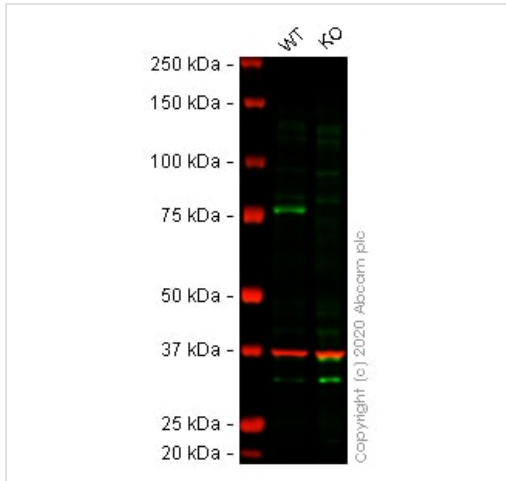
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab257042 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		Use at an assay dependent concentration. Predicted molecular weight: 78 kDa.

Images



Western blot - Human PRKCD (PKC delta) knockout HEK293T cell lysate (ab257042)

Lane 1: Wild-type HEK-293T cell lysate 20 ug

Lane 2: PRKCD knockout HEK-293T cell lysate 20 ug

Lanes 1 - 2: Merged signal (red and green). Green - **ab182126** observed at 78 kDa. Red - loading control, **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa. **ab182126** was shown to react with PKC in wild-type HeLa cells in western blot. The bands observed in PRKCD knockout cell line **ab266143** (PRKCD knockout cell lysate ab257042) below 78kDa may represent truncated forms and cleaved fragments. This has not been investigated further. Wild-type HeLa and PRKCD knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with **ab182126** and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

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Mut  ACAGAAGGGCTGGTTCGCCCTCGTCCCTCGGCC--CAGGGAGCCCAGCTCATAGGAGTTGAA
      |||
WT   ACAGAAGGGCTGGTTCGCCCTCGTCCCTCGGCCGCAGGGAGCCCAGCTCATAGGAGTTGAA
  
```

Sanger Sequencing - Human PRKCD knockout HEK293T cell lysate (ab257042)

Allele-1: 2 bp deletion in exon2

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Mut  ACAGAAGGGCTGGTTCGCCCTCGTCCCTCGGCCGCAGGGAGCCCAGCTCATAGGAGTTGA
      |||
WT   ACAGAAGGGCTGGTTCGCCCTCGTCCCTCGGCC  TGCAGGGAGCCCAGCTCATAGGAGTTGA
  
```

Sanger Sequencing - Human PRKCD knockout HEK293T cell lysate (ab257042)

Allele-2: 1 bp insertion in exon2

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