abcam

Product datasheet

Anti-PKD2 antibody [EP1495Y] ab51250

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-PKD2 antibody [EP1495Y]
Description	Rabbit monoclonal [EP1495Y] to PKD2
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa whole cell lysate (**ab150035**) or human breast carcinoma tissue. IF/ICC: HeLa cell line
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1495Y

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51250 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	★★★★★ **(10)**	1/500. Detects a band of approximately 105 kDa (predicted molecular weight: 97 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★★ **(2)**	1/100 - 1/250.

Application notes Is unsuitable for IP.

Target

Function Converts transient diacylglycerol (DAG) signals into prolonged physiological effects, downstream of PKC. Involved in resistance to oxidative stress.

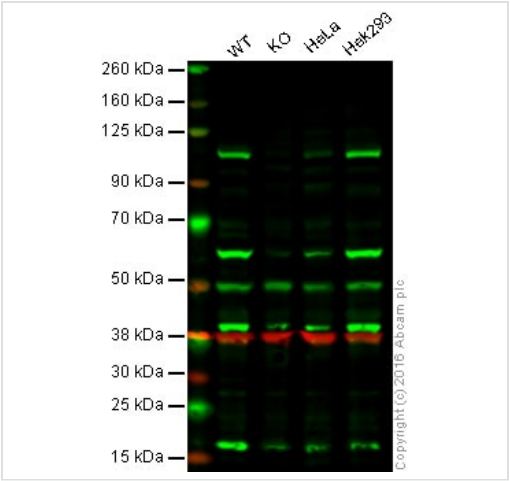
Tissue specificity Widely expressed.

Sequence similarities Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. PKD subfamily.
Contains 1 PH domain.
Contains 2 phorbol-ester/DAG-type zinc fingers.
Contains 1 protein kinase domain.

Post-translational modifications Phosphorylation of Ser-876 correlates with the activation status of the kinase.
Ser-706 is probably phosphorylated by PKC.

Cellular localization Cytoplasm. Membrane. Translocation to the cell membrane is required for kinase activation.

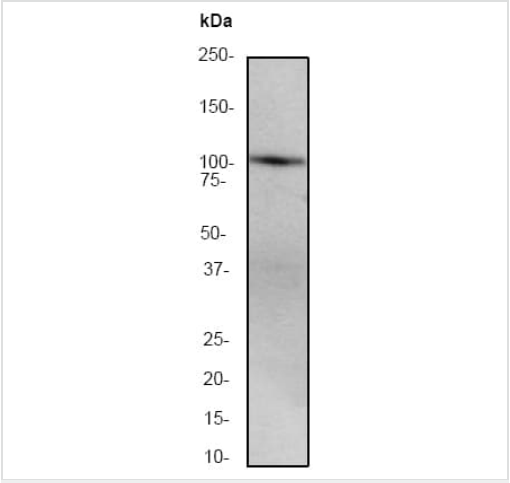
Images



Western blot - Anti-PKD2 antibody [EP1495Y] (ab51250)

Lane 1: Wild-type HAP1 cell lysate (40 µg)
Lane 2: PKD2 knockout HAP1 cell lysate (40 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HEK293 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab51250 observed at 110 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab51250 was shown to recognize PKD2 when PKD2 knockout samples were used, along with additional cross-reactive bands. Wild-type and PKD2 knockout samples were subjected to SDS-PAGE. Ab51250 and **ab8245** (loading control to GAPDH) were diluted at 1/500 and 1:10,000 dilution respectively and incubated overnight at 4C. 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 1:10,000 dilution for 1 hour at room temperature before imaging.

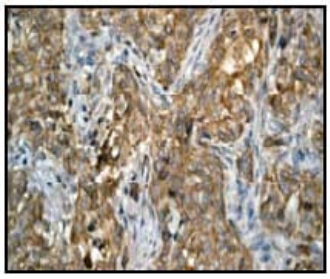


Western blot - Anti-PKD2 antibody [EP1495Y] (ab51250)

Anti-PKD2 antibody [EP1495Y] (ab51250) at 1/500 dilution + HeLa cell lysate at 10 µg

Secondary
Goat anti-rabbit HRP labeled at 1/2000 dilution

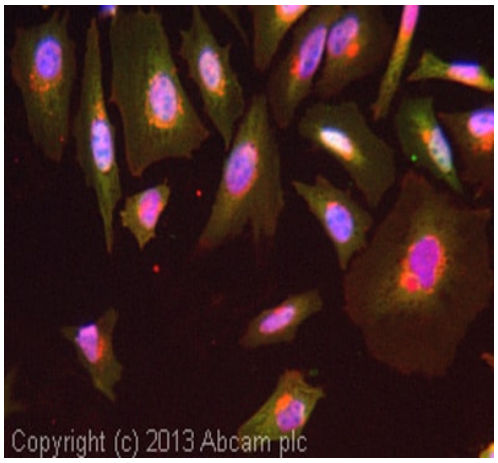
Predicted band size: 97 kDa
Observed band size: 105 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKD2 antibody [EP1495Y] (ab51250)

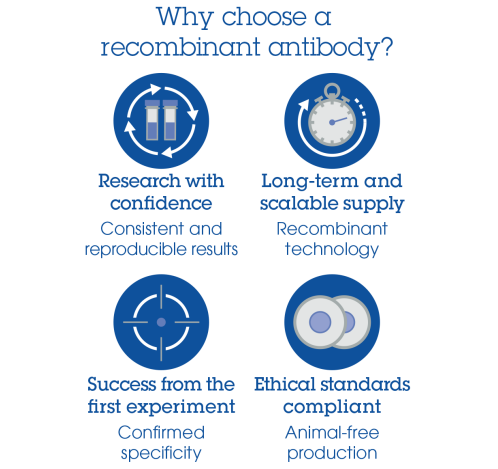
Ab51250 (1:100) staining human PKD2 in human breast carcinoma tissue by immunohistochemistry using paraffin embedded tissue.

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



Immunocytochemistry/ Immunofluorescence - Anti-PKD2 antibody [EP1495Y] (ab51250)

ICC/IF image of ab51250 stained HeLa cells. The cells were 4% Formaldehyde fixed (10 mins) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab51250, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Anti-PKD2 antibody [EP1495Y] (ab51250)

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