

Datasheet for ABIN6264428
anti-PKD2 antibody (N-Term)[Go to Product page](#)

2 Images

Overview

Quantity:	100 µL
Target:	PKD2
Binding Specificity:	N-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PKD2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human PRKD2, corresponding to a region within N-terminal amino acids.
Isotype:	IgG
Specificity:	PRKD2 Antibody detects endogenous levels of total PRKD2.
Predicted Reactivity:	Pig,Bovine,Dog
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	PKD2
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Target Details

Alternative Name: PRKD2 ([PKD2 Products](#))

Background: Description: Serine/threonine-protein kinase that converts transient diacylglycerol (DAG) signals into prolonged physiological effects downstream of PKC, and is involved in the regulation of cell proliferation via MAPK1/3 (ERK1/2) signaling, oxidative stress-induced NF-kappa-B activation, inhibition of HDAC7 transcriptional repression, signaling downstream of T-cell antigen receptor (TCR) and cytokine production, and plays a role in Golgi membrane trafficking, angiogenesis, secretory granule release and cell adhesion (PubMed:15604256, PubMed:14743217, PubMed:17077180, PubMed:16928771, PubMed:17962809, PubMed:17951978, PubMed:18262756, PubMed:19192391, PubMed:19001381, PubMed:23503467, PubMed:28428613). May potentiate mitogenesis induced by the neuropeptide bombesin by mediating an increase in the duration of MAPK1/3 (ERK1/2) signaling, which leads to accumulation of immediate-early gene products including FOS that stimulate cell cycle progression (By similarity). In response to oxidative stress, is phosphorylated at Tyr-438 and Tyr-717 by ABL1, which leads to the activation of PRKD2 without increasing its catalytic activity, and mediates activation of NF-kappa-B (PubMed:15604256, PubMed:28428613). In response to the activation of the gastrin receptor CCKBR, is phosphorylated at Ser-244 by CSNK1D and CSNK1E, translocates to the nucleus, phosphorylates HDAC7, leading to nuclear export of HDAC7 and inhibition of HDAC7 transcriptional repression of NR4A1/NUR77 (PubMed:17962809). Upon TCR stimulation, is activated independently of ZAP70, translocates from the cytoplasm to the nucleus and is required for interleukin-2 (IL2) promoter up-regulation (PubMed:17077180). During adaptive immune responses, is required in peripheral T-lymphocytes for the production of the effector cytokines IL2 and IFNG after TCR engagement and for optimal induction of antibody responses to antigens (By similarity). In epithelial cells stimulated with lysophosphatidic acid (LPA), is activated through a PKC-dependent pathway and mediates LPA-stimulated interleukin-8 (IL8) secretion via a NF-kappa-B-dependent pathway (PubMed:16928771). During TCR-induced T-cell activation, interacts with and is activated by the tyrosine kinase LCK, which results in the activation of the NFAT transcription factors (PubMed:19192391). In the trans-Golgi network (TGN), regulates the fission of transport vesicles that are on their way to the plasma membrane and in polarized cells is involved in the transport of proteins from the TGN to the basolateral membrane (PubMed:14743217). Plays an important role in endothelial cell proliferation and migration prior to angiogenesis, partly through modulation of the expression of KDR/VEGFR2 and FGFR1, two key growth factor receptors involved in angiogenesis (PubMed:19001381). In secretory pathway, is required for the release of chromogranin-A (CHGA)-containing secretory granules from the TGN (PubMed:18262756). Downstream of PRKCA, plays important roles in angiotensin-2-induced

Target Details

monocyte adhesion to endothelial cells (PubMed:17951978). Plays a regulatory role in angiogenesis and tumor growth by phosphorylating a downstream mediator CIB1 isoform 2, resulting in vascular endothelial growth factor A (VEGFA) secretion (PubMed:23503467).
Gene: PRKD2

Molecular Weight: 105 kDa

Gene ID: 25865

UniProt: [Q9BZL6](#)

Pathways: [cAMP Metabolic Process](#), [Maintenance of Protein Location](#), [Negative Regulation of Transporter Activity](#)

Application Details

Application Notes: WB 1:1000-3000, IF/ICC 1:100-1:500, IHC 1:50-1:200, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

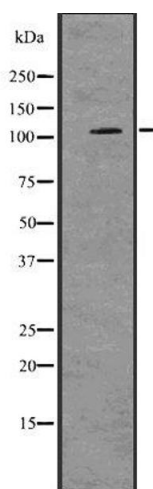
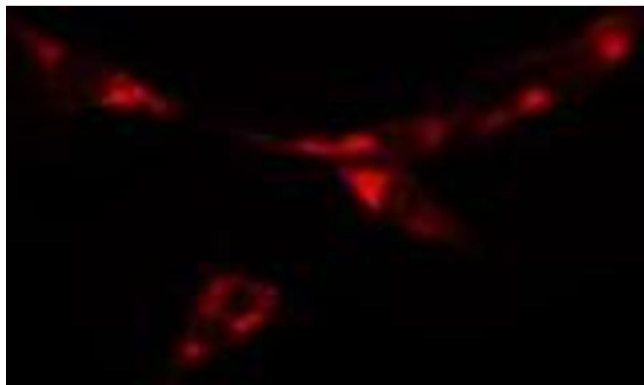
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store at -20 °C. Stable for 12 months from date of receipt.

Expiry Date: 12 months



Immunofluorescence (fixed cells)

Image 1. ABIN6277886 staining NIH-3T3 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody (Cat.# S0006), diluted at 1/600, was used as secondary antibody.

Western Blotting

Image 2. Western blot analysis of PRKD2 using LOVO whole lysates.