

Rabbit anti-Human, Mouse PRKD2 Polyclonal Antibody | anti-PRKD2 antibody

PRKD2 Antibody

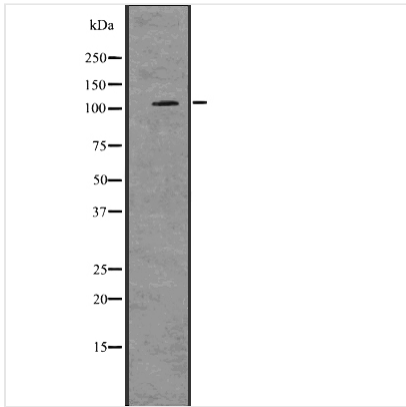
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327287	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

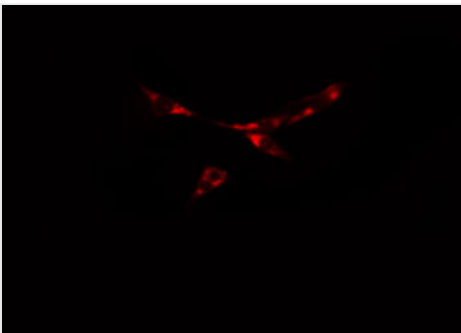
PRKD2; Polyclonal Antibody; PRKD2 Antibody; DKFZp586E0820; HSPC187; KPCD2_HUMAN; nPKC D2; nPKC-D2; PKD2; PRKD 2; Prkd2; Protein kinase D2; Serine/threonine protein kinase D2; Serine/threonine-protein kinase D2; anti-PRKD2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	PRKD2 antibody detects endogenous levels of total PRKD2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	878
Applicable Applications for anti-PRKD2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PRKD2
Subcellular Location	Cytoplasm. Membrane. Translocation to the cell membrane is required for kinase activation.
Tissue Specificity	Widely expressed.
Predicted Cross Reactivity	Pig, Bovine, Dog
Similarity	Pig (83%), Bovine (92%), Dog (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of PRKD2 using LOVO whole lysates.



IF (Immunofluorescence)
AAA327287 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 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PRKD2 antibody	Function: 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 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). Subunit Structure: Interacts (via C-terminus) with LCK (PubMed:19192391). Interacts (via N-terminal AP-rich region) with CIB1 isoform 2 (PubMed:23503467). Interacts (via N-terminus and zing-finger domain 1 and 2) with PRKCD in response to oxidative stress; the interaction is independent of PRKD2 tyrosine phosphorylation (PubMed:28428613). Post-translational Modifications: Phosphorylation of Ser-876 correlates with the activation status of the kinase (PubMed:11062248). Ser-706 or/and Ser-710 are probably phosphorylated by PKC (PubMed:12058027, PubMed:28428613). Phosphorylation at Ser-244 by CSNK1D and CSNK1E promotes nuclear localization and substrate targeting (PubMed:17962809). Phosphorylation at Ser-244, Ser-706 and Ser-710 is required for nuclear localization (PubMed:17962809). Phosphorylated at Tyr-438 by ABL1 in response to oxidative stress (PubMed:15604256). Phosphorylated at Tyr-717 by ABL1 specifically in response to oxidative stress; requires prior phosphorylation at Ser-706 or/and Ser-710 (PubMed:28428613). Similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. PKD subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	120659782
NCBI GeneID	25865
NCBI Accession #	NP_001073349.1
NCBI GenBank Nucleotide #	NM_001079880.1
UniProt Accession #	Q9BZL6; Q8NCK8; Q8TB08; Q9P0T6; Q9Y3X8; B4DTS2; M0QZW1; M0R2R2
Molecular Weight	Observed: 105 kDa Predicted: 97 kDa
NCBI Official Full Name	serine/threonine-protein kinase D2 isoform A
NCBI Official Synonym Full Names	protein kinase D2

NCBI Official Symbol	PRKD2
NCBI Official Synonym Symbols	PKD2; HSPC187; nPKC-D2
NCBI Protein Information	serine/threonine-protein kinase D2
UniProt Protein Name	Serine/threonine-protein kinase D2
UniProt Gene Name	PRKD2
UniProt Synonym Gene Names	PKD2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/prkd2-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/327287>