

Immunotag™ PKD1/2/3 Antibody

Antibody Specification	
Catalog No.	ITA8609
Product Description	Immunotag™ PKD1/2/3 Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PKD1/2/3
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	WB 1:1000-3000
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	A synthesized peptide derived from human PKD1/2/3
Specificity	PKD1/2/3 Antibody detects endogenous levels of total PKD1/2/3
Purification	The antiserum was purified by peptide affinity chromatography.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	PRKD2
Accession No.	Q9BZL6/Q15139/O94806

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Alternate Names	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; KPCD1_HUMAN; nPKC D1; nPKC mu; nPKC-D1; nPKC-mu; nPKCD1; nPKCmu; PKC; PKC MU; PKCM; PKCmu; PKD 1; PKD; PKD1; PRKCM; PRKD 1; Prkd1; Protein kinase C mu; Protein kinase C mu type; Protein kinase D; Protein kinase D1; Serine/threonine protein kinase D1; Serine/threonine-protein kinase D1; EPK 2; EPK2; KPCD3_HUMAN; nPKC nu; nPKC-nu; nPKCnu; nu; PKCnu; PKD 3; PKD3; PRK D3; PRKCN; PRKD 3; Prkd3; Protein kinase C; Protein kinase C nu; Protein kinase C nu type; Protein kinase D3; Protein kinase EPK 2; Protein kinase EPK2; Serine threonine protein kinase; Serine/threonine protein kinase D3; Serine/threonine-protein kinase D3;
Description	<p>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).</p>

Antibody Specification

Cell Pathway/ Category	Primary Polyclonal Antibody
Protein MW	100 kDa
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.