PKRD1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PKRD1, Polyclonal Antibody
Full Product Name	PKRD1 (Serine/threonine-protein kinase D1, Protein kinase C mu type, Protein kinase D, nPKC-D1, nPKC-mu, PKD, PKD1, PRKCM, EC: 2.7.11.13)
Product Gene Name	anti-PKRD1 antibody
Product Synonym Gene Name	PRKD1
Product Synonym Names	Serine/threonine-protein kinase D1; Protein kinase C mu type; Protein kinase D; nPKC-D1; nPKC-mu; PKD; PKD1; PRKCM; EC: 2.7.11.13
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein G Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	101,704 Da
Chromosome Location	Chromosome: 14; NC_000014.8 (30045685..30396899, complement). Location: 14q11
OMIM	605435
3D Structure	ModBase 3D Structure for Q15139
Immunogen	PKC mu antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 367~397 amino acids from the N-terminal region of human PKC mu.
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-PKRD1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PKRD1 antibody	Immunohistochemistry (IHC), FLISA, Western Blot (WB)
Application Notes for anti-PKRD1 antibody	IHC: 1:50-100 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.

Related Product Information for anti-PKRD1 antibody	Protein kinase C (PKC) is a family of serine-and threonine-specific protein kinases that can be activated by calcium and second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play distinct roles in cells. PKC mu is one of the PKC family members. The protein is a cytosolic serine-threonine kinase that binds to the trans-Golgi network and regulates the fission of transport carriers specifically destined to the cell surface.
Product References and Citations for anti-PKRD1 antibody	Rao, P.S., et al., Biochem. Biophys. Res. Commun. 310(3):1032-1038 (2003). Jaggi, M., et al., Biochem. Biophys. Res. Commun. 307(2):254-260 (2003). Irie, A., et al., Eur. J. Immunol. 33(6):1497-1507 (2003). Storz, P., et al., J. Biol. Chem. 278(20):17969-17976 (2003). Hurd, C., et al., Biochem. Biophys. Res. Commun. 302(4):800-804 (2003).
Other Notes	Small volumes of anti-PKRD1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PKRD1 purchase	MBS6334341 is an antibody targeting PKRD1. Also known as PKRD1 (Serine/threonine-protein kinase D1, Protein kinase C mu type, Protein kinase D, nPKC-D1, nPKC-mu, PKD, PKD1, PRKCM, EC: 2.7.11.13). Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PKRD1. It may not necessarily be applicable to this product.

NCBI GI #	115529463
NCBI GeneID	5587
NCBI Accession #	NP_002733.2
UniProt Primary Accession #	Q15139
UniProt Secondary Accession #	A6NL64; B2RAF6
UniProt Related Accession #	Q15139
GenBank Nucleotide #	NM_002742.2
NCBI Official Full Name	serine/threonine-protein kinase D1
NCBI Official Synonym Full Names	protein kinase D1
NCBI Official Symbol	PRKD1
NCBI Official Synonym Symbols	PKD; PKCM; PRKCM; PKC-MU
UniProt Protein Name	Serine/threonine-protein kinase D1
UniProt Synonym Protein Names	Protein kinase C mu type; Protein kinase D; nPKC-D1; nPKC-mu
UniProt Gene Name	PRKD1
UniProt Synonym Gene Names	PKD; PKD1; PRKCM
UniProt Entry Name	KPCD1_HUMAN
NCBI Protein Information	serine/threonine-protein kinase D1; nPKC-D1; nPKC-mu; protein kinase C, mu; protein kinase C mu type
NCBI Summary for PKRD1	PRKD1 is a serine/threonine kinase that regulates a variety of cellular functions, including membrane receptor signaling, transport at the Golgi, protection from oxidative stress at the mitochondria, gene transcription, and regulation of cell shape, motility, and adhesion (summary by Eiseler et al., 2009 [PubMed 19329994]).[supplied by OMIM, Nov 2010]

UniProt Comments for PKRD1	PRKD1: a CAMK kinase of the PKD family. Cleavage by caspase-3 following DNA damage activates it and alters its subcellular localization. Sensitizes cells to apoptosis induced by genotoxic stress. Its cleavage is blocked in cells that over-express the anti-apoptotic Bcl-x(L) protein. Expression of a caspase-resistant mutant partially inhibits DNA damage-induced apoptosis. Its activation by TLR ligands is dependent on MyD88, IRAK4 and -1, but not TRAF6. Essential for MyD88-dependent proinflammatory immune responses. Activated by diacylglycerol and phorbol esters. Binds to the trans-Golgi network and regulates the fission of transport carriers specifically destined to the cell surface. Colocalizes with F-actin at peripheral F-actin-rich structures in membrane ruffles at the edge of lamellipodia in cervical carcinoma cells. Substrates reportedly include critical regulatory proteins including CREB, SSH1L, CTNNB1, HDACs 5 and 7, PKD1, HPK1, MARK2, PIP5K2A, PPP1R14A Protein type: Kinase, protein; Autophagy; Protein kinase, CAMK; Protein kinase, Ser/Thr (non-receptor); Motility/polarity/chemotaxis; EC 2.7.11.13; CAMK group; PKD family Chromosomal Location of Human Ortholog: 14q11 Cellular Component: integral to plasma membrane; cytoplasm; plasma membrane; intercellular junction; trans-Golgi network; cell cortex; nucleus; cytosol Molecular Function: identical protein binding; protein serine/threonine kinase activity; protein binding; protein kinase C activity; metal ion binding; ATP binding Biological Process: integrin-mediated signaling pathway; sphingolipid metabolic process; positive regulation of I-kappaB kinase/NF-kappaB cascade; sphingolipid biosynthetic process; apoptosis; protein amino acid autophosphorylation; negative regulation of endocytosis; positive regulation of blood vessel endothelial cell migration; activation of CREB transcription factor; signal transduction; positive regulation of peptidyl-serine phosphorylation; activation of NF-kappaB transcription factor; Golgi vesicle transport; cell proliferation; positive regulation of osteoblast differentiation; peptidyl-serine phosphorylation; positive regulation of angiogenesis; innate immune response; positive regulation of transcription from RNA polymerase II promoter; positive regulation of endothelial cell proliferation; angiogenesis; vascular endothelial growth factor receptor signaling pathway; inflammatory response; Golgi organization and biogenesis
Research Articles on PKRD1	**1.** Neuregulin mediates F-actin-driven cell migration through inhibition of protein kinase D1 via Rac1 protein
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