

Rabbit PKC delta Polyclonal Antibody | anti-PKCdelta antibody

Phospho-PKC delta (Ser664) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31409	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (82%), Bovine (91%), Horse (91%), Sheep (91%), Dog (91%), Chicken (91%), Xenopus (82%)	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

PKC delta; Polyclonal Antibody; Phospho-PKC delta (Ser664) Antibody; CVID9; D14Ert420e; Kinase PKC delta; KPCD; KPCD_HUMAN; MAY 1; MAY1; MGC49908; nPKC delta; nPKC-delta; PCKd; PKC d; PKCD; PKCdelta; PRKC D; PRKC delta; Prkcd; Protein Kinase C delta; Protein kinase C delta type; Protein kinase C delta VIII; Protein Kinase Cdelta; Tyrosine protein kinase PRKCD; anti-PKCdelta antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (82%), Bovine (91%), Horse (91%), Sheep (91%), Dog (91%), Chicken (91%), Xenopus (82%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-PKC delta (Ser664) Antibody detects endogenous levels of PKC delta only when phosphorylated at Ser664.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PKCdelta antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-3000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human PKC delta around the phosphorylation site of Ser664.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Autophosphorylated and/or phosphorylated at Thr-507, within the activation loop; phosphorylation at Thr-507 is not a prerequisite for enzymatic activity. Autophosphorylated at Ser-299, Ser-302 and Ser-304. Upon TNFSF10/TRAIL treatment, phosphorylated at Tyr-155; phosphorylation is required for its translocation to the endoplasmic reticulum and cleavage by caspase-3. Phosphorylated at Tyr-313, Tyr-334 and Tyr-567; phosphorylation of Tyr-313 and Tyr-567 following thrombin stimulation potentiates its kinase activity. Phosphorylated by protein kinase PDK1; phosphorylation is inhibited by the apoptotic C-terminal cleavage product of PKN2. Proteolytically cleaved into a catalytic subunit and a regulatory subunit by caspase-3 during apoptosis which results in kinase activation.
Subunit Structure	Interacts with PDK1 (via N-terminal region). Interacts with RAD9A. Interacts with CDCP1. Interacts with MUC1. Interacts with VASP. Interacts with CAVIN3 (By similarity). Interacts with PRKD2 (via N-terminus and zing-finger domain 1 and 2) in response to oxidative stress; the interaction is independent of PRKD2 tyrosine phosphorylation.

Similarity	The C1 domain, containing the phorbol ester/DAG-type region 1 (C1A) and 2 (C1B), is the diacylglycerol sensor.The C2 domain is a non-calcium binding domain. It binds proteins containing phosphotyrosine in a sequence-specific manner.Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.
Subcellular Location	Cytoplasm. Cytoplasm>Perinuclear region. Nucleus. Cell membrane>Peripheral membrane protein.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

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) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/200 staining Mouse intestinal tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of PKCD (Phospho-Ser664) using UV treated 293 whole cell lysates.-/+ means absence or presence of N peptide¼ non-phospho peptide) and P peptide(phospho peptide).



IHC (Immunohistochemistry)

At 1/200 staining Human kidney cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/200 staining Rat testis tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from HepG(serum starvation treatment), using Phospho-PKC delta (Ser664) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PKCdelta antibody	Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that plays contrasting roles in cell death and cell survival by functioning as a pro-apoptotic protein during DNA damage-induced apoptosis, but acting as an anti-apoptotic protein during cytokine receptor-initiated cell death, is involved in tumor suppression as well as survival of several cancers, is required for oxygen radical production by NADpHoxidase and acts as positive or negative regulator in platelet functional responses. Negatively regulates B cell proliferation and also has an important function in self-antigen induced B cell tolerance induction. Upon DNA damage, activates the promoter of the death-promoting transcription factor BCLAF1/Btf to trigger BCLAF1-mediated p53/TP53 gene transcription and apoptosis. In response to oxidative stress, interact with and activate CHUK/IKKA in the nucleus, causing the phosphorylation of p53/TP53. In the case of ER stress or DNA damage-induced apoptosis, can form a complex with the tyrosine-protein kinase ABL1 which trigger apoptosis independently of p53/TP53. In cytosol can trigger apoptosis by activating MAPK11 or MAPK14, inhibiting AKT1 and decreasing the level of X-linked inhibitor of apoptosis protein (XIAP), whereas in nucleus induces apoptosis via the activation of MAPK8 or MAPK9. Upon ionizing radiation treatment, is required for the activation of the apoptosis regulators BAX and BAK, which trigger the mitochondrial cell death pathway. Can phosphorylate MCL1 and target it for degradation which is sufficient to trigger for BAX activation and apoptosis. Is required for the control of cell cycle progression both at G1/S and G2/M phases. Mediates phorbol 12-myristate 13-acetate (PMA)-induced inhibition of cell cycle progression at G1/S phase by up-regulating the CDK inhibitor CDKN1A/p21 and inhibiting the cyclin CCNA2 promoter activity. In response to UV irradiation can phosphorylate CDK1, which is important for the G2/M DNA damage checkpoint activation. Can protect glioma cells from the apoptosis induced by TNFSF10/TRAIL, probably by inducing increased phosphorylation and subsequent activation of AKT1. Is highly expressed in a number of cancer cells and promotes cell survival and resistance against chemotherapeutic drugs by inducing cyclin D1 (CCND1) and hyperphosphorylation of RB1, and via several pro-survival pathways, including NF-kappa-B, AKT1 and MAPK1/3 (ERK1/2). Can also act as tumor suppressor upon mitogenic stimulation with PMA or TPA. In N-formyl-methionyl-leucyl-phenylalanine (fMLP)-treated cells, is required for NCF1 (p47-phox) phosphorylation and activation of NADpHoxidase activity, and regulates TNF-elicited superoxide anion production in neutrophils, by direct phosphorylation and activation of NCF1 or indirectly through MAPK1/3 (ERK1/2) signaling pathways. May also play a role in the regulation of NADpHoxidase activity in eosinophil after stimulation with IL5, leukotriene B4 or PMA. In collagen-induced platelet aggregation, acts a negative regulator of filopodia formation and actin polymerization by interacting with and negatively regulating VASP phosphorylation. Downstream of PAR1, PAR4 and CD36/GP4 receptors, regulates differentially platelet dense granule secretion; acts as a positive regulator in PAR-mediated granule secretion, whereas it negatively regulates CD36/GP4-mediated granule release. Phosphorylates MUC1 in the C-terminal and regulates the interaction between MUC1 and beta-catenin. The catalytic subunit phosphorylates 14-3-3 proteins (YWHAB, YWHAZ and YWHAH) in a sphingosine-dependent fashion (By similarity). Phosphorylates ELAVL1 in response to angiotensin-2 treatment.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	31377782
NCBI GeneID	5580
NCBI Accession #	NP_006245.2
NCBI GenBank Nucleotide #	NM_006254.3
UniProt Accession #	Q05655; Q15144; Q86XJ6; B0KZ81; B2R834
Molecular Weight	77,505 Da
NCBI Official Full Name	protein kinase C delta type
NCBI Official Synonym Full Names	protein kinase C, delta
NCBI Official Symbol	PRKCD
NCBI Official Synonym Symbols	MAY1; PKCD; nPKC-delta
NCBI Protein Information	protein kinase C delta type; protein kinase C delta VIII; tyrosine-protein kinase PRKCD
UniProt Protein Name	Protein kinase C delta type
UniProt Gene Name	PRKCD
UniProt Synonym Gene Names	SDK1

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/pkc-delta-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-peptide-elisa-elisa/31409>