

Rabbit PKC zeta Polyclonal Antibody | anti-PRKCZ antibody

Phospho-PKC zeta (Thr410) Antibody

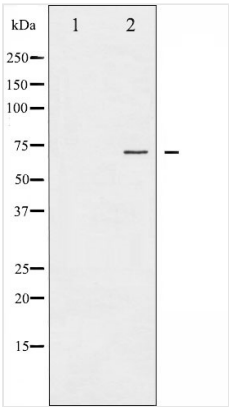
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321697	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PKC zeta; Polyclonal Antibody; Phospho-PKC zeta (Thr410) Antibody; 14-3-3-zeta isoform; AI098070; aPKCzeta; C80388; EC 2.7.11.13; KPCZ_HUMAN; nPKC zeta; nPKC-zeta; OTTHUMP00000001368; OTTHUMP00000044160; PKC 2; PKC ZETA; PKC2; Pkcz; PKCZETA; PKM-zeta; included; PRKCZ; Protein kinase C zeta; Protein kinase C zeta form; Protein kinase C zeta type; r14-3-3; R74924; zetaPKC; anti-PRKCZ antibody

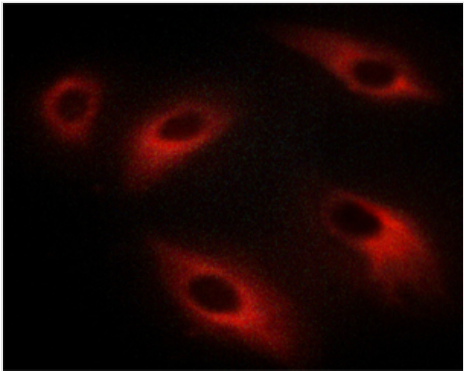
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-PKC zeta (Thr410) antibody detects endogenous levels of PKC zeta only when phosphorylated at Threonine 410
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
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	409
Applicable Applications for anti-PRKCZ antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PKC zeta around the phosphorylation site of Threonine 410
Subcellular Location	Cytoplasm. Endosome. Cell Junction. In the retina, localizes in the terminals of the rod bipolar cells (By similarity). Associates with endosomes. Presence of KRIT1, CDH5 and RAP1B is required for its localization to the cell junction.
Tissue Specificity	Expressed in brain, and to a lesser extent in lung, kidney and testis.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Epitope	Phospho Thr410
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



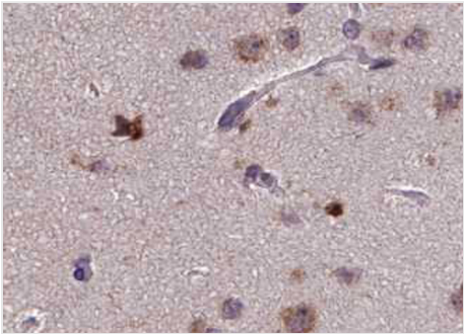
WB (Western Blot)

Western blot analysis of PKC zeta phosphorylation expression in PMA treated NIH-3T3 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



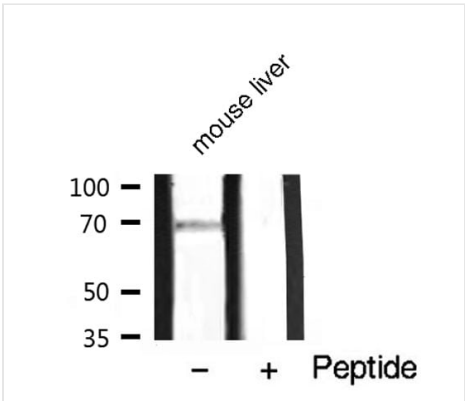
IF (Immunofluorescence)

AAA321697 staining C6 cells treated with lambda phosphatase by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



IHC (Immunohistochemistry)

AAA321697 at 1/100 staining human brain 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.



WB (Western Blot)

Western blot analysis of PKC zeta phosphorylation expression in mouse liver lysates, The lane on the right is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA321697 staining NIH-3T3 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) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PRKCZ antibody	Description: Protein kinase C (PKC) zeta is a member of the PKC family of serine/threonine kinases which are involved in a variety of cellular processes such as proliferation, differentiation and secretion. Function: Calcium-and diacylglycerol-independent serine/threonine-protein kinase that functions in phosphatidylinositol 3-kinase (PI3K) pathway and mitogen-activated protein (MAP) kinase cascade, and is involved in NF-kappa-B activation, mitogenic signaling, cell proliferation, cell polarity, inflammatory response and maintenance of long-term potentiation (LTP). Upon lipopolysaccharide (LPS) treatment in macrophages, or following mitogenic stimuli, functions downstream of PI3K to activate MAP2K1/MEK1-MAPK1/ERK2 signaling cascade independently of RAF1 activation. Required for insulin-dependent activation of AKT3, but may function as an adapter rather than a direct activator. Upon insulin treatment may act as a downstream effector of PI3K and contribute to the activation of translocation of the glucose transporter SLC2A4/GLUT4 and subsequent glucose transport in adipocytes. In EGF-induced cells, binds and activates MAP2K5/MEK5-MAPK7/ERK5 independently of its kinase activity and can activate JUN promoter through MEF2C. Through binding with SQSTM1/p62, functions in interleukin-1 signaling and activation of NF-kappa-B with the specific adapters RIPK1 and TRAF6. Participates in TNF-dependent transactivation of NF-kappa-B by phosphorylating and activating IKBKB kinase, which in turn leads to the degradation of NF-kappa-B inhibitors. In migrating astrocytes, forms a cytoplasmic complex with PARD6A and is recruited by CDC42 to function in the establishment of cell polarity along with the microtubule motor and dynein. In association with FEZ1, stimulates neuronal differentiation in PC12 cells. In the inflammatory response, is required for the T-helper 2 (Th2) differentiation process, including interleukin production, efficient activation of JAK1 and the subsequent phosphorylation and nuclear translocation of STAT6. May be involved in development of allergic airway inflammation (asthma), a process dependent on Th2 immune response. In the NF-kappa-B-mediated inflammatory response, can relieve SETD6-dependent repression of NF-kappa-B target genes by phosphorylating the RELA subunit at 'Ser-311'. Necessary and sufficient for LTP maintenance in hippocampal CA1 pyramidal cells. In vein endothelial cells treated with the oxidant peroxynitrite, phosphorylates STK11 leading to nuclear export of STK11, subsequent inhibition of PI3K/Akt signaling, and increased apoptosis. Phosphorylates VAMP2 in vitro (PubMed:17313651). Subunit Structure: Forms a ternary complex with SQSTM1 and KCNAB2. Forms another ternary complex with SQSTM1 and GABRR3. Forms a complex with SQSTM1 and MAP2K5 (By similarity). Interacts with PARD6A, PARD6B, PARD6G and SQSTM1. Part of a complex with PARD3, PARD6A or PARD6B or PARD6G and CDC42 or RAC1. Interacts with ADAP1/CENTA1. Forms a ternary complex composed of SQSTM1 and PAWR. Interacts directly with SQSTM1 (Probable). Interacts with IKBKB. Interacts (via the protein kinase domain) with WWC1. Forms a tripartite complex with WWC1 and DDR1, but predominantly in the absence of collagen. Component of the Par polarity complex, composed of at least phosphorylated PRKCZ, PARD3 and TIAM1. Interacts with PDPK1 (via N-terminal region). Interacts with WDFY2 (via WD repeats 1-3) (PubMed:16792529). Interacts with VAMP2 (PubMed:17313651). Forms a complex with WDFY2 and VAMP2 (PubMed:17313651). Post-translational Modifications: CDH5 is required for its phosphorylation at Thr-410. Phosphorylated by protein kinase PDPK1; phosphorylation is inhibited by the apoptotic C-terminal cleavage product of PKN2. Phosphorylation at Thr-410 by PI3K activates the kinase. Similarity: The PB1 domain mediate mutually exclusive interactions with SQSTM1 and PARD6B. The C1 domain does not bind the diacylglycerol (DAG). Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	75709226
NCBI GeneID	5590
NCBI Accession #	NP_001028753.1
NCBI GenBank Nucleotide #	NM_001033581.2
UniProt Accession #	Q05513; Q15207; Q5SYT5; Q969S4; A8K4N0; A8MU64; B7Z2J7; E9PCW2
Molecular Weight	Observed: 70 kDa Predicted: 68 kDa
NCBI Official Full Name	protein kinase C zeta type isoform 2
NCBI Official Synonym Full Names	protein kinase C zeta
NCBI Official Symbol	PRKCZ
NCBI Official Synonym Symbols	PKC2; PKC-ZETA

NCBI Protein Information	protein kinase C zeta type
UniProt Protein Name	Protein kinase C zeta type
UniProt Gene Name	PRKCZ
UniProt Synonym Gene Names	PKC2

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-zeta-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321697>