PKC Alpha (PRKCA) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PKC Alpha (PRKCA), Polyclonal Antibody
Full Product Name	Rabbit Anti-Protein Kinase C alpha [664-672] Serum
Product Gene Name	anti-PRKCA antibody
Product Synonym Names	PKC [664-672]; Protein Kinase C a (Human. Rat)
Clonality	Polyclonal
Host	Rabbit
Form/Format	Antiserum Specificity
Specificity	**Polypeptide** ::: **% Cross Reactivity** Protein Kinase alpha [664-672] ::: 100
Molecular Weight	76,750 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (64298926..64806862). Location: 17q22-q23.2
OMIM	176960
3D Structure	ModBase 3D Structure for P17252
Product Categories/Family for anti-PRKCA antibody	Histochemical Grade Antibodies
Applications Tested/Suitable for anti-PRKCA antibody	Western Blot
Application Notes for anti-PRKCA antibody	**Western Blot Protocol:** 1. After SDS-PAGE (on either 4-15% gradient gels or single percentage gels. such at 12% gels) and electrophoretic transfer to PVDF membrane. block the membrane overnight with 2% normal goat serum in TBS/Tween-20 buffer. 2. Wash x 2 with TBS/Tween-20. 3. Apply the rabbit polyclonal antibody after dilution to at least 1:400 (Note: higher dilutions may be needed). Use 2% normal goat serum in TBS/Tween-20 as buffer for the primary antibody. Let the primary antibody bind for 2-4 hours. 4. Wash x 3 with TBS/Tween-20. 5. Apply affinity purified HRP-goat anti-rabbit IgG antiserum diluted 1:2500 (dilution may vary depending upon supplier) in 2% normal goat serum in TBS/Tween-20. Incubate 1-2 hours. Note: greater sensitivity may be achieved using ABC techniques. 6. Wash x 4 for 5 minute/wash with TBS/Tween-20. 7. Develop color using the enhanced DAB reaction.
Related Product Information for anti-PRKCA antibody	The antiserum was raised in a rabbit which was immunized with synthetic Protein Kinase C? [664-672] covalently attached onto a carrier protein. Rehydrate the lyophilized antiserum with 0.1 ml of 10 mg/ml BSA is PBS for the equivalent of whole antiserum. or with additional buffer for more dilute antiserum. This antiserum has been found to stain specifically PKC? in western immunoblots of whole rat brain homogenates and to stain specifically intracellular regions of fixed cultured cells by indirect immunofluorescence. The antiserum was tested for recognition of other Protein Kinase C isozymes by ELISA techniques.
Other Notes	Small volumes of anti-PRKCA 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 PRKCA purchase	MBS352209 is an antibody targeting PRKCA. Also known as Rabbit Anti-Protein Kinase C alpha [664-672] Serum. Host: Rabbit.

ADDITIONAL DETAILS

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

NCBI GI #	125549
NCBI GeneID	5578
NCBI Accession #	P17252.3
UniProt Primary Accession #	P17252
UniProt Secondary Accession #	Q15137; Q32M72; Q96RE4
UniProt Related Accession #	P17252; Q2TSD3; Q59FI5; Q7Z727
GenBank Nucleotide #	P17252
NCBI Official Full Name	Protein kinase C alpha type
NCBI Official Synonym Full Names	protein kinase C, alpha
NCBI Official Symbol	PRKCA
NCBI Official Synonym Symbols	AAG6; PKCA; PRKACA; MGC129900; MGC129901; PKC-alpha
UniProt Protein Name	Protein kinase C alpha type
Protein Family	Protein kinase
UniProt Gene Name	PRKCA
UniProt Synonym Gene Names	PKCA; PRKACA
UniProt Entry Name	KPCA_HUMAN
NCBI Protein Information	protein kinase C alpha type; PKC-A; aging-associated gene 6
NCBI Summary for PRKCA	Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the 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 family members 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 a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This kinase has been reported to play roles in many different cellular processes, such as cell adhesion, cell transformation, cell cycle checkpoint, and cell volume control. Knockout studies in mice suggest that this kinase may be a fundamental regulator of cardiac contractility and Ca(2+) handling in myocytes. [provided by RefSeq]

UniProt Comments for PRKCA	Function: This is a calcium-activated, phospholipid-dependent, serine- and threonine-specific enzyme. May play a role in cell motility by phosphorylating CSPG4. Ref.9PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters. Ref.9 Catalytic activity: ATP + a protein = ADP + a phosphoprotein. Cofactor: Binds 3 calcium ions per subunit. The ions are bound to the C2 domain Subunit structure: Recruited in a circadian manner into a nuclear complex which also includes BMAL1 and GNB2L1/RACK1 By similarity. Interacts with ADAP1/CENTA1, CSPG4 and PRKCABP. Binds to SDPR in the presence of phosphatidylserine. Interacts with PICK1 (via PDZ domain). Interacts with TRIM41. Ref.7 Ref.8 Ref.9 Ref.13 Subcellular location: Cytoplasm By similarity. Cell membrane; Peripheral membrane protein By similarity. Nucleus Sequence similarities: Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.Contains 1 AGC-kinase C-terminal domain.Contains 1 C2 domain.Contains 2 phorbol-ester/DAG-type zinc fingers.Contains 1 protein kinase domain.
Research Articles on PRKCA	**1.** PKCalpha is the major contributory factor in melanoma vasculogenic mimicry.
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