



PKC (phospho Thr497) Polyclonal Antibody

Catalog No	YP-Ab-14340
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	PRKCA/PRKCB/PRKCD/PRKCE/PRKCG/PRKCH/PRKCQ/PRKCZ
Immunogen	The antiserum was produced against synthesized peptide derived from human PKC-pan around the phosphorylation site of Thr497. AA range:623-672
Specificity	Phospho-PKC (T497) Polyclonal Antibody detects endogenous levels of PKC protein only when phosphorylated at T497.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PRKCA;AAG6;EC:2.7.11.13;PKC A;PKCA;PKC;PRKCA/PRKCB/PRKCD/PRKCE/PRKCG/PRKCH/PRKCQ/PRKCZ;Protein kinase C alpha type/Protein kinase C beta type/Protein kinase C delta type/Protein kinase C epsilon type/Protein kinase C gamma type/Protein kinase C eta type/Protein kinase C theta type/Prote;PRKACA;Protein kinase C alpha type;PKC-A;PKC-alpha;PRKCB;PKCB;PRKCB1;Protein kinase C beta type;PKC-B;PKC-beta;PRKCD;Protein kinase C delta type;Tyrosine-protein kinase PRKCD;nPKC-delta;PRKCE;PKCE;Protein kinase
Observed Band	83kD
Calculated Molecular Weight	83kD
Cell Pathway	Cytoplasm . Cell membrane ; Peripheral membrane protein . Mitochondrion membrane ; Peripheral membrane protein . Nucleus .
Tissue Specificity	Blood,Brain,Epithelium,Lung,Platelet,



Function

catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Binds 3 calcium ions per subunit. The ions are bound to the C2 domain.,function:PKC 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.,function:This is a calcium-activated, phospholipid-dependent, serine- and threonine-specific enzyme. May play a role in cell motility by phosphorylating CSPG4.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 C2 domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 phorbol-ester/DAG-type zinc fingers.,subunit:Interacts with ADAP1/CENTA1, CSPG4 and PRKCABP. Binds to SDPR

Background

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, Jul 2

matters needing attention

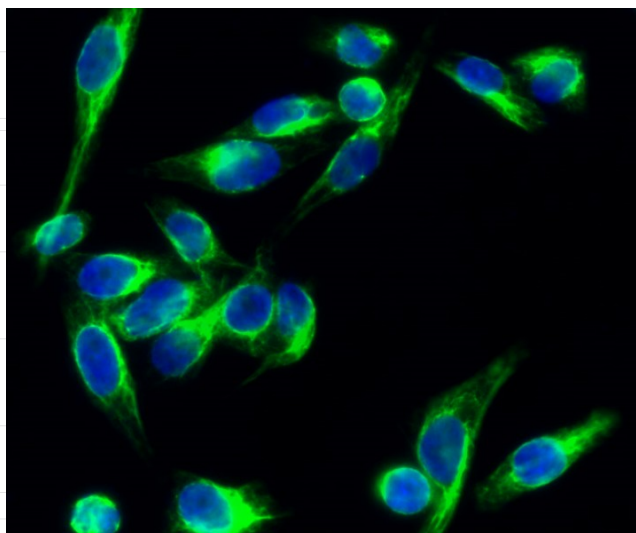
Avoid repeated freezing and thawing!

Usage suggestions

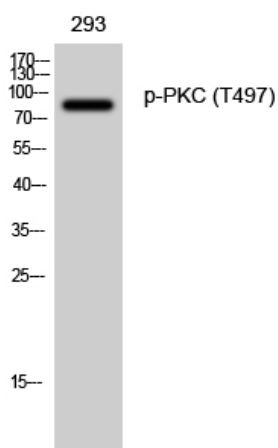
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



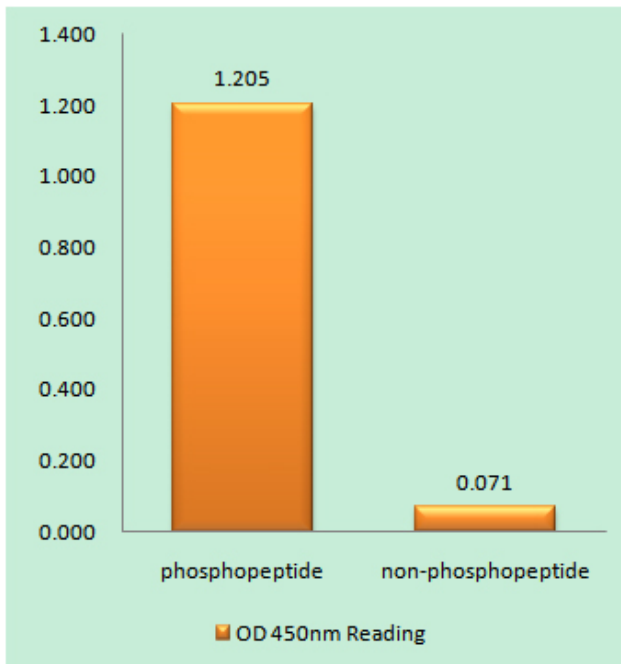
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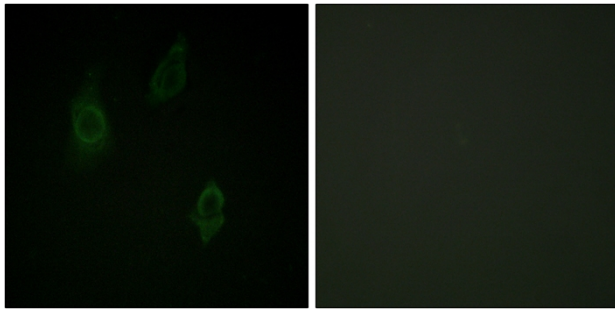
Immunofluorescence analysis of HeLa cell. 1, PKC (phospho Thr497) Polyclonal Antibody (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog: RS3211 was diluted at 1:1000 (room temperature, 50min). 3 DAPI (blue) 10min.



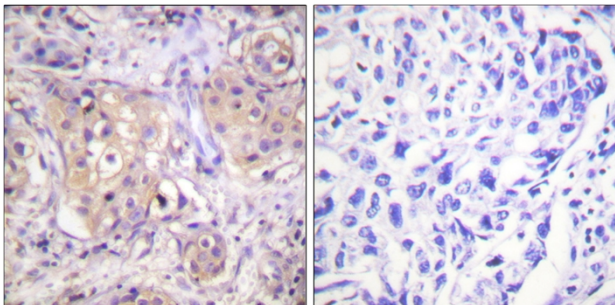
Western Blot analysis of 293 cells using Phospho-PKC (T497) Polyclonal Antibody diluted at 1:500



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PKC-pan (Phospho-Thr497) Antibody



Immunofluorescence analysis of HepG2 cells, using PKC-pan (Phospho-Thr497) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using PKC-pan (Phospho-Thr497) Antibody. The picture on the right is blocked with the phospho peptide.