



PKC α (Phospho Thr638) Rabbit mAb

Catalog No	YP-rAb-18452
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	PRKCA
Protein Name	Protein kinase C alpha type
Purification Process	Protein A
Specificity	Phospho-PKC α (T638) Antibody detects endogenous levels of PKC α protein only when phosphorylated at T638. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):VLTpp
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:1000-1:4000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	$\geq 90\%$
Storage Stability	-15 $^{\circ}$ C to -25 $^{\circ}$ C/1 year(Do not lower than -25 $^{\circ}$ C)
Synonyms	PRKCA ; PKCA ; PRKACA ; Protein kinase C alpha type ; PKC-A ; PKC-alpha
Observed Band	115kD
Calculated Molecular Weight	77kD
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 in the presence of phosphatidylserine.,

Background

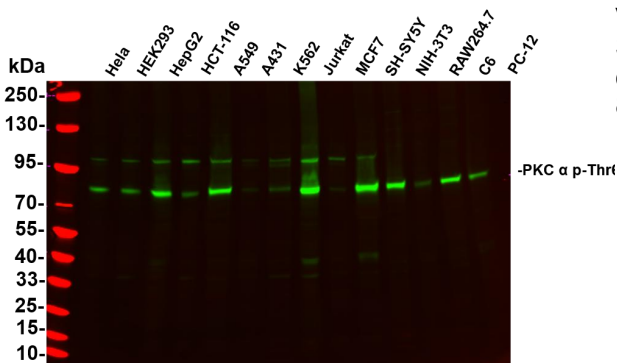
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family 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

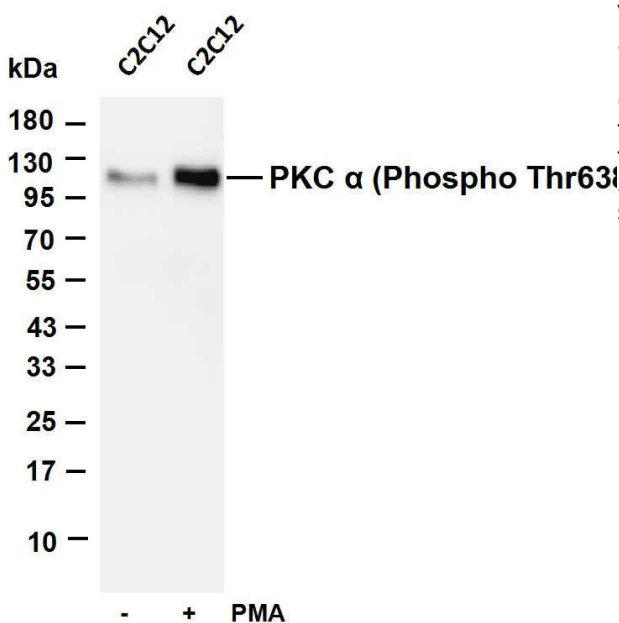
Avoid repeated freezing and thawing!

Usage suggestions

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

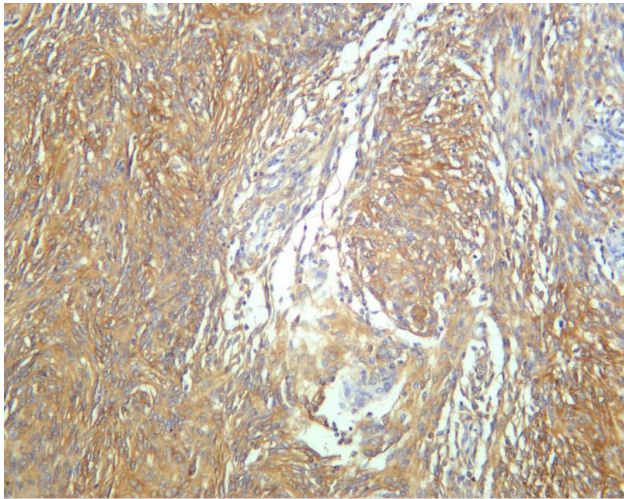


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody

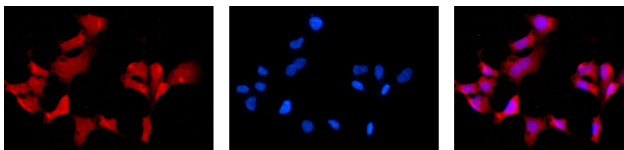


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PKC α (Phospho Thr638) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: C2C12 Lane 2: C2C12 was treated with Phorbol 12-myristate 13-acetate(200 nM) for 30 minutes. Predicted band size: 77kDa Observed band size: 115kDa





Human meningioma was stained with anti-PKC α (Phospho Thr638) rabbit antibody



Immunofluorescence analysis of HEK293. Picture A:PKC α antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

A

B

C

