

For Research Use Only

# PKC Alpha Polyclonal antibody

Catalog Number: 21991-1-AP

Featured Product

60 Publications



## Basic Information

### Catalog Number:

21991-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG17275

### GenBank Accession Number:

AK055431

### GeneID (NCBI):

5578

### UNIPROT ID:

P17252

### Full Name:

protein kinase C, alpha

### Calculated MW:

77 kDa

### Observed MW:

77 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:2000-1:12000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:20-1:200

IF-P: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, monkey

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB**: HeLa cells, HEK-293 cells, Jurkat cells, NIH/3T3 cells, human peripheral blood platelets, rat kidney tissue

**IP**: NIH/3T3 cells,

**IHC**: human thyroid cancer tissue, mouse brain tissue

**IF-P**: rat eye tissue,

**IF/ICC**: HeLa cells, NIH/3T3 cells, HepG2 cells

**FC (Intra)**: HeLa cells, Jurkat cells

## Background Information

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. PRKCA 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.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lianhong Yin	29033837	Front Pharmacol	WB
Chunming Gu	36109490	Oncogenesis	WB
Honghong Jiang	31612005	Oncol Lett	IHC

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

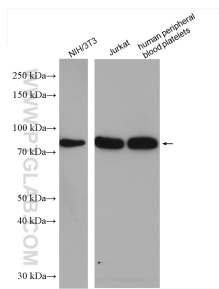
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

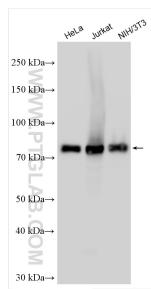
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

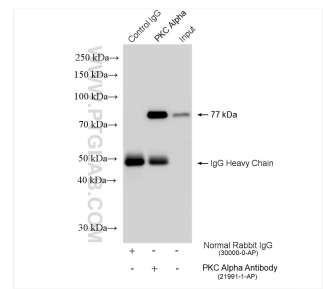
## Selected Validation Data



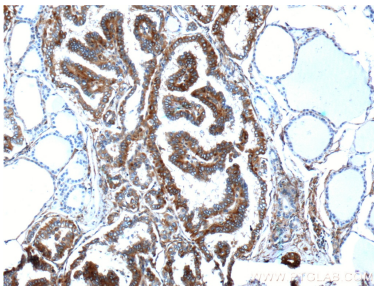
Various lysates were subjected to SDS PAGE followed by western blot with 21991-1-AP (PKC alpha antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



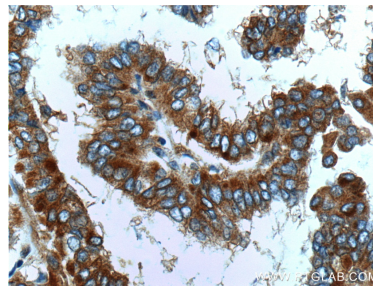
Various lysates were subjected to SDS PAGE followed by western blot with 21991-1-AP (PKC Alpha antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



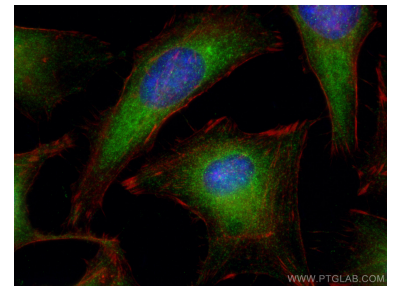
IP result of anti-PKC Alpha (IP:21991-1-AP, 4ug; Detection:21991-1-AP 1:3000) with NIH/3T3 cells lysate 1320 ug.



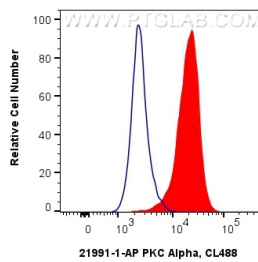
Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue slide using 21991-1-AP (PKC alpha antibody) at dilution of 1:200 (under 10x lens).



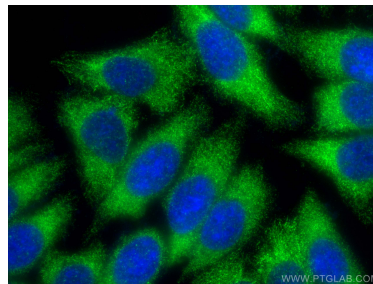
Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue slide using 21991-1-AP (PKC alpha antibody) at dilution of 1:200 (under 40x lens).



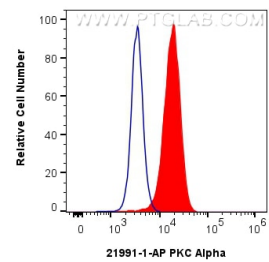
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using PKC Alpha antibody (21991-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



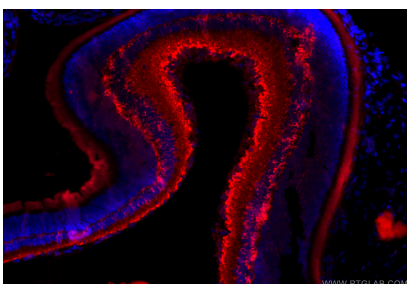
1x10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human PKC Alpha (21991-1-AP) and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone: ) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using PKC Alpha antibody (21991-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1x10<sup>6</sup> Jurkat cells were intracellularly stained with 0.25 ug PKC Alpha Polyclonal antibody (21991-1-AP) and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat eye tissue using PKC Alpha antibody (21991-1-AP) at dilution of 1:200 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).