

For Research Use Only

# pan-PKC Polyclonal antibody

Catalog Number: 12919-1-AP

Featured Product

29 Publications



## Basic Information

### Catalog Number:

12919-1-AP

### Concentration:

500 ug/ml

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG3591

### GenBank Accession Number:

BC036472

### GeneID (NCBI):

5579

### UNIPROT ID:

P05771

### Full Name:

protein kinase C, beta

### Calculated MW:

673 aa, 77 kDa

### Observed MW:

77 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:1000-1:8000

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

IHC 1:50-1:500

IF/ICC 1:200-1:800

IF 1:150-1:600

## Applications

### Tested Applications:

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

### Cited Applications:

WB, IHC, IF, CoIP

### Species Specificity:

human, mouse, rat, zebrafish

### Cited Species:

human, mouse, rat, zebrafish

**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** : K-562 cells, mouse thymus tissue, human peripheral blood platelets, mouse brain tissue, rat brain tissue

**IP** : mouse brain tissue,

**IHC** : human breast cancer tissue,

**IF/ICC** : K-562 cells,

**IF** : zebrafish retina,

## Background Information

Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and second messenger diacylglycerol. Protein kinase Cs (PKCs) are signaling molecules that play key roles in many cellular processes, including secretion, gene expression, proliferation, and muscle contraction. The PKC family is broadly divided into three subgroups: classical, novel, and atypical PKCs. These subgroups differ in both protein sequences and mechanistic requirements for catalytic activity. PKC beta is one of the PKC family members. PKC beta has been reported to be involved in many different cellular functions, such as B cell activation, apoptosis induction, endothelial cell proliferation, and intestinal sugar absorption. Studies in mice also suggest that this kinase may also regulate neuronal functions and correlate fear-induced conflict behavior after stress. This antibody can recognize PKC beta, PKC alpha, PKC gamma, PKC epsilon and PKC delta.

## Notable Publications

| Author       | Pubmed ID | Journal        | Application |
|--------------|-----------|----------------|-------------|
| Shuyan Liu   | 36158087  | Heliyon        | WB          |
| Jian-Feng Wu | 27748887  | Oncol Rep      |             |
| Jing Cui     | 33982835  | J Cell Mol Med | WB          |

## 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

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

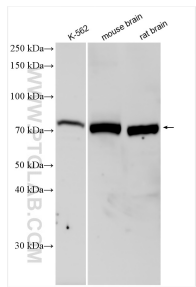
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

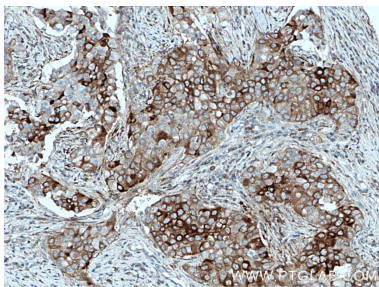
W: [ptgcn.com](http://ptgcn.com)

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

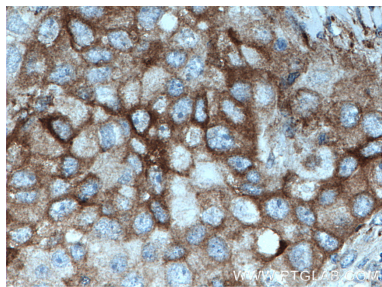
Selected Validation Data



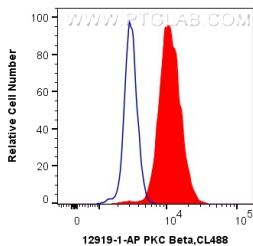
Various lysates were subjected to SDS PAGE followed by western blot with 12919-1-AP (PKC Beta antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



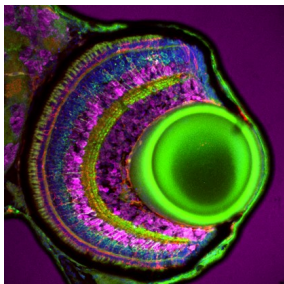
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12919-1-AP (PKC beta antibody) at dilution of 1:200 (under 10x lens).



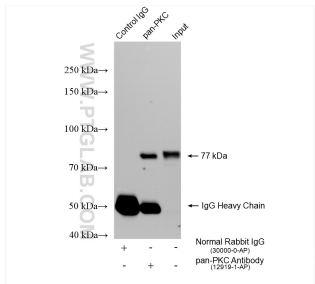
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12919-1-AP (PKC beta antibody) at dilution of 1:200 (under 40x lens).



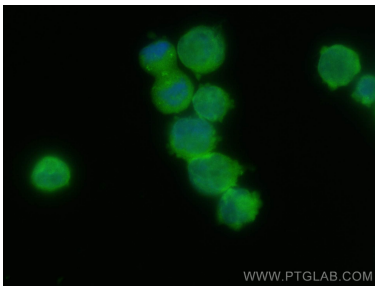
1X10<sup>6</sup> K-562 cells were intracellularly stained with 0.4 ug Anti-Human PKC Beta (12919-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescence analysis of bipolar cells labelled with pan-PKC polyclonal antibody (12919-1-AP, green) on tissue sections of the zebrafish retina at 5 days post fertilisation. Dilution 1:300. Tissue fixed overnight in 4% PFA. Müller glia, red; DAPI, blue; HuC/D, magenta. Data generated by Natalia Jaroszynska in Professor Ryan MacDonald's lab, University College London, UK.



IP result of anti-pan-PKC (IP:12919-1-AP, 4ug; Detection:12919-1-AP 1:2000) with mouse brain tissue lysate 2100 ug.



Immunofluorescent analysis of (4% PFA) fixed K-562 cells using pan-PKC antibody (12919-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).