

For Research Use Only

pan-PKC Polyclonal antibody

Catalog Number: 12919-1-AP

Featured Product

30 Publications



Basic Information

Catalog Number:

12919-1-AP

Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

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

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

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,

FC (Intra): K-562 cells,

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	
Rui Liu	26459497	Mol Med Rep	

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

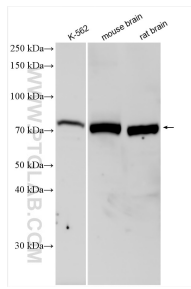
For technical support and original validation data for this product please contact:

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

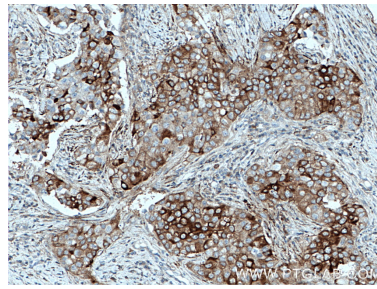
E: proteintech@ptglab.com
W: ptglab.com

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

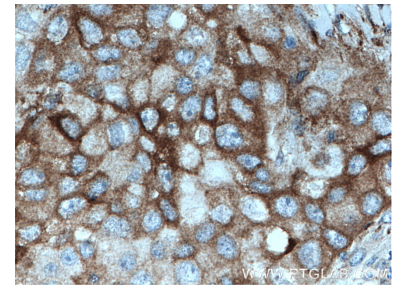
Selected Validation Data



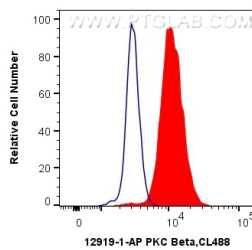
Various lysates were subjected to SDS PAGE followed by western blot with 12919-1-AP (PKC Beta antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



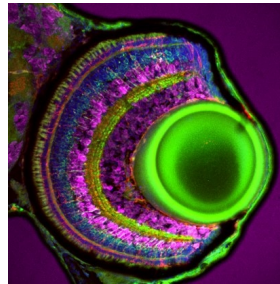
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12919-1-AP (PKC beta antibody) at dilution of 1:200 (under 10x lens).



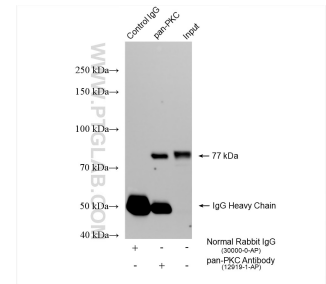
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12919-1-AP (PKC beta antibody) at dilution of 1:200 (under 40x lens).



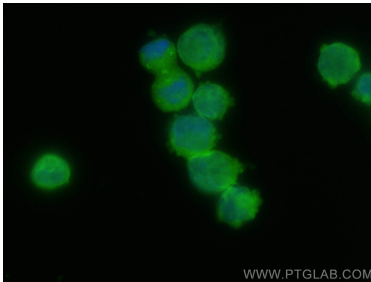
1X10⁶ K-562 cells were intracellularly stained with 0.4 ug Anti-Human PKC Beta (12919-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



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).