

## Anti-PKC beta 1/PRKCB Antibody Picoband®

Catalog Number: PB9319

### About PRKCB

Protein kinase C beta type is an enzyme that in humans is encoded by the PRKCB gene. It is a member of the protein kinase C (PKC) gene family. 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. This protein kinase 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. It has been found that PRKCB activated by oxidative conditions in the cell, induces phosphorylation of p66 (SHC) and triggers mitochondrial accumulation of the protein after it is recognized by the prolyl isomerase PIN1.

### Overview

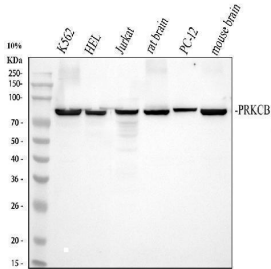
Product Name	Anti-PKC beta 1/PRKCB Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PKC beta 1/PRKCB Antibody Picoband® catalog # PB9319. Tested in Flow Cytometry, IP, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IP, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P05771

### Technical Details

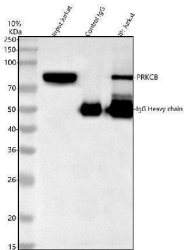
Immunogen	E.coli-derived human PKC beta 1 recombinant protein (Position: E542-V671). Human PKC beta 1 shares 100% amino acid (aa) sequence identity with both mouse and rat PKC beta 1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human

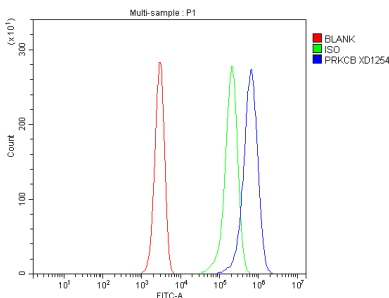
## Anti-PKC beta 1/PRKCB Antibody Picoband® (PB9319) Images



Western blot analysis of PKC beta 1 using anti-PKC beta 1 antibody (PB9319). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat PC-12 whole cell lysates, Lane 6: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PKC beta 1 antigen affinity purified polyclonal antibody (Catalog # PB9319) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for PKC beta 1 at approximately 80 kDa. The expected band size for PKC beta 1 is at 77 kDa.



Immunoprecipitating (IP) PKC beta 1 in Jurkat whole cell lysate. Western blot analysis of PKC beta 1 using anti-PKC beta 1 antibody (PB9319); Lane 1: Jurkat whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-PKC beta 1 antibody in Jurkat whole cell lysate; Lane 3: anti-PKC beta 1 antibody (2ug) + Jurkat whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PKC beta 1 antigen affinity purified polyclonal antibody (PB9319) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for PKC beta 1 at approximately 80 kDa. The expected band size for PKC beta 1 is at 77 kDa.



Flow Cytometry analysis of Jurkat cells using anti-PKC beta 1 antibody (PB9319). Overlay histogram showing Jurkat cells stained with PB9319 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PKC beta 1 Antibody (PB9319, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

## 2 Publications Citing This Product

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1. PubMed ID: 26279755, Different localization and expression of protein kinase C-beta in kidney cortex of diabetic nephropathy mice and its role in telmisartan treatment

2. PubMed ID: 26937173, 5-(Bis(3-(2-hydroxyethyl)-1H-indol-2-yl)methyl)-2-hydroxybenzoic acid (BHIMHA): showing a strategy of designing drug to block lung metastasis of tumors

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