

Anti-PKC beta 1/PRKCB Antibody Picoband™

Catalog Number: A01940

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 # A01940. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	A synthetic peptide corresponding to a sequence at the C-terminus of human PKC beta 1/PRKCB, identical to the related mouse and rat sequences.
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

Anti-PKC beta 1/PRKCB Antibody Picoband™ (A01940) Images

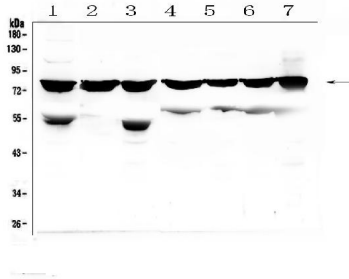


Figure 1. Western blot analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human K562 whole cell lysate,
Lane 2: human THP-1 whole cell lysate,
Lane 3: human HEK293 whole cell lysate,
Lane 4: human Jurkat whole cell lysate,
Lane 5: human Raji whole cell lysate,
Lane 6: human HL-60 whole cell lysate,
Lane 7: human A549 whole cell lysate.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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 # A01940) 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PKC beta 1 at approximately 77KD. The expected band size for PKC beta 1 is at 77KD.

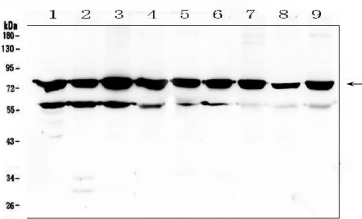


Figure 2. Western blot analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat thymus tissue lysate,
Lane 2: rat spleen tissue lysate,
Lane 3: rat brain tissue lysate,
Lane 4: rat C6 whole cell lysate,
Lane 5: mouse thymus tissue lysate,
Lane 6: mouse spleen tissue lysate,
Lane 7: mouse brain tissue lysate,
Lane 8: mouse Neuro-2a whole cell lysate,
Lane 9: mouse NIH3T3 whole cell lysate.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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 # A01940) 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200

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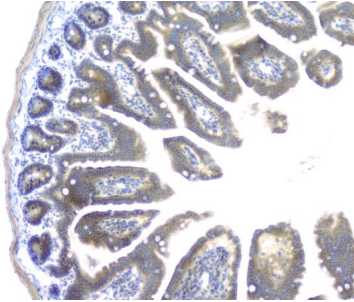


Figure 3. IHC analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

PKC beta 1 was detected in paraffin-embedded section of mouse small intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was then blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC beta 1 Antibody (A01940) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

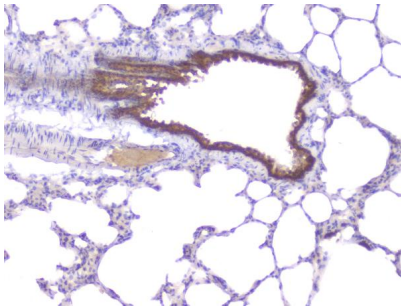


Figure 4. IHC analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

PKC beta 1 was detected in paraffin-embedded section of rat lung tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC beta 1 Antibody (A01940) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

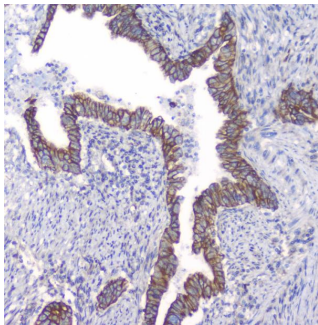


Figure 5. IHC analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

PKC beta 1 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC beta 1 Antibody (A01940) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

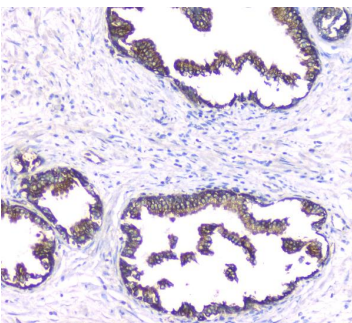


Figure 6. IHC analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

PKC beta 1 was detected in paraffin-embedded section of human prostatic cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC beta 1 Antibody (A01940) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using

Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

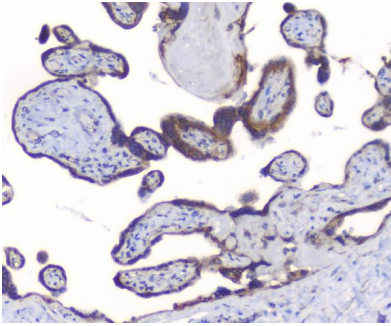


Figure 7. IHC analysis of PKC beta 1 using anti-PKC beta 1 antibody (A01940).

PKC beta 1 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC beta 1 Antibody (A01940) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

3 Publications Citing This Product

1. PubMed ID: 10.2147/DDDT.S93570, 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
2. 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
3. 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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