

Anti-PKC gamma/PRKCG Antibody Picoband™

Catalog Number: A01890

About PRKCG

The gamma isotype of protein kinase C (PKC gamma) is a member of the classical PKC (cPKC) subfamily which is activated by Ca (2+) and diacylglycerol in the presence of phosphatidylserine. Physiologically, PKC gamma is activated by a mechanism coupled with receptor-mediated breakdown of inositol phospholipid as other cPKC isotypes such as PKC alpha and PKC beta. PKC gamma is expressed solely in the brain and spinal cord and its localization is restricted to neurons, while PKC alpha and PKC beta are expressed in many tissues in addition to the brain. Within the brain, PKC gamma is the most abundant in the cerebellum, hippocampus and cerebral cortex, where the existence of neuronal plasticity has been demonstrated. PKC gamma gene is mutated in spinocerebellar ataxia type 14 (SCA14). Verbeek et al. (2005) point out the specific alterations in mutant PKC gamma function that could lead to the selective neuronal degeneration of SCA14.

Overview

Product Name	Anti-PKC gamma/PRKCG Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PKC gamma/PRKCG Antibody Picoband™ catalog # A01890. Tested in ICC/IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, 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	P05129

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PKC gamma/PRKCG, 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) and ICC.
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	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 Immunocytochemistry/Immunofluorescence, 5ug/ml

Anti-PKC gamma/PRKCG Antibody Picoband™ (A01890) Images

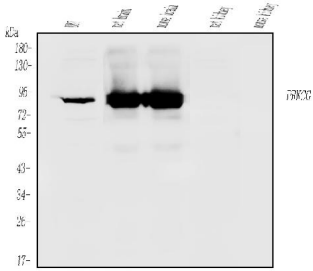


Figure 1. Western blot analysis of PKC gamma using anti-PKC gamma antibody (A01890).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human U87 whole cell lysates,
Lane 2: rat brain tissue lysates,
Lane 3: mouse brain tissue lysates,
Lane 4: rat kidney tissue lysates,
Lane 5: mouse kidney 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 gamma antigen affinity purified polyclonal antibody (Catalog # A01890) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PKC gamma at approximately 78 kDa. The expected band size for PKC gamma is at 78 kDa.

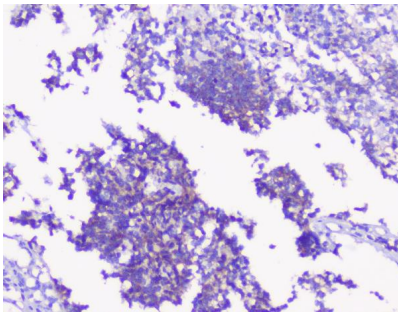


Figure 2. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).
PKC gamma was detected in paraffin-embedded section of human glioma tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC gamma Antibody (A01890) 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.

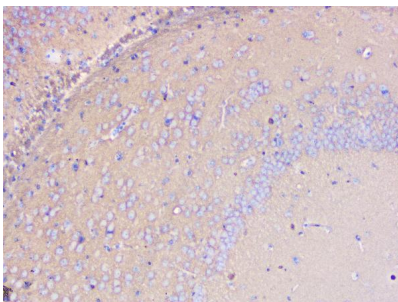


Figure 3. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).
PKC gamma was detected in paraffin-embedded section of mouse brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PKC gamma Antibody (A01890) 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.

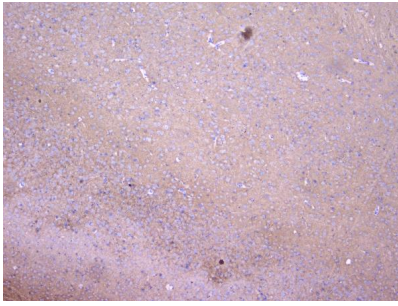


Figure 4. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in paraffin-embedded section of mouse brain 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 gamma Antibody (A01890) 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.

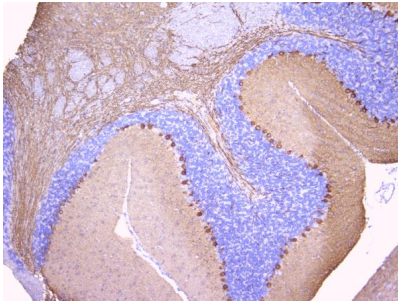


Figure 5. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in paraffin-embedded section of rat brain 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 gamma Antibody (A01890) 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.

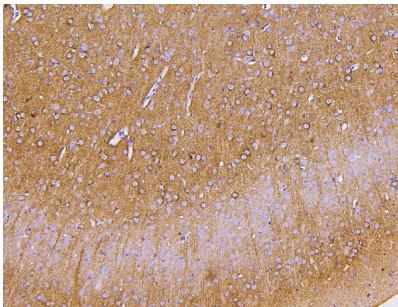


Figure 6. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PKC gamma Antibody (A01890) 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.

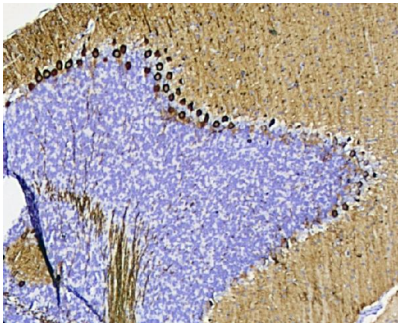
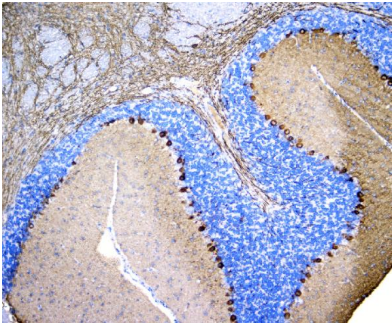


Figure 7. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in a paraffin-embedded section of mouse cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PKC gamma Antibody (A01890) 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 8. IHC analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was



performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PKC gamma Antibody (A01890) 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.

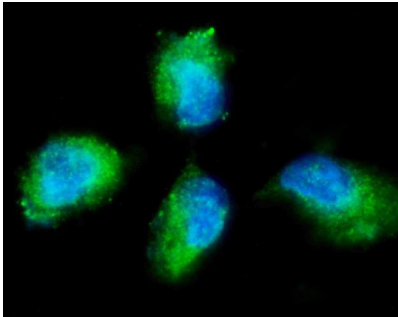


Figure 9. IF analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in an immunocytochemical section of SH-SY5Y cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-PKC gamma Antibody (A01890) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

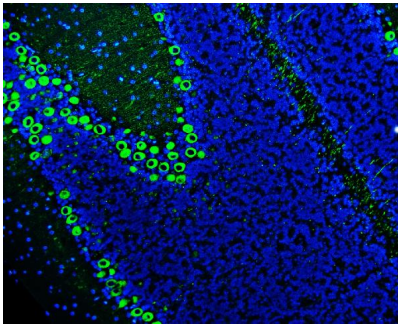


Figure 10. IF analysis of PKC gamma using anti-PKC gamma antibody (A01890).

PKC gamma was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-PKC gamma Antibody (A01890) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

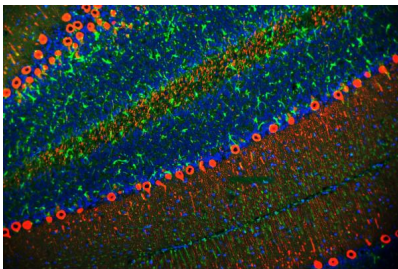


Figure 11. PKC gamma was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-PKC gamma Antibody (A01890) overnight at 4°C. HRP conjugated goat anti-rabbit IgG (BA1054) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using TSA-550 Conjugated. GFAP was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-GFAP Antibody (PA1239) overnight at 4°C. HRP conjugated goat anti-rabbit IgG (BA1054) was used as

secondary antibody and incubated for 30 minutes at 37°C.
The tissue section was developed using TSA-488
Conjugated. The sections were counterstained with DAPI.
Visualize using a fluorescence microscope and filter sets
appropriate for the label used.

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: 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
3. PubMed ID: 25160038, Extracts from Salvia-Nelumbinis naturalis alleviate hepatosteatorosis via improving hepatic insulin sensitivity

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