

## Basic Information

|                           |  |            |
|---------------------------|--|------------|
| <b>Product Name</b>       | Anti-PKC Gamma/PRKCG Antibody  |            |
| <b>Gene Name</b>          | PRKCG  |            |
| <b>Source</b>             | Rabbit   |            |
| <b>Clonality</b>          | Polyclonal   |            |
| <b>Isotype</b>            | IgG  |            |
| <b>Species Reactivity</b> | human, mouse, rat  |            |
| <b>Tested Application</b> | WB, IHC, ICC/IF, IF  |            |
| <b>Contents</b>           | 500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.  |            |
| <b>Immunogen</b>          | A synthetic peptide corresponding to a sequence at the C-terminus of human PKC gamma/PRKCG, identical to the related mouse and rat sequences.  |            |
| <b>Concentration</b>      | 500 ug/ml  |            |
| <b>Purification</b>       | Immunogen affinity purified.   |            |
| <b>Observed MW</b>        | 80 kDa   |            |
| <b>Dilution Ratios</b>    | Western blot (WB):   | 1:500-2000 |
|                           | Immunohistochemistry (IHC):  | 1:50-400   |
|                           | Immunocytochemistry/Immunofluorescence (ICC/IF):   | 1:50-400   |
|                           | Immunofluorescence (IF):   | 1:50-400   |
|                           | (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |            |

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

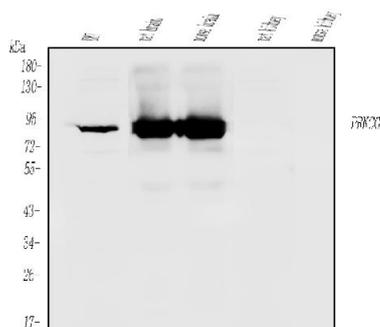
The gamma isotype of protein kinase C (PKC gamma) is a member of the classical PKC (cPKC) subfamily which is activated by Ca<sup>2+</sup> and diacylglycerol in the presence of phosphatidylserine. Physiologically, PKC gamma is activated by a mechanism coupled with receptor-mediated breakdown of inositol 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.

## Reference

Anti-PKC Gamma/PRKCG Antibody被引用在1文献中。

## Selected Validation Data



Western blot analysis of PKC Gamma/PRKCG using anti-PKC Gamma/PRKCG antibody (A01890). 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,

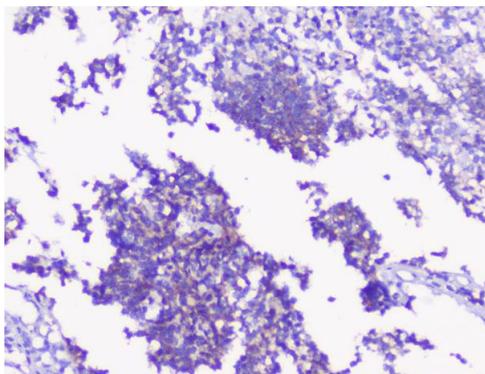
Lane 4: C6 whole cell lysates,

Lane 5: rat kidney tissue lysates,

Lane 6: mouse kidney tissue lysates.

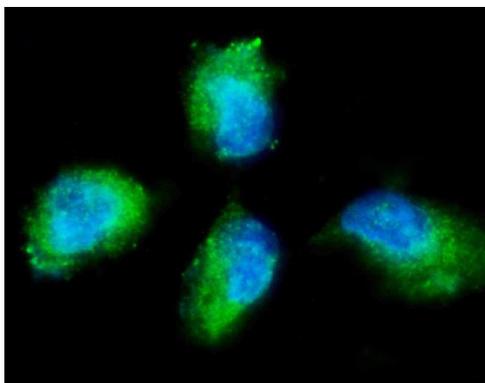
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-PKC Gamma/PRKCG antigen affinity purified polyclonal antibody (A01890) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for PKC Gamma/PRKCG at approximately 80 kDa. The expected band size for PKC Gamma/PRKCG is at 78 kDa.

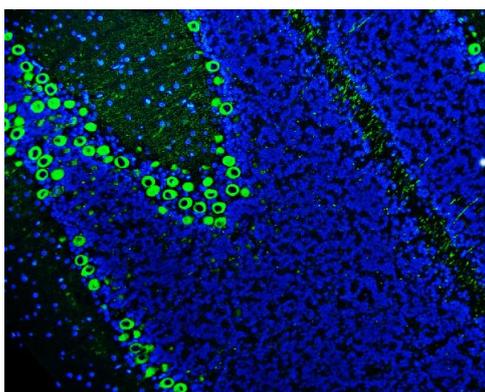


IHC analysis of PKC Gamma/PRKCG using anti-PKC Gamma/PRKCG antibody (A01890).

PKC Gamma/PRKCG was detected in a paraffin-embedded section of human glioma tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-PKC Gamma/PRKCG Antibody (A01890) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC/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 µg/mL rabbit anti-PKC gamma Antibody (A01890) overnight at 4°C. Fluoro488 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.



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 µg/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 Fluoro488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.