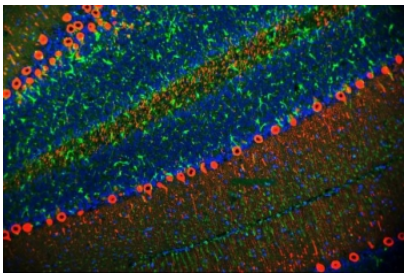
PKC gamma Antibody / PRKCG (RQ4657)

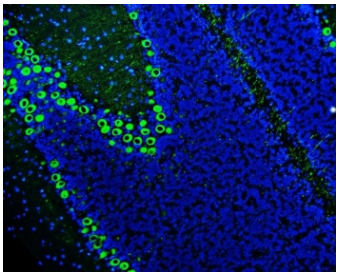
Catalog No.	Formulation	Size
RQ4657	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

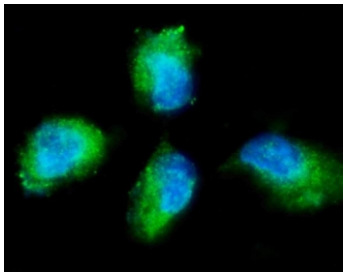
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P05129
Localization	Cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence : 5ug/ml
Limitations	This PKC gamma antibody is available for research use only.



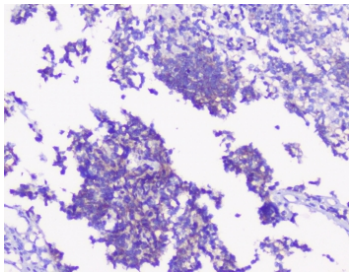
Immunofluorescent staining of FFPE rat cerebellum tissue with PKC gamma antibody (red), GFAP antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



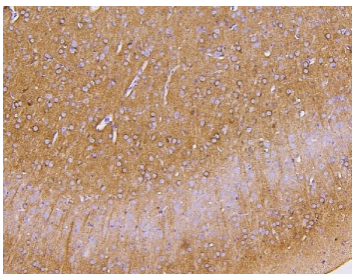
Immunofluorescent staining of FFPE rat cerebellum tissue with PKC gamma antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



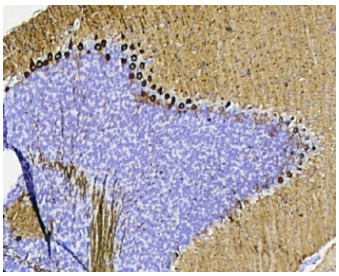
Immunofluorescent staining of FFPE human SH-SY5Y cells with PKC gamma antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



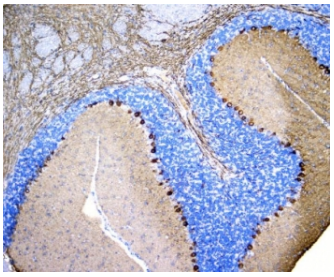
IHC staining of FFPE human glioma with PKC gamma antibody at 1ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



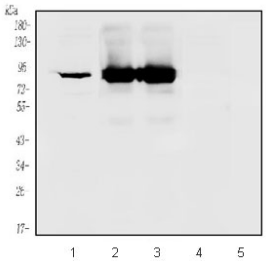
IHC staining of FFPE mouse brain with PKC gamma antibody at 1ug/ml. HIER: boil tissue sections in pH8 EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC staining of FFPE mouse cerebellum with PKC gamma antibody at 1ug/ml. HIER: boil tissue sections in pH8 EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC staining of FFPE rat brain with PKC gamma antibody at 1ug/ml. HIER: boil tissue sections in pH8 EDTA for 10-20 min followed by cooling at RT for 20 min.



Western blot testing of 1) human U-87 MG, 2) rat brain, 3) mouse brain, 4) rat kidney and 5) mouse kidney lysate with PKC gamma antibody at 0.5ug/ml. Predicted molecular weight ~78 kDa.

Description

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.

Application Notes

Optimal dilution of the PKC gamma antibody should be determined by the researcher.

Immunogen

Amino acids DRLVLASIDQADFQGFTYVNPDFVHPDARS were used as the immunogen for the PKC gamma antibody.

Storage

After reconstitution, the PKC gamma antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.