

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects endogenous human, mouse and rat PKCγ in Western blots.                                                                                                                                                                                                              |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human PKCγ<br>Arg621-Met697<br>Accession # P05129                                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

PKCγ (protein kinase C-gamma) is a 78-80 kDa member of the PKC subfamily, AGC Ser/Thr protein kinase family of enzymes. It is a Ca<sup>++</sup>-activated and phospholipid-dependent neuronal enzyme that catalyzes the phosphorylation of multiple proteins. Human PKCγ is 697 amino acids (aa) in length. It contains two general regions: a lipid and Ca<sup>++</sup>-binding regulatory region (aa 35-150 and 170-260, respectively), and an ATP-binding catalytic region (aa 351-614). PDK1-mediated phosphorylation of PKCγ on Thr514 activates the enzyme. In addition, oxidative stress also mediates activation by inducing interchain disulfide-bond homodimerization. Over aa 621-697, human PKCγ is 99% and 95% aa identical to mouse and canine PKCγ, respectively. PKCγ is predominantly expressed in brain tissue.

#### PRODUCT SPECIFIC NOTICES

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