

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human PRKD3/nPKCv in Western blots.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                         |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                    |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human PRKD3/nPKCv<br>Ile465-Val559<br>Accession # O94806 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm              |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                 |
| *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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | 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

PKCv (Protein kinase C- $\nu$ ; also PKD3 and PRKD3) is a 105-110 kDa member of the PKD subfamily, CAMK Ser/Thr protein kinase family of enzymes. It is expressed in highly diverse cell types such as pancreatic aciner cells, skeletal muscle cells, B cells and sensory neurons, and it is activated by PKC-mediated phosphorylation. Active PKCv associates with membrane compartments, and appears to participate with VAMP2 in cargo transport and vesicular trafficking. It also acts on class II HDACs in the nucleus, resulting in gene transcription. Human PKCv is 890 amino acids (aa) in length. It contains two DAG-type zinc finger regions (aa 154-204 and 271-321), one PH domain (aa 416-532) and a large protein kinase domain (aa 576-832). There are at least 25 utilized Ser/Thr phosphorylation sites that span the length of the molecule. PKCv possesses one potential splice variant that shows a 17 aa substitution for aa 595-890. Over aa 465-559, human PKCv is 92% aa identical to mouse PKCv.

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