

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects endogenous human, mouse, and, rat PLC-β4 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 PLC-β4<br>Lys75-Gln250<br>Accession # Q15147 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 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.

**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

PLC-β4 (phospholipase C-beta 4; also PLCretA) is a 130 kDa member of the β-type PLC isozyme family. It is notably expressed in cerebellum and retina. PLC-β4 is associated with rhodopsin family GPCRs, where activation of Gq subunits initiates PLC-β4 hydrolysis of PIP<sub>2</sub>. Human PLC-β4 is 1175 amino acids (aa) in length. It contains a catalytic X-box (aa 313-463) and Y-box (aa 565-681), followed by a calcium-binding C2 domain (aa 688-786). There are multiple isoforms. One shows an alternate start site at Met114, a second contains a 40 aa substitution for the C-terminal 22 aa, a third shows a 14 aa substitution for the N-terminal 167 aa, and other forms demonstrate combinations of these alternative splice forms. Over aa 75-250, human PLC-β4 is 97% aa identical to mouse PLC-β4.

#### PRODUCT SPECIFIC NOTICES

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