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# PLC β3 (phospho Ser537) Polyclonal Antibody

Catalog # AP67639

## Product Information

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|---|---|
| **Application** | WB, IHC-P, IF, ICC, E |
| **Primary Accession** | Q01970 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 138799 |

## Additional Information

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|---|---|
| **Gene ID** | 5331 |
| **Other Names** | PLCB3; 1-phosphatidylinositol 4; 5-bisphosphate phosphodiesterase beta-3; Phosphoinositide phospholipase C-beta-3; Phospholipase C-beta-3; PLC-beta-3 |
| **Dilution** | WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| **Storage Conditions** | -20℃ |

## Protein Information

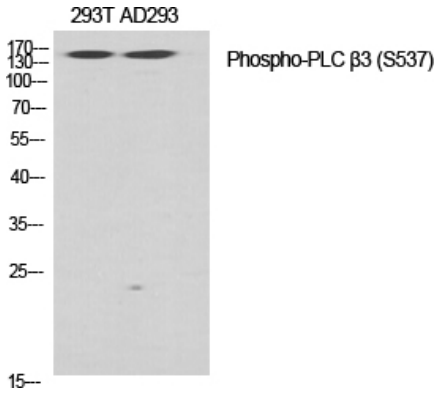
| | |
|---|---|
| **Name** | PLCB3 {ECO:0000303\|PubMed:20966218, ECO:0000312\|EMBL:AAA77683.1} |
| **Function** | Catalyzes the production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (PubMed:20966218, PubMed:29122926, PubMed:37172014, PubMed:37991948, PubMed:9188725). Key transducer of G protein-coupled receptor signaling: activated by G(q)/G(11) G alpha proteins downstream of G protein-coupled receptors activation (PubMed:20966218, PubMed:37991948). In neutrophils, participates in a phospholipase C- activating N-formyl peptide-activated GPCR (G protein-coupled receptor) signaling pathway by promoting RASGRP4 activation by DAG, to promote neutrophil functional responses (By similarity). In conjunction with OSBPL2, it may contribute to the control of keratinocyte proliferation and differentiation, probably through the regulation of the ERK pathway and the cell cycle (PubMed:38701954). |
| **Cellular Location** | Cytoplasm. Membrane; Peripheral membrane protein; Cytoplasmic side. Nucleus {ECO:0000250\|UniProtKB:P51432} Note=An heterotetramer |

composed of GNG2 and GNB1 increases the concentration of PLCB3 on the membrane surface, where its substrate PIP2 resides, by orienting its catalytic site

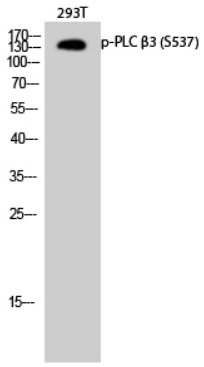
## Background

The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes.

## Images




Western Blot analysis of various cells using Phospho-PLC β3 (S537) Polyclonal Antibody diluted at 1：500




Western Blot analysis of 293T cells using Phospho-PLC β3 (S537) Polyclonal Antibody diluted at 1：500

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.