

PRODUCT INFORMATION



Phospholipase C β 2 Polyclonal Antibody

Item No. 29290

Overview and Properties

Contents:	100 μ l of affinity-purified polyclonal antibody from pooled serum.
Synonyms:	1-Phosphatidylinositol 4,5-bisphosphate Phosphodiesterase β 2, PLC β 2, Phosphoinositide Phospholipase C β 2
Immunogen:	Peptide from the C-terminal region of human PLC β 2
Molecular Weight:	~135 kDa
Species Reactivity:	(+) Human, non-human primate
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 1 year
Storage Buffer:	10 mM HEPES, pH 7.5, with 150 mM sodium chloride, 100 μ g/ml BSA, and 50% glycerol
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) and immunofluorescence (IF); the recommended starting dilution is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Phospholipase C β 2 (PLC β 2) is an enzyme that catalyzes the hydrolysis of phosphatidylinositol 4,5-bisphosphate to the secondary messengers inositol 1,4,5-triphosphate (IP₃) and diacylglycerol (DAG).^{1,2} It is approximately 135 kDa and is composed of a pleckstrin homology domain, four EF-hand motifs, a catalytic domain, and a C2 domain that are common to all PLCs, as well as a 400-amino acid C-terminal region that is required for PLC β 2 activation by the G-protein subunits G α_q or G α_{11} .³ PLC β 2 is also activated by G $\beta\gamma$ subunits. Upon activation by a G-protein subunit, PLC β 2 initiates intracellular signal transduction of extracellular signals using calcium as a cofactor. PLC β 2 colocalizes with T1R and T2R taste receptors and *Plcb2*^{-/-} mice exhibit selective and complete loss of sweet, amino acid, and bitter tastes.⁴ *Plcb2*^{-/-} mice also exhibit increased coxsackievirus A16-induced pro-inflammatory cytokine production and decreased survival compared with wild-type mice.⁵ Cayman's Phospholipase C β 2 Polyclonal Antibody can be used for immunohistochemistry (IHC) and immunofluorescence (IF) applications.

References

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