

PLCD4 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17424b**Specification**

PLCD4 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q9BRC7](#)**PLCD4 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 84812

Other Names

1-phosphatidylinositol 4, 5-bisphosphate phosphodiesterase delta-4, hPLCD4, Phosphoinositide phospholipase C-delta-4, Phospholipase C-delta-4, PLC-delta-4, PLCD4

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PLCD4 Antibody (C-term) Blocking Peptide - Protein InformationName PLCD4 ([HGNC:9062](#))**Function**

Hydrolyzes the phosphatidylinositol 4,5-bisphosphate (PIP2) to generate 2 second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). DAG mediates the activation of protein kinase C (PKC), while IP3 releases Ca(2+) from intracellular stores. Required for acrosome reaction in sperm during fertilization, probably by acting as an important enzyme for intracellular Ca(2+) mobilization in the zona pellucida-induced acrosome reaction. May play a role in cell growth. Modulates the liver regeneration in cooperation with nuclear PKC. Overexpression up-regulates the Erk signaling pathway and proliferation.

Cellular LocationMembrane; Peripheral membrane protein. Nucleus. Cytoplasm. Endoplasmic reticulum
Note=Localizes primarily to intracellular membranes mostly to the endoplasmic reticulum**Tissue Location**

Highly expressed in skeletal muscle and kidney tissues, and at moderate level in intestinal tissue. Expressed in corneal epithelial cells.

PLCD4 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PLCD4 Antibody (C-term) Blocking Peptide - Images

PLCD4 Antibody (C-term) Blocking Peptide - Background

Phosphatidylinositol-specific phospholipase C (PLC) plays an important role in receptor-mediated signal transduction by generating 2 second messenger molecules, inositol 1,4,5-triphosphate (IP3) and diacylglycerol, from phosphatidylinositol 4,5-bisphosphate (PIP2). PLC comprises a diverse family of enzymes that differ in structure and tissue distribution (Berridge, 1993 [PubMed 8381210]).

PLCD4 Antibody (C-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Segat, L., et al. Vaccine 28(10):2201-2206(2010) Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009) Gratacos, M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009) :Chae, S.W., et al. Mol. Biol. Rep. 34(2):69-77(2007)