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PLCD3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14654a

Product Information

Application	WB, E
Primary Accession	Q8N3E9
Other Accession	Q8K2J0, NP_588614.1
Reactivity	Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32126
Calculated MW	89258
Antigen Region	60-89

Additional Information

Gene ID	113026
Other Names	1-phosphatidylinositol 4, 5-bisphosphate phosphodiesterase delta-3, Phosphoinositide phospholipase C-delta-3, Phospholipase C-delta-3, PLC-delta-3, PLCD3, KIAA1964
Target/Specificity	This PLCD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 60-89 amino acids from the N-terminal region of human PLCD3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PLCD3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLCD3 (HGNC:9061)
Synonyms	KIAA1964

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. Essential for trophoblast and placental development. May participate in cytokinesis by hydrolyzing PIP2 at the cleavage furrow (PubMed:10336610). Regulates neurite outgrowth through the inhibition of RhoA/Rho kinase signaling (By similarity).
Cellular Location	Cell membrane; Peripheral membrane protein. Cytoplasm. Cleavage furrow. Note=Localizes at the cleavage furrow during cytokinesis (PubMed:17041247). The membrane binding is driven by the C2 domain and involves non-specific electrostatic interactions between the calcium-induced cationic surface of protein and the anionic membrane and specific interactions involving calcium and phosphatidylserine (PS) (PubMed:11706040). The PS selectivity governs its specific calcium-dependent subcellular targeting to the plasma membrane (PubMed:11706040).
Tissue Location	Present in corneal epithelial cells (at protein level).

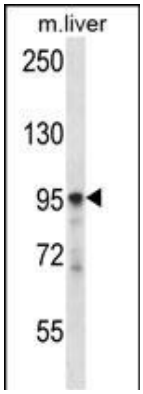
Background

This gene encodes a member of the phospholipase C family, which catalyze the hydrolysis of phosphatidylinositol 4,5-bisphosphate to generate the second messengers diacylglycerol and inositol 1,4,5-trisphosphate (IP3). Diacylglycerol and IP3 mediate a variety of cellular responses to extracellular stimuli by inducing protein kinase C and increasing cytosolic Ca(2+) concentrations. This enzyme localizes to the plasma membrane and requires calcium for activation. Its activity is inhibited by spermine, sphingosine, and several phospholipids. [provided by RefSeq].

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)
Newton-Cheh, C., et al. Nat. Genet. 41(6):666-676(2009)
Rebecchi, M.J., et al. Adv. Enzyme Regul. 49(1):59-73(2009)

Images



PLCD3 Antibody (N-term) (Cat. #AP14654a) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the PLCD3 antibody detected the PLCD3 protein (arrow).

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