

PLCD3 Rabbit pAb

Catalog # AP99848

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q8N3E9
Other Accession	Q8N3E9
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	89258
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PLCD3
Epitope Specificity	71-170/789
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 C2 domain. Contains 3 EF-hand domains. Contains 1 PH domain. Contains 1 PI-PLC X-box domain. Contains 1 PI-PLC Y-box domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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, Jul 2008]

Additional Information

Gene ID	113026
Other Names	PLC-delta-3; PLCD3_HUMAN; PLCD3; Phosphoinositide phospholipase C-delta-3; Phospholipase C-delta-3 (PLC-delta-3); 3.1.4.11; KIAA1964; phospholipase C delta 3; phospholipase C, delta 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

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