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PLCZ1 Rabbit pAb

Catalog # AP98491

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q86YW0
Other Accession	Q86YW0
Reactivity	Rat, Human
Predicted	Pig, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70411
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PLCZ1
Epitope Specificity	351-450/608
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. In vitro, PLCZ1 hydrolyzes PtdIns(4,5)P2 in a Ca2+-dependent manner. It triggers intracellular Ca2+ oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. PLCZ1 is therefore a strong candidate for the egg-activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion. It may exert an inhibitory effect on phospholipase-C-coupled processes that depend on calcium ions and protein kinase C, including CFTR trafficking and function.

Additional Information

Gene ID	89869
Other Names	Czeta; NYD-SP27; PLC-zeta-1; PLCzeta; SPGF17; 1700041H07Rik; PLCZ1_HUMAN; PLCZ1; Phosphoinositide phospholipase C-zeta-1; Phospholipase C-zeta-1 (PLC-zeta-1); Testis-development protein NYD-SP27; 3.1.4.11; PLCZ1_MOUSE; PLCZ1_RAT; phospholipase C zeta 1; phospholipase C, zeta 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	PLCZ1 (HGNC:19218)
Function	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. In vitro, hydrolyzes PtdIns(4,5)P2 in a Ca(2+)-dependent manner. Triggers intracellular Ca(2+) oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. Is therefore a strong candidate for the egg-activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion. May exert an inhibitory effect on phospholipase-C-coupled processes that depend on calcium ions and protein kinase C, including CFTR trafficking and function.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q8K4D7}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q8K4D7} Cytoplasmic vesicle, secretory vesicle, acrosome {ECO:0000250|UniProtKB:Q8K4D7}. Note=Exhibits alternative cytoplasmic/nuclear localization during development. Translocates from the pronucleus into cytoplasm upon nuclear envelope breakdown for mitosis and localizes again to the pronucleus at interphase following meiosis and mitosis (By similarity). Expressed at the acrosome and post-acrosome regions in spermatozoa (By similarity) {ECO:0000250|UniProtKB:Q8K4D7}
Tissue Location	Expressed specifically in testis and sperm. Weakly expressed in pancreatic-duct cells. Up-regulated in pancreatic-duct cells from patients with cystic fibrosis.

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