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PLCG2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1992a

Product Information

Application	WB, FC, ICC, E
Primary Accession	P16885
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3A8B6
Isotype	IgG2b
Calculated MW	147870
Description	The protein encoded by this gene is a transmembrane signaling enzyme that catalyzes the conversion of 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate to 1D-myo-inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) using calcium as a cofactor. IP3 and DAG are second messenger molecules important for transmitting signals from growth factor receptors and immune system receptors across the cell membrane. Mutations in this gene have been found in autoinflammation, antibody deficiency, and immune dysregulation syndrome and familial cold autoinflammatory syndrome 3.
Immunogen	Synthesized peptide of human PLCG2 (AA: phospho-Tyrosine 753 of human Phospholipase Cg2(cERDINSLpYDVSRMYV)).
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	5336
Other Names	1-phosphatidylinositol 4, 5-bisphosphate phosphodiesterase gamma-2, 3.1.4.11, Phosphoinositide phospholipase C-gamma-2, Phospholipase C-IV, PLC-IV, Phospholipase C-gamma-2, PLC-gamma-2, PLCG2
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PLCG2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLCG2 (HGNC:9066)
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 (PubMed:19394299, PubMed:23000145). It is a crucial enzyme in transmembrane signaling (PubMed:23000145).
Cellular Location	Membrane raft {ECO:0000250|UniProtKB:Q8CIH5}.

Background

The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer. Multiple alternatively spliced transcript variants that encode different protein isoforms have been found for this gene. ;

References

1. Mol Cell Biol. 2011 Mar;31(6):1240-51. 2. Am J Hum Genet. 2012 Oct 5;91(4):713-20.

Images

