

PLCG1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2220a

Specification

PLCG1 Antibody - Product Information

Application	E, WB, IF, FC, IHC
Primary Accession	P19174
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	148.5kDa KDa

Description

The protein encoded by this gene catalyzes the formation of inositol 1,4,5-trisphosphate and diacylglycerol from phosphatidylinositol 4,5-bisphosphate. This reaction uses calcium as a cofactor and plays an important role in the intracellular transduction of receptor-mediated tyrosine kinase activators. For example, when activated by SRC, the encoded protein causes the Ras guanine nucleotide exchange factor RasGRP1 to translocate to the Golgi, where it activates Ras. Also, this protein has been shown to be a major substrate for heparin-binding growth factor 1 (acidic fibroblast growth factor)-activated tyrosine kinase. Two transcript variants encoding different isoforms have been found for this gene.

Immunogen

Purified recombinant fragment of human PLCG1 (AA: 1192-1291) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

PLCG1 Antibody - Additional Information

Gene ID 5335

Other Names

1-phosphatidylinositol 4, 5-bisphosphate phosphodiesterase gamma-1, 3.1.4.11, PLC-148, Phosphoinositide phospholipase C-gamma-1, Phospholipase C-II, PLC-II, Phospholipase C-gamma-1, PLC-gamma-1, PLCG1, PLC1

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

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

PLCG1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PLCG1 Antibody - Protein Information

Name PLCG1 ([HGNC:9065](#))

Synonyms PLC1

Function

Mediates the production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). Plays an important role in the regulation of intracellular signaling cascades. Becomes activated in response to ligand-mediated activation of receptor-type tyrosine kinases, such as PDGFRA, PDGFRB, EGFR, FGFR1, FGFR2, FGFR3 and FGFR4 (By similarity). Plays a role in actin reorganization and cell migration (PubMed:17229814). Guanine nucleotide exchange factor that binds the GTPase DNM1 and catalyzes the dissociation of GDP, allowing a GTP molecule to bind in its place, therefore enhancing DNM1-dependent endocytosis (By similarity).

Cellular Location

Cell projection, lamellipodium. Cell projection, ruffle. Note=Rapidly redistributed to ruffles and lamellipodia structures in response to epidermal growth factor (EGF) treatment.

PLCG1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)