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Rabbit Anti-PLCG1 antibody

SLM-52174R

Product Name	PLCG1
Chinese Name	磷酯酶 Cγ1Recombinant rabbit monoclonal anti
Alias	PLCG1_HUMAN; PLC gamma 1; 1 phosphatidyl D myo inositol 4 5 bisphosphate; 1 phosphatidylinositol 4 5 bisphosphate; 1 phosphatidylinositol 4 5 bisphosphate phosphodiesterase gamma 1; 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase gamma-1; inositoltrisphosphohydrolase; monophosphatidylinositol phosphodiesterase; NCKAP3; phosphatidylinositol phospholipase C; phosphodiesterase gamma 1; phosphoinositidase C; phosphoinositide phospholipase C; Phosphoinositide phospholipase C-gamma-1; Phospholipase C 148; Phospholipase C 148; phospholipase C gamma 1 (formerly subtype 148); Phospholipase C gamma 1; Phospholipase C gamma 1; phospholipase C-148; Phospholipase C-gamma-1; Phospholipase C-II; PLC 1; PLC 148; PLC II; PLC-148; PLC-gamma-1; PLC-II; PLC1; PLC148; PLCG 1; PLCG-1; PLCgamma1; PLCII; triphosphoinositide phosphodiesterase.
Research Area	Tumour Cardiovascular immunology Signal transduction Kinases and Phosphatases Lipoprotein The new supersedes the old
Immunogen Species	Rabbit
Clonality	Monoclonal
Clone NO.	85F11
React Species	Human, Mouse, Rat,
Applications	WB=1:500-1000,IHC-P=1:50-200,IHC-F=1:50-200,ICC/IF=1:50-200,IF=1:50-200（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	148kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml

immunogen	Recombinant human Phospholipase C gamma 1 protein, around C-terminal 150aa
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	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. [provided by RefSeq, Jul 2008]. **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, FGFR1, FGFR2, FGFR3 and FGFR4. Plays a role in actin reorganization and cell migration. **Subunit:** Interacts with AGAP2 via its SH3 domain. Interacts (via SH2 domain) with RET. Interacts with FLT1 (tyrosine-phosphorylated). Interacts (via SH2 domain) with FGFR1, FGFR2, FGFR3 and FGFR4 (phosphorylated). Interacts with LAT (phosphorylated) upon TCR activation. Interacts (via SH3 domain) with the Pro-rich domain of TNK1. Associates with BLNK, VAV1, GRB2 and NCK1 in a B-cell antigen receptor-dependent fashion. Interacts with CBLB in activated T-cells; which inhibits phosphorylation. Interacts with SHB. Interacts (via SH3 domain) with the Arg/Gly-rich-flanked Pro-rich domains of KHDRBS1/SAM68. This interaction is selectively regulated by arginine methylation of KHDRBS1/SAM68. Interacts with INPP5D/SHIP1, THEMIS and CLNK. Interacts with AXL, FLT4 and KIT. Interacts with RALGPS1. Interacts (via SH3 domain) with HEV ORF3 protein. Interacts (via the SH2 domains) with VIL1 (phosphorylated at C-terminus tyrosine phosphorylation sites). Interacts (via SH2 domain) with PDGFRA and PDGFRB (tyrosine phosphorylated). Interacts with PIP5K1C (By similarity). Interacts with

NTRK1 and NTRK2 (phosphorylated upon ligand-binding). Interacts with SYK; activates PLCG1. Interacts with GRB2, LAT and THEMIS upon TCR activation in thymocytes. Interacts with TESPA1; the association is increased with prolonged stimulation of the TCR and may facilitate the assembly of the LAT signalosome.

Subcellular Location:
Cell projection > lamellipodium. Cell projection > ruffle. Rapidly redistributed to ruffles and lamellipodia structures in response to epidermal growth factor (EGF) treatment.

Post-translational modifications:
Tyrosine phosphorylated in response to signaling via activated FLT3, KIT and PDGFRA. Tyrosine phosphorylated by activated FGFR1, FGFR2, FGFR3 and FGFR4. Tyrosine phosphorylated by activated FLT1 and KDR. Tyrosine phosphorylated by activated PDGFRB. The receptor-mediated activation of PLCG1 involves its phosphorylation by tyrosine kinases, in response to ligation of a variety of growth factor receptors and immune system receptors. For instance, SYK phosphorylates and activates PLCG1 in response to ligation of the B-cell receptor. May be dephosphorylated by PTPRJ. Phosphorylated by ITK and TXK on Tyr-783 upon TCR activation in T-cells.
Ubiquitinated by CBLB in activated T-cells.

Similarity:
Contains 1 C2 domain.
Contains 1 EF-hand domain.
Contains 2 PH domains.
Contains 1 PI-PLC X-box domain.
Contains 1 PI-PLC Y-box domain.
Contains 2 SH2 domains.
Contains 1 SH3 domain.

SWISS:
P19174

Gene ID:
5335

Database links:

Entrez Gene: 5335 Human

Entrez Gene: 18803 Mouse

Entrez Gene: 25738 Rat

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Omim: 172420 Human

SwissProt: P19174 Human

SwissProt: Q62077 Mouse

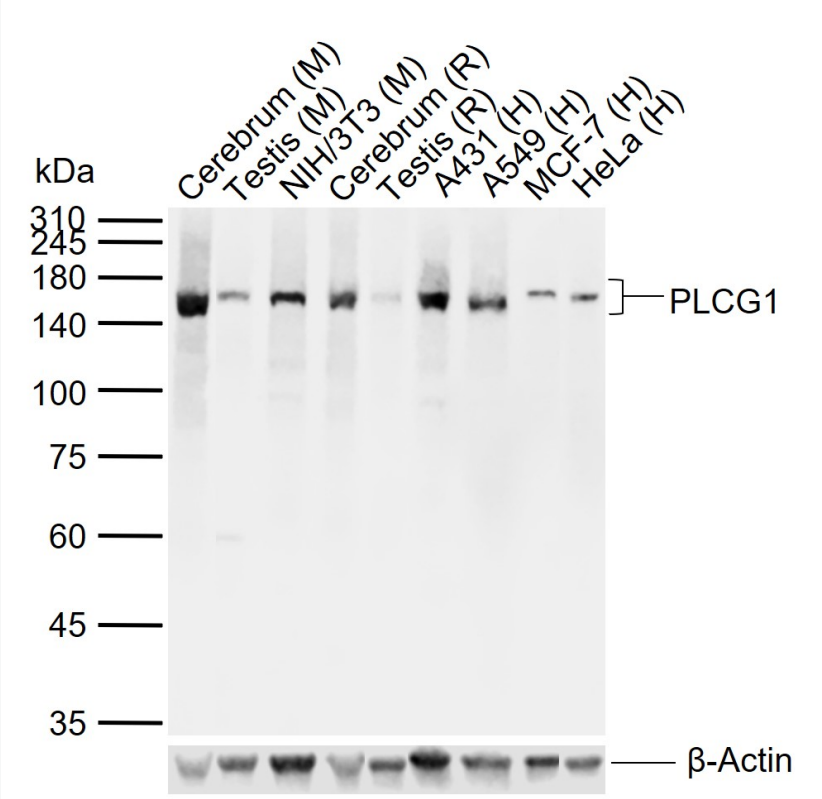
SwissProt: P10686 Rat

Unigene: 268177 Human

Unigene: 44463 Mouse

Unigene: 11243 Rat

Product Picture



Sample:

Lane 1: Mouse Cerebrum tissue lysates

Lane 2: Mouse Testis tissue lysates

Lane 3: Mouse NIH/3T3 cell lysates

Lane 4: Rat Cerebrum tissue lysates

Lane 5: Rat Testis tissue lysates

Lane 6: Human A431 cell lysates

Lane 7: Human A549 cell lysates

Lane 8: Human MCF-7 cell lysates

Lane 9: Human HeLa cell lysates

Primary: Anti-PLCG1 (SLM-52174R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 148 kDa

Observed band size: 155 kDa