

# Recombinant Human PLCG2 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP50798

Size: 10ug, 100ug

Protein Name: 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-2 (EC 3.1.4.11) (Phosphoinositide phospholipase C-gamma-2) (Phospholipase C-IV) (PLC-IV) (Phospholipase C-gamma-2) (PLC-gamma-2)

Synonym: PLCG2

UniProt ID: P16885

UniProt Link: [www.uniprot.org/uniprotkb/P16885/entry](http://www.uniprot.org/uniprotkb/P16885/entry)

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1265 AA

Molecular Weight: 148 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MSTTVNVDSLAEYEKSQLKRALELGTVMTVFSFRKSTPERRTVQVIMETRQVAWSKTADKIEGFLDIM  
EIKEIRPGKNSKDFERAKAVRQKEDCCFTILYGTQFVLSTLSLAADSKEDAVNWLSGLKILHQEAMNA  
STPTIIESWLRKQIYSVDQTRRNSISLRELKTLPLINFKVSSAKFLKDKFVEIGA HKDEL SFEQFHLFYK  
KLMFEQQKSILDEFKKDSSVFILGNTDRPDASAVYLHDFQRFLIHEQQEHWAQDLNKRERMTKFID  
DTMRETAEPFLFVDEFLTYLFSRENSIWDEKYDAVDMQDMNPLSHYWISSSHNTYLTGDQLRSES  
SPEAYIRCLRMGCRCIELDCWDGPDGKPVYHGWTRTTKIKFDDVVQA IKDHAFVTSSFPVLSIEEHC  
SVEQQRHMAKAFKEVFGDLLLT KPTEASADQLPSPSQLREKIIKHKKLGPRGDVDVN MEDKKDEHK  
QQGELYMWDSIDQKWTRHYCAIADAKLSFDDIEQTMEEEVPQDIPPTELHFGEKW FHKKEKRTS  
AEKLLQEYCMETGGKDGTFVLVRESETFPNDYTL SFWRSGRVQHCRIRSTMEGGTLKY YLTDNLTF S  
SIYALIQHYRETHLRCAEFELRLTDPVPNPNPHESKPWYYDSL SRGEAEDMLMRIPRDGAFLIRKRE  
GSDSYAITFRARGKV KHCINRDGRHFVLGTSAYFESLVELVSYYEKHSLYRK MRLRYPVTPELLER  
YNMERDINSLYDVSRMYVDPSEINPSMPQRTVKALYDYKAKRSDELSFCRGALIHNVSKPEGGWWK  
GDYGTRIQQYFPSNYVEDISTADFEELKQIIEDNPLGSLCRGILDNLNTYNVVKAPQGKNQKS FVFILE  
PKQQGDPPVEFATDRVEELFEWFQSIREITWKIDTKENNMKYWEKNQSI AIELSDLV VYCKPTS SKTKD  
NLENPDFREIRSFVETKADSIRQKPVDLLKYNQKGLTRVYPKGQRVDSSNYDPFRLWLCGSQMVAL  
NFQTADKYMQMNHALFSLNGRTGYVLQPESMRTEKYDPMPPESQRKILMTLTVKVLGARHLPKLGR  
SIACPFVEVEICGA EYDNNKFKTTVNDNGLSPIWAPTQEKVTFEIYDPNLAF LRFV VYEEDMFSDPN



FLAHATYPIKAVKSGFRSVPLKNGYSEDIELASLLVFCEMRPVLESEEELYSSCRQLRRRQEELNNQL  
FLYDTHQNLNRNANRDALVKEFSVNENQLQLYQEKCNKRLREKRVSNKSFYS

### 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

### 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

### 5. Product Description

This product is recombinant 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-2 (EC 3.1.4.11) (Phosphoinositide phospholipase C-gamma-2) (Phospholipase C-IV) (PLC-IV) (Phospholipase C-gamma-2) (PLC-gamma-2) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein 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).

Subcellular Localization: Membrane raft .

### 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.