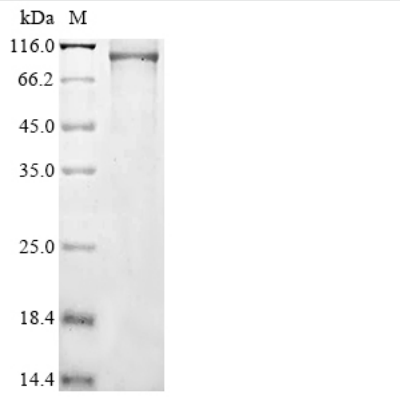
Recombinant Human 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-3 (PLCD3)

Product Code	CSB-BP822696HU
Abbreviation	Recombinant Human PLCD3 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q8N3E9
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MLCGRWRRCRRPPEEPPVAAQVAAQVAAPVALPSPPTPSDGGTKRPGLRAL KKMGLTEDEDVRAMLRGSRLRKIRSRTWHKERLYRLQEDGLSVWFQRRIPRA PSQHIFFVQHIEAVREGHQSEGLRRFGGAFAPARCLTIAFKGRRKNLDLAAPTA EEAQRWVRGLTKLRARLDAMSQRERLDHWIHSYLHRADSNQDSKMSFKEIKS LLRMVNVDMNDMYAYLLFKECDHSNNDRLEGAEIEEFLRRLLKRPELEEIFHQ YSGEDRVLSAPELLEFLEDQGEEGATLARAQQLIQTYELNETAKQHELMTLDG FMMYLLSPEGAALDNTHTCVFQDMNQPLAHYFISSSHNTYLTDSQIGGPSSTE AYVRAFAQGCRCVELDCWEGPGGEPVIYHGHTLTSKILFRDVVQAVRDHAFTL SPYPVILSLENHCGLEQQAAMARHLCTILGDMLVTQALDSPNPEELPSPEQLK GRVLVKGKKLPAARSEDGRALSDREEEEEDDEEEEEEVEAAAQRRLAKQISP ELSALAVYCHATRLRTLHPAPNAPQPCQVSSLSERKAKKLIREAGNSFVRHNA RQLTRVYPLGLRMNSANYSPQEMWNSGCQLVALNFQTPGYEMDLNAGRFLV NGQCGYVLKPACLRQPDSTFDPEYPGPPRTTLSIQVLTAQQLPKLNAEKPHSI VDPLVRIEIHGVPADCARQETDYVLNNGFNPRWGQTLQFQLRAPELALVRFVV EDYDATSPNDFVGQFTLPLSSLKQGYRHIHLLSKDGASLSPATLFIQIRIQRS
Research Area	Signal Transduction
Source	Baculovirus
Target Names	PLCD3
Expression Region	1-789aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged

Mol. Weight	94.9 kDa
Protein Length	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant human 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-3 (PLCD3) is generated using a baculovirus expression system. The transfer plasmid contains the full-length human PLCD3 protein, spanning amino acids 1 to 789, and incorporates a C-terminal 6xHis-tag for efficient purification. Insect cells are co-infected with the transfer plasmid and baculovirus DNA construct, resulting in the formation of the recombinant baculovirus particles. In the production process, insect cells are infected with the recombinant baculovirus carrying the PLCD3 expression construct. Within the infected insect cells, the recombinant PLCD3 protein is synthesized, allowing for proper folding and post-translational modifications. Following purification, the recombinant PLCD3 protein demonstrates purity of up to 85% as determined by SDS-PAGE analysis. On the gel, the PLCD3 protein appears as a distinct band with an approximate molecular weight of 96 kDa.

As a phosphodiesterase enzyme, PLCD3 selectively cleaves the phosphodiester bond in PIP2 molecules, generating two essential intracellular messengers: IP3 and DAG. IP3 triggers calcium release from intracellular stores, leading to diverse cellular responses, while DAG activates PKC, modulating downstream signaling pathways involved in cell growth, differentiation, and metabolism.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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