Datasheet for ABIN3094585

PLCD4 Protein (AA 1-762) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PLCD4
Protein Characteristics:	AA 1-762
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLCD4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MASLLQDQLT TDQDLLLMQE GMPMRKVRSK SWKKLRYFRL QNDGMTVWHA RQARGSAKPS FSISDVETIR NGHDSELLRS LAEELPLEQG FTIVFHGRRS NLDLMANSVE EAQIWMRGLQ LLVDLVTSMD HQERLDQWLS DWFQRGDKNQ DGKMSFQEVQ RLLHLMNVEM DQEYAFSLFQ AADTSQSGTL EGEEFVQFYK ALTKRAEVQE LFESFSADGQ KLTLLEFLDF LQEEQKERDC TSELALELID RYEPSDSGKL RHVLSMDGFL SYLCSKDGDI FNPACLPIYQ DMTQPLNHYF ICSSHNTYLV GDQLCGQSSV EGYIRALKRG CRCVEVDVWD GPSGEPVVYH GHTLTSRILF KDVVATVAQY AFQTSDYPVI LSLETHCSWE QQQTMARHLT EILGEQLLST TLDGVLPTQL PSPEELRRKI LVKGKKLTLE EDLEYEEEEA EPELEESELA LESQFETEPE PQEQNLQNKD KKKKSKPILC PALSSLVIYL KSVSFRSFTH SKEHYHFYEI SSFSETKAKR LIKEAGNEFV QHNTWQLSRV YPSGLRTDSS NYNPQELWNA GCQMVAMNMQ TAGLEMDICD GHFRQNGGCG YVLKPDFLRD IQSSFHPEKP ISPFKAQTLL IQVISGQQLP KVDKTKEGSI VDPLVKVQIF

GVRLDTARQE TNYVENNGFN PYWGQTLCFR VLVPELAMLR FVVMDYDWKS RNDFIGQYTL PWTCMQQGYR HIHLLSKDGI SLRPASIFVY ICIQEGLEGD ES

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	PLCD4
Alternative Name:	PLCD4 (PLCD4 Products)
Background:	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-4 (hPLCD4) (EC 3.1.4.11) (Phosphoinositide phospholipase C-delta-4) (Phospholipase C-delta-4) (PLC-delta-4),FUNCTION: Hydrolyzes the phosphatidylinositol 4,5-bisphosphate (PIP2) to generate 2 second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). DAG mediates the activation of protein kinase C (PKC), while IP3 releases Ca(2+) from intracellular stores. Required for acrosome reaction in sperm during fertilization, probably by acting as an important enzyme for intracellular Ca(2+) mobilization in the zona pellucida-induced acrosome reaction. May play a role in cell growth. Modulates the liver regeneration in cooperation with nuclear PKC. Overexpression up-regulates the Erk signaling pathway and proliferation. {ECO:0000269|PubMed:15140260}., FUNCTION: [Isoform 2]: Acts as a non-receptor guanine nucleotide exchange factor which binds to and activates guanine nucleotide-binding protein (G-protein) alpha subunit GNAI3. {ECO:0000269|PubMed:30194280}.
Molecular Weight:	87.6 kDa
UniProt:	Q9BRC7
Pathways:	Inositol Metabolic Process

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the

Application Details

	mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months