

Datasheet for ABIN3094586

PLCz1 Protein (AA 1-608) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	PLCz1
Protein Characteristics:	AA 1-608
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLCz1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence: MEMRWFLSKI QDDFRGGKIN LEKTQRLLEK LDIRCSYIHV KQIFKDNDR LKQGRITIEEF
RAIYRIITHR EEIIEIFNTY SENRKILLAS NLAQFLTQEQ YAAEMSKAIA FEIIQKYEPI EEVRKAHQMS
LEGFTRYMDS RECLLFKNEC RKVYQDMTHP LNDYFISSSH NTYLVSDQLL GPSDLWGYVS
ALVKGRCRCLE IDCWDGAQNE PVVYHGYTLT SKLLFKTVIQ AIHKYAFMTS DYPVVLLEN
HCSTAQQEVM ADNLQATFGE SLLSDMLDDF PDTLPSPEAL KFKILVKNKK IGTCLKETHER
KGS DKRGDNQ DKETGVKKLP GVMLFKKKKT RKLKIALALS DLVIYTKAEK FKS FQHSRLY
QQFNENNSIG ETQARKLSKL RVHEFIFHTR KFITRIYPKA TRADSSNFPN QEFWNIGCQM
VALNFQTPGL PMDLQNGKFL DNGGSGYILK PHFLRESKSY FNPSNIKEGM PITLTIRLIS
GIQLPLTHSS SNKGD SLVII EVFGVPNDQM KQQTRVIKKN AFSPRWNETF TFIHVPELA
LIRFVVEGQG LIAGNEFLGQ YTLPLLCMNK GYRRIPFSR MGESLEPASL FVYVWYVR

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

Product Details

2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	PLCz1
Alternative Name:	PLCZ1 (PLCz1 Products)
Background:	<p>1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase zeta-1 (EC 3.1.4.11) (Phosphoinositide phospholipase C-zeta-1) (Phospholipase C-zeta-1) (PLC-zeta-1) (Testis-development protein NYD-SP27),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. In vitro, hydrolyzes PtdIns(4,5)P2 in a Ca(2+)-dependent manner. Triggers intracellular Ca(2+) oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. Is therefore a strong candidate for the egg-activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion. May exert an inhibitory effect on phospholipase-C-coupled processes that depend on calcium ions and protein kinase C, including CFTR trafficking and function.</p> <p>{ECO:0000250 UniProtKB:Q8K4D7, ECO:0000269 PubMed:12416999, ECO:0000269 PubMed:14697805, ECO:0000269 PubMed:15579586, ECO:0000269 PubMed:26721930, ECO:0000305}.</p>
Molecular Weight:	70.4 kDa
UniProt:	Q86YW0

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

Application Details

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!

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process