Datasheet for ABIN3085532

PLA2G4A Protein (AA 1-749) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PLA2G4A
Protein Characteristics:	AA 1-749
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLA2G4A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MSFIDPYQHI IVEHQYSHKF TVVVLRATKV TKGAFGDMLD TPDPYVELFI STTPDSRKRT RHFNNDINPV WNETFEFILD PNQENVLEIT LMDANYVMDE TLGTATFTVS SMKVGEKKEV PFIFNQVTEM VLEMSLEVCS CPDLRFSMAL CDQEKTFRQQ RKEHIRESMK KLLGPKNSEG LHSARDVPVV AILGSGGGFR AMVGFSGVMK ALYESGILDC ATYVAGLSGS TWYMSTLYSH PDFPEKGPEE INEELMKNVS HNPLLLLTPQ KVKRYVESLW KKKSSGQPVT FTDIFGMLIG ETLIHNRMNT TLSSLKEKVN TAQCPLPLFT CLHVKPDVSE LMFADWVEFS PYEIGMAKYG TFMAPDLFGS KFFMGTVVKK YEENPLHFLM GVWGSAFSIL FNRVLGVSGS QSRGSTMEEE LENITTKHIV SNDSSDSDDE SHEPKGTENE DAGSDYQSDN QASWIHRMIM ALVSDSALFN TREGRAGKVH NFMLGLNLNT SYPLSPLSDF ATQDSFDDDE LDAAVADPDE FERIYEPLDV KSKKIHVVDS GLTFNLPYPL ILRPQRGVDL IISFDFSARP SDSSPPFKEL LLAEKWAKMN KLPFPKIDPY VFDREGLKEC YVFKPKNPDM EKDCPTIIHF VLANINFRKY RAPGVPRETE

EEKEIADFDI FDDPESPFST FNFQYPNQAF KRLHDLMHFN TLNNIDVIKE AMVESIEYRR QNPSRCSVSL SNVEARRFFN KEFLSKPKA

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:	PLA2G4A
Alternative Name:	PLA2G4A (PLA2G4A Products)
Background:	Cytosolic phospholipase A2 (cPLA2) (Phospholipase A2 group IVA) [Includes: Phospholipase A2 (EC 3.1.1.4) (Phosphatidylcholine 2-acylhydrolase), Lysophospholipase (EC 3.1.1.5)],FUNCTION: Has primarily calcium-dependent phospholipase and lysophospholipase activities, with a major role in membrane lipid remodeling and biosynthesis of lipid mediators of the inflammatory response (PubMed:7794891, PubMed:8619991, PubMed:8702602, PubMed:9425121, PubMed:10358058, PubMed:14709560, PubMed:16617059, PubMed:17472963, PubMed:27642067, PubMed:18451993). Plays an important role in embryo implantation and parturition through its ability to trigger prostanoid production (By similarity). Preferentially hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) (PubMed:7794891, PubMed:8619991, PubMed:9425121, PubMed:10358058, PubMed:17472963, PubMed:18451993). Selectively hydrolyzes sn-2 arachidonoyl group from membrane phospholipids, providing the precursor for eicosanoid biosynthesis via the cyclooxygenase pathway (PubMed:18451993, PubMed:7794891, PubMed:9425121, PubMed:10358058, PubMed:17472963). In an alternative pathway of eicosanoid biosynthesis, hydrolyzes sn-2 fatty acyl chain of eicosanoid lysophopholipids to release free bioactive eicosanoids (PubMed:27642067). Hydrolyzes the ester bond of the fatty acyl group attached at sn-1 position of phospholipids (phospholipase A1 activity) only if an ether linkage rather than an ester linkage is present at the sn-2 position. This hydrolysis is not stereospecific (PubMed:7794891). Has calcium-independent phospholipase A2 and lysophospholipase activities in the presence of phosphoinositides (PubMed:12672805). Has O-acyltransferase activity. Catalyzes the transfer of fatty acyl chains from phospholipids to a primary hydroxyl group of glycerol (sn-1 or sn-3), potentially contributing to monoacylglycerol synthesis (PubMed:7794891). {ECO:0000250|UniProtKB:P47713, ECO:0000269|PubMed:10358058, ECO:0000269|PubMed:12672805, ECO:0000269|PubMed:14709560, ECO:0000269|PubMed:16617059, ECO:0000269|PubMed:17472963, ECO:0000269|PubMed:18451993, ECO:0000269|PubMed:27642067, ECO:0000269|PubMed:7794891, ECO:0000269|PubMed:8619991, ECO:0000269|PubMed:8702602,

Target Details

	ECO:0000269|PubMed:9425121}.
Molecular Weight:	85.2 kDa
UniProt:	P47712
Pathways:	Inositol Metabolic Process, G-protein mediated Events, VEGF Signaling

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 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