

Datasheet for ABIN3094607

PLA2G6 Protein (AA 1-806) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	PLA2G6
Protein Characteristics:	AA 1-806
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLA2G6 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MQFFGRLVNT FSGVTNLFSN PFRVKEVAVA DYTSSDRVRE EGQLILFQNT PNRTWDCVLV</p> <p>NPRNSQSGFR LFQLELEADA LVNFHQYSSQ LLPFYESSPQ VLHTEVLQHL TDLIRNHPSW</p> <p>SVAHLAVELG IRECFHHSRI ISCANCAENE EGCTPLHLAC RKGDGELIVE LVQYCHTQMD</p> <p>VTDYKGETVF HYAVQGDNSQ VLQLLGRNAV AGLNQVNNQG LTPHLACQL GKQEMVRVLL</p> <p>LCNARCNIMG PNGYPIHSAM KFSQKGCAEM IISMDSSQIH SKDPRYGASP LHWAKNAEMA</p> <p>RMLLKRGCVN NSTSSAGNTA LHVAVMRNRF DCAIVLLTHG ANADARGEHG NTPLHLAMSK</p> <p>DNVEMIKALI VFGAEVDTPN DFGETPTFLA SKIGRLVTRK AILTLLRTVG AEYCFPIHG</p> <p>VPAEQGSAAP HHPFSLERAQ PPPISLNNLE LQDLMHISRA RKPAPILGSM RDEKRTHDHL</p> <p>LCLDGGGVKG LIIIQLLIAI EKASGVATKD LFDWVAGTST GGILAILH SKSMAYMRGM</p> <p>YFRMKDEVFR GSRPYESGPL EEFLKREFGE HTKMTDVRKP KVMLTGTLSD RQPAELHLFR</p> <p>NYDAPETVRE PRFNQNVNLR PPAQPSDQLV WRAARSSGAA PTYFRPNGRF LDGGLLANNP</p>

TLDAMTEIHE YNQDLIRKGQ ANKVKKLSIV VSLGTGRSPQ VPVTCVDVFR PSNPWELAKT
VFGAKELGKM VVDCCTDPDG RAVDRARAWC EMVGIQYFRL NPQLGTDIML DEVSDTVLVN
ALWETEVYIY EHREEFQKLI QLLLSP

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

Product Details

System (AliCE®).

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

Grade: custom-made

Target Details

Target: PLA2G6

Alternative Name: PLA2G6 ([PLA2G6 Products](#))

Background: 85/88 kDa calcium-independent phospholipase A2 (CaI-PLA2) (EC 3.1.1.4) (2-lysophosphatidylcholine acylhydrolase) (EC 3.1.1.5) (Group VI phospholipase A2) (GVI PLA2) (Intracellular membrane-associated calcium-independent phospholipase A2 beta) (iPLA2-beta) (Palmitoyl-CoA hydrolase) (EC 3.1.2.2) (Patatin-like phospholipase domain-containing protein 9) (PNPLA9),FUNCTION: Calcium-independent phospholipase involved in phospholipid remodeling with implications in cellular membrane homeostasis, mitochondrial integrity and signal transduction. Hydrolyzes the ester bond of the fatty acyl group attached at sn-1 or sn-2 position of phospholipids (phospholipase A1 and A2 activity respectively), producing lysophospholipids that are used in deacylation-reacylation cycles (PubMed:9417066, PubMed:10092647, PubMed:10336645, PubMed:20886109). Hydrolyzes both saturated and unsaturated long fatty acyl chains in various glycerophospholipid classes such as phosphatidylcholines, phosphatidylethanolamines and phosphatidates, with a preference for hydrolysis at sn-2 position (PubMed:10092647, PubMed:10336645, PubMed:20886109). Can further hydrolyze lysophospholipids carrying saturated fatty acyl chains (lysophospholipase activity) (PubMed:20886109). Upon oxidative stress, contributes to remodeling of mitochondrial phospholipids in pancreatic beta cells, in a repair mechanism to reduce oxidized lipid content (PubMed:23533611). Preferentially hydrolyzes oxidized polyunsaturated fatty acyl chains from cardiolipins, yielding monolysocardiolipins that can be reacylated with unoxidized fatty acyls to regenerate native cardiolipin species (By similarity). Hydrolyzes oxidized glycerophosphoethanolamines present in pancreatic islets, releasing oxidized polyunsaturated fatty acids such as hydroxyeicosatetraenoates (HETEs) (By similarity). Has thioesterase activity toward fatty-acyl CoA releasing CoA-SH known to facilitate fatty acid transport and beta-oxidation in mitochondria particularly in skeletal muscle (PubMed:20886109). Plays a role in regulation of membrane dynamics and homeostasis. Selectively hydrolyzes sn-2 arachidonoyl group in plasmalogen phospholipids, structural components of lipid rafts and myelin (By similarity). Regulates F-actin polymerization at the pseudopods, which is required for both speed and directionality of MCP1/CCL2-induced monocyte chemotaxis (PubMed:18208975).

Target Details

Targets membrane phospholipids to produce potent lipid signaling messengers. Generates lysophosphatidate (LPA, 1-acyl-glycerol-3-phosphate), which acts via G-protein receptors in various cell types (By similarity). Has phospholipase A2 activity toward platelet-activating factor (PAF, 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine), likely playing a role in inactivation of this potent pro-inflammatory signaling lipid (By similarity). In response to glucose, amplifies calcium influx in pancreatic beta cells to promote INS secretion (By similarity).

{ECO:0000250|UniProtKB:A0A3L7I2I8, ECO:0000250|UniProtKB:P97570,

ECO:0000250|UniProtKB:P97819, ECO:0000269|PubMed:10092647,

ECO:0000269|PubMed:10336645, ECO:0000269|PubMed:18208975,

ECO:0000269|PubMed:20886109, ECO:0000269|PubMed:23533611,

ECO:0000269|PubMed:9417066}., FUNCTION: [Isoform Ankyrin-iPLA2-1]: Lacks the catalytic domain and may act as a negative regulator of the catalytically active isoforms.

{ECO:0000269|PubMed:9417066}., FUNCTION: [Isoform Ankyrin-iPLA2-2]: Lacks the catalytic domain and may act as a negative regulator of the catalytically active isoforms.

{ECO:0000269|PubMed:9417066}.

Molecular Weight: 89.9 kDa

UniProt: [O60733](#)

Pathways: [Positive Regulation of Peptide Hormone Secretion](#)

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.

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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