

Datasheet for ABIN3132749

## PLA2G4B Protein (AA 1-782) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	PLA2G4B
Protein Characteristics:	AA 1-782
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLA2G4B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MQAKVPETCL LTVRVLASG LPSKDLVTSS DCYVTLNLPT ASSHTLQTRT VKNSRNPVWN</p> <p>QNFHFRIHRQ LKNVMEKVF DHDLVTRDDP VLSVLFVGT LQIGTQRQSF SLGTQKEGCL</p> <p>EVEFRLQTLT DCEEQLISNG IVVARELSCL HVELKRTGDP KRSEKRVQLV VAGACEGPQD</p> <p>ASAGTGSFHF HYPACWEQEL NVHLQDDPHE QLKVPLRTL P SSQLVRLVFP TSQEPLMRLE</p> <p>LKKEEGPKEL AVRLGCGPCP EEQAFLSKRK QVVAAALKKA LQLDQDLHED EIPVIAVMAT</p> <p>GGGIRAMTSL YGQLAGLQEL GLLDCISYIT GASGSTWALA NLYEDPEWSQ KDLAGPTEVL</p> <p>KTQVTKSKLG ALAPSQLWRY RQELAERARL GHPTCFTNLW ALINEALLHD KPHEHKLSQD</p> <p>REALSRGQNP LPIYCALNSK EQGLSTDFDG EWCEFSPEYEV GFPKYGAFIS SELFGEFFM</p> <p>GRLVKQLPES RICFLEGIWS NLFAASLQDS LYWSSEPSQF WDRWAQDQAN LDKEQVPHLK</p> <p>IAEPPTMAGR IAEFTDLLT KRPLAHATHN FTRGLHFHKD YFQNSHFSAW KASKLDRLPN</p> <p>QLTPTEPHLC LLDVGYLINT SCPPLLQPTR DVDLILSLDY NLYGAFQQLQ LLSRFCQEQG</p>

IPFPSISPSP EEQRQPQECH LFCDDPAQPEA PAVLHFPLVN DSFQDYSAPG VPRTSEEKAA  
GEVNLSSSDS PYHYTKVTYS QEDVDKLLRL THYNICNNQD RLREAMHQAV QRRRKRKQFR PE

**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.**

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### 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.

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### 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: PLA2G4B

Alternative Name: Pla2g4b ([PLA2G4B Products](#))

Background: Cytosolic phospholipase A2 beta (cPLA2-beta) (EC 3.1.1.4) (Lysophospholipase A1 group IVB) (EC 3.1.1.5) (Phospholipase A2 group IVB),FUNCTION: Calcium-dependent phospholipase A1 and A2 and lysophospholipase that may play a role in membrane phospholipid remodeling. Cleaves the ester bond of the fatty acyl group attached to the sn-1 or sn-2 position of phospholipids (phospholipase A1 and A2 activity, respectively), producing lysophospholipids that may be used in deacylation-reacylation cycles. The PLA1 versus PLA2 activity ratio appears to depend on the phospholipid headgroup, with mainly PLA2 activity toward anionic phospholipids such as phosphatidylglycerols. Hydrolyzes with high efficiency lysophospholipids enabling complete deacylation. {ECO:0000269|PubMed:20705608}.

Molecular Weight: 88.4 kDa

UniProt: [P0C871](#)

Pathways: [ER-Nucleus Signaling](#), [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.

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Application Details

	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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months