

Datasheet for ABIN7550545  
**PLA2G4A Protein (AA 1-749) (His tag)**



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## Overview

Quantity:	1 mg
Target:	PLA2G4A
Protein Characteristics:	AA 1-749
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLA2G4A protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant PLA2G4A Protein expressed in mammalian cells.
Sequence:	MSFIDPYQHI IVEHQYSHKF TVVVLRAKTV TKGAFGDMLD TDPYVELFI STTPDSRKRT RHFNDINPV 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 GLTFNLPLYPL ILRPQRGVDL IISFDFSARP SDSSPPFKEL LLAEKWAKMN KLPFPKIDPY VFDREGLKEC YVFKPKNPDM EKDCPTIIHF VLANINFRKY RAPGVPRETE EEKEIADFDI FDDPESPFST FNFQYPNQAF KRLHDLMHFN TLNNIDVIKE AMVESIEYRR

## Product Details

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QNPSRCSVSL SNVEARRFFN KEFLSKPKA **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

**Characteristics:** **Key Benefits:**

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

**Purity:** > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

**Grade:** custom-made

## Target Details

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**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

## Target Details

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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 lysophospholipids 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, ECO:0000269|PubMed:9425121}.

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Molecular Weight: 85.2 kDa

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UniProt: [P47712](#)

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Pathways: [Inositol Metabolic Process](#), [G-protein mediated Events](#), [VEGF Signaling](#)

## Application Details

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Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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## Handling

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months