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## PLA2R1 Protein (AA 27-1396) (His tag)



**Image** 



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#### Overview

Quantity:	1 mg
Target:	PLA2R1
Protein Characteristics:	AA 27-1396
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLA2R1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

#### **Product Details**

Sequence:

QDLTHIQEPS LEWRDKGIFI IQSESLKTCI QAGKSVLTLE NCKQPNEHML WKWVSDDHLF
NVGGSGCLGL NISALEQPLK LYECDSTLIS LRWHCDRKMI EGPLQYKVQV KSDNTVVARK
QIHRWIAYTS SGGDICEHPS RDLYTLKGNA HGMPCVFPFQ FKGHWHHDCI REGQKEHLLW
CATTSRYEED EKWGFCPDPT SMKVFCDATW QRNGSSRICY QFNLLSSLSW NQAHSSCLMQ
GGALLSIADE DEEDFIRKHL SKVVKEVWIG LNQLDEKAGW QWSDGTPLSY LNWSQEITPG
PFVEHHCGTL EVVSAAWRSR DCESTLPYIC KRDLNHTAQG ILEKDSWKYH ATHCDPDWTP
FNRKCYKLKK DRKSWLGALH SCQSNDSVLM DVASLAEVEF LVSLLRDENA SETWIGLSSN
KIPVSFEWSS GSSVIFTNWY PLEPRILPNR RQLCVSAEES DGRWKVKDCK ERLFYICKKA
GQVPADEQSG CPAGWERHGR FCYKIDTVLR SFEEASSGYY CSPALLTITS RFEQAFITSL
ISSVAEKDSY FWIALQDQNN TGEYTWKTVG QREPVQYTYW NTRQPSNRGG CVVVRGGSSL
GRWEVKDCSD FKAMSLCKTP VKIWEKTELE ERWPFHPCYM DWESATGLAS CFKVFHSEKV
LMKRSWREAE AFCEEFGAHL ASFAHIEEEN FVNELLHSKF NWTQERQFWI GFNRRNPLNA

GSWAWSDGSP VVSSFLDNAY FEEDAKNCAV YKANKTLLPS NCASKHEWIC RIPRDVRPKF PDWYQYDAPW LFYQNAEYLF HTHPAEWATF EFVCGWLRSD FLTIYSAQEQ EFIHSKIKGL TKYGVKWWIG LEEGGARDQI QWSNGSPVIF QNWDKGREER VDSQRKRCVF ISSITGLWGT ENCSVPLPSI CKRVKIWVIE KEKPPTQPGT CPKGWLYFNY KCFLVTIPKD PRELKTWTGA QEFCVAKGGT LVSIKSELEQ AFITMNLFGQ TTNVWIGLQS TNHEKWVNGK PLVYSNWSPS DIINIPSYNT TEFQKHIPLC ALMSSNPNFH FTGKWYFDDC GKEGYGFVCE KMQDTLEHHV NVSDTSAIPS TLEYGNRTYK IIRGNMTWYA AGKSCRMHRA ELASIPDAFH QAFLTVLLSR LGHTHWIGLS TTDNGQTFDW SDGTKSPFTY WKDEESAFLG DCAFADTNGR WHSTACESFL QGAICHVVTE TKAFEHPGLC SETSVPWIKF KGNCYSFSTV LDSRSFEDAH EFCKSEGSNL LAIRDAAENS FLLEELLAFG SSVQMVWLNA QFDNNNKTLR WFDGTPTEQS NWGLRKPDMD HLKPHPCVVL RIPEGIWHFT PCEDKKGFIC KMEAGIPAVT AQPEKGLSHS

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

#### Characteristics:

- · Made in Germany from design to production by highly experienced protein experts.
- Mouse Pla2r1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- 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: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

### **Target Details**

Target: PLA2R1

Alternative Name: Pla2r1 (PLA2R1 Products)

Background:

Receptor for secretory phospholipase A2 (sPLA2). Acts as a receptor for phospholipases sPLA2-IB/PLA2G1B, sPLA2-X/PLA2G10 and, with lower affinity, sPLA2-IIA/PLA2G2A. Also able to bind to snake PA2-like toxins. Although its precise function remains unclear, binding of sPLA2 to its receptor participates in both positive and negative regulation of sPLA2 functions as well as clearance of sPLA2. Binding of sPLA2-IB/PLA2G1B induces various effects depending on the cell type, such as activation of the mitogen-activated protein kinase (MAPK) cascade to induce cell proliferation, the production of lipid mediators, selective release of arachidonic acid in bone marrow-derived mast cells. In neutrophils, binding of sPLA2-IB/PLA2G1B can activate p38 MAPK to stimulate elastase release and cell adhesion. May be involved in responses in proinflammatory cytokine productions during endotoxic shock. Also has endocytic properties and rapidly internalizes sPLA2 ligands, which is particularly important for the clearance of extracellular sPLA2s to protect their potent enzymatic activities. The soluble secretory phospholipase A2 receptor form is circulating and acts as a negative regulator of sPLA2 functions by blocking the biological functions of sPLA2-IB/PLA2G1B and sPLA2-X/PLA2G10. {ECO:0000269|PubMed:10922494, ECO:0000269|PubMed:10946309, ECO:0000269|PubMed:11019817, ECO:0000269|PubMed:11481246, ECO:0000269|PubMed:11741598, ECO:0000269|PubMed:11830583, ECO:0000269|PubMed:12225974, ECO:0000269|PubMed:16815622,

ECO:0000269|PubMed:17279628, ECO:0000269|PubMed:7925459, ECO:0000269|PubMed:9407054}.

## **Target Details**

Molecular Weight:	158.2 kDa Including tag.
UniProt:	Q62028
Pathways:	Positive Regulation of Response to DNA Damage Stimulus

## **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 gurantee
	though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the
	recombinant protein with the default tag will be insoluble our protein lab may suggest a higher
	molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible
	options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process