

## **Product datasheet for RC220309**

## PLA2G2F (NM\_022819) Human Tagged ORF Clone

## **Product data:**

**Product Type:** Expression Plasmids

Product Name: PLA2G2F (NM\_022819) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: PLA2G2F

Synonyms: GIIFsPLA2; sPLA2-IIF

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >RC220309 representing NM\_022819

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com Protein Sequence: >RC220309 representing NM\_022819

Red=Cloning site Green=Tags(s)

MADGAKANPKGFKKKVLDRCFSGWRGPRFGASCPSRTSRSSLGMKKFFTVAILAGSVLSTAHGSLLNLKA MVEAVTGRSAILSFVGYGCYCGLGGRGQPKDEVDWCCHAHDCCYQELFDQGCHPYVDHYDHTIENNTEIV CSDLNKTECDKQTCMCDKNMVLCLMNQTYREEYRGFLNVYCQGPTPNCSIYEPPPEEVTCSHQSPAPPAP P

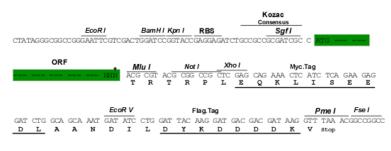
Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk8010">https://cdn.origene.com/chromatograms/mk8010</a> h03.zip

**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

Restriction Sites: Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_022819

ORF Size: 633 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



**Reconstitution Method:** 

- 1. Centrifuge at 5,000xg for 5min.
- 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
- 3. Close the tube and incubate for 10 minutes at room temperature.
- 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** <u>NM 022819.4</u>

RefSeq Size: 2737 bp
RefSeq ORF: 636 bp
Locus ID: 64600

UniProt ID: Q9BZM2
Cytogenetics: 1p36.12

**Protein Families:** Druggable Genome, Secreted Protein

**Protein Pathways:** alpha-Linolenic acid metabolism, Arachidonic acid metabolism, Ether lipid metabolism, Fc

epsilon RI signaling pathway, Glycerophospholipid metabolism, GnRH signaling pathway, Linoleic acid metabolism, Long-term depression, MAPK signaling pathway, Metabolic

pathways, Vascular smooth muscle contraction, VEGF signaling pathway

MW: 23.1 kDa

**Gene Summary:** May play a role in lipid mediator production in inflammatory conditions, by providing

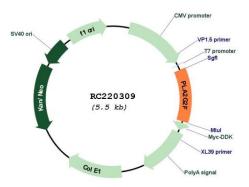
arachidonic acid to downstream cyclooxygenases and lipoxygenases (By similarity).

Phospholipase A2, which catalyzes the calcium-dependent hydrolysis of the 2-acyl groups in 3-sn-phosphoglycerides (PubMed:11112443). Hydrolyzes phosphatidylethanolamine more efficiently than phosphatidylcholine, with only a modest preference for arachidonic acid versus linoelic acid at the sn-2 position. Comparable activity toward 1-palmitoyl-2-oleoyl-phosphatidylserine vesicles to that toward 1-palmitoyl-2-oleoyl-phosphatidylglycerol (By similarity). Hydrolyzes phosphatidylglycerol versus phosphatidylcholine with a 15-fold

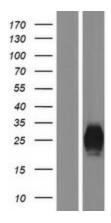
preference (PubMed:11112443).[UniProtKB/Swiss-Prot Function]



## **Product images:**



Circular map for RC220309



Western blot validation of overexpression lysate (Cat# [LY411526]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220309 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).