

## Product datasheet for **RG220309**

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

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | PLA2G2F (NM_022819) Human Tagged ORF Clone                                  |
| Tag:                      | TurboGFP  |
| Symbol:                   | PLA2G2F   |
| Synonyms:                 | GIIFsPLA2; sPLA2-IIF  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG220309 representing NM_022819<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGATGGGGCAAAGGCCAACCCCAAGGGTTCAAAAAGAAGGTGCTGGATAGATGCTTCTCTGGGT  
GGAGGGGGCCACGCTTCGGGGCCCTCCTGTCCTCAAGAACCTCCAGGTCTAGCCTGGGTATGAAGAAGTT  
CTTCACCGTGGCCATCCTTGCTGGCAGCGTTCTGTCCACAGCTCACGGCAGCCTGCTCAACCTGAAGGCC  
ATGGTGGAGGCCGTACAGGGAGGAGCGCCATCCTGTCTTCGTGGGCTACGGTTGCTACTGTGGGCTGG  
GGGGCCGTGGCCAGCCAAAGGATGAGGTGGACTGGTGTGCCACGCCACGACTGCTGCTACCAGGAACT  
CTTTGACCAAGGCTGTACCCCTATGTGGACCACTATGATCACACCATCGAGAACAACACTGAGATAGTC  
TGCACTGACCTCAACAAGACAGAGTGTGACAAGCAGACATGCATGTGTGACAAGAACATGTTTCTGTGCC  
TCATGAACCAGACGTACCGAGAGGAGTACCGTGGCTTCCTCAATGTCTACTGCCAGGGCCCCACGCCAA  
CTGCAGCATCTATGAACCGCCCCCTGAGGAGGTCACCTGCAGTCACCAATCCCCAGCGCCCCCGCCCT  
CCC

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG220309 representing NM\_022819  
 Red=Cloning site Green=Tags(s)

MADGAKANPKGFKKKVLDRFCSGWRGPRFGASCPSTRSSSLGMKKFFTVAILAGSVLSTAHGSLNLKA  
 MVEAVTGRSAILSFVGYGCYCGLGGRGQPKDEVDWCCHAHDCCYQELFDQGCHPYVDHYDHTIENNTEIV  
 CSDLNKTCDKQTCMCDKNMVLCLMNQTYREEYRGFLNVYQCQGTPNCSIYEPPEEVTCSHQSPAPPAP  
 P

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_022819

**ORF Size:** 633 bp

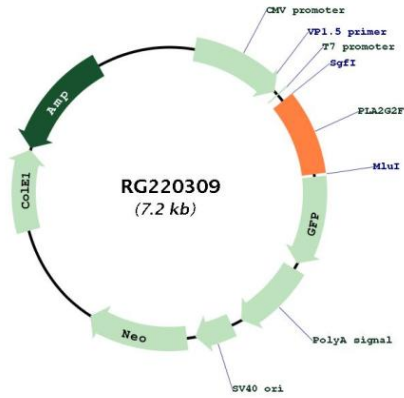
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

|                               |  |
|-------------------------------|--|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>  |
| <b>RefSeq:</b>                | <a href="#">NM_022819.4</a>  |
| <b>RefSeq Size:</b>           | 2737 bp  |
| <b>RefSeq ORF:</b>            | 636 bp   |
| <b>Locus ID:</b>              | 64600  |
| <b>UniProt ID:</b>            | <a href="#">Q9BZM2</a>   |
| <b>Cytogenetics:</b>          | 1p36.12  |
| <b>Protein Families:</b>      | Druggable Genome, Secreted Protein   |
| <b>Protein Pathways:</b>      | 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  |
| <b>MW:</b>                    | 23.3 kDa   |
| <b>Gene Summary:</b>          | 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 RG220309