

## Product datasheet for **RG203250**

### Phospholipase A2 IIA (PLA2G2A) (NM\_000300) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Phospholipase A2 IIA (PLA2G2A) (NM\_000300) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Phospholipase A2 IIA  
**Synonyms:** MOM1; PLA2; PLA2B; PLA2L; PLA2S; PLAS1; sPLA2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG203250 representing NM\_000300  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGACCCCTCTACTGTTGGCAGTGATCATGATCTTTGGCCTACTGCAGGCCCATGGGAATTTGGTGA  
 ATTTCCACAGAATGATCAAGTTGACGACAGGAAAGGAAGCCGCACTCAGTTATGGCTTCTACGGCTGCCA  
 CTGTGGCGTGGGTGGCAGAGGATCCCCAAGGATGCAACGGATCGCTGCTGTGCTACTCATGACTGTTGC  
 TACAAACGTCTGGAGAAACGTGGATGTGGACCAAAATTTCTGAGCTACAAGTTAGCAACTCGGGGAGCA  
 GAATCACCTGTGAAAACAGGACTCCTGCAGAAGTCAACTGTGTGAGTGTGATAAGGCTGCTGCCACCTG  
 TTTTGCTAGAAAACAGACGACCTACAATAAAAAGTACCAGTACTATTCCAATAAACACTGCAGAGGGAGC  
 ACCCTCGTTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG203250 representing NM\_000300  
 Red=Cloning site Green=Tags(s)

MKTLVVAVIMIFGLLQAHGNLVNFHRMIKLTGKEAALSYGFYGCHCGVGGRGSPKDATDRCCVTHDCC  
 YKRLKRGCGTKFLSYKFSNSGSRITCAKQDSCRSQLCECDKAAATCFARNKTTYNKYQYYSNKHCRGS  
 TPRC

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_000300

**ORF Size:** 432 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:** [NM\\_000300.4](#)

**RefSeq Size:** 997 bp

**RefSeq ORF:** 435 bp

**Locus ID:** 5320

**UniProt ID:** [P14555](#)

**Cytogenetics:** 1p36.13

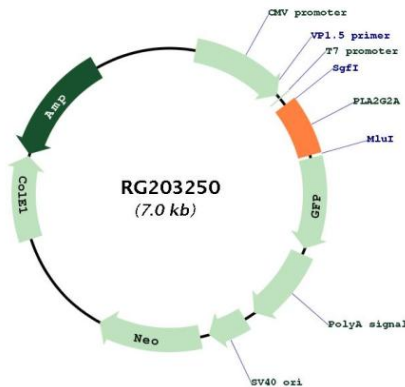
**Domains:** PA2c

**Protein Families:** Druggable Genome, Transmembrane

**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

**Gene Summary:** The protein encoded by this gene is a member of the phospholipase A2 family (PLA2). PLA2s constitute a diverse family of enzymes with respect to sequence, function, localization, and divalent cation requirements. This gene product belongs to group II, which contains secreted form of PLA2, an extracellular enzyme that has a low molecular mass and requires calcium ions for catalysis. It catalyzes the hydrolysis of the sn-2 fatty acid acyl ester bond of phosphoglycerides, releasing free fatty acids and lysophospholipids, and thought to participate in the regulation of the phospholipid metabolism in biomembranes. Several alternatively spliced transcript variants with different 5' UTRs have been found for this gene. [provided by RefSeq, Sep 2009]

**Product images:**



Circular map for RG203250