

## Product datasheet for **RC203250**

### 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:** Myc-DDK  
**Symbol:** Phospholipase A2 IIA  
**Synonyms:** MOM1; PLA2; PLA2B; PLA2L; PLA2S; PLAS1; sPLA2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC203250 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGACCCCTCTACTGTTGGCAGTGATCATGATCTTTGGCCTACTGCAGGCCCATGGGAATTTGGTGA  
 ATTTCCACAGAATGATCAAGTTGACGACAGGAAAGGAAGCCGCACTCAGTTATGGCTTCTACGGCTGCCA  
 CTGTGGCGTGGGTGGCAGAGGATCCCCAAGGATGCAACGGATCGCTGCTGTGTCCTCATGACTGTTGC  
 TACAAACGTCTGGAGAAACGTGGATGTGGCACCAATTTCTGAGCTACAAGTTAGCAACTCGGGGAGCA  
 GAATCACCTGTGCAAAACAGGACTCCTGCAGAAGTCAACTGTGTGAGTGTGATAAGGCTGCTGCCACCTG  
 TTTTGCTAGAAAACAGACGACCTACAATAAAAAGTACCAGTACTATTCCAATAAAACTGCAGAGGGAGC  
 ACCCTCGTTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC203250 protein sequence  
 Red=Cloning site Green=Tags(s)

MKTLILLAVIMIFGLLQAHGNLVNFRMIKLTGKEAALSYGFYGCHGCVGGRGSPKDATDRCCVTHDCC  
 YKRLEKRGCGTKFLSYKFSNSGSRITCAKQDSCRSQLCECDKAAATCFARNKTTYNKYQYYSNKHCRGS  
 TPRC

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

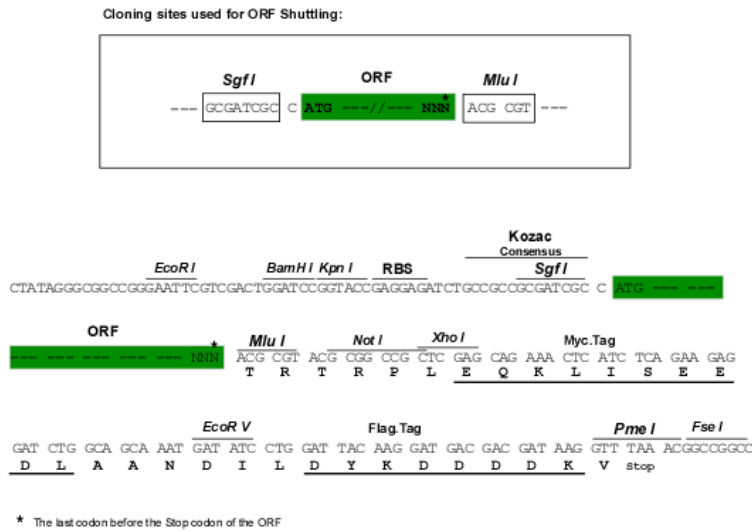
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6241\\_c01.zip](https://cdn.origene.com/chromatograms/mk6241_c01.zip)



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**Restriction Sites:** SgfI-MluI

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

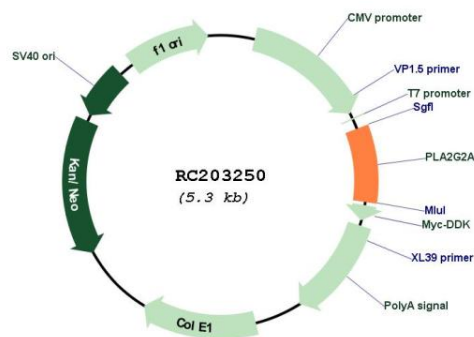
**RefSeq:** [NM\\_000300.4](#)

**RefSeq Size:** 1017 bp

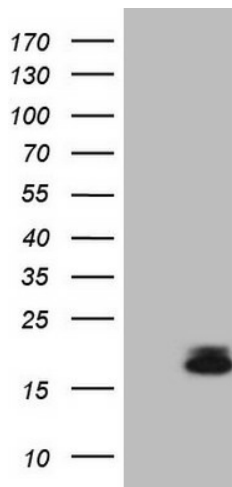
**RefSeq ORF:** 435 bp

**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  
**MW:** 16.1 kDa  
**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]

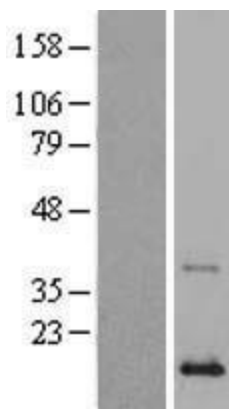
### Product images:



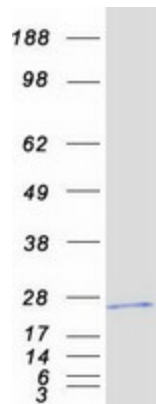
Circular map for RC203250



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY KLK3 ([RC202740], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KLK3 (1:100) ([TA808293]). Positive lysates [LY419823] (100ug) and [LC419823] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424814]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203250 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLA2G2A protein (Cat# [TP303250]). The protein was produced from HEK293T cells transfected with PLA2G2A cDNA clone (Cat# RC203250) using MegaTran 2.0 (Cat# [TT210002]).