

## Product datasheet for **RC228737**

### Phospholipase A2 IIA (PLA2G2A) (NM\_001161727) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholipase A2 IIA (PLA2G2A) (NM_001161727) 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:	>RC228737 representing NM_001161727 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAAGACCCCTCTACTGTTGGCAGTGATCATGATCTTTGGCCTACTGCAGGCCCATGGGAATTTGGTGA  
ATTTCCACAGAATGATCAAGTTGACGACAGGAAAGGAAGCCGCACTCAGTTATGGCTTCTACGGTGCCA  
CTGTGGCGTGGGTGGCAGAGGATCCCCAAGGATGCAACGGATCGCTGCTGTGTCCTCATGACTGTTGC  
TACAAACGTCTGGAGAAACGTGGATGTGGCACCAATTTCTGAGCTACAAGTTAGCAACTCGGGGAGCA  
GAATCACCTGTGCAAAACAGGACTCCTGCAGAAGTCAACTGTGTGAGTGTGATAAGGCTGCTGCCACCTG  
TTTTGCTAGAAACAAGACGACCTACAATAAAAAGTACCAGTACTATTCCAATAAACACTGCAGAGGGAGC  
ACCCCTCGTTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC228737 representing NM\_001161727  
Red=Cloning site Green=Tags(s)

MKTLILLAVIMIFGLLQAHGNLVNFRMIKLTGKEAALSYGFYGCHGCVGGRGSPKDATDRCCVTHDCC  
YKRLEKRGCGTKFLSYKFSNSGSRITCAKQDSCRSQLCECDKAAATCFARNKTTYNKYQYYSNKHCRGS  
TPRC

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk8074\\_a05.zip](https://cdn.origene.com/chromatograms/mk8074_a05.zip)



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001161727

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\\_001161727.2](#)

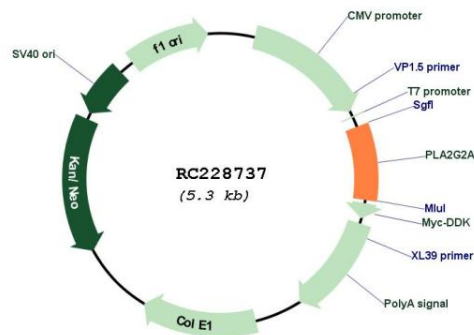
RefSeq ORF: 435 bp

Locus ID: 5320

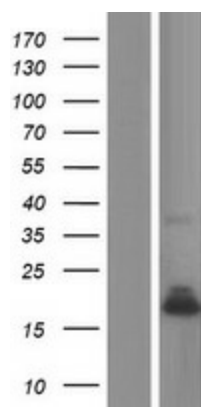
UniProt ID: [P14555](#)

<b>Cytogenetics:</b>	1p36.13
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<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>	16.08 kDa
<b>Gene Summary:</b>	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 RC228737



Western blot validation of overexpression lysate (Cat# [LY431767]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228739] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).