

## Product datasheet for **RC208735**

### Calcium independent Phospholipase A2 (PLA2G6) (NM\_001004426) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calcium independent Phospholipase A2 (PLA2G6) (NM_001004426) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Calcium independent Phospholipase A2
Synonyms:	Cal-PLA2; GVI; INAD1; iPLA2; IPLA2-VIA; iPLA2beta; NBIA2; NBIA2A; NBIA2B; PARK14; PLA2; PNPLA9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC208735 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAGTTCTTTGGCCGCTGGTCAATACCTTCAGTGGCGTCACCAACTTGTCTCTAACCCATTCCGGG  
 TGAAGGAGGTGGCTGTAGCCGACTACACCTCGAGTGACCGAGTTCGGGAGGAAGGCAGCTGATTCTGTT  
 CCAGAACACTCCCAACCGCACCTGGGACTGCGTCTGGTCAACCCAGGAACTCACAGAGTGGATCCGA  
 CTCTCCAGCTGGAGTTGGAGGCTGACGCCCTAGTGAATTTCCATCAGTATTCTTCCAGCTGCTACCCCT  
 TCTATGAGAGCTCCCCTCAGGTCTGCACACTGAGGTCTGCAGCACCTGACCGACCTATCCGTAACCA  
 CCCAGCTGGTCACTGGCCACCTGGCTGTGGAGCTAGGGATCCGCGAGTGCTTCCATCACAGCCGTATC  
 ATCAGCTGTGCCAATTGCGCGGAGAACGAGGAGGGCTGCACACCCTGCACCTGGCTGCCGAAGGGTG  
 ATGGGGAGATCCTGGTGGAGCTGGTGCAGTACTGCCACACTCAGATGGATGTACCGACTACAAGGGAGA  
 GACCGTCTCCATTATGTGTCCAGGGTACAATTCTCAGGTGCTGCAGCTCCTTGAAGGAACGCAGTG  
 GCTGGCCTGAACCAAGTGAATAACCAAGGGCTGACCCCGCTGCACCTGGCTGCCAGCTGGGGAAGCAGG  
 AGATGGTCCGCGTGTGCTGTGCAATGCTCGGTGCAACATCATGGGCCCCAACGGCTACCCCATCCA  
 CTCGGCCATGAAGTTCTCTCAGAAGGGGTGTGCGGAGATGATCATCAGCATGGACAGCAGCCAGATCCAC  
 AGCAAAGACCCCGTTACGGAGCCAGCCCTCCACTGGGCAAGAAGCAGAGATGGCCCGCATGCTGC  
 TGAAACGGGGCTGCAACGTGAACAGCACCAGCTCCGCGGGGAACACGGCCCTGCACGTGGCGGTGATGCC  
 CAACCGTTCGACTGTCCATAGTGTGCTGACCCACGGGGCAACCGGGATGCCCGGGAGACACGGC  
 AACACCCCGCTGCACCTGGCCATGTGAAAGACAACGTGGAGATGATCAAGGCCCTCATCGTGTTCGGAG  
 CAGAAGTGGACACCCGAATGACTTTGGGGAGACTCCTACATTCCTAGCCTCCTAAATCGGCAGACAACT  
 ACAGGATCTCATGCACATCTCACGGGCCGGAAGCCAGCGTTTCCTGGGCTCCATGAGGGACGAGAAG  
 CGGACCCACGACCACCTGCTGTGCTGGATGGAGGAGGAGTGAAGGCCTCATCATCAGCTCCTCA  
 TCGCCATCGAGAAGGCCTCGGGTGTGGCCACCAAGGACCTGTTTGACTGGGTGGCGGGCACCAGCACTGG  
 AGGCATCCTGGCCCTGGCCATTCTGCACAGTAAGTCCATGGCCTACATGCGCGGCATGTACTTTCGCATG  
 AAGGATGAGGTGTTCCGGGGCTCCAGGCCCTACGAGTCCGGGGCCCTGGAGGAGTTCCTGAAGCGGGAGT  
 TTGGGGAGCACACCAAGATGACGGACGTCAGGAAACCAAGGTGATGCTGACAGGGACACTGTCTGACCG  
 GCAGCCGGCTGAACTCCACCTCTCCGGAACACGATGCTCCAGAACTGTCCGGGAGCCTCGTTTCAAC  
 CAGAACGTTAACCTCAGGCCTCCAGCTCAGCCCTCAGACCAGCTGGTGTGGCGGGCGGCCGAAGCAGCG  
 GGGCAGCTCCTACTTACTTCCGACCCAATGGGCGCTTCTTGACGGTGGGCTGCTGGCCAACAACCCAC  
 GCTGGATGCCATGACCGAGATCCATGAGTACAATCAGGACCTGATCCGCAAGGGTCAGGCCAACCAAGGTG  
 AAGAACTCTCCATCGTTGTCTCCCTGGGGACAGGGAGGTCCCCACAAGTGCCTGTGACCTGTGTGGATG  
 TCTTCCGTCAGCAACCCCTGGGAGCTGGCCAAGACTGTTTTTGGGGCAAGGAACTGGGCAAGATGGT  
 GGTGGACTGTTGCACGGATCCAGACGGGCGGGCTGTGGACCGGGCACGGGCTGGTGCAGATGGTCGGC  
 ATCCAGTACTTCAGATTGAACCCCAAGCTGGGGACGGACATCATGCTGGATGAGGTGAGTGACACAGTGC  
 TGGTCAACGCCCTCTGGGAGACCGAGGTCTACATCTATGACACCGCGAGGAGTTCAGAAGCTCATCCA  
 GCTGCTGCTCTCACCC

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC208735 protein sequence  
 Red=Cloning site Green=Tags(s)

MQFFGRLVNTFSGVTNLFSPFRVKEVAVADYTSSDRVREEGQLILFQNTPNRTWDCVLVNPNSQSGFR  
 LFQLELEADALVNFHQYSSQLLPFYESSPQVLHTEVLQHLTDLIRNHPSWSVAHLAVELGIRECFHHSRI  
 ISCANCAENEEGCTPLHLACRKGDEILVELVQYCHTQMDVTDYKGETVFHYAVQGDNSQVLQLLGRNAV  
 AGLNQVNNQGLTPLHLACQLGKQEMVRVLLL CNARCNIMGPNGYPIHSAMKFSQKGAEMIISMDSQIH  
 SKDPRYGASPLHWAKNAEMARMLLKRGCVNSTSSAGNTALHVAVMRNRFDCAIVLLTHGANADARGEHG  
 NTPLHLAMSKDNVEMIKALIVFGAEVDTPNDFGETPTFLASKIGRQLQDLMHISRARKPAFILGSMRDEK  
 RTHDHLCLDGGGVKGLIIQQLIAIEKASGVATKDLFDWVAGTSTGGILALAILHSKSMAYMRGMYFRM  
 KDEVFRGSRPYESGPLEEFLKREFGEHTKMTDVRKPKVMLTGTLSDRQPAELHLFRNYDAPETVREPRFN  
 QNVNLRPPAQPSDQLVWRAARSSGAAPTYFRPNGRFLDGGLLANNPTLDAMTEIHEYNDLIRKQANKV  
 KKL SIVVSLGTGRSPQVPVTCVDVFRPSNPWELAKTVFGAKELGKMVDCCTDPDGRAVDRARAWCEMVG  
 IQYFRLNPQLGTDIMLDEVSDTVLVNALWETEVIYEHREEFQKLIQLLLSP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6155\\_h04.zip](https://cdn.origene.com/chromatograms/mk6155_h04.zip)

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_001004426

ORF Size: 2256 bp

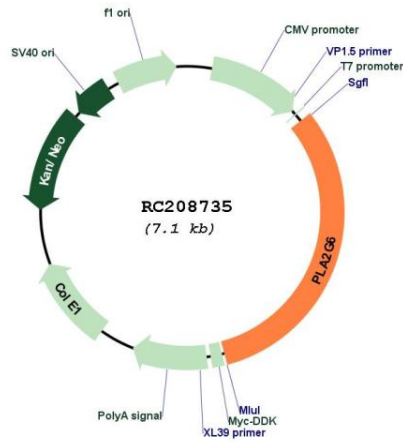
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

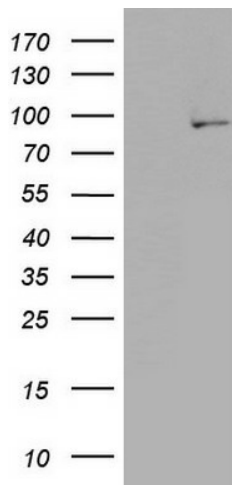
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001004426.2</a>
<b>RefSeq Size:</b>	3077 bp
<b>RefSeq ORF:</b>	2259 bp
<b>Locus ID:</b>	8398
<b>UniProt ID:</b>	<a href="#">O60733</a>
<b>Cytogenetics:</b>	22q13.1
<b>Protein Pathways:</b>	alpha-Linolenic acid metabolism, Arachidonic acid metabolism, Ether lipid metabolism, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, 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>	84.1 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is an A2 phospholipase, a class of enzyme that catalyzes the release of fatty acids from phospholipids. The encoded protein may play a role in phospholipid remodelling, arachidonic acid release, leukotriene and prostaglandin synthesis, fas-mediated apoptosis, and transmembrane ion flux in glucose-stimulated B-cells. Several transcript variants encoding multiple isoforms have been described, but the full-length nature of only three of them have been determined to date. [provided by RefSeq, Dec 2010]

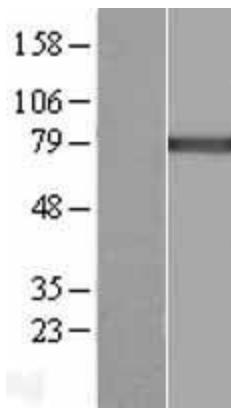
Product images:



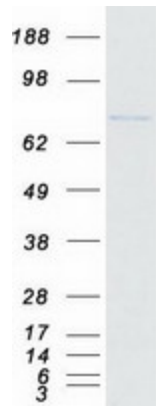
Circular map for RC208735



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PLA2G6 (Cat# RC208735, 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-PLA2G6(Cat# [TA803175]). Positive lysates [LY400377] (100ug) and [LC400377] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400377]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208735 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLA2G6 protein (Cat# [TP308735]). The protein was produced from HEK293T cells transfected with PLA2G6 cDNA clone (Cat# RC208735) using MegaTran 2.0 (Cat# [TT210002]).