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Product datasheet for RC206872

PLA2G3 (NM_015715) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLA2G3 (NM_015715) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PLA2G3
Synonyms:	GIII-SPLA2; sPLA2-III; SPLA2III
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC206872 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGTTCAGGCAGGGCTGTTTGGGATGCTGGGCTTCCTGGGGGTGGCCCTGGGGGGCTCCCCTGCCC
TCCGCTGGTACAGGACCTCCTGCCACTTGACCAAGGCCGTCCCTGGCAACCCACTGGGGTACCTGAGCTT
CCTGGCCAAGGATGCTCAGGGACTGGCCCTGATCCATGCCCGCTGGGATGCGCATAGGAGGCTGCAGGCA
TGTAGCTGGGAGGATGAGCCGGAGCTCACCGCAGCCTACGGTGCTCTCTGTGCTCATGAGACTGCCTGGG
GCTCCTTCATCCACACCCCCGGACCCGAGCTGCAGAGAGCACTGGCCACTCTTCAGAGTCAGTGGGAGGC
ATGCCGAGCGCTTGAGGAGAGTCCAGCAGGGGCCAGGAAGAAGCGAGCAGCAGGGCAGAGTGGAGTCCCT
GGTGGAGGGCACCAGCGAGAGAAGAGAGGATGGACCATGCCTGGCACACTGTGGTGTGGAGTTGGAGATT
CTGCTGGGAACTCCTCGGAGCTGGGGGTCTTCCAGGGACCTGATCTCTGTTGCCGGGAACATGACCGCTG
CCCACAGAACATCTCACCCTTGCAGTACAACTATGGCATCCGAAACTACCGATTCCACACCATCTCCCAC
TGTGACTGTGACACCAGGTTTCAGCAATGCCTACAGAATCAGCACGACTCCATCTCGGACATCGTGGGCG
TGGCCTTCTTCAACGTGCTGGAGATCCCCTGCTTTGTGCTGGAGGAGCAGGAGGCGTGTGTGGCGTGGTA
CTGGTGGGGCGGGTGTAGGATGTATGGCACAGTGCCCCTCGCTCGCCTGCAGCCCAGGACCTTCTACAAT
GCCTCCTGGAGCTCCCGGGCCACCTCCCCAACTCCCAGCTCCCGGAGCCCAGCCCCTCCCAAGCCTCGAC
AGAAGCAGCACCTTCGGAAGGGGCCACCACATCAGAAAGGGTCCAAGCGCCCCAGCAAAGCCAACACCAC
AGCCCTCCAGGACCCTATGGTCTCTCCCAGGCTTGATGTGGCCCCCACAGGCCTCCAGGGCCCACAGGGT
GGCCTAAAACCTCAGGGTGCCCGCTGGGTCTGCCGCAGCTTCCGCCGCCACCTGGACCAGTGTGAGCACC
AGATTGGGCCCCGGGAAATCGAGTTCCAGCTGCTCAACAGCGCCCAAGAGCCCCTCTTCCACTGCAACTG
CACGCGCCGTCTGGCACGCTTCCTGAGGCTCCACAGCCCACCCGAGGTTACCAACATGCTTTGGGAGCTG
CTGGGCACAACCTGCTTCAAGCTGGCCCCTCCACTGGACTGTGTGGAAGGCAAAAACTGTTCCAGAGACC
CTAGGGCCATCAGGGTGTCAGCCCGGCACTTGCGGAGGCTTCAGCAGAGGCGACACCAGCTCCAGGATAA
AGGCACAGATGAGAGGCAGCCATGGCCTTCAGAGCCCCTGAGAGGCCCCATGTCATTCTACAACCAGTGC
CTGCAGCTAACCCAGGCAGCCAGGAGACCCGACAGGCAGCAGAAGTCCTGGAGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206872 protein sequence
Red=Cloning site Green=Tags(s)

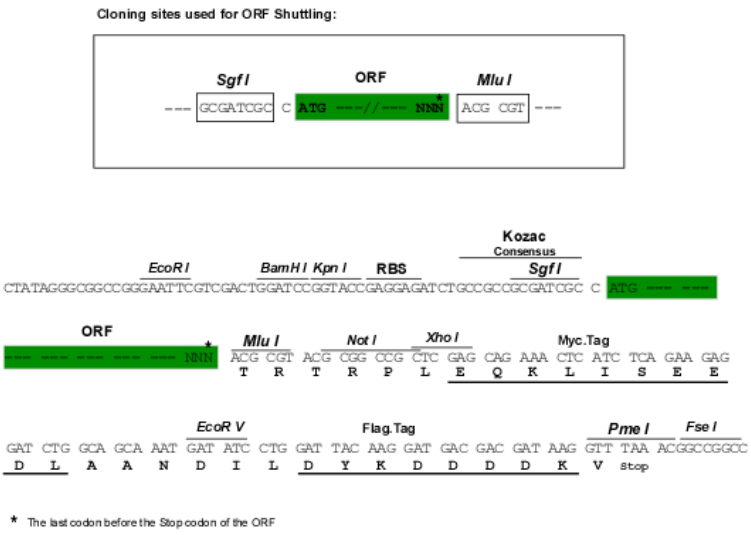
MGVQAGLFGMLGFLGVALGGSPALRWYRTSCHLTKAVPGNPLGYLSFLAKDAQGLALIHARWDAHRRLQA
CSWEDEPELTAAYGALCAHETAWGSFIHTPGPELQRALATLQSQWEACRALEESPAGARKKRAAGQSGVP
GGGHQREKRGWTMPGTLWCGVGDSAGNSSELGVFQGPDLCCREHDRCPQNISPLQYNYGIRNYRFHTISH
CDCDTRFQQCLQNQHDSISDIVGVAFFNVLEIPCFVLEEQEACVAWYWWGGCRMYGTVPLARLQPRTFYN
ASWSSRATSPTPSSRSPAPPKPRQKQHLRKGPPHQKGSKRPSKANTTALQDPMVSPRLDVAPTGLQGPQG
GLKPQGARWVCRSFRRHLDQCEHQIGPREIEFQLLNSAQEPLFHCNCTRRLARFLRLHSPPEVTNMLWEL
LGTTCFKLAPPLDCVEGKNCSRDPRAIRVSARHLRRLQQRRHQLQDKGTDERQPWPSEPLRGPMSFYNQC
LQLTQAARRPDRQQKSWSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6205_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_015715

ORF Size: 1527 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_015715.5

RefSeq Size: 2717 bp

RefSeq ORF: 1530 bp

Locus ID: 50487

UniProt ID: Q9NZ20

Cytogenetics: 22q12.2

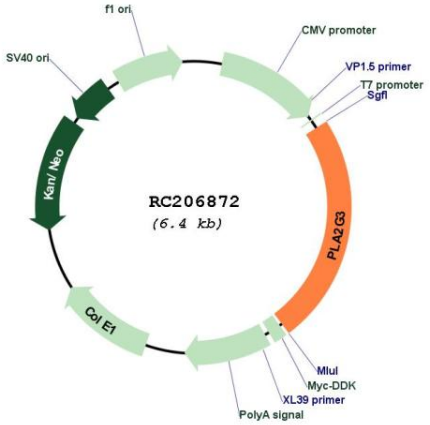
Protein Families: Druggable Genome, Secreted Protein

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

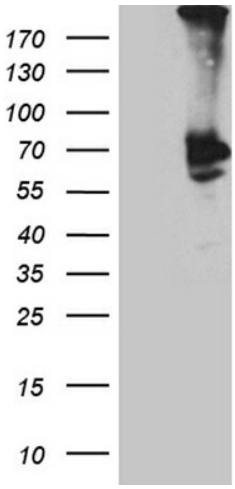
MW: 57.2 kDa

Gene Summary: This gene encodes a protein that belongs to the secreted phospholipase A2 family, whose members include the bee venom enzyme. The encoded enzyme functions in lipid metabolism and catalyzes the calcium-dependent hydrolysis of the sn-2 acyl bond of phospholipids to release arachidonic acid and lysophospholipids. This enzyme acts as a negative regulator of ciliogenesis, and may play a role in cancer development by stimulating tumor cell growth and angiogenesis. This gene is associated with oxidative stress, and polymorphisms in this gene are linked to risk for Alzheimer's disease. [provided by RefSeq, Apr 2014]

Product images:



Circular map for RC206872



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PLA2G3 (Cat# RC206872, 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-PLA2G3 (Cat# [TA811660])(1:2000).