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Product datasheet for RC213014

PLA2G10 (NM_003561) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLA2G10 (NM_003561) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PLA2G10
Synonyms:	GXPLA2; GXSPLA2; SPLA2; sPLA2-X
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC213014 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGCCGCTACCTGTGTGCCTGCCAATCATGCTGCTCCTGCTACTGCCGTCGCTGCTGCTGCTGCTGC
TTCTACCTGGCCCCGGGTCCGGCGAGGCCTCCAGGATATTACGTGTGCACCGGCGTGGGATCCTGGAACT
GGCAGGAACTGTGGGTTGTGTTGGTCCCCGAACCCCCATCGCCTATATGAAATATGGTTGCTTTTGTGGC
TTGGGAGGCCATGGCCAGCCCCGCGATGCCATTGACTGGTGCTGCCATGGCCACGACTGTTGTTACACTC
GAGCTGAGGAGGCCGGCTGCAGCCCCAAGACAGAGCGCTACTCCTGGCAGTGCGTCAATCAGAGCGTCCT
GTGCGGACCGGCAGAGAACAAATGCCAAGAACTGTTGTGCAAGTGTGACCAGGAGATTGCTAACTGCTTA
GCCCAAACTGAGTACAACTTAAAGTACCTCTTCTACCCCCAGTTCCTATGTGAGCCGGACTCGCCCAAGT
GTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213014 protein sequence
Red=Cloning site Green=Tags(s)

MGPLPVCLPIMLLLLLPSLLLLLLLPGPGSGEASRILRVHRRGILELAGTVGCVGPRTPIAYMKYGCFCG
LGGHGQPRDAIDWCCHGHDCCYTRAEEAGCSPKTERYSWQCVNQSVLCGPAENKCQELLCKCDQEIANCL
AQTEYNLKYLFYPQFLCEPDSPKCD

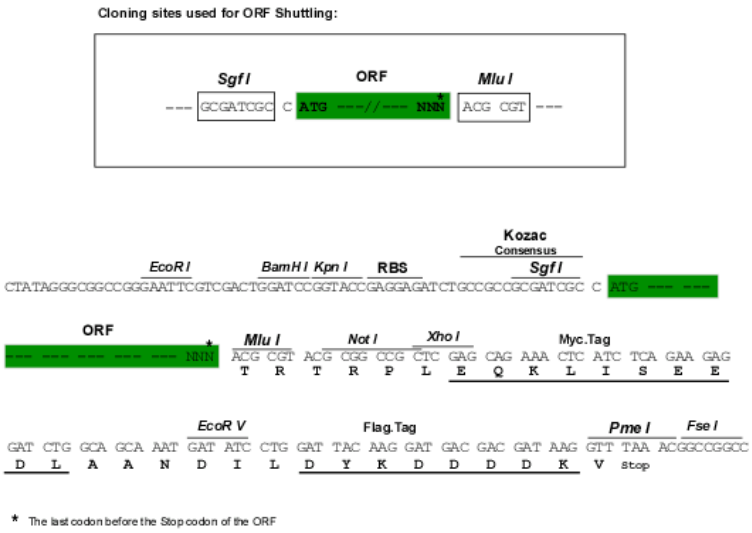
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6447_e08.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003561

ORF Size: 495 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.

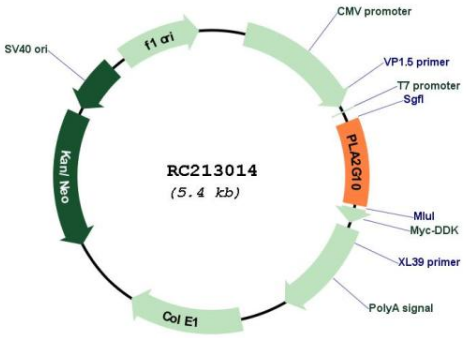
RefSeq: NM_003561.3

RefSeq Size: 1020 bp

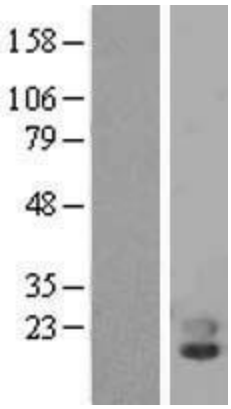
RefSeq ORF: 498 bp

Locus ID:	8399
UniProt ID:	O15496
Cytogenetics:	16p13.12
Protein Families:	Druggable Genome, Secreted Protein, 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:	18.2 kDa
Gene Summary:	This gene encodes a member of the phospholipase A2 family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature enzyme. This calcium-dependent enzyme hydrolyzes glycerophospholipids to produce free fatty acids and lysophospholipids. In one example, this enzyme catalyzes the release of arachidonic acid from cell membrane phospholipids, thus playing a role in the production of various inflammatory lipid mediators, such as prostaglandins. The encoded protein may promote the survival of breast cancer cells through its role in lipid metabolism. [provided by RefSeq, Nov 2015]

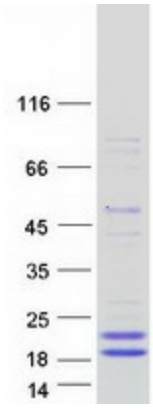
Product images:



Circular map for RC213014



Western blot validation of overexpression lysate (Cat# [LY418602]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213014 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLA2G10 protein (Cat# [TP313014]). The protein was produced from HEK293T cells transfected with PLA2G10 cDNA clone (Cat# RC213014) using MegaTran 2.0 (Cat# [TT210002]).