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Product datasheet for SC100383

Phospholipase A2 (PLA2G4A) (NM_024420) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholipase A2 (PLA2G4A) (NM_024420) Human Untagged Clone
Tag:	Tag Free
Symbol:	Phospholipase A2
Synonyms:	cPLA2; cPLA2-alpha; GURDP; PLA2G4
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC100383 sequence for NM_024420 edited (data generated by NextGen Sequencing)

ATGTCATTTATAGATCCTTACCAGCACATTATAGTGGAGCACCAGTATTCCCACAAGTTT
ACGGTAGTGGTGTTACGTGCCACCAAAGTGACAAAGGGGGCCTTTGGTGACATGCTTGAT
ACTCCAGATCCCTATGTGGAACTTTTTATCTCTACAACCCCTGACAGCAGGAAGAGAACA
AGACATTTCAATAATGACATAAACCCTGTGTGGAATGAGACCTTTGAATTTATTTTGGAT
CCTAATCAGGAAAATGTTTTGGAGATTACGTTAATGGATGCCAATTATGTCATGGATGAA
ACTCTAGGGACAGCAACATTTACTGTATCTTCTATGAAGGTGGGAGAAAAGAAAGAAGTT
CCTTTTATTTTCAACCAAGTCACTGAAATGGTTCTAGAAATGTCTCTTGAAGTTTGCTCA
TGCCCAGACCTACGATTTAGTATGGCTCTGTGTGATCAGGAGAAGACTTTCAGACAACAG
AGAAAAGAACACATAAGGGAGAGCATGAAGAAACTCTTGGGTCCAAAGAATAGTGAAGGA
TTGCATTCTGCACGTGATGTGCCTGTGGTAGCCATATTGGGTTCAGGTGGGGGTTTCCGA
GCCATGGTGGGATTCTCTGGTGTGATGAAGGCATTATACGAATCAGGAATTCTGGATTGT
GCTACCTACGTTGCTGGTCTTTCTGGCTCCACCTGGTATATGTCAACCTTGTATTCTCAC
CCTGATTTTCCAGAGAAAGGGCCAGAGGAGATTAATGAAGAACTAATGAAAAATGTTAGC
CACAATCCCCTTTTACTTCTCACACCACAGAAAGTTAAAAGATATGTTGAGTCTTTATGG
AAGAAGAAAAGCTCTGGACAACCTGTCACCTTTACTGATATCTTTGGGATGTTAATAGGA
GAAACACTAATTCATAATAGAATGAATACTACTCTGAGCAGTTTGAAGGAAAAAGTTAAT
ACTGCACAATGCCCTTTACCTCTTTTCACCTGTCTTCATGTCAAACCTGACGTTTCAGAG
CTGATGTTTGCAGATTGGGTTGAATTTAGTCCATACGAAATTGGCATGGCTAAATATGGT
ACTTTTATGGCTCCCGACTTATTTGGAAGCAAATTTTTTATGGGAACAGTCGTTAAGAAG
TATGAAGAAAACCCCTTGCATTTCTTAATGGGTGTCTGGGGCAGTGCCTTTTCCATATTG
TTCAACAGAGTTTTGGGCGTTTCTGGTTCACAAAGCAGAGGCTCCACAATGGAGGAAGAA
TTAGAAAATATTACCACAAAGCATATTGTGAGTAATGATAGCTCGGACAGTGATGATGAA
TCACACGAACCCAAAGGCACTGAAAATGAAGATGCTGGAAGTGACTATCAAAGTGATAAT
CAAGCAAGTTGGATTCATCGTATGATAATGGCCTTGGTGAGTGATTCAGCTTTATTCAAT
ACCAGAGAAGGACGTGCTGGGAAGGTACACAACTTCATGCTGGGCTTGAATCTCAATACA
TCTTATCCACTGTCTCCTTTGAGTGACTTTGCCACACAGGACTCCTTTGATGATGATGAA
CTGGATGCAGCTGTAGCAGATCCTGATGAATTTGAGCGAATATATGAGCCTCTGGATGTC
AAAAGTAAAAAGATTCATGTAGTGGACAGTGGGCTCACATTTAACCTGCCGTATCCCTTG
ATACTGAGACCTCAGAGAGGGGTTGATCTCATAATCTCCTTTGACTTTTCTGCAAGGCCA
AGTGACTCTAGTCCTCCGTTCAAGGAACTTCTACTTGCAGAAAAGTGGGCTAAAATGAAC
AAGCTCCCCTTTCCAAAGATTGATCCTTATGTGTTTGATCGGGAAGGGCTGAAGGAGTGC
TATGTCTTTAAACCCAAGAATCCTGATATGGAGAAAGATTGCCCAACCATCATCCACTTT
GTTCTGGCCAACATCAACTTCAGAAAGTACAAGGCTCCAGGTGTTCCAAGGGAAACTGAG
GAAGAGAAAGAAATCGCTGACTTTGATATTTTTGATGACCCAGAATCACCATTTTCAACC
TTCAATTTTCAATATCCAAATCAAGCATTCAAAAGACTACATGATCTTATGCACTTCAAT
ACTCTGAACAACATTGATGTGATAAAAGAAGCCATGGTTGAAAGCATTGAATATAGAAGA
CAGAATCCATCTCGTTGCTCTGTTTCCCTTAGTAATGTTGAGGCAAGAAGATTTTTCAAC
AAGGAGTTTCTAAGTAAACCCAAAGCATAG

Clone variation with respect to NM_024420.2

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_024420 unedited
GGGTTCAGAATTGTATACGACTCATATAGGCGGCCGCGAAATTCGCACGAGGAGATTCTC
AGGTTTTAAAGACGCTAGAGTGCCAAAGAAGACTTTGAAGTGTGAAAACATTTCCTGTAA
TTGAAACCAAAATGTCATTTATAGATCCTTACCAGCACATTATAGTGGAGCACCAGTATT
CCCACAAGTTTACGGTAGTGGTGTTACGTGCCACCAAAGTGACAAAGGGGGCCTTTGGTG
ACATGCTTGATACTCCAGATCCCTATGTGGAACTTTTTATCTCTACAACCCCTGACAGCA
GGAAGAGAACAAGACATTTCAATAATGACATAAACCCTGTGTGGAATGAGACCTTTGAAT
TTATTTTGGATCCTAATCAGGAAAATGTTTTGGAGATTACGTTAATGGATGCCAATTATG
TCATGGATGAAACTCTAGGGACAGCAACATTTACTGTATCTTCTATGAAGGTGGGAGAAA
AGAAAGAAGTTCCTTTTATTTTCAACCAAGTCACTGAAATGGTTCTAGAAATGTCTCTTG
AAGTTTGCTCATGCCCAGACCTACGATTTAGTATGGCTCTGTGTGATCAGGAGAAGACTT
TCAGACAACAGAGAAAAGAACACATAAGGGAGAGCATGAAGAAACTCTTGGGTCCAAAGA
ATAGTGAAGGATTGCATTCTGCACGTGATGTGCCTGTGGTAGCCATATTGGGTTCAGGTG
GNGGTTTCCGAGCCATGGTGGGATTCTCTGGTGTGATGAAAGCATTATACGAATCANGAA
TTCTGGATTGTGCTACCTACGTTGCTGGTCTTTCTGGCTCCACTGTTATATGTCAACCTT
GTATCCTCACCCTGATTTCCAGAGAAGGGCCCNGAGAGATTATGAAGAACTATGAAAATG
TTGCCCAATCCCCTTTACT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_024420 unedited
GTCCGCGGCCGCATCTATAGTGAGTTTTTTTTTTTTTTTTTTTTATTTTTATATAGATGT
ATTTATTTCATGTATGTATATATATGCCTATATAAATAAAAATAGTGTTGTCTCATGGTA
TGAATAAATCTAGTCAGTGAATAACATTCATACCTAATGCGAGGTCTTATTGAGATTGAA
CTGTTAAATATTTTAAAAGAAAAAAAATTTTTAAAAAGAACACACCTAAGAAAGTTGGTG
AGAAATGTTTAAAAATACAGTATATATCCCTACATTTGTATCAAGAAGTTCATACTGACT
GAAAATGTAGCTAAGTATATCCTTACATAATCAACATCATTTGTCAACCTAACTTATAAT
AGTATTATTCTCATGCAGCTAAGTAACTGCAACTTTGAGTATCAGCCAGTCTCTCATGAT
CAGTACGACTATCTGTACTGTACTTTTAAATCCAGTTGTCATGGGATTGCAAACTGCCTC
AGCATCAGAAACTGCTGCCATTTCCAGTACATGAACTATGCTTTGGGTTTACTTAGAAAC
TCCTTGTTGAAAAATCTTCTTGCCTCAACATTACTAAGGGAAACAGAGCAACGAGATGGA
TTCTGTCTTCTATATTCAATGCTTTCAACCATGGCTTCTTTTATCACATCAATGTTGTTC
AGAGTATTGAAGCGCATAAGATCATGTAGTCTTTTGAATGCCTGATTTGGATATTGAAAA
TTGAAAGGTGAAAATGGCGATTCTGGGTCATCAAAAATATCANAGTCAGCGATTTCTTTC
TCTTCCTCAGTTTCCCTAGAACACCTGNAGCCNTGTACTTTCTGAGNTGATGNTGCCANA
ACAAGTGGATGATGGNTAGGGCATCTTCTCCTATTAGATTCTAGGTTTAAGACTANACTC
CTTCACCCTCCGATCAAACCNTAGATCATCTTTGAAGGGGGAGCTGTCATTTACCCACTT
NCTGCAGTAAATTCCTTGACGAGNCTANATNCCTNGNCCTGCNAAATCAAGAGATTGAAA
TCACCCNTCTGG

Restriction Sites: NotI-NotI

ACCN: NM_024420

Insert Size: 2900 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_024420.1, NP_077734.1
RefSeq Size:	2875 bp
RefSeq ORF:	2250 bp
Locus ID:	5321
UniProt ID:	P47712
Cytogenetics:	1q31.1
Domains:	C2, PLA2_B
Protein Pathways:	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
Gene Summary:	This gene encodes a member of the cytosolic phospholipase A2 group IV family. The enzyme catalyzes the hydrolysis of membrane phospholipids to release arachidonic acid which is subsequently metabolized into eicosanoids. Eicosanoids, including prostaglandins and leukotrienes, are lipid-based cellular hormones that regulate hemodynamics, inflammatory responses, and other intracellular pathways. The hydrolysis reaction also produces lysophospholipids that are converted into platelet-activating factor. The enzyme is activated by increased intracellular Ca(2+) levels and phosphorylation, resulting in its translocation from the cytosol and nucleus to perinuclear membrane vesicles. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).