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Product datasheet for SC118495

PLCG 2 (PLCG2) (NM_002661) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLCG 2 (PLCG2) (NM_002661) Human Untagged Clone
Tag:	Tag Free
Symbol:	PLCG 2
Synonyms:	APLAID; FCAS3; PLC-gamma-2; PLC-IV
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC118495 sequence for NM_002661 edited (data generated by NextGen Sequencing)

ATGTCCACCACGGTCAATGTAGATTCCCTTGCGGAATATGAGAAGAGCCAGATCAAGAGA
GCCCTGGAGCTGGGGACGGTGATGACTGTGTTCAGCTTCCGCAAGTCCACCCCCGAGCGG
AGAACCGTCCAGGTGATCATGGAGACGCGGCAGGTGGCCTGGAGCAAGACCGCCGACAAG
ATCGAGGGCTTCTTGGATATCATGGAAATAAAAGAAATCCGCCCAGGGAAGAACTCCAAA
GATTTCGAGCGAGCAAAAGCAGTTCGCCAGAAAGAAGACTGCTGCTTCACCATCCTATAT
GGCACTCAGTTCGTCCTCAGCACGCTCAGCTTGGCAGCTGACTCTAAAGAGGATGCAGTT
AACTGGCTCTCTGGCTTGAAAATCTTACACCAGGAAGCGATGAATGCGTCCACGCCCACC
ATTATCGAGAGTTGGCTGAGAAAGCAGATATATTCTGTGGATCAAACCAGAAGAAACAGC
ATCAGTCTCCGAGAGTTGAAGACCATCTTGCCCCTGATCAACTTTAAAGTGAGCAGTGCC
AAGTTCCTTAAAGATAAGTTTGTGGAAATAGGAGCACACAAAGATGAGCTCAGCTTTGAA
CAGTTCCATCTCTTCTATAAAAAACTTATGTTTGAACAGCAAAAATCGATTCTCGATGAA
TTCAAAAAGGATTCGTCCGTGTTCATCCTGGGGAACACTGACAGGCCGGATGCCTCTGCT
GTTTACCTGCATGACTTCCAGAGGTTTCTCATACATGAACAGCAGGAGCATTGGGCTCAG
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GCTGAGCCTTTCTTGTTTGTGGATGAGTTCCTCACGTACCTGTTTTCACGAGAAAACAGC
ATCTGGGATGAGAAGTATGACGCGGTGGACATGCAGGACATGAACAACCCCCTGTCTCAT
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TCCCCAGAAGCTTACATCCGCTGCCTGCGCATGGGCTGTCGCTGCATTGAACTGGACTGC
TGGGACGGGCCCGATGGGAAGCCGGTCATCTACCATGGCTGGACGCGGACTACCAAGATC
AAGTTTGATGACGTCGTGCAGGCCATCAAAGACCACGCCTTTGTTACCTCGAGCTTCCCA
GTGATCCTGTCCATCGAGGAGCACTGCAGCGTGGAGCAACAGCGTCACATGGCCAAGGCC
TTCAAGGAAGTATTTGGCGACCTGCTGTTGACGAAGCCCACGGAGGCCAGTGCTGACCAG
CTGCCCTCGCCCAGCCAGCTGCGGGAGAAGATCATCATCAAGCATAAGAAGCTGGGCCCC
CGAGGCGATGTGGATGTCAACATGGAGGACAAGAAGGACGAACACAAGCAACAGGGGGAG
CTGTACATGTGGGATTCCATTGACCAGAAATGGACTCGGCACTACTGCGCCATTGCTGAT

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GCCAAGCTGTCCTTCAGTGATGACATTGAACAGACTATGGAGGAGGAAGTGCCCCAGGAT
ATACCCCCTACAGAACTACATTTTGGGGAGAAATGGTTCCACAAGAAGGTGGAGAAGAGG
ACGAGTGCCGAGAAGTTGCTGCAGGAATACTGCATGGAGACGGGGGGCAAGGATGGCACC
TTCCTGGTTCGGGAGAGCGAGACCTTCCCCAATGACTACACCCTGTCCTTCTGGCGGTCA
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CACCTGCGCTGCGCCGAGTTCGAGCTGCGGCTCACGGACCCTGTGCCCAACCCCAACCCC
CACGAGTCCAAGCCGTGGTACTATGACAGCCTGAGCCGCGGAGAGGCAGAGGACATGCTG
ATGAGGATTCCCCGGGACGGGGCCTTCCTGATCCGGAAGCGAGAGGGGAGCGACTCCTAT
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CACTTTGTGCTGGGGACCTCCGCCTATTTTGAGAGTCTGGTGGAGCTCGTCAGTTACTAC
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GAGAAGAACCAGTCCATCGCCATCGAGCTCTCTGACCTGGTTGTCTACTGCAAACCAACC
AGCAAAACCAAGGACAACTTAGAAAATCCTGACTTCCGAGAAATCCGCTCCTTTGTGGAG
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CGCCTCTGGCTGTGCGGTTCTCAGATGGTGGCACTCAATTTCCAGACGGCAGATAAGTAC
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ATGACGCTGACAGTCAAGGTTCTCGGTGCTCGCCATCTCCCCAAACTTGGACGAAGTATT
GCCTGTCCCTTTGTAGAAGTGGAGATCTGTGGAGCCGAGTATGACAACAACAAGTTCAAG
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ACATTTGAAATTTATGACCCAAACCTGGCATTTCTGCGCTTTGTGGTTTATGAAGAAGAT
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GGATTCAGGTCCGTTCCTCTGAAGAATGGGTACAGCGAGGACATAGAGCTGGCTTCCCTC
CTGGTTTTCTGTGAGATGCGGCCAGTCCTGGAGAGCGAAGAGGAACTTTACTCCTCCTGT
CGCCAGCTGAGGAGGCGGCAAGAAGAACTGAACAACCAGCTCTTTCTGTATGACACACAC
CAGAACTTGCGCAATGCCAACCGGGATGCCCTGGTTAAAGAGTTCAGTGTTAATGAGAAC
CAGCTCCAGCTGTACCAGGAGAAATGCAACAAGAGGTTAAGAGAGAAGAGAGTCAGCAAC
AGCAAGTTTTACTCATAG

Clone variation with respect to NM_002661.3
1149 c=>t;1497 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002661 unedited
TTACCCCCGCCCGTTGCCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGC
AGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCGCG
AATTCGGCACGAGGCCGATTCCTTCCTTCTCCCTGGAGCGGCCGACAATGTCCACCACGG
TCAATGTAGATTCCCTTGCGGAATATGAGAAGAGCCAGATCAAGAGAGCCCTGGAGCTGG
GGACGGTGATGACTGTGTTCAGCTTCCGCAAGTCCACCCCCGAGCGGAGAACCGTCCAGG
TGATCATGGAGACGCGGCAGGTGGCCTGGAGCAAGACCGCCGACAAGATCGAGGGCTTCT
TGGATATCATGGAAATAAAAGAAATCCGCCCAGGGAAGAACTCCAAAGATTTCGAGCGAG
CAAAAGCAGTTCGCCAGAAAGAAGACTGCTGCTTCACCATCCTATATGGCACTCAGTTCG
TCCTCAGCACGCTCAGCTTGGCAGCTGACTCTAAAGAGGATGCAGTTAACTGGCTCTCTG
GCTTGAAAATCTTACACCAGGAAGCGATGAATGCGTCCACGCCCACCATTATCGAGAGTT
GGCTGAGAAAGCAGATATATTCTGTGGATCAAACCAGAAGAAACAGCATCAGTCTCCGAG
AGTTGAAGACCATCTTGCCCCTGATCAACTNTAAAGTGAGCAGTGCCAAGTTCCTTAAAG
ATAAGTTTGTGGAAATAGGAGCACACCAAAGATGAGCTCAGCTTGAACAGTTCCATCTCT
TCTATAAAAAACTATGTTTGAACAGCANAATCGATTCTCGATGAATTCANAAGGATNCGT
CCGTGNTCATCCTGNGGGACACTGACAGGCCGNATGCTCTGCTGTTAACTGCATGACTNN
CAGAGGNTNCTCATACATGACAGCCAGAGCATGGGCTTCAGATCTGACA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002661 unedited
NNGGGTATTTTATGNACCGCGCCGCATTCTANGATCGAGTTTTTTTTTTTTTTTTTCAA
GTTTTCATTGCTTTTATTCAATGAGGTTTGGAACATGAGAGGCCAAAAATGAGAGCACAT
TTTGGGGAATCCTCTATAAAGAATATAAGTTAAGAAAGTTGTCCAAGATGAAAATAATAG
GAAATTACCCCACCTCATGCCAGTTGGGTATAAAAAAATGTCCTTGATGGCAGGCTTGAA
GAAAAGATGTCACAGATTAGCGTCTTCCCAGAGTGTGAATAGGGCACGTTCTCCTACATG
CAAACACACATGCGCACACACACAATACCCTTACACACATACCCCAGCTTCTATGAGTAA
AACTTGCTGTTGCTGACTCTCTTCTCTCTTAACCTCTTGTTGCATTTCTCCTGGTACAGC
TGGAGCTGGTTCTCATTAACACTGAACTCTTTAACCAGGGCATCCCGGTTGGCATTGCGC
AAGTTCTGGTGTGTGTCATACAGAAAGAGCTGGTTGTTCAGTTCTTCTTGCCGCCTCCTC
AGCTGGCGACAGGAGGAGTAAAGTTCCTCTTCGCTCTCCAGGACTGGCCGCATCTCACAG
AAAACCAGGAGGGAAGCCAGCTCTATGTCCTCGCTGTACCCATTCTTCAGAGGAACGGAC
CTGAATCCTGATTTGACTGCTTTAATGGGGTAAGTGGCATGAGCAAGAAAGTTGGGATCG
CTGAACATATCTTCTTCATAAACCACAAAGCGCAGAAATGCCAGGTTTGGGTCATAAATT
TCAAATGTCACCTTCTCCTGTGTTGGAGCCCAGATAGGGCTGAGGCCATTATCATTCACA
ACCGTCGTCTTGAACTTGTTGTTGTCATACTCGGGCTCACAGATCTCCACTTCTACAAGG
GACAGGCATN

Restriction Sites: NotI-NotI

ACCN: NM_002661

Insert Size: 4700 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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
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_002661.1, NP_002652.1
RefSeq Size:	4242 bp
RefSeq ORF:	3759 bp
Locus ID:	5336
UniProt ID:	P16885
Cytogenetics:	16q23.3
Domains:	C2, PI-PLC-X, SH2, SH3, PI-PLC-Y, PH
Protein Families:	Druggable Genome
Protein Pathways:	B cell receptor signaling pathway, Calcium signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Glioma, Inositol phosphate metabolism, Leukocyte transendothelial migration, Metabolic pathways, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Phosphatidylinositol signaling system, VEGF signaling pathway, Vibrio cholerae infection

Gene Summary: The protein encoded by this gene is a transmembrane signaling enzyme that catalyzes the conversion of 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate to 1D-myo-inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) using calcium as a cofactor. IP3 and DAG are second messenger molecules important for transmitting signals from growth factor receptors and immune system receptors across the cell membrane. Mutations in this gene have been found in autoinflammation, antibody deficiency, and immune dysregulation syndrome and familial cold autoinflammatory syndrome 3. [provided by RefSeq, Mar 2014]