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Product datasheet for SC318575

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:	PLCG2
Synonyms:	APLAID; FCAS3; PLC-gamma-2; PLC-IV
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002661, the custom clone sequence may differ by one or more nucleotides

ATGTCCACCACGGTCAATGTAGATTCCCTTGCGGAATATGAGAAGAGCCAGATCAAGAGAGCCCTGGAGC
TGGGGACGGTGATGACTGTGTTCAGCTTCCGCAAGTCCACCCCCGAGCGGAGAACCGTCCAGGTGATCAT
GGAGACGCGGCAGGTGGCCTGGAGCAAGACCGCTGACAAGATCGAGGGCTTCTTGGATATCATGGAAATA
AAAGAAATCCGCCCAGGGAAGAACTCCAAAGATTTCGAGCGAGCAAAAGCAGTTCGCCAGAAAGAAGACT
GCTGCTTCACCATCCTATATGGCACTCAGTTCGTCCTCAGCACGCTCAGCTTGGCAGCTGACTCTAAAGA
GGATGCAGTTAACTGGCTCTCTGGCTTGAAAATCTTACACCAGGAAGCGATGAATGCGTCCACGCCCACC
ATTATCGAGAGTTGGCTGAGAAAGCAGATATATTCTGTGGATCAAACCAGAAGAAACAGCATCAGTCTCC
GAGAGTTGAAGACCATCTTGCCCCTGATCAACTTTAAAGTGAGCAGTGCCAAGTTCCTTAAAGATAAGTT
TGTGGAAATAGGAGCACACAAAGATGAGCTCAGCTTTGAACAGTTCCATCTCTTCTATAAAAAACTTATG
TTTGAACAGCAAAAATCGATTCTCGATGAATTCAAAAAGGATTCGTCCGTGTTCATCCTGGGGAACACTG
ACAGGCCGGATGCCTCTGCTGTTTACCTGCATGACTTCCAGAGGTTTCTCATACATGAACAGCAGGAGCA
TTGGGCTCAGGATCTGAACAAAGTCCGTGAGCGGATGACAAAGTTCATTGATGACACCATGCGTGAAACT
GCTGAGCCTTTCTTGTTTGTGGATGAGTTCCTCACGTACCTGTTTTCACGAGAAAACAGCATCTGGGATG
AGAAGTATGACGCGGTGGACATGCAGGACATGAACAACCCCCTGTCTCATTACTGGATCTCCTCGTCACA
TAACACGTACCTTACAGGTGACCAGCTGCGGAGCGAGTCGTCCCCAGAAGCTTACATCCGCTGCCTGCGC
ATGGGCTGTCGCTGCATTGAACTGGACTGCTGGGACGGGCCCGATGGGAAGCCGGTCATCTACCATGGCT
GGACGCGGACTACCAAGATCAAGTTTGACGACGTCGTGCAGGCCATCAAAGACCACGCCTTTGTTACCTC
GAGCTTCCCAGTGATCCTGTCCATCGAGGAGCACTGCAGCGTGGAGCAACAGCGTCACATGGCCAAGGCC
TTCAAGGAAGTATTTGGCGACCTGCTGTTGACGAAGCCCACGGAGGCCAGTGCTGACCAGCTGCCCTCGC
CCAGCCAGCTGCGGGAGAAGATCATCATCAAGCATAAGAAGCTGGGCCCCCGAGGCGATGTGGATGTCAA
CATGGAGGACAAGAAGGACGAACACAAGCAACAGGGGGAGCTGTACATGTGGGATTCCATTGACCAGAAA
TGGACTCGGCACTACTGCGCCATTGCCGATGCCAAGCTGTCCTTCAGTGATGACATTGAACAGACTATGG
AGGAGGAAGTGCCCCAGGATATACCCCCTACAGAACTACATTTTGGGGAGAAATGGTTCCACAAGAAGGT
GGAGAAGAGGACGAGTGCCGAGAAGTTGCTGCAGGAATACTGCATGGAGACGGGGGGCAAGGATGGCACC

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TTCCTGGTTCGGGAGAGCGAGACCTTCCCCAATGACTACACCCTGTCCTTCTGGCGGTCAGGCCGGGTCC
AGCACTGCCGGATCCGCTCCACCATGGAGGGCGGGACCCTGAAATACTACTTGACTGACAACCTCACCTT
CAGCAGCATCTATGCCCTCATCCAGCACTACCGCGAGACGCACCTGCGCTGCGCCGAGTTCGAGCTGCGG
CTCACGGACCCTGTGCCCAACCCCAACCCCCACGAGTCCAAGCCGTGGTACTATGACAGCCTGAGCCGCG
GAGAGGCAGAGGACATGCTGATGAGGATTCCCCGGGACGGGGCCTTCCTGATCCGGAAGCGAGAGGGGAG
CGACTCCTATGCCATCACCTTCAGGGCTAGGGGCAAGGTAAAGCATTGTCGCATCAACCGGGACGGCCGG
CACTTTGTGCTGGGGACCTCCGCCTATTTTGAGAGTCTGGTGGAGCTCGTCAGTTACTACGAGAAGCATT
CACTCTACCGAAAGATGAGACTGCGCTACCCCGTGACCCCCGAGCTCCTGGAGCGCTACAATATGGAAAG
AGATATAAACTCCCTCTACGACGTCAGCAGAATGTATGTGGATCCCAGTGAAATCAATCCGTCCATGCCT
CAGAGAACCGTGAAAGCTCTGTATGACTACAAAGCCAAGCGAAGCGATGAGCTGAGCTTCTGCCGTGGTG
CCCTCATCCACAATGTCTCCAAGGAGCCCGGGGGCTGGTGGAAAGGAGACTATGGAACCAGGATCCAGCA
GTACTTCCCATCCAACTACGTCGAGGACATCTCAACTGCAGACTTCGAGGAGCTAGAAAAGCAGATTATT
GAAGACAATCCCTTAGGGTCTCTTTGCAGAGGAATATTGGACCTCAATACCTATAACGTCGTGAAAGCCC
CTCAGGGAAAAAACCAGAAGTCCTTTGTCTTCATCCTGGAGCCCAAGCAGCAGGGCGATCCTCCGGTGGA
GTTTGCCACAGACAGGGTGGAGGAGCTCTTTGAGTGGTTTCAGAGCATCCGAGAGATCACCTGGAAGATT
GACACCAAGGAGAACAACATGAAGTACTGGGAGAAGAACCAGTCCATCGCCATCGAGCTCTCTGACCTGG
TTGTCTACTGCAAACCAACCAGCAAAACCAAGGACAACTTAGAAAATCCTGACTTCCGAGAAATCCGCTC
CTTTGTGGAGACGAAGGCTGACAGCATCATCAGACAGAAGCCCGTCGACCTCCTGAAGTACAATCAAAAG
GGCCTGACCCGCGTCTACCCAAAGGGACAAAGAGTTGACTCTTCAAACTACGACCCCTTCCGCCTCTGGC
TGTGCGGTTCTCAGATGGTGGCACTCAATTTCCAGACGGCAGATAAGTACATGCAGATGAATCACGCATT
GTTTTCTCTCAATGGGCGCACGGGCTACGTTCTGCAGCCTGAGAGCATGAGGACAGAGAAATATGACCCG
ATGCCACCCGAGTCCCAGAGGAAGATCCTGATGACGCTGACAGTCAAGGTTCTCGGTGCTCGCCATCTCC
CCAAACTTGGACGAAGTATTGCCTGTCCCTTTGTAGAAGTGGAGATCTGTGGAGCCGAGTATGACAACAA
CAAGTTCAAGACGACGGTTGTGAATGATAATGGCCTCAGCCCTATCTGGGCTCCAACACAGGAGAAGGTG
ACATTTGAAATTTATGACCCAAACCTGGCATTTCTGCGCTTTGTGGTTTATGAAGAAGATATGTTCAGCG
ATCCCAACTTTCTTGCTCATGCCACTTACCCCATTAAAGCAGTCAAATCAGGATTCAGGTCCGTTCCTCT
GAAGAATGGGTACAGCGAGGACATAGAGCTGGCTTCCCTCCTGGTTTTCTGTGAGATGCGGCCAGTCCTG
GAGAGCGAAGAGGAACTTTACTCCTCCTGTCGCCAGCTGAGGAGGCGGCAAGAAGAACTGAACAACCAGC
TCTTTCTGTATGACACACACCAGAACTTGCGCAATGCCAACCGGGATGCCCTGGTTAAAGAGTTCAGTGT
TAATGAGAACCAGCTCCAGCTGTACCAGGAGAAATGCAACAAGAGGTTAAGAGAGAAGAGAGTCAGCAAC
AGCAAGTTTTACTCATAG

Restriction Sites: SgfI-MluI

ACCN: NM_002661

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

OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
RefSeq:	NM_002661.4, NP_002652.2
RefSeq Size:	8707 bp
RefSeq ORF:	3798 bp
Locus ID:	5336
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]