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Product datasheet for SC107651

Phospholipase C gamma 1 (PLCG1) (NM_182811) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholipase C gamma 1 (PLCG1) (NM_182811) Human Untagged Clone
Tag:	Tag Free
Symbol:	Phospholipase C gamma 1
Synonyms:	NCKAP3; PLC-II; PLC1; PLC148; PLCgamma1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC107651 sequence for NM_182811 edited (data generated by NextGen Sequencing)

ATGGCGGGCGCCGCGTCCCCTTGCGCCAACGGCTGCGGGCCCGGCGCGCCCTCGGACGCC
GAGGTGCTGCACCTCTGCCGCAGCCTCGAGGTGGGCACCGTCATGACTTTGTTCTACTCC
AAGAAGTCGCAGCGACCCGAGCGGAAGACCTTCCAGGTCAAGCTGGAGACGCGCCAGATC
ACGTGGAGCCGGGGCGCCGACAAGATCGAGGGGGCCATTGACATTCGTGAAATTAAGGAG
ATCCGCCCAGGGAAGACCTCACGGGACTTTGATCGCTATCAAGAGGACCCAGCTTTCCGG
CCGGACCAGTCACATTGCTTTGTCATTCTCTATGGAATGGAATTTCGCCTGAAAACGCTG
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TTTTACTCAGTGGATCGGAATCGTGAGGATCGTATATCAGCCAAGGACCTGAAGAACATG
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CTGGAGCAGCGCAGCGGGGACATCACCTACGGGCAGTTTGCTCAGCTGTACCGCAGCCTC
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TACCAGGGGGAGCTGTGGGCTGTTGATCGCCTCCAGGTGCAGGAGTTCATGCTCAGCTTC
CTCCGAGACCCCTTACGAGAGATCGAGGAGCCATACTTCTTCCTGGATGAGTTTGTCACC
TTCCTGTTCTCCAAAGAGAACAGTGTGTGGAACTCGCAGCTGGATGCAGTATGCCCGGAC
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TGTCGCTGCATTGAGTTGGACTGCTGGGACGGCCCGGATGGGATGCCAGTTATTTACCAT
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GCCTTTGTGGCCTCAGAGTACCCAGTCATCCTGTCCATTGAGGACCACTGCAGCATTGCC
CAGCAGAGAAACATGGCCCAATACTTCAAGAAGGTGCTGGGGGACACACTCCTCACCAAG
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ATCAAGCACAAGAAGCTGGCTGAGGGCAGTGCCTACGAGGAGGTGCCTACATCCATGATG
TACTCTGAGAACGACATCAGCAACTCTATCAAGAATGGCATCCTCTACCTGGAGGACCCT

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GTGAACCACGAATGGTATCCCCACTACTTTGTTCTGACCAGCAGCAAGATCTACTACTCT
GAGGAGACCAGCAGTGACCAGGGCAACGAGGATGAGGAGGAGCCCAAGGAGGTCAGCAGC
AGCACAGAGCTGCACTCCAATGAGAAGTGGTTCCATGGGAAGCTAGGGGCAGGGCGTGAC
GGGCGTCACATCGCTGAGCGCCTGCTTACTGAGTACTGCATCGAGACCGGAGCCCCTGAC
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CAGGTGCCCCTGCGCTGTAATGAGTTTGAGATGCGACTTTCAGAGCCTGTCCCACAGACC
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GGCCAGACAGTGATGCTAGGGAACTCGGAGTTCGACAGCCTTGTTGACCTCATCAGCTAC
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AGTCCCTTCAGTGGTACGTCCCTGCGGGAGCGGGGCTCAGATGCCTCAGGCCAGCTGTTT
CATGGCCGAGCCCGGGAAGGCTCCTTTGAATCCCGCTACCAGCAGCCGTTTGAGGACTTC
CGCATCTCCCAGGAGCATCTCGCAGACCATTTTGACAGTCGAGAACGAAGGGCCCCAAGA
AGGACTCGGGTCAATGGAGACAACCGCCTCTAG

Clone variation with respect to NM_182811.1
1828 a=>g;2438 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_182811 unedited
CTATAGGGCGGCCGCGAATTCGCACGAGGGCGCGCGGAGGACCCGCCGCCGCCGGTGTGA
GGCGGCCCGTCCTGGCTCCCTTGTCCGGGAAGCCCGCCCAGGAGCCGCCGCCGGGTCCCG
CTCGTCTGCCGCCTCAGCCTCAGCCCCAACCTCAGCCGCCGCCGTTGCGCTTGCTCCCGG
GCGGTCCTGGCCTGTGCCGCCGCCGCCCCCAGCGTCGGAGCCATGGCGGGCGCCGCGTCC
CCTTGCGCCAACGGCTGCGGGCCCGGCGCGCCCTCGGACGCCGAGGTGCTGCACCTCTGC
CGCAGCCTCGAGGTGGGCACCGTCATGACTTTGTTCTACTCCAAGAAGTCGCAGCGACCC
GAGCGGAAGACCTTCCAGGTCAAGCTGGAGACGCGCCAGATCACGTGGAGCCGGGGCGCC
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TCACGGGACTTTGATCGCTATCAAGAGGACCCAGCTTTCCGGCCGGACCAGTCACATTGC
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GAGGATGAAGTGAACATGTGGATCAAGGGCTTAACTTGGCTGATGGATGATACATTGCAG
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AATCGTGAGGATCGTATATCAGCCAAGGACCTGAAGAAACATGCTGTCCANGTCAACTAC
CGGGTCCCCAACATGCGCTTTCTCCGAGAGCGGCTGACGGACCTGGAGCAGCGCAGCGGG
GACATCACCTACGGGCAGTTTGCTCAGCTGTACGGCAGCCTCATGTACA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_182811 unedited
TATGTACCGTCGGCCGCAATCCANAGTCGGTTTTTTTTTTTTTTTTTGAATGAAAATGA
TTTTTAAATTTGCTTGAGAGGGGGCACGTTTGTCCACTAAGAAAAAACAATCAAAACATT
TGCAGTGAGGCAAAGGCAATGTCTTACAGAGCCCAAGAGAGGTGAGCCTCAGGTCTACAA
AGCTGCCTTAAGAAAGGCAGAGCTGTTTGTTTCCCTGATGTGGGCCAGAAAGACTTTTGG
GGGGGGATATAGATACGTATTGATGAAAACTAAAAGGGTCAACGGGGGGGGGGACTCCTA
GGACGTCCTAACCAACGTGGATGGGCCCTAACACAAGGGCCTACACAGTCCTCTTCCTTC
TCTGATAGGAAACCTTTCTCTCCAGGCCCTAAAAACCTACAGAGGAAACATGGATCATGA
GGGCCCCGGTGAATTCCCACCCCCCACCCTCTTGTGTTTGGGAAAAAACCACCCTCCTCC
CTTTTAACTGGGACTGTGAAGCTGGTAAAGAAAGCACACAAGAACCTGAGCACTATCCCT
GTTTGGTACTGGCTATCATAAATTTATGTGATCCCCGGGACCGGGCCTAGTCTAAAATTT
TTTTGTGGCGGGGTTTTTTGTTCTTCCCCCCCACCCCCCCATGTTAAACAACTTCCTAAA
ATAAAGGGCCTTTCCCTGTTTTTTTATGGGGCCGAGTATTTATCTTTGCTGTCCTACGAG
CCATCTAATAGAACACCGCACGGGTGTCCGAACTCGGAGGCAACATCTTTTTAATATAAA
GGTTTATTTTCGTGACCTGATAAGGGGGTCCGGTGTGTTTTTCTGTTTTTTCACACAACA
CGGGCTGGCGGCAGCGAAACCAACACAGAAGGGACGTTGGGTTTTACTCTCCCCCCCCAG
CCGGGGTGTGGAGAGTGAGGGGGAACACTCCCGTTCCCCCCGAAGGGGGAACAGCACGCG
CGTCGTTTTCCGAGATATACACAATT

Restriction Sites: NotI-NotI

ACCN: NM_182811

Insert Size: 6300 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_182811.1, NP_877963.1
RefSeq Size:	5202 bp
RefSeq ORF:	3873 bp
Locus ID:	5335
UniProt ID:	P19174
Cytogenetics:	20q12
Protein Families:	Druggable Genome
Protein Pathways:	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, T cell receptor signaling pathway, VEGF signaling pathway, Vibrio cholerae infection
Gene Summary:	The protein encoded by this gene catalyzes the formation of inositol 1,4,5-trisphosphate and diacylglycerol from phosphatidylinositol 4,5-bisphosphate. This reaction uses calcium as a cofactor and plays an important role in the intracellular transduction of receptor-mediated tyrosine kinase activators. For example, when activated by SRC, the encoded protein causes the Ras guanine nucleotide exchange factor RasGRP1 to translocate to the Golgi, where it activates Ras. Also, this protein has been shown to be a major substrate for heparin-binding growth factor 1 (acidic fibroblast growth factor)-activated tyrosine kinase. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (2) uses an alternate in-frame splice site compared to variant 1, resulting in an isoform (b) that is shorter than isoform a.