

## Product datasheet for **SC309928**

### Phospholipase C gamma 1 (PLCG1) (NM\_002660) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholipase C gamma 1 (PLCG1) (NM_002660) Human Untagged Clone
Tag:	Tag Free
Symbol:	Phospholipase C gamma 1
Synonyms:	NCKAP3; PLC-II; PLC1; PLC148; PLCgamma1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_002660 edited  
 ATGGCGGGCGCCGCTCCCTTTCGCCAACGGCTGCGGGCCCGCCCTCGGACGCC  
 GAGGTGCTGCACCTCTGCCGACGCTCGAGGTGGGACCGTCATGACTTTGTTCTACTCC  
 AAGAAGTCGCAGCGACCCGAGCGGAAGACCTTCCAGGTCAAGCTGGAGACGCGCCAGATC  
 ACGTGGAGCCGGGGCGCCGACAAGATCGAGGGGCCATTGACATTCTGTGAAATTAAGGAG  
 ATCCGCCAGGGAAGACCTCACGGGACTTTGATCGCTATCAAGAGGACCCAGCTTCCGG  
 CCGGACCAAGTACATTGCTTTGTCATTCTCTATGGAATGGAATTCGCCTGAAAACGCTG  
 AGCCTGCAAGCCACATCTGAGGATGAAGTGAACATGTGGATCAAGGGCTTAACTGGCTG  
 ATGAGGATACATTGCAGGCACCCACCCCTGCAGATTGAGAGGTGGCTCCGGAAGCAG  
 TTTTACTCAGTGGATCGGAATCGTGAGGATCGTATATCAGCCAAGGACCTGAAGAACATG  
 CTGTCCCAGGTCAACTACCGGGTCCCCAACATGCGCTTCTCCGAGAGCGGCTGACGGAC  
 CTGGAGCAGCGCAGCGGGGACATCACCTACGGGCAGTTTGCTCAGCTGTACCGCAGCCTC  
 ATGTACAGCGCCAGAAGACGATGGACCTCCCCTTCTTGAAGCCAGTACTCTGAGGGCT  
 GGGGAGCGCCGGAGCTTTGCCGAGTGTCCCTTCTGAGTTCAGCAGTTCCTTCTTGAC  
 TACCAGGGGGAGCTGTGGGCTGTTGATCGCCTCCAGGTGCAGGAGTTCATGCTCAGCTTC  
 CTCCGAGACCCCTTACGAGAGATCGAGGAGCCATACTTCTTCTGGATGAGTTTGTCAAC  
 TTCCTGTTCTCCAAGAGAACAGTGTGTGGAACCGCAGCTGGATGCAGTATGCCCGGAC  
 ACCATGAACAACCCTCTTCCACTACTGGATCTCCTCCTCGCACAACACGTACCTGACC  
 GGGGACCAAGTTCTCCAGTGAGTCTCCTTGAAGCCTATGCTCGTGCCTGCGGATGGGC  
 TGTGCTGCAATTGAGTTGACTGCTGGGACGGCCCGGATGGGATGCCAGTTATTTACCAT  
 GGGCACACCCCTTACCACCAAGATCAAGTTCTCAGATGTCCTGCACACCATCAAGGAGCAT  
 GCCTTTGTGGCCTCAGAGTACCCAGTCATCCTGTCCATTGAGGACCACTGCAGCATTGCC  
 CAGCAGAGAAACATGGCCCAATACTTCAAGAAGGTGCTGGGGACACACTCCTCACCAG  
 CCCGTGGAGATCTCTGCCGACGGGCTCCCCTCACCAACCAGCTTAAGAGGAAGATCCTC  
 ATCAAGCACAAGAAGCTGGCTGAGGGCAGTGCCTACGAGGAGGTGCCTACATCCATGATG  
 TACTCTGAGAACGACATCAGCAACTCTATCAAGAATGGCATCCTTACCTGGAGGACCT  
 GTGAACCACGAATGGTATCCCCACTACTTTGTTCTGACCAGCAGCAAGATCTACTACTCT



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GAGGAGACCAGCAGTGACCAGGGCAACGAGGATGAGGAGGAGCCCAAGGAGGTCAGCAGC  
 AGCACAGAGCTGCACTCCAATGAGAAGTGGTTCATGGGAAGCTAGGGGCAGGGCGTGAC  
 GGGCGTCACATCGCTGAGCGCCTGCTTACTGAGTACTGCATCGAGACCGGAGCCCTGAC  
 GGCTCCTTCTCGTGCGAGAGAGTGAGACCTTCGTGGGCGACTACACGCTCTCTTTCTGG  
 CGGAACGGGAAAGTCCAGCACTGCCGTGCCACTCCCGCAAGATGCTGGGACCCCAAG  
 TTCTTCTTGACAGACAACCTCGTCTTTGACTCCCTCTATGACCTCATCAGCACTACCAG  
 CAGGTGCCCTGCGCTGTAATGAGTTTGAGATGCGACTTTCAGAGCCTGTCCCACAGACC  
 AACGCCACGAGAGCAAAGAGTGGTACCACGCGAGCCTGACCAGAGCACAGGCTGAGCAC  
 ATGCTAATGCGCTCCCTCGTGATGGGGCTTCTGGTGCGGAAGCGGAATGAACCAAC  
 TCATATGCCATCTCTTCCGGGCTGAGGGCAAGATCAAGCATTGCCGTGCCAGCAAGAG  
 GGCCAGACAGTGATGCTAGGGAACCGGAGTTCGACAGCCTTGTGACCTCATCAGCTAC  
 TATGAGAAACACCCGCTATACCGCAAGATGAAGCTGCGCTATCCCATCAACGAGGAGGCA  
 CTGGAGAAGATTGGCACAGCTGAGCCTGACTACGGGGCCCTGTATGAGGGACGCAACCT  
 GGCTTCTATGTAGAGGCAAAACCTATGCCAACTTCAAGTGTGCAGTCAAAGCCCTCTT  
 GACTACAAGGCCAGAGGGAGGACGAGCTGACCTTACCAAGAGGCCATCATCCAGAAT  
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 CACTTGGACGAGAACAGCCCCCTAGGGGACTTGTGCGGGGGGTCTTGGATGTGCCGGCT  
 TGTGAGATTGCCATCCGTCCTGAGGGCAAGAACAACCGGCTCTTCGTCTTCTCCATCAGC  
 ATGGCGTCGGTGGCCACTGGTCCCTGGATGTTGCTGCCACTCACAGGAGGAGCTGCAG  
 GACTGGGTGAAAAAGATCCGTGAAGTGGCCAGACAGCAGACGCCAGGCTCACTGAAGGG  
 AAGATAATGGAACGGAGGAAGAAGATTGCCCTGGAGCTCTCTGAACTTGTGCTACTGCG  
 CGCCCTGTTCCCTTTGATGAAGAGAAGATTGGCACAGAACGTGCTTGCTACCGGGACATG  
 TCATCCTTCCCGAAACCAAGGCTGAGAAATACGTGAACAAGGCCAAAGGCAAGAAGTTC  
 CTTCAAGTACAATCGACTGCACTCTCCCGCATCTACCCCAAGGGCCAGGACTGGATTCC  
 TCCAACCTACGATCCTTTCGCCATGTGGATCTGTGGCAGTCAGCTTGTGGCCCTCAACTTC  
 CAGACCCCTGACAAGCCTATGCAGATGAACCAGGCCCTTTCATGACGGGAGGCACTGT  
 GGCTACGTGCTGCAGCAAGCACCATGCGGGATGAGGCCCTTCGACCCCTTTCACAAGAGC  
 AGCCTCCGCGGGCTGGAGCCATGTGCCATCTCTATTGAGGTGCTGGGGCCCGACATCTG  
 CCAAAGAATGGCCGAGGCATTGTGTGCCTTTTGTGGAGATTGAGGTGGCTGGAGCTGAG  
 TATGACAGCACCAGCAGAAGACAGAGTTTGTGGTGGACAATGGACTCAACCCTGTATGG  
 CCAGCCAAGCCCTCCACTTCCAGATCAGTAACCTGAATTTGCCCTTCTGCGCTTCGTG  
 GTGATGAGGAAGACATGTTTAGTGACCAGAATTTCTGGCTCAGGCTACTTCCAGTA  
 AAAGGCCCTGAAGACAGGATACAGAGCAGTGCCTTTGAAGAACAACCTACAGTGAGGACCTG  
 GAGTTGGCCTCCCTGCTGATCAAGATTGACATTTCCCTGCCAAGCAGGAGAATGGTGAC  
 CTCAGTCCCTCAGTGGTACGTCCTGCGGGAGCGGGCTCAGATGCCTCAGGCCAGCTG  
 TTTTCATGGCCGAGCCCGGAAGGCTCCTTTGAATCCCGCTACCAGCAGCCGTTTGAGGAC  
 TTCCGCATCTCCAGGAGCATCTCGCAGACCATTTGACAGTCGAGAACGAAGGGCCCA  
 AGAAGGACTCGGGTCAATGGAGACAACCGCCTCTAG

- Restriction Sites:** Please inquire
- ACCN:** NM\_002660
- 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).
- OTI Annotation:** The ORF of this clone has been fully sequenced and found to contain 2 SNPs compared with NM\_002660.2.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_002660.2</a></u> , <u><a href="#">NP_002651.2</a></u>
<b>RefSeq Size:</b>	5205 bp
<b>RefSeq ORF:</b>	3876 bp
<b>Locus ID:</b>	5335
<b>UniProt ID:</b>	<u><a href="#">P19174</a></u>
<b>Cytogenetics:</b>	20q12
<b>Domains:</b>	C2, PI-PLC-X, SH2, SH3, PI-PLC-Y, PH
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	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
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).</p>