

Product datasheet for **RG216391**

Phospholipase C gamma 1 (PLCG1) (NM_182811) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholipase C gamma 1 (PLCG1) (NM_182811) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PLCG1
Synonyms:	NCKAP3; PLC-II; PLC1; PLC148; PLCgamma1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216391 representing NM_182811 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGGCGCCGCTCCCTTGCGCCAACGGCTGCGGGCCCGGCGCCCTCGGACGCCGAGGTGCTGC
ACCTCTGCCGAGCCTCGAGGTGGGCACCGTCATGACTTGTCTACTCCAAGAAGTCGACGCGACCCGA
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AAGCCAGTACTCTGAGGGCTGGGAGCGGCCGAGCTTGGCCAGTGTCCCTTCTGAGTCCAGCAGTT
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AAGAATGGCATCCTCTACCTGGAGGACCCTGTGAACCACGAATGGTATCCCCACTACTTTGTTCTGACCA
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CGCATCTCCAGGAGCATCTCGCAGACATTTTGACAGTCGAGAACGAAGGGCCCAAGAAGGACTCGGG
TCAATGGAGACAACCGCCTC

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG216391 representing NM_182811
 Red=Cloning site Green=Tags(s)

MAGAASPCANGCGPGAPSDAEVLHLCRSLEVGTVMTLFYSKKSQRPERKTFQVKLETRQITWSRGADKIE
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 MEDTLQAPTPLQIERWLRKQFYSDRNREDRISAKDLKNMLSQVNYRVPNMRFLRERLTDLEQRSGDITY
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 VAADSQEELQDWYKIREVAQTADARL TEGKIMERRKIALELSELVYCRPVPFDEEKIGTERACYRDM
 SSFPETKAEKYVNKAKGKFLQYNRLQLSRIYPKGQRLDSSNYDPLPMWICGSQLVALNFQTPDKPMQMN
 QALFMTGRHCYVLPSTMRDEAFDPFDKSSLRGLEPCAISIEVLGARHLPKNGRIGVCPFVEIEVAGAE
 YDSTKQKTEFVVDNGLNPVWPAKPFHFQISNPEFAFLRFVVEEDMFSQNFQAQATFPVKGLKTGYRAV
 PLKNNYSEDL ELASLLIKIDIFPAKENGDLSPFSGTSLRERGSASGQLFHGRAREGSFESRYQQPFEDF
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TRTRPLE - GFP Tag - V

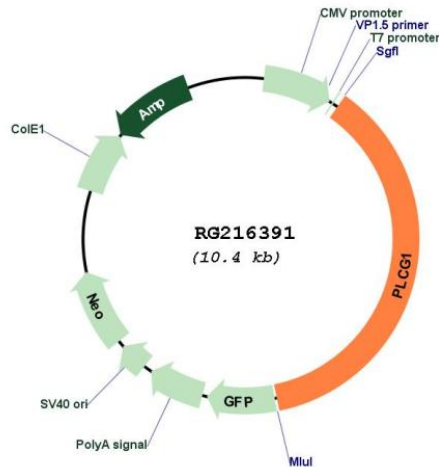
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_182811

ORF Size: 3870 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_182811.2](#)

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:	<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>