

Product datasheet for RC207790

PI 3 Kinase catalytic subunit gamma (PIK3CG) (NM_002649) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase catalytic subunit gamma (PIK3CG) (NM_002649) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PI 3 Kinase catalytic subunit gamma
Synonyms:	p110gamma; p120-PI3K; PI3CG; PI3K; PI3Kgamma; PIK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207790 representing NM_002649 Red=Cloning site Blue=ORF Green=Tags(s)

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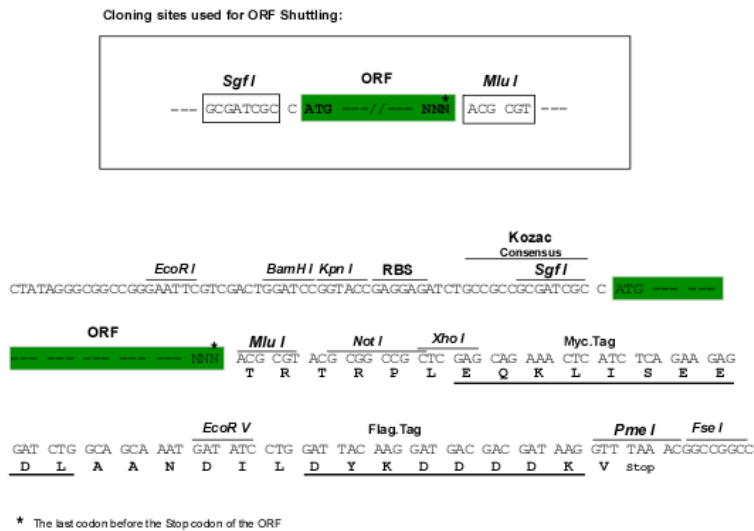
Protein Sequence:

>RC207790 representing NM_002649
 Red=Cloning site Green=Tags(s)

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 ERVPFVLPDFLVMGTSKKTSPhfQKFQDQICVKAYLALRHHTNLLIILFSMMLMTGMPQLTSKEDIEY
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2737_g05.zip
 Restriction Sites: SgfI-MluI
 Cloning Scheme:



ACCN: NM_002649

ORF Size: 3306 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_002649.3](#)

RefSeq Size: 5379 bp

RefSeq ORF: 3309 bp

Locus ID: 5294

UniProt ID: [P48736](#)

Cytogenetics: 7q22.3

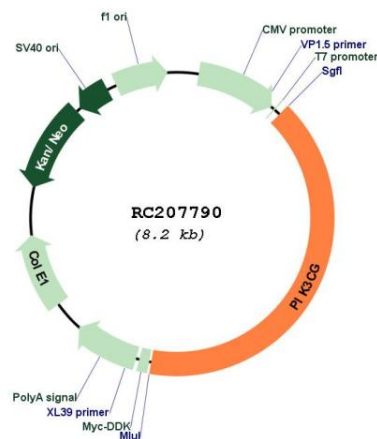
Protein Families: Druggable Genome, ES Cell Differentiation/IPS

Protein Pathways: Acute myeloid leukemia, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Inositol phosphate metabolism, Insulin signaling pathway, Jak-STAT signaling pathway, Leukocyte transendothelial migration, Melanoma, mTOR signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Phosphatidylinositol signaling system, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway, Type II diabetes mellitus, VEGF signaling pathway

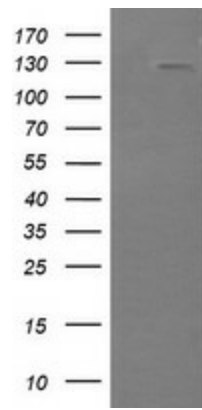
MW: 126.3 kDa

Gene Summary: Phosphoinositide 3-kinases (PI3Ks) phosphorylate inositol lipids and are involved in the immune response. The protein encoded by this gene is a class I catalytic subunit of PI3K. Like other class I catalytic subunits (p110-alpha p110-beta, and p110-delta), the encoded protein binds a p85 regulatory subunit to form PI3K. This gene is located in a commonly deleted segment of chromosome 7 previously identified in myeloid leukemias. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jun 2015]

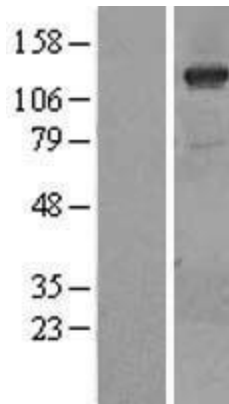
Product images:



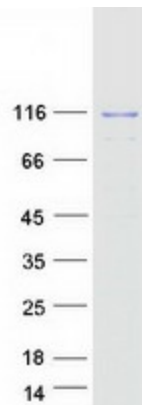
Circular map for RC207790



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PIK3CG (Cat# RC207790, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PIK3CG (Cat# [TA505227]). Positive lysates [LY419184] (100ug) and [LC419184] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419184]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207790 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIK3CG protein (Cat# [TP307790]). The protein was produced from HEK293T cells transfected with PIK3CG cDNA clone (Cat# RC207790) using MegaTran 2.0 (Cat# [TT210002]).