

Product datasheet for **SC124070**

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

Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase catalytic subunit gamma (PIK3CG) (NM_002649) Human Untagged Clone
Tag:	Tag Free
Symbol:	PI 3 Kinase catalytic subunit gamma
Synonyms:	p110gamma; p120-PI3K; PI3CG; PI3K; PI3Kgamma; PIK3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC124070 sequence for NM_002649 edited (data generated by NextGen Sequencing)

```

ATGGAGCTGGAGAACTATAAACAGCCCGTGGTGTGCTGAGAGAGGACAACCTGCCGAAGCGCC
CGGAGGATGAAGCCGCGCAGTGCTGCGGCCAGCCTGTCCATGGAGCTCATCCCCATC
GAGTTCGTGCTGCCACCCAGCCAGCGCAATGCAAGAGCCCGAAACGGCGCTGTGCAC
GTGGCCGGCCACGGCAACGTGGAGCAGATGAAGGCCAGGTGTGGCTGCGAGCGCTGGAG
ACCAGCGTGGCGGCGGACTTCTACCACCGGCTGGGACCGCATCACTTCTCCTGTCTAT
CAGAAGAAGGGGAGTGGTACGAGATCTACGACAAGTACCAGGTGGTGCAGACTCTGGAC
TGCTGCGCTACTGGAAGGCCACGCACCGGAGCCCGGCCAGATCCACCTGGTGCAGCGG
CACCCGCCCTCCGAGGAGTCCCAAGCCTCCAGCGGCAGCTCACGGCGCTGATTGGCTAT
GACGTCAGTACGTCAGCAACGTGCACGACGATGAGCTGGAGTTCACGCGCCGTGGCTTG
GTGACCCCGCGCATGGCGGAGGTGGCCAGCCGCGACCCCAAGCTCTACGCCATGCACCCG
TGGGTGACGTCCAAGCCCTCCCGGAGTACCTGTGGAAGAAGATTGCCAACAACTGCATC
TTCATCGTCATTCACCGCAGCACCCAGCCAGACCATTAAGGTCTCACCCGACGACACC
CCCGGCCCATCTCTGCAGAGCTTCTTACCAAGATGGCCAAGAAGAAATCTCTGATGGAT
ATTCCCGAAAGCCAAAGCGAACAGGATTTTGTGCTGCGCGTCTGTGGCCGGGATGAGTAC
CTGGTGGGCGAAACGCCCATCAAAAATCCAGTGGGTGAGGCACTGCCTCAAGAACGGA
GAAGAGATTCACGTGGTACTGGACACGCCTCCAGACCCGGCCCTAGACGAGGTGAGGAAG
GAAGAGTGGCCGCTGGTGGACGACTGCACGGGAGTCACCGGCTACCATGACGAGTACC
ATCCACGCAAGGACCACGAGAGTGTGTTACCGTGTCCCTGTGGGACTGCGACCCGCAAG
TTCAGGGTCAAGATCAGAGGCATTGATATCCCCGTCTGCCTCGGAACACCGACCTCACA
GTTTTTGTAGAGGCAAACATCCAGCATGGGCAACAAGTCTTTGCCAAAGGAGAACCAGC
CCCAAACCCTTACAGAGGAGGTGCTGTGGAATGTGTGGCTTGTGTTTCAATCAAAAATC
AAAGACTTGCCCAAAGGGGCTCTACTGAACCTCCAGATCTACTGCGGTAAGCTCCAGCA
CTGTCCAGCAAGGCTCTGCAGAGTCCCCAGTTCTGAGTCCAAGGGCAAAGTTCAGCTT
CTCTATTATGTGAACCTGCTGCTGATAGACCACCGTTTCTCCTGCGCCGTGGAGAATAC
GTCCTCCACATGTGGCAGATATCTGGGAAGGGAGAAGACCAAGGAAGCTTCAATGCTGAC

```



[View online »](#)

AAACTCACGTCTGCAACTAACCCAGACAAGGAGAACTCAATGTCCATCTCCATTCTTCTG
 GACAACTACTGCCACCCGATAGCCCTGCCTAAGCATCAGCCACCCTGACCCGGAAGGG
 GACCGGTTTCGAGCAGAAATGCCAACCCAGCTTCGCAAGCAATTGGAGGCGATCATAGCC
 ACTGATCCACTTAACCCTCTCACAGCAGAGGACAAAGAATTGCTCTGGCATTTTAGATAC
 GAAAGCCTTAAGCACCCAAAAGCATATCCTAAGCTATTTAGTTTCAGTGAAATGGGGACAG
 CAAGAAATTGTGGCCAAAACATAACCAATTGTTGGCCAGAAGGGAAGTCTGGGATCAAAGT
 GCTTTGGATGTTGGGTTAACAAATGCAGCTCCTGGACTGCAACTTCTCAGATGAAAATGTA
 AGAGCCATTGCAGTTTCAGAAAACCTGGAGAGCTTGGAGGACGATGATGTTCTGCATTACCTT
 CTACAATTGGTCCAGGCTGTGAAATTTGAACCATACCATGATAGCGCCCTTGCCAGATTT
 CTGCTGAAGCGTGGTTTAAAGAAACAAAAGAATTGGTCACTTTTTGTTTTGGTTCTTGAGA
 AGTGAGATAGCCAGTCCAGACTATCAGCAGAGGTTGCTGTGATTCTGGAAGCCTAT
 CTGAGGGGCTGTGGCACAGCCATGCTGCAGACTTTACCAACAAGTCCAAGTAATCGAG
 ATGTTACAAAAAGTCACCCTTGATATTAATCGCTCTCTGCTGAAAAGTATGACGTCAGT
 TCCCAAGTATTTACAACCTTAAACAAAAGCTTGAACCTGCAGAACTTCAACTCCCC
 GAAAGCTTTAGAGTTCCATATGATCCTGGACTGAAAGCAGGAGCGCTGGCAATTGAAAA
 TGTAAGTAATGGCTCCAAGAAAAACCACTATGGCTTGAGTTTAAATGTGCCGATCCT
 ACAGCCCTATCAATGAAACAATTGGAATTATCTTTAAACATGGTGATGATCTGCCCAA
 GACATGCTTATTTTACAGATTCTACGAATCATGGAGTCTATTTGGGAGACTGAATCTTTG
 GATCTATGCCTCTGCCATATGGTTGCATTTCAACTGGTGACAAAATAGGAATGATCGAG
 ATTGTGAAAGACGCCACGACAATTGCCAAAATTCAGCAAAGCACAGTGGGCAACACGGGA
 GCATTTAAAGATGAAGTCTGAATCACTGGCTCAAAGAAAAATCCCCTACTGAAGAAAAG
 TTTCAGGCAGCAGTGGAGAGATTTGTTTATTCTGTGCAGGCTACTGTGTGGCAACCTTT
 GTTCTTGAATAGGCGACAGACACAATGACAATATTATGATCACCGAGACAGGAAACCTA
 TTTCAATTTGACTTCGGGCACATTTCTTGGGAATTACAAAAGTTTCTGGGCATTAATAAA
 GAGAGAGTGCCATTTGTGCTAACCCCTGACTTCCTCTTTGTGATGGGAACTTCTGAAAAG
 AAGACAAGCCACACTTCCAGAAATTTCCAGACATCTGTGTTAAGGCTTATCTAGCCCTT
 CGTCATCACAAAACCTACTGATCATCCTGTTCTCCATGATGCTGATGACAGGAATGCC
 CAGTTAACAAAGCAAAGAAGACATTGAATATATCCGGGATGCCCTCACAGTGGGAAAAAT
 GAGGAGGATGCTAAAAAGTATTTCTTGATCAGATCGAAGTTTGCAGAGACAAAGGATGG
 ACTGTGCAGTTTAAATGGTTTCTACATCTTGTCTTGGCATCAAACAAGGAGAGAAACAT
 TCAGCCTAA

Clone variation with respect to NM_002649.2
 981 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002649 unedited
 GTCCAAATTTGTATACGACTCATATAGGGCGGCCGATTGGCACCAGGTTTTGTTTTT
 AAAAATTAACAATGATCCTTCAGCATCATCGCTCCGCTGCTTTATCAGGTGCGATAG
 GGCATGGAGCTGGAGAACTATAAACAGCCCGTGGTGTGAGAGAGGACAACCTGCCGAAGG
 CGCCGGAGGATGAAGCCGCGCAGTGTGCGGCCAGCCTGTCTCCATGGAGCTCATCCCC
 ATCGAGTTCGTGTGCCACCAGCCAGCGCAAATGCAAGAGCCCCGAAACGGCGCTGCTG
 CACGTGGCCGGCCACGGCAACGTGGAGCAGATGAAGGCCAGGTGTGGCTGCGAGCGCTG
 GAGACCAGCGTGGCGGGCACTTCTACCACCGCTGGGACCGCATCACTTCTCTGCTC
 TATCAGAAGAAGGGCAGTGGTACGAGATCTACGACAAGTACCAGGTGGTGCAGACTCTG
 GACTGCCTGCGCTACTGGAAGGCCACGCACCGGAGCCCGGGCCAGATCCACCTGGTGCAG
 CGGCACCCGCCCTCCGAGGAGTCCCAAGCCTTCCAGCGGCAGTACGGCGCTGATTGGC
 TATGACGTCACTGACGTACGCAACGTGCACGACGATGACCTGGAGTTACGCGCCGTGGC
 TTGGTGACCCCGCATGGCGGAGGTGGCCAGCCGCGACCCCAAGCTCTACGCCATGCAC
 CCTGGGTGACGTCCAACCCCTCCCCGAGTCTGGGGAAGAAGTGGCAACAACCTGCATTC
 TTATCGTCTTTACCCGAACCCCCCGGGCAGACCATTAAGGCTCACCCGAAGACAACCG
 GGCGCCCTGCGGGTAAGGTTTTNCGCGAGGGTGGCGGAAGAAAATGTGTGGGGGTTTCC
 CGAGAGCGAGAGGGAGGGG

Restriction Sites:	NotI-NotI
ACCN:	NM_002649
Insert Size:	4800 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:	<ol style="list-style-type: none">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_002649.2 , NP_002640.2
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

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]

Transcript Variant: This variant (1) represents the longest transcript. All three variants encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.