

Product datasheet for **RG234487**

PIK3CB (NM_001256045) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3CB (NM_001256045) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIK3CB
Synonyms:	P110BETA; PI3K; PI3KBETA; PIK3C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG234487 representing NM_001256045
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGAATCCAATGGAACTGTTCAAACAATCCATATACTGAAAATGCAACAGCTTTGCATGTTAAAT
 TTCAGAGAATAAAAAACAACCTTATTATTACCCTCCCTTCGATAAAGAGTCGAGGTGGAAAAAGTTTCT
 TCCTGTATTGAAAGAAATCTTGGACAGGGATCCCTTGTCTCAACTGTGTGAAAATGAAATGGATCTTATT
 TGGACTTTGCGACAAGACTGCCGAGAGATTTCCACAATCACTGCCAAAATTACTGCTGTCAATCAAGT
 GGAATAAACTTGAGGATGTTGCTCAGCTTCAGGCGCTGCTTCAGATTTGGCCTAACTGCCCCCGGGA
 GGCCCTAGAGCTTCTGGATTTCAACTATCCAGACCAGTACGTTGAGAATATGCTGTAGGCTGCCTGCGA
 CAGATGAGTGATGAAGAACTTTCTCAATATCTTTACAACCTGGTGAAGTGTAAATATGAGCCTTTTC
 TTGATTGTGCCCTCTCTAGATTCCTATTAGAAAGAGCACTTGGTAAATCGGAGGATAGGGCAGTTTCTATT
 TTGGCATCTTAGGTGAGAAGTGCACATTCCTGCTGTCTCAGTACAATTTGGTGTATCCTTGAAGCATA
 TGCCGGGGAAGTGTGGGCGACATGAAAGTCTTTCTAAGCAGGTTGAAGCACTCAATAAGTTAAAAACTT
 TAAATAGTTTAACTCAAATGAATGCCGTGAAGTTAAACAGAGCCAAGGGGAAGGAGGCCATGCATACCTG
 TTTAAACAGAGTGCTTACCGGGAAGCCCTCTCTGACCTGCAGTACCCCTGAACCCATGTGTTATCCTC
 TCAGAACTCTATGTTGAAAAGTGCAAAATACATGGATTCCAAAAATGAAGCCTTTGTGGCTGGTATAACAATA
 ACAAGGATTTGGTGAGGATTCAGTTGGAGTGATTTTTAAAAATGGTGATGATTTACGACAGGATATGTT
 GACACTCCAAATGTTGCGCTTGATGGATTTACTCTGAAAAGAAGCTGGTTGGATCTTCGGATGTTGCC
 TATGGCTGTTTAGCAACAGGAGATCGCTCTGGCCTCATTGAAGTGTGAGCACCTCTGAAACAATTGCTG
 ACATTGAGTGAACAGTAGCAATGTGGCTGCTGCAGCAGCCTTCAACAAGATGCCCTTCTGAACCTGCT
 TAAAGAATACAACCTCTGGGGATGACCTGGACCGAGCCATTGAGGAATTTACACTGTCCTGTGCTGGCTAC
 TGTGTAGCTTCTTATGTCCTTGGGATTGGTGACAGACATAGTGACAACATCATGGTCAAAAAAAGTGGCC
 AGCTCTTCCACATTGACTTTGGACATATTCTTGGAAAATTTCAAATCTAAGTTTGGCATTAAAAGGGAGCG
 AGTGCCTTTTATTCTTACCTATGATTTTCAATCCATGTCATTCAACAAGGAAAAACAGGAAATACAGAAAAG
 TTTGGCCGGTCCGCCAGTGTGAGGATGCATATCTGATTTTACGACGGCATGGGAATCTCTTTCATCA
 CTCTCTTTCGCTGATGTTGACTGCAGGGCTTCTGAACCTCACATCAGTCAAAGATATACAGTATCTTAA
 GGACTCTCTTGCATTAGGGAAGAGTGAAGAAGAAGCACTCAAACAGTTTAAAGCAAAAATTTGATGAGGCG
 CTCAGGGAAGCTGGACTACTAAAGTGAAGTGGATGGCCACACAGTTTCGAAAGACTACAGATCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG234487 representing NM_001256045
 Red=Cloning site Green=Tags(s)

MLNPMGTVQTNPYTENATALHVKFPENKKQPYYPFDKSRGGKFLPVLKEILDRDPLSQLCENEMDLI
 WTLRQDCREIFPQSLPKLLLSIKWNKLEDVAQLQALLQIWPKLPPREALELLDFNYPDQYVREYAVGCLR
 QMSDEELSQYLLQLVQLKYEPFLDCALSRFLLERALGNRRIGQFLFWHLRSEVHIPAVSVQFGVILEAY
 CRGSVGHMKVLSKQVEALNKLKTLNSLIKLNKLNRAKKEAMHTCLKQSAYREALSDLQSPLNCPVIL
 SELVYEKCKYMDSKMKPLWL VYNNKVFGEDEVGVI FKNGDRLQDMLTLQMLRLMDLLWKEAGLDRMLP
 YGCLATGDRSGLIEVVSTSETIADIQLNSSNVAAAAAFNKDALLNWLKEYNSGDDLDRALIEEFTLSCAGY
 CVASYVLGIGDRHSDNIMVKKTGQLFHIDFGHILGNFKSKFGIKRERVPIILTYDFIHVIQQGKTGNTEK
 FGRFRQCCEDAYLILRRHGNLFIITL FALMLTAGLPELTSVKDIQYLKDSLALGKSEEEALKQFKQFDEA
 LRESWTKVNWMAHTVRKDYRS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001256045

ORF Size: 1746 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_001256045.1](#), [NP_001242974.1](#)

RefSeq Size: 4797 bp

RefSeq ORF: 1749 bp

Locus ID: 5291

Cytogenetics: 3q22.3

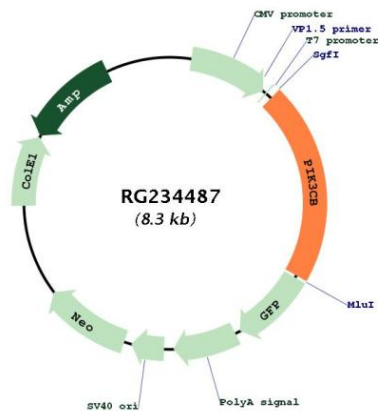
Protein Families: Druggable Genome

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:

This gene encodes an isoform of the catalytic subunit of phosphoinositide 3-kinase (PI3K). These kinases are important in signaling pathways involving receptors on the outer membrane of eukaryotic cells and are named for their catalytic subunit. The encoded protein is the catalytic subunit for PI3Kbeta (PI3KB). PI3KB has been shown to be part of the activation pathway in neutrophils which have bound immune complexes at sites of injury or infection. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2011]

Product images:


Circular map for RG234487