

Product datasheet for **RG218354**

PIK3C2B (NM_002646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3C2B (NM_002646) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIK3C2B
Synonyms:	C2-PI3K
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218354 representing NM_002646 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGTCTTCGACTCAGGGCAATGGGAACACTGGAAGTCCCTGGAGTCAGTGGGCATCAGCCGAAAGAGC
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CAAGAGAGGCCTGTCAAGCAGACCATCAGCAGGCAGGCCCTGAGTCTTCTGTTTCGACACTTACCACAATG
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

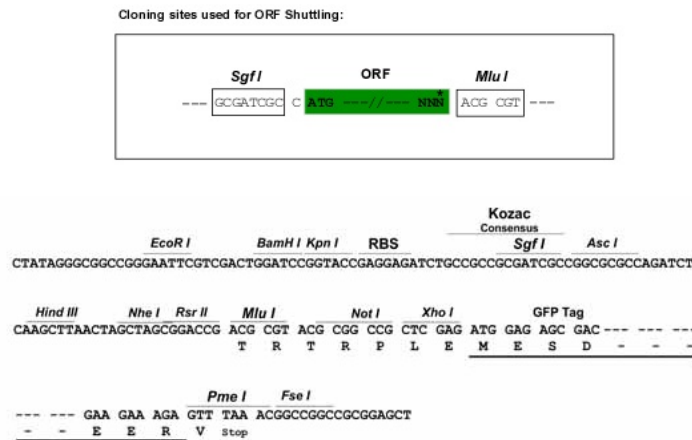
Protein Sequence: >RG218354 representing NM_002646
 Red=Cloning site Green=Tags(s)

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 EEVLGGGQGRLLGSVDYDGINDAITRLNLKSTYDAEMLRDATRGWKEGRGLDFSKDTSKGPVARSKTM
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 RETLLCATLYALPIPPGSSSEANKQRRVPEALGWVTTPLFNFRQVLCGRKLLGLWPATQENPSARWSA
 PNFHQPDSVILQIDFPTSAFDIKFTSPPGDKFSRPFYEFGLREEDQRKLDIMQKESLYWLTADKKRLW
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 SDAELLDYLPQLVQALKYECYLDSPVRFLLKRAVSDLRVTHYFFWLLKDGKDSQFSIRYQYLLAALLC
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 PRDCSYFNSNAVPLKLSFQNVDP LGENIRVIFKCGDDL RQDML TLQMI RIMSKIWVQEG LDMRMVIFRCF
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 CCQAYNLIRKHTHLFLNLLGLMLSCGIPELSDLEDLKYVYDALRPQDTEANATYFTRLIESSLGVSATK
 LNFFIHNL AQMKFTGSDDRLT LSFASRTHL KSSGRISDVFLCRHEKIFHPNKGYIYVVKVMRENTHEAT
 YIQRTEEFQELHNKLRLLFPSSHLPSFSPRFVIGRSRGEAVAERRREELNGYIWHLIHAPPEVAECDLV
 YTFHFPLPRDEKAMGTSAPAKSSDGTWARPVGKVGGEVKLSISYKNNKLFIMVMHIRGLQLLQDGNDDP
 YVKIYLLPDPQKTTKRKT VARKTCNPTYNEMLVYDGIPKGLDQQRELQLSVLSQGFWENVLLGEVNIR
 LRELDLAQEK TGWFALGSRSHGTL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

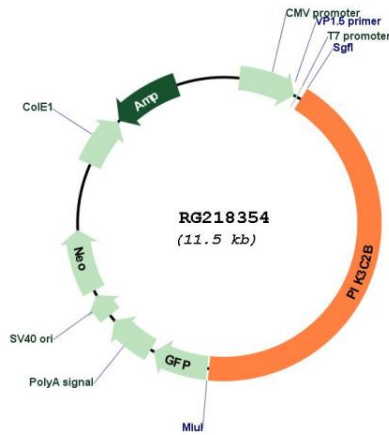


ACCN: NM_002646

ORF Size:	4902 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<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_002646.2 , NP_002637.2
RefSeq Size:	7618 bp
RefSeq ORF:	4905 bp
Locus ID:	5287
UniProt ID:	O00750
Cytogenetics:	1q32.1
Protein Families:	Druggable Genome
Protein Pathways:	Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system

Gene Summary:

The protein encoded by this gene belongs to the phosphoinositide 3-kinase (PI3K) family. PI3-kinases play roles in signaling pathways involved in cell proliferation, oncogenic transformation, cell survival, cell migration, and intracellular protein trafficking. This protein contains a lipid kinase catalytic domain as well as a C-terminal C2 domain, a characteristic of class II PI3-kinases. C2 domains act as calcium-dependent phospholipid binding motifs that mediate translocation of proteins to membranes, and may also mediate protein-protein interactions. The PI3-kinase activity of this protein is sensitive to low nanomolar levels of the inhibitor wortmanin. The C2 domain of this protein was shown to bind phospholipids but not Ca²⁺, which suggests that this enzyme may function in a calcium-independent manner. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RG218354