

Product datasheet for **RC226818**

PIK3R5 (NM_001142633) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3R5 (NM_001142633) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIK3R5
Synonyms:	F730038I15Rik; FOAP-2; p101; P101-PI3K
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC226818 representing NM_001142633
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGCCAGGGCCACGACATGCACGGAGGACCGCATCCAGCATGCCCTGGAACGCTGCCTGCATGGAC
 TCAGCCTCAGCCCGCTCCACCTCCTGGTCAGCTGGGCTGTGTCTGAACTGCTGGAGCCTGCAGGAGCT
 GGTGAGCAGGGACCCGGGCCACTTCCTTATCCTCCTTGAGCAGATCCTGCAGAAGACCCGAGAGGTCAG
 GAGAAGGGCACCTACGACCTGCTCACCCGCTGGCCCTGCTCTTCTATTCCACTGTTCTTTGTACACCAC
 ACTTCCCACCAGACTCGGATCTCCTTCTGAAGGCAGCCAGCACCTACCACCGTTCTGACCTGGCCTGT
 TCCTTACTGCAGCATCTGCCAGGAGCTGCTCACCTTCATTGATGCTGAACTCAAGCCCCAGGGATCTCC
 TACCAGAGACTGGTGAGGGCTGAGCAGGGCCTGCCATCAGGAGTCACCGCAGCTCCACCGTCACCGTGC
 TGCTGCTGAACCCAGTGAAGTGCAGGCCGAGTTCCTTGTGTAGCCAATAAGCTGAGTACGCCCGACA
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 ATCCCCATCCCTGTCGCCAGGTGCTACACCTACAGCTGGAGCCAGGACAGCTTTGACATCCTGCAGGAAA
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 ATCTGCTGACTTCTTTGTCTCAGGCCCTCTGATGGCATGGACAGCGGCTACGTGGAGGACAGCGAGGA
 GAGCTCCTCCGAGTGGCCTTGGAGGCGTGGCAGCCAGGAACGCCGAGGCCACCGCAGGCCTGGGCGAAG
 TTCATCAGGATCTATAAACTCTTCAAGAGCACCCAGCCAGCTGGTACTGCGGAGGGACTCTCGGAGCCTGG
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 TGGCTTCTGGCCCTGCTTACGCCCCAGCGCCCGCCCTTCTGAGTGGAGATGAGGATCCCAAGG
 CTTCCACGCTACGTGTTGGTCTTTGGTCCGATCGGATTTAGGGAAGGTGGCTCGGGCGTACAGCAA
 CCTTCGGCGGCTGGAGAACAATCGCCACTCCTCACACGGTCTTCAAATTCAGTCTTCTACGTGCCT
 GTGAAGCGAAGTCATGGGACCAGCCCTGGTGCCTGTCCACCCCTCGGAGCCAGACGCCCTACCCCCGA
 CAGACTCCCTAGGCACGCCAGCCCTGGAGAGCTGGGCACCACCCATGGGAGGAGAGCACAATGACAT
 CTCCCCTACCTCGGCATGCTGGACCCCTGGTATGAGCGCAATGTACTGGGCCTCATGCACCTGCCCCCT
 GAAGTCTGTGCCAGCAGTCCCTGAAGGCTGAAGCCAGGCCCTGGAGGGCTCCCAACCAGCTGCCCA
 TCCTGGCTGACATGCTACTCTACTGCCGCTTGGCCGACAGCCGGTCTGCTGCAAGTCTATCAGAC
 CGAGCTGACCTTCATCACTGGGAGAGACGACAGAGATCTTATCCACTCCTTGGAGCTGGGTCCTCC
 GCTGCCACAGTGCATCAAGGCGTCAGGTCTGGCAGCAAGCGGCTGGGATCGATGGCGACCGGGAGG
 CTGTTCTTAACACTACAGATTATTTACAGCAAGGGGGCCATCAGTGGACGAAGTCGCTGGAGCAAACCT
 GGAGAAGGTCTGTACCTCCGTGAACCTCAACAAGGCCTGCCGGAAGCAGGAGGAGCTGGATCCAGCATG
 GAGGCCCTGACGCTAAACCTGACAGAAGTGGTGAAGGAGCAAGTCCAATCCAAGAAGGGCTTTAACCC
 AGATTAGCACATCGCAGATCAAAGTGGACAAGGTGCAGATCATCGGCTCCAACAGCTGCCCTTTGCTGT
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 CCAGAGAAGAGCGACCTCTCCTCACCCCCAGACGCCTCCTGACCTGCCGGCCAGGCCGACCTGATC
 TCTGCTCCCTTCTGCTGCCATCATGACTTTCAGTGGAGCTCTGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC226818 representing NM_001142633
 Red=Cloning site Green=Tags(s)

MQPGATTCTEDRIQHALLERCLHGLSLRRSTSWAGLCLNCWSLQELVSRDPGHFLILLEQILQKTREVO
 EKGTYDLLTPLALLFYSTVLCTPHFPDSDLLKAASYHRFLTWPVPYCSICQELLTFIDAELKAPGIS
 YQRLVRAEQGLPIRSHRSSTVTVLLLNPEVQAEFLAVANKLSTPGHSPHSAYTTLLHAFQATFGAHC
 VPGLHCRQLQAKTLAELEDIFTETAQAQELASGIGDAAEARWRRTKLQAVGEKAGFPVGLDTAKPGKLHT
 IPIPVARCITYSWSQDSFDILQEILLKEQELLQPGILGDDEEEEEEEEEVEEDLETDGHCAERDSSLSTS
 SLASHDSTLSLASSQASGPALSRHLLTSFVSGLSGMDSGYVEDSEESSEWPWRRGSQERRGHRPQK
 FIRIYKLFKSTSQLVLRDRSRSLEGSSDTALPLRRAGSLCSPLEPVSPPSRAQRSRSLPQPKLGTQLPS
 WLLAPASRPQRRPFLSGDEDPKASTLRVVVFGSDRISGKVARAYSNLRRLENNRPLLTRFFKLQFFVVP
 VKRSHGTPGACPPPRSQTSPPTDSPRHASPGELGTTPEESTNDISHYLGMLDPWYERNVGLMHLPP
 EVLQQSLKAEQAQALEGSPTQLPILADMLLYCRFAARPVLLQVYQTELTFTITGEKTTEIFIHSLLEGHS
 AATRAIKASGPGSKRLGIDGDREAVPLTLQIIYSKGAISGRSRWSNLEKVTSVNLNKACKRQEELDSSM
 EALTLNLTEVVKRQNSKSKKGFNQISTSQIKVDKQVQIGSNPCPFVCLDQDERKILQSVRCEVSPCYK
 PEKSDLSSPPQTPPDLPQAAPDLCSSLCLPIMTFSGALP

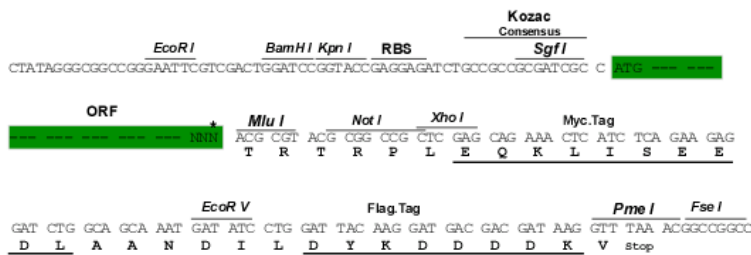
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6166_g03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_001142633
ORF Size:	2640 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:	<u>NM_001142633.2, NP_001136105.1</u>
RefSeq ORF:	2643 bp
Locus ID:	23533
UniProt ID:	<u>Q8WYR1</u>
Cytogenetics:	17p13.1
Protein Families:	Druggable Genome

Protein Pathways:

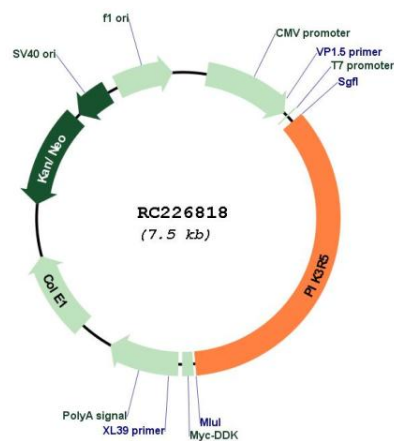
Acute myeloid leukemia, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, 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:

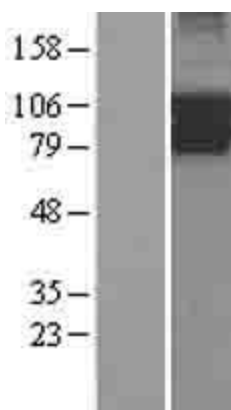
97.2 kDa

Gene Summary:

Phosphatidylinositol 3-kinases (PI3Ks) phosphorylate the inositol ring of phosphatidylinositol at the 3-prime position, and play important roles in cell growth, proliferation, differentiation, motility, survival and intracellular trafficking. The PI3Ks are divided into three classes: I, II and III, and only the class I PI3Ks are involved in oncogenesis. This gene encodes the 101 kD regulatory subunit of the class I PI3K gamma complex, which is a dimeric enzyme, consisting of a 110 kD catalytic subunit gamma and a regulatory subunit of either 55, 87 or 101 kD. This protein recruits the catalytic subunit from the cytosol to the plasma membrane through high-affinity interaction with G-beta-gamma proteins. Multiple alternatively spliced transcript variants encoding two distinct isoforms have been found. [provided by RefSeq, Oct 2011]

Product images:


Circular map for RC226818



Western blot validation of overexpression lysate (Cat# [LY428223]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226818 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).