

## Product datasheet for **RG234282**

### PIK3R5 (NM\_001251852) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                          |
| Product Name:             | PIK3R5 (NM_001251852) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                     |
| Symbol:                   | PIK3R5                                       |
| Synonyms:                 | F730038I15Rik; FOAP-2; p101; P101-PI3K       |
| Mammalian Cell Selection: | Neomycin                                     |
| Vector:                   | pCMV6-AC-GFP (PS100010)                      |
| E. coli Selection:        | Ampicillin (100 ug/mL)                       |



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**ORF Nucleotide Sequence:**

>RG234282 representing NM\_001251852  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACAGCGGCTACGTGGAGGACAGCGAGGAGAGCTCCTCCGAGTGGCCTTGGAGGCGTGGCAGCCAGG  
 AACGCCGAGGCCACCGCAGGCCTGGGCAGAAGTTCATCAGGATCTATAAACTCTTCAAGAGCACCAGCCA  
 GCTGGTACTGCGGAGGGACTCTCGGAGCCTGGAGGGCAGCTCGGACACGGCCCTGCCCTGAGGCGGGCA  
 GGGAGCCTCTGCAGCCCCTGGACGAACCAAGTATCACCCCTTCCGGGCCAGCGCTCCCGCTCCCTGC  
 CCCAGCCCAAACCTCGGTACCCAGCTGCCAGCTGGCTTCTGGCCCTGCTTACGCCCCCAGCGCCGCC  
 CCCCTTCTGAGTGGAGATGAGGATCCCAAGGCTTCCACGCTACGTGTTGTGGTCTTTGGCTCCGATCGG  
 ATTTACAGGAAGGTGGCTCGGGCGTACAGCAACCTTCGGCGGCTGGAGAACAATCGCCACTCTCACAC  
 GGTCTTCAAACCTCAGTCTTCTACGTGCCTGTGAAGCGAAGTCATGGGACCAGCCCTGGTGCCTGTCC  
 ACCCCCTCGGAGCCAGACGCCCTCACCCCGACAGACTCCCTAGGCACGCCAGCCCTGGAGAGCTGGGC  
 ACCACCCCATGGGAGGAGAGCACC AATGACATCTCCACTACCTCGGCATGCTGGACCCCTGGTATGAGC  
 GCAATGTACTGGGCTCATGCACCTGCCCCCTGAAGTCCTGTGCCAGCAGTCCCTGAAGGCTGAAGCCCA  
 GGCCCTGGAGGGCTCCCAACCCAGCTGCCCATCTGGCTGACATGCTACTCTACTGCCGCTTTGCC  
 GCCAGACCCGGTGTGCTGCAAGTCTATCAGACCGAGCTGACCTTCATCACTGGGGAGAAGACGACAGAGA  
 TCTTATCCACTCCTTGGAGCTGGGTCACTCCGCTGCCACACGTGCCATCAAGGCGTCAGGTCTGGCAG  
 CAAGCGGCTGGGCATCGATGGCGACCGGGAGGCTGTTCTCTAACACTACAGATTATTTACAGCAAGGGG  
 GCCATCAGTGGACGAAGTCGCTGGAGCAACCTGGAGAAGTCTGTACCTCCGTGAACCTCAACAAGGCT  
 GCCGGAAGCAGGAGGAGCTGGATTCCAGCATGGAGGCCCTGACGCTAAACCTGACAGAAGTGGTAAAAAG  
 GCAGAACTCAAATCCAAGAAGGGCTTTAACAGATTAGCACATCGCAGATCAAAGTGGACAAGGTGCAG  
 ATCATCGGCTCCAACAGCTGCCCTTTGCTGTGTGCTGGACCAGGATGAGAGAAAGATCCTGCAGAGTG  
 TAGTCAGATGTGAGGTCTCACCGTGTACAAGCCAGAGAAGAGCGACCTCTCCTCACCACCCAGACGCC  
 TCCTGACCTGCCGGCCAGGCCGACCTGATCTCTGCTCCCTTCTGCTGCCATCATGACTTTCAGT  
 GGAGCTCTGCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234282 representing NM\_001251852  
 Red=Cloning site Green=Tags(s)

MDSGYVEDSEESSSEWPWRRGSQERRGHRPQKFIIRIYKLFKSTSQLVLRDRSRSLEGSSDTALPLRRA  
 GSLCSPLDEPVSPPSRAQRSRSLPQPKLGTQLPSWLLAPASRPQRRRPFLLSGDEDPKASTLRVVVFGSDR  
 ISGKVARAYSNLRRLENNRPLLTRFFKLQFFYVPVKRSHGTPGACPPPRSQTSPPTDSPRHASPGELG  
 TTPWEESTNDISHYLGMLDPWYERNVGLMHLPEVLCCQSLKAEQALEGSTQLPILADMLLYCRFA  
 ARPVLLQVYQTELTFTITGEKTEIFIHSLLELGHSAATRAIKASGPGSKRLGIDGDREAVPLTLQIIYSKG  
 AISGRSRWSNLEKVCTSVNLNACRQKQEELDSSMEALTLNLTEVVKRQNSKSKKGFNQISTSQIKVDKVV  
 IIGNSNCPFVAVCLDQDERKILQSVVRCEVSPCYKPEKSDLSSPPQTPDLPAQAAPDLCSLLCLPIMTFS  
 GALP

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001251852

**ORF Size:** 1482 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\\_001251852.1](#), [NP\\_001238781.1](#)

**RefSeq Size:** 4427 bp

**RefSeq ORF:** 1485 bp

**Locus ID:** 23533

**UniProt ID:** [Q8WYR1](#)

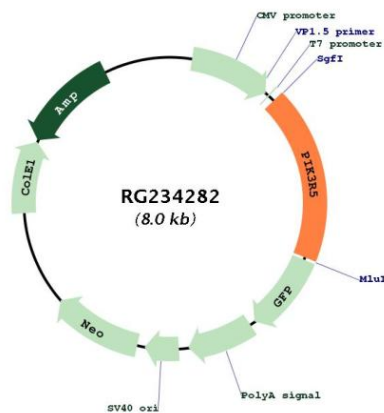
**Cytogenetics:** 17p13.1

**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

**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 RG234282