

Product datasheet for **RG218825**

PI4KA (NM_002650) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | PI4KA (NM_002650) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | PI4KA |
| Synonyms: | PI4K-ALPHA; pi4K230; PIK4CA |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RG218825 representing NM_002650
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATCGGGGAGATGGCAGGGCCTGGCACATGACGGTGGAGCAGAAATTTGGCTGTTTTCTGCTGAGATAA
 AGGAAGCAGACCCCTGGCTGCCTCGGAAGCAAGTCAACCCAAACCCTGTCCCCCGAAGTGACCCCCA
 CTACATCTGGATCGACTTCTGGTGCAGCGTTTGAGATCGCCAAGTACTGCAGCTCTGACCAAGTGGAG
 ATCTTCTCCAGCCTGCTGCAGCGCTCCATGTCCCTGAACATCGGCGGGGCCAAGGGGAGCATGAACCGGC
 ACGTGGCGGCCATCGGGCCCCGTTCAAGCTGCTGACCTGGGGCTGTCCCTCTGCATGCCGATGTGGT
 TCCAAATGCAACCATCCGAATGTGCTTCGCGAGAAGATCTACTCCACTGCCTTTGACTACTTCAGCTGT
 CCCCCAAAGTTCCCTACTCAAGGAGAGAAGCGGCTGCGTGAAGACATAAGCATCATGATTAATTTTGA
 CCGCCATGTTCTCAGATAAGAAGTACCTGACCGCCAGCCAGCTTGTCCCCAGATAATCAGGACACCCG
 GAGCAACCTGGACATAACTGTGGCTCTCGGCAACAAGCCACCCAAGGCTGGATCAACACATAACCCCTG
 TCAGCGGCATGTCCACCATCTCCAAGAAATCAGGCATGTCTAAGAAAACCAACCGGGGCTCCAGCTGC
 ACAAACTACTACATGAAGCGCAGGACGCTGCTGCTGCCCTGTGGCCACTGAGATCGAGCGTCTCATCAC
 ATGGTACAACCCGCTGTGAGCCCCGGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
 AGATCTAAGTACATCAGCCTGAGTGAGAAGCAGTGAAGGACAACGTGAACCTCGCTGGAGCATCTCTC
 CCTACCTAGCCGTGCAGCTGCCTGCCAGGTTTAAAGAACACAGAAGCCATTGGGAACGAAGTGACCCGTCT
 CGTTCGGTTGGACCCGGGAGCCGTTAGTGATGTGCTGAAGCAATCAAGTTCCTGGTACCTGGCACACC
 ATCGAGCCGATGCTCCAGAGCTCAGCCATGTGCTGTGCTGGGCGCCACGGACCCACCCACAGGCTCT
 CCTACTTCTCCAGCATGTACCCGCGCACCCCTCTCACGGCGCAGTACGGGGTGAAGTCTCGGCTCCTT
 CCTCCGGACGCCATCCTCTTCTACATCCCCCAGATTGTGACGGCCCTCAGGTACGACAAGATGGGCTAT
 GTGCGGGAGTATATTCTGTGGGACGCTCTAAATCCCAGCTTCTGGCACACCAGTTCATCTGGAACATGA
 AGACTAACATTTTCTAGATGAAGAGGGCCACCAGAAAGACCCTGACATCGGCGACCTCCTGGATCAGTT
 GGTAGAGGAGATCACAGGCTCCTGTCCGGCCAGCGAAGGACTTTTACCAGCGGAGTTTGATTTCTTT
 AACAAAGATCACCAACGTGTGGCTATCATCAAGCCCTACCCTAAAGGCGACGAGAGAAAGAGGCTGTG
 TGTCCGCCCTGTCTGAAGTGAAGTGCAGCCGGGCTGCTACCTGCCAGCAACCTGAGGCCATTGTGCT
 GGACATCGACTACAAGTCTGGACCCCGATGCAGAGTGTGCAAAAGCCCATATCTGGCCAAGTTCAAG
 GTGAAGCGATGTGGAGTTAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
 GCAGCACGAGGAGGCCAGCGCCAGAAGATCTCCTGGCAGGCAGCCATCTTCAAGGTGGGAGACGACTG
 CCGGCAGGACATGCTGGCCCTGCAGATCATCGACCTTTCAAGAACATCTTCCAGCTGGTGGCCTGGAC
 CTCTTTGTTTTTCCCTACCGCGTGGTGGCCACTGCCCTGGGTGCGGGGTGATCGAGTGCATCCCCGACT
 GCACCTCCCGGACAGCTGGGCCGCCAGACAGACTTCGGCATGTACGACTACTTCACACGCCAGTACGG
 GGATGAGTCCACTCTGGCCTTCCAGCAGGCCCGCTACAACCTTCAAGCATCCGAAGCATGGCCGCTACAGCCTC
 CTGCTGTTCTGCTGCAGATCAAGGACAGACACAACGGCAACATTATGCTGGACAAGAAGGGTCATATCA
 TCCACATCGACTTTGGCTTCATGTTTGAAGCTCGCCGGCGGCAATCTCGGCTGGGAACCCGACATCAA
 GCTGACGGATGAGATGGTATGATCATGGGGGCAAGATGGAGGCCACACCCTTCAAGTGGTTTCAAGTGG
 ATGTGTGTCGAGGCTACCTGGCTGTGCGGCCCTACATGGACGCGGTGCTCTCCCTGGTCACTCTCATGT
 TGGACACGGCCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTTGAAGCACAGTTTTAGCCCCAACAT
 GACTGAGCGGAGGCTGCAAATTTATCATGAAGTCAATCCAGAGCTGCTTCTCAGCAACAGGAGCCGG
 ACCTACGACATGATCCAGTACTATCAGAATGACATCCCCTAC

ACGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG218825 representing NM_002650
Red=Cloning site Green=Tags(s)

MREMAGAWHMTVEQKFLFSAEIKEADPLAASEASQPKPCPEVTPHYIWIWDFLVQRFEIAKYCSSDQVE
IFSSLLQRSMNLNIGGAKGSMNRHVAAIGPRFKLLTLGLSLLHADVVPNATIRNVLREKIYSTAFDYFSC
PPKFPTQGEKRLREDISIMIKFWTAMFSDKKYL TASQLVPPDNQDTRSNDITVGSRQQATQGWINTYPL
SSGMSTISKKSGMSKKTNRGSQLHKYYMKRRLLLLSLLATEIERLITWYNPLSAPELELDQAGENSVANW
RSKYISLSEKQWKDNVNLAWSISPYLAVQLPARFKNTEAIGNEVTRLVRLDPGAVSDVPEAIKFLVTWHT
IDADAPELSHVLCWAPTDPPPTGLSYFSSMYPPHPLTAQYGKVLRSFPPDAILFYIPQIVQALRYDKMGY
VREYILWAASKSQLLAHQFIWNMKTNIYLDEEGHQKDPDIDGLLDQLVEEITGSLSGPAKDFYQREFDFF
NKITNVSAAIKPYPKGDERKKAQLSALSEVKVQPGCYLPSNPEAIVLDIDYKSGTPMQSAAKAPYLAKFK
VKRCGVSELEKEGLRCRSDSEDECSTQEADGQKISWQAAIFKVGDDCRQDMLALQIIDLFKNIFQLVGLD
LFVFPYRVVATAPGCGVIECIPDCTSRDQLGRQTDGMYDYFTRQYGDDESTLAFQQARYNFIRSMAYSL
LLFLLQIKDRHNGNIMLDKKGHIHIDFGFMFESSPGGNL GWEPDIKLTDEMVMIMGGKMEATPFKWFME
MCVRYGLAVRPYMDAVVSLVTLMLDTGLPCFRGQTIKLLKHRFSPNMTEREAANFIMKVIQSCFLSNRSR
TYDMIQYYQNDIPY

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_002650

ORF Size: 2562 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_002650.2](#)

RefSeq Size: 3034 bp

RefSeq ORF: 2565 bp

Locus ID: 5297

Cytogenetics: 22q11.21

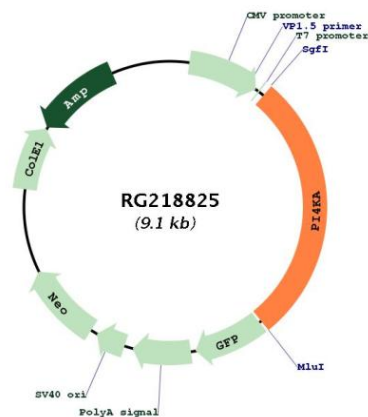
Domains: PI3_PI4_kinase, PI3Ka

Protein Families: Druggable Genome

Protein Pathways: Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system

Gene Summary: This gene encodes a phosphatidylinositol (PI) 4-kinase which catalyzes the first committed step in the biosynthesis of phosphatidylinositol 4,5-bisphosphate. The mammalian PI 4-kinases have been classified into two types, II and III, based on their molecular mass, and modulation by detergent and adenosine. The protein encoded by this gene is a type III enzyme that is not inhibited by adenosine. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Apr 2018]

Product images:



Circular map for RG218825