

Product datasheet for **RC218825**

PI4KA (NM_002650) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PI4KA (NM_002650) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PI4KA
Synonyms:	PI4K-ALPHA; pi4K230; PIK4CA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC218825 representing NM_002650
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGGGAGATGGCAGGGCCTGGCACATGACGGTGGAGCAGAAATTTGGCTGTTTTCTGCTGAGATAA
 AGGAAGCAGACCCCTGGCTGCCTCGGAAGCAAGTCAACCCAAACCTGTCCCCCGAAGTGACCCCCA
 CTACATCTGGATCGACTTCTGGTGCAGCGTTTGAGATCGCCAAGTACTGCAGCTCTGACCAAGTGGAG
 ATCTTCTCCAGCCTGCTGCAGCGCTCCATGTCCCTGAACATCGGCGGGGCCAAGGGGAGCATGAACCGGC
 ACGTGGCGGCCATCGGGCCCGCTTCAAGCTGCTGACCTGGGGCTGTCCCTCTGCATGCCGATGTGGT
 TCCAAATGCAACCATCCGAATGTGCTTCGCGAGAAGATCTACTCCACTGCCTTTGACTACTTCAGCTGT
 CCCCCAAGTTCCCTACTCAAGGAGAGAAGCGGCTGCGTGAAGACATAAGCATCATGATTAATTTTGA
 CCGCCATGTTCTCAGATAAGAAGTACCTGACCGCCAGCCAGCTTGTCCCCAGATAATCAGGACACCCG
 GAGCAACCTGGACATAACTGTGCGCTCTCGGCAACAAGCCACCCAAGGCTGGATCAACACATAACCCCTG
 TCAGCGGCATGTCCACCATCTCCAAGAAATCAGGCATGTCTAAGAAAACCAACCGGGGCTCCCAGCTGC
 ACAAACTACTACATGAAGCGCAGGACGCTGCTGCTGCCCTGTGGCCACTGAGATCGAGCGTCTCATCAC
 ATGGTACAACCCGCTGTGAGCCCGGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
 AGATCTAAGTACATCAGCCTGAGTGAGAAGCAGTGAAGGACAACGTGAACCTCGCTGGAGCATCTCTC
 CCTACCTAGCCGTGCAGCTGCCTGCCAGGTTTAAAGAACACAGAAGCCATTGGGAACGAAGTGACCCGTCT
 CGTTCGGTTGGACCCGGGAGCCGTTAGTGATGTGCTGAAGCAATCAAGTTCCTGGTCACTGGCACACC
 ATCGAGCCGATGCTCCAGAGCTCAGCCATGTGCTGTGCTGGGCGCCACGGACCCACCCACAGGCTCT
 CCTACTTCTCAGCATGTACCCGCGCACCTCTCACGGCGCAGTACGGGGTGAAGTCTCGGCTCCTT
 CCTCCGGACGCCATCCTTCTACATCCCCAGATTGTGACGGCCCTCAGGTACGACAAGATGGGCTAT
 GTGCGGGAGTATATTCTGTGGGACGCTCTAAATCCCAGCTTCTGGCACACCAGTTCATCTGGAACATGA
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 GGTAGAGGAGATCACAGGCTCCTGTCCGGCCAGCGAAGGACTTTTACCAGCGGGAGTTTGATTTCTTT
 AACAAAGTACCAACGTGTGCGCTATCATCAAGCCCTACCCTAAAGGCGACGAGAAAAGAGGCTGTGTC
 TGTGCGCCCTGTCTGAAGTGAAGTGCAGCCGGGCTGCTACCTGCCAGCAACCTGAGGCCATTGTGCT
 GGACATCGACTACAAGTCTGGACCCCGATGCAGAGTGTGCAAAAGCCCATATCTGGCCAAGTTCAG
 GTGAAGCGATGTGGAGTTAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
 GCAGCACGAGGAGGCCAGCGCCAGAAGATCTCCTGGCAGGCAGCCATCTTCAAGGTGGGAGACGACTG
 CCGGCAGGACATGCTGGCCCTGCAGATCATCGACCTTTCAAGAACATCTTCCAGCTGGTGGCCTGGAC
 CTCTTTGTTTTTCCCTACCGCGTGGTGGCCACTGCCCTGGGTGCGGGGTGATCGAGTGCATCCCCGACT
 GCACCTCCCGGACAGCTGGGCCGCCAGACAGACTTCGGCATGTACGACTACTTCACACGCCAGTACGG
 GGATGAGTCCACTCTGGCCTTCCAGCAGGCCCGCTACAACCTTCAAGCATCCGAAGCATGGCCGCTACAGCCTC
 CTGCTGTTCTGCTGCAGATCAAGGACAGACACAACGGCAACATTATGCTGGACAAGAAGGGTCATATCA
 TCCACATCGACTTTGGCTTCATGTTTAAAAGCTCGCCGGCGGCAATCTCGGCTGGGAACCCGACATCAA
 GCTGACGGATGAGATGGTATGATCATGGGGGCAAGATGGAGGCCACACCCTTCAAGTGGTTTCATGGAG
 ATGTGTGCCGAGGCTACCTGGCTGTGCGGCCCTACATGGACGCGGTGCTCTCCCTGGTCACTCTCATGT
 TGGACACGGGCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTCTTGAAGCACAGTTTTAGCCCCAACAT
 GACTGAGCGGAGGCTGCAAATTCATCATGAAGTTCATCCAGAGCTGCTTCTCAGCAACAGGAGCCGG
 ACCTACGACATGATCCAGTACTATCAGAATGACATCCCCTAC

ACCGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218825 representing NM_002650
 Red=Cloning site Green=Tags(s)

MREMAWHTVEQKFLFSAEIKEADPLAASEASQPKPCPEVTPHYIWIWDFLVQRFEIAKYCSSDQVE
 IFSSLLQRMSLNI GGAKGSMNRHVAAIGPRFKLLTLGLSLLHADVVPNATIRNVLREKIYSTAFDYFSC
 PPKFPTQGEKRLREDISIMIKFWTAMFSDKKYL TASQLVPPDNQDTRSNL DITVGSRQATQGWINTYPL
 SSGMSTISKKS GMSKKTNRGSQLHKYYMKRRITLLSLLATEIERLITWYNPLSAPELELDQAGENSVANW
 RSKYISLSEKQWKDNVLAWSISPYLAVQLPARFKNTEAIGNEVTRLVRLDPGAVSDVPEAIKFLVTWHT
 IDADAPELSHVL CWAPTD PPTGLSYFSSMYPPHPLTAQYGVKVLRSFPDAILFYIPQIVQALRYDKMGY
 VREYILWAASKS QLLAHQFIWNMKTNIYLDDEEGHQKDPDIDGLLDQLVEEITGSLSGPAKDFYQREFDFF
 NKITNVSAAIKPYK GDERKKA CLSALSEVKVQPGCYLPSNPEAIVLDIDYKSGTPMQSAAKAPYLAKFK
 VKRCGVSELEKEGLRCRSDSEDECSTQEADGQKISWQAAIFKVGDDCRQDMLALQIIDLFKNI FQLVGLD
 LFVFPYRVVATAPGCGVIECIPDCTSRDQLGRQTDGMYDYFTRQYGDSTLAFQQARYNFI RSM AAYS L
 LLFLLQIKDRHNGNIMLDKKGHIHIDFGFMFESSPGGNL GWEPDIKLTDEMVMIMGGKMEATPFKWFME
 MCVRYGLAVRPYMDAVVSLVTLMLDTGLPCFRGQTIKLLKHRFSPNMTEREAANFIMKVIQSCFLSNRSR
 TYDMIQYYQNDIPY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6164_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

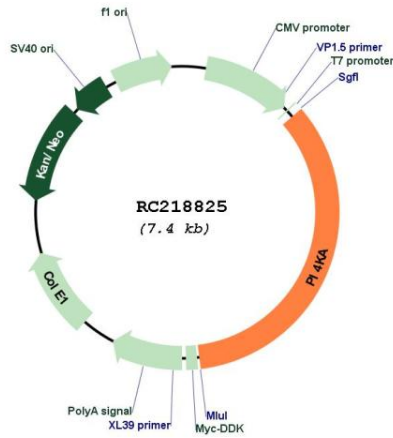
Cloning sites used for ORF Shuttling:



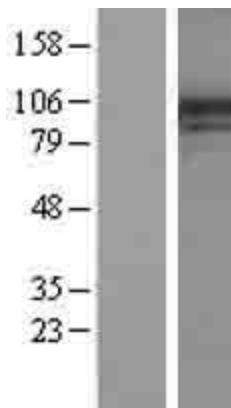
* The last codon before the Stop codon of the ORF

ACCN:	NM_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:	<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_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
MW:	96.8 kDa
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 RC218825



Western blot validation of overexpression lysate (Cat# [LY400937]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218825 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).