

## Product datasheet for **RC201367**

### **PI4K2A (NM\_018425) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PI4K2A (NM_018425) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PI4K2A
Synonyms:	PI4KII; PIK42A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC201367 representing NM\_018425  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACGAGACGAGCCACTAGTGTCCCCGAGCGGGCCAAACCCCGGACTACACCTTCCCGTCGGGCT  
 CGGGCGCTCACTTCCGCAGGTGCCCGGGGCGCGGTCCGAGTGGCGGCGCGGCCGCTCGGGCCCTC  
 TCCGCCAGGCTCGCCGGGCCACGACCGCGAGCGGAGCCACTGTTGGATCGGGCCCGGGCGCGGGCC  
 CAGGGCCAGACCAACCGTGGCGGCGCAGGCCAGGCTCTGGCCGCTCAGGCCGCGGGCAGCCACG  
 CCGCTCAGGCCACCGGAGCGGAACGAGTTCGGGAGGATCCTGAGTTCGAGGCGGTGGTGCAGGCG  
 CGAGCTGGCCATCGAGCGCTGCATCTTCCGAGCGCATCTACCAGGGCTCCAGCGGAAGCTACTTCGTC  
 AAGACCCTCAGGGGAGGATCATTGCTGTCTTCAAACCAAGAATGAAGAGCCCTATGGGCATCTTAATC  
 CTAAGTGGACCAAGTGGTGCAGAAGCTGTGCTGTCTTGGCTGCTTTGGCCGTGACTGCCTGTCTTAA  
 CCAGGGCTATCTCTCAGAAGCAGGGGCCAGCCTGGTGGACAAAACTGGAACCAACATTGTTCCCGT  
 ACAAAGGTAGTATACCTGGCCAGTGAGACCTTCAACTATAGTGCCATTGACCGAGTGAAGTCCAGGGCA  
 AGCGGCTTGCACTAGAGAAAGTGCCAAAAGTTGGACAGCGGTTTAAACCGCATCGGGCTACCACAAAGT  
 TGGTTCATTCCAGCTCTTGTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTGAAGCAGAA  
 CCTCTTCTGAGAACCTAACCGCAACTACTGCTCCAGTTTGGAGCGGTTGGTGGTGTGGATTACATCA  
 TCCGCAACACTGATCGAGGCAATGACAAGTGGCTGATTAATATGACTGTCCAATGGATAGTTCTAGCTC  
 TCGGGACACAGACTGGTGGTGGTGAAGGAGCCTGTTATCAAGTGGCTGCCATAGACAATGGGCTGGCC  
 TTCCCCTGAAGCATCTGACTCCTGGAGGCAATCCTTTTTACTGGCCTGGTGGCCAGCGGAAAG  
 TCCCATTTTCTCAGGAGATCAAAGATCTGATCCTTCAAAGATATCGGACCCTAAGTTCGTAAGGACTT  
 GGAAGAGGACCTATATGAACTTCAAGAAAGATCCTGGTTTCGACAGGGGCCAGTTCCATAAGCAGATT  
 GCTGTCTGCGGGGCCAGATCTTAAATCTGACCCAGGCTTGAAGACAACAAGAGTCCCTGCACCTCG  
 TCCAGATGCCACCTGTGATTGTGAGACGGCCGTTCCACCAGCGGCTTCTAGCGAGTCTACACACA  
 GAGCTTTCAGAGCCGGAAGCCCTCTTTTCATGGTGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201367 representing NM\_018425  
 Red=Cloning site Green=Tags(s)

MDETSPLVSPERAQPPDYTFPSGSAHFPQVPGGAVRVAAGSGPSPGGHDERQPLDRARGAAA  
 QGQTQTVAQAQALAAQAAAAHAQAHRERNEFPEDPEFEAVVRQAELAIERICIFPERIYQSSGSYFV  
 KDPQGRIIAVFKPKNEEPYGHLPKWKWLQKLCPCCFGRDCLVLNQGYLSEAGASLVDQKLELNIVPR  
 TKVVYLASETFNYSALDRVKSRLALEKVPKVGQRFNRIGLPPKVGSLFVEGYKDADYWLRRFEAE  
 PLPENTNRQLLLQFERLVVLDYIIRNTDRGNDNLIKYDCPMDSSSRDWDVVVKEPVIVAAIDNGLA  
 FPLKHPDSWRAYPFYWAWLPQAKVPFSQEIKDLILPKISDPNFVKDLEEDLYELFKKDPGDRGQFHKQI  
 AVMRGQILNLTQALKDNKSPLHLVQMPPIVETARSHQRSSSESYTQSFQSRKPFSSWW

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:**

NM\_018425

**ORF Size:**

1437 bp

**OTI Disclaimer:**

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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_018425.2](#), [NP\\_060895.1](#)

RefSeq Size: 4185 bp

RefSeq ORF: 1440 bp

Locus ID: 55361

UniProt ID: [Q9BTU6](#)

Cytogenetics: 10q24.2

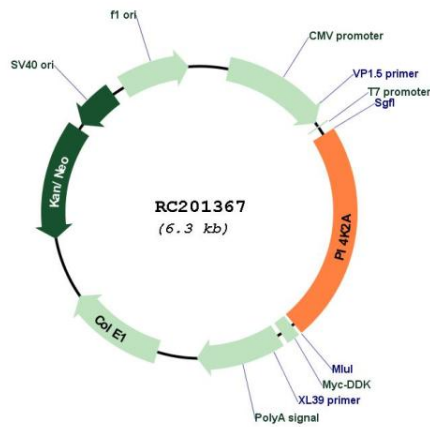
Domains: PI3\_PI4\_kinase

Protein Families: Druggable Genome

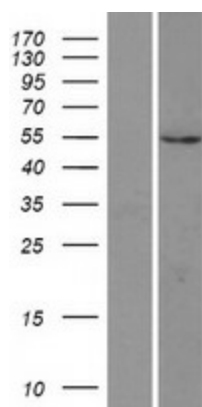
MW: 53.8 kDa

**Gene Summary:** Phosphatidylinositolpolyphosphates (PtdInsPs) are centrally involved in many biologic processes, ranging from cell growth and organization of the actin cytoskeleton to endo- and exocytosis. PI4KII phosphorylates PtdIns at the D-4 position, an essential step in the biosynthesis of PtdInsPs (Barylko et al., 2001 [PubMed 11244087]).[supplied by OMIM, Mar 2008]

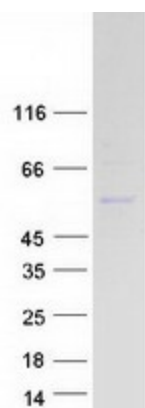
**Product images:**



Circular map for RC201367



Western blot validation of overexpression lysate (Cat# [LY413054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201367 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PI4K2A protein (Cat# [TP301367]). The protein was produced from HEK293T cells transfected with PI4K2A cDNA clone (Cat# RC201367) using MegaTran 2.0 (Cat# [TT210002]).