

Product datasheet for **MR207675**

Pi4k2a (NM_145501) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pi4k2a (NM_145501) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pi4k2a
Synonyms:	Pi4k2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR207675 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGACGAGACGAGCCCGTAGTGTCCCCGAGCGGGCCCAACCCCGGAGTACACCTTCCCGTCGGGCT
 CCGGAGCTCACTTCCGCAAGTACCGGGGGCGCGGTCCGCGTGGCGGGCGCGGCCGCTCCGGCCCGTC
 ACCGCCGTGCTCGCCCGCCACGACCGGGAGCGGCAGCCCTGCTGGACCGGGCCCGGGCGCGGGCG
 CAGGGCCAGACCCACACGGTGGCGGTGCAGGCCAGGCCCTGGCCGCCAAGCGGCCGTGGCGGCACG
 CCGTTCAGACCCACCGCAGCGGAACGACTTCCCGGAGGACCCCGAGTTCGAGGTGGTGGTGCAGGCG
 CGAGGTTGCCATCGAGTGCAGCATCTATCCCGAGCGCATCTACCAGGGCTCCAGTGAAGCTACTTCGTC
 AAGGACTCTCAGGGGAGAATCGTTGCTGTCTTCAAACCAAGAATGAAGAGCCATACGGGCACCTTAACC
 CTAAGTGGACCAAGTGGCTGCAGAAGCTGTGCTGCCCTGCTGCTTTGGCCGAGACTGCCTTGTCTCAA
 CCAGGGCTATCTCTCAGAGGCAGGGGCTAGCCTGGTGGACAAAACTGGAACCTCAACATTGTACCAGT
 ACAAAGGTAGTATACCTGGCCAGTGAAACCTTCAACTACAGTGCCATTGATCGAGTAAAGTCCAGGGGCA
 AGCGGCTTGCACTAGAGAAAGTGCCAAAAGTTGGGCAGCGGTTTAAACGAATCGGCCTGCCACAAAGT
 CGGGTCATTCCAGCTCTTCGTTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTTGAAGCAGAA
 CCTCTCCCTGAGAACACGAACCGACAGCTGCTATTGCAGTTTGAGCGGTTGGTGGTCTGGACTACATCA
 TCCGCAACACTGACCGAGGCAATGACAACCTGGTTGATCAAATATGACTGTCCGATGGATAATTCTAGCTG
 TCGGGACACAGATTGGGTGATGGTGAGGGACCTGTTATCAAGGTGGCTGCCATAGACAACGGGCTAGCT
 TTCCCACTGAAGCATCTGACTCCTGGAGGGCATATCCTTTTTACTGGCCTGGCTGCCTCAGGCGAAAG
 TCCCGTTCTCTCAGGAGATCAAAGATTTGATTCTTCAAAGATTTCAGACCCTAAGCTTCAAGGACTT
 GGAGGAGACCTATATGAACTTTCAAGAGAGATCCTGGCTTCGACAGGGGCCAGTTCATTAAGCAGATT
 GCTGTCTGAGAGGCCAGATCCTAAATTTGACCCAGGCCCTGAAAGACAATAAGAGCCCCCTGCACCTCG
 TCCAGATGCCACCTGTGATTGTGAGACGGCCCGCTCTACCAGCGGTCTGCAAGCGAATCCTACACACA
 GAGCTTTCAGAGTCGGAAGCCCTCTTTTCATGGTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207675 protein sequence
 Red=Cloning site Green=Tags(s)

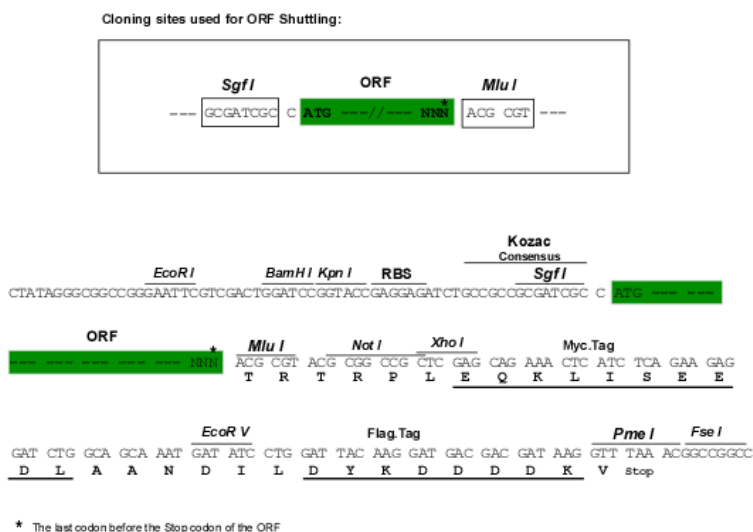
MDETSPLVSPERAQPPEYTFPSGSAHFPQVPGGAVRVAAGSGSPPCSPGHDRERQPLDRARGAAA
 QGQHTVAVQAALAAQAAVAHAHQTHRERNDPEDPEFEVVRQAEVAIECSIYPERIYQSSGSYFV
 KDSQGRIVAVFKPKNEEPYGHLPKWKWLQKLCPCCFGRDCLVLNQYLSEAGASLVDQKLELNIVPR
 TKVVYLASETFNYSIDRVKSRGKRLALEKVPKVGQRFNRIGLPPKVGSLFVEGYKDADYWLRRFEAE
 PLPENTNRQLLLQFERLVLDYIIRNTDRGNDNLIKYDCPMDNSCRDWDWVMVREPVIKVAAIDNGLA
 FPLKHPDSWRAYPFYWAWLPQAKVPFSQEIKDLILPKISDPNF IKDLEEDLYELFKRDPGFDGQFHKQI
 AVMRGQILNLTQALKDNKSPHLVQMPPVIVETARSHQRSASESYTQSFQSRKPFPSWW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

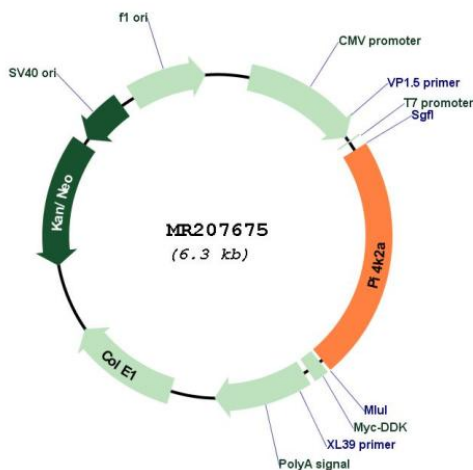
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_145501

ORF Size: 1437 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_145501.2](#), [NP_663476.1](#)

RefSeq Size: 3771 bp

RefSeq ORF: 1440 bp

Locus ID: 84095

UniProt ID: [Q2TBE6](#)

Cytogenetics: 19 35.74 cM

MW: 54.3 kDa

Gene Summary: Membrane-bound phosphatidylinositol-4 kinase (PI4-kinase) that catalyzes the phosphorylation of phosphatidylinositol (PI) to phosphatidylinositol 4-phosphate (PI4P), a lipid that plays important roles in endocytosis, Golgi function, protein sorting and membrane trafficking and is required for prolonged survival of neurons. Besides, phosphorylation of phosphatidylinositol (PI) to phosphatidylinositol 4-phosphate (PI4P) is the first committed step in the generation of phosphatidylinositol 4,5-bisphosphate (PIP2), a precursor of the second messenger inositol 1,4,5-trisphosphate (InsP3).[UniProtKB/Swiss-Prot Function]