

Product datasheet for **MG208102**

PIk3 (BC031180) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIk3 (BC031180) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIk3
Synonyms:	Fnk, PRK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208102 representing BC031180
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCCCGCCCGCGGTTCTTGTCTCCGCGCCCTTCCGCGCGCGGTGCCCGTCCGCGCCCGCC
 CCGGCCCGGGCCGCTGCCAATGCCTCCCGCGATCGGAACCTGAGGTGCTGGCCGGGCCACGGCGCC
 GGATCCTCCTGGTCGCTCATCACCGACCTCTCAGCGGCGTACCTACCCAAGGGTCGCTTGTGGGC
 AAGGGGGCTTCGCACGCTGCTATGAAGCCACTGACACCGAGTCTGGTATAGCTACGCGGTCAAAGTCA
 TCCCGCAGAGTCGCGTCCCAAGCCGATCAGCGCGAGAAGATCCTAAATGAGATAGAGTTGCACCGAGA
 CCTACAGCACCGCATATCGTTCGCTTTTACATCATTTCGAGGATGCTGACAACATATACATTTTCTG
 GAGCTCTGTAGCCGAAAGTCCCTGGCCACATCTGGAAGGCCGACACACCCTGTTGGAACCAGAGGTTT
 GCTACTACCTGCGCCAGATCCTTTCTGGCCTCAAGTACTTGACCCAGAGGGGTATCTTACACAGAGATCT
 CAAGCTGGGAAATTTTTTATCACGGATAACATGGAAGTGAAGGTGGGGATTTTGGGCTGCCAGCTCGA
 TTAGAGCCCCAGAGCAGAGGAAAAAGACCATCTGTGGCACTCCCAACTACGTGGCTCCAGAAGTGTCTG
 TGAGACAGGGCCATGGCCCCGAGGCAGATGTGTGGTCCGCTTGGTTGTGCATGTACACGCTCCTGTGTGG
 GAGCCCCCATTTGAGACTGCTGACCTGAAGGAGACATACCGCTGCATCAAGCAGGTTTATTACACGCTA
 CCTGCCAGCCTCTCCCTGCCTGCCCGCAGCTCCTGGCTGCCATCCTCCGAGCTTACCCAGAGACCGCC
 CTTCCATTGAACAGATTTTACGCCATGACTTCTTTACGAAGGGCTACACCCTGATCGGCTCCAGTCAG
 CAGCTGTGTGACAGTCCCAGATCTGACACCCCAACCCTGCGAGGAGTCTGTTTGCCAAAGTTACCAAG
 AGCCTGTTTGGCAGGAAAAAGAACAAGAATAAGAACCATTCTGAGGACCAGGATAATGTCTCCTGCTTGG
 TGAGTGGCCTCATGCGCACATCCATCGGTCCAGATGTCAGGCCGAGGCTCCTGTAGTTTCAGGCCA
 GGCCCCCTGCCAGCTTGATAGAGACAGTCCCGAGGACAGCTCGCCCCGTGGGACACTGGCCAGCAGTGGA
 GATGGGTTTGAAGAAGGTTTACTGTGGCCACAGTGGTAGAGTCTGCCCTCTGTGCACTGAGAACTGTG
 TGGCCTTCATGCCCCAGCCGAACAGAACCAGCCCCACTGGCACAGCCAGAGCCTCTGGTGTGGGTGAG
 CAAGTGGGTTGACTACTCCAACAAGTTTGGCTTTGGCTATCAGCTGTCCAGCCGCGGTGTAGCCGTGCTC
 TTCAATGATGGCACACACATGGCCCTGTCAGCCAATAGGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208102 representing BC031180
 Red=Cloning site Green=Tags(s)

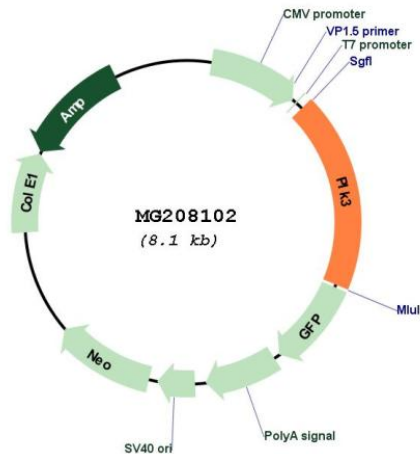
MEPAAGFLSPRPFPRAAAPSAPPAGPGPPANASPRSEPEVLAPRAPDPPGRLITDPLSGRTYTKGRLLG
 KGGFARCYEATDTESGIAYAVKVIPQSRVAKPHQREKILNEIELHRDLQHRHIVRF SHHFEDADNIYIFL
 ELCRSKSLAHIWKARHTLLEPEVRYLRQILSGLKYLHQRGILHRDLKLNFFITDNMELKVGDFGLAAR
 LEPPEQRKKTICGTPNYVAPEVLLRQGHGPEADVWSLGCVMYTLGSPPFETADLKETYRCIKQVHYTL
 PASLSLPAQQLLAAILRASPRDRPSIEQILRHDFFTKGYTPDRLPVSSCVTPDLTPPNPARSLFAKVTK
 SLFGRKKNKNHSEDQDNVSLVSGLMRTSIGHDPVRPEAPVVSQAPASLIETAAEDSSPRGTLASSG
 DGFEEGLTVATVVEALCALRNCVAFMPPAEQNPAPLAQPEPLVWVSKWVDYSNKF GFGYQLSSRRVAVL
 FNDGTHMALSANRK

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Plasmid Map:



ACCN: BC031180

ORF Size: 1514 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 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: [BC031180](#), [AAH31180](#)

RefSeq Size: 2648 bp

RefSeq ORF: 1514 bp

Locus ID: 12795

Cytogenetics: 4 D1

Gene Summary:

This gene encodes a member of the highly conserved polo-like kinase family of serine/threonine kinases. Members of this family are characterized by an amino-terminal catalytic domain and a carboxy-terminal bipartite polo box domain that functions as a substrate-binding motif and a cellular localization signal. Polo-like kinases have primarily been implicated in cell cycle regulation. In mouse, this protein that has been reported to localize to the nucleolus during interphase but is undetectable during mitosis, following nucleolus dissociation during prophase. The protein relocates to the nucleolus just prior to cytokinesis and peak levels are detected during G1 of interphase. This gene has been implicated in regulation of entry into S phase, with RNAi-induced depletion resulting in failure to re-enter the cell cycle. Mice deficient for this gene exhibit increased weight and tumor development at advanced age. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]