

Product datasheet for **RG216704**

MNK2 (MKNK2) (NM_199054) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MNK2 (MKNK2) (NM_199054) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MNK2
Synonyms:	GPRK7; MNK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216704 representing NM_199054
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGCAGAAGAAACCAGCCGAACCTTCAGGGTTCCACCCTTCGTTCAAGGGGCAGAACCCTTCGAGC
 TGGCCTTCTCCCTAGACCAGCCGACCAGGAGACTCTGACTTTGGCCTGCAAGTCTCAGCCCGCCCTGA
 CATGCCCGCCAGCCAGCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCGCGCCGG
 GCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGGCG
 CTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAGATCATTGAGAA
 GCAGCCAGGCCACATTCCGAGCAGGGTTTTAGGGAGGTGGAGATGCTGTACCAGTCCAGGGACACAGG
 AACGTCCTAGAGCTGATTGAGTTCTTCGAGGAGGAGGACCCTTCTACCTGGTGTGAGAAGATGCGGG
 GAGGCTCCATCCTGAGCCACATCCACAAGCGCCGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGA
 GGAGCTGGCCAGCGCCTTGGACTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAAGCCGAAAAC
 ATCCTCTGTGAGCACCCCAACAGGTCTCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCA
 AACTCAACGGGGACTGCTCCCTATCTCCACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACAT
 GGCCCCGAGGTAGTGGAGGCCTTCAGCGAGGAGGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGC
 CTGGGCGTCATCTGTATATCCTACTCAGCGGCTACCCGCCCTTCGTGGGCGGCTGTGGCAGCGACTGCG
 GCTGGGACCGGGCAGGCTGCCCTGCCAGAACATGCTGTTTGGAGAGCATCCAGGAGGGCAAGTA
 CGAGTTCCCGACAAGGACTGGGCCACATCTCCTGCGCTGCCAAAGACCTCATCTCAAGCTGTGGTC
 CGTGACGCCAAGCAGAGGCTGAGTGCCGCCAAGTCTGCAGCAGGAGTGTGCCAAAGACCTCAGTCCTTCGCGGC
 AGAACACCTTGCCACTCCCATGGTCTGCAGAGGAACAGCTGTGCCAAAGACCTCAGTCCTTCGCGGC
 TGAGGCCATTGCCATGAACCGGACGCTGGCCAGCAGCAGGAGGACCTGGCTGAGGAGGAGGCCCGGGG
 CAGGGCCAGCCGCTCCTGGTCCGAGCTACCTCACGCTGCCTGCAGCTGTCTCCACCTCCAGTCCAAGC
 TGGCGCAGCGGGCAAAGGGCCAGTCTGTCTCGGCCCAAGTGGTCTGGTGGGAGACCACGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG216704 representing NM_199054
 Red=Cloning site Green=Tags(s)

MVQKKPAELQGFHRSFKQNPFLAFSLDQPDHGDSDFLQCSARPDMPASQPIDIPDAKKRGGKKRGR
 ATDSFSGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKIIKQPGHIRSRVFREVEMLYQCQGHR
 NVLELIEFFEEEDRFYLVEFKMRGGSILSHIHKRRHFNELEASVVVQDVASALDFLHNKGIHRDLKPEN
 ILCEHPNQVSPVKICDFDLGSGIKLNGDCSPISTPELLTPCGSAEYMAPEVVEAFSEEASIIDKRCDLWS
 LGVILYILLSGYPPFVGRGSDCGWDRGEACPACQNMFLFESIQEGKYEFPDKDWAHISCAAKDLISKLLV
 RDAKQRLSAAQVLQHPWVQGCAPENTLPTPMVLQRNSCAKDLTSFAAEIAMNRQLAQHDEDLAEEEEAAG
 QGQPVLYRATSRCLQLSPPSQSKLAQRRQRASLSSAPVVLVGDHA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_199054

ORF Size: 1395 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).

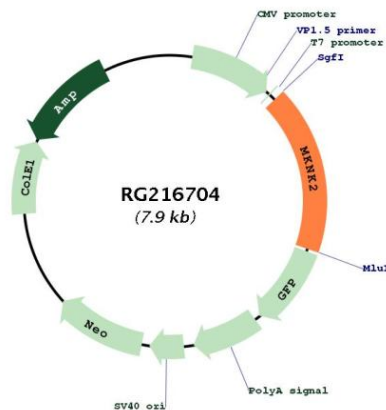
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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: [NM_199054.3](#)

RefSeq Size: 3795 bp
RefSeq ORF: 1398 bp
Locus ID: 2872
UniProt ID: [Q9HBH9](#)
Cytogenetics: 19p13.3
Protein Families: Druggable Genome, Protein Kinase
Protein Pathways: Insulin signaling pathway, MAPK signaling pathway

Gene Summary: This gene encodes a member of the calcium/calmodulin-dependent protein kinases (CAMK) Ser/Thr protein kinase family, which belongs to the protein kinase superfamily. This protein contains conserved DLG (asp-leu-gly) and ENIL (glu-asn-ile-leu) motifs, and an N-terminal polybasic region which binds importin A and the translation factor scaffold protein eukaryotic initiation factor 4G (eIF4G). This protein is one of the downstream kinases activated by mitogen-activated protein (MAP) kinases. It phosphorylates the eukaryotic initiation factor 4E (eIF4E), thus playing important roles in the initiation of mRNA translation, oncogenic transformation and malignant cell proliferation. In addition to eIF4E, this protein also interacts with von Hippel-Lindau tumor suppressor (VHL), ring-box 1 (Rbx1) and Cullin2 (Cul2), which are all components of the CBC(VHL) ubiquitin ligase E3 complex. Multiple alternatively spliced transcript variants have been found, but the full-length nature and biological activity of only two variants are determined. These two variants encode distinct isoforms which differ in activity and regulation, and in subcellular localization. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RG216704