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Product datasheet for RC210081

MNK2 (MKNK2) (NM_017572) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MNK2 (MKNK2) (NM_017572) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MNK2
Synonyms:	GPRK7; MNK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210081 representing NM_017572
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGGGCAGAACCCCTTCGAGC
TGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTCAGCCCGCCCTGA
CATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCGCGGCCGG
GCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGGCG
CTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAA
GCAGCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGG
AACGTCCTAGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGG
GAGGCTCCATCCTGAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCA
GGACGTGGCCAGCGCCTTGGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAAC
ATCCTCTGTGAGCACCCCAACCAGGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCA
AACTCAACGGGGACTGCTCCCCTATCTCCACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACAT
GGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGAGGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGC
CTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCCGCCCTTCGTGGGCCGCTGTGGCAGCGACTGCG
GCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCTGTTTGAGAGCATCCAGGAGGGCAAGTA
CGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGACCTCATCTCCAAGCTGCTGGTC
CGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGTTCAGGGGTGCGCCCCGG
AGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCCTCCCCACCCCTG
TCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC210081 representing NM_017572
Red=Cloning site Green=Tags(s)

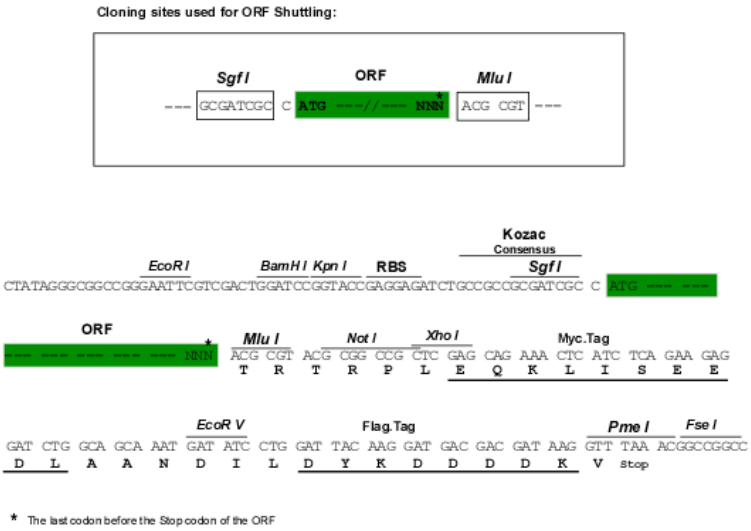
MVQKKPAELQGFHRSFKGQNPFELAFSLDQPDHGDSDFGLQCSARPDMPASQPIDIPDAKKRGKKKKRGR
ATDSFSGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKIIEKQPGHIRSRVFREVEMLYQCQGHR
NVLELIEFFEEEDRFYLVFEKMRGGSILSHIHKRRHFNELEASVVVQDVASALDFLHNKGIAHRDLKPEN
ILCEHPNQVSPVKICDFDLGSGIKLNGDCSPISTPELLTPCGSAEYMAPEVVEAFSEEASIYDKRCDLWS
LGVILYILLSGYPPFVGRCGSDCGWDRGEACPACQNMLFESIQEGKYEFPDKDWAHISCAAKDLISKLLV
RDAKQRLSAAQVLQHPWVQGCAPENTLPTPMVLQRWDSHFLLPPHPCRIHVRPGGLVRTVTVNE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2704_h07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017572

ORF Size: 1242 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

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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_017572.4
RefSeq Size:	1778 bp
RefSeq ORF:	1245 bp
Locus ID:	2872
UniProt ID:	Q9HBH9
Cytogenetics:	19p13.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Insulin signaling pathway, MAPK signaling pathway
MW:	46.5 kDa
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]

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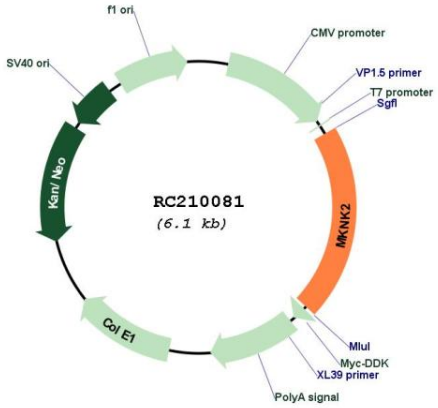
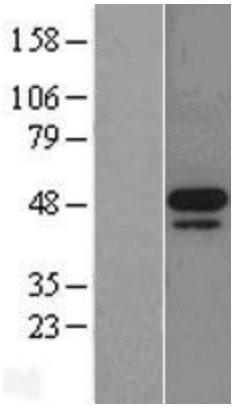
Product images:



Circular map for RC210081



Western blot validation of overexpression lysate (Cat# [LY413712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210081 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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