

Product datasheet for **MR217131**

Map4k2 (NM_009006) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map4k2 (NM_009006) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Map4k2
Synonyms:	AI385662; BL44; GCK; Rab8ip
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR217131 representing NM_009006
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGCTGTTGCGGGACGTGTCGCTGCAGGATCCGCGGGACCGCTTCGAGCTGCTACAGCGTGTGGGG
 CCGGGACCTATGGCGACGTTTACAAGGCCCGTGACACCGTCACGTCCGAAGTGGCCGCGGTGAAGATCGT
 CAAGCTAGACCCAGGGGACGACATCAGCTCTCTTCAGCAGGAAATCACCATCCTTCGTGAATGCCGCCAC
 CCCAATGTCGTGGCTACATCGGCAGCTACCTCAGGAATGACCGATTGTGGATCTGTATGGAGTTCTGTG
 GAGGAGGGTCACTGCAGGAGATTACCACGCCACTGGGCCCTGGAAGAACGGCAGATTGCCTATGTTTG
 CCGGGAGGCACTGAAGGGGCTCCACCACCTGCATTCTCAGGGGAAAATTCACCGAGACATTAAGGGTGCC
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 ACATCATCTGGAAGCATCCCAACTGATAACCCCGGGGCACACAGCAACCTCTACATCCTCAGGGTCA
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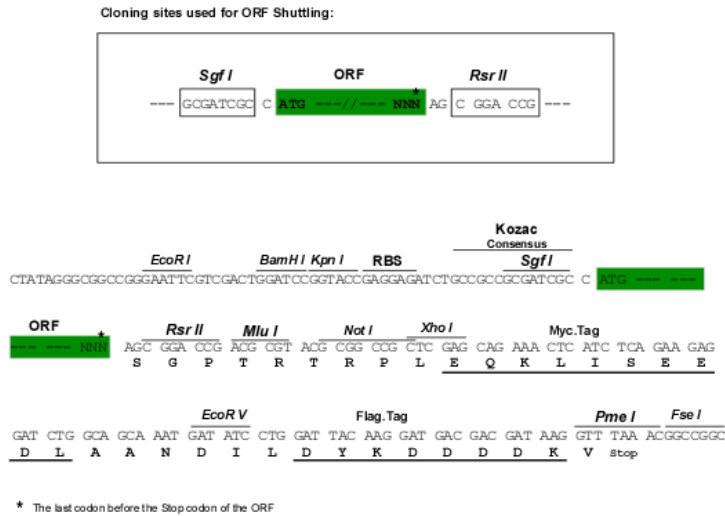
Protein Sequence: >MR217131 representing NM_009006
Red=Cloning site Green=Tags(s)

MALLRDVSLQDPRDRFELLQRVGAGTYGDVYKARDTVTSELAAVKIVKLDPGDDISSLQQEITILRECRH
PNVVAYIGSYLRNDRLWICMEFCGGSLQEYHATGPLEERQIAYVCREALKGLHHLHSQGIHRDIKGA
NLLLTLQGDVKLADFGVSGELTASVAKRRSFIGTPYWMAPEVAVERKGGYNELCDVWALGITAIELGEL
QPPLFHLHPMRALMLMSKSSFQPPKLRDKTRWTQNFHFLKLALTKNPKKRPTAERLLQHPFTTQHLPPA
LLTQLLDKASDPHLGTLSPEDSELETHDMFPDTIHSRSHHGPAERTPSEIQFHQVKFGAPRRKETDPLNE
PWEEEWTLGKEELSGSLLQSVQEALERSLTIRPALELQELDSPDDAIGTIKRAPFLGLPHESTSGDN
AQSCSPGTL SAPPAGPGSPALLPTAWATLKQQEDRERSSCHGLPPTPKVHMGACFSKVFNGCPLQIHAAV
TWWHPVTRDQFLVVGAEEGIYTLNLHELHEDTMEKLISQRCSWL YCVNNVLLSLSGKSTHIWAHDLPGFL
EQRRQLHQAPLSIPTNRITQRIIPRRFALSTKIPDTKGCLQCRVVRNPYTGSTFLLAALPASLLLQWYE
PLQKFLLLKNFSSPLPSPAGMLEPLVLDGKELPQVCVGAEGPEGPCRVLFHVLPLEAGLTPDILIPPEG
IPGSAQQVIQVDRDRTLVSFERCVRIVNLQGEPTAALAPELTFDFTIETVVCLQDSVLAFWSHGMQGRSL
DTNEVTQEITDETRIFRVLGAHRDIIIESIPTDNPGAHSNLYILTGHQSSY

SGP^{TRTRPLEQKLISEEDLAANDILDYKDDDDKV}

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_f02.zip

Restriction Sites: Sgfl-RsrII

Cloning Scheme:


ACCN: NM_009006

ORF Size: 2463 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_009006.3](#), [NP_033032.1](#)

RefSeq Size: 2466 bp

RefSeq ORF: 2466 bp

Locus ID: 26412

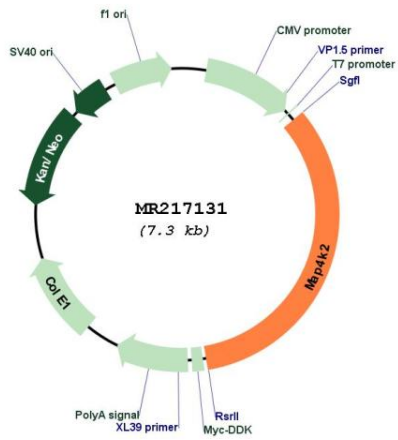
UniProt ID: [Q61161](#)

Cytogenetics: 19 A

MW: 91.7 kDa

Gene Summary: Serine/threonine-protein kinase which acts as an essential component of the MAP kinase signal transduction pathway (PubMed:8643544). Acts as a MAPK kinase kinase (MAP4K) and is an upstream activator of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway and to a lesser extent of the p38 MAPKs signaling pathway (By similarity). Required for the efficient activation of JNKs by TRAF6-dependent stimuli, including pathogen-associated molecular patterns (PAMPs) such as polyinosine-polycytidine (poly(IC)), lipopolysaccharides (LPS), lipid A, peptidoglycan (PGN), or bacterial flagellin (By similarity). To a lesser degree, IL-1 and engagement of CD40 also stimulate MAP4K2-mediated JNKs activation (By similarity). The requirement for MAP4K2/GCK is most pronounced for LPS signaling, and extends to LPS stimulation of c-Jun phosphorylation and induction of IL-8 (By similarity). Enhances MAP3K1 oligomerization, which may relieve N-terminal mediated MAP3K1 autoinhibition and lead to activation following autophosphorylation (By similarity). Mediates also the SAP/JNK signaling pathway and the p38 MAPKs signaling pathway through activation of the MAP3Ks MAP3K10/MLK2 and MAP3K11/MLK3 (By similarity). May play a role in the regulation of vesicle targeting or fusion (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR217131