

Product datasheet for **MC228808**

Map4k2 (NM_001291787) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map4k2 (NM_001291787) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Map4k2
Synonyms:	A1385662; BL44; GCK; Rab8ip
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC228808 representing NM_001291787
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTTCTGTGGAGGAGGTTCACTGCAGGAGATTTACCACGCCACTGGGCCCTTGAAGAACGGCAGA
 TTGCCTATGTTTGCCGGGAGGCACTGAAGGGGCTCCACCACCTGCATTCTCAGGGGAAAATTCACCGAGA
 CATTAAGGGTGCCAACCTTCTGCTCACTCTGCAGGGTGTGTAAGCTGGCGGACTTTGGGGTGTCAAGC
 GAGCTGACAGCATCTGTGGCCAAAAGACGTTCTTTTATTGGCACTCCATACTGGATGGCACCAGAGGTTG
 CCGCTGTGGAACGCAAGGGTGGCTACAATGAGCTGTGTGACGTCTGGGCCCTGGGCATCACTGCCATTGA
 GTTGGGCGAGCTGCAACCGCCACTGTTCCACCTGCACCCCATGAGGGCCTTGATGCTCATGTGCGAAAAGC
 AGCTTCCAGCCACCAAGCTAAGAGATAAGACGCGTTGGACCCAGAATTTCCACCCTTCTCAAGCTGG
 CCCTAACCAAGAACCCCAAGAAGAGGCCCTACAGCAGAGAGGCTTCTGCAGCACCCATTACAGCCAGCA
 TCTCCCTCCGGCCCTCCTCACCCAGCTCCTCGACAAGGCCAGTGACCCACCTGGGAACCTCTCCCT
 GAAGACAGTGAGCTGGAGACCATGACATGTTTCCAGATACCATTCCCGCAGCCATCATGGTCCTG
 CTGAGAGGACCCCTCCGAGATCCAGTTTACCAGTAAATTCGGTGCTCTCGCCGGAAGGAGACAGA
 TCCTCTCAATGAACCGTGGGAGGAGGAGTGGACGCTCCTGGGAAAAGAGGAAGTGGTGGGAGCCTGCTG
 CAGTCAGTCCAGGAGGCCCTGGAGGAAAGGAGCCTGACTATCCGGCCAGCCTTAGAACTCCAGGAGCTGG
 ACTCCCGGATGATGCCATCGGAACCATCAAACGGGCTCCATTTTGGGGCTGCCCCACTGAGTCAAC
 ATCTGGTGACAATGCCAGTCTGCTCCCAAGTACCTGTGACACCTCCAGCTGGCCCTGGCAGCCCC
 GCATTGCTGCCTACCGCTGGGCTACTCTGAAGCAACAGGAGGATCGTGAGCGATCATCCTGCCATGGC
 TTCTCCACCCCAAGGTGCACATGGGTGCTTCTTCCAAGTCTTCAATGGCTGCCCTGCAGAT
 CCATGTGCTGTCACTTGGGTTACCCTGTGACTCGAGACCAAGTCTCGTGGTGGTAGGGGCTGAGGAGGGC
 ATCTATACCCTCAACCTGCACGAAGTGCACGAGGACACAATGGAGAAGCTCATCTCCAGCGCTGCTCCT
 GGCTCTACTGTGTGAACAATGTGTTGCTGTCGCTCTCAGGGAAAATCCACACATATCTGGGCGCATGACCT
 CCCGGGCTGTTTGAGCAGCGAAGGCTGCAGCACCAGGCACCCCTCTCCATCCCTACCAACCGCATCACT
 CAGCGCATCATCCCAGGCGCTTGGCCCTGTCCACCAAGATTCTGACACCAAGGCTGCTTGCAGTGCC
 GTGTGGTTCGAAACCCCTATACCGGCAGTACGTTCTGCTGGCCGCCCTGCTGCCAGCCTGCTTCTGCT
 GCAATGGTATGAGCCACTGCAGAAATTCCTGCTGCTGAAGAACTTTCCAGTCCCTTGCCAGCCAGCG
 GGGATGCTGGAGCCGCTGGTGTAGATGGGAAGGAGCTGCCACAGGTGTGTGGGCGCCGAGGGACCCG
 AGGGACCCGGCTGTGAGTCTGTTCCATGCTTGGCCCTGGAAGCTGGCCTGACTCCAGACATCCTCAT
 CCCTCCTGAGGGGATCCAGGTTCTGCACAGCAGGTGATCCAAGTGGACAGGGACACAGTCTGGTCAGC
 TTTGAACGCTGTGTGAGAATTGTTAACCTGCAGGGGAAACCCACGGCTGCACTTGGCCCTGAACTAACCT
 TTGACTTCACTATTGAGACTGTGGTGTGCTGCAGGATAGTGTGCTGGGTTCTGGAGCCATGGCATGCA
 GGGCCGAAGCCTCGATACCAACGAGGTGACGCAGGAGATAACAGATGAGACCAGGATCTCCGAGTACTG
 GGGGCTCACAGGGACATCATCTGGAAGCATCCCAACTGATAACCCCGGGGCACACAGCAACCTCTACA
 TCCTCACGGGTACCAGAGCAGCTACTGA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-RsrII
ACCN: NM_001291787
Insert Size: 2199 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001291787.1</u> , <u>NP_001278716.1</u>
RefSeq Size:	4653 bp
RefSeq ORF:	2199 bp
Locus ID:	26412
UniProt ID:	<u>Q61161</u>
Cytogenetics:	19 A
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) uses an alternate splice junction at the 5' end of an exon compared to variant 1. The resulting isoform (2) is shorter at the N-terminus compared to isoform 1.</p>