

## Product datasheet for **MC221869**

### Map4k2 (NM\_009006) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Map4k2 (NM_009006) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Map4k2
Synonyms:	A1385662; BL44; GCK; Rab8ip
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC221869 representing NM\_009006  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGCTGTTGCGGGACGTGTCTGTCAGGATCCGCGGGACCGCTTCGAGCTGTACAGCGTGTGGGG  
 CCGGGACCTATGGCGACGTTTACAAGGCCCGTGACACCGTCACGTCCGAAGTGGCCGCGTGAAGATCGT  
 CAAGCTAGACCCAGGGGACGACATCAGCTCTCTTCAGCAGGAAATCACCATCCTTCGTGAATGCCGCCAC  
 CCCAATGTCGTGGCTACATCGGCAGCTACCTCAGGAATGACCGATTGTGGATCTGTATGGAGTTCTGTG  
 GAGGAGGGTCACTGCAGGAGATTTACCACGCCACTGGGCCCTGGAAGAACGGCAGATTGCCATGTTTTG  
 CCGGGAGGCACTGAAGGGGCTCCACCACCTGCATTCTCAGGGGAAAATTACCGAGACATTAAGGGTGCC  
 AACCTTCTGCTCACTCTGCAGGGTGTGTCAAGCTGGCGGACTTTGGGGTGTGAGCGAGCTGACAGCAT  
 CTGTGGCCAAAAGACGTTCTTTTCATTGGCACTCCATACTGGATGGCACCAGAGGTTGCCGCTGTGAACG  
 CAAGGGTGGCTACAATGAGCTGTGTGACGTCTGGGCCCTGGGCATCACTGCCATTGAGTTGGGCGAGCTG  
 CAACCGCCACTGTTCCACCTGCACCCCATGAGGGCCTTGATGCTCATGTGAAAAAGCAGCTTCCAGCCAC  
 CCAAGCTAAGAGATAAGACGCGTTGGACCCAGAATTTCCACCCTTCTCAAGCTGGCCCTAACCCAGAA  
 CCCAAGAAGAGGCTACAGCAGAGAGGCTTCTGCAGCACCCATTACGACCCAGCATCTCCCTCCGGCC  
 CTCTCACCCAGCTCCTCGACAAGGCCAGTGACCCCACTGGGAACCTCTCCCTGAAGACAGTGAGC  
 TGGAGACCCATGACATGTTTCCAGATACCATCCATTCCCGCAGCCATCATGGTCTGTGAGAGGACCC  
 CTCCGAGATCCAGTTTCCAAAGTGAATTCGGTGTCTCTCGCCGAAGGAGACAGATCCTCTCAATGAA  
 CCGTGGGAGGAGAGTGGACGCTCCTGGGAAAAGAGGAACTGAGTGGGAGCCTGCTGCAGTCAGTCCAGG  
 AGGCCCTGGAGGAAAGGAGCCTGACTATCCGGCCAGCCTTAGAACTCCAGGAGCTGGACTCCCGGATGA  
 TGCCATCGGAACCATCAAACGGGCTCCATTTTGGGGCTGCCACACTGAGTCAACATCTGGTGACAAT  
 GCCCAGTCTGTCCCAAGTACCTGTGAGCACCTCCAGCTGGCCCTGGCAGCCCCGATTGCTGCCTA  
 CCGCTGGGCTACTCTGAAGCAACAGGAGGATCGTGAGCGATCATCTGCCATGGGCTTCTCCACCCC  
 CAAGGTGCACATGGGTGCCTGCTTCTCAAGGTCTTCAATGGTGGCCCTGCAGATCCATGCTGCTGTC  
 ACTTGGGTTACCCTGTGACTCGAGACCAGTTCCTGGTGGTAGGGGCTGAGGAGGGCATCTATACCCTCA  
 ACCTGCACGAAGTGCACGAGGACACAATGGAGAAGCTCATCTCCAGCGCTGCTCTGGCTCTACTGTGT  
 GAACAATGTGTGCTGTCTCTCAGGAAATCCACACATATCTGGGCGCATGACCTCCCGGCTGTTT  
 GAGCAGCGAAGGCTGCAGCACAGGACCCCTCTCCATCCCTACCAACCGCATCACTCAGCGCATATCC  
 CCAGGGCCTTTGCCCTGTCCACCAAGATTCTGACACCAAGGCTGCTTGCAAGTCCCGTGTGGTTCGAAA  
 CCCCTATACCGGCACTACGTTCTGTGGCCGCTGCTGCCAGCCTGCTTCTGCTGCAATGGTATGAG  
 CCACTGCAGAAATTCCTGCTGTGAAGAATTTTCCAGTCCCTTGCCAGCCAGCGGGGATGCTGGAGC  
 CGCTGGTGTAGATGGGAAGGAGCTGCCACAGGTGTGTGTGGGCGCCGAGGGACCCGAGGGACCCGGCTG  
 TCGAGTCTGTCCATGTCTTGGCCCTGGAAGCTGGCCTGACTCCAGACATCCTCATCCCTCCTGAGGGG  
 ATCCCAGGTTCTGCACAGCAGGTGATCCAAGTGGACAGGGACACAGTCTGGTCACTTTGAACGCTGTG  
 TGAGACTGTGGTGTCTGCAGGATAGTGTGCTGGCCTTCTGGAGCCATGGCATGCAGGGCCGAAGCCTC  
 GATACCAACGAGGTGACGACAGGAGATAACAGATGAGACCAGGATCTTCCGAGTACTGGGGCTCACAGGG  
 ACATCATCTGAAAGCATCCCAACTGATAACCCCGGGGCACACAGCAACCTCTACATCCTCACGGGTCA  
 CCAGAGCAGCTACTGA

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-RsrII  
**ACCN:** NM\_009006  
**Insert Size:** 2466 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_009006.3</a> , <a href="#">NP_033032.1</a>
<b>RefSeq Size:</b>	4679 bp
<b>RefSeq ORF:</b>	2466 bp
<b>Locus ID:</b>	26412
<b>UniProt ID:</b>	<a href="#">Q61161</a>
<b>Cytogenetics:</b>	19 A
<b>Gene Summary:</b>	<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 (1) encodes the longest isoform (1).</p>