

Product datasheet for **MC202574**

Map2k1 (NM_008927) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map2k1 (NM_008927) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Map2k1
Synonyms:	MAPKK1; Mek1; MEKK1; Prkmk1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC054754 sequence for NM_008927
 CGAGCCGCCCGACTCTGGGCAGAGCCGAGGGAGGAAGCGAGAAGCGGCCGCGCGCTCCCTGCTGAGTTG
 CAGGCTCTTTCCCGGCTGCAAGATGCCAAGAAGAAGCCGACGCCATCCAGCTGAACCCGGCCCCGAT
 GGCTCGGCGGTTAACGGGACCAGCTCGGCCGAGACCACTGGAGGCCTTGACAGAAGAAGCTGGAGGAGC
 TGGAGCTTGACGAGCAGCAGCGGAAGCGGCTCGAGGCCTTTCTGACGCAGAAGCAGAAGGTGGGGAACT
 GAAGGATGATGACTTTGAGAAGATCAGCGAACTGGGAGCTGGCAACGGTGGAGTGGTCTTCAAGGTCTCC
 CACAAGCCATCTGGCCTGGTTATGGCTAGAAAGCTGATCCACCTGGAGATCAAACCCGCAATCCGGAACC
 AGATCATCCGGGAGCTGCAGTACTGCACGAGTGCAACTCCCCGTACATCGTGGGCTTCTACGGGGCCTT
 CTACAGCGACGGCGAGATCAGCATCTGCATGGAGCACATGGATGGTGGTCTTGGATCAAGTTCTGAAG
 AAAGCTGGAAGAATTCTGAGCAAATTTTAGGAAAAGTTAGCATTGCTGTGATAAAAGGCCTGACCTATC
 TTCGGGAGAAGCACAAGATTATGCACAGAGATGTCAAGCCATCCAACATTCTAGTGAACCTCACGTGGGGA
 GATCAAACCTCTGTGATTTTGGGTCAGCGGCAGCTAATTGACTCTATGGCCAACCTCTCGTGGGCACG
 AGATCCTACATGTCGCTGAGAGACTCCAGGGACTCACTACTCTGTGCAGTCGGACATCTGGAGCATGG
 GGCTCTCTCTGGTGGAGATGGCAGTTGGGAGATACCCATTCTCTCTCTGATGCCAAGGAGCTGGAGCT
 ACTGTTTGGATGCCATGTGGAAGGAGACGCAGCCGAAACACCACCAGGCCAAGGACCCCTGGGAGCCCT
 CTAGCTCATATGGAATGGACAGCCGACCTCCCATGGCAATTTTGGAGTTGGATTACATTGTCAATG
 AGCCTCTCCAAAAGTGGCCAGTGGAGTATTCAGTCTGGAGTTTCAGGATTTTGTGAATAAATGCTTAAT
 AAGAACCCTGCAGAGAGAGCAGATCTGAAGCAGCTCATGGTACATGCTTTCATCAAAGATCTGACGCC
 GAGGAGGTAGACTTCGCAGGCTGGCTCTGCTCCACCATGGGCTTAACCAGCCCAGCACACCAACCCACG
 CTGCCAGCATCTGAGCCTTTAGGAAGCAGCAAAGAGGAATTCTCTGCCAGTGGCATGCCATGTTGCTTT
 CAGGCCTCTCCCATGCTTGTCTATGTTCCAGACGTGCATCTCATCTGTGACAAAGGATGAAGAACACAGCA
 TTGGCTTTGTGCTTGGGGCTATTTGCTGTTTCATCAAACACATGCCAGGCTGAACACAGTAAACCCCTA
 GTGACCTGGGTGGTCTTACTGATGTTGCAGTCTGCTTTCATCGTGACTCACTAGCTGGCTGCCTGT
 ATTGTGAGGATTCTCGGACCTTGGTACTTCACTCTTGGTGGTGCCTCTAGTCTGAGAGGGAGCCTTGT
 GAGACCCTTACAGGCAGTGCATGCATGGAAGCATGCTTTGCTGCTACTGAAATGAGCATCAGAACGTG
 TACGTCATGGTATTTTTATTTTTGCTTTTGGTATAGAAGTCAAGCAATCCCATCAAAAAACCTAAGCA
 GAGCCCATCACTGCCATGATAGCTGGGCTTCACTGTCTACTGTGGTATTTTTAGACTTCTGGTTGTA
 TTTCTATATTTATTTTTAAATATACAGTGTGGGATACTTAGTGGTGTGTCTCTAAGTTTGGATTAGTG
 TTTCTAAATTGGTGGTTATTTGAATGTCACAAATGGATTAAGCATCAATGTATCAAGAGTTCTATCTT
 TCTTCCAGTCTAAGTACCAATGCTATTGTAACAACGTGTATAGTGCCTACAAATTGTATGAAACCCCTT
 TTAACCACTTAATCAAGATGTTTATCAAACTAATCTCTATTCTAATAAAAAACTATCAAGTTAAAA
 TAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Ascl-NotI

ACCN: NM_008927

Insert Size: 1182 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).

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:	BC054754 , AAH54754
RefSeq Size:	2189 bp
RefSeq ORF:	1182 bp
Locus ID:	26395
UniProt ID:	P31938
Cytogenetics:	9 34.55 cM
Gene Summary:	<p>Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Binding of extracellular ligands such as growth factors, cytokines and hormones to their cell-surface receptors activates RAS and this initiates RAF1 activation. RAF1 then further activates the dual-specificity protein kinases MAP2K1/MEK1 and MAP2K2/MEK2. Both MAP2K1/MEK1 and MAP2K2/MEK2 function specifically in the MAPK/ERK cascade, and catalyze the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in the extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2, leading to their activation and further transduction of the signal within the MAPK/ERK cascade. Depending on the cellular context, this pathway mediates diverse biological functions such as cell growth, adhesion, survival and differentiation, predominantly through the regulation of transcription, metabolism and cytoskeletal rearrangements. One target of the MAPK/ERK cascade is peroxisome proliferator-activated receptor gamma (PPARG), a nuclear receptor that promotes differentiation and apoptosis. MAP2K1/MEK1 has been shown to export PPARG from the nucleus. The MAPK/ERK cascade is also involved in the regulation of endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC), as well as in the fragmentation of the Golgi apparatus during mitosis.[UniProtKB/Swiss-Prot Function]</p>