

## Product datasheet for MR204942

### Map2k6 (NM\_011943) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Map2k6 (NM_011943) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Map2k6
Synonyms:	MEK6; MKK6; Prkmk6; SAPKK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204942 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCCTCAGTCGAAAGGCAAGAAGCGAAACCCGGGCCTTAAGATTCCAAAAGAAGCGTTTGAACAGCCTC  
AGACCAGTTCCACGCGCCTCGGGATTTAGACTCCAAGGCTTGCATATCTATTGGAAACCAGAATTTGA  
GGTGAAGGCAGATGACCTGGAGCCGATAGTGGAGCTGGGACGAGGTGCGTACGGGGTGGTGGAGAAGATG  
CGTCACGTGCCAGCGGGCAGATCATGGCAGTGAAGCGGATACGGGCCACAGTTAATAGCCAGGAACAGA  
AACGGCTGCTGATGGATTTGGATGTCTCCATGAGGACGGTGGACTGTCCATTCACCGTGACCTTCTACGG  
TGCACTCTCCGGGAGGGCGACGTGTGGATCTGCATGGAGCTCATGGATACGTCAGTACTAGATAAATCTAC  
AAACAAGTTATTGATAAAGGCCAAACAATTCCAGAGGATATCTTAGGAAAGATAGCAGTTTCTATTGTAA  
AAGCGTTAGAATTTACACAGTAAGCTGTCTGTTATCCATCGAGACGTCAAGCCTTCTAATGTGCTCAT  
TAACACACTGGGCCAGGTGAAGATGTGTGACTTTGGAATCAGTGGCTACCTGGTCGACTCTGTTGCTAAA  
ACGATCGATGCCGGTTGCAAACCATACATGGCTCCTGAACGAATAAATCCAGAGCTCAACCAGAAGGGGT  
ACAGTGTGAAGTCTGACATTTGGAGCCTGGGCATCACCATGATCGAGCTGGCCATCCTTCGGTTTCCCTTA  
TGATTCTTGGGAACGCCCTTCCAGCAGCTAAAGCAGGTGGTGAAGAGCCCTCCTCAGCTCCAGCA  
GACAAGTTCTCCGCGGACTTTGTTGACTTTACCTCACAGTGCTTGAAGAAAAATCCAAAAGAACGGCCCA  
CATATCCAGAGCTTATGCAACATCCATTTTTACCGTACATGAATCCAAAAGCAGCAGACGTGGCATCTTT  
TGTAAACTGATACTTGGGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >MR204942 protein sequence  
Red=Cloning site Green=Tags(s)

MSQSKGKKRNPLKIPKEAFEQPQTSSTPPRDLDKACISIGNQNFVKAADDLEPIVELGRGAYGVVEKM  
 RHVPSGQIMAVKRIRATVNSQEQKRLMLDLVSMRTVDCPFTVTFYGFALFREGDVVICMELMDTSLDKFY  
 KQVIDKGQTIPEDILGKIAVSIKALEHLHLSKLSVIHRDVKPSNVLINTLGOVKMCDFGISGYLVDSVAK  
 TIDAGCKPYMAPERINPELNQKGYSVKSDIWSLGITMIELAILRFPYDSWGTPFQQLKQVVEEPSQLPA  
 DKFSADFVDFTSQCLKKNKSKERPTYPELMQHPFFTVHESKAADVASFVKLILGD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_011943

**ORF Size:** 1005 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\\_011943.3](#)

**RefSeq Size:** 2064 bp

**RefSeq ORF:** 1005 bp

**Locus ID:** 26399

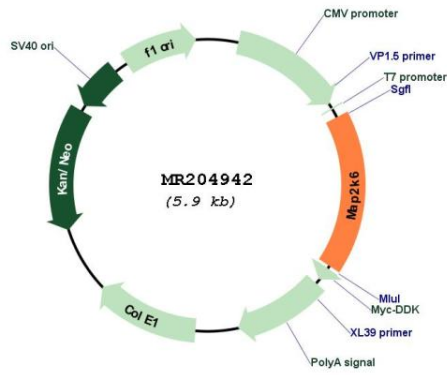
**UniProt ID:** [P70236](#)

**Cytogenetics:** 11 E1- E2

**MW:** 37.4 kDa

**Gene Summary:** Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. With MAP3K3/MKK3, catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinases p38 MAPK11, MAPK12, MAPK13 and MAPK14 and plays an important role in the regulation of cellular responses to cytokines and all kinds of stresses. Especially, MAP2K3/MKK3 and MAP2K6/MKK6 are both essential for the activation of MAPK11 and MAPK13 induced by environmental stress, whereas MAP2K6/MKK6 is the major MAPK11 activator in response to TNF. MAP2K6/MKK6 also phosphorylates and activates PAK6. The p38 MAP kinase signal transduction pathway leads to direct activation of transcription factors. Nuclear targets of p38 MAP kinase include the transcription factors ATF2 and ELK1. Within the p38 MAPK signal transduction pathway, MAP3K6/MKK6 mediates phosphorylation of STAT4 through MAPK14 activation, and is therefore required for STAT4 activation and STAT4-regulated gene expression in response to IL-12 stimulation. The pathway is also crucial for IL-6-induced SOCS3 expression and down-regulation of IL-6-mediated gene induction; and for IFNG-dependent gene transcription. Has a role in osteoclast differentiation through NF-kappa-B transactivation by TNFSF11, and in endochondral ossification and since SOX9 is another likely downstream target of the p38 MAPK pathway. MAP2K6/MKK6 mediates apoptotic cell death in thymocytes. Acts also as a regulator for melanocytes dendricity, through the modulation of Rho family GTPases.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204942