OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC219291

Map3k7 (NM_172688) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map3k7 (NM_172688) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Map3k7
Synonyms:	B430101B05; C87327; Tak1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>MC219291 representing NM_172688
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGACAGCCTCCGCCGCCTCGTCCTCCTCCTCGTCTTCTGCCAGTGAGATGATCGAAGCGCCGTCGC
AGGTCCTGAACTTCGAAGAGATCGACTACAAGGAGATCGAGGTGGAAGAGGTTGTCGGAAGAGGAGCTTT
TGGAGTAGTTTGCAAAGCTAAGTGGAGAGCAAAAGATGTCGCTATTAAACAGATAGAAAGTGAGTCTGAG
AGGAAGGCTTTCATTGTGGAGCTCCGGCAGTTGTCACGTGTGAACCATCCTAACATTGTCAAGTTGTATG
GAGCCTGCCTGAATCCAGTATGTCTTGTGATGGAATATGCAGAGGGGGGCTCATTGTATAATGTGCTGCA
TGGTGCTGAACCATTGCCTTACTACACTGCTGCTCATGCCATGAGCTGGTGTTTACAGTGTTCCCAAGGA
GTGGCTTACCTGCACAGCATGCAGCCCAAAGCGCTGATTCACAGGGACCTCAAGCCTCCAAACTTGCTGC
TGGTTGCAGGAGGGACAGTTCTAAAAATCTGCGATTTTGGTACAGCTTGTGACATCCAAACACACATGAC
CAATAATAAAGGGAGTGCTGCTTGGATGGCGCCTGAAGTATTTGAAGGTAGCAATTACAGTGAAAAGTGT
GATGTCTTCAGCTGGGGTATTATCCTCTGGGAAGTGATAACACGCCGGAAACCCTTCGATGAGATCGGTG
GCCCAGCTTTCAGAATCATGTGGGCTGTTCATAATGGCACTCGACCACCACTGATCAAAAATTTACCTAA
GCCCATTGAGAGCTTGATGACACGCTGTTGGTCTAAGGACCCATCTCAGCGCCCTTCAATGGAGGAAATT
GTGAAAATAATGACTCACTTGATGCGGTACTTCCCAGGAGCGGATGAGCCGTTACAGTATCCTTGTCAGT
ACTCTGATGAAGGGCAGAGCAACTCAGCCACCAGCACAGGCTCATTCATGGACATTGCTTCTACAAATAC
CAGTAATAAAAGTGACACAAATATGGAACAGGTTCCTGCCACAAACGACACTATTAAACGCTTGGAGTCA
AAACTTTTGAAAAACCAGGCAAAGCAACAGAGTGAATCTGGACGCCTGAGCTTGGGAGCCTCTCGTGGGA
GCAGTGTGGAGAGCTTGCCCCCCACTTCCGAGGGCAAGAGGATGAGTGCTGACATGTCTGAAATAGAAGC
CAGGATCGTGGCGACTGCAGGTAACGGGCAACCAAGGCGTAGATCCATCCAAGACTTGACTGTTACTGGG
ACAGAACCTGGTCAGGTGAGCAGCCGGTCATCCAGCCCTAGTGTCAGAATGATCACTACCTCAGGACCAA
CCTCAGAGAAGCCAGCTCGCAGTCACCCGTGGACCCCTGATGATTCCACAGATACCAATGGCTCAGATAA
CTCCATCCCAATGGCGTATCTTACACTGGATCACCAGCTACAGCCTCTAGCGCCGTGCCCAAACTCCAAA
GAATCCATGGCAGTGTTCGAACAACATTGTAAAATGGCACAGGAGTATATGAAAGTTCAAACCGAAATCG
CATTGTTACTACAGAGAAAGCAAGAACTAGTTGCAGAATTGGACCAGGATGAAAAGGACCAGCAAAATAC
ATCTCGTCTGGTACAGGAACATAAAAAGCTTTTAGATGAAAACAAAAGCCTTTCTACTTATTACCAGCAA
TGCAAAAAACAACTAGAGGTCATCAGAAGCCAACAGCAGAAACGACAAGGCACTTCATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1910_b08.zip

Restriction Sites: SgfI-MluI

ACCN: NM_172688

Insert Size: 1740 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_172688.3, NP_766276.1
RefSeq Size:	5682 bp
RefSeq ORF:	1740 bp
Locus ID:	26409
UniProt ID:	Q62073
Cytogenetics:	4 A5

Gene Summary:

Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor-beta (TGFB), TGFB-related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR) (PubMed:10748100, PubMed:16157589, PubMed:21183079, PubMed:29291351). Ceramides are also able to activate MAP3K7/TAK1. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K1/MEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs, c-jun N-terminal kinases (JNKs) and I-kappa-B kinase complex (IKK). Both p38 MAPK and JNK pathways control the transcription factors activator protein-1 (AP-1), while nuclear factor-kappa B is activated by IKK (PubMed:16157589, PubMed:8533096, PubMed:29291351). MAP3K7 activates also IKBKB and MAPK8/JNK1 in response to TRAF6 signaling and mediates BMP2-induced apoptosis (PubMed:10748100). In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B. Promotes TRIM5 capsid-specific restriction activity (By similarity). [UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (A) lacks an in-frame coding segment, compared to variant B. The resulting isoform (A) lacks an internal region, as compared to isoform B. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.