

Product datasheet for **MG219477**

Map3k9 (NM_001174107) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map3k9 (NM_001174107) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Map3k9
Synonyms:	E130314H24Rik; Mlk1; Prke1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG219477 representing NM_001174107 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGTCTCCAGATCGCTTCTCGGCTGCCTGGCGAGTGCCACTGCCGCCCGCCGGGGACGATGCCA
CGGGCGCTGGGGCCGAAGAGGAGGAGGACGAGGAGGAGGCGGGCGCCGAGCTGGGATCTCACGCCGCGCT
GCCCTACTGGACGGCTGTGTTGAGTACGAGGCGGGCGGAGGACGAGCTGACCCTGCGGCTGGGCGAT
GTGGTAGAGGTGCTGTCCAAGGACTCGCAGGTGTCGGCGATGAGGGCTGGTGGACCGGACAGCTGAACC
AGCGGGTGGGCATCTTCCCAGCAACTACGTGACCCCGCTAGCGCTTCTCCAGCGCTGCCAGCCGGG
CGCCGAGGACCCAGCTGCTACCCGCCATTACGCTGTTAGAGATTGATTTTGGCGAGCTAACCTGGAG
GAGATCATCGGCATTGGGGCTTTGGGAAAGTTTATCGTGCTTTCTGGCGGGCGATGAGGTGGCCGTGA
AGGCAGCTCGTACGACCCCTGATGAGGACATCAGCCAGACCATAGAGAACGTTCCGCAAGAGGCCAAGCT
CTTTGCCATGCTGAAGCACCCGAACATCATTGCGCTCAGAGGGGTGTGCCTGAAGGAACCAACCTCTGC
TTGGTCATGGAGTTTGTCTGTTGGAGGGCTCTGAACAGAGTATTGTCTGGGAAGAGGATCCCCGGACA
TCCTGGTGAACGGGCGTGCAGATCGCCAGAGGGATGAACTATCTACATGATGAGGCGATCGTACCCAT
CATCCACCGAGACCTTAAGTCCAGCAACATATTGATCCTGCAGAAAGTGGAGAATGGAGACCTGAGTAAC
AAGATTCTGAAGTACCGACTTTGGGCTGGCGGGGAATGGCACCGGACCACCAAGATGATGCGGGCGG
GAACATACGCTTGGATGGCACCTGAAGTCACTCCGTGCTTCCATGTTTTCCAAAGGCAGCGATGTGTGGAG
CTACGGTGTACTGCTTTGGGAGCTGTTGACTGGCGAGGTGCCCTTCCGGGCAATTGATGGCTTAGCAGTG
GCTTACGGTGTGGCCATGAACAACTCGCCCTTCTATCCCTCTACATGTCCAGAGCCTTTTGCCAAAC
TCATGGAAGACTGCTGGAATCCCGACCCCACTCGCGCCATCTTTCACGAGTATCCTGGACCAGCTAAC
GACTATAGAGGAGTCCGGTTTCTTTGAGATGCCCAAGGACTCCTTCCACTGCCTGCAGGACGACTGGAAA
CATGAGATTGAGGAGATGTTTGACCAACTCAGGGCCAAAGAAAAGGAGCTCCGAACCTGGGAAGAGGAGC
TGACCCGGGCTGCGCTCCAGCAGAAGAACCAGGAGGAGCTGCTCCGGCGTAGGGAGCAGGAGCTGGCGGA
GCGGGAGATCGACATCCTGGAGCGAGAGCTCAATATCATATCCACCAGCTGTGCCAGGAAAAGCCCGG



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GTGAAGAAACGCAAGGGCAAGTTCAGGAAGAGCCGGCTGAAGCTCAAGGACGGCAACCGCATCAGCCTCC
 CCTCCGATTTCCAGCACAAAGTTCACGGTGCAGGCTCCCCGACCATGGATAAAGGAAGAGTCTGATCAG
 CAACCGGTCGAGTCTCTGCAAGCCCCACCATCATCCCTCGCCTTCGAGCCATCCAGTTGACACCTGGT
 GAAAGCAGTAAAACCTGGGGCCGGAGCTCAGTTGTTCCAAAAGAGGAAGGGGAGGAGGAGAAGAGGG
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 AGGCCTCAAGTCCCTGGTAGATGGATAAAGCAGTGGTCATCCAGTCCCCAACCTGGGAAGGGCCCCA
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 GCTTCCCCCAGAGGAACCTGAGCCACCAGCCGGGAGGAGAAGAAGAGGCGTGAAGGTCTTTTCAAAGG
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 TGCTAGGAGACCCTCTGCCTCCTTGACTGTCTCTCTCCTCCATCTCTGAATGCAACTCTACCCG
 CTCCTACTGCGCTCTGACAGTGTAGATCGTGGTGTATGAAATGCCAGTCAGCCAGTTGAAGTCCA
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 TGATGGGGCTCTTAAGCCAACAGCAGCCCTGCAGTACTAGGCAGCAGGAGCCCTCCAGCAATGGAATG
 AGTCCCAGTCTTGAACAGGCATGTTGAAAACCTCCAGTCCCAGCCGAGACCCAGGTGAATTTCCCCTGC
 TCCCTGACCCCAATGTGGTCTTTCCCCAACTCCAAGGCGCTGGAACACCCAGCGAGACTTACCTTAGA
 GAGACCAAGACCCTGGAGTTTCTGCCTCGACCGCTCCTTCTGCCAACCCGCGAGCGACTGGACCCTTG
 TGGTTTGTGTCTCCAGCCATGCCCGCAGCGCTCCCCAGCTAACAGTCCAGCACAGAAACACCCAGCA
 ACCTGGACTCTGCTTTGCCAGCAGCAGCAGACTGTGGAAGAGCGGCTGGACTTCCAGCCCTGCTCCC
 TTTACAGGCAGGACCCTGCTCCCTGCTGAACGACACTTTTGGACCTGGATGCTGAGGGCAGGACCCAG
 GATAGCACTGTGCCCTATGCAGAGCTGAGCTGAATGCACACGGGCTTCCCATATGAGATCCAACAGG
 AGTTCTGGTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG219477 representing NM_001174107
 Red=Cloning site Green=Tags(s)

MESSRLLGLASATAAPPDGDATGAGAEEDDEEEAAELGSHAALPYWTAVFEYEAAGEDELTLRLGD
 VVEVLKSDSQVSGDEGWWTGQLNQRVGFPSNYVTPRASFSSRCQPGAEDPSCYPPIQLLEIDFAELTLE
 EIIIGIGGFGKVVYRAFVAGDEVAVKAARHPDEDISQTIENVRQEAFLFAMLKHPNIIALRGVCLKEPNLC
 LVMFARGGPLNRVLSGKRIPPDILVNWAVQIARGMNYLHDEAIVPIIHRDLKSSNILILQKVENGDLSN
 KILKITDFGLAREWHRTTKMSAAGTYAWMAPEVIRASMFSGSDVWVSYGVLLWELLTGEVFPFRGIDGLAV
 AYGVMNKLALPIPSTCPEPFKLMEDCWNPDPHSRPSTSIILDQLTTIEESGFEMPKDSFHCLQDDWK
 HEIQEMFDQLRAKEKELRTWEEELTRAALQQKNQEELLRRREQELAEREIDILEREINIIHQLCQEKPR
 YKKRKGKFRKSRLLKLDGNRISLPSDFQHKFTVQASPTMDKRKSLISNRSSPPASPTIIPRLRAIQLTPG
 ESSKTWGRSSVVPKEEGEEEEKRAPKKKGRTWGPGTLGQKELTSGDEGLKSLVDGYKQWSSAPNLGKGP
 RSPALPGFTSLMEIEDEDSEPGSGENHQHSPNQSYLCIPFRGEDGDGPDSDGVHEEPTPVNSATST
 PQLTPTNSLKRGGTHHRRCEVALLGCGAVLAATGLGFDLLEAGKQQLLPPEEPEPPAREEKKRREGFLQR
 ASRPRRSTSPSRKLFKKEEPMTLLGDPSASLTLTLLSSISECNSTRSLLRSDSDEIVVYEMPVSPVEAP
 PLTQCTHNPLVNVVRFKRDPNQSLTPHTVLTAPTQPSGHRRTPSDGALKPTAAPAVLGSRSPPSSNGM
 SPSPGTGMKTPSPSRDPGEFPRLPDPNVVFPPTPRRWNTQRDSTLERPKTLEFLPRRPSANRQRLEDPW
 WFPSGSHARSASPANSSSTETPSNLDSCFASSSSTVEERPGLPALLPLQAGPLLPAERTLLDLDAEGQSQ
 DSTVPLCRAELNAHGSPYEQEFWS

TRTRPLE – GFP Tag – V

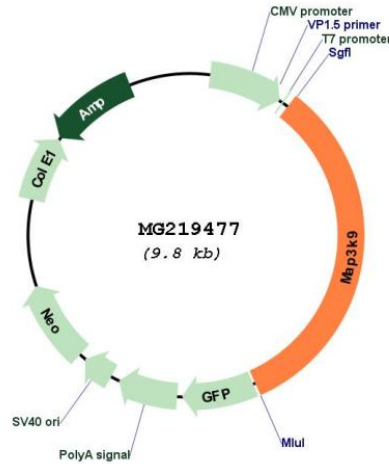
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001174107

ORF Size: 3231 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:	<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_001174107.1, NP_001167578.1</u>
RefSeq Size:	10619 bp
RefSeq ORF:	3234 bp
Locus ID:	338372
UniProt ID:	<u>Q3U1V8</u>
Cytogenetics:	12 D1
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. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade through the phosphorylation of MAP2K4/MKK4 and MAP2K7/MKK7 which in turn activate the JNKs. The MKK/JNK signaling pathway regulates stress response via activator protein-1 (JUN) and GATA4 transcription factors. Plays also a role in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis (By similarity).[UniProtKB/Swiss-Prot Function]