

Product datasheet for MR227032

Map3k5 (NM_008580) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map3k5 (NM_008580) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Map3k5
Synonyms:	7420452D20Rik; ASK; ASK1; MAPKKK5; Mekk5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR227032 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCACCGAAGCCGGCGAGGGCATCACTTTCTCCGTGCCGCCCTTTGCGTCCGTGGGCTTTTGCACCA
TCCCGGAGGGCGGCAGCTGCCGGAGGGGAGGAGGAGCGGCGAGCGGGAGGGAGAGCCGAGCCTGCA
GCCCTTGCTTGCCGCCGCCGCCACCGCCGGCAGTTTCTGGAACGTGGAGAGCGCGCGGCTCCC
GGCACCAGCTGCCCTACCACCGCCCCGGGAGCAGCGCCACCCGAGGCCGGGCAACTCTGCAGCGGGG
GCGGCCGGCGTACCACCGTGGCGTATGTGATCAATGAGGCGAGCCAGGGGAGCTGGTGGTGGCGGAGAG
CGAGGCCCTGCAGAGCCTGCGGGAGGCGTGCAGGCGGTGGGCGCCACCCCTGGAGACCCTGCATTTCCGGG
AAGCTGGACTTCGGGAAACCGCCGTGCTGGACCGTTTTTACAACGCAGATATTGCTGTGGTGGAGATGA
GCGACGCCTTCGGCAGCCTTCCTTGTTTTACCATCTTGGAGTGCAGAAAGCTTCAGTATGGCCAAACA
CATCATCTCTACTGCGATACTAATCCGATTCCTCCAGTCCCTGAAGGAAATTTTGCAGAAAGAT
ACTGTGTGCACCGGAACTACACCTTATCCCCACATGGTGACACCACACAACAAGGTCTACTGCTGTG
ACAGCAGCTTCATGAAGGGCCTGACTGAGCTCATGCAGCCTAACTTCGAGCTCCTGCTGGGGCCATCTG
CTTACCCTCGTGGACCGTTTTGTTTCAGCTTTTGAAGTGGCGCAAGCGAGTTCAGCCAGTACTTCCGG
GAATCCACTCAGCGATATCAGGAAAGCACGGAACCTGTACACTGGTAAAGAATTGGCAGCTGAATTGG
CGAGGATCCGGCAACGGGTAGACAATATTGAAGTTTTGACAGCAGACATTGTTATCAACCTGTTGCTTTC
CTACAGAGACATCCAGGACTATGACTCCATAGTGAAGCTGGTAGAGACGTTAGAAAAACTTCCAACCTTC
GACTTGGCCTCGCACCACCAGTGAAGTTTCATTACGCATTTGCACTGAACAGGAGAAATCTCCCTGGAG
ACAGAGCAAAAGCTTTGACATCATGATCCCCATGGTACAAAGTGAAGAGCAAGTTGCTTCGGATATGTA
TTGTCTCGTTGGCCGAATCTACAAAGATATGTTTTGGATTCAAATTTCACTGACACGAAAGCAGGGAC
CATGGAGCATCTGGTTCAAAAGGCATTTGAGTCTGAGCCAACACTACAGTCAGGAATTAATTATGCAG
TTCTCTTGTGGCGGCTGGGCACCGTTTGAATCTTCTTTGAGCTTCGAAAGTTGGAGTGAAGCTGAG
TAGCCTTCTGGTAAAAAGGGAACTTGGAAAACTCCAGAGCTACTGGGAAGTCGGATTTTTTCTGGGA



[View online »](#)

GCCAGTGTCTGGCCAACGACCACCTCAGGGTCATTTCAGGCATCCGAGAAGCTGTTCAGACTGAAGACAC
 CAGCGTGGTACCTCAAGTCTATCGTGGAGACCATTCTGATATATAAACACTTTGTGAAACTGACCACAGA
 GCAGCCCTCGGCTAAGCAGGAACCTCGTGGACTTCTGGATGGATTTCTGGTTCGAGGCCACAAAAACAGAT
 GTTACTGTTGTGAGGTTCCAGTATTAATATTAGAGCCAACAAAATCTATCAGCCTTCTTACCTGTCTA
 TCAATAATGAAGTTGAGGAGAAGACAATATCTATTTGGCATGTTCTCCCTGATGACAAGAAAGGTATACA
 CGAGTGGAACTTCGGTGTCTCTCTGTCCAGGGAGTGAGCATCTCTAAGTTTGAAGAACGATGCTGTTTC
 CTTTATGTGCTTCACAATTCTGATGACTTCCAAATCTACTTCTGCACAGAACTTCACTGTAAAAGGTTTT
 TTGAAATGGTGAATACCATCACGGAAGAGAAGGGGAGAGGCGCGGAGGACGGAGACTGTGAGGGTGAATC
 CCTGGAGTATGACTACGAATACGATGAAAATGGAGACAGAGTTGTGTTAGGGAAGGGCACTTATGGGATC
 GTCTATGCAGGACGAGACCTGAGCAACCAGGTCAGAATTGCTATTAAGGAAATCCAGAGAGAGACAGCA
 GATACTCTCAGCCCTGCATGAAGAAATCGCCCTGCACAAGCATCTGAAACACAAAAACATTGTCCAGTA
 TCTGGGCTCCTTCAGTGAGAACGGCTTCATCAAAATCTTCATGGAGCAAGTCCCAGGAGGAAGCCTCTCT
 GCTCTCCTCGTTCAAAATGGGGCCATTAAAGGACAACGAACAGACGATTGGCTTCTATACGAAGCAGA
 TACTGGAAGGATTAATAACCTTACGACAATCAGATAGTCCACCGGGATATAAAGGGTGACAATGTATT
 GATTAATACCTACAGTGGTGTGCTCAAGATCTCTGACTTCGGGACATCCAAGAGGCTTGTGGCATAAAC
 CCATGTACCGAAACCTTTACAGGTACCCTTCAGTATATGGCGCCAGAAATAATCGATAAAGGACCACGAG
 GCTATGGAAGGCGCCGACATTTGGTCACTGGGCTGCACAATCATCGAAATGGCTACTGAAAAACCACC
 ATTTTATGAACTAGGAGAGCCACAGGCAGCCATGTTCAAGGTGGGGATGTTTAAGGTCCACCCGGAGATC
 CCAGAGTCCATGTGCGGCGAGGCAAGGCGTTCATACTGAAGTGTGTTGAACCAGACCCTGACAAGAGAG
 CCTGTGCTAATGACTTGCTTATTGATGAGTTCCTAAAAGTGTCCAGCAAAAAGAAAAAGACACAACCCAA
 ACTTTCAGCTCTCTCGACTGGATCGAATGAGTATCTTAGAAGCATCTCCCTGCCGGTCCCTGTCTGGTA
 GAAGACACCAGCAGCAGTAGCGAGTATGGCTCTGTTTCTCCTGATACAGAGCTGAAGGCGGACCCCTTCT
 CTTCAAAGCCAGAGCTAAGTCTGTGGAGAAAAGGACGGGAAAGGGATACGGACATTGTTCTCTGGGCAT
 TCCAGATGAAAAATTTGAAGATCACAGTGCGCCCCATCTCCTGAAGAGAAAGACTCGGGCTTTTTTATG
 CTGAGAAAAGGATAGTGAGAGGCGAGCTACCCTTACAGAATCCTGACCGAAGACCAGGACAAAGTTGTAA
 GGAACCTAATGGAATCTCTGGCCAGGGTGTGAAGAGCCTAAACTAAAGTGGGAACACATCACAAACCT
 CATCTCAAGCCTCAGAGAGTTTGTGAGGTCCACTGACCGAAAAATCATAGCCACTACATTGTCCAAGCTC
 AAGCTGGAGCTGGACTTCGACAGCCACGGCATCAGCCAGGTGCAGGTGGTCTCTTTGGCTTCCAGGATG
 CGGTCAATAAAGTTCTTCGGAATCATAACATCAAGCCACACTGGATGTTTGCCCTGGACAGCATCATCCG
 AAAGGCTGTGCAGACTGCAATTACCATTCTGGTCCAGAGTTGAGGCCACATTTTAGCCTTGCATCAGAG
 AGCGACACAGCTGATCCGGAAGACCTGGATGTGAAGATGAACACGAGGAATTGCTTCAAATCAGACAG
 TCCGACGCCCTCAGGCCATCACTGAGGACGCTGTGGCTACCTCGGGGGTGAACGCTAAGCTCCACTGT
 GTCCCATGACTCCAGAATGCACACCGGTGCTGAACGTGCAGCTTGAAGGATGAAGATTGAAACTAAT
 AGGTTACTTGAAGAGCTGGTTCGGAAAAGAGAGAGATTACAGGCACTCCTCCATCAAGCCATTGAGGAAA
 AAGACCAAGAAATTAGGCACCTGAAGCTCAAGTCCCAGCCATAGATATCCCTGGGTTTCTGTGTGCCA
 CCTGAACCTCTCTGGCACGACCAGGAAGATTCTGAACCTCTGGCTGGCTGAGAGAAAAATGGAGCTGAT
 GAAGACTATAAGTCCGTTTCTGGCTGAGGATTACACGCTAGTGGATGTTCTTTACTACGTCACACGTG
 ATGATCTGAAGTGCCTCAGACTAAGGGGCGGGATGCTGTGCACGCTGTGGAAGGCCATCATTGACTTTCG
 GAACAAATGC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227032 protein sequence
 Red=Cloning site Green=Tags(s)

```

MGTEAGEGITFSVPPFASVGFCTIPEGGSCRRGGGAATAAEGEPSLQPLLVPPPPPPGFSFVNVESAAAP
GTSCPTTAPGSSATRGRNGSGGGRRRTVAVVINEASQQQLVVAESEALQSLREACEAVGATLETLHFG
KLDGGETAVLDRFYNADIAVEMSDAFRQPSLFYHLGVRESFSMANNIILYCDTNSDSLQSLKEIICQKN
TVCTGNVTFIPYMVTPHNKVYCCDSSFMKGLTELMQPNFELLGPICLPLVDRFVQLLKVAAQSSSQYFR
ESILSDIRKARNLYTGKELAAELARIRQRVDNIEVLADIVINLLLSYRDIQDYDSIVKL VETLEKLPTF
DLASHHHVKFHAFALNRRNLPGDRAKALDIMIPMVQSEEQVASDMYCLVGR IYKDMFLDSNFTDTESRD
HGASWFKKAFESEPTLQSGINYAVLLLAAGHQFESSFELRKVGVKLSLLGKKGNLEKLQSYWEVGFLLG
ASVLANDHLRVIQASEKLFRLKTPAWYLSIVETILYKHFVKLTTEQPSAKQELVDFWMDFLVEATKTD
VTVVRFPVLILEPTKIYQPSYLSINNEVEEKTISIWHVLPDDKKGIHEWNFGASSVRGVSISKFEERCCF
LYVLHNSDDFQIYFCTELHCKRFFEMVNTITEEKGRGAEDGDCEGDSLEYDYEDENGDRVVLGKGTYGI
VYAGRDL SNQVRIAIKEIPERDSRYSQPLHEEIALHKHLKHKNI VQYLGSENGFIKIFMEQVPGGSL S
ALLRSKWGPKLDNEQTIGFYTKQILEGLKYLHDNQIVHRDIKGD NVLINTYSGVLKISDFGT SKRLAGIN
PCTETFTGTLQYMAPEIIDKGPRGYGAADIWLSL GCTIIEMATGKPPF YELGEPQAAMFKVGMFKVHPEI
PESMSAEAKAFILKCFEPDPDKRACANDLLID EFLKVSSKKKTQPKLSALSTG SNEYLRISL PVPVLV
EDTSSSEYGSVSPDTELKADPF SFKARAKSCGEKDGK GIRTFLGIPDENFEDHSAPPSPEEKDSGFFM
LRKDSERRATLHRILTEDQDKVVRNLMESLAQGAEEP KKLWEHITL ISSLREFVRSTDRKIIATL SKL
KLELDFD SHGISQVQVVLFGFQDAVNKVLRNHN I KPHWMFALDSIRKAVQTAITILVPELRPHFSLASE
SDTADPEDLDVEDEHEELSSNQTVRRPQAIT EDAVATSGVSTL SSTVSHDSQNAHRSLNVQLGRMKIETN
RLLLEELVRKERELQALLHQAIIEEKDQEI RHLK LKSQPIDIPGFPVCHLNSPGTTTDESELPGWLRENGAD
EDTISRFLAEDYTLVDVLYYVTRDDLKCLR LRGGM LCTLWKAIIDFRNKC
    
```

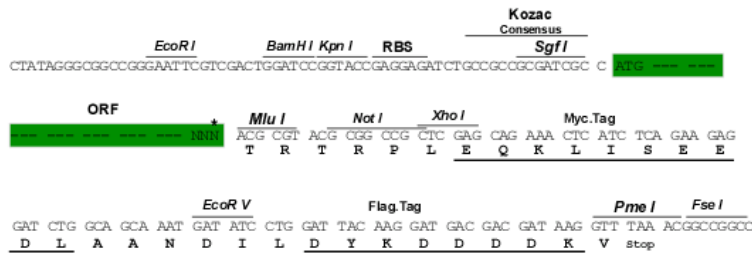
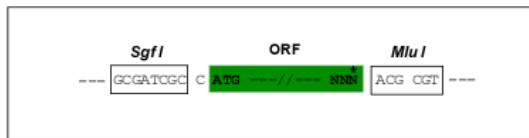
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN:

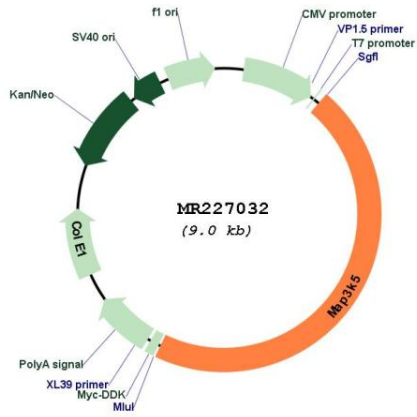
NM_008580

ORF Size:

4143 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:	NM_008580.3 , NM_008580.4 , NP_032606.4
RefSeq Size:	5393 bp
RefSeq ORF:	4143 bp
Locus ID:	26408
UniProt ID:	O35099
Cytogenetics:	10 A3
MW:	154.5 kDa
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 signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). 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 MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227032