

Product datasheet for **RG235235**

MAP4K4 (NM_001242559) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MAP4K4 (NM_001242559) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MAP4K4
Synonyms: FLH21957; HEL-S-31; HGK; MEKKK4; NIK
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235235 representing NM_001242559
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGGATCGCC

ATGGCGAACGACTCCCCTGCAAAAAGTCTGGTGGACATCGACCTCTCCTCCCTGCGGGATCCTGCTGGGA
 TTTTTGAGCTGGTGAAGTGGTTGGAAATGGCACCTATGGACAAGTCTATAAGGGTCGACATGTTAAAC
 GGGTCAGTTGGCAGCCATCAAAGTTATGGATGTCCTGAGGATGAAGAGGAAGAAATCAAAGTGGAGATA
 AATATGCTAAAGAAATACTCTCATCACAGAAACATTGCAACATATTATGGTGCTTTCATCAAAAAGAGCC
 CTCCAGGACATGATGACCAACTCTGGCTTGTATGGAGTTCTGTGGGGCTGGGTCCATTACAGACCTTGT
 GAAGAACACCAAAGGGAACACACTCAAAGAAGACTGGATCGCTTACATCTCCAGAGAAATCCTGAGGGGA
 CTGGCACATCTTCACATTCATCATGTGATTACCCGGGATATCAAGGGCCAGAATGTGTTGCTGACTGAGA
 ATGCAGAGGTGAAACTTGTGACTTTGGTGTGAGTGCTCAGCTGGACAGGACTGTGGGGCGGAGAAATAC
 GTTCATAGGCACTCCCTACTGGATGGCTCCTGAGGTCAATCGCCTGTGATGAGAACCAGATGCCACCTAT
 GATTACAGAAGTATCTTTGGTCTTGTGGCATTACAGCCATTGAGATGGCAGAAGGTGCTCCCTCTCT
 GTGACATGCATCCAATGAGAGCACTGTTTCTCATTCCCAGAAACCCTCCTCCCGGCTGAAGTCAAAAA
 ATGGTCAAGAAGTTTTTTAGTTTTATAGAAGGGTGCCTGGTGAAGAATTACATGCAGCGGCCCTTACA
 GAGCAGCTTTTGAACATCCTTTTATAAGGGATCAGCAAATGAAAGGCAAGTTAGAATCCAGCTTAAGG
 ATCATATAGATCGTACCAGGAAGAAGAGAGGCGAGAAAGATGAAACTGAGTATGAGTACAGTGGGAGTGA
 GGAAGAAGAGGAGGAAGTGCCTGAACAGGAAGGAGAGCCAAGTTCATTGTGAACGTGCCTGGTGTGCT
 ACTCTTCGCCGAGATTTCTGAGACTGCAGCAGGAGAACAAGGAACGTTCCGAGGCTCTTCGGAGACAAC
 AGTTACTACAGGAGCAACAGCTCCGGGAGCAGGAAGAATATAAAAGGCAACTGCTGGCAGAGAGACAGAA
 GCGGATTGAGCAGCAGAAAGAACAGAGGCGACGGCTAGAAGAGCAACAAGGAGAGAGCGGGAAGCTAGA
 AGGCAGCAGGAACGTGAACAGCGAAGGAGAGAACAAGAAGAAAAGAGGCGCTAGAGGAGTTGGAGAGAA
 GCGCAAGAAGAAGAGGAGAGGAGACGGGAGAGAAGAAGAAAAGAGGAGAGTTGAAAGAGAACAGGAGTA
 TATCAGGGCAGCTAGAAGAGGAGCAGCGGCCTTGAAGTCTTCAGCAGCAGCTGCTCCAGGAGCAG



GCCATGTTACTGGAGTGCCGATGGCGGGAGATGGAGGAGCACCGGCAGGCAGAGAGGCTCCAGAGGCAGT
TGCAACAAGAACAAGCATATCTCCTGTCTCTACAGCATGACCATAGGAGGCCGCACCCGCAGCACTCGCA
GCAGCCGCCACCACCGCAGCAGGAAAGGAGCAAGCCAAGCTTCCATGCTCCCGAGCCAAAGCCACTAC
GAGCCTGCTGACCAGCGCAGAGGTGGAAGATAGATTTAGGAAAATAACCACAGCTCCCCTGAAGCCC
AGTCTAAGCAGACAGGCAGAGTATTGGAGCCACCAGTGCCTTCCCGATCAGAGTCTTTTTCCAATGGCAA
CTCCGAGTCTGTGCATCCCGCCCTGCAGAGACCAGCGGAGCCACAGTTCCCTGTGAGAACAACATCTCGC
TCCCCTGTTCTGTCCCGTCGAGATTCCCACAGCAGGGCAGTGGGCAGCAGAATAGCCAGGCAGGACAGA
GAAACTCCACCAGTATTGAGCCAGGCTTCTGTGGGAGAGAGTGGAGAAGCTGGTCCCAGACCTGGCAG
TGGCAGCTCCTCAGGGTCCAGCAACTCAGGATCCCAGCCCGGTCTCACCTGGGTCTCAGAGTGGCTCC
GGGGAACGCTTCCAGAGTGAATCATCATCAAGTCTGAAGGCTCTCCATCTCAGCGCCTGGAAAATGCAG
TGAAAAAACCTGAAGATAAAAAGGAAGTTTTAGACCCCTCAAGCCTGCTGATCTGACCGCACTGGCCAA
AGAGCTTCGAGCAGTGAAGATGTACGGCCACCTCACAAAGTAACGGACTACTCCTCATCCAGTGAAGGAG
TCGGGGACGACGGATGAGGAGGACGACGATGTGGAGCAGGAAGGGGCTGACGAGTCCACCTCAGGACCAG
AGGACACCAGAGCAGCGTCACTCTGAATTTGAGCAATGGTGAACGGAATCTGTGAAAACCATGATTTGT
CCATGATGATGTAGAAAGTGAAGCGCCATGACCCCATCCAAGGAGGGCACTCTAATCGTCCGCCAGACT
CAGTCCGCTAGTAGCACACTCCAGAAACACAAATCTTCTCCTCCTTTACACCTTTATAGACCCAGAT
TACTACAGATTTCTCCATCTAGCGGAACAACAGTGACATCTGTGGTGGGATTTTCTGTGATGGGATGAG
ACCAGAAGCCATAAGGCAAGATCCTACCCGAAAGGCTCAGTGGTCAATGTGAATCCTACCAACTAGG
CCACAGAGTGACACCCCGGAGATTGTAATAACAAGAAGAGTTTAACTCTGAGATTCTGTGTGCTGCC
TATGGGGAGTGAATTTGCTAGTGGGTACAGAGAGTGGCTGATGCTGCTGGACAGAAGTGGCCAAGGGAA
GGTCTATCCTCTTATCAACCGAAGACGATTTCAACAAATGGACGTAAGTGGGCTTGAATGTCTTGGTG
ACAATATCTGGCAAAAAGGATAAGTTACGTGTCTACTATTTGCTGGTTAAGAAAATAAAATACTCACA
ATGATCCAGAAGTTGAGAAGAAGCAGGGATGGACAACCGTAGGGGATTTGGAAGGATGTGTACATTATAA
AGTTGTAAAATATGAAAGAATCAAATTTCTGGTATTGCTTTGAAAGATTCTGTGGAAGTCTATGGGTGG
GCACCAAAGCCATATCACAAATTTATGGCCTTTAAGTCATTTGGAGAATTGGTACATAAGCCATTACTGG
TGGATCTCACTGTTGAGGAAGGCCAGAGGTTGAAAGTGTCTATGGATCCTGTGCTGGATTCCATGCTGT
TGATGTGGATTCAGGATCAGTCTATGACATTTATCTACCAACACATATCCAGTGTAGCATCAAACCCCAT
GCAATCATCATCCTCCCAATACAGATGGAATGGAGCTTCTGGTGTGCTATGAAGATGAGGGGTTTATG
TAAACACATATGGAAGGATCACCAAGGATGTAGTTCTACAGTGGGAGAGATGCCTACATCAGTAGCATA
TATTCGATCCAATCAGACAATGGGCTGGGAGAGAAGGCCATAGAGATCCGATCTGTGAAAACCTGGTCA
TTGGATGGTGTGTTTCATGCACAAAAGGGCTCAAAGACTAAAATCTTGTGTGAACGCAATGACAAGGTGT
TCTTTGCCTCTGTTCCGTCTGGTGGCAGCAGTCAAGTTTATTTTCATGACCTTAGGCAGGACTTCTCTCT
GAGCTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

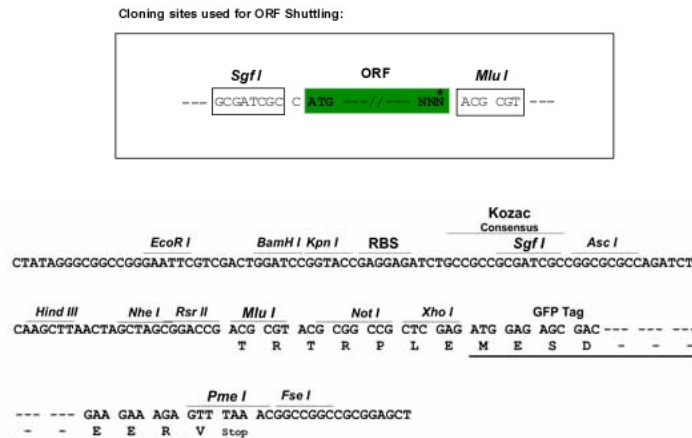
Protein Sequence: >RG235235 representing NM_001242559
 Red=Cloning site Green=Tags(s)

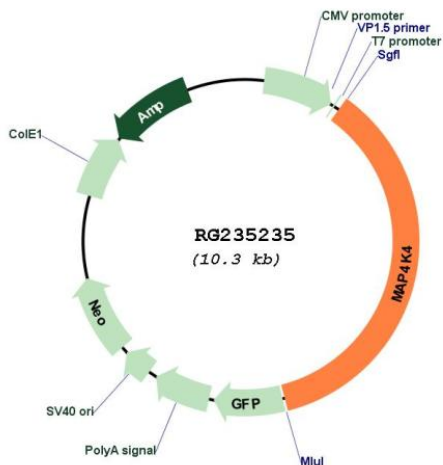
MANDSPAKSLVDIDLSSLRDPAGIFELVEVVNGTYGQVYKGRHVKTGQLAAIKVMDVTEDEEEEIKLEI
 NMLKKYSHHRNIATYYGAFIKKSPPGHDDQLWL VMEFCGAGSITDLVKNTKGNTLKEDWIAIYSREILRG
 LAHLHIHHVIHRDIKQNVLLTENA EVKLVDVFGVSAQLDRTVGRNRTF IGTPYWM APEVIACDENPDATY
 DYRSDLWSCGITAIEMAEGAPPLCDMHPMRALFLIPRNP PRLKSKKWSKFFSFIEGCLVKNYMQRPST
 EQLLKHPFIRDQPNERQVRIQLKDHIDRTRKRGEKDETEYEYSGSEEEEEVEPQE GEPSSIVNVPGES
 TLRRDFLRLQQENKERSEALRRQQLQEQQLEQEYKQRLLAERQKRIEQQKEQRRRLEEQRREAR
 RQEREQRREQEERLEELERRRKEEEERRRAEEKRRVEREQEYIRRQLEEEQRHLEVLQQQLQE Q
 AMLLECRWREMEHRQAERLQRQLQQEQAYLLSLQHDHRRPHPQHSQQPPPPQERSKPSFHAPEPKAHY
 EPADRAREVEDRFRKTNHSSPEAQSKQTGRVLEPPVPSRSEFSNGNSESVHPALQRPAEPQVPVRTTSR
 SPVLSRRDSPLQSGGQNSQAGQRNSTSIEPRLLWERVEKLVPRPGSGSSGSSNSGSPGSHPGSQSGS
 GERFRVRSSSKSEGSPSQRL ENAVKKPEDKKEVFRPLKPADLTALAKELRAVEDVRPPHKVTDYSSSSEE
 SGT TDEEDDDVEQEGADESTSGPEDTRAASSLNL SNGETESVKTMI VHDDVESEPA MTPSKEGTLIVRQT
 QSASSTLQKHKSSSFTPFIDPRLLQISPSSTGTTVT SVVGFSCDGM RPEAIRQDPTRKGSVVNVNPTNTR
 PQSDTPEIRKYKRFNSEILCAALWGVNLLVGTESGLMMLDRSGQGK VYPLINRRRFQ QMDVLEGLNVLV
 TISGKKDKLRVYYLSWLRNKILHNDPEVEKKQGWTTVGDLEGCVHYKVKYERIKFLVIALKSSVEYAW
 APKPYHKFMAFKSFGELVHKPLLVDLTVEEGQRLKVIYGCAGFHAVD VDSGSVYDIYLP THIQCSIKPH
 AIIILPNTDGMELLVCYEDEGVYVNTYGRITKDVVLQW GEMPTSVAYIRSNQTMGWGEKAIEIRSVETGH
 LDGVFMHKRAQLKFLCERNDKVFFASVRS GSSQVYFMTLGRTSLLSW

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001242559

ORF Size: 3717 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_001242559.2](#)

RefSeq Size: 7183 bp

RefSeq ORF: 3720 bp

Locus ID: 9448

UniProt ID: [O95819](#)

Cytogenetics:	2q11.2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	MAPK signaling pathway
Gene Summary:	<p>The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase has been shown to specifically activate MAPK8/JNK. The activation of MAPK8 by this kinase is found to be inhibited by the dominant-negative mutants of MAP3K7/TAK1, MAP2K4/MKK4, and MAP2K7/MKK7, which suggests that this kinase may function through the MAP3K7-MAP2K4-MAP2K7 kinase cascade, and mediate the TNF-alpha signaling pathway. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]</p>