

Product datasheet for **RG206051**

MEK4 (MAP2K4) (NM_003010) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEK4 (MAP2K4) (NM_003010) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MEK4
Synonyms:	JNKK; JNKK1; MAPKK4; MEK4; MKK4; PRKMK4; SAPKK-1; SAPKK1; SEK1; SERK1; SKK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206051 representing NM_003010 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTCCGAGCCGAGCGGCGGGCGGCTCCGGGGCGGCCGCGGCAGCGGCACCCCGGCCCG
TAGGGTCCCCGGCGCCAGGCCACCCGGCCGTGAGCAGCATGCAGGGTAAACGCAAAGCACTGAAGTTGAA
TTTTGCAAATCCACCTTTCAAATCTACAGCAAGGTTTACTCTGAATCCCAATCTACAGGAGTTCAAAC
CCACACATAGAGAGACTGAGAACACACAGCATTGAGTCATCAGGAAAAGTGAAGATCTCCCTGAACAAC
ACTGGGATTTCACTGCAGAGGACTTGAAAGACCTTGGAGAAATTGGACGAGGAGCTTATGGTTCTGTCAA
CAAAATGGTCCACAAACCAAGTGGGCAAATAATGGCAGTTAAAAGAATTCGGTCAACAGTGGATGAAAA
GAACAAAAACAACCTTCTTATGGATTTGGATGTAGTAATGCGGAGTGTGATTGCCATACATTGTTCACT
TTTATGGTGCCTCTTACAGAGGGTACTGTTGGATCTGTATGGAACATGTCTACCTCGTTTGATAA
GTTTTACAAATATGTATATAGTGTATTAGATGATGTTATCCAGAAGAAATTTAGGCAAAATCACTTTA
GCAACTGTGAAAGCACTAAACCACTTAAAAGAAAATTGAAAATTTTACAGAGATATCAAACCTTCCA
ATATTCTTCTGGACAGAAGTGGAAATATTAAGCTCTGTGACTTCGGCATCAGTGGACAGCTTGTGGACTC
TATTGCCAAGACAAGAGATGCTGGCTGTAGGCCATACATGGCACCTGAAAGAATAGACCAAGCGCATCA
CGACAAGGATATGATGTCCGCTCTGATGTCTGGAGTTTGGGATCACATTGTATGAGTTGGCCACAGGCC
GATTTCCCTTATCAAAGTGGAAATAGTGTATTTGATCAACTAACACAAGTGTGAAAGGAGATCCTCCGCA
GCTGAGTAATTCTGAGGAAAGGGAATTCCTCCCGAGTTTCATCAACTTTGTCAACTTGTGCCTTACGAAG
GATGAATCCAAAAGGCCAAAGTATAAAGAGCTTCTGAAACATCCCTTTATTTTGTATGAAGAACGTG
CCGTTGAGGTCGCATGCTATGTTTGAAAATCCTGGATCAAATGCCAGCTACTCCAGCTCTCCCATGTA
TGTCGAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206051 representing NM_003010
 Red=Cloning site Green=Tags(s)

MAAPSPSGGGGSGGGGRSGTGPVGVGSPAPGHPAVSSMQGKRKALKLNANPPFKSTARFTLNPNPTGVQN
 PHIERLRTHSIESSGKLIKISPEQHWDFTAEDLKDLEIGRGAYGSVNKMVHKPSGQIMAVKRIIRSTVDEK
 EQKQLLMDLDVVMRSSDCPYIVQFYGALFREGDCWICMELMSTSFDFKYVYVSVLDDVIPEEILGKITL
 ATVKALNHLKENLKIHRDIKPSNILLDRSGNIKLCDFGISGQLVDSIAKTRDAGCRPYMAPERIDPSAS
 RQGYDVRSDVWSLGITLYELATGRFPYPKWNSVFDQLTQVVKGDPPQLSNSEEREFSPSFINFVNLCLTK
 DESKRPKYKELLKHPFILMYEERAVEVACYVCKILDQMPATPSSPMYVD

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003010

ORF Size: 1197 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_003010.2](#), [NP_003001.1](#)

RefSeq Size: 3752 bp

RefSeq ORF: 1200 bp

Locus ID: 6416

UniProt ID: [P45985](#)

Cytogenetics: 17p12

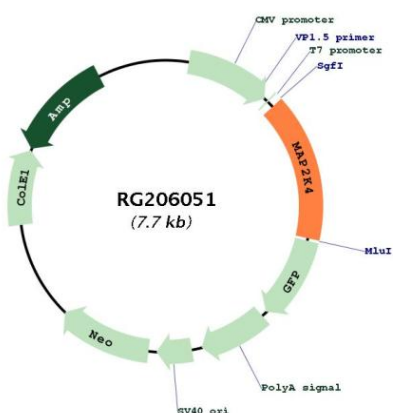
Domains: pkinase, TyrKc, S_TKc

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, GnRH signaling pathway, MAPK signaling pathway, Toll-like receptor signaling pathway

Gene Summary: This gene encodes a member of the mitogen-activated protein kinase (MAPK) family. Members of this family act as an integration point for multiple biochemical signals and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation, and development. They form a three-tiered signaling module composed of MAPKKKs, MAPKKs, and MAPKs. This protein is phosphorylated at serine and threonine residues by MAPKKKs and subsequently phosphorylates downstream MAPK targets at threonine and tyrosine residues. A similar protein in mouse has been reported to play a role in liver organogenesis. A pseudogene of this gene is located on the long arm of chromosome X. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RG206051