

## Product datasheet for **RG238044**

### MEK4 (MAP2K4) (NM\_001281435) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MEK4 (MAP2K4) (NM_001281435) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAP2K4
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:	>RG238044 representing NM_001281435. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
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GAATTCCTCCCGAGTTTTCATCACTTTGTCAACTTGTGCCTTACGAAGGATGAATCCAAAAGGCCAAAG
TATAAAGAGCTTCTGAAACATCCCTTTATTTGATGTATGAAGAAGTGCCTTGGAGTGCATGCTAT
GTTTGTAAAATCCTGGATCAAAATGCCAGCTACTCCAGCTCTCCCATGTATGTCGAT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238044  
 Blue=ORF Red=Cloning site Green=Tag(s)

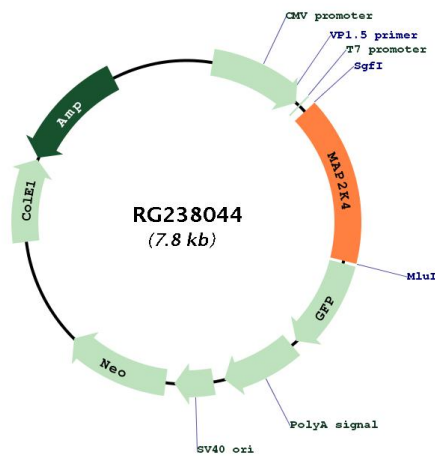
MAAPSPSGGGSGGGSGSGTGPVGVSPAPGHPAVSSMQGFQINFCEKAQSKRKALKLNANPPFKSTAR  
 FTLNPNPTGVQNPHERLRTHSIESSGKLKISPEQHWDF TAEDLKDLEIGRGAYGSVNKMVHKPSGQI  
 MAVKRIRSTVDEKEQKQLMLDVMRSDPCYIVQFYGALFREGDCWICMELMSTSFDFKYKYVSVL  
 DDVIPEEILGKITLATVKALNHLKENLKIHRDIKPSNILLDRSGNIKLCDFGISGQLVDSIAKTRDAG  
 CRPYMAPERIDPSASRQGYDVRSDVWSLGITLYELATGRFPYPKWSVFDQLTQVVKGDPPQLSNSEER  
 EFPSPFINFVNLCLTKDESKRPKYKELLKHPFILMYEERAVEVACVYCKILDQMPATPSSPMYVD  
**TRTRPLEMESDEGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYPGYNPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



<b>ACCN:</b>	NM_001281435
<b>ORF Size:</b>	1230 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001281435.2</a>
<b>RefSeq Size:</b>	3873 bp
<b>RefSeq ORF:</b>	1233 bp
<b>Locus ID:</b>	6416
<b>UniProt ID:</b>	<a href="#">P45985</a>
<b>Cytogenetics:</b>	17p12
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	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
<b>MW:</b>	46 kDa
<b>Gene Summary:</b>	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]