

## Product datasheet for **RG207115**

### MEK3 (MAP2K3) (NM\_145109) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MEK3 (MAP2K3) (NM\_145109) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MEK3  
**Synonyms:** MAPKK3; MEK3; MKK3; PRKMK3; SAPKK-2; SAPKK2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG207115 representing NM\_145109  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGTCGCCCCCTCGAGCCAGCCGCCAGCATGCCCCAGTCCAAAGGAAAATCCAAGAGGAAGAAGG  
ATCTACGGATATCCTGCATGTCCAAGCCACCCGCACCCAACCCACACCCCCCGGAACCTGGACTCCCG  
GACCTTCATCACCATTGGAGACAGAACTTTGAGGTGGAGGCTGATGACTTGGTGACCATCTCAGAACTG  
GGCCGTGGAGCCTATGGGGTGTAGAGAAGGTGCGGCACGCCAGAGCGGCACCATCATGGCCGTGAAGC  
GGATCCGGGCCACCGTGAACCTCACAGGAGCAGAAGCGGCTGCTCATGGACCTGGACATCAACATGCGCAC  
GGTCGACTGCTTCTACACTGTCACCTTCTACGGGGCACTATTCAGAGAGGGAGACGTGTGGATCTGCATG  
GAGCTCATGGACACATCCTTGGACAAGTTCTACCGGAAGGTGCTGGATAAAAACATGACAATTCAGAGG  
ACATCCTTGGGGAGATTGCTGTGTCTATCGTGCGGGCCCTGGAGCATCTGCACAGCAAGCTGTGGTGTGAT  
CCACAGAGATGTGAAGCCCTCCAATGTCCTTATCAACAAGGAGGGCCATGTGAAGATGTGTGACTTTGGC  
ATCAGTGGCTACTTGGTGGACTCTGTGGCAAGACGATGGATGCCGGCTGCAAGCCCTACATGGCCCTG  
AGAGGATCAACCCAGAGCTGAACCAGAAGGGCTACAATGTCAAGTCCGACGTCTGGAGCCTGGGCATCAC  
CATGATTGAGATGGCCATCCTGCGGTTCCCTTACGAGTCTGGGGACCCCGTTCCAGCAGCTGAAGCAG  
GTGGTGGAGGACCGTCCCCCAGCTCCAGCCGACCGTTTCTCCCCGAGTTTGTGACTTCACTGCTC  
AGTGCCTGAGGAAGAACCCCGCAGAGCGTATGAGCTACCTGGAGCTGATGGAGCACCCCTTCTTACCTT  
GCACAAAACCAAGAAGACGGACATTGCTGCCTTGTGAAGGAGATCCTGGGAGAAGACTCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG207115 representing NM\_145109  
Red=Cloning site Green=Tags(s)

MESPASSQPASMPQSKGKSKRKKDLRISCMSPAPNPPTPPRNLDSTRTFITIGDRNFEVEADDLVTISEL  
 GRGAYGVVEKVRHAQSGTIMAVKRIRATVNSQEQKRLMDLDINMRTVD CFYTVTFYGALFREGDVWICM  
 ELMDTSLDKFYRKVL DKNMTIPEDILGEIAVSVIRALEHLHLSKLSVIHRDVKPSNVLINKEGHVKMCDFG  
 ISGYLVDSVAKTMDAGCKPYMAPERINPELNQKGYNVKSDVWSLGITMIEMAILRFPYESWGTFPQQLKQ  
 VVEEPSQLPADRF SPEFVDFTAQCLRKNPAERMSYLELMEHPFFTLHKTKKTDIAAFVKEILGEDS

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_145109

**ORF Size:** 1041 bp

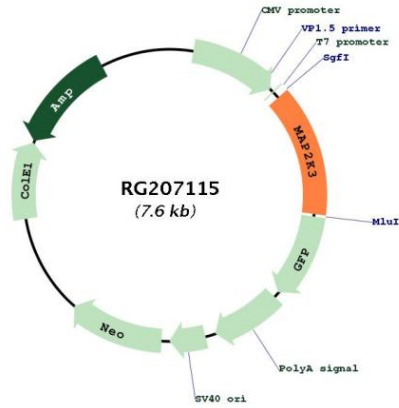
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_145109.1</a> , <a href="#">NP_659731.1</a>
<b>RefSeq Size:</b>	2024 bp
<b>RefSeq ORF:</b>	1044 bp
<b>Locus ID:</b>	5606
<b>UniProt ID:</b>	<a href="#">P46734</a>
<b>Cytogenetics:</b>	17p11.2
<b>Domains:</b>	pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transcription Factors
<b>Protein Pathways:</b>	Amyotrophic lateral sclerosis (ALS), Fc epsilon RI signaling pathway, GnRH signaling pathway, MAPK signaling pathway, Toll-like receptor signaling pathway
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is activated by mitogenic and environmental stress, and participates in the MAP kinase-mediated signaling cascade. It phosphorylates and thus activates MAPK14/p38-MAPK. This kinase can be activated by insulin, and is necessary for the expression of glucose transporter. Expression of RAS oncogene is found to result in the accumulation of the active form of this kinase, which thus leads to the constitutive activation of MAPK14, and confers oncogenic transformation of primary cells. The inhibition of this kinase is involved in the pathogenesis of Yersina pseudotuberculosis. Multiple alternatively spliced transcript variants that encode distinct isoforms have been reported for this gene. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG207115