

## Product datasheet for **RG225304**

### JNK2 (MAPK9) (NM\_001135044) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	JNK2 (MAPK9) (NM_001135044) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAPK9
Synonyms:	JNK-55; JNK2; JNK2A; JNK2ALPHA; JNK2B; JNK2BETA; p54a; p54aSAPK; PRKM9; SAPK; SAPK1a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG225304 representing NM_001135044 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCGACAGTAAATGTGACAGTCAGTTTTATAGTGTGCAAGTGGCAGACTCAACCTTCACTGTCCTAA  
AACGTTACCAGCAGCTGAAACCAATTGGCTCTGGGGCCCAAGGGATTGTTTGTGCTGCATTTGATACAGT  
TCTTGGGATAAAATGTTGCAGTCAAGAACTAAGCCGTCCTTTTCAGAACCAAACTCATGCAAGAGAGCT  
TATCGTGAAGTGTCTCTTAAATGTGCAATCATAAAAAATAAATTAGTTTGTAAATGTGTTTACAC  
CACAAAAACTCTAGAAGAATTTCAAGATGTGATTTGGTTATGGAATTAATGGATGCTAACTTATGTCA  
GGTTATTCACATGGAGCTGGATCATGAAAGAATGTCTACCTTCTTACCAGATGCTTTGTGGTATTAAA  
CATCTGCATTCAGCTGGTATAATTCATAGAGATTTGAAGCCTAGCAACATTGTTGTGAAATCAGACTGCA  
CCCTGAAGATCCTTGACTTTGGCTGGCCCGGACAGCGTGCCTAACTTCATGATGACCCCTTACGTGGT  
GACACGGTACTACCGGGCGCCGAAGTCATCCTGGGTATGGGCTACAAAGAGAACGTTGATATCTGGTCA  
GTGGGTTGCATCATGGGAGAGCTGGTAAAGGTTGTGTGATATCCAAGGCACTGACCGTATCCTCCCC  
GCGACCTGGCCCGCCATGCTTCT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG225304 representing NM\_001135044  
 Red=Cloning site Green=Tags(s)

MSDSKCD SQFY SVQVADSTFTVLKRYQLKPIGSGA QGIVCAAFDVLGINVAVKKLSRPFQNTAKRA  
 YRELVLLKCVNHKNIISLLNVF TPQKTLEEFQDVYLV MELMDANLCQVIHMELDHERMSYLLYQMLCGIK  
 HLHSAGIIHRDLKPSNIVVKS DCTLKILDFGLARTACTNFMMPYVVVTRYRRAPEVILGMGYKENVDIWS  
 VGCIMGELVKGC VIFQGTDRILPRDLGPAMLS

TRTRPLE - GFP Tag - V

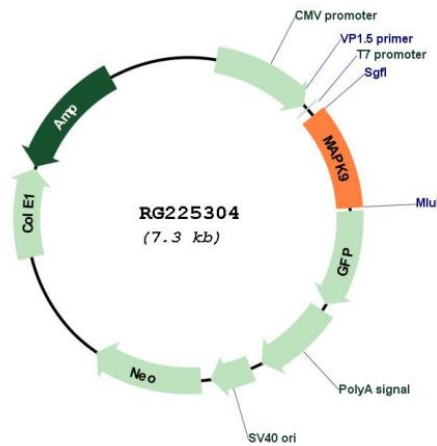
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_001135044

**ORF Size:** 726 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>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_001135044.2</a>
<b>RefSeq Size:</b>	2370 bp
<b>RefSeq ORF:</b>	729 bp
<b>Locus ID:</b>	5601
<b>UniProt ID:</b>	<a href="#">P45984</a>
<b>Cytogenetics:</b>	5q35.3
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Colorectal cancer, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, Focal adhesion, GnRH signaling pathway, Insulin signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, RIG-I-like receptor signaling pathway, T cell receptor signaling pathway, Toll-like receptor signaling pathway, Type II diabetes mellitus, Wnt signaling pathway

**Gene Summary:**

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases 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. This kinase targets specific transcription factors, and thus mediates immediate-early gene expression in response to various cell stimuli. It is most closely related to MAPK8, both of which are involved in UV radiation induced apoptosis, thought to be related to the cytochrome c-mediated cell death pathway. This gene and MAPK8 are also known as c-Jun N-terminal kinases. This kinase blocks the ubiquitination of tumor suppressor p53, and thus it increases the stability of p53 in nonstressed cells. Studies of this gene's mouse counterpart suggest a key role in T-cell differentiation. Several alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Sep 2008]