

## Product datasheet for SC111675

### JNK2 (MAPK9) (NM\_002752) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	JNK2 (MAPK9) (NM_002752) Human Untagged Clone
Tag:	Tag Free
Symbol:	JNK2
Synonyms:	JNK-55; JNK2; JNK2A; JNK2ALPHA; JNK2B; JNK2BETA; p54a; p54aSAPK; PRKM9; SAPK; SAPK1a
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_002752 edited  
 ATGAGCGACAGTAAATGTGACAGTCAGTTTTATAGTGTGCAAGTGGCAGACTCAACCTTC  
 ACTGTCCTAAAACGTTACCAGCAGCTGAAACCAATTGGCTCTGGGCCCAAGGGATTGTT  
 TGTGCTGCATTTGATACAGTTCTTGGGATAAATGTTGCAGTCAAGAAACTAAGCCGTCCT  
 TTTCAGAACCAAACTCATGCAAAGAGAGCTTATCGTGAACCTTGTCCTCTAAAATGTGTC  
 AATCATAAAAATATAATTAGTTTGTAAATGTGTTACACCACAAAAACTCTAGAAGAA  
 TTTCAAGATGTGATTTGGTTATGGAATTAATGGATGCTAACTTATGTCAGGTTATTCAC  
 ATGGAGCTGGATCATGAAAGAATGTCCTACCTTCTTACCAGATGCTTTGTGGTATTAA  
 CATCTGCATTGAGCTGGTATAATTCATAGAGATTGAAGCCTAGCAACATTGTTGTGAAA  
 TCAGACTGCACCCTGAAGATCCTTGACTTTGGCCTGGCCCGACAGCGTGCCTAACTTC  
 ATGATGACCCCTTACGTGGTGACACGGTACTACGGGGCGCCGAAGTCATCCTGGGTATG  
 GGTACAAAGAGAACGTTGATATCTGGTCAGTGGGTTGCATCATGGGAGAGCTGGTGAAA  
 GGTGTGTGATATTCCAAGGCACTGACCATATTGATCAGTGGAATAAAGTTATTGAGCAG  
 CTGGGAACACCATCAGCAGAGTTCATGAAGAACTTCAGCCAAGTGTGAGGAATTATGTC  
 GAAAACAGACCAAAGTATCTTGGAAATCAAATTTGAAGAACTCTTCCAGATTGGATATTC  
 CCATCAGAATCTGAGCGAGACAAAATAAAAACAAGTCAAGCCAGAGATCTGTTATCAAAA  
 ATGTTAGTGATTGATCCTGACAAGCGGATCTCTGTAGACGAAGCTCTGCGTCACCCATAC  
 ATCACTGTTTGGTATGACCCCGCGAAGCAGAAGCCCCACCACCTCAAATTTATGATGCC  
 CAGTTGGAAGAAAGAGAACATGCAATTGAAGAATGGAAGAGCTAATTTACAAAGAAGTC  
 ATGGATTGGGAAGAAAGAAGCAAGAATGGTGTGTTGTAAGAATCAGCCTTCAGATGCAGCA  
 GTAAGTAGCAACGCCACTCCTTCTCAGTCTTCATCGATCAATGACATTTATCCATGTCC  
 ACTGAGCAGACGCTGGCCTCAGACACAGACAGCAGTCTTGATGCCTCGACGGGACCCCTT  
 GAAGGCTGTCGATGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_002752 unedited TTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGAACCTGCCACCCTT CGGGATATTGCAGGACGCTGCATCATGAGCGACAGTAAATGTGACAGTCAGTTTTATAGT GTGCAAGTGGCAGACTCAACCTTCACTGTCCTAAAACGTTACCAGCAGCTGAAACCAATT GGCTCTGGGGCCCAAGGATTGTTGTGCTGCATTTGATACAGTCTTTGGGATAAATGTT GCAGTCAAGAACTAAGCCGTCCTTTTCAGAACCAAACTCATGCAAAGAGAGCTTATCGT GAACCTGTCCTCTAAAATGTGTCATCATAAAAAATAAATTAGTTTGTAAATGTGTTT ACACCACAAAAAAGCTCTAGAAGAATTTCAAGATGTGATTTGGTTATGGAATTAATGGAT GCTAACTTATGTCAAGTTATTCACATGGAGCTGGATCATGAAAGAATGCTCCTACCTTCTT TACCAGATGCTTTGTGGTATTAACATCTGCATTACAGCTGGTATAATTCATAGAGATTTG AAGCCTAGCAACATTGTTGTGAAATCAGACTGCACCCTGAAGATCCTTGACTTTGGCCTG NCCCGGACAGCGTGCCTAACTTATGATGACCCCTTACGTGGTACACGGTACTACCGG GCGCCGAAGTCATCCTGGGTATGGGCCTACAAGAAGACGTTGATATCTGGTCAGTGGGT TGCATCATGGGAGAGCTGGTAAAGTTGTGTGATATTCCAAGCCACTGACCATATTGAT CAGTGGGATTAAGTTATTGAGCAGCTGGGAACACCATCAGCAGAGTTCATGAAGAACCTC AGCCAAGTGTGAAGAATTATTGTCGAAACAGACCACAGTTTCTTGAAATACAATTTGAA GACTCCTTCCAGATGGNAATCCCCTCAAATTTGACCGAAACAAAATAAACAGC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_002752
<b>Insert Size:</b>	1500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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_002752.3</a> , <a href="#">NP_002743.3</a>
<b>RefSeq Size:</b>	1942 bp
<b>RefSeq ORF:</b>	1275 bp
<b>Locus ID:</b>	5601
<b>UniProt ID:</b>	<a href="#">P45984</a>
<b>Cytogenetics:</b>	5q35.3
<b>Domains:</b>	ppk, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

**Protein Pathways:** 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]

Transcript Variant: This variant (JNK2-a2) encodes the longer of the two JNK2 alpha isoforms (JNK2 alpha2). The JNK2-a2 variant differs from the JNK2-b2 variant in the use of an alternate internal coding exon of the same length. Thus, JNK2 alpha2 isoform is the same length as JNK2 beta2 isoform, with a few aa differences in an internal protein segment. Variants JNK2-a2 and 8 both encode the same isoform (alpha2). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.