

Product datasheet for SC109619

JNK1 (MAPK8) (NM 002750) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: JNK1 (MAPK8) (NM_002750) Human Untagged Clone

Tag: Tag Free

Symbol: JNK1

Synonyms: JNK; JNK-46; JNK1; JNK1A2; JNK21B1/2; PRKM8; SAPK1; SAPK1c

Mammalian Cell

Selection:

None

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_002750 edited

ATGAGCAGAAGCAAGCGTGACAACAATTTTTATAGTGTAGAGATTGGAGATTCTACATTC ACAGTCCTGAAACGATATCAGAATTTAAAACCTATAGGCTCAGGAGCTCAAGGAATAGTA TGCGCAGCTTATGATGCCATTCTTGAAAGAAATGTTGCAATCAAGAAGCTAAGCCGACCA TTTCAGAATCAGACTCATGCCAAGCGGCCTACAGAGAGCTAGTTCTTATGAAATGTGTT AATCACAAAAATATAATTGGCCTTTTGAATGTTTTCACACCACAGAAATCCCTAGAAGAA TTTCAAGATGTTTACATAGTCATGGAGCTCATGGATGCAAATCTTTGCCAAGTGATTCAG ATGGAGCTAGATCATGAAAGAATGTCCTACCTTCTCTATCAGATGCTGTGTGGAATCAAG CACCTTCATTCTGCTGGAATTATTCATCGGGACTTAAAGCCCAGTAATATAGTAGTAAAA TCTGATTGCACTTTGAAGATTCTTGACTTCGGTCTGGCCAGGACTGCAGGAACGAGTTTT ATGATGACGCCTTATGTAGTGACTCGCTACTACAGAGCACCCGAGGTCATCCTTGGCATG GGCTACAAGGAAAACGTGGATTTATGGTCTGTGGGGTGCATTATGGGAGAAATGGTTTGC CACAAAATCCTCTTTCCAGGAAGGGACTATATTGATCAGTGGAATAAAGTTATTGAACAG GAAAACAGACCTAAATATGCTGGATATAGCTTTGAGAAACTCTTCCCTGATGTCCTTTTC CCAGCTGACTCAGAACAACAAACTTAAAGCCAGTCAGGCAAGGGATTTGTTATCCAAA ATGCTGGTAATAGATGCATCTAAAAGGATCTCTGTAGATGAAGCTCTCCAACACCCGTAC ATCAATGTCTGGTATGATCCTTCTGAAGCAGAAGCTCCACCACCAAAGATCCCTGACAAG CAGTTAGATGAAAGGGAACACACAATAGAAGAGTGGAAAGAATTGATATAAAGGAAGTT ATGGACTTGGAGGAGAACCAAGAATGGAGTTATACGGGGGCAGCCCTCTCCTTTAGCA

CAGGTGCAGCAGTGA



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5' Read Nucleotide Sequence: >OriGene 5' read for NM_002750 unedited

NGCGGTGTCANATTTTGTATACGACTCATATAGGGCGGCCGCGAATTCGCACGAGGCCTC GTGCCGAATTCGGCACGAGGACGGCCCGCGTCTCTGTTACTCAGCCGAGCCGAGCCGAGGCC GGACGACGCGGCTTGGATTGCGGAGCCGCGAGCAGCGCTGGGTAACGGCCGCGGCGACCA CCCCGGACGGCCCTGTCCCCGCTGGCGGGCTTCCCTGTCGCCGTTCGCTGCCGG TCTTGCAGCCTTACAGTCATTTGTAATGGTTACCTCAGATTCCCCTGCTGTGGTTAACGT TAAACCTAGGAGGTCAGATGCTCTAAGTGAACATGTTTAGTGCTGTGCCTGACAAAAGCA AGCAATCAAAATGGGACTTCCTTGAGGGCAGGCCTGTCTTGCATCTGTTTCTCCACCACC ATCATGAGCAGAAGCAAGCGTGACAACAATTTTTATAGTGTAGAGATTGGAGATTCTACA TTCACAGTCCTGAAACGATATCAGAATTTAAAACCTATAGGCTCAGGAGCTCAAGGAATA GTATGCGCAGCTTATGATGCCATTCTTGAAAGAAATGTTGCAATCAAGAAGCTAAGCCGA CCATTTCAGAATCAGACTCATGCCAAGCGGGCCTACAGAGAGCTAGTTCTTATGAAATGT GTTAATCACAAAAATATAATTGGCCTTTTGAATGTTNTCACACCACAGAAATCCCTAGAA GAATTTCAAGATGTTTACATAGTCATGGAGCTCATGGATGCANATCTTTGCCAAGTGATT CAGATGGAGCTAGATCATGAAAGAATGTCCTACCTTCTCTATCAGATGCTGTGTGGAATC AAGCACCTCATTCTGCTA

Restriction Sites: Notl-Notl
ACCN: NM_002750
Insert Size: 2600 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts

of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at customercom or by

calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

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: <u>NM 002750.2, NP 002741.1</u>

RefSeq Size: 1417 bp



RefSeq ORF: 1155 bp
Locus ID: 5599
Cytogenetics: 10g11.22

Domains: pkinase, TyrKc, S_TKc

Protein Families: 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, 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 is activated by various cell stimuli, and targets specific transcription

factors, and thus mediates immediate-early gene expression in response to cell stimuli. The

activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. Studies of the mouse counterpart of this gene suggested that this kinase play a key role in T cell proliferation, apoptosis and differentiation. Several alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Apr 2016] Transcript Variant: This variant (JNK1-a1) uses a different acceptor splice site in the last coding exon compared to transcript variant JNK1-a2, resulting in a frameshift and a shorter isoform (JNK1 alpha1) with a different C-terminus, compared to isoform JNK1 alpha2. The JNK1-a1

variant differs from the JNK1-b1 variant in the use of an alternate internal coding exon of the same length. Thus, JNK1 alpha1 isoform is the same length as JNK1 beta1 isoform, with a few

aa difference in an internal protein segment.