

## Product datasheet for **SC319083**

### **MNK1 (MKNK1) (NM\_003684) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MNK1 (MKNK1) (NM_003684) Human Untagged Clone
Tag:	Tag Free
Symbol:	MNK1
Synonyms:	MNK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_003684.3  
 GCGACCGCTCCCCGGCGGGAGCCAGCGAAGGTTTCCATGTGAGAGCCGATGGAGAACTG  
 AAGATTGCCACCTACGCACAAAGGCCATTGAGACACTTCGTGTAGCTGGAAGACACCAAC  
 TTCCTGACAGGAGCTTTATTTCAATTTGGGATTTCAAGTTTACAGATGGTATCTTCTCAA  
 AGTTGGAAAAACCTATAGAGATGGGCAGTAGCGAACCCCTTCCATCGCAGATGGTGACA  
 GGAGGAGGAAGAAGAAGCGGAGGGGCCACTGACTCCTTCCAGGAAAGTTTGAAG  
 ATATGTACAAGCTGACCTCTGAATTGCTTGGAGAGGGAGCCTATGCCAAAGTTCAAGGTG  
 CCGTGAGCCTACAGAATGGCAAAGAGTATGCCGTCAAAATCATCGAGAAACAAGCAGGGC  
 ACAGTCGGAGTAGGGTGTTCGAGAGGTGGAGACGCTGTATCAGTGTGAGGAAACAAGA  
 ACATTTTGGAGCTGATTGAGTTCTTTGAAGATGACACAAGGTTTTACTTGGTCTTTGAGA  
 AATTGCAAGGAGTTCCATCTTAGCCACATCCAGAAGCAAAGCACTTCAATGAGCGAG  
 AAGCCAGCCGAGTGGTGGGGACGTTGCTGCTGCCCTTGACTTCTGCATACCAAAGACA  
 AAGTCTCTCTGTACCTAGGCTGGAGTGTATGGGCCATCAGGGCTCACTGCAGCCC  
 CAACCTCCCTGGCTCCAGTGATCCTCCACCTCAGCCTCCCAAGTAGCTGGGACTACAG  
 GCATTGCTCATCGTGATCTGAAACCAGAAAATATATTGTGTAATCTCCAGAAAAGTGT  
 CTCAGTGA AAAATCTGTGACTTTGACTTGGGCAGTGGGATGAAACTGAACAACTCCTGTA  
 CCCCCATAACCACACCAGAGCTGACCACCCCATGTGGCTCTGCAGAATACATGGCCCTG  
 AGGTAGTGGAGGTCTTACCGGACCAGGCCACATTTACGACAAGCGCTGTGACCTGTGGA  
 GCCTGGGCGTGGTCTCTACATCATGCTGAGTGGTACCCACCCTTCGTGGGTCAGTGGC  
 GGGCCGACTGTGGCTGGGACCGGGCGAGGTCTGCAGGGTGTGCCAGAACAAAGCTGTTTG  
 AAAGCATCCAGGAAGGCAAGTATGAGTTTCTGACAAGGACTGGGCACACATCTCCAGTG  
 AAGCCAAAGACCTCATCTCCAAGCTCCTGGTGGGAGATGCAAAGCAGAGACTTAGCGCCG  
 CCCAAGTTCTGCAGACCCATGGGTGCAGGGCAAGCTCCAGAAAAGGGACTCCCCACGC  
 CGCAAGTCTCCAGAGGAACAGCAGCACAAATGGACCTGACGCTCTTCGCAGCTGAGGCCA  
 TCGCCCTTAACCGCCAGCTATCTCAGCACGAAGAGAACGAACTAGCAGAGGAGCCAGAGG  
 CACTAGCTGATGGCTCTGCTCCATGAAGCTTTCCCTCCCTGCAAGTCACGCCTGGCCC  
 GGAGACGGGCCCTGGCCAGGCAGGCCGTGGTGAAGACAGGAGCCCGCCACAGCACTCT  
 GAAATGCTCCAGTCACACCTTATAGGCCCTAGGCTGGCCAGGCATTGTCCCTGGAAC  
 CTGTGTGGCTAAAGTCTGCTGAGCAGGCAGCAGCCTCTGCTCTGTGGCTCCATTCAGGCT  
 TTTTCATCTACGAAGGCCCTGAGGTTCCCATCAACCCCATTTCCCTAGGGTCTGGAGG  
 AAAAAGCTTTTTCCAAAGGGTGTCTTTGAAAAGGAAAGCAATCACTTCTCACTTTGCA  
 TAATTGCCTGCAGCAGGAACATCTTCTACTGGGCTCCACTGCTCACCCGCCTGCAGAT  
 CTGGGATCCAGCCTGCTCTCACCCTGTAGCTGTGGCGGCTGGGGCTGCAGCCTGCAGGG  
 AGAAGCAAGAAGCATCAGTTGACAGAGGCTGCCGACACGTGCCTCTTCCCTCTTCTCTCT  
 GTCACCCTCCTCTGGCGGTCTTCCACCTTCTCTGTCTCCGGATGTCCTCTTTGCCCG  
 TCTTCTCCCTGGCTGAGCAAAGCCATCCCCTCAATTCAGGGAAGGGCAAGGAGCCTTCC  
 TCATTACAGAAATCAAATCAGTCTTCCGGTCTGCAGCACGGAAAAGCACATAATCTTTCT  
 TTGCTGTGACTGAAATGTATCCCTCGTTTATCATCCCCCTTTGTTTGTGATTGCTGCTAAA  
 GTCAGTAGTATCGTTTTTTTTAAAAAAGTTTGGTGTTTTTAACCATGCTGTTCCAGCA  
 AAGATGATACCTTAAACTCCCACTGCAAGCCCATGAACTTCCAGAGAGTGGAACGGCTT  
 GCTCTTCTTTCTAGAATGTCATGCACTTGGGTTTTAATCAGCAGTTCCCTATTATTCTG  
 ATTTTAAAGCTGTTCTGTGATGAACTTAGAGACAGCATCGGTGTCTGCTGCTGTGCCCC  
 AGGTCTTGTGTGGGTGGCACAGATCTGGGCAGTTAGATAGTGTCTGTGCCTAAGGTGAA  
 GCCACACTAGGGTGAAGCCTCACTTCCCTGTTGAGCAATGCAGTGCCTGCTGCCGTGT  
 GCATGAAGGTACAGCCATTCAGATAAGTGAAGTATTGAGTTACATAAAGAAAATAGATT  
 TGCATTTGTGAGGACAGCTTTATACAACACCACGGTGTCTTTATACATTGTGCTTATTT  
 TAATAAAACTGAAATTCTAAAAAAGAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_003684

**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 [custsupport@origene.com](mailto:custsupport@origene.com) 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. [More info](#)

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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:** [NM\\_003684.3](#), [NP\\_003675.2](#)

**RefSeq Size:** 2736 bp

**RefSeq ORF:** 1398 bp

**Locus ID:** 8569

**UniProt ID:** [Q9BUB5](#)

**Cytogenetics:** 1p33

**Domains:** pkinase, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Insulin signaling pathway, MAPK signaling pathway

**Gene Summary:**

This gene encodes a Ser/Thr protein kinase that interacts with, and is activated by ERK1 and p38 mitogen-activated protein kinases, and thus may play a role in the response to environmental stress and cytokines. This kinase may also regulate transcription by phosphorylating eIF4E via interaction with the C-terminal region of eIF4G. Alternatively spliced transcript variants have been noted for this gene. [provided by RefSeq, Jan 2012]

Transcript Variant: This variant (1) encodes the longest isoform (1). CCDS Note: The coding region has been updated to scale back the N-terminus to one that is more supported by the available transcript data and by conservation across mammals.