

Product datasheet for **SC315549**

MNK2 (MKNK2) (NM_017572) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MNK2 (MKNK2) (NM_017572) Human Untagged Clone
Tag:	Tag Free
Symbol:	MNK2
Synonyms:	GPRK7; MNK2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_017572 edited
 CCCTCGGTCCCCTCCCCGCTGGCGGGCCCGGACAGAAGATGGTGCAGAAGAAACCAGC
 CGAACTTCAGGGTTTCCACCGTTTCGTTCAAGGGGCAGAACCCTTCGAGCTGGCCTTCTC
 CCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTCAGCCCGCCTGA
 CATGCCCGCCAGCCAGCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAA
 GCGCGGGCCGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGA
 AGATGTGCTGGGGGAGGGCGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAG
 CCAGGAGTACGCCGTCAAGATCATTGAGAAGCAGCCAGGCCACATTCGGAGCAGGGTTTT
 CAGGGAGGTGGAGATGCTGTACCAGTGCAGGGACACAGGAACGTCTAGAGCTGATTGA
 GTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTGTTGAGAAGATGCGGGGAGGCTCCAT
 CCTGAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCA
 GGACGTGGCCAGCGCCTTGGACTTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAA
 GCCGAAAACATCCTCTGTGAGCACCCCAACCAGGTCTCCCCGTGAAGATCTGTGACTT
 CGACCTGGGCAGCGGCATCAAACCTCAACGGGGACTGCTCCCCTATCTCCACCCCGGAGCT
 GCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCCTTCAGCGA
 GGAGGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATAT
 CCTACTCAGCGGCTACCCGCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCG
 CGGCGAGGCCCTGCCCTGCCTGCCAGAACATGCTGTTTGAAGCATCCAGGAGGGCAAGTA
 CGAGTTCGCCGACAAGGACTGGGCCACATCTCCTGCGCTGCCAAGACCTCATCTCCAA
 GCTGTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCTGCAGCACCCCTG
 GGTTACAGGGGTGCGCCCCGAGAACACCTTGCCCACTCCCATGGTCTGCAGAGGTGGGA
 CAGTCACTTCTCCTCCCTCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGT
 CAGAACCCTTACTGTGAATGAGTGAAGATCCTGGAGGACCCTGGGCCCCAGGCCAGCTCC
 CATCGCTGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTTTAAAGACAAAA
 AAAAAAAAAA



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_017572 unedited
 CCTGTCGAGAATTGTAACGACTCACTATAGGCGGCCGCGAAATTCGCACGAGGCCCTCG
 GTCCCCCTCCCCGCTGGCGGGGCCCGCCAGAAGATGGTGCAAGTAAAGAACTAGCCGAA
 CTTTCAGGGTTTCCACCGTTCTGTTCAAGGGGCAGAACCCCTTCGAGCTGGCCTTCTCCCTA
 GACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTCAGCCCGCCCTGACATG
 CCCGCCAGCCAGCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCGC
 GGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGAT
 GTGCTGGGGGAGGGCGCTCATGCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAG
 GAGTACGCCGTCAAGATCATTGAGAAGCAGCCAGGCCACATTTCGAGCAGGGTTTTTCAGG
 GAGGTGGAGATGCTGTACCAGTGCAGGGACACAGGAACGTCCTAGAGCTGATTGAGTTC
 TTCGAGGAGGAGGACCGTTCTACCTGGTGTGTTGAGAAGATGCGGGGAGGCTCCATCCTG
 AGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGAC
 GTGGCCAGCGCCTTGGACTATCTGCATAACAGAGGCATCGCCACAGGGACCTAAAGCCT
 GTAACATCCTCTGTGAGCACCTACCAGTCTCCCTCGTGAAGATCTGTGACTTCGACC
 TGNGCAGCGCCATCAAACCTCCACGNGACTGCTCCCTATCTCCACCTGGAGCTGCTCAC
 TCCGTGCGGCTCGGGGAAGNACATGGCCCCGNAGGTAGTGAGGGCCTTACCAGGAGGC
 TAGCATTTACGACAGCGCTGCGACCTGTGGAGT

3' Read Nucleotide Sequence:

>Forward primer walk for NM_017572 unedited
 AGAGAGCATACATGGGGCGCGGTAGGCCCGGATGTGGAGCCTTACGAGTTTTTTTCTCTA
 CGACACGCGCTGCGACCTGTGGAGCCTGTTTCGTCATCTTGTATATCCTACTCAGCGGCTA
 CCCGCCCTTCGTGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGAGGCCTGCC
 TGCTGCCAGAATGCTGTTTGTAGAGCATCCAGGAGGGCAAGTACGAGTTCCTCCGACAA
 GGACTGGGCCACATCTCCTGCGCTGCCAAGACCTCATCTCAAAGCTGCTGGTCCGTGA
 CGCCAAGCAGAGGCTGAGTGCCGCCAAGTCTGCAGCACCCCTGGGTTTCAGGGGTGCTC
 CCCGGAGAACACCTTGCCCACTCCCATGGTCTGCAGAGGTGGGACAGTCACTTCTCCTC
 CCTCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTGCAGAACCGTTACTGT
 GAATGAGTGAAGAT

Restriction Sites:

NotI-NotI

ACCN:

NM_017572

Insert Size:

1400 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 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:

The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

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:	<ol style="list-style-type: none">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_017572.3</u> , <u>NP_060042.2</u>
RefSeq Size:	1778 bp
RefSeq ORF:	1245 bp
Locus ID:	2872
UniProt ID:	<u>Q9HBH9</u>
Cytogenetics:	19p13.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Insulin signaling pathway, MAPK signaling pathway
Gene Summary:	<p>This gene encodes a member of the calcium/calmodulin-dependent protein kinases (CAMK) Ser/Thr protein kinase family, which belongs to the protein kinase superfamily. This protein contains conserved DLG (asp-leu-gly) and ENIL (glu-asn-ile-leu) motifs, and an N-terminal polybasic region which binds importin A and the translation factor scaffold protein eukaryotic initiation factor 4G (eIF4G). This protein is one of the downstream kinases activated by mitogen-activated protein (MAP) kinases. It phosphorylates the eukaryotic initiation factor 4E (eIF4E), thus playing important roles in the initiation of mRNA translation, oncogenic transformation and malignant cell proliferation. In addition to eIF4E, this protein also interacts with von Hippel-Lindau tumor suppressor (VHL), ring-box 1 (Rbx1) and Cullin2 (Cul2), which are all components of the CBC(VHL) ubiquitin ligase E3 complex. Multiple alternatively spliced transcript variants have been found, but the full-length nature and biological activity of only two variants are determined. These two variants encode distinct isoforms which differ in activity and regulation, and in subcellular localization. [provided by RefSeq, Aug 2011]</p> <p>Transcript Variant: This variant (1) differs in the 3' exon including 3' coding region and 3' UTR, compared to variant 2. The resulting protein (isoform 1, also known as isoform b) has a shorter and distinct C-terminus, compared to isoform 2. This isoform is found in the nucleus and lacks the MAP kinase-binding region.</p>