

## Product datasheet for **MC208964**

### **Mknk2 (NM\_021462) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mknk2 (NM_021462) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mknk2
Synonyms:	2010016G11Rik; Gprk7; Mnk; Mnk2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC208964 representing NM\_021462  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGCAGAAGAGAACAGCCGAACCTTCAGGGCTTCCACCCTGTTCAAGGGGCAGAATCCTTTTCGAGT  
 TGGCCTTCTCCTTAGACCTCGCCAGCACAGGGACTCTGACTTACGCCACAGTGTGAAGCCCGACCTGA  
 CATGCCTTCCAGCCAGCCATTGACATCCAGATGCCAAGAAGAGAGGCCGGAAAAAGAAGCGCTGTCGG  
 GCTACTGACAGCTTCTCAGGCAGGTTCCAAGATGTCTATCAGCTGCAGGAGGATGTGCTGGGGGAAGGTG  
 CTCACGCTCGTGTGCAGACCTGTGTCAATCTCATCACCAACCAGGAATATGCTGTCAAGATCATTGAGAA  
 GCAGCTGGGCCACATCCGCAGCAGGGTGTCCGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACATAGG  
 AATGTTCTAGAAGTATTGAGTCTTTGAGGAGGAGACCCTTTCTACCTGGTGTGGAGAAGATGCGTG  
 GCGGATCCATCCTAAGCCACATCCATAGAAGGCCCACTTAAACGAGCTGGAGGCCAGCGTGGTAGTACA  
 GGACGTGGCCAGTGCCCTGGACTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAAGCCAGAGAAC  
 ATCCTATGTGAGCACCCCAACAGGTCTCGCCAGTGAAGATCTGCGACTTCGACCTTGGCAGTGGTATCA  
 AACTCAATGGAGACTGCTCCCCATCTCCACACCAGAGCTGCTCACCCCTGTGGGTGAGTACAT  
 GGCCCCAGAGGTGGTGGAGGCCCTTCAAGAGGAGCCAGCATCTACGACAAGCGCTGCGACCTGTGGAGC  
 CTGGGGCTCATCCTCTACATCCTGCTTAGTGGTACCCCGCCCTTCGTGGGCCACTGTGGCAGCGACTGTG  
 GCTGGGACCGTGGGGAGGCCTGTCTGCCTGCCAGAACATGCTGTTTGGAGAGCATCCAGGAGGGCAAGTA  
 TGAGTTCCTGACAAGGACTGGTCCCACATCTCCTTTGCTGCCAAGACCTCATCTCAAGCTGTGGTC  
 CGAGATGCCAAGCAGAGGCTGAGTGTGCCAAGTCTGCAGCATCCCTGGGTGCAGGGGTGTGCCCCAG  
 AGAACCCCTACCGACACCTTGGTCTGCAGAGGAACAGCTGTGCCAAGACCTCACGTCCTTTGCGGC  
 TGAGGCCATCGCCATGAACCGGCAGTGGCCAGTGTGAGGAGGACGCTGGGCAGGACCAGCCTGTGGTC  
 ATCCGAGCTACCTCACGCTGCCTGCAGCTGTCCCACCCTCCAGTCCAAGCTGGCCAGCGCGCCAGA  
 GGGCTAGCCTGTGCGCCACCCTGTGGTCTTGTGGGGATCGCGCA**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_021462
- Insert Size:** 1380 bp
- OTI Disclaimer:** 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).
- 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\\_021462.4](#), [NP\\_067437.2](#)

RefSeq Size: 3448 bp

RefSeq ORF: 1380 bp

Locus ID: 17347

UniProt ID: [Q8CDB0](#)

Cytogenetics: 10 C1

**Gene Summary:** The protein encoded by this gene is a serine/threonine-protein kinase, which is targeted by both the extracellular signal-regulated kinase and p38 mitogen-activated protein kinase pathways. This enzyme targets several substrates including eukaryotic translation initiation factor 4E and mammalian target of rapamycin, which are negatively regulated by its phosphorylation. Null mutant mice do not exhibit developmental or reproductive defects. However, mice null for both this protein and mitogen-activated protein kinase-interacting serine/threonine protein kinase 1 have delayed tumor development in phosphatase and tensin homolog mutant mice, indicating an oncogenic function for this gene in tumor development. [provided by RefSeq, Oct 2014]