

## Product datasheet for **MG227130**

### **Mknk2 (NM\_021462) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Mknk2 (NM\_021462) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Mknk2  
**Synonyms:** 2010016G11Rik; Gprk7; Mnk; Mnk2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG227130 representing NM\_021462  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCTTCCAGCCAGCCATTGACATCCCAGATGCCAAGAAGAGAGGCCGAAAAAGAAGCGCTGTCGGG  
 CTA CTACTGACAGTTCTCAGGCAGTTTCGAAGATGTCTATCAGCTGCAGGAGGATGTGCTGGGGAAAGGTGC  
 TCACGCTCGTGTGCAGACCTGTGCAATCTCATACCAACCAGGAATATGCTGTCAAGATCATTGAGAAG  
 CAGCTGGCCACATCCGAGCAGGGTGTCCGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACATAGGA  
 ATGTTCTAGAAGTATTGAGTTCTTTGAGGAGGAGGACCGTTTCTACCTGGTGTGTTGAGAAGATGCGTGG  
 CGGATCCATCCTAAGCCACATCCATAGAAGGCCCACTTTAACGAGCTGGAGGCCAGCGTGGTAGTACAG  
 GACGTGGCCAGTGCCTGGACTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAAGCCAGAGAACA  
 TCCTATGTGAGCACCCCAACCAGGTCTCGCCAGTGAAGATCTGCGACTTCGACCTTGGCAGTGGTATCAA  
 ACTCAATGGAGACTGCTCCCCATCTCCACACCAGAGTGTCTACCCCGTGTGGGTGAGTACATG  
 GCCCAGAGGTGGTGGAGGCCTTCAGTGAAGAGGCCAGCATCTACGACAAGCGTGCACCTGTGGAGCC  
 TGGGCGTCATCCTCTACATCCTGCTTAGTGGCTACCCGCCCTTCGTGGGCCACTGTGGCAGCGACTGTGG  
 CTGGGACCGTGGGAGGCCTGTCTGCCTGCCAGAACATGCTGTTTGGAGCATCCAGGAGGGCAAGTAT  
 GAGTTCCTGACAAGGACTGGTCCACATCTCCTTTGCTGCCAAAGACCTCATCTCCAAGCTGCTGGTCC  
 GAGATGCCAAGCAGAGGCTGAGTGTGCCCAAGTCTGACAGCATCCCTGGGTGCAGGGGTGTGCCCCAGA  
 GAACACCTACCACACCTTGGTTCTGCAGAGGAACAGCTGTGCCAAAGACCTCACGTCCTTTGCGGCT  
 GAGGCCATCGCCATGAACCGGCAGCTGGCCAGTGTGAGGAGGACGCTGGCAGGACCAGCCTGTGGTCA  
 TCCGAGCTACCTCAGCTGCCTGCAGCTGTCCCCACCCTCCAGTCCAAGCTGGCCAGCGGCCAGAG  
 GGCTAGCTGTGGCCACCCTGTGCTCTTGTGGGGATCGCGCA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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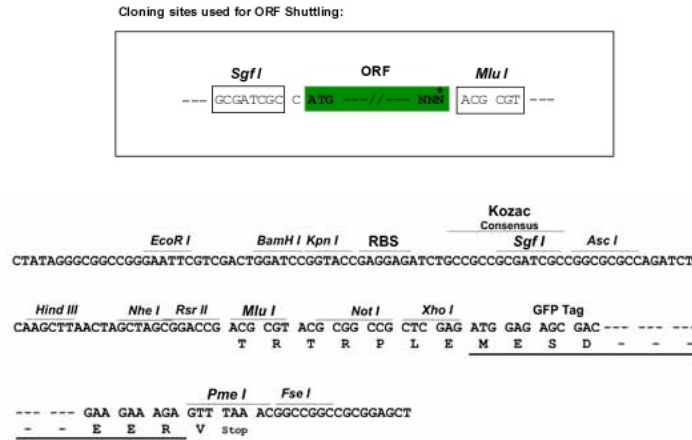
**Protein Sequence:** >MG227130 representing NM\_021462  
 Red=Cloning site Green=Tags(s)

MPSSQPIDIPDAKKRGRKKKRCRATDSFSGRFEDVYQLQEDVLGEGAHARVQTCVNLITNQEYAVKIEK  
 QLGHIRSRVFEVEMLYCQGHNRVLELIEFFEEEDRFYLVFEKMRGGSILSHIHRHRHFNEASVVVQ  
 DVASALDFLHNKGIHRDLKPENILCEHPNQVSPVKICDFDLGSGIKLNGDCSPISTPELLTPCGSAEYM  
 APEVVEAFSEEASIDYDKRCDLWSLGVILYILLSGYPPFVGHGCGSDCGWDRGEACPACQNMLFESIQEGKY  
 EFPDKDWSHISFAAKDLISKLLVRDAKQRLSAAQVLQHPWVQGCAPENTLPTPLVLQRNSCAKDLTSFAA  
 EAIAMNRQLAQCEEDAGQDQPVVIRATSRCLQLSPPSQSKLAQRRQRASLSATPVVLVGDRA

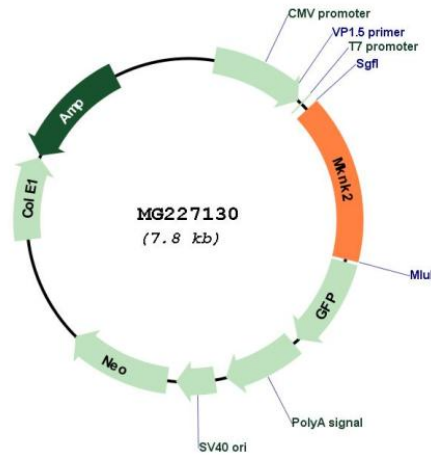
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_021462

<b>ORF Size:</b>	1236 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_021462.3</a> , <a href="#">NP_067437.1</a>
<b>RefSeq Size:</b>	3070 bp
<b>RefSeq ORF:</b>	1380 bp
<b>Locus ID:</b>	17347
<b>UniProt ID:</b>	<a href="#">Q8CDB0</a>
<b>Cytogenetics:</b>	10 C1
<b>Gene Summary:</b>	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]