

## Product datasheet for **MG208650**

### Camkk2 (NM\_145358) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Camkk2 (NM_145358) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Camkk2
Synonyms:	6330570N16Rik; AW061083; mKIAA0787
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208650 representing NM\_145358  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCATCATGTGTCTCTAGCCAGCCACCAGCGACCGGGTGGCCCCCAGGATGAGCTGGGAAGTGGGG  
 GTGGCAGCCGGGAAGGCCAGAAGCCCTGTGAGGCACTGCGGGGACTCTCATCCTTAAGTATCCACTTGGG  
 CATGGAATCCTTCATCGTGGTCACCGAGTGTGAGCCAGGCCGGGTGTGGACCTCAACCTGGCCAGAGAC  
 CAGCCTCCGGAGGCCGATGGCCAGGAACCCCCCTCGAAGCCTCGGACCCTGAGTCCCGGTCCCCGCTTT  
 CTGGTCGCAAGATGTCCCTGCAGGAGCCGTCCCAGGGCGGGCCGATCCAGCAGCAACAGCCTGGACAT  
 GAATGGACGCTGCATCTGCCATCCCTGTCTACTACCAGCCAGCTCCCACAGTCTCTCCCCGGATG  
 CCCCAGCGGCCACAGTAGAGTACACCACGTCTCCATTACCGGTTTGCAGGACTGCGTGCAGCTGAATC  
 AGTACACCCTGAAGGATGAAATGGAAAGGGCTCCTATGGTGTGTCAAGCTGGCCTACAATGAAAATGA  
 CAATACTTATTACGCAATGAAAGTGTGTCCAAAAGAAGCTGATCCGACAGGCTGGCTCCACAGTCGC  
 CCCCACCACGAGGAGCTCGCCAGCCCCAGGGGGCTGCATCCAGCCCAGGGGCCCATCGAGCAAGTGT  
 ACCAGGAGATTGCTATCCTCAAAAAGCTGGATCATCCCAACGTGGTGAAGCTGGTAGAGGTCCTGGATGA  
 CCCTAATGAGGACCATCTGTACATGGTGTTTGAGTTGGTGAACCAAGGGCCTGTAATGGAAGTGCCACC  
 CTCAAGCCACTGTCCGAAGACCAGGCCCTTCTACTTCCAGGATCTGATCAAAGGCATAGAGTACTTGC  
 ATTACAGAAGATCATCCATCGGGACATCAAACCTTCAAACCTCCTGGTGGGGGAAGACGGGCACATCAA  
 GATTGCCGACTTCGGTGAAGCAACGAGTTCAGGGCAGCGACGCCTTGTGTCTAACACCGTGGGCACA  
 GCTGCCTCATGGCACCCGAGTCGCTCTCAGAGACCCCAAGATCTTCTCCGAAAGGCCGTTGGATGTTT  
 GGGCCATGGGTGTGACGCTGTACTGCTTTGTCTTTGGCCAGTGCCTTTTCATGGATGAACGAATCATGTG  
 TTTGCACAGTAAGATCAAGAGTCAAGCCCTGGAGTTTCCGACCAGCCGATATAGCCGAAGACTTGAAA  
 GATCTGATCACTCGGATGTTGGACAAAAATCCAGAGTCCAGGATTGTGGTGCCTGAAATCAAGCTGCACC  
 CTTGGGTTACGAGGCACGGGGCCGAGCCATTGCCGTGCGAGGACGAGAAGTGCACACTGGTTCGAGGTGAC  
 CGAAGAGGAGGTGAGAAATTCAGTCAAACACATTTCCAGCCTGGCAACTGTGATCCTGGTAAAGACCATG  
 ATTCGAAAGCGCTCATTCCGGAACCCGTTCAAGGTAGCCGCCGGGAGGAACGTTCCCTGTCAGCGCCTG  
 GAAACCTGCTCACGAAGCAAGGCAGCGAAGACAGCCCCGGGGCCAGAGCCGGCCCTGTGGGGGAGGA  
 GGAAGTGCTCTTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208650 representing NM\_145358  
 Red=Cloning site Green=Tags(s)

MSSCVSSQPTSDRVAPQDELGSGGGSREGQKPCALRGLSSLIHLGMESFIVVTECEPGRGVDLNLARD  
 QPPEADGQELPLEASDPESRSPLSGRKMSLQEPSQGGPASSNSLDMNGRCICPSLSYSPASSPQSSPRM  
 PRRPTVESHVSIITGLQDCVQLNQYTLKDEIGKGSYGVVKLAYNENDNTYYAMKVL SKKKLIRQAGFPRR  
 PPPRGARPAPGGCIQPRGPIEQVYQEIAILKKLDHPNVVKLVEVLDDPNEDHLYMVFELVNQGPVMEVPT  
 LKPLSEDQARFYFDL IKGIEYLHYQKIIHRDIKPSNLLVGEDGHIKIADFGVSNFKGSDALLSNTVGT  
 PAFMAPESLSETRKIFSGKALDVWAMGVTLYCFVFGQCPFMDERIMCLHSKIKSQALEFPDQPDIAEDLK  
 DLITRMLDKNPESRIVVPEIKLHPWVTRHGAELPSEDENCTLVEVTEEEVENSVKHIPS LATVILVKTM  
 IRKRSFGNPFEGSRREERSLSAPGNLLTKQSEDSPRGPEPAPVGEVLL

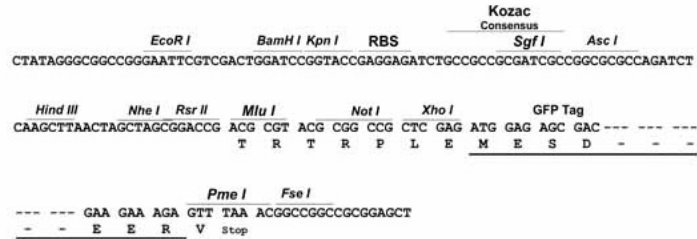
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

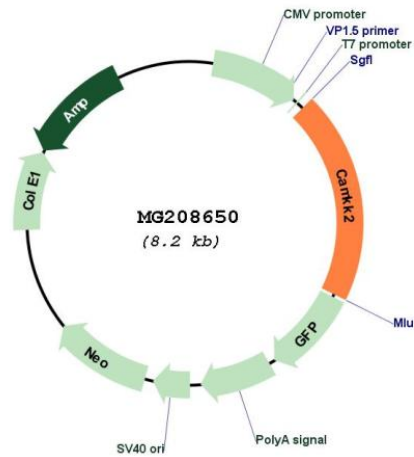
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_145358
<b>ORF Size:</b>	1623 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_145358.2</a> , <a href="#">NP_663333.1</a>
<b>RefSeq Size:</b>	2661 bp
<b>RefSeq ORF:</b>	1626 bp
<b>Locus ID:</b>	207565
<b>UniProt ID:</b>	<a href="#">Q8C078</a>
<b>Cytogenetics:</b>	5 F
<b>Gene Summary:</b>	Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Phosphorylates CAMK1, CAMK4 and CAMK1D (By similarity). Efficiently phosphorylates 5'-AMP-activated protein kinase (AMPK) trimer, including that consisting of PRKAA1, PRKAB1 and PRKAG1. This phosphorylation is stimulated in response to Ca(2+) signals (By similarity). May play a role in neurite growth. Isoform 2 may promote neurite elongation, while isoform 1 may promoter neurite branching (By similarity). May be involved in hippocampal activation of CREB1. [UniProtKB/Swiss-Prot Function]