

## Product datasheet for **MR230599**

### Camkk2 (NM\_001199676) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Camkk2 (NM_001199676) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Camkk2
Synonyms:	6330570N16Rik; AW061083; mKIAA0787
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230599 representing NM\_001199676  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCATCATGTGTCTCTAGCCAGCCACCAGCGACCGGGTGGCCCCCAGGATGAGCTGGGAAGTGGGG  
 GTGGCAGCCGGGAAGCCAGAAGCCCTGTGAGGCACTGCGGGACTCTCATCCTTAAGTATCCACTTGGG  
 CATGGAATCCTTCATCGTGGTCACCGAGTGTGAGCCAGGCCGGGTGTGGACCTCAACCTGGCCAGAGAC  
 CAGCCTCCGGAGGCCGATGGCCAGGAACTCCCCCTCGAAGCCTCGGACCCTGAGTCCCGGTCCCCGCTTT  
 CTGGTCGCAAGATGTCCCTGCAGGAGCCGTCCCAGGGCGGGCCGATCCAGCAGCAACAGCCTGGACAT  
 GAATGGACGCTGCATCTGCCATCCCTGTCTACTACCAGCCAGCTCCCACAGTCTCTCCCCGGATG  
 CCCCAGCCGCCACAGTAGAGTACACCACGTCTCCATTACCGGTTTGCAGGACTGCGTGCAGCTGAATC  
 AGTACACCCTGAAGGATGAAATGGAAAGGGCTCCTATGGTGTGTCAAGCTGGCCTACAATGAAAATGA  
 CAATACTTATTACGCAATGAAAGTGTGTCCAAAAGAAGCTGATCCGACAGGCTGGCTTCCACGTCGC  
 CCCCCACCACGAGGAGCTCGCCAGCCCCAGGGGGCTGCATCCAGCCCAGGGGCCCATCGAGCAAGTGT  
 ACCAGGAGATTGCTATCCTCAAAAAGCTGGATCATCCAAACGTGGTGAAGCTGGTAGAGGTCCTGGATGA  
 CCCTAATGAGGACCATCTGTACATGGTGTGGTGGTGAACCAAGGGCCTGTAATGGAAGTGGCCACC  
 CTCAAGCCACTGTCCGAAGACCAGGCCCTTCTACTTCCAGGATCTGATCAAAGGCATAGAGTACTTGC  
 ATTACAGAAGATCATCCATCGGGACATCAAACCTTCAAACCTCCTGGTGGGGGAAGACGGGCACATCAA  
 GATTGCCGACTTCGGTGAAGCAACGAGTTCAGGGCAGCGACGCTTGTGTCTAACACCGTGGGCACA  
 CCTGCCTCATGGCACCCGAGTCGCTCTCAGAGACCCGCAAGATCTTCCGGAAAGGCGTTGGATGTTT  
 GGGCCATGGGTGTGACGCTGTACTGCTTGTCTTTGGCCAGTGCCTTTTTCATGGATGAACGAATCATGTG  
 TTTGCACAGTAAGATCAAGAGTCAAGCCCTGGAGTTTCCGACCAGCCGATATAGCCGAAGACTTGAAA  
 GATCTGATCACTCGGATGTTGGACAAAAATCCAGAGTCCAGGATTGTGGTGCCTGAAATCAAGCTGCACC  
 CTTGGGTTACGAGGCACGGGGCCGAGCCATTGCCGTGCGAGGACGAGAACTGCACACTGGTTCGAGGTGAC  
 CGAAGAGGAGGTGAGAAATTCAGTCAAACACATTTCCAGCCTGGCAACTGTGATCCTGGTAAAGACCATG  
 ATTCGAAAGCGCTCATTCCGGAACCCGTTCAAGGTAGCCGCCGGGAGGAACGTTCCCTGTCAGCGCCTG  
 GAAACCTGCTCACAAAAAACAACCAGGGAGTGGGAGCCCTTGTCTGAGCCCAAGGAAGCAAGGCAGCG  
 AAGACAGCCCCCGGGCCAGAGCCGGCCCTGTGGGGGAGGAGGAAGTGTCTTGTGAAAGGTGGTCCC  
 TCGGTGAAAGTTGGGGGCTCCGGCCCTGGCTCCCCACCAGCATGCCTCCACTGCAGCCCGAGGAGG  
 TGATGGAGCCGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230599 representing NM\_001199676  
 Red=Cloning site Green=Tags(s)

MSSCVSSQPTSDRVAPQDELGSGGGSREGQKPCALRGLSSL SIHLGMESFIVVTECEPGRGVLDNLARD  
 QPPEADGQELPLEASDPESRSPLSGRKMSLQEPSQGGPASSNSLDMNGRRCIPSLSYSPASSPQSSPRM  
 PRRPTVESHVSIITGLQDCVQLNQYTLKDEIGKGSYGVVVKLAYNENDNTYYAMKVL SKKKLIRQAGFPRR  
 PPPRGARAPGGCIQPRGPIEQVYQEIAILKKLDHPNVVVKLVEVLDDPNEDHLYMVFELVNQGPVMEVPT  
 LKPLSEDQARFYFQDLIKGIEYLHYQKIIHRDIKPSNLLVGEDGHIKIADFGVSNFVKGS DALLSNTVGT  
 PAFMAPESLSETRKIFSGKALDVWAMGVTLYCFVFGQCPFMDERIMCLHSHKIKSQALEFPDQPDIAEDLK  
 DLITRMLDKNPESRIVVPEIKLHPWVTRHGAELPSEDENCTLVEVTEEEVENSVKHIPS LATVILVKTM  
 IRKRSFGNPFEGSRREERSLSAPGNLLTKKPTREWEPLSEPKEARQRRQPPGPRAGPCGGGGSALVKGGP  
 CVESWGAPAPGSPRMPPLQPEEVMEPE

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

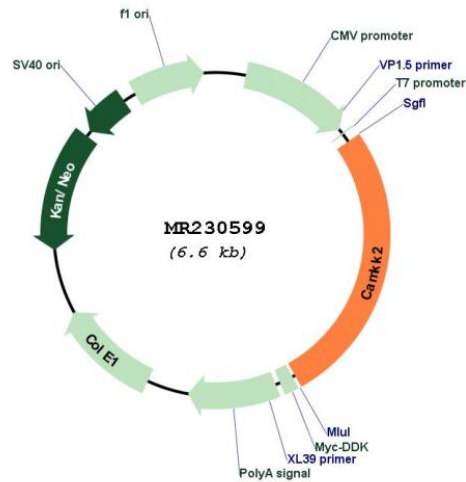
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001199676

ORF Size: 1764 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_001199676.1</a> , <a href="#">NP_001186605.1</a>
<b>RefSeq Size:</b>	4903 bp
<b>RefSeq ORF:</b>	1767 bp
<b>Locus ID:</b>	207565
<b>UniProt ID:</b>	<a href="#">Q8C078</a>
<b>Cytogenetics:</b>	5 F
<b>MW:</b>	65.1 kDa
<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 promote neurite branching (By similarity). May be involved in hippocampal activation of CREB1. [UniProtKB/Swiss-Prot Function]