

Product datasheet for **MR208650**

Camkk2 (NM_145358) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Camkk2 (NM_145358) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Camkk2
Synonyms:	6330570N16Rik; AW061083; mKIAA0787
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208650 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCATCATGTGTCTCTAGCCAGCCACCAGCGACCGGGTGGCCCCCAGGATGAGCTGGGAAGTGGGG
 GTGGCAGCCGGGAAGGCCAGAAGCCCTGTGAGGCACTGCGGGGACTCTCATCCTTAAGTATCCACTTGGG
 CATGGAATCCTTCATCGTGGTCACCGAGTGTGAGCCAGGCCGGGTGTGGACCTCAACCTGGCCAGAGAC
 CAGCCTCCGGAGGCCGATGGCCAGGAACTCCCCCTCGAAGCCTCGGACCCTGAGTCCCGGTCCCCGCTTT
 CTGGTCGCAAGATGTCCCTGCAGGAGCCGTCCCAGGGCGGGCCGATCCAGCAGCAACAGCCTGGACAT
 GAATGGACGCTGCATCTGCCATCCCTGTCTACTACCAGCCAGCTCCCCACAGTCTCTCCCCGGATG
 CCCCAGCGGCCACAGTAGAGTACACCACGTCTCCATTACCGGTTTGCAGGACTGCGTGCAGCTGAATC
 AGTACACCCTGAAGGATGAAATTGGAAAGGGCTCCTATGGTGTGTCAAGCTGGCCTACAATGAAATGA
 CAATACTTATTACGCAATGAAAGTGTGTCCAAAAGAAGCTGATCCGACAGGCTGGCTCCACGTCGC
 CCCCCACCACGAGGAGCTCGCCAGCCCCAGGGGGCTGCATCCAGCCCAGGGGCCCATCGAGCAAGTGT
 ACCAGGAGATTGCTATCCTCAAAAAGCTGGATCATCCCAACGTGGTGAAGCTGGTAGAGGTCCTGGATGA
 CCCTAATGAGGACCATCTGTACATGGTGTGGTGGTGAACCAAGGGCCTGTAATGGAAGTGCCACC
 CTCAAGCCACTGTCCGAAGACCAGGCCGCTTCTACTTCCAGGATCTGATCAAAGGCATAGAGTACTTGC
 ATTACAGAAGATCATCCATCGGGACATCAAACCTTCAAACCTCCTGGTGGGGGAAGACGGGCACATCAA
 GATTGCCGACTTCGGTGAAGCAACGAGTTCAGGGCAGCGACGCCTTGTGTCTAACACCGTGGGCACA
 CCTGCCTTCATGGCACCCGAGTCGCTCTCAGAGACCCGCAAGATCTTCCGGAAGGCGTTGGATGTTT
 GGGCCATGGGTGTGACGCTGTACTGCTTTGTCTTTGGCCAGTGCCTTTTCATGGATGAACGAATCATGTG
 TTTGCACAGTAAGATCAAGAGTCAAGGCTCAGGCCCTGGAGTTTCCGACCAGCCGATATAGCCGAAGACTTGAAA
 GATCTGATCACTCGGATGTTGGACAAAAATCCAGAGTCCAGGATTGTGGTGCCTGAAATCAAGCTGCACC
 CTTGGGTTACGAGGCACGGGGCCGAGCCATTGCCGTGCGAGGACGAGAACTGCACACTGGTTCGAGGTGAC
 CGAAGAGGAGGTGAGAAATTCAGTCAAACACATTCACAGCCTGGCAACTGTGATCCTGGTAAAGACCATG
 ATTCGAAAGCGCTCATTCCGGAACCCGTTCAAGGTAGCCGCCGGGAGGAACGTTCCCTGTCAGCGCCTG
 GAAACCTGCTCACGAAGCAAGGCAGCGAAGACAGCCCCGGGGCCAGAGCCGGCCCTGTGGGGGAGGA
 GGAAGTGCTCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208650 protein sequence
 Red=Cloning site Green=Tags(s)

MSSCVSSQPTSDRVAPQDELGSGGGSREGQKPCALRGLSSLSIHLGMESFIVVTECEPGRGVDLNLARD
 QPPEADGQELPLEASDPESRSPLSGRKMSLQEPSQGGPASSNSLDMNGRCICPSLSYSPASSPQSSPRM
 PRRPTVESHVSIITGLQDCVQLNQYTLKDEIGKGSYGVVKLAYNENDNTYYAMKVL SKKKLIRQAGFPRR
 PPRGARAPAGGCIQPRGPIEQVYQEIAILKKLDHPNVVKLVEVLDDPNEDHLYMVFELVNQGPVMEVPT
 LKPLSEDQARFYFDLIKIEYLHYQKIIHRDIKPSNLLVGEDGHIKIADFGVSNEFKGSDALLSNTVGT
 PAFMAPESLSETRKIFSGKALDVWAMGVTLYCFVFGQCPFMDERIMCLHSHKIKSQALEFPDQPDIAEDLK
 DLITRMLDKNPESRIVVPEIKLHPWVTRHGAELPSEDENCTLVEVTEEEVENSVKHIPS LATVILVKTM
 IRKRSFGNPFEGSRREERSLSAPGNLLTKQSEDSRGPPEPAPVGEVEVLL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_145358

ORF Size: 1626 bp

OTI Disclaimer: 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: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_145358.2](#), [NP_663333.1](#)
RefSeq Size: 4860 bp

RefSeq ORF: 1626 bp

Locus ID: 207565

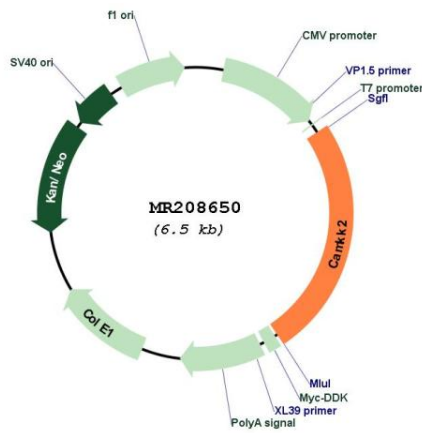
UniProt ID: [Q8C078](#)

Cytogenetics: 5 F

MW: 59.6 kDa

Gene Summary: 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]

Product images:



Circular map for MR208650