

Product datasheet for **MR207945**

Camk2g (NM_001039139) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Camk2g (NM_001039139) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Camk2g
Synonyms:	Camkg
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR207945 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCACCACCGCCACCTGCACCCGCTTCACCGACGACTACCAGCTTTTCGAGGAGCTCGCAAGGGTG
 CCTTCTCAGTGGTCCGGAGGTGTGTAAGAAAACATCTACGCAGGAATATGCTGCAAAAATCATCAATAC
 CAAGAAGTTGTCCGCCGAGATCATCAGAACTAGAACGAGAGGCCGGATATGCCGACTTCTGAAACAT
 CCAAACATTGTGCGTCTCCATGACAGTATTTCTGAAGAAGGGTTTCACTACCTCGTGTGGACCTTGTTA
 CCGGAGGGGAGTTGTTTGAAGACATTGTGGCCAGAGAGTACTACAGTGAAGCTGATGCCAGCCACTGTAT
 ACATCAGATCCTGGAGAGTGTAAACCACATCCACCAGCATGACATCGTCCACCGGATCTGAAGCCTGAG
 AACTTGTCTGGCGAGTAAATGCAAGGGTGTGCGGTCAAGCTAGCTGATTTTGGCCTGGCCATCGAAG
 TACAGGGAGAGCAGCAGGCTTGGTTTGGTTTGGCCGACCCAGGTTACTTGTCCCTGAGGTCTTGAG
 GAAAGATCCCTATGGAACCTGTGGACATCTGGCCTGCGGGTCACTCCTGTATATCCTCCTGGTGGC
 TACCCTCCCTTCTGGGATGAGGATCAGCACAAGCTGTATCAGCAGATCAAAGCTGGAGCCTACGATTTCC
 CATCACCAGAATGGGACACAGTCACTCCTGAAGCTAAGAATTGATCAACCAGATGCTGACCATAAACCC
 TGCAAAGCGCATCACGGCCGACCAGGCTCTCAAGCACCCATGGTCTGTCAACGGTCTACGGTGGCATCC
 ATGATGCATCGCAAGAGACGGTAGAGTGTACGCAAAATTAACGCCCGGAGAAAATGAAGGGTGCCA
 TCCTCACAAACCATGCTTGTCTCCAGGAATTTTTCAGCTGCCAAAAGCCTATTGAACAAGAAGTCAAGTGG
 CGGTGTCAAGGAACCAAAACCACCGTGGTACATAATGCTACAGATGGGATCAAGGGCTCCACAGAGAGC
 TGTAACACCACACTACAGAAGACGAAGATCTCAAAGTGAGAAAACAAGAAATCATTAAGATCACAGAACAAC
 TGATCCGAAGCCATCAACAATGGGGACTTTGAGGCCTACACGAAGATTTGTGACCCGGCCTCACATCCTT
 TGAGCCAGAAGCCCTTGGTAACCTCGTGAAGGAATGGATTTCCATAAGTTTTACTTTGAGAATCTCCTG
 TCCAAGAACAGCAAGCCTATCCACACCACATCCTAAACCCTCACGTCCACGTGATTGGGAGGACGCAG
 CTTGCATCGCCTATATCCGGCTCACTCAGTACATCGACGGCAGGGTCCGCTCGCACCAGTCAAGTCAAG
 GGAGACCCGGGTGTGGCACCGCCGGATGGCAAGTGGCTCAATGTCCACTACTGCTCAGGGGCCCT
 GCCGCACCCTACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207945 protein sequence
 Red=Cloning site Green=Tags(s)

MATTATCTRFDDYQLFEELGKGAFSVVRRVCVKKTSTQEYAAKIINTKKLSARDHQKLEREARICRLLKH
 PNIVRLHDSISEEGFHLYVFDLVTGGELFEDIVAREYYSEADASHCIHQILESVNHIHQHDIVHRDLKPE
 NLLLASKCKGAAVKLADFLAIEVQGEQAWFGFAGTPGYLSPEVLRKDPYGKPVDIWACGVILYILLVG
 YPPFWDEDQHKLYQKIKAGAYDFPSPEWDTVTPEAKNLINQMLTINPAKRITADQALKHPWVCQRSTVAS
 MMHRQETVECLRKFNARRKLGAILTTMLVSRNFSAAKSLLNKSDGGVKEPQTTVVHNATDGIKGSTES
 CNTTTEDEDLKVRKQEI IKITEQLIEAINNGDFEAYTKICDPGLTSFEPEALGNLVEGMDFHKFYFENLL
 SKNSKPIHTTILNPHVHVI GEDAACIAYIRLTQYIDGQGRPRTSQSEETRVWHRRDGKWLNVHYHCSGAP
 AAPLQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001039139

ORF Size: 1488 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_001039139.2](#)

RefSeq Size: 3624 bp

RefSeq ORF: 1488 bp

Locus ID: 12325

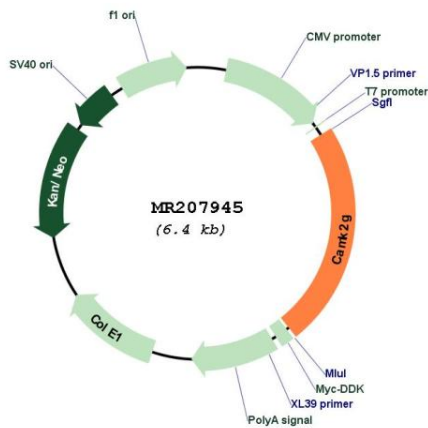
UniProt ID: [Q923T9](#)

Cytogenetics: 14 A3

MW: 56 kDa

Gene Summary: Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in sarcoplasmic reticulum Ca(2+) transport in skeletal muscle and may function in dendritic spine and synapse formation and neuronal plasticity. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of the ryanodine receptor-coupling factor triadin. In neurons, may participate in the promotion of dendritic spine and synapse formation and maintenance of synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207945