

Product datasheet for **SC128168**

CAMK2G (NM_172169) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAMK2G (NM_172169) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAMK2G
Synonyms:	CAMK; CAMK-II; CAMKG; MRD59
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_172169, the custom clone sequence may differ by one or more nucleotides

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ATGGCCACCACCGCCACCTGCACCCGTTTCACCGACGACTACCAGCTCTTCGAGGAGCTTGCAAGGGTG
CTTTCTCTGTGGTCCGCAGGTGTGTGAAGAAAACCTCCACGCAGGAGTACGCAGCAAAAATCATCAATAC
CAAGAAGTTGTCTGCCCGGGATCACCAGAACTAGAACGTGAGGCTCGGATATGTCGACTTCTGAAACAT
CCAACATCGTGCCTCCATGACAGTATTTCTGAAGAAGGGTTTCACTACCTCGTGTGGTGGTGGTGA
CCGGCGGGGAGCTGTTTGAAGACATTGTGGCCAGAGAGTACTACAGTGAAGCAGATGCCAGCCACTGTAT
ACATCAGATTCTGGAGAGTGTTAACCACATCCACCAGCATGACATCGTCCACAGGGACCTGAAGCCTGAG
AACCTGCTGTGGCGAGTAAATGCAAGGGTGCCGCCGTCAAGCTGGCTGATTTTGGCCTAGCCATCGAAG
TACAGGGAGAGCAGCAGGCTTGGTTTGGTTTGTGTCACCCAGGTTACTTGTCCCTGAGGTCTTGAG
GAAAGATCCCTATGGAACCTGTGGATATCTGGGCTGCGGGGTATCCTGTATATCCTCCTGGTGGGC
TATCCTCCCTTCTGGGATGAGGATCAGCACAAGCTGTATCAGCAGATCAAGGCTGGAGCCTATGATTTC
CATCACCAGAATGGGACACGGTAACTCCTGAAGCCAAGAATTGATCAACCAGATGCTGACCATAAACCC
AGCAAAGCGCATCACGGCTGACCAGGCTCTCAAGCACCCGTGGGTCTGTCAACGATCCACCGTGGCATCC
ATGATGCATCGTCAGGAGACTGTGGAGTGTTCGCAAGTTCAATGCCCGGAGAAAACTGAAGGGTGCCA
TCCTCACGACCATGCTTGTCTCCAGGAATTCTCAGTTGGCAGGCAGAGCTCCGCCCCCGCTCGCTGC
CGCGAGCGCCCGCGGCTGGCCGGGCAAGCTGCCAAAAGCCTATTGAACAAGAAGTCGGATGGCGGTGTC
AAGAAAAGGAAGTCGAGTTCCAGCGTGCACCTAATGGAGCCACAAACCACTGTGGTACACAACGCTACAG
ATGGGATCAAGGGCTCCACAGAGAGCTGCAACACCACCACAGAAGATGAGGACCTCAAAGTGCAGAAAACA
GGAGATCATTAAAGATTACAGAACAGCTGATTGAAGCCATCAACAATGGGGACTTTGAGGCTACACGAAG
ATTTGTGATCCAGGCCTCACTTCTTTGAGCCTGAGGCCCTTGGTAACCTCGTGGAGGGGATGGATTCC
ATAAGTTTTACTTTGAGAACTCCTGTCCAAGAACAGCAAGCCTATCCATACCACCATCTAAACCCACA
CGTCCACGTGATTGGGAGGACGACGCTGCATCGCCTACATCCGCTCACCCAGTACATCGACGGGCGAG
GGTCGGCCTCGCACCAGCCAGTCAGAAGAGACCCGGGTCTGGCACCGTCGGGATGGCAAGTGGCTCAATG
TCCACTACTGCTCAGGGGCCCTGCCGACCCTGTCAGTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_172169 unedited

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GGCCGGAATTCGGCACGAGGGCCGGGCGGTGACTGTGCACCGACGTGCGCGCTTGC
TGCACCGCCGCTCCGCCCGCCGACATGGCCACCACCGCCACCTGCACCCGTTTCA
CCGACGACTACCAGCTCTTCGAGGAGCTTGGAAGGGTGTCTTCTGTGGTCCGCAGGT
GTGTGAAGAAAACCTCCACGCAGGAGTACGCAGCAAAAATCATCAATACCAAGAAGTTGT
CTGCCCGGGATCACCAGAACTAGAACGTGAGGCTCGGATATGTCGACTTCTGAAACATC
CAAACATCGTGCCTCCATGACAGTATTTCTGAAGAAGGGTTTCACTACCTCGTGTGGT
ACCTTGTACCGCGGGGAGCTGTTTGAAGACATTGTGGCCAGAGAGTACTACAGTGAAG
CAGATGCCAGCCACTGTATACATCAGATTCTGGAGAGTGTAAACCACATCCACCAGCATG
ACATCGTCCACAGGGACCTGAAGCCTGAGAACCCTGCTGTGGCGAGNTAAATGCAGGGTG
CCGCCGTCAAGCTGGCTGATTTTGGCCTAGCCATCGAAGTACAGGGAGAGCAGCAGGCTT
GGTTTGGTTTTGCTGGCACCCANGTTACTTGTCCNCTGAGGTCTTGAGGAAAGATCCCT
ATGGAACCTGTGGATATCTGGGCTGCGGTAAGCCATTCCACGCTCTCAGCTTTTCG
T
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_172169 unedited NNNNTTATACTTGNACCGCGCCGCAATCTANGATCAGTTTTTTTTTTTTTTTTTTCTTAA AGTAAAAAACACCTCGTACAGCAGAGACAGACACGAAGGGCGGGCGGGAGGGCTGCATGC AGGGGCGTGCATTGGCTGCTGCCGCTTTTGAATTGAATTGTTTTAAACCTCAAACAAAC AGGACTGCCGCTGCTACTCAGGCCCTCCAGAGCCACTGGCTGCGAAGGTTGGACCTCCGG CTGGAATCTCCTAAAGCCCCCTGTGGCTGAGCTCACTGCAGCGGTGCGGCAGGGGCCCTG AGCAGTGATAGTGGACATTGAGCCACTTGCCATCCCGACGGTGCCAGACCCGGGTCTCTT CTGACTGGCTGGTGCGAGGCCGACCCTGCCCGTGCATGTACTGGGTGAGGCGGATGTAGG CGATGCACGCTGCGTCCCTCCCAATCACGTGGACGTGTGGGTTTAGGATGGTGGTATGGA TAGGCTTGCTGTTCTTGGACAGGAGATTCTCAAAGTAAAACCTTATGAAAATCCATCCCCT CCACGAGGTTACCAAGGGCCTCAGGCTCAAAGGAAGTGAGGCCTGGATCACAATCTTCG TGTAGGCCTCAAAGTCCCATTGTTGATGGCCTTCATCAGCTGTTCTGGAATCTTAATG ATCCCCTGGTTTTCGCACTTTGAAGTCTCATCTCTGTGGTGGTGTTCAGCTTCTCG GGGGAGCCCTTGATCCCATCTGGACCGTTGTGGTACACATTGGTTTGGGGCTCCCATAAG TGCACGCCTGGAACCGAACTCCCTTTTCTTGGCCCCGCCCTTCGACTTCTTGGTTAAAA GGTTTTTGGCAGCTGAAAATCCTGAAACCAACATGGTCGTGGAGGAAGGCACCCTTCA GTTTTTTCC
Restriction Sites:	Please inquire
ACCN:	NM_172169
Insert Size:	2000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_172169.1 , NP_751909.1
RefSeq Size:	3734 bp
RefSeq ORF:	1584 bp
Locus ID:	818
UniProt ID:	Q13555
Cytogenetics:	10q22.2
Protein Families:	Druggable Genome, Protein Kinase

Protein Pathways: Calcium signaling pathway, ErbB signaling pathway, Glioma, GnRH signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Wnt signaling pathway

Gene Summary: The product of this gene is one of the four subunits of an enzyme which belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. In mammalian cells the enzyme is composed of four different chains: alpha, beta, gamma, and delta. The product of this gene is a gamma chain. Many alternatively spliced transcripts encoding different isoforms have been described but the full-length nature of all the variants has not been determined.[provided by RefSeq, Mar 2011]
Transcript Variant: This variant (2) has multiple coding region differences, compared to variant 1. This results in a shorter isoform (2), compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.