

Product datasheet for **SC309181**

CAMKK2 (NM_172216) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAMKK2 (NM_172216) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAMKK2
Synonyms:	CAMKK; CAMKKB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC309181 representing NM_172216.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGTCATCATGTGTCTCTAGCCAGCCCAGCACAACCGGGCCGCCCCAGGATGAGCTGGGGGGCAGG
GGCAGCAGCAGCAGCGAAAGCCAGAAGCCCTGTGAGGCCCTGCGGGGCCCTCATCCTTGAGCATCCAC
CTGGGCATGGAGTCCTTATTGTGGTCACCGAGTGTGAGCCGGGCTGTGCTGTGGACCTCGGCTTGGCG
CGGGACCGGCCCTGGAGGCCGATGGCCAAGAGGTCCCCCTTGACACCTCCGGGTCCAGGCCCGGCC
CACCTCTCCGGTCGCAAGCTGTCTCTGCAAGAGCGGTCCCAGGGTGGGCTGGCAGCCGGTGGCAGCCTG
GACATGAACGGACGCTGCATCTGCCCGTCCCTGCCCTACTCACCCGTGAGCTCCCGCAGTCTCGCCT
CGGCTGCCCGGGCGGCCGACAGTGGAGTCTCACACGTCTCCATCACGGGTATGCAGGACTGTGTGCAG
CTGAATCAGTATACCCTGAAGGATGAAATTGGAAAGGGCTCTATGGTGTGCTCAAGTTGGCCTACAAT
GAAAATGACAATACCTACTATGCAATGAAGGTGCTGTCCAAAAAGAAGCTGATCCGGCAGGCCGGCTTT
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GAGCAGGTGTACCAGGAAATTGCCATCCTCAAGAAGCTGGACCACCCCAATGTGGTGAAGCTGGTGGAG
GTCCTGGATGACCCCAATGAGGACCATCTGTACATGGTGTTCGAACTGGTCAACCAAGGGCCCGTGATG
GAAGTGCCACCCCTCAAACCACTCTCTGAAGACCAGGCCCGTTTCTACTTCCAGGATCTGATCAAAGGC
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AACCCGTGGGCACGCCCGCCTTATGGCACCCGAGTCTGCTGAGACCCGAAGATCTTCTCTGGG
AAGCCCTTGGATGTTTGGCCATGGGTGTGACACTATACTGCTTTGTCTTTGGCCAGTCCCATTTCATG
GACGAGCGGATCATGTGTTTACACAGTAAGATCAAGAGTCAGGCCCTGGAATTTCCAGACCAGCCCGAC
ATAGCTGAGGACTTGAAGGACCTGATCACCCGTATGCTGGACAAGAACCAGTCCGAGGATCGTGGTG
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CGGCGGGAGGAACGCTCACTGTGAGCGCTGGAACCTGCTCACCAAAAAACCAACAGGGAATGTGAG
TCCCTGTCTGAGCTCAAGGAAGCAAGGCAGCGAAGACAACCTCCAGGGCACCGACCCGCCCGCTGGG
GGAGGAGGAAGTGTCTTGTGAGAGGCAGTCCCTGCGTGGAAAGTTGCTGGGCCCGGCCCGGCTCC
CCCGCACGCATGCATCCACTGCGGCCGGAGGAGGCCATGGAGCCCGAGTAG
ACGGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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Restriction Sites: Sgfl-Mlul

ACCN: NM_172216

Insert Size: 1638 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_172216.1
RefSeq Size:	5491 bp
RefSeq ORF:	1638 bp
Locus ID:	10645
UniProt ID:	Q96RR4
Cytogenetics:	12q24.31
Protein Families:	Druggable Genome, Protein Kinase, Transcription Factors
Protein Pathways:	Adipocytokine signaling pathway
MW:	60 kDa
Gene Summary:	<p>The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. The major isoform of this gene plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Protein products of this gene also phosphorylate AMP-activated protein kinase (AMPK). This gene has its strongest expression in the brain and influences signalling cascades involved with learning and memory, neuronal differentiation and migration, neurite outgrowth, and synapse formation. Alternative splicing results in multiple transcript variants encoding distinct isoforms. The identified isoforms differ in their ability to undergo autophosphorylation and to phosphorylate downstream kinases. [provided by RefSeq, Jul 2012]</p> <p>Transcript Variant: This variant (3), also known as beta 1del14, lacks an in-frame segment of the coding region, compared to variant 1. It encodes a shorter isoform (3), that is missing an internal segment compared to isoform 1.</p>