

Product datasheet for **MC226172**

Camk2a (NM_001286809) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Camk2a (NM_001286809) Mouse Untagged Clone
Tag: Tag Free
Symbol: Camk2a
Synonyms: CaMKII; mKIAA0968; R74975
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC226172 representing NM_001286809
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTCTTTCTCACGCTGTGGGCCCTGGTGCCTTGCCTGGTGTGCTAACCCCTACTTTCTCTCT
CCACAGGAGGGAAGAGCGGAGGAAACAAGAAGACGATGGTGTGAAGGAATCTTCTGAGAGCACCAACAC
CACCATTGAGGACGAAGACACCAAAGTGCGCAAACAGGAAATTATCAAAGTGACAGAGCAGCTGATCGAA
GCCATAAGCAATGGAGACTTTGAGTCTACACGAAGATGTGCGACCCTGGAATGACAGCCTTTGAACCAG
AGGCCCTGGGGAACCTGGTGGAGGGCCTGGACTTTCATCGATTCTATTTTGAAAACCTGTGGTCCCGGAA
CAGCAAGCCCGTGACACCACCATCCTGAACCCTCACATCCACCTGATGGGTGACGAGTCAGCCTGCATC
GCCTATATCCGCATCACTCAGTACCTGGATGCAGGCGGCATACCCCGCACGGCCAGTCAGAGGAGACCC
GCGTCTGGCACCCGAGGGACGGCAAATGGCAGATCGTCCACTTCCACAGATCTGGGGCGCCCTCCGTCT
GCCGCAT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001286809
Insert Size: 570 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).



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OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<u>NM_001286809.1</u> , <u>NP_001273738.1</u>
RefSeq Size:	4245 bp
RefSeq ORF:	570 bp
Locus ID:	12322
UniProt ID:	<u>P11798</u>
Cytogenetics:	18 34.41 cM
Gene Summary:	<p>Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in synaptic plasticity, neurotransmitter release and long-term potentiation. Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (By similarity). Regulates dendritic spine development. Also regulates the migration of developing neurons (By similarity). Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity (PubMed:23805378).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) differs in the 5' UTR, lacks a significant portion of the 5' coding region and initiates translation at an alternate start codon, compared to variant 2. The resulting isoform (3) is shorter and has a distinct N-terminus, compared to isoform 2.</p>