

## Product datasheet for **MC206017**

### Camk2a (NM\_177407) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Camk2a (NM_177407) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Camk2a
Synonyms:	CaMKII; mKIAA0968; R74975
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC031745  
 GTCAAGCCGGTTCTCCGTTTGCACCTCAGGAGCACGGGCAGGCGAGTGGCCCTAGTTCTGGGGGCAGCGC  
 TTCAGCATCCCAGCCCTAGTTCCAGCCTAAAGCCTCGCCTGCCTGCCAGTGCCAGGATGGCTACCATC  
 ACCTGCACCCGATTACAGAAGAGTACCAGCTCTTTGAGGAACTGGGAAAGGGAGCCTTCTCTGTGGTGC  
 GCAGGTGTGTGAAGGTGCTGGCTGGTCAAGGATGCTGCCAAGATTATCAACACCAAGAAGCTTTCAGC  
 CAGAGATCACCAGAAGCTGGAGCGTGAGGCCGCATCTGCCGCTGTTGAAGCACCCCAATATCGTCCGA  
 CTCCATGACAGCATCTCCGAGGAGGGGCACCACTACCTTATCTTCGATCTGGTTACTGGTGGGGAACGTG  
 TTGAAGACATTGTGGCCCGGAGTATTACAGTGAAGCTGATGCCAGCCACTGTATCCAGCAGATCTTGGA  
 GGCTGTGCTACACTGTACCAGATGGGGTGGTGCATCGTGACCTGAAGCCTGAGAATCTGTTGCTGGCC  
 TCGAAGCTCAAGGGCGCTGCTGTGAAGCTGGCAGACTTTGGCCTGGCCATAGAGGTGGAGGGGGAGCAGC  
 AGGCATGGTTTGGTTCCGAGGGACACCTGGATACCTCTCCCCAGAAGTGTGAGGAAGGACCCGTACGG  
 GAAGCCCGTGGACCTGTGGCCCTGTGGCGTCATCTGTATATCTTGCTGGTTGGGTATCCCCGTTCTGG  
 GATGAAGACCAGCATCGCTGTACCAGCAGATCAAAGCTGGTGCCTATGATTTCCATCACCAGAATGGG  
 ACACCGTCACCCAGAAGCCAAGGATCTGATCAATAAGATGCTGACCATCAACCCGTCCAAACGCATCAC  
 GGCCGCTGAGGCTCTCAAGCACCATGGATCTCGCACCCTCCACCGTGGCCTCTGCATGCACAGACAG  
 GAGACCGTGGACTGCCTGAAGAAGTTCAATGCCAGGAGGAAACTGAAGGGAGCCATCCTCACCACATATGC  
 TGGCCACCAGGAACTTCTCCGGAGGGAAGAGCGGAGGAAACAAGAAGAAGCATGGTGTGAAGGAATCTTC  
 TGAGAGCACCAACACCACCATGAGGACGAAGACACCAAAGTGGCAGCAACAGGAAATATCAAAGTGACA  
 GAGCAGCTGATCGAAGCCATAAGCAATGGAGACTTTGAGTCTACACGAAGATGTGCGACCCCTGGAATGA  
 CAGCCTTTGAACCAGAGGCCCTGGGGAACCTGGTGGAGGGCCTGGACTTTCATCGATTCTATTTTAAAA  
 CCTGTGGTCCCGAACAGCAAGCCCGTGCACACCACCTCCTGAACCTCACATCCACCTGATGGGTGAC  
 GAGTCAGCCTGCATCGCTATATCCGCATCACTCAGTACCTGGATGCAGGCGGCATACCCCGCACGGCC  
 AGTCAGAGGAGACCCCGCTGTGGCACCAGGGACGGCAAAATGGCAGATCGTCCACTTCCACAGATCTGG  
 GCGCCCTCCGTCTGCGCATTGAAGGACCAGGCCAGGGTCCCTGCGTCTTGTCTCGCAGAGATCCGC  
 TCTTTGTCCTGGAAATGTGGCTGCTGGTTCTCCTTTGGATTTTGTGGAATTCTCCTGTGATACACC  
 TACCATTGCCACCTATGTAAGTCTCGCTCACGAAAACCTGCTTGTTCACAGAAGTCCGACGACATCACAGT  
 GAACAGCCAGCTCTCCAGCTCCGTTGCCAAGCTTCTCCTGCCAGTGGGGACCTTCTCCGGCTTAAG  
 TACCCAGGGTGTGGCCAGGAACCCCAACCCCTACCCACTGTTGTTGGCCTAGCCTAGCTTTAGCTA  
 TAGATGGGCCTCAGCTGTGCAATTGGCAGGAAGTGGGAAGAGGCAGGCAAGCTGTGTTGAGGGCACCT  
 CTCATCGATTCTTCTTTCTGGGGTCCCGGGGAAGCTCACACGAGGCCCTCAGTCTCAAGCCAAC  
 CCTTATGAGGGAGAGTGAGAGAGGACCAACGCCAGTGAGCCAGGAACTGCTGCTCTCATCTGCTCCT  
 CTGTGTTGGCCTTGCTTTGACCAGACCATCCGCTACGAGGGGTGGGCTCTACCGCCAGGTGCCCACT  
 CACTCTGCCTCAGTCTCCTGTGAAGTTTGCTCCAGTGTGACCCACCCACCCTGCCCTCAACGTCTCT  
 TGGAGAATTCAGCTTCTGTCTGAGAGGAGATTGGAAGGTGTTTCAGGGGCAAAGCAAGCAACATTT  
 AGGTATCACTTCTACTGGACGCATGCCTTTTACAGCCAAACTCCGCTGATTTTCGTAATGGATTTTG  
 CGTTAACGGACATCTATGTGATAACTAGACCTCTCAAGTTTACTGTAAAGAAGAGTCGGATGGGTGGGA  
 AGTGGGTGGGAAGAGGAGTGAGAGGAAGTTTTAACCCATTCCAGAGGGTCTTTTTTTGGGGGGTGTCC  
 CTTCTGGGGGAGGGTCTTTCTGAGGTGGCCTCACCCCAAGGAGCATGGTTTCTTCCATTATGGTCC  
 CCAAAGTCAGCTGACAAGATTTCTCCAGAGCCAGCATGACTAACACACAGTGAGTCAGGTGAGGGGAGG  
 CTATCAGGAAGGGTTATCTAGACTTGGCATCTCTGGAAGTGGAGACCTACTACCTACTTCCAGGAA  
 ATCTTTCCCGTATCCTTGTGCTATCTCTCCTCAGCCAGCCCACTCACACCTTCTAGGCACATTATT  
 CTCATCACCTCTCAACTTGGCCAAGCAAGAGTGCCAGAAACTATTTTCTACTTCTGCTGAACTTG  
 GCCTGGTGTGCGCTCTATTGTGCTTGCCTCCCTGGCCTTCTCGACTCCCCGCCCGACATACAC  
 AC  
 ACACACTCACACACTTCTTCCACCACTTCTTCTCCCTCCCTCCCTCCCTTCTTCTTCTTCTTCTTCTC  
 TCCCTCTTCTGGGTTTGGCTTGTGATGGAATGCTGTATCTCATTACGAGGGATCTCCTGTCTGCACTG  
 TTTTCTTTCATGACTTTATATGCAGTAAGTATGTTGAAAAACAAAAA

**Restriction Sites:** RsrII-NotI  
**ACCN:** NM\_177407  
**Insert Size:** 1437 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC031745</a> , <a href="#">AAH31745</a>
<b>RefSeq Size:</b>	3208 bp
<b>RefSeq ORF:</b>	1437 bp
<b>Locus ID:</b>	12322
<b>UniProt ID:</b>	<a href="#">P11798</a>
<b>Cytogenetics:</b>	18 34.41 cM
<b>Gene Summary:</b>	<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 (2) is the longest transcript and encodes the longest isoform (2).</p>