

## Product datasheet for **SC323377**

### CAMK2D (NM\_172115) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CAMK2D (NM_172115) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAMK2D
Synonyms:	CAMKD
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_172115, the custom clone sequence may differ by one or more nucleotides

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ATGGCTTCGACCACAACCTGCACCAGGTTACGGACGAGTATCAGCTTTTCGAGGAGCTTGAAAGGGGG
CATTCTCAGTGGTGAGAAGATGTATGAAAATTCCTACTGGACAAGAATATGCTGCCAAAATTATCAACAC
CAAAAAGCTTTCTGCTAGGGATCATCAGAACTAGAAAGAGAAGCTAGAATCTGCCGCTTTTTGAAGCAC
CCTAATATTGTGCGACTTCATGATAGCATATCAGAAGAGGGCTTTCACTACTTGGTGTGGTTAGTTAGTTA
CTGGAGGTGAAGTGTGGAAAGACATAGTGGCAAGAGAATACTACAGTGAAGCTGATGCCAGTCATTGTAT
ACAGCAGATTCTAGAAAGTGTTAATCATTGTACCTAAATGGCATAGTTCACAGGGACCTGAAGCCTGAG
AATTTGCTTTTAGCTAGCAAATCCAAGGGAGCAGCTGTGAAATGGCAGACTTTGGCTTAGCCATAGAAG
TTCAAGGGGACCAGCAGGCGTGGTTTGGTTTTGCTGGCACACCTGGATATCTTTCTCCAGAAGTTTTACG
TAAAGATCCTTATGAAAAGCCAGTGGATATGTGGGCATGTGGTGTCAATCTCTATATTCTACTTGTGGGG
TATCCACCCTTCTGGGATGAAGACCAACACAGACTCTATCAGCAGATCAAGGCTGGAGCTTATGATTTTC
CATCACCAGAATGGGACACGGTGACTCCTGAAGCCAAAGACCTCATCAATAAAATGCTTACTATCAACCC
TGCCAAACGCATCACAGCCTCAGAGGCACTGAAGCACCCATGGATCTGTCAACGTTCTACTGTTGCTTCC
ATGATGCACAGACAGGAGACTGTAGACTGCTTGAAGAAATTTAATGCTAGAAGAAAATAAAGGGTGCCA
TCTTGACAACATGCTGGCTACAAGGAATTTCTCAGCAGCCAAGAGTTTGTGGAAGAAACCAGATGGAGT
AAAGGAGTCAACTGAGAGTTCAAATACAACAATTGAGGATGAAGATGTGAAAGCACGAAAGCAAGAGATT
ATCAAAGTCACTGAACAACCTGATCGAAGCTATCAACAATGGGGACTTTGAAGCCTACACAAAATCTGTG
ACCCAGGCCTTACTGCTTTTGAACCTGAAGCTTTGGGTAAATTTAGTGAAGGGATGGATTTTACCAGATT
CTACTTTGAAAATGCTTTGTCCAAAAGCAATAAACCAATCCACACTATTATTCTAAACCCTCATGTACAT
CTGGTAGGGGATGATGCCGCTGCATAGCATATATTAGGCTCACACAGTACATGGATGCCAGTGGAAATGC
CAAAGACAATGCAGTCAGAAGAGACTCGTGTGTGGCACC GCCGGGATGAAAAGTGGCAGAATGTTTCATT
TCATCGCTCGGGGTCACCAACAGTACCCATCAAGTAA

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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_172115 unedited CCCCCGTCTCAGCAATGGGCGGTAGGCGTGTACGGATGGGAGGTCTATATAAGCAGAGCTCGTTTAGTG AACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATCCCAGGATGCCGCGCTGCT CGTTCTGGTCCGTCGCGCTCCCAGCCAGGGCACAGCCCGGACCGAGGATGGCTTCGACCACAACCTGCA CCAGGTTACGGACGAGTATCAGCTTTTCGAGGAGCTTGGAAAGGGGCATTCTCAGTGGTGAGAAGATG TATGAAAATTCCTACTGGACAAGAATATGCTGCCATGATTATCAACACCAAAAAGCTTTTCTGGTGGGT GATCGGTCAGAAAACAGAAAAGAGAAAAGCTAGAAATCTTCCGCTTTTTGAACAACCCCTAAAATTGT GCCGAACGTTTCATGGATAGCATATCGAAGAAGGCTTTCACTACTTGGTGGTTTGGATTTAGTTCCGGGA GGTGAACGGTTTAAAAATTGTGGGCGAGAAAATACTACGGGGAAGCTGAGGCCAGCCTTGTTAACAGC GAATTCTAGAAGTTGTTAATATTGGTCACCTATGGGCAAAGTTCCAAGGGACCTAGAGCTGGGAAATTTT GTTTAGCTATCCAAATCAAGGGACCCGCGTGAATTGGGCCACACTGGGCTATCCCATAGATTTTCAGG GAGCCCCCGCTGTGTTGTGTTGTCGGGCCCCGGAATCTCTCCTCAAATTTTCTAGATCTCTTGAAC CCCGTGTATTGTGCACGTGGTGACATCAAAAACATGTGGGATACACTCTGGGAAAACACAATAATCACC GCTATGCGAGGAGTCGAGGTGCATACGAAGACGAGCGTATGCATGAGCAC
<b>Kinase Domain Sequence:</b>	>SC323377 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CCCTTGMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGT CAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATCCCAGGATGCCGCGCTGCTCGCTTC TGGTCCGTCGCGCTCCCAGCCAGGGCACAGCCCGACCGAGGATGGCTTCGACCACAACCTGCACCAGT TCACGGACGAGTATCAGCTTTTCGAGGAGCTTGGAAAGGGGCAT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_172115
<b>Insert Size:</b>	4500 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>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a>
<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="#">NM_172115.1</a> , <a href="#">NP_742113.1</a>
<b>RefSeq Size:</b>	2151 bp

RefSeq ORF:	1437 bp
Locus ID:	817
UniProt ID:	<a href="#">Q13557</a>
Cytogenetics:	4q26
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:	<p>The product of this gene 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 delta chain. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Distinct isoforms of this chain have different expression patterns.[provided by RefSeq, Nov 2008]</p> <p>Transcript Variant: This variant (4) has multiple differences in the 3' coding region, compared to variant 3. The resulting isoform (1) has a shorter C-terminus, compared to isoform 3. Isoform 1 is encoded by transcript variants 1 and 4.</p>