

Product datasheet for **RC218801**

CAMK2D (NM_172115) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAMK2D (NM_172115) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CAMK2D
Synonyms:	CAMKD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218801 representing NM_172115
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTCGACCACAACCTGCACCAGGTTACGGACGAGTATCAGCTTTTCGAGGAGCTTGAAAGGGGG
 CATTCTCAGTGGTGAGAAGATGTATGAAAATTCCTACTGGACAAGAATATGCTGCCAAAATTATCAACAC
 CAAAAAGCTTTCTGCTAGGGATCATCAGAACTAGAAAAGAGAAGCTAGAATCTGCCGCTTTTGAAGCAC
 CCTAATATTGTGCGACTTCATGATAGCATATCAGAAGAGGGCTTTCCTACTTGGTGTGGTTAGTTAGTTA
 CTGGAGGTGAAGTGTGGTGAAGACATAGTGGCAAGAGAATACTACAGTGAAGCTGATGCCAGTCATTGTAT
 ACAGCAGATTCTAGAAAGTGTAAATCATTGTACCTAAATGGCAGTTCACAGGGACCTGAAGCCTGAG
 AATTTGCTTTTAGCTAGCAAATCCAAGGGAGCAGCTGTGAAATGGCAGACTTTGGCTTAGCCATAGAAG
 TTCAAGGGGACCAGCAGGCGTGGTTTGGTTTTGCTGGCACACCTGGATATCTTTCTCAGAAGTTTTACG
 TAAAGATCCTTATGAAAAGCCAGTGGATATGTGGGCATGTGGTGCATTCTATATTCTACTTGTGGGG
 TATCCACCCTTCTGGGATGAAGACCAACACAGACTCTATCAGCAGATCAAGGCTGGAGCTTATGATTTTC
 CATCACCAGAATGGGACACGGTGACTCCTGAAGCCAAAGACCTCATCAATAAAATGCTTACTATCAACCC
 TGCCAAACGCATCACAGCCTCAGAGGCACTGAAGCACCCATGGATCTGTCAACGTTCTACTGTTGCTTCC
 ATGATGCACAGACAGGAGACTGTAGACTGCTTGAAGAAATTTAATGCTAGAAGAAAATAAAGGGTGCCA
 TCTTGACAACATAGCTGGCTACAAGGAATTTCTCAGCAGCCAAGAGTTTGTGGAAGAACCATGGAGT
 AAAGGAGTCAACTGAGAGTTCAAATAACAACATGAGGATGAAGATGTGAAAGCACGAAAGCAAGAGATT
 ATCAAAGTCACTGAACAACGATCGAAGCTATCAACAATGGGGACTTTGAAGCCTACACAAAAATCTGTG
 ACCCAGGCTTACTGCTTTTGAACCTGAAGCTTTGGGTAATTTAGTGAAGGGATGGATTTTACCAGT
 CTACTTTGAAAATGCTTTTGTCCAAAAGCAATAAACCAATCCACACTATTATTCTAAACCCTCATGTACAT
 CTGGTAGGGGATGATGCCGCTGCATAGCATATATTAGGCTCACACAGTACATGGATGGCAGTGGAAATGC
 CAAAGACAATGCAGTCAGAAGAGACTCGTGTGTGGCACCGCCGGGATGAAAAGTGGCAGAATGTTTCATT
 TCATCGCTCGGGTCACCAACAGTACCCATCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218801 representing NM_172115
 Red=Cloning site Green=Tags(s)

MASTTTCTRFDEYQLFEELGKGAFSVVRRCKIPTGQEYAAKIINTKKLSARDHQKLEREARICRLLKH
 PNIVRLHDSISEEGFHYLVFDLVTGGELFEDIVAREYYSEADASHCIQQIILESVNHCHLNGIVHRDLKPE
 NLLLASKSKGAAVKLADFLAIEVQGDQQAQWFGFAGTPGYLSPEVLRKDPYGKPVDMWACGVILYILLVG
 YPPFWDEDQHRLYQIKAGAYDFPSPEWDTVTPEAKDLINKMLTINPAKRITASEALKHPWICQRSTVAS
 MMHRQETVDLKKFNARRKLGAILTTMLATRNFSAAKSLKKPDGVKESTESSNTTIEDEDVKARKQEI
 IKVTEQLIEAINNGDFEAYTKICDPGLTAFEPEALGNLVEGMDFHRFYFENALSKSNKPIHTIILNPHVH
 LVGDDAACIAYIRLTQYMDGSGMPKTMQSEETRVWHRDQKQNVHFRSGSPTVPIK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6207_c06.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_172115

ORF Size: 1434 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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_172115.2](#)
RefSeq Size: 2151 bp

RefSeq ORF: 1437 bp

Locus ID: 817

UniProt ID: [Q13557](#)
Cytogenetics: 4q26

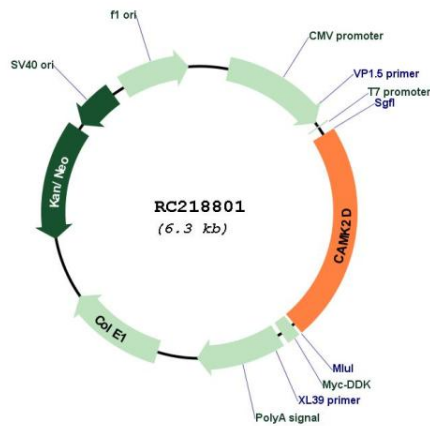
Protein Families: Druggable Genome, Protein Kinase

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

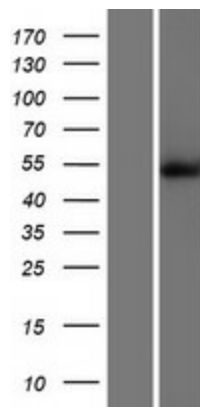
MW: 53.9 kDa

Gene Summary: 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]

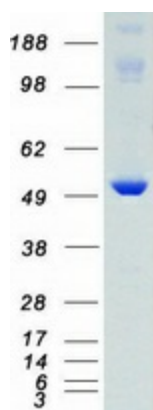
Product images:



Circular map for RC218801



Western blot validation of overexpression lysate (Cat# [LY406847]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218801 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CAMK2D protein (Cat# [TP318801]). The protein was produced from HEK293T cells transfected with CAMK2D cDNA clone (Cat# RC218801) using MegaTran 2.0 (Cat# [TT210002]).