

Product datasheet for **RC212648**

CAMK2D (NM_001221) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAMK2D (NM_001221) 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:

>RC212648 representing NM_001221
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTCGACCACAACCTGCACCAGGTTACGGACGAGTATCAGCTTTTCGAGGAGCTTGAAAGGGG
 CATTCTCAGTGGTGAGAAGATGTATGAAAATTCCTACTGGACAAGAATATGCTGCCAAAATTATCAACAC
 CAAAAAGCTTTCTGCTAGGGATCATCAGAACTAGAAAGAGAAGCTAGAATCTGCCGCTTTTGAAGCAC
 CCTAATATTGTGCGACTTCATGATAGCATATCAGAAGAGGGCTTTCCTACTTGGTGTGTTGATTTAGTTA
 CTGGAGGTGAAGTGTGTTGAAGACATAGTGGCAAGAGAATACTACAGTGAAGCTGATGCCAGTCATTGTAT
 ACAGCAGATTCTAGAAAGTGTAAATCATTGTACCTAAATGGCAGTTCACAGGGACCTGAAGCCTGAG
 AATTTGCTTTTAGCTAGCAAATCCAAGGGAGCAGCTGTGAAATTTGGCAGACTTTGGCTTAGCCATAGAAG
 TTCAAGGGGACCAGCAGGCGTGGTTTGGTTTTGCTGGCACACCTGGATATCTTTCCAGAAGTTTTACG
 TAAAGATCCTTATGGAAAGCCAGTGGATATGTGGGCATGTGGTGTATTCTCTATATTCTACTTGTGGG
 TATCCACCCTTCTGGGATGAAGACCAACACAGACTCTATCAGCAGATCAAGGCTGGAGCTTATGATTTTC
 CATCACCAGAATGGGACACGGTGACTCCTGAAGCCAAAGACCTCATCAATAAAATGCTTACTATCAACCC
 TGCCAAACGCATCACAGCCTCAGAGGCACTGAAGCACCCATGGATCTGTCAACGTTCTACTGTTGCTTCC
 ATGATGCACAGACAGGAGACTGTAGACTGCTTGAAGAAATTTAATGCTAGAAGAAAATAAAGGGTGCCA
 TCTTGACAACATAGCTGGCTACAAGGAATTTCTCAGCAGCCAAGAGTTTGTGGAAGAACCATGGAGT
 AAAGGAGTCAACTGAGAGTTCAAATAACAACATGAGGATGAAGATGTGAAAGCAGGAAAGCAAGAGATT
 ATCAAAGTCACTGAACAACGATCGAAGCTATCAACAATGGGGACTTTGAAGCCTACACAAAAATCTGTG
 ACCCAGCCTTACTGCTTTTGAACCTGAAGCTTTGGGTAATTTAGTGAAGGGATGGATTTTACCAGT
 CTACTTTGAAAAATGCTTTTGTCCAAAAGCAATAAACCAATCCACACTATTATTCTAAACCTCATGTACAT
 CTGGTAGGGGATGATGCCGCTGCATAGCATATATTAGGCTCACACAGTACATGGATGGCAGTGGAAATGC
 CAAAGACAATGCAGTCAGAAGAGACTCGTGTGGCACCGCCGGGATGGAAGTGGCAGAATGTTTCATT
 TCATCGCTCGGGTCAACAACAGTACCCATCAAGCCACCTGTATTCCAATGGGAAAGAAAATCTCTCA
 GGAGGCACCTCTTTGTGGCAAAACATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212648 representing NM_001221
 Red=Cloning site Green=Tags(s)

MASSTTCTRFTDEYQLFEELGKGAFSVVRRRCMKIPTGQEYAAKIINTKKLSARDHQKLEREARICRLLKH
 PNIVRLHDSISEEGFHLYVFDLVTGGELFEDIVAREYYSEADASHCIQQILESVNHCHLNGIVHRDLKPE
 NLLLASKSKGAAVKLADFLAIEVQGDQAWFGFAGTPGYLSPEVLRKDPYGKPVDMWACGVILYILLVG
 YPPFWDEDQHRLYQIKAGAYDFPSPEWDTVTPEAKDLINKMLTINPAKRITASEALKHPWICQRSTVAS
 MMHRQETVDCLKKFNARRKLGAILTTMLATRNFSAAKSLKKPDGVKESTESSNTTIEDEDVKARKQEI
 IKVTEQLIEAINNGDFEAYTKICDPGLTAFEPEALGNLVEGMDFHRFYFENALSKSNKPIHTIILNPHVH
 LVGDAAACIAYIRLTQYMDGSGMPKTMQSEETRVWHRDQKQVNFHRSQSPTVPIKPPCIPNGKENFS
 GGTSLWQNI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001221

ORF Size: 1497 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

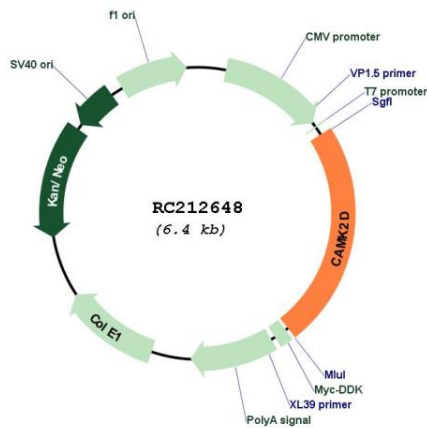
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_001221.4](#)

RefSeq Size:	2140 bp
RefSeq ORF:	1500 bp
Locus ID:	817
UniProt ID:	Q13557
Cytogenetics:	4q26
Domains:	ppkinase, TyrKc, S_TKc
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:	56.2 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 RC212648