

## Product datasheet for MR222887

### Cacna2d2 (NM\_001174048) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna2d2 (NM_001174048) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cacna2d2
Synonyms:	a2d2; Cacna2d; du; mKIAA0558; td; torpid
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR222887 representing NM_001174048 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCGGTGCCGGCTCGGACCTGCGGCGCTTCTTGCCCGGCCCGGTGCGGACCGCTCGCCCTGGCCCG  
GTCGCGGCCCGCCCGCCCTGCCCTGACCCCGGGGCCAGCGTCCGGGCCCGCACGCCGCTTTGCTCTT  
GCTGCCGCTCTGTTGCTTTACCGCTGCTCACCGCCCGGCGCCTCTGCCTACAGTTCCCCAGCAG  
CACACGATGCAGCACTGGGCCCGGCGCTGGAGCAGGAGATTGACGGTGTGATGCGGATTTTGGAGGCG  
TGACGAGCTCCGAGAGATCTACAAGGACAATCGGAACCTGTTTGAAGTGCAAGGAGAATGAACCACAGAA  
ATTGGTGGAGAAAGTGGCAGGGGACATCGAGAGCCTGCTGGACAGGAAGGTCCAGGCCCTGAAGAGACTG  
GCTGACGCTGCAGAGAAATTTCCAGAAAGCCATCGCTGGCAGGACAACATCAAGGAGGAAGACATCATGT  
ACTACGATGCCAAGGCTGACGCCGAGCTGGATGACCCTGAGAGTGAAGATATGGAGAGGGGATCCAAGAC  
CAGCGCCTTAAGGCTGGACTTCATCGAGGACCCAACTCAAGAACAAGTCAACTATTCATACACGGCT  
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TGACTATGTGAACGTGGCCTCATTCAACGAGAAGGCGCAGCCTGTGTCTTGCTTACACACCTGGTGCAG  
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ATGGCCCTGGGGAAAAGAAGAACCAGTTAATCCTGGGTGTCATGGGCATCGATGTGGCCTTGAATGACAT  
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ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
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Protein Sequence: >MR222887 representing NM\_001174048  
 Red=Cloning site Green=Tags(s)

MAVPARTCGASWPGPVRTARPWPGRGPRPCDPRGPASGPAPRLLLLLPLLLLPLLTAPGASAYSFPQQ  
 HTMQHWARRLEQEIDGVMRIFGGVQQLREIYKDNRLFEVQENEPQKLEKAVAGDIESLLDRKVQALKRL  
 ADAAENFQKAHRWQDNIKEEDIMYYDAKADAELDDPESEDMERGSKTSALRLDFIEDPNFNKKNVNSYTA  
 VQIPTDIYKGSTVILNELNWTEALENVFIENRRQDPTLLWQVFGSATGVTRYYPATPWRAKIDLYDVR  
 RRPWYIQGASSPKDMVIVDVSGSVSGLTLKLMKTSVCEMLDTLSDDDYVNVASFNEKAQPVSCFTHLVQ  
 ANVRNKKVFKEAVQGMVAKGTTGYKAGFEYAFDQLQNSNITRANCNKMIMMFTDGGEDRVQDVFEKYNWP  
 NRTVRVFTFSVGQHNYDVTPLQWMACTNKGYFEIPSIGAIRINTQEYLDVLRPVMVLAKDAKQVQWTN  
 VYEDALGLGLVVTGTLPVFNLTDQGPGEKKNQLILGVMGIDVALNDIKRLTPNYTLGANGYVFAIDLNGY  
 VLLHPNLKQTTNFREPVLDFLDAELEDENKEEIRRSMDGDKGHKQIRTLVKSLDERYIDEVIRNYTW  
 VPIRSTNYSLGLVLPYSTYYLQANLSDQILQVKYFEFLPSSFESEGHVFIAPREYCKDLNASDNTEF  
 LKNFIELMEKVTQKQCNFLLHNLILDTGITQQLVERVWRDQDLNTYSLLAVFAATDGGITRVFPNKA  
 AEDWTENPEPFNASFYRRSLDNHGYIFKPPHQDSSLRPLELENDTVGVLVSTAVELSLGRRTLRAVVG  
 KLDLEAWAEKFKVLASNRTHQDQPKQCGPSSHCEMDCEVNNEDLLCVLIDDGGFLVLSNQNHQWDQVGRF  
 FSEVDANLMLALYNSFYTRKESYDYQAACAPQPPGNLGAAPRGVFPVTIADFLNLAWWTSAAAWSLFQQ  
 LLYGLIYHSWFQADPAEAGSPETRESSVMKQTQYYFGSVNASYNAIIDCGNCSRLFHAQRLTNTNLLF  
 VVAEKPLCSQCEAGRLQKETHSDGPEQCELVQRPRYRRGPHICFDYNATEDTSDCGRGASFPPLSLGLV  
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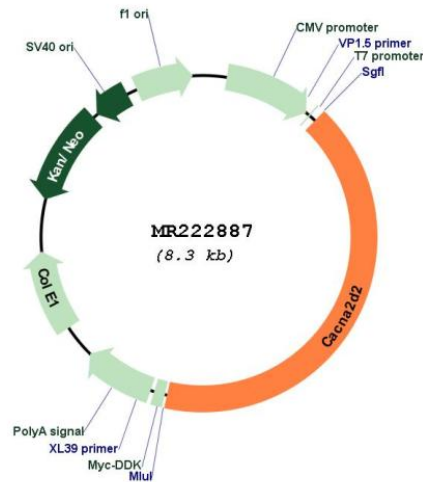
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001174048

**ORF Size:** 3441 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](mailto: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\\_001174048.1](#), [NP\\_001167519.1](#)

RefSeq Size: 5521 bp

RefSeq ORF: 3453 bp

Locus ID: 56808

Cytogenetics: 9 58.02 cM

MW: 130.4 kDa

**Gene Summary:** The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and activation/inactivation kinetics of the calcium channel. Acts as a regulatory subunit for P/Q-type calcium channel (CACNA1A), N-type (CACNA1B), L-type (CACNA1C OR CACNA1D) and possibly T-type (CACNA1G).[UniProtKB/Swiss-Prot Function]