

## Product datasheet for MR222813

### Cacna2d1 (NM\_001110843) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna2d1 (NM_001110843) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cacna2d1
Synonyms:	Ca(v)alpha2delta1; Cac; Cacna2; Cchl; Cchl2a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR222813 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCTGGCTGCCTGCTGGCCTTGACTCTGACACTTTTCCAATCTGGGCTGATCGGCCCTCGAGCG  
AGGAGCCCTTCCCTTCGCCCCTCACTATCAAGTCATGGGTGGACAAGATGCAAGAAGACCTTGTCACT  
GGCAAAAACAGCAAGTGGAGTGACTCAGCTTGCTGATTTATGAAAAATACCAAGATTTGTATACTGTG  
GAGCCCAACAATGCACGCCAAGTGGTTGAAATTCAGCCCGAGACATTGAGAAGCTTCTAAGCAACAGAT  
CTAAGGCCCTGGTGCCTGGCTATGGAAGCAGAGAAAGTCCAAGCAGCCCAACATGGAGGGAAGATTT  
TGCAAGCAATGAAGTTGCTACTATAATGCTAAGGATGATCTTGATCCTGAAAGAAATGAGAGTGAGCCA  
GGCAGCCAACGGATTAACCTGTTTTATTGAAGATGCTAATTTTGGACGTGAGATATCCTATCAGCATG  
CAGCGGTCATATTTCCACGGACATCTATGAGGGCTCAACCATAGTGTTAAACGAACTCAACTGGACAAG  
TGCCCTTAGATGAAGTATTCAAAAGAAATCGAGACGAAGACCTACACTGCTGTGGCAAGTGTGGCAGC  
GCCACTGGCCTGGCCGATATTATCCAGCTTCCATGGGTGGATAATAGTAGAACTCCAAAAGATTG  
ATCTATATGATGTACGCAGAAGACCATGGTACATCCAGGGAGCTGCATCCCCAAGGACATGCTCATTCT  
GGTGGACGTGAGTGAAGTGTGAGCGGATTGACTCTGAAACTCATCCGAACATCTGTCTCCGAGATGTTA  
GAAACCCTCTGATGATGATTTCTGTAATGTAGCTTCAATTAACAGCAACGCTCAGGATGTAAGCTGTT  
TCCAGCACCTGGTTCAAGCGAATGTAAGAAATAAGAAAGGTGTTGAAAGATGCCGTGAATAACATTACAGC  
AAAGGGGATCACAGATTACAAGAAAGGCTTTAGCTTTGCCTTCGAACAGCTACTTAATTATAATGTTCC  
AGAGCTAATTGCAATAAGATTATCATGTTATTCACGGATGGAGGAGAAGAGAGAGCCAGGAGATATTTG  
CCAAATACAATAAAGACAAAAAAGTCCGTGTGTTTACATTTTCCGTCGGTCAACATAATTATGACAGAGG  
ACCTATTCAGTGGATGGCTTGTGAAAATAAAGGTTACTATTATGAGATCCCTCCATTGGTGCAATAAGA  
ATCAATACTCAGGAATATCTAGATGTTCTGGGAAGACCAATGGTTTTAGCTGGTGACAAAGCGAAGCAAG  
TTCAATGGACAAATGTGATTTGGACGCCCTGGAAGTGGGACTTGTCTACTGGAAGTCTACCAGTCTT  
CAACGTCAGTGGCAATCTGAAAATAAGACAAACTGAAGAACCAGTTGATCTTGGTGTGATGGCGCTT



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GATGTGTCTCTGGAAGATATCAAGAGATTGACACCACGTTTTACTCTGTCCCAATGGCTACTATTTTG  
 CAATTGATCCTAATGGCTATGTCTTATTGCATCCAAATCTTCAGCCAAAGCCTATTGGTGTAGGTATACC  
 GACAATTAATTTAAGGAAAAGGAGACCCAACTTCAGAACCCCAAATCTCAGGAGCCAGTCACACTGGAT  
 TTTCTCGATGCTGAGTTAGAGAAATGAAATTAAGTGGAGATTGCAAAATAAATGATAGATGGAGAAAAGTG  
 GAGAAAAACGTTGCAACTCTGGTCAAGTCTCAAGATGAGAGATACATTGACAAAGGAAATCGAACATA  
 CACATGGACGCCGTCAATGGCACAGATTACAGTTTGGCCTTGGTATTGCCAACCTACAGTTTTTACTAT  
 ATAAAAGCCAAACTAGAAGAGACAATAACTCAGGCCAGATATTGAGAAACCCTGAAGCCAGACAATTTTG  
 AAGAATCTGGCTATACTTTCATAGCACCAAGGGAATACTGCAATGATCTTAAACCTCAGATAATAACAC  
 TGAATTTCTTTGAAATTTCAATGAATTTATTGATAGGAAAACCTCAAACAACCCCTCCTGTAATACAGAT  
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 AAAATATCAAAGGAGTGAAGGCACGCTTTGTGGTACAGACGGTGGGATTACGAGAGTTTATCCCAAAGA  
 GGCCGGAGAAAATTGGCAAGAGAACCCAGAGACGTACGAGGACAGCTTCTACAAACGGAGCCTAGATAAC  
 GATAACTACGTTTTCACTGCGCCTACTTTAACAAAAGTGACCTGGTGCATGAACTGGAATTATGG  
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 TGTAAATCTTGGATAGAAAATTTACCAAACCTCAATCAGGGATCCGTGTGCTGGTCCAGTTTGTGAC  
 TGCAAAAGAAACAGTGATGTAATGGACTGTGTCATTCTAGATGATGGTGGATTTCTTTGATGGCAAATC  
 ACGATGATTACACTAATCAGATTGGACGTTTTTTGGAGAGATTGACCCAAAGCATGATGAGACACCTGGT  
 TAATATACACTTTATGCATTCAACAAATCATATGACTATCAGTCCGTGTGCGATCCAGGGGCAGACCA  
 AAGCAGGGGGCAGGACATCGCTCAGCATATGTGCCATCGATTGCAGATAACTGCAGATTGGCTGGTGGG  
 CCACCGCTGCCGCTGGTCTATTCTCCAGCAGCTGCTCTTGAGTTTGACATTTCCACGGCTCCTTGAGGC  
 AGTTGAGATGGAGGAAGTACTTACAGCCTCCCTGTCTAAGCAGAGCTGCATCACAGAACAACCCAG  
 TACTTCTCAAGAACGATACTAAATCATTACAGTGGTTTACTGGACTGTGAAAACGTTCCAGGATCTTTC  
 ATGTAGAGAAAACCTTATGAACACCAACTAGTATTCATAATGGTGGAGAGCAAAGGACATGTCGTGTGA  
 CACGCGGCTGCTCATGCAAGCGGAACAGACTTCTGATGGTCCAGATCCTTGCAGCATGGTCAAGCAGCC  
 AGATACCAGAAAAGACCTGATGTCTGCTTTGATAAATGTGCTGGAGGATTATACTGACTGTGGTGGTG  
 TTTCTGGGTTAAACCTTCTTATGGTCTATCTTTGGACTCCAGTTTATACTCCTTTGGCTGGTATCTGG  
 CAGCAGACACTACCTACTG

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR222813 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAGLLALTLTLFQSLIGPSSEEPFSPVTIKSWDKMQEDLVTLAKTASGVTQLADIYEKYQDLYTV  
 EPNNARQLVEIAARDIEKLLSNRSKALVRLAMEAEKVQAAHQWREDFASNEVVYNAKDDLDPERNESEP  
 GSQRKIPVFIEDANFGRQISYQHAHVHIPTDIYEGSTIVLNELNWTLSALDEVFKRNRDEDPTLLWQVFGS  
 ATGLARYYPASPVWDNSRTPNKIDLVDVRRRPWYIQGAASPKDMLILVDVSGSVSGLTLKLIKRTSVSEML  
 ETLSDDDFVNVAFNSNAQDVSCFQHLVQANVRNKKVLDKAVNNITAKGITDYKKGFSFAFEQLLNYNVS  
 RANCNKIIMLFTDGGEEAQQEIFAKYNKDKKVRVFTFSVGQHNDRGPIQWMACENKGYYYEIPSIGAIR  
 INTQEYLDVLRPMLVLAGDKAKQVQWNTNYYLDALELGLVITGTLVPFNVTGQSENKTNLKNQLILGVMGV  
 DVSLEDIKRLTPRFTLCPNGYFAIDPNGYVLLHPNLQPKPIGVGIPTINLRKRRPNVQNPKSQEPVTLT  
 FLDAELENEIKVEIRNKMIDGESGEKTFRTLKVSQDERYIDKGNRTYTWTPVNGTDYSLALVPTYSFY  
 IKAKLEETITQARYSETLKPDNFEESGYTFIAPREYCNLKPSDNNEFLLNFNEFIDRKTNNPSCNTD  
 L INRILLDAGFTNELVQNYWSKQKNIKGVKARFVVDGGITRVYPKEAGENWQENPETYEDSFYKRSLDN  
 DNYVFTAPYFNKSGPGAYESGIMYSKAVELYIQGKLLKPAVVGKIDVNSWIENFTKTSIRDPCAGPVCD  
 CKRNSDVMDCVILDDGGFLLMANHDDYTNIIGRFFGEIDPSMMRHLVNIISLYAFNKSYDYQSVCDPGAAP  
 KQGAGHRSAYVPSIADILQIGWWATAAAWSILQQLLSLTFPRLLLEAVEEEDDFASLSKQSCITEQTQ  
 YFFKNDTKSFGLLDCGNCSRIFHVEKLMNTNLVIMVESKGTCPCDTRLLMQAEQTSDDGPDPCDMVKQP  
 RYRKGPDVCFDNNVLEDYTDCCGVSGLNPSLWSIFGLQFILLWLVSGSRHYLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001110843

ORF Size: 3309 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\\_001110843.1](#), [NP\\_001104313.1](#)

RefSeq Size: 7472 bp

RefSeq ORF: 3312 bp

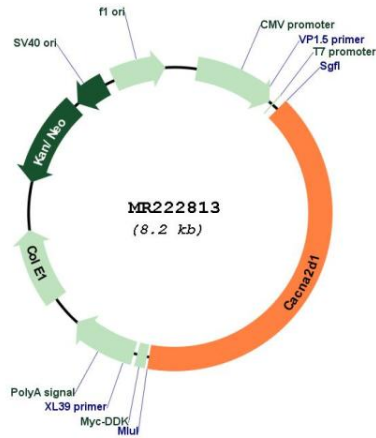
Locus ID: 12293

UniProt ID: [O08532](#)

**Cytogenetics:** 5 6.56 cM  
**MW:** 124.6 kDa

**Gene Summary:** This gene encodes a regulatory component of the voltage-dependent calcium channel complex. The product of this gene is a proprotein that is proteolytically processed into alpha-2 and delta subunits, which are linked by a disulfide bond. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Jan 2013]

**Product images:**



Circular map for MR222813