

## Product datasheet for **MC225194**

### Cacna1c (NM\_001159533) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1c (NM_001159533) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cacna1c
Synonyms:	Cav1.2; Cchl1a1; D930026N18Rik; MBC; MELC-CC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC225194 representing NM_001159533 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCAATGAAAACACGAGGATGTACGTTCCAGAGGAAAACCACCAAGTTCCAACATGGGAGCCAC  
GCCAGCTCATGCCAACATGAATGCCAATGCAGCTGCAGGACTTGCTCCCGAGCACATCCCTACTCCAGG  
GGCAGCACTGTCTGGCAGGCAGCCATCGATGCCGCCCGCAGGCCAAGCTCATGGGCAGTGTGGCAAC  
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GCACAACCGCCACACGGCCGCCCGGGCTCTGCTGTGTCTGACCCTGAAGAACCCTATCCGGAGGGCGTG  
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CAACGCTTACCTCCGCAATGGTTGGAATTTACTGGATTTTATAATCGTGGTGTAGGGCTTTTTAGTGCA  
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AGGCACTGAGAGCGTTCGCGTGTCTCCGTCCACTGCGGCTAGTGTCCGGAGTCCCAAGTCTCCAGGTGGT  
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TAATAGATGTTCCGGCAGAAGAGGATCCTTCCCTTGTGCTTTGGAGACAGGCCATGGGGCAGAGTGTCA  
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CAGAAGACATTGACCCCGAGAATGAGGACGAGGGCATGGATGAAGACAAGCTCGAAACATGAGCATGCC  
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GCCAGGCTTGCCCATCGGATCTCCAAATCCAAATTCAGCCGCTACTGGCGCAGGTGGAATCGATTCTGCA  
 GAAGAAAATGCCGTGCAGCAGTTAAGTCCAACGCTTCTACTGGCTCGTGATCTTCTGGTGTTCCTCAA  
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 ACGTTCCCCAGGCTGTGTTACTGCTGTTTCAGGTGTGCCACCGGAGAGGCTGGCAGGACATCATGCTGG  
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 AAACGCCTGGTGTCCATGAACATGCCTCTGAACAGCGATGGCACAGTCAATGTTCAATGCTACCCTGTTT  
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GCAACCATGTACCTACTATCAGAGTGACAGCAGGGGCAACTTTCCTCAGACGTTCCGCCACCCAGCGCCC  
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 GCAGTTCCTCCATCCACTGCAGCTCCTGGTCTGAGGAGACGACAGCCTGTAGTGGGAGCAGCAGCAT  
 GGCCCGGAGAGCCCGCCGCTCCCTCACCCTGCCAGCCAGGCTGGAGCTCCAGGGAGACAGTTCAT  
 GGCAGTCCAGCAGCCTGGTGAAGCGGCTTGTATTTAGAAGGACTGGGACAGTTTGCTCAAGATCCCA  
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 CGCAGACAACATCCTCAGTGGGGGCGCCAGCAGAGCCCCAACGGCACCCCTTACCTTTTGTGAACTGC  
 AGGGACCCGGGGCAGGACAGGGCTGTGGCCCCAGAGGACGAGAGCTGCGCATATGCCCTGGGGCAGGGCC  
 GGAGCGAGGAGCGCTCGCGGACAGCAGGTCCTACGTCAGCAACCTGTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-Mlul

**ACCN:**

NM\_001159533

**Insert Size:**

6420 bp

**OTI Disclaimer:**

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).

**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\\_001159533.2](#), [NP\\_001153005.1](#)

**RefSeq Size:**

13592 bp

**RefSeq ORF:**

6420 bp

**Locus ID:**

12288

**UniProt ID:**

[Q01815](#)

**Cytogenetics:** 6 55.86 cM

**Gene Summary:** Pore-forming, alpha-1C subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed:14609949, PubMed:18586882, PubMed:21216955, PubMed:25368181, PubMed:28119464). Mediates influx of calcium ions into the cytoplasm, and thereby triggers calcium release from the sarcoplasm (By similarity). Plays an important role in excitation-contraction coupling in the heart. Required for normal heart development and normal regulation of heart rhythm (PubMed:21216955). Required for normal contraction of smooth muscle cells in blood vessels and in the intestine. Essential for normal blood pressure regulation via its role in the contraction of arterial smooth muscle cells (PubMed:14609949, PubMed:28119464). Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group (Probable).[UniProtKB/Swiss-Prot Function]

**Transcript Variant:** This variant (2) has an alternate 5' exon, as compared to variant 1. The resulting isoform (2) has a shorter and different N-terminus, as compared to isoform 1.

**Sequence Note:** This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.