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Product datasheet for MC229708

Cacna1c (NM_001256001) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1c (NM_001256001) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cacna1c
Synonyms:	Cav1.2; Cchl1a1; D930026N18Rik; MBC; MELC-CC
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

>MC229708 representing NM_001256001
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTCAATGAAAACACGAGGATGTACGTTCCAGAGGAAAACCACCAAGGTTCCAACTATGGGAGCCCAC
GCCCAGCTCATGCCAACATGAATGCCAATGCAGCTGCAGGACTTGCTCCCGAGCACATCCCTACTCCAGG
GGCAGCACTGTCCTGGCAGGCAGCCATCGATGCCGCCCGGCAGGCCAAGCTCATGGGCAGTGCTGGCAAC
GCAACCATCTCTACCGTCAGTTCCACACAGCGGAAGCGGCAGCAGTATGGGAAACCCAAGAAGCAGGGGG
GCACAACCGCCACACGGCCGCCCCGGGCTCTGCTGTGTCTGACCCTGAAGAACCCTATCCGGAGGGCGTG
CATAAGCATTGTTGAATGGAAACCATTTGAAATCATTATTTTACTGACTATTTTTGCCAATTGTGTGGCC
TTAGCAATCTATATTCCCTTTCCGGAAGACGACTCCAACGCCACCAACTCCAACCTGGAACGAGTGGAGT
ATCTCTTCCTCATCATTTTTACCGTGGAAGCATTTTTAAAAGTAATTGCCTACGGACTTCTCTTCCACCC
CAACGCTTACCTCCGCAATGGTTGGAATTTACTGGATTTTATAATCGTGGTTGTAGGGCTTTTTAGTGCA
ATTTTAGAACAAGCAACCAAAGCTGATGGGGCCAATGCTCTAGGAGGGAAAGGAGCTGGATTCGACGTGA
AGGCACTGAGAGCGTTCCGCGTGCTCCGTCCACTGCGGCTAGTGTCCGGAGTCCCAAGTCTCCAGGTGGT
CCTGAACTCCATCATCAAGGCCATGGTGCCTCTGCTGCACATTGCCCTTCTTGTGCTCTTCGTCATCATC
ATTTATGCTATTATCGGCCTGGAGCTCTTCATGGGAAAGATGCACAAGACCTGCTACAACCAGGAGGGCA
TAATAGATGTTCCGGCAGAAGAGGATCCTTCCCCTTGTGCTTTGGAGACAGGCCATGGGCGACAGTGTCA
GAACGGGACCGTGTGCAAACCCGGGTGGGATGGGCCCAAGCACGGCATCACCAACTTCGACAACTTCGCC
TTCGCCATGCTGACGGTGTTCCAGTGTATCACCATGGAGGGCTGGACAGACGTGCTGTACTGGGTCAATG
ATGCCGTAGGAAGGGACTGGCCCTGGATCTATTTTGTAACACTAATCATCATAGGGTCATTTTTTGTACT
TAACTTGGTTCTCGGTGTTCTTAGCGGGGAGTTTTCCAAAGAGAGGGAGAAAGCCAAAGCCCGAGGAGAT
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CAGAAGACATTGACCCCGAGAATGAGGACGAGGGCATGGATGAAGACAAGCCTCGAAACAGAGGCGCTCC
AGCGGGCTTGCATGATCAGAAGAAAGGGAAGTTTGCTTGGTTTAGTCACTCTACAGAAACCCATGTGAGC
ATGCCCACAAGTGAGACTGAGTCTGTCAACACTGAAAACGTGGCTGGAGGTGACATCGAGGGAGAAAACT

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GTGGAGCCAGGCTTGCCCATCGGATCTCCAAATCCAAATTCAGCCGCTACTGGCGCAGGTGGAATCGATT
CTGCAGAAGAAAATGCCGTGCAGCAGTTAAGTCCAACGTCTTCTACTGGCTCGTGATCTTCCTGGTGTTC
CTCAACACCCTCACCATTGCCTCCGAACATTACAACCAGCCTCACTGGCTCACAGAAGTGCAAGACACAG
CCAATAAAGCCCTCCTGGCCCTTTTCACTGCAGAAATGCTCCTGAAGATGTACAGCCTGGGTCTTCAGGC
CTATTTTGTGTCCCTCTTCAACCGCTTTGACTGTTTCATTGTGTGTGGGGGCATCCTGGAGACCATCCTG
GTGGAGACGAAGATCATGTCTCCCCTGGGCATCTCTGTGCTGAGATGTGTGCGGTTGCTCAGGATCTTCA
AGATCACCAGGTACTGGAATTCCTTGAGCAACCTTGTGGCATCCTTGCTGAACTCAGTGCGCTCCATTGC
CTCCCTGCTGCTGCTCCTCTTCCTCTTCATCATCATCTTCTCCCTCCTGGGGATGCAGCTCTTTGGAGGG
AAGTTCAATTTCGATGAGATGCAGACCCGTAGGAGCACGTTCGATAACTTCCCGCAGTCTCTCCTCACTG
TGTTTCAGATCCTGACCGGGGAGGACTGGAATTCGGTGATGTATGATGGGATCATGGCTTATGGCGGCCC
CTCTTTTCCAGGGATGTTAGTCTGTATTTACTTCATCATCCTCTTCATCTGTGGAAATTATATCCTACTG
AATGTGTTCTTGGCCATTGCGGTGGACAACCTGGCTGATGCGGAGAGCCTGACCTCAGCCCAAAAGGAGG
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GGTGATGGAGAAGCCAGCCGTGGAGGAGAGCAAAGAGGAGAAAATTGAACTGAAATCCATTACAGCCGAT
GGAGAATCCCCACCCACTACCAAGATCAACATGGATGACCTCCAGCCCAGTGAAAACGAGGATAAGAGTC
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CCGGCCCCTGTCTGAGCTGCACCTTAAGGAAAAGGCAGTTCCCATGCCGGAAGCCAGTGCATTTTTCATC
TTCAGCCCAAACAACAGGTTCCGCCTGCAGTGCCACCGTATTGTCAATGACACGATCTTCACCAACCTCA
TCCTCTTCTTCATTCTGCTCAGCAGCATCTCTCTGGCTGCTGAGGACCCCGTCCAGCACACCTCCTTCAG
GAACCATATTCTGTTTTATTTTGACATTGTTTTTACCACCATTTTCACCATTGAAATTGCTCTAAAGATG
ACTGCTTACGGGGCTTTCCTGCACAAGGGCTCTTTCTGCCGAAACTACTTCAATATCCTGGACCTGCTGG
TGGTTAGCGTGTCCCTCATCTCCTTTGGCATCCAGTCCAGCGCGATCAACGTTGTGAAGATTTTACGAGT
GCTGCGAGTCCTCAGACCCCTGAGGGCCATCAACAGGGCCAAGGGGCTAAAGCATGTGGTTCAGTGCGTG
TTTGTGGCCATCCGGACCATCGGGAACATCGTAATTGTCACCACTCTGCTGCAGTTCATGTTCGCCTGCA
TTGGGGTCCAGCTCTTCAAGGGAAAGCTCTATACCTGTTCGGATAGTTCTAAACAGACGGAGGCAGAATG
CAAGGGTAACTATATCACATACAAAGATGGAGAGGTCGATCACCCCATTATCCAGCCTCGAAGCTGGGAG
AACAGCAAGTTTGACTTTGACAATGTTTTGGCAGCCATGATGGCTCTCTTCACCGTCTCCACCTTCGAAG
GGTGGCCAGAGCTGCTGTACCGCTCCATTGACTCCCACACAGAAGACAAGGGCCCCATCTACAACTACCG
TGTGGAGATCTCCATCTTCTTCATCATCTATATCATCATCATTGCCTTCTTCATGATGAACATCTTCGTG
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AGAGACAATGTGTGGAATATGCCCTCAAGGCCCGACCCTTGCGAAGGTACATCCCCAAGAACCAGCACCA
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ACCATCTGCCTGGCCATGCAGCACTATGGCCAGAGCTGCCTCTTCAAAATCGCCATGAATATACTCAACA
TGCTTTTCACCGGCCTCTTCACAGTGGAGATGATCCTGAAGCTCATTGCCTTCAAACCCAAGGGTTACTT
TAGTGATCCCTGGAATGTTTTTGACTTCCTCATCGTCATTGGGAGCATAATTGATGTCATTCTCAGTGAG
ACTAATAGTGCAGAGGAGAACTCCCGCATCTCCATCACCTTCTTCCGCCTCTTCCGGGTCATGCGCCTGG
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GCCCTATGTGGCTCTTTTGATTGTGATGCTGTTCTTTATCTATGCAGTGATTGGGATGCAGGTGTTTGGG
AAGATTGCCCTGAATGACACCACAGAGATCAATCGGAACAACAACTTCCAGACGTTCCCCCAGGCTGTGT
TACTGCTGTTCAGGTGTGCCACCGGAGAGGCCTGGCAGGACATCATGCTGGCCTGCATGCCAGGCAAGAA
GTGTGCCCCAGAGTCTGAGCCCAGCAACAGCACGGAAGGGGAGACCCCCTGTGGCAGCAGCTTTGCTGTC
TTCTACTTCATCAGCTTCTACATGCTCTGTGCCTTCCTGATCATCAACCTCTTTGTAGCTGTTATCATGG
ACAACTTTGACTACCTGACTAGGGATTGGTCTATCCTCGGTCCCCATCACCTGGATGAATTCAAGAGAAT
CTGGGCCGAGTATGACCCTGAAGCCAAGGGTCGGATCAAACACTTGGATGTGGTGACCCTCCTCCGTCGA
ATTCAGCCCCCACTGGGTTTTGGGAAATTGTGTCCTCACCGTGTGGCCTGCAAACGCCTGGTGTCCATGA
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GAGGATCAAAACAGAAGGGAACCTAGAGCAAGCCAATGAGGAGCTTCGGGCCATCATCAAGAAAATCTGG
AAGAGGACTAGCATGAAGCTGTTGGACCAGGTGGTGCCCCCTGCAGGCGATGACGAGGTCACAGTGGGCA
AGTTCTATGCCACCTTCCTGATCCAAGAGTACTTCAGGAAATTCAAGAAGCGAAAAGAGCAGGGGCTGGT
GGGCAAGCCCTCACAAAGGAATGCACTGTCCCTCCAGGCTGGCTTGCGCACCTTGCATGACATTGGGCCT
GAGATCCGGCGGGCCATCTCTGGGGATCTGACTGCTGAGGAGGAGTTGGACAAGGCTATGAAGGAGGCGG
TGTCTGCTGCCTCCGAAGATGACATCTTCAGGAGGGCTGGAGGCCTGTTCGGCAACCATGTCACCTACTA

TCAGAGTGACAGCAGGGGCAACTTTCCTCAGACGTTCGCCACCCAGCGCCCACTGCACATCAACAAGACA
GGGAACAACCAAGCTGACACTGAGTCACCGTCCCATGAGAAGCTGGTGGACTCCACGTTCACCCCCAGCA
GCTACTCATCCACGGGCTCCAATGCCAACATCAACAATGCCAACAACACTGCCCTGGGCCGCTTCCCCCA
TCCCGCTGGCTACTCCAGCACGGTCAGCACTGTGGAGGGCCATGGGCCTCCCTTGTCCCCTGCTGTCCGA
GTACAGGAGGCAGCATGGAAGCTCAGCTCTAAGAGGTGCCACTCCCGAGAGAGCCAGGGAGCCACGGTGA
ATCAGGAGATATTTCCAGATGAGACCCGCAGCGTAAGGATGAGTGAAGAAGCCGAGTACTGCAGTGAGCC
CAGCCTGCTCTCCACAGATATGTTCTCCTACCAGGAAGATGAACACCGACAACTGACCTGCCCAGAGGAG
GACAAGAGGGAGATCCAGCCATCTCCAAAGAGGAGTTTCCTTCGCTCTGCCTCTCTAGGTCGAAGGGCCT
CCTTCCATCTGGAATGTCTAAAGCGACAAAAGGATCAAGGGGGAGACATCTCTCAGAAGACAGCCTTGCC
CTTGCATCTGGTTCATCATCAGGCATTGGCAGTGGCAGGCTTGAGCCCCCTCCTGCAGAGAAGCCATTCT
CCTACCACATTCCCCAGGCCGTGCCCCACACCCCCTGTCACTCCAGGCAGCCGGGGCAGACCCCTACGGC
CCATCCCTACCCTACGGCTGGAGGGGGCAGAGTCCAGCGAGAAACTCAACAGCAGCTTCCCATCCATCCA
CTGCAGCTCCTGGTCTGAGGAGACGACAGCCTGTAGTGGGAGCAGCAGCATGGCCCGGAGAGCCCGGCCC
GTCTCCCTCACCGTGCCCAGCCAGGCTGGAGCTCCAGGGAGACAGTTCCATGGCAGTGCCAGCAGCCTGG
TGGAAGCGGTCTTGATTTCAGAAGGACTGGGACAGTTTGCTCAAGATCCCAAGTTCATCGAGGTCACCAC
CCAGGAGCTGGCTGACGCCTGCGACATGACAATAGAGGAGATGGAGAACGCCGCAGACAACATCCTCAGT
GGGGGCGCCCAGCAGAGCCCCAACGGCACCCTCTTACCTTTTGTGAACTGCAGGGACCCGGGGCAGGACA
GGGCTGTGGCCCCAGAGGACGAGAGCTGCGCATATGCCCTGGGGCGAGGCCGGAGCGAGGAGGCGCTCGC
GGACAGCAGGTCCTACGTCAGCAACCTGTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001256001

Insert Size: 6471 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).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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_001256001.2, NP_001242930.1

RefSeq Size: 13643 bp

RefSeq ORF: 6471 bp

Locus ID: 12288

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 (9) differs in the 5' UTR and has multiple coding region differences, compared to variant 1. These differences cause translation initiation at an alternate AUG and result in an isoform (9) that is shorter and has a distinct N-terminus, 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.