

Product datasheet for **SC323301**

CACNA1C (NM_001129839) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CACNA1C (NM_001129839) Human Untagged Clone
Tag: Tag Free
Symbol: CACNA1C
Synonyms: CACH2; CACN2; CACNL1A1; CaV1.2; CCHL1A1; LQT8; TS; TS. LQT8
Vector: pCMV6 series
Fully Sequenced ORF: >NCBI ORF sequence for NM_001129839, the custom clone sequence may differ by one or more nucleotides

```
ATGGTCAATGAGAATACGAGGATGTACATTCCAGAGGAAAACCACCAAGGTTCCAATAT
GGGAGCCCACGCCCGCCCATGCCAACATGAATGCCAATGCGGCAGCGGGCTGGCCCT
GAGCACATCCCCACCCGGGGCTGCCCTGTCGTGGCAGCGGCCATCGACGCAGCCCGG
CAGGCTAAGCTGATGGGCAGCGCTGGCAATGCGACCATCTCCACAGTCAGCTCCACGCAG
CGGAAGCGGCAGCAATATGGGAAACCAAGAAGCAGGGCAGCACCACGGCCACACGCCCG
CCCCGAGCCCTGCTCTGCCTGACCCTGAAGAACCCCATCCGGAGGGCCTGCATCAGCATT
GTCGAATGGAAACCATTTGAAATAATTATTTACTGACTATTTTTGCCAATTGTGTGGCC
TTAGCGATCTATATCCCTTTCCAGAAGATGATTCCAACGCCACCAATTCCAACCTGGAA
CGAGTGGAAATATCTTTCTCATAATTTTTACGGTGGAAAGCGTTTTTAAAAGTAATCGCC
TATGGACTCCTCTTTACCCCAATGCCTACCTCCGCAACGGCTGGAACCTACTAGATTTT
ATAATTGTGGTTGTGGGGCTTTTTAGTGCAATTTTAGAACAAAGCAACAAAGCAGATGGG
GCAAACGCTCTCGGAGGGAAAGGGCCGGATTTGATGTGAAGGCGCTGAGGGCCTCCGC
GTGCTGCGCCCTGCGGCTGGTGTCCGGAGTCCCAAGTCTCCAGGTGGTCTGAATTCC
ATCATCAAGGCCATGGTCCCCCTGCTGCACATCGCCCTGCTTGTGCTGTTTGTGCATC
ATCTACGCCATCATCGGCTTGGAGCTTTCATGGGGAAGATGCACAAGACCTGCTACAAC
CAGGAGGGCATAGCAGATGTTCCAGCAGAAGATGACCCTTCCCCTTGTGCGCTGGAAACG
GGCCACGGGCGGAGTGCAGAACGGCACGGTGTGCAAGCCCGGCTGGGATGGTCCCAAG
CACGGCATCACCAACTTTGACAACCTTTCCTTCGCCATGCTCACGGTGTTCAGTGCATC
ACCATGGAGGGCTGGACGGACGTGCTGTACTGGTCAATGATGCCGTAGGAAGGGACTGG
CCCTGGATCTATTTTGTACTAATCATCATAGGGTCATTTTTTGTACTTAACCTGGTT
CTCGGTGTGCTTAGCGGAGATTTTCAAAGAGAGGGAGAAGGCCAAGGCCCGGGGAGAT
TTCCAGAAGCTGCGGGAGAAGCAGCAGCTAGAAGAGGATCTCAAAGGCTACCTGGATTGG
ATCACTCAGGCCAAGACATCGATCCTGAGAATGAGGACGAAGGCATGGATGAGGAGAAG
CCCCGAAACATGAGCATGCCACCAAGTGAACCGAGTCCGTCAACACCGAAAACGTGGCT
GGAGGTGACATCGAGGGAGAAAACCTGCGGGGCCAGGCTGGCCACCGGATCTCCAAGTCA
AAGTTCAGCCGCTACTGGCGCCGGTGAATCGGTTCTGCAGAAGGAAGTCCCGCGCCGCA
GTCAAGTCTAATGTCTTCTACTGGCTGGTATTTTCTGGTGTTCCTCAACACGCTCACC
ATTGCCTCTGAGCACTACAACAGCCCAACTGGCTCACAGAAGTCCAAGACACGGCAAAC
AAGGCCCTGCTGGCCCTGTTACGGCAGAGATGCTCCTGAAGATGTACAGCTGGGCTG
```



[View online >](#)

CAGGCCTACTTCGTGCCCTCTTCAACCGCTTTGACTGCTTCGTGCTGTGTGGCGGCATC
 CTGGAGACCATCCTGGTGGAGACCAAGATCATGTCCCCTGGGCATCTCCGTGCTCAGA
 TGGCTCCGGCTGCTGAGGATTTTCAAGATCACGAGGACTGGAACCTCTTGAGCAACCTG
 GTGGCATCCTTGCTGAACTCTGTGCGCTCCATCGCCTCCCTGCTCCTTCTCCTCTCCTC
 TTCATCATCATCTTCCCTCCTGGGGATGCAGCTCTTTGGAGGAAAGTTCAACTTTGAT
 GAGATGCAGACCCGGAGGAGCACATTCGATAACTTCCCCAGTCCCTCCTCACTGTGTTT
 CAGATCTGACCCGGGAGGACTGGAATTCGGTGATGTATGATGGGATCATGGCTTATGGC
 GGCCCTCTTTTCCAGGGATGTTAGTCTGTATTTACTTCATCATCCTCTCATCTGTGGA
 AACTATATCCTACTGAATGTGTTCTTGGCCATTGCTGTGGACAACCTGGCTGATGCTGAG
 AGCCTCACATCTGCCAAAAGGAGGAGGAAGAGGAGAAGGAGAGAAAGAAGCTGGCCAGG
 ACTGCCAGCCCAGAGAAGAAACAAGAGTTGGTGGAGAAGCCGGCAGTGGGGGAATCCAAG
 GAGGAGAAGATTGAGCTGAAATCCATCACGGCTGACGGAGAGTCTCCACCCGCCACCAAG
 ATCAACATGGATGACCTCCAGCCAATGAAAATGAGGATAAGAGCCCCTACCCCAACCCA
 GAAACTACAGGAGAAGAGGATGAGGAGGAGCCAGAGATGCCTGTGGCCCTCGCCCACGA
 CCACTCTCTGAGCTTACCTTAAGGAAAAGGCAGTGCCCATGCCAGAAGCCAGCGCTTT
 TTCATCTTCAGCTCTAACAAACAGGTTTCGCCTCCAGTGCCACCGCATTGTCAATGACACG
 ATCTTCAACAACCTGATCCTCTTCTTATTCTGCTCAGCAGCATTTCCTGGCTGCTGAG
 GACCCGGTCCAGCACACCTCCTTCAAGAACCATATTCTGTTTTATTTGATATTGTTTTT
 ACCACCATTTTACCATTGAAATGCTCTGAAGATGACTGCTTATGGGGCTTTCTTGAC
 AAGGGTCTTTTCTGCCGAACTACTTCAACATCCTGGACTGCTGGTGGTTCAGCGTGTCC
 CTCATCTCCTTTGGCATCCAGTCCAGTGAATCAATGTCGTGAAGATCTTGGAGTCTG
 CGAGTACTCAGGCCCTGAGGGCCATCAACAGGGCCAAGGGGCTAAAGCATGTGGTTTCA
 GTGTGTTTGTGCCATCCGGACCATCGGAACATCGTGATTGTACCACCCTGCTGCAG
 TTCATGTTTGCCTGCATCGGGTCCAGCTTCAAGGAAAGCTGTACACCTGTTTCAAG
 AGTTCCAAGCAGACAGAGCGGAATGCAAGGGCAACTACATCACGTACAAAGACGGGGAG
 GTTGACCACCCCATCATCAACCCCGCAGCTGGGAGAACAGCAAGTTTACTTTGACAAT
 GTTCTGGCAGCCATGATGGCCCTCTTACCCTCTCCACCTTGAAGGGTGGCCAGAGCTG
 CTGTACCCTCCATCGACTCCCACAGGAAGACAAGGGCCCATCTACAACCTACCCTGTG
 GAGATCTCCATCTTCTCATCATCTACATCATCATCATCGCTTCTTTCATGATGAACATC
 TTCGTGGGCTTTCATCGTACCTTTCAGGAGCAGGGGAGCAGGAGTACAAGAAGTGT
 GAGCTGGACAAGAACCAGCGACAGTGCCTGGAATACGCCCTCAAGGCCCGGCCCTGCGG
 AGGTACATCCCCAAGAACCAGCACCAGTACAAAGTGTGGTACGTGGTCAACTCCACCTAC
 TTCGAGTACCTGATGTTTCGCTCATCCTGCTCAACACCATCTGCCTGGCCATGCAGCAC
 TACGGCCAGAGCTGCCTGTTCAAATCGCCATGAACATCCTCAACATGCTCTTCACTGGC
 CTCTTACCCTGGAGATGATCCTGAAGCTCATTGCCTTCAAACCAAGCACTATTTCTGT
 GATGCATGGAATACATTTGACGCCTTGATTGTTGTGGGTAGCATTGTTGATATAGCAATC
 ACCGAGAACGCAGAGGAAAACCTCCCGCATCTCCATCACCTTCTCCGCTGTTCCGGGTC
 ATGCGTCTGGTGAAGCTGCTGAGCCGTGGGAGGGCATCCGACGCTGCTGTGGACCTTC
 ATCAAGTCTTCCAGGCCCTGCCATATGTGGCCCTCTGATCGTGATGCTGTTCTTCATC
 TACGCGGTGATCGGGATGCAGGTGTTTGGGAAAATTGCCCTGAATGATACCACAGAGATC
 AACCGGAACAACAACCTTTCAGACCTTCCCCAGGCCGTGCTGCTCCTTTCAGGTGTGCC
 ACCGGGGAGGCCCTGGCAGGACATCATGCTGGCCTGCATGCCAGGCAAGAAGTGTGCCCA
 GAGTCCGAGCCCAGCAACAGCACGGAGGGTGAACACCTGTGGTAGCAGCTTTGCTGTC
 TTCTACTTTCATCAGCTTCTACATGCTCTGTGCCTTCTGATCATCAACCTCTTTGAGCT
 GTCATCATGGACAACCTTACTACCTGACAAGGGACTGGTCCATCCTTGGTCCCCACCAC
 CTGGATGAGTTTAAAAGAATCTGGGCAGAGTATGACCCTGAAGCCAAGGGTGTATCAAA
 CACCTGGATGTGGTACCCTCCTCCGGCGATTACGCCGCACTAGGTTTTGGGAAGCTG
 TGCCCTCACCGCTGGCTTGCAAACGCCTGGTCTCCATGAACATGCCTCTGAACAGCGAC
 GGGACAGTCATGTTCAATGCCACCTGTTTGCCTGGTACAGGACGGCCCTGAGGATCAAA
 ACAGAAGAGGGACCCAGCCCATCAGAGGCCCAAGGGGCTGAGGATCCTTTCCGCCCT
 GCAGGGAACTAGAAACAAGCCAATGAGGAGCTGCGGGCGATCATCAAGAAGATCTGGAAG
 CGGACCAGCATGAAGCTGCTGGACCAGTGGTCCCTGCAGGTGATGATGAGGTCACC

GTTGGCAAGTTCTACGCCACGTTCTGATCCAGGAGTACTCCGGAAGTTCAAGAAGCGC
 AAAGAGCAGGGCCTTGTGGGCAAGCCCTCCAGAGGAACGCGCTGTCTCTGCAGGCTGGC
 TTGCGCACACTGCATGACATCGGGCCTGAGATCCGACGGGCCATCTCTGGAGATCTACC
 GCTGAGGAGGAGCTGGACAAGGCCATGAAGGAGGCTGTGTCCGCTGCTTCTGAAGATGAC
 ATCTTCAGGAGGGCCGGTGGCCTGTTCCGCAACCACGTGAGTACTACCAAAGCGACGGC
 CGGAGCGCCTTCCCCAGACCTTCACTACTCAGCGCCCGCTGCACATCAACAAGGCGGGC
 AGCAGCCAGGGCGACACTGAGTCGCCATCCCACGAGAAGCTGGTGGACTCCACCTTCAAC
 CCGAGCAGCTACTCGTCCACCGGCTCCAACGCCAACATCAACAACGCCAACCAACCGCC
 CTGGTTCGCTCCCTCGCCCCGCGGCTACCCACGACGGTCAGCACTGTGGAGGCCAC
 GGGCCCCCTTGTCCCCTGCCATCCGGGTGCAGGAGGTGGCGTGAAGCTCAGCTCCAAC
 AGGTGCCACTCCCGGAGAGCCAGGCAGCCATGGCGGGTCAAGGAGACGTCTCAGGAT
 GAGACCTATGAAGTGAAGATGAACCATGACACGGAGGCCGTCAGTGAGCCAGCCTGCTC
 TCCACAGAGATGCTCTCTACCAGGATGACGAAAATCGGCAACTGACGCTCCAGAGGAG
 GACAAGAGGGACATCCGGCAATCTCGAAGAGGGGTTTCTCCGCTCTGCCTCACTAGGT
 CGAAGGGCCTCTTCCACTGGAATGTCTGAAGCGACAGAAGGACCGAGGGGGAGACATC
 TCTCAGAAGACAGTCTCCCTTGCATCTGGTTATCATCAGGCATTGGCAGTGGCAGGC
 CTGAGCCCCCTCTCCAGAGAAGCCATTCCCCTGCCTCATTCCCTAGGCCTTTTGGCCACC
 CCACCAGCCACACTGGCAGCCGAGGCTGGCCCCACAGCCCGTCCCCACCCTGCGGCTT
 GAGGGGTTCGAGTCCAGTGAAGTCAACAGCAGCTTCCCATCCACTGCGGCTCC
 TGGGCTGAGACCACCCCGGTGGCGGGGCGAGCAGCGCCCGGAGAGTCCGGCCCGTC
 TCCCTCATGGTGGCCAGCCAGGCTGGGGCCCCAGGGAGGCAGTTCCACGGCAGTCCAGC
 AGCCTGGTGAAGCGGTCTTGAATTCAGAAGACTGGGGCAGTTTGTCAAGATCCCAAG
 TTCATCGAGTCAACACCAGGAGCTGGCCGACGCTGCGACATGACCATAGAGGAGATG
 GAGAGCGCGGCCGACAACATCCTCAGCGGGGGCGCCCCACAGAGCCCAATGGCGCCTC
 TTACCCTTTGTGAAGTGCAGGGACGCGGGGAGGACCGAGCCGGGGGCGAAGAGGACGCG
 GGCTGTGTGCGCGCGGGGTGACCGAGTGAGGAGGAGTCCAGGACAGCAGGGTCTAC
 GTCAGCAGCCTG

Restriction Sites:

Please inquire

ACCN:

NM_001129839

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:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001129839.1 , NP_001123311.1
RefSeq Size:	13498 bp
RefSeq ORF:	6435 bp
Locus ID:	775
UniProt ID:	Q13936
Cytogenetics:	12p13.33
Protein Families:	Druggable Genome, Ion Channels: Calcium, Transmembrane
Protein Pathways:	Alzheimer's disease, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, GnRH signaling pathway, Hypertrophic cardiomyopathy (HCM), Long-term potentiation, MAPK signaling pathway, Type II diabetes mellitus, Vascular smooth muscle contraction
Gene Summary:	<p>This gene encodes an alpha-1 subunit of a voltage-dependent calcium channel. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. The alpha-1 subunit consists of 24 transmembrane segments and forms the pore through which ions pass into the cell. The calcium channel consists of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. There are multiple isoforms of each of these proteins, either encoded by different genes or the result of alternative splicing of transcripts. The protein encoded by this gene binds to and is inhibited by dihydropyridine. Alternative splicing results in many transcript variants encoding different proteins. Some of the predicted proteins may not produce functional ion channel subunits. [provided by RefSeq, Oct 2012]</p> <p>Transcript Variant: This variant (13), also referred to as HLCC125, lacks four alternate in-frame exons and uses an alternate in-frame splice site in the 3' coding region, compared to variant 1, resulting in a shorter protein (isoform 13), compared to isoform 1.</p>