

Product datasheet for **SC307681**

CACNA1G (NM_198387) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CACNA1G (NM_198387) Human Untagged Clone
Tag: Tag Free
Symbol: CACNA1G
Synonyms: Ca(V)T.1; Cav3.1; NBR13; SCA42; SCA42ND
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_198387 edited
 ATGGACGAGGAGGAGGATGGAGCGGGCCGCGAGGAGTCGGGACAGCCCCGAGCTTCATG
 CGGCTCAACGACCTGTCCGGGGCCGGGGCCGGCCGGGGCCGGGGTTCAGCAGAAAAGGAC
 CCGGGCAGCGCGACTCCGAGGCGGAGGGGCTGCCGTACCCGGCGCTGGCCCCGGTGGTT
 TTCTTCTACTTGAGCCAGGACAGCCGCCGCGGAGCTGGTGTCTCCGCACGGTCTGTAAC
 CCCTGGTTTGAGCGCATCAGCATGTTGGTCATCCTTCTCAACTGCGTGACCCTGGGCATG
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 GATGACTTCATCTTTGCCTTCTTTGCCGTGGAGATGGTGGTGAAGATGGTGGCCTGGGC
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ATCCAGGACAGGGATGCCAATGGGTCCCGCCGGCTCATGCTGCCACCACCTCGACGCCT
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 TGCCACTTAGAGCCAGTCCGCTGCCAGGCGCCCCCTCCAGGTCCCCATCTGAGGCATCC
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 GGTATCTGCCTCCGGAGGAGGGCTCCGTCCAGGACTCCAAGGATCCCTTGGCCTCTGGC
 CCCCCTGACAGCATGGCTGCCTCGCCCTCCCCAAGAAAGATGTGCTGAGTCTCTCCGGT
 TTATCCTCTGACCAGCAGACCTGGACCCTGACTCGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_198387 unedited
 GGTCTAAATTTGTATACGACNTATATAGGCGGCCGCGATTCTGGNCGAGGAGGAGGATGG
 AGCGGGCCCGAGGAGTCGGGACAGCCCCGAGCTTCATGCGGCTCAACGACCTGTCGGG
 GGCCGGGGGCGCGCCGGGGCCGGGGTACAGCAGAAAAGGACCCGGGCAACGCGGACTCCGA
 GGCGGAGGGGCTGCCGTACCCGGCGCTGGCCCCGGTGGTTTTTCTTACTTGAGCCAGGA
 CAGCCGCCCGGAGCTGGTGTCTCCGCACGGTCTGTAACCCCTGGTTTGGAGCGCATCAG
 CATGTTGGTCATCCTTCTCAACTGCGTGACCCTGGGCATGTTCCGGCCATGCGAGGACAT
 CGCCTGTGACTCCCAGCGCTGCCGATCCTGCAGGCCCTTGTGACTTTCATCTTTGCCTT
 CTTTCCCGTGGAGATGGTGGTGAAGATGGTGGCCTTGGGCATCTTTGGAAAAAGTGTTA
 CCTGNGAGACACTTGAACCGGCTTACTTTTTTTCATCGTCATCGCAGGGATGCTGGAGTA
 CTCGCTGGACCTGCAGAACGTCAGCTTCTCAGCTGTCAGGACAGTCCGTGTGCTGCGACC
 GCTCAGGGCCATTAAACCGGGTGCACAGCATGCGCATCCTTGTACGTTGCTGCTGGATA
 CGCTGCCCATGCTGGCAACGTCCTGCTGCTCTGCTTCTCGTCTTCTCAATCTCCGCAT
 CGTCCGCGTCCAGCTGTGGGCGAGGGTCTTCCGACCGATGCTTTCTACCTGAAATTTCA
 GCCTCCCCCTGGACGTGGACCTGGAGCGGTTTTACCCGACCGAGAACGAGGTTGAGAGCC
 CCTTTATTTGGTCCAGCCCCCG

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_198387 unedited CATTGNGTGGCACTTCCAGGTCCAGNAAAGCACTGGGGNAGGGTCACAGGATGCCACCCG GGNATTCTGTTTCAGGNAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTCAGGGGT CCAGGTCTGCTGGGTGAGAGGATAAACCAGGAGAGACTCAGCACATCTTTCTTTGGGGAGG GCGAGGCAGCCATGCTGTGAGGGGGCCAGAGGCCAAGGGATCCTTGGAGTCGCTGGACG GAGCCCTCCTCCGAGGCAGATAACCAGGGCTGGCGGGGTCCGAGGACCTGGCTCTCGG GGGGTCTATGGTGATACTAGGCGGGCTGAGTTTTTTCTTGGGCCGGCTCCAGGCCCC CAAGAGGCTGGCCCCAAGGTTAGAGGGTCTGTGCCAGGTGGGGTTGGGAGCCGCTGT CCAGGCAGCTGACGGCGATAGAGTGTCTCCTCTGCTCATCCAGCCAGGACGTAGGCCGGC GCTGGCAGCTCTGGGCTCCACGCTGTAGCACTTCTCAGGTCCCGTNGGGATGGGGCT CCTCTGGCCGCCAGGGGGCANGAGGTCTCCTGAAATCCAGCTCAGCTCCGTGTCCAAC CTAAGTCTTCTGGTCTCTGGAGGGCCCTTGCCCAAGTGGGTCTGGGCTGGGCCAA GGGCTGGCGGGTCATGTGCTTGGAGATCTTGCTGTGGCTGCGGGAGTGTGCTGTGCCT GGGTACTTGACTGCCCAAGAAAGATAGGCCCGGGCCAGGGCGGAAGGGCCCAATCAC CTCTGCCAACAAGTCCTCCGGCTGCCAGACCCTGAACGTCCAAGGAGTCAGTCCTTA TTGCTGCCCTGGCGCCTGAGTGGCCCTCTGG
Restriction Sites:	Please inquire
ACCN:	NM_198387
Insert Size:	6800 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:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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:	<ol style="list-style-type: none"> 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_198387.1 , NP_938201.1
RefSeq Size:	7471 bp
RefSeq ORF:	6753 bp
Locus ID:	8913
UniProt ID:	O43497
Cytogenetics:	17q21.33
Protein Families:	Druggable Genome, Ion Channels: Calcium, Transmembrane

Protein Pathways:

Calcium signaling pathway, MAPK signaling pathway, Type II diabetes mellitus

Gene Summary:

Voltage-sensitive calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division, and cell death. This gene encodes a T-type, low-voltage activated calcium channel. The T-type channels generate currents that are both transient, owing to fast inactivation, and tiny, owing to small conductance. T-type channels are thought to be involved in pacemaker activity, low-threshold calcium spikes, neuronal oscillations and resonance, and rebound burst firing. Many alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Sep 2011]

Transcript Variant: This variant (12) has multiple differences in the coding region but maintains the reading frame, compared to variant 1. The resulting isoform (12) is shorter than 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.