

Product datasheet for **SC307671**

CACNA1G (NM_198377) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CACNA1G (NM_198377) Human Untagged Clone
Tag: Tag Free
Symbol: CACNA1G
Synonyms: Ca(V)T.1; Cav3.1; NBR13; SCA42; SCA42ND
Vector: pCMV6 series
Fully Sequenced ORF: >NCBI ORF sequence for NM_198377, the custom clone sequence may differ by one or more nucleotides

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AGTCTCTCCGTTTATCTCTGACCCAGCAGACCTGGACCCCTGA

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- Restriction Sites:** Please inquire
- ACCN:** NM_198377
- 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_198377.1](#), [NP_938191.1](#)

RefSeq Size: 7756 bp

RefSeq ORF: 7065 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 (2) lacks an exon but has an alternate segment in the coding region and maintains the reading frame, compared to variant 1. The resulting isoform (2) is shorter and has a distinct internal segment, 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.