

## Product datasheet for RC217298

### CACNG6 (NM\_145815) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CACNG6 (NM\_145815) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** CACNG6  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC217298 representing NM\_145815  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATGTGGTCCAACCTTCTCTCTGCAAGAGGAGAACCGGGCGGGGGGGCCGGGGCCGGCGGGGGCGC  
ACGGGCAGGGCAGGTGGGGCTGACGCCGAGCGCGAGGGGAAGGTGAAGCTGGCGCTGTCTGGCCGC  
CGTGGGCGCCACGCTGGCGGTGTGTCCGTGGGCACCGAGTCTGGGTGGAGCTCAACACCTACAAGGCC  
AACGGCAGCGCCGTGTGCGAAGCGGCCACCTGGGGCTGTGGAAGCGTGCACCAAGCGGCTGTGGCAGG  
CGGACGTGCCCGTGGACAGGGACACCTGCGGCCCGCGGAGCTGCCCGGAGAAGCAAACTGCACCTATTT  
TAAATTCTTACCACGGGGGAGAATGCACGCATCTTTCAGAGAACCACAAGAAAGGCCTGCTGCTCTTG  
GTGAGCCTGGAGGTGTTCCGGCATTCCGTGAGGGCCCTGCTGCAGAGAGTCAGCCCGGAGCCTCCCCGG  
CCCCACGCCTCACCTACGAGTACTCTGTGCTCCCTGGGCTGCGGCGTGGGGCCGGCCTGATCCTGTGTT  
GGGGGCCGGTCTTTCTGCTGCTCACACTGCCTTCTGGCCCTGGGGTCCCTGTCCCAAGCGGGG  
CACCGGGCCACC

**ACGCGT**ACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC217298 representing NM\_145815  
Red=Cloning site Green=Tags(s)

MMWSNFFLQEENRRRGAAGRRRAHGQGRSGLTPEREGKVKLALLLAAVGATLAVLSVGTEFWVELNTYKA  
NGSAVCEAAHLGLWKACTKRLWQADVVDRTCGPAELPGEANCTYFKFFTTGENARIFQRTTKGLLLL  
VSLEVFRHSVRALLQRVSPEPPAPRLTYEYSWSL GCGVGAGL ILLL GAGCFLLL TLPSWPWGLCPKRG  
HRAT

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2933\\_a02.zip](https://cdn.origene.com/chromatograms/mg2933_a02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_145815

**ORF Size:** 642 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_145815.1](#), [NP\\_665814.1](#)

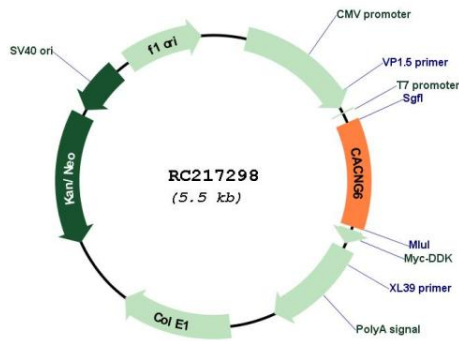
**RefSeq Size:** 1748 bp

**RefSeq ORF:** 645 bp

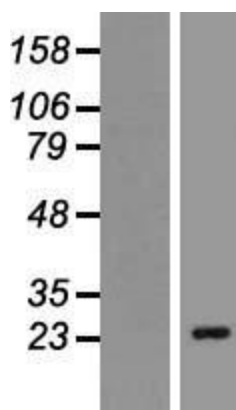
**Locus ID:** 59285

**UniProt ID:** [Q9BXT2](#)  
**Cytogenetics:** 19q13.42  
**Protein Families:** Druggable Genome, Ion Channels: Other, Transmembrane  
**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway  
**MW:** 23.3 kDa  
**Gene Summary:** Voltage-dependent calcium channels are composed of five subunits. The protein encoded by this gene represents one of these subunits, gamma, and is one of two known gamma subunit proteins. This particular gamma subunit is an integral membrane protein that is thought to stabilize the calcium channel in an inactive (closed) state. This gene is part of a functionally diverse eight-member protein subfamily of the PMP-22/EMP/MP20 family and is located in a cluster with two family members that function as transmembrane AMPA receptor regulatory proteins (TARPs). Alternative splicing results in multiple transcript variants. Variants in this gene have been associated with aspirin-intolerant asthma. [provided by RefSeq, Dec 2010]

**Product images:**



Circular map for RC217298



Western blot validation of overexpression lysate (Cat# [LY407852]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217298 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).