

## Product datasheet for **RG214441**

### CACNG1 (NM\_000727) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CACNG1 (NM_000727) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNG1
Synonyms:	CACNLG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214441 representing NM_000727 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCCAGACAAAATGCTGAAGGTCCGCGTGACCCTTCTGCATCCTGGCAGGCATCGTGCTGGCCA  
TGACAGCCGTGGTAACCGACCACTGGGCTGTGCTGAGCCCCACATGGAGCACCACAACACTACCTGCGA  
GGCGGCCACTTCGGCCTCTGGCGGATTTGTACCAAGCGCATCCCCATGGACGACAGCAAGACCTGCGGG  
CCCATCACCTGCCCGGGAGAAGAACTGTTCTACTTCAGGCATTTAAACCCCGGGAGAGCTCGGAGA  
TCTTCGAATTCACCACTCAGAAGGAGTACAGCATCTCGGCAGCCGCCATCGCCATCTTCAGCCTTGCTT  
CATCATCCTGGGACGCTCTGTGCTCCTCCTGTCCCTCGGGAAGAAGAGGGACTATCTGCTGCGACCCGCG  
TCCATGTTCTATGCCTTTGCAGGTCTCTGCATCCTCGTCTCGGTGGAGGTCATGCGGCAGTCGGTGAAGC  
GCATGATTGACAGTGAGGACACCGTCTGGATCGAGTACTATTACTCCTGGTCCTTTGCTGCGCCTGTGC  
CGCCTTCATCCTCCTTTCTCGGCGGTCTCGCCCTCCTGCTGTTCTCCCTGCCTCGAATGCCCGGAAC  
CCATGGGAGTCTGCATGGATGCTGAGCCCGAGCAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG214441 representing NM\_000727  
 Red=Cloning site Green=Tags(s)

MSQTKMLKVRVTLFCILAGIVLAMTAVVTDHWAVLSPHMEHHNTTCEAAHFGLWRICKRIPMDDSKTCG  
 PITLPGKNCYSYFRHFNPGESSEIFEFTTQKEYSISAAAIAIFSLGFIIILGSLCVLLSLGKKRDYLLRPA  
 SMFYAFAGLCILVSVEVMRQSVKRMIDSEDTVWIEYYYYWSFACACAAFILLFLGGLALLLFLSLPRMPRN  
 PWESCMDAEPFH

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000727

**ORF Size:** 666 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\\_000727.4](#)

**RefSeq Size:** 1266 bp

**RefSeq ORF:** 669 bp

**Locus ID:** 786

**UniProt ID:** [Q06432](#)

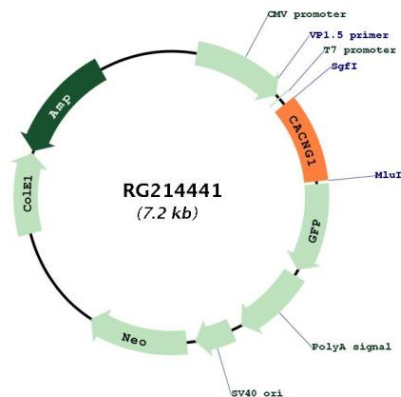
**Cytogenetics:** 17q24.2

**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

**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 part of skeletal muscle 1,4-dihydropyridine-sensitive calcium channels and is an integral membrane protein that plays a role in excitation-contraction coupling. 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). [provided by RefSeq, Dec 2010]

### Product images:



Circular map for RG214441