

Product datasheet for **RG224084**

CACNG7 (NM_031896) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNG7 (NM_031896) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNG7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224084 representing NM_031896 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTCACTGCAGCAGCCGCGCCCTGACCCTGCTGAGCAGCGTGTTTGGTGCCTGTGGCCTGCTCCTGG
TAGGCATCGCGGTCAGCACTGACTACTGGCTGTACATGGAAGAAGGCACAGTGCTACCGCAGAACCAGAC
CACCGAGGTCAAGATGGCCCTGCACGCCGCGCTCTGGCAGTCTGCTTCTTGCAGGTCGGGAGAAAGGT
CGCTGTGTGGCCTCAGAATATTTTCTTGAACCGGAGATCAATTTGGTGACGAAAAACACGGAGAATATTC
TGAAGACAGTGGCAGCGCCACCCCTTCCCATGGTCAGCCTCTCCTCGTGTTACGGCCTTCGTCAT
CAGCAACATCGGCCACATCCGCCCGCAGAGGACCATTCTGGCTTTTGTCTCTGGCATCTTCTTCACTA
TCGGGCCTCTCCTTGGTGGTGGCCTTGGTTCTTTACATCTCCAGCATCAACGACGAGGTCATGAACAGGC
CCAGCAGCTCTGAGCAGTATTTTATTATCGCTACGGTGGTCTTTTGCCTTCGCCGCTTCTCCTTCTCT
ACTCAAAGAGGGGGCCGGCGTGATGTCCGTGTACCTGTTACCAAGCGCTACGCGGAGGAGGAGATGTAC
CGTCCACACCCGGCCTTCTACCGCCCGCTCTCAGCGACTGCTCCGACTACTCGGGCCAGTTCTGCAGC
CCGAGGCGTGGCGCCGCGCCGGAGCCCTCCGACATCTCCAGCGACGTGCCATCCAAATGACGCAGAA
CTACCCTCCGCCATCAAGTACCGGACCCTGCACATCTCCACCTCGCCCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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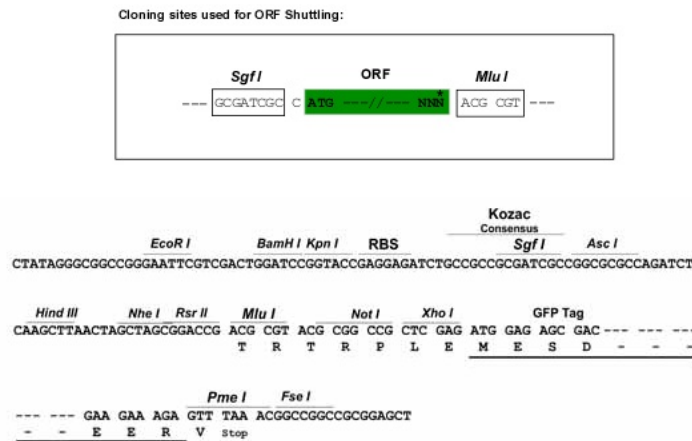
Protein Sequence: >RG224084 representing NM_031896
Red=Cloning site Green=Tags(s)

MSHCSSRALTLLSSVFGACGLLLVGIAVSTDYWLYMEEGTVLPQNQTTEVKMALHAGLWRCVCFAGREKG
 RCVASEYFLEPEINLVTENTENILKTVRTATPFPMVSLFLVFTAFVISNIGHIRPQRTILAFVSGIFFIL
 SGLSLVGLVLYISSINDEVMNRPSSSEQYFHRYGWSFAFAASSFLLKEGAGVMSVYLF TKRYAEEMMY
 RPHPAFYRPRLSDCSDYSGQFLQPEAWRRGRSPSDISSDYSIQMTQNYPPAIAIKYPDHLHISTSPC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_031896

ORF Size: 825 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_031896.4](#)

RefSeq Size: 1564 bp

RefSeq ORF: 828 bp

Locus ID: 59284

UniProt ID: [P62955](#)

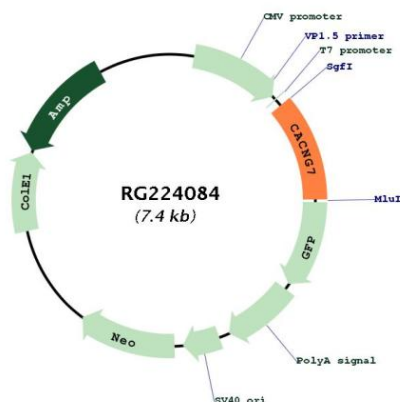
Cytogenetics: 19q13.42

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

Gene Summary: The protein encoded by this gene is a type II transmembrane AMPA receptor regulatory protein (TARP). TARPs regulate both trafficking and channel gating of the AMPA receptors. 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, a type I TARP and a calcium channel gamma subunit. [provided by RefSeq, Dec 2010]

Product images:



Circular map for RG224084