

## Product datasheet for **RG210953**

### CACNG5 (NM\_145811) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CACNG5 (NM_145811) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNG5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210953 representing NM_145811 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGTGCCTGCGGGAGGAAGGCCCTGACCCTGCTGAGCAGTGTCTTTGCTGTCTGTGGCTTGGCCTCC  
TGGGTATCGCGGTCAGCACCGACTACTGGCTGTACCTGGAGGAGGGTGTGATTGTGCCCCAGAACCAGAG  
CACCGAGATCAAGATGTCCCTGCACTCAGGCCTCTGGCGGTCTGCTTCCCTGCAGGTGAGGAGCGGGG  
CGTTGCTTACCATAGAATATGTGATGCCATGAACACCCAGCTGACATCCGAGTCCACGGTCAATGTTCC  
TAAAGATGATCCGCTCAGCCACACCATTCCCTCTGGTCAGCCTTCTTTCATGTTCAATTGGGTTTATCCT  
GAACAACATCGGACACATCCGTCCCCACCGGACGATACTGGCCTTTGTCTCTGGCATCTTCTTTATCCTC  
TCAGGCCTCTCTCTCGTGGTGGCCTGGTCTACATCTCCAGCATCAACGATGAGATGCTCAACAGGA  
CCAAGGATGCAGAGACCTACTTCAACTACAAGTATGGGTGGTCGTTTGCCTTCGCCGCCATCTCCTTCT  
TTAACGGAGAGTGCCGGGGTGTGTCTGTGTACCTGTTTATGAAGCGGTACCCGCGGAGGACATGTAC  
AGGCCCCACCCTGGCTTCTACCGCCCTCGGCTGAGCAACTGCTCCGATTACTCAGGCCAGTTCTACACC  
CAGACGCCTGGGTCAGGGGCCGAGCCCTCCGACATCTCCAGCGAGGCCTCCCTGCAGTGAACAGCAA  
CTACCCCGCTTGCTCAAGTGCCCGACTATGATCAGATGCTCTTCCACCTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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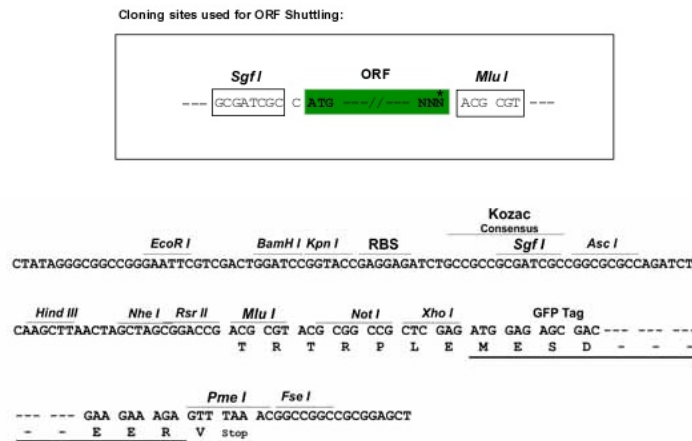
**Protein Sequence:** >RG210953 representing NM\_145811  
Red=Cloning site Green=Tags(s)

MSACGRKALTLLSSVFVAVCGLLGLGIAVSTDYWLYLEEGVIVPQNQSTEIKMSLHSGLWRCVFLAGEERG  
 RCFTIEYVMPMNTQLTSESTVNLK MIRSATPFPLVSLFFMFIGFILNNIGHIRPHRTILAFVSGIFFIL  
 SGLSLVGLVLYISSINDEMLNRTKDAETYFNKYGWSFAFAAISFLLTESAGVMSVYLFMKRYTAEDMY  
 RPHPGFYRPRLSNCSDYSGQFLHPDAWVRGRSPSDISSEASLQMN SNYPALLKCPDYDQMSSSPC

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_145811

**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\\_145811.3](#)

**RefSeq Size:** 828 bp

**RefSeq ORF:** 828 bp

**Locus ID:** 27091

**UniProt ID:** [Q9UF02](#)

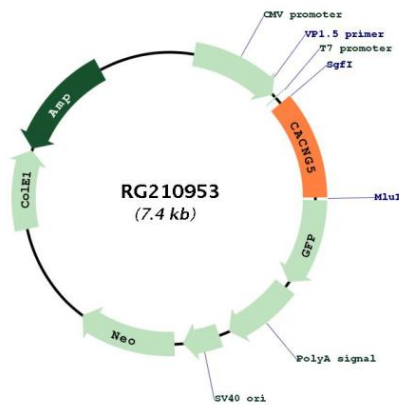
**Cytogenetics:** 17q24.2

**Protein Families:** Druggable Genome, 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. This gene is a susceptibility locus for schizophrenia and bipolar disorder. [provided by RefSeq, Dec 2010]

**Product images:**



Circular map for RG210953