

Product datasheet for **RG220789**

CACNG5 (NM_014404) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | CACNG5 (NM_014404) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | CACNG5 |
| Synonyms: | calcium channel, voltage-dependent, gamma subunit 5; MGC126656; MGC126682; neuronal voltage-gated calcium channel gamma-5 subunit; voltage-dependent calcium channel gamma-5 subunit |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG220789 representing NM_014404 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTGCCTGCGGGAGGAAGGCCCTGACCCTGCTGAGCAGTGTCTTTGCTGTCTGTGGCTTGGCCCTCC
TGGGTATCGCGGTCAGCACCGACTACTGGCTGTACCTGGAGGAGGTGTGATTGTGCCCCAGAACCAGAG
CACCGAGATCAAGATGTCCCTGCACTCAGGCCTCTGGCGGGTCTGCTTCCTTGCCAGGTGAGGAGCGGGG
CGTTGCTTACCATAGAATATGTGATGCCCATGAACACCCAGCTGACATCCGAGTCCACGGTCAATGTTC
TAAAGATGATCCGCTCAGCCACACCATTCCCTCTGGTCAGCCTCTTCTCATGTTTCATTGGGTTTATCCT
GAACAACATCGGACACATCCGTCACCCACCGGACGATACTGGCCTTTGTCTCTGGCATCTTCTTTATCCTC
TCAGGCCCTCTCTCTCGTGGTGGGCTGGTGTCTACATCTCCAGCATCAACGATGAGATGCTCAACAGGA
CCAAGGATGCAGAGACCTACTTCAACTACAAGTATGGGTGGTCTTTGCCTTCGCCGCCATCTCCTTCT
TTTAACGGAGGTAAGCCCGTCACCTAAGTATGGATAGGCTGGGCTGGGCACTGCCCCACTGAGCCGG
GGAGAGTGGGGATGGGGGAGAAGGGACATTCCACAACCATTTGGACCCCGGACCACCCACTCTACTTCC
CTTCTCATCCCAGAATGTGTCCTGTCTTACCTTTCTGGGTCTCCTCCGGCCAGGATGTCCCCAGGACC
CTGCTCCTGTCCCCACGTCCACTTCCCACCCCACTCGAGCTGTGTCTGTGCAGACCCAGCCAAGGGAG
ATGAGGCAGGCCCCAGCAGCGAGCCCATCCTCTGCTGTCTTCTCCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG220789 representing NM_014404
Red=Cloning site Green=Tags(s)

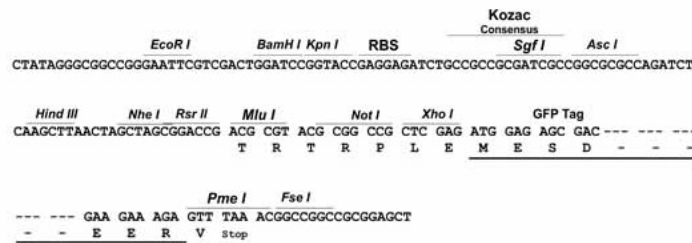
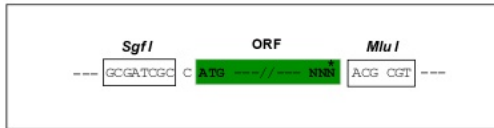
MSACGRKALTLLSSVFAVCGLGLLGIAVSTDYWLYLEEGVIVPQNQSTEIKMSLHSGLWRCFLAGEERG
 RCFTIEYVMPMNTQLTSESTVNLKMIKRSATPFPLVSLFFMFIGFILNIGHIRPHRTILAFVSGIFFIL
 SGLSLVGLVLYISSINDEMLNRTKDAETYFNKYGWSFAFAAISFLLTEVKPVTLSMDRLGLGTAPLSR
 GEWGWRRDIPQPFWTPDHPLYFPSSSQNVLSYLSGSPPARMSPGPCSCPHVHFPFHSSCVLCRPQPRE
 MRQAPAAASPSSAVFSL

TRTRPLE - GFP Tag - V

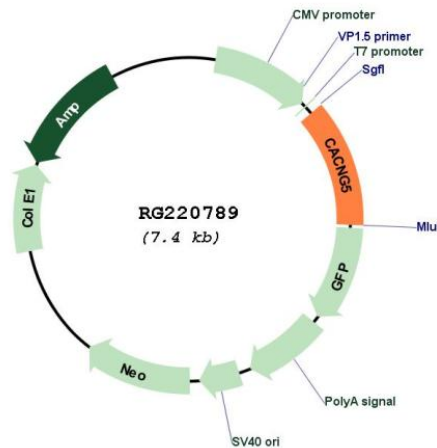
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_014404

ORF Size: 887 bp

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| 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: | <ol style="list-style-type: none">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_014404.1 , NP_055219.1 |
| RefSeq Size: | 891 bp |
| RefSeq ORF: | 890 bp |
| Locus ID: | 27091 |
| 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] |