

Product datasheet for **RG214209**

CACNA1G (NM_198396) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | CACNA1G (NM_198396) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | CACNA1G |
| Synonyms: | Ca(V)T.1; Cav3.1; NBR13; SCA42; SCA42ND |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG214209 representing NM_198396 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGAGGAGGAGGATGGAGCGGGCCGAGGAGTCGGGACAGCCCCGGAGCTTCATGCGGCTCAACG
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

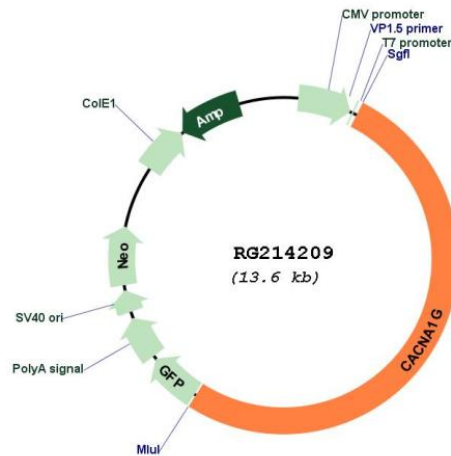
Protein Sequence: >RG214209 representing NM_198396
 Red=Cloning site Green=Tags(s)

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 RSWCLRTVCNPWFERISMLVILLNCVTLMGFRPCEDIACDSQRCRILQAFDDFIFAFFAVEMVVKMVALG
 IFGKKCYLGDTWNRLDFFIVIAGMLEYSLDLQNVSFSAVRTVRVLRPLRAINRVPSMRILVTLTLLDTLPM
 LGNVLLLCFFVFFIFGI VGVQLWAGLLRNRCFLPENFSLPLSVDLERYYTENEDESPFICSPRENGMR
 SCRSVPTLRGDGGGPPCGLDYEAYNSSNTTCVNNWQYYTNC SAGEHNPFGAINFDNI GYAWIAIFQV
 ITLEGWVDIMYFVMDAHSFYNF IYFILLIIVGSFFMINLCLVVIATQFSETKQRESQLMREQRVRFLSNA
 STLASFSEPGSCYEELLYLVYILRKAARRLAQVSRAGVRVGLLSSPAPLGGQETQPSSSCSRSHRRLS
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 QHSDLRDPHSRRQRS LGPDAEPSSVLA FWRLICDTFRKIVDSKYFGRGIMIAILVNTLSMGIEYHEQPEE
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 VLISVIDILVSMVSDSGTKILGMLRVLRLRLTLRPLRVI SRAQGLKLVVETLMSSLKPIGNIVVICAFF
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 RIARVLLKLMVGMRALLD TVMQALPQVGNLGLL FMLFFIFAALGVELFGDLECDETHPCEGLGRHAT
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 EESNKEAKEEAELAELEEMKTLSPQPHSPLGSPFLWPGVEGPDSPSPKPGALHPAAHARSASHF SLE
 HPTDRQLFDTISLLIQGSLEWELKLMDEL AGPGGQPSAFPSAPSLGGSDPQIPLAEMEALSLTSEIVSEP
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 AIRTDSL DVQGLGSRELLAEVSGSPPLARAYSFWGQSSTQAQQHSRSHSKISKHMTTPAPCPGPEPNW
 GKGPPESTRSLELDEL SWISGDLLPPGGQEPPSPRDLK KYSVEAQSCQRRTSWLDEQRHSIAVSC
 LDGSGQPHLGTDP SNLGGQPLGGPGSRPKKLSPPSITIDPPESQGPRTPPSPGICLRRRAPSSDSK DPL
 ASGPPDSMAASPPKDVLSL SGLSSDPADLDP

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Plasmid Map:



ACCN: NM_198396

ORF Size: 7029 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: | <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_198396.2 , NP_938406.1 |
| RefSeq Size: | 8162 bp |
| RefSeq ORF: | 7032 bp |
| Locus ID: | 8913 |
| UniProt ID: | O43497 |
| Cytogenetics: | 17q21.33 |
| Protein Families: | Druggable Genome, Ion Channels: Calcium, Transmembrane |
| Protein Pathways: | Calcium signaling pathway, MAPK signaling pathway, Type II diabetes mellitus |
| Gene Summary: | Voltage-sensitive calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division, and cell death. This gene encodes a T-type, low-voltage activated calcium channel. The T-type channels generate currents that are both transient, owing to fast inactivation, and tiny, owing to small conductance. T-type channels are thought to be involved in pacemaker activity, low-threshold calcium spikes, neuronal oscillations and resonance, and rebound burst firing. Many alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Sep 2011] |