

Product datasheet for **RG211619**

CACNB2 (NM_201593) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_201593) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNB2
Synonyms:	CAB2; CACNLB2; CAVB2; MYSB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211619 representing NM_201593
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTCCAAAGGGACATGTCCAAGTCGCCTCCACAGCGCGCGCGGTGGCGCAGGAGATCCAGATGG
 AACTGCTAGAGAACGTGGCTCCCGCGGGGCGCTCGGAGCCGCCACAGTCATATGGAAAAGGAGCCAG
 AAGGAAAAACAGATTTAAAGGATCTGATGGAAGCACGTCTGATACTACCTCAAATAGTTTTGTTCGC
 CAGGGTTCGGCAGACTCTACACTAGCCGTCCATCCGATTCGATGTATCTCTGGAGGAGGACCGGGAGG
 CAGTGCAGAGAGAAGCGGAGCGGAGCCAGGCACAGTTGAAAAAGCAAAGCAAAGCCGTTGCATT
 TGGCGTTCGGACAAATGTCAGCTACAGTGCGCCCATGAAGATGATGTTCCAGTGCCTGGCATGGCCATC
 TCATTGCAAGCAAAGATTTTCTGCATGTTAAGGAAAAATTAACAATGACTGGTGGATAGGGCGATTGG
 TAAAAGAAGGCTGTGAAATCGGATTCATCCAAGCCAGTCAAAGTAAAGAAATGAGGCTGCAGCATGA
 ACAGAGAGCCAAGCAAGGAAATTTCTACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGAC
 ATAGTACCTAGTTCAGAAAAATCAACACCTCCATCATCTGCTAAGCAGAAGCAGAAATCGACAGAGCACA
 CTCTCCGTATGATGTGGTACCTTCCATGCGACCAAGTGGTCTAGTGGGCCCTTCTCTGAAGGGCTACGA
 GGTACAGATATGATGCAAAAAGCGCTGTTTGTATTTTTAAAAACAGATTTGAAGGGCGGATATCCATC
 ACAAGGTCACCGCTGACATCTCGCTTGCCAAACGCTCGGATTAACAATCCCAGTAAAGCACGCAATAA
 TAGAAAGATCCAACAAGGCAAGCTTAGCGGAAGTTCAGAGTGAATCGAAAGGATTTTTGAAGTTCG
 AAGAACATTGCAGTTGGTGGTCTTGACCGGATACAATTAATCATCCAGCTCAACTCAGTAAACCTCC
 TTGGCCCTATTATAGTATATGTAAGATTTCTTCTCTAAGGTTTACAAGGTTAATAAAATCTCGAG
 GGAAATCTAAGCTAAACACCTCAACGTCAGATGGTAGCAGTGATAAACTGGCTCAGTGCCTCCAGA
 GCTGTTTCGATGTGATCTTGGATGAGAACCAGCTTGAGGATGCCTGTGAGCACCTTGCCGACTATCTGGAG
 GCCTACTGGAAGGCCACCCATCCTCCAGCAGTAGCCTCCCAACCTCTCCTTAGCCGTACATTAGCCA
 CTTCAAGTCTGCCTTTAGCCCCACCTAGCCTAATTCACAGGGTTCTCAAGGTGATCAGAGGACTGA
 TCGCTCCGCTCTATCCGTTCTGCTTCCCAAGCTGAAGAAGAACCCTAGTGTGAACCAGTCAAGAAATCC
 CAGCACCCTCTTCTCCTCAGCCCCACACCACAACCATCGCAGTGGGACAAGTCGCGGCCCTCTCCAGGC
 AAGAGACATTTGACTCGGAAACCAGGAGAGTCGAGACTCGCCTACGTAGAGCCAAAGGAAGATTATTC
 CCATGACCACGTGGACCACTATGCCTCACACCGTGACCACAACCAGAGACGAGACCCACGGGAGCAGT
 GACCACAGACACAGGGAGTCCCGCACCGTTCCCGGACGTGGATCGAGAGCAGGACCACAACGAGTGCA
 ACAAGCAGCGCAGCCGTATAAATCCAAGGATCGCTACTGTGAAAAGGATGGAGAAGTATCAAAAAA
 ACGGAATGAGGCTGGGGAGTGAACAGGGATGTTTACATCCGCCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211619 representing NM_201593
 Red=Cloning site Green=Tags(s)

MVQRDMSKSPPTAAAAVAQEIQMELLEENVAPAGALGAAAQSYGKGARRKNRFGSDGSTSSDTSNSFVR
 QGSADSYTSRPSDSVLEEDREAVRREAERQAQAQLEKAKTKPVAFVVRTNVSYSAAHEDDVPVPGMAI
 SFEAKDFLHVKEKFNNDWWIGRLVKEGCEIGFIPSPVKLENMRLQHEQRAKQKGFYSSKSGGNSSSLGD
 IVPSSRKSTPPSSAKQKQKSTEHTPPYDVVPSMRPVVLVGPSLKGVEVTDMMQKALFDLKHFEGRISI
 TRVTADISLAKRSLNPNPKHAI IERSNTRSSLAEVQSEIERIFELARTLQLVLDADTINHPAQLSKTS
 LAPIIIVYVKISSPKVLQRLIKSRGKSQAKHLNVQMVADKLAQCPELFDVILDENQLEDACEHLADYLE
 AYWKATHPPSSSLPNPLLSRTLATSSLPLSPTLASNSQGSQGDQRTDRSAPIRSASQAEEPSVEPVKKS
 QHRSSSSAPHNHRSRGSRLSRQETFDSETQESRDSAYVEPKEDYSHDHVDHYASHRDHNRDETHGSS
 DHRHRESRHRSDVDREQDHNECNKQRSRHKSKDRYCEKDGVEISKRNEAGEWNRDYYIRQ

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_201593

ORF Size: 1866 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_201593.3](#)

RefSeq Size: 3964 bp

RefSeq ORF: 1869 bp

Locus ID: 783

UniProt ID: [Q08289](#)

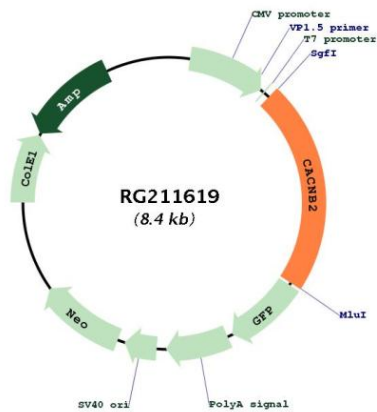
Cytogenetics: 10p12.33-p12.31

Protein Families: Druggable Genome, Ion Channels: Other

Protein Pathways: Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway

Gene Summary: This gene encodes a subunit of a voltage-dependent calcium channel protein that is a member of the voltage-gated calcium channel superfamily. The gene product was originally identified as an antigen target in Lambert-Eaton myasthenic syndrome, an autoimmune disorder. Mutations in this gene are associated with Brugada syndrome. Alternatively spliced variants encoding different isoforms have been described. [provided by RefSeq, Feb 2013]

Product images:



Circular map for RG211619