

Product datasheet for **RG214309**

CACNB2 (NM_201570) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_201570) 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:

>RG214309 representing NM_201570
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGGCCACCTGGATCAGGCTTCTGAAAAGAGCCAAGGGAGGAAGGCTGAAGAATTCTGATATCTGTG
 GTTCGGCAGACTCTACACTAGCCGTCCATCCGATTCCGATGTATCTCTGGAGGAGGACCGGGAGGCAGT
 GCGCAGAGAAGCGGAGCGGCAGGCCAGGCACAGTTGGAAAAAGCAAAGACAAAGCCCGTTGCATTTGCG
 GTTCGGACAAATGTCAGCTACAGTGCAGGCCATGAAGATGATGTTCCAGTGCCTGGCATGGCCATCTCAT
 TCGAAGCAAAGATTTTCTGCATGTTAAGGAAAAATTAACAATGACTGGTGGATAGGGCGATTGGTAAA
 AGAAGGCTGTGAAATCGGATTCATTCCAAGCCAGTCAAAGTAAAAACATGAGGCTGCAGCATGAACAG
 AGAGCCAAAGCAAGGAAATTTACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGACATAG
 TACCTAGTTCAGAAAAACAACCTCCATCATCTGCTATAGACATAGATGCTACTGGCTTAGATGCAGA
 AGAAAATGATATCCAGCAAACCCGCTCCCCTAAACCCAGTCAAACAGTGTAAAGTCAACCCACTCC
 AAAGAGAAAAAGATGCCCTTCTTAAAGAAGACAGAGCACACTCCTCCGTATGATGTGGTACCTTCCATGC
 GACCAGTGGTCTAGTGGGCCCTTCTCTGAAGGCTACGAGGTCACAGATATGATGCAAAAAAGCGCTGTT
 TGATTTTTTAAAACAGATTTGAAGGGCGGATATCCATCACAAGGGTCAACCGCTGACATCTCGTTGCC
 AAACGCTCGGTATTAACAATCCAGTAAGCACGCAATAATAGAAAGATCCAACACAAGGTCAAGCTTAG
 CGGAAGTTCAGAGTGAATCGAAAGGATTTTGAAGTTCGAAAGACATTCAGATTGGTGGTCTTGCAGC
 GGATACAATTAATCATCCAGTCAACTCAGTAAAACCTCCTTGGCCCTATTATAGTATATGTAAGATT
 TCTTCTCTAAGGTTTTACAAGGTTAATAAAATCTCGAGGAAATCTCAAGCTAAACACCTCAACGTCC
 AGATGGTAGCAGCTGATAAATCGCTCAGTGTCTCCAGAGCTGTTCGATGTGATCTTGGATGAGAACCA
 GCTTGAGGATGCCTGTGAGCACCTTGCCGACTATCTGGAGGCTACTGGAAGGCCACCCATCCTCCAGC
 AGTAGCCTCCCCAACCTCTCCTTAGCCGTACATTAGCCACTTCAAGTCTGCCTCTTAGCCCCACCTAG
 CCTCTAATTCACAGGTTCTCAAGGTGATCAGAGGACTGATCGCTCCGCTCCTATCCGTTCTGTTCCCA
 AGCTGAAGAAGAACCTAGTGTGGAACAGTCAAGAAATCCAGCACCGCTCTTCTCCTCAGCCCCACAC
 CACAACCATCGCAGTGGGACAAGTCCGGGCTCTCCAGGCAAGAGACATTTGACTCGAAACCCAGGAGA
 GTCGAGACTCTGCCTACGTAGAGCCAAAGGAAGATTATCCCATGACCACGTGGACCACTATGCCTCACA
 CCGTGACCACAACCACAGAGACGAGACCCACGGGAGCAGTGACCACAGACACAGGGAGTCCCGGCACCGT
 TCCCGGGACGTGGATCGAGAGCAGGACCAACGAGTGAACAAGCAGCGCAGCCGTATAAATCCAAGG
 ATCGCTACTGTGAAAAGGATGGAGAAGTATCAAAAAACGGAATGAGGCTGGGGAGTGAACAGGGA
 TGTTTACATCCGCCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG214309 representing NM_201570
 Red=Cloning site Green=Tags(s)

MKATWIRLLKRAKGGRLKNSDICGSADSYTSRPSDSDVSLEEDREAVRREAERQAQAQLEKAKTKPVAFA
 VRTNVSYSAAHEDDVPVPGMAISFEAKDFLHVKEKFNNDWWIGRLVKEGCEIGFIPSPVKLENMRLQHEQ
 RAKQGFYSSKSGNSSSLGDIVPSSRKSTPPSSAIDIDATGLDAEENDIPANHRSPKPSANSVTSPPHS
 KEKRMPFFKKTEHTPPYDVVPSMRPVVLVGPLKGYEVTDMMQKALFDLKHREGRISITRVTADISLA
 KRSVLNPNPSKHAIERSNTRSSLAEVQSEIERIFELARTLQLVLDADTINHQAQLSKTSLAPIIVYVKI
 SSPKVLQRLIKSRGKSQAKHLNVQMVAADKLAQCPELFDVILDENQLEDACEHLADYLEAYWKATHPPS
 SSLPNLLSRTLATSSLPLSPTLASNSQGSQGDQRTDRSAPIRSASQAEEEPSVEPVKKSQHRSSSSAPH
 HNHRSRGLSRQETFDSETQESRDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSSDHRHRESRHR
 SRDQVREQDHNENKQSRHRSKDRYCEKDGVEISKRNEAGWNRDVYIRQ

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_201570

ORF Size: 1836 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_201570.3](#)

RefSeq Size: 3241 bp

RefSeq ORF: 1839 bp

Locus ID: 783

UniProt ID: [Q08289](#)

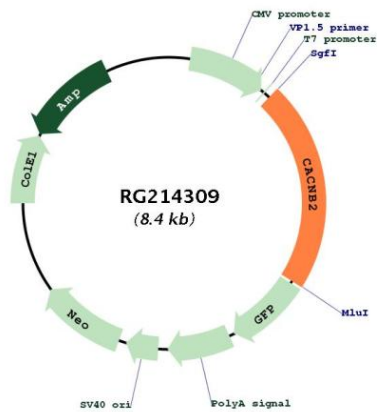
Cytogenetics: 10p12.33-p12.31

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 RG214309