

Product datasheet for **RG230323**

CACNB2 (NM_001167945) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_001167945) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RG230323 representing NM_001167945
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATCAGGGGAGTGGACTGGACCTGCTGAAGATCTCATATGGAAAAGGAGCCAGAAGGAAAAACAGAT
 TTAAGGATCTGATGGAAGCACGTCATCTGATACTACCTCAAATAGTTTTGTTCCGCCAGGGTTCGGCAGA
 CTCCTACACTAGCCGTCCATCCGATTCCGATGTATCTCTGGAGGAGGACCGGGAGGCAGTGCAGAGAA
 GCGGAGCGGCAGGCCAGGCACAGTTGGAAAAAGCAAAGCAAAGCCCGTTGCATTTGCGGTTCCGACAA
 ATGTCAGCTACAGTGGGCCCATGAAGATGATGTTCCAGTGCCTGGCATGGCCATCTCATTCAAGCAAA
 AGATTTTCTGCATGTTAAGGAAAAATTTAAACAATGACTGGTGGATAGGGCGATTGGTAAAAGAAGGCTGT
 GAAATCGGATTCATTCCAAGCCAGTCAAAGTAAAGCAATGAGGCTGCAGCATGAACAGAGAGCCAAGC
 AAGGAAATTCCTACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGACATAGTACCTAGTTC
 CAGAAAATCAACACCTCCATCATCTGCTAAGCAGAAGCAGAAATCGACAGAGCACACTCCTCCGTATGAT
 GTGGTACCTTCCATGCGACCAAGTGGTCCAGTGGGCCCTTCTCTGAAGGGCTACGAGGTCACAGATATGA
 TGCAAAAAGCGCTGTTTGATTTTTTAAACACAGATTTGAAGGGCGGATATCCATCACAAGGGTACCCGC
 TGACATCTCGCTTGCACCAAGCTCGGTATTAACAATCCAGTAAAGCAGCAATAATAGAAAAGTCCAAC
 ACAAGGTCAAGCTTAGCGGAAGTTCAGAGTGAATCGAAAGGATTTTTGAACTTGAAGAACATTGCAGT
 TGGTGGTCTTGACGCGGATAACAATTAATCATCCAGTCAACTCAGTAAAACCTCCTTGGCCCTATTAT
 AGTATATGTAAGATTTCTTCTCCTAAGGTTTTACAAAGGTTAATAAAATCTCGAGGGAAATCTCAAGCT
 AAACACCTCAACGTCCAGATGGTAGCAGCTGATAAACTGGCTCAGTGTCTCCAGAGCTGTTTCGATGTA
 TCTTGGATGAGAACCAGCTTGAGGATGCTGTGAGCACCTTGGCGACTATCTGGAGGCCTACTGGAAGGC
 CACCCATCCTCCCAGCAGTAGCCTCCCCAACCCCTCCTTAGCCGTACATTAGCCACTTCAAGTCTGCCT
 CTTAGCCCCACCCTAGCCTCTAATTCACAGGGTCTCAAGGTGATCAGAGGACTGATCGCTCCGCTCCTA
 TCCGTTCTGCTTCCCAAGCTGAAGAAGAACCCTAGTGTGGAACAGTCAAGAAATCCAGCACCCTCTTC
 CTCCTCAGCCCCACACCACAACCATCGCAGTGGGACAAGTCGCGGCTCTCCAGGCAAGAGACATTTGAC
 TCGGAAACCCAGGAGAGTCGAGACTCTGCCTACGTAGAGCCAAAGGAAGATTATCCCATGACCAGTGG
 ACCACTATGCCTCACACCGTGACCACAACCACAGAGACGAGACCCACGGGAGCAGTGACCACAGACACAG
 GGAGTCCCGGCACCGTTCCCGGACGTGGATCGAGAGCAGGACCAACGAGTGAACAAGCAGCGCAGC
 CGTCATAAATCCAAGGATCGCTACTGTGAAAAGGATGGAGAAGTGATATCAAAAAACCGAATGAGGCTG
 GGGAGTGAACAGGGATGTTTACATCCGCCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230323 representing NM_001167945
 Red=Cloning site Green=Tags(s)

MNQGSLDLLKISYKGGARRKNRFKGS DGSSTTSNSFVRQGSADSYTSRPSDSDVSLEEDREAVRRE
 AERQAQALEKAKTKPVAFVVRTNVSAAHEDDVPVPGMAISFEAKDFLHVKEKFNNDWWIGRLVKEGC
 EIGFIPSPVKLENMRLQHEQRAKQKGFYSSKSGGNSSSLGDIVPSSRKSTPPSSAKQKQKSTEHTPPYD
 VVPSMRPVVLVGPSLKGVEVTDMMQKALFDLKHREGRISITRVTADISLAKRSLNPNPSKHAIERSN
 TRSSLAEVQSEIERIFELARTLQLVVLADTINHPAQLSKTSLAPIIVYVKISSPKVLQRLIKSRGKSQA
 KHLNVQMAADKLAQCPELFDVILDENQLEDACEHLADYLEAYWKATHPPSSSLPNPLLSRTLATSSLP
 LSPTLASNSQGSQGDQRTDRSAPIRSASQAE EEPVVEPVKKSQHRSSSSAPHNHRSRGLSRQETFD
 SETQESRDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSSDHRHRESRHRSDVDREQDHNENKQRS
 RHKSKDRYCEKDEVISSKRNEAGEWNRDVYIRQ

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001167945

ORF Size: 1782 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_001167945.2](#)

RefSeq Size: 4187 bp

RefSeq ORF: 1785 bp

Locus ID: 783

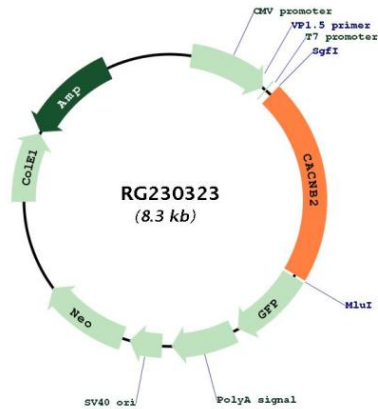
Cytogenetics: 10p12.33-p12.31

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 RG230323