

Product datasheet for **RC211619**

CACNB2 (NM_201593) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_201593) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNB2
Synonyms:	CAB2; CACNLB2; CAVB2; MYSB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC211619 representing NM_201593
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTCCAAAGGGACATGTCCAAGTCGCCTCCACAGCGCGCGCGGTGGCGCAGGAGATCCAGATGG
 AACTGCTAGAGAACGTGGCTCCCGCGGGGCGCTCGGAGCCGCCACAGTCATATGGAAAAGGAGCCAG
 AAGGAAAAACAGATTTAAAGGATCTGATGGAAGCACGTCTGATACTACCTCAAATAGTTTTGTTGCGC
 CAGGGTTCGGCAGACTCTACACTAGCCGTCATCCGATTCGATGTATCTGAGGAGGACCGGGAGG
 CAGTGCAGAGAGAAGCGGAGCGGAGCCAGGCACAGTTGAAAAAGCAAAGCAAAGCCGTTGCATT
 TGCGGTTCCGACAAATGTCAGCTACAGTGCGCCCATGAAGATGATGTTCCAGTGCCTGGCATGGCCATC
 TCATTGGAAGCAAAGATTTTCTGCATGTTAAGGAAAAATTAACAATGACTGGTGGATAGGGCGATTGG
 TAAAAGAAGGCTGTGAAATCGGATTCATCCAAGCCAGTCAAAGTAAAGAAATGAGGCTGCAGCATGA
 ACAGAGAGCCAAGCAAGGAAATTTCTACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGAC
 ATAGTACCTAGTTCAGAAAATCAACACCTCCATCATCTGCTAAGCAGAAGCAGAAAATCGACAGAGCACA
 CTCTCCGTATGATGTGGTACCTTCCATGCGACCAAGTGGTCTAGTGGGCCCTTCTCTGAAGGGCTACGA
 GGTACAGATATGATGCAAAAAGCGCTGTTGATTTTTAAAAACAGATTTGAAGGGCGGATATCCATC
 ACAAGGTACCGCTGACATCTCGCTTGCCAAACGCTCGGTATTAACAATCCCAGTAAAGCACGCAATAA
 TAGAAAGATCCAACACAAGGTCAAGCTTAGCGGAAGTTCAGAGTAAATCGAAAGGATTTTTGAAGTTGC
 AAGAATTCAGTTGGTGGTCTTGACGCGGATACAATTAATCATCCAGCTCAACTCAGTAAACCTCC
 TTGGCCCTATTATAGTATATGTAAGATTTCTTCTCCTAAGGTTTACAAAGGTTAATAAAATCTCGAG
 GGAAATCTAAGCTAAACACCTCAACGTCAGATGGTAGCAGTGATAAACTGGTCACTGTCCTCCAGA
 GCTGTTTCGATGTGATCTTGGATGAGAACCAGCTTGAGGATGCCTGTGAGCACCTTGCCGACTATCTGGAG
 GCCTACTGGAAGGCCACCCATCCTCCAGCAGTAGCCTCCCAACCTCTCCTTAGCCGTACATTAGCCA
 CTTCAAGTCTGCCTTAGCCCCACCTAGCCTAATTCACAGGGTTCTCAAGGTGATCAGAGGACTGA
 TCGCTCCGCTCTATCCGTTCTGCTTCCCAAGCTGAAGAAGAACCCTAGTGTGAACCAGTCAAGAAATCC
 CAGCACCCTCTTCTCCTCAGCCCCACACCACAACCATCGCAGTGGGACAAGTCGCGGCCCTCTCCAGGC
 AAGAGACATTTGACTCGGAAACCAGGAGAGTGCAGACTCTGCCTACGTAGAGCCAAAGGAAGATTATC
 CCATGACCACGTGGACCACTATGCCTCACACCGTGACCACAACCAGAGACGAGACCCACGGGAGCAGT
 GACCACAGACACAGGGAGTCCCGCACCGTTCCCGGACGTGGATCGAGAGCAGGACCACAACGAGTGCA
 ACAAGCAGCGCAGCCGTATAAATCCAAGGATCGCTACTGTGAAAAGGATGGAGAAGTATCAAAAAA
 ACGGAATGAGGCTGGGGAGTGAACAGGGATGTTTACATCCGCCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211619 representing NM_201593
 Red=Cloning site Green=Tags(s)

MVQRDMSKSPPTAAAAVAQEIQMELLENVAPAGALGAAAQSYGKGARRKNRFGSDGSTSSDTSNSFVR
 QGSADSYTSRPSDSVLSLEEDREAVRREAERQAQAQLEKAKTKPVAFVVRTNVSAAHEDDVPVPGMAI
 SFEAKDFLHVKEKFNNDWWIGRLVKEGCEIGFIPSPVKLENMRLQHEQRAKQKGFYSSKSGNSSSLGD
 IVPSSRKSTPPSSAKQKQKSTEHTPPYDVVPSMRPVVLVGPVSLKGYEVTMMQKALFDLKHREGRISI
 TRVTADISLAKRSVLNPNPKHAI IERSNTRSSLAEVQSEIERIFELARTLQLVVLADTINHPAQLSKTS
 LAPIIIVYKISSPKVLQRLIKSRGKSQAKHLNVQMVAADKLAQCPELFDVILDENQLEDACEHLADYLE
 AYWKATHPPSSSLPNLLSRTLATSSLPLSPTLASNSQGSQGDQRTDRSAPIRSASQAEEDSVEVPKKS
 QHRSSSSAPHNHRSRGLSRQETFDSETQESRDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSS
 DHRHRESRHRSDVDREQDHNENKQSRHRKSKDRYCEKDGEVISKRNEAGEWNRDYYIRQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8070_b11.zip

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.

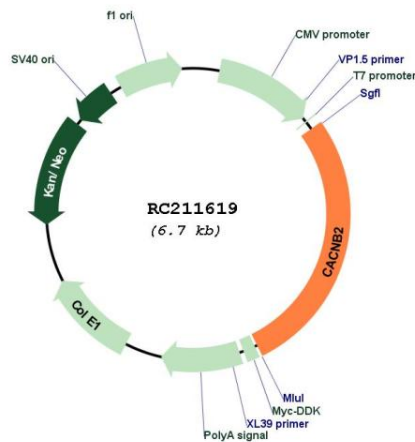
RefSeq: [NM_201593.3](#)

RefSeq Size: 3964 bp

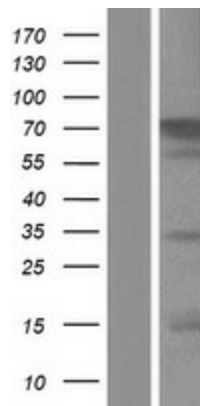
RefSeq ORF: 1869 bp

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
MW: 69.3 kDa
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 RC211619



Western blot validation of overexpression lysate (Cat# [LY404477]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211619 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).