

Product datasheet for **RC214309**

CACNB2 (NM_201570) Human Tagged ORF Clone

Product data:

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

>RC214309 representing NM_201570
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGGCCACCTGGATCAGGCTTCTGAAAAGAGCCAAGGGAGGAAGGCTGAAGAATTCTGATATCTGTG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214309 representing NM_201570
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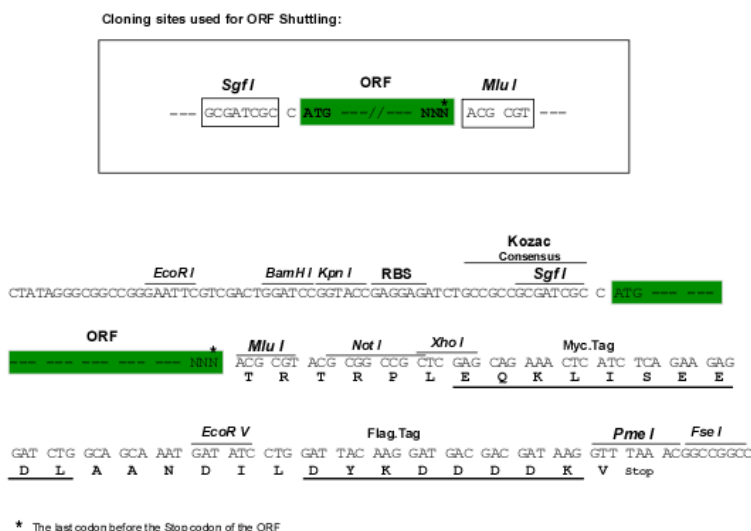
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 HNHRSRGLSRQETFDSQESRDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSSDHRHRESRHR
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8069_f10.zip

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.

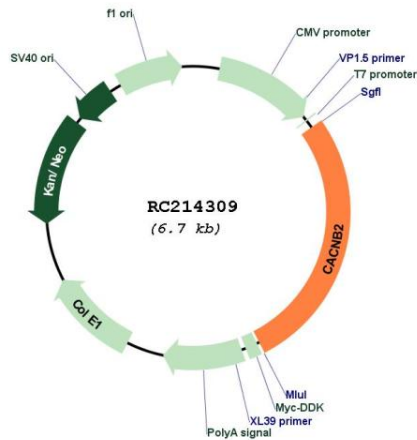
RefSeq: [NM_201570.3](#)

RefSeq Size: 3241 bp

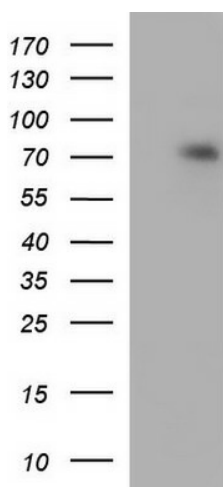
RefSeq ORF: 1839 bp

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
MW: 68.7 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]

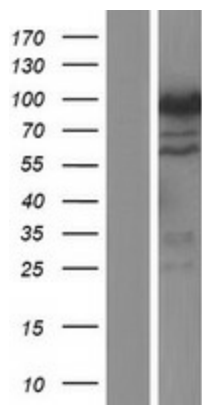
Product images:



Circular map for RC214309



HEK293T cells were transfected with the pCMV-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CACNB2 (Cat# RC214309, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CACNB (Cat# [TA590334]). Positive lysates [LY404468] (100ug) and [LC404468] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY404468]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214309 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).