

## Product datasheet for **RG211493**

### **CACNB2 (NM\_201596) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_201596) 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:

>RG211493 representing NM\_201596  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

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CAGTGCAGCAGAGAAGCGGAGCGGAGGCCAGGCACAGTTGAAAAAGCAAAGCAAAGCCGTTGCATT  
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CTCCAAAGAGAAAAAGAAATGCCCTTCTTTAAGAAGACAGAGCACACTCCTCCGATGATGTGGTACCTTCC  
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CCGTTCCCGGACGTGGATCGAGAGCAGGACCACAACGAGTGCAACAAGCAGCGCAGCCGTATAAATCC  
AAGGATCGCTACTGTGAAAAGGATGGAGAAGTGATATCAAAAAACGGAATGAGGCTGGGGAGTGGAAACA  
GGGATGTTTACATCCCCCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG211493 representing NM\_201596  
 Red=Cloning site Green=Tags(s)

MVQRDMSKSPPTAAAAVAQEIQMELLEENVAPAGALGAAAQSYGKGARRKNRFGSDGSTSSDSTTSNSFVR  
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 SFEAKDFLHVKEKFNNDWWIGRLVKEGCEIGFIPSPVKLENMRLQHEQRAKQKGFYSSKSGNSSSSLDG  
 IVPSSRKSTPPSSAIDIDATGLDAEENDIPANHRSPKPSANSVTSPPHSKEKRMPPFFKTEHTPPYDVVPS  
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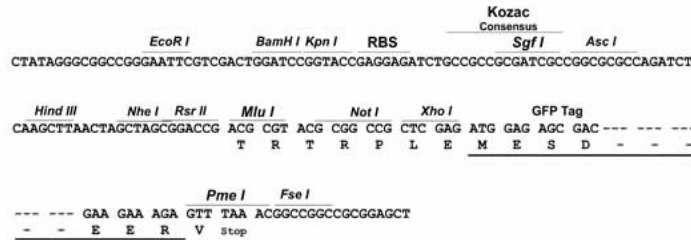
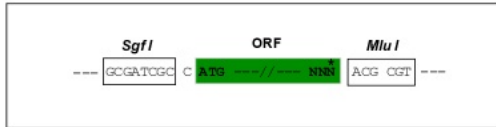
TRTRPLE - GFP Tag - V

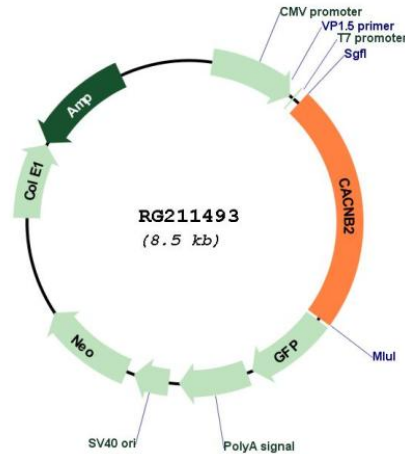
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_201596

**ORF Size:** 1980 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_201596.1</a> , <a href="#">NP_963890.1</a>
<b>RefSeq Size:</b>	3445 bp
<b>RefSeq ORF:</b>	1983 bp
<b>Locus ID:</b>	783
<b>UniProt ID:</b>	<a href="#">Q08289</a>
<b>Cytogenetics:</b>	10p12.33-p12.31
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Other
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway
<b>Gene Summary:</b>	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]