

## Product datasheet for **RG234200**

### **CACNB3 (NM\_001206917) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CACNB3 (NM_001206917) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNB3
Synonyms:	CAB3; CACNLB3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234200 representing NM\_001206917  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGGGTT**CAGCCGACTCCTACACCAGCCGCCATCTCTGGACTCAGACGTCTCCCTGGAGGAGGACC**  
**GGGAGAGT**GCCCCGGCTGAAGTAGAGAGCCAGGCTCAGCAGCAGCTCGAAAGGGCCAAGCACAAACCTGT  
 GGCATTTGCGGTGAGGACCAATGTCAGCTACTGTGGCGTACTGGATGAGGAGTGCCAGTCCAGGGCTCT  
 GGAGTCAACTTTGAGGCCAAAGATTTTCTGCACATTAAGAGAAGTACAGCAATGACTGGTGGATCGGGC  
 GGCTAGTGAAAGAGGGCGGGGACATCGCTTTCATCCCCAGCCCCAGCGCTGGAGAGCATCCGGCTCAA  
 ACAGGAGCAGAAGGCCAGGAGATCTGGGAACCTTCCAGCCTGAGTGACATTGGCAACCGACGCTCCCT  
 CCGCCATCTCTAGCCAAGCAGAAGCAAAAGCAGGCGGAACATGTTCCCCATATGACGTGGTGCCTCCA  
 TCGGCCCTGTGGTCTGGTGGGACCTCTCTGAAAGTTATGAGGTACAGACATGATGCAGAAGGCTCT  
 CTTGACTTCTCAAACACAGATTTGATGGCAGGATCTCCATCACCCGAGTCACAGCCGACCTCTCCCTG  
 GCAAAGCGATCTGTGCTCAACAATCCGGCAAGAGGACCATATTGAGCGCTCCTCTGCCGCTCCAGCA  
 TTGCGGAAGTGCAGAGTGAGATCGAGCGCATATTTGAGCTGGCCAAATCCCTGCAGCTAGTAGTGTGGA  
 CGCTGACACCATCAACCACCCAGCACAGCTGGCCAAGACCTCGCTGGCCCCATCATCGTCTTTGTCAA  
 GTGTCTCACCAAAGGTA**CTCCAGCGTCTCATTGCTCCCGGGGAAGTACAGATGAAGCACCTGACCG**  
**TACAGATGATGGCATA**TGATAAGCTGGTTCAGTGCCACCCGAGTCATTTGATGTATTCTGGATGAGAA  
 CCAGCTGGAGGATGCCTGTGAGCACCTGGCTGAGTACCTGGAGGTTTACTGGCGGCCACGCACCCCA  
 GCCCTGGCCCCGACTTCTGGTCTCCAGTGCCATCCCCGGACTT**CAGAACCAGCAGCTGCTGGGGG**  
**AGCGTGGCGAGGAGCACTCCCCCTTGAGCGGGACAGCTTGATGCCCTCTGATGAGGCCACCGAGAGCTC**  
**CGCCAAGCCTGGACAGGATCTT**CACAGCTAGCTCCCGCCACCTGGAGGAGGACTATGCAGATGCCTAC  
 CAGGACCTGTACCAGCCTCACCGCAACACACCTCGGGGCTGCCTAGTGCTAACGGGCATGACCCCCAAG  
 ACCGGTCTTAGCCAGGACTCAGAGCACAAACCACAGTACCAGGAACTGGCAGCGCAACCGGCTTGGCC  
 CAAGGATAGCTAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

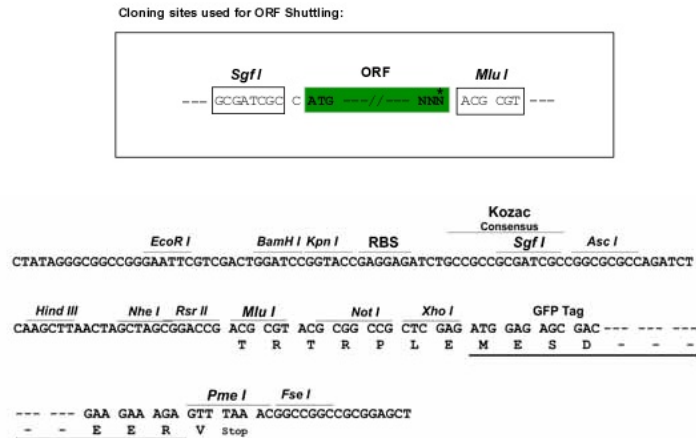
>RG234200 representing NM\_001206917  
 Red=Cloning site Green=Tags(s)

MEGSADSYTSRPSLSDSDVSLIEDRESARREVESQAQQQLERAKHKPVAFVTRTNVSYCGVLDEECPVQGS  
 GVNFEAKDFLHIKEKYSNDWWIGRLVKEGGDIAFIPSPQRLESIRLKQEQAARRSGNPSSLSDIGNRRSP  
 PPSLAKQKQQA**EHVPPYDVVPSMRPVVLVGP**SLKGYEVTMMQKALDFLKHFRFDGRISITRVTADLSL  
 AKRSVLNNPGKRTIIERSARSSIAEVQSEIERIFELAKSLQLVVLADDTINHPAQLAKTSLAPIIVFVK  
 VSSPKVLQRLIRSRGKSQMKHLTVQMAYDKLVQCPPE**SFDVILDENQLEDACEHLAEYLEVYWRATHHP**  
 APGPGLLGP**PSAIPGLQNQQLLGERGEEHSPLERDSL**MP**SDEASESSRQAWT**GSSQRSSR**HEEDYADAY**  
 QDLYQPHRQHTSGLPSANGHDPQDRLLAQDSEHNHSDRNWQRNRPWPKDSY

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001206917

**ORF Size:** 1413 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\\_001206917.2](#)

**RefSeq Size:** 2576 bp

**RefSeq ORF:** 1416 bp

**Locus ID:** 784

**UniProt ID:** [P54284](#)

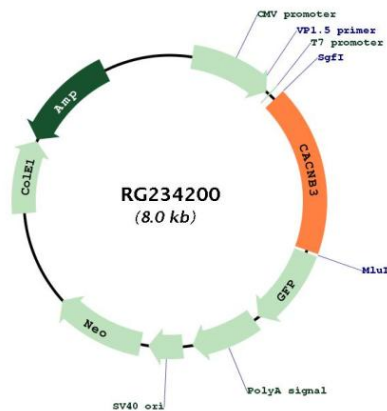
**Cytogenetics:** 12q13.12

**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 regulatory beta subunit of the voltage-dependent calcium channel. Beta subunits are composed of five domains, which contribute to the regulation of surface expression and gating of calcium channels and may also play a role in the regulation of transcription factors and calcium transport. [provided by RefSeq, Oct 2011]

**Product images:**



Circular map for RG234200