

## Product datasheet for **RG234230**

### **CACNB3 (NM\_001206916) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CACNB3 (NM_001206916) 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:**

>RG234230 representing NM\_001206916  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTTTTTCTGACTCCAGTGCACCTTCTCTGCTGAACGAGGGTTCAGCCGACTCTACACCAGCCGCC  
 CATCTCTGGACTCAGACGTCTCCCTGGAGGAGGACCGGGAGAGTGCCCGCGTGAAGTAGAGAGCCAGGC  
 TCAGCAGCAGCTCGAAAGGGCCAAGCACAAACCTGTGGCATTTCGCGTGAGGACCAATGTGACTACTGT  
 GGCGTACTGGATGAGGAGTGCCAGTCCAGGGCTCTGGAGTCAACTTTGAGGCCAAAGATTTTCTGCACA  
 TTAAGAGAAGTACAGCAATGACTGGTGGATCGGGCGGCTAGTAAAGAGGGCGGGGACATCGCCTTCAT  
 CCCCAGCCCCAGCGCTGGAGAGCATCCGGCTCAAACAGGAGCAGAAGGCCAGGAGATCTGGGAACCTT  
 TCCAGCCTGAGTGACATTGGCAACCGACGCTCCCTCCGCCATCTCTAGCCAAGCAGAAGCAAAGCAGG  
 CGGAACATGTTCCCCATATGACGTGGTCCCTCCATGCGGCCTGTGGTCTGGTGGGACCTCTCTGAA  
 AGTTATGAGGTCACAGACATGATGCAGAAGGCTCTCTTCGACTTCTCAAACACAGATTTGATGGCAGG  
 ATCTCCATCACCCGAGTCACAGCCGACCTCTCCCTGGCAAAGCGATCTGTGCTCAACAATCCGGGCAAGA  
 GGACCATATTGAGCGCTCCTCTGCCCGCTCCAGCATTGCGGAAGTGCAGAGTGAGATCGAGCGCATATT  
 TGAGCTGGCCAAATCCCTGCAGCTAGTAGTGTGGACGCTGACACCATCAACCACCCAGCACAGCTGGCC  
 AAGACCTCGTGGCCCCATCATCGTCTTTGTCAAAGTGTCTCACCAAAGGTAATCCAGCGTCTCATTC  
 GCTCCCGGGGAAGTACAGATGAAGCACCTGACCGTACAGATGATGGCATATGATAAGCTGGTTCACTG  
 CCCACCGAGTCAATTTGATGTGATTCTGGATGAGAACCAGCTGGAGGATGCTGTGAGCACCTGGCTGAG  
 TACCTGGAGGTTTACTGGCGGGCCACGCCACCACCCAGCCCTGGCCCCGACTTCTGGTCTCTCCAGTG  
 CCATCCCCGACTTCAGAACCAGCAGCTGCTGGGGGAGCGTGGCGAGGAGCACTCCCCCTTGGCGGGA  
 CAGCTTGATGCCCTCTGATGAGGCCAGCGAGAGCTCCCGCCAAGCCTGGACAGGATCTTACAGCGTAGC  
 TCCCGCCACCTGGAGGAGACTATGCAGATGCCTACCAGGACCTGTACCAGCCTACCCGCCAACACACCT  
 CGGGGCTGCCTAGTGCTAACGGGCATGACCCCCAAGACCGGCTTCTAGCCAGGACTCAGAGCACAAACA  
 CAGTGACCGGAAGTGGCAGCGCAACCGGCTTGGCCCAAGGATAGCTAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234230 representing NM\_001206916  
 Red=Cloning site Green=Tags(s)

MSFSDSSATFLLNEGSADSYTSRPSLSDVSLSEEDRESARREVESQAQQQLERAKHKPVAFAVRTNVSYS  
 GVLDEECPVQSGVNF EAKDFLHIKEKYSNDWWIGRLVKEGGDIAFIPSPQRLESIRLQEQKARRSGNP  
 SSLSDIGNRRSPPPSLAKQKQKQAEHVPPYDVVPSMRPVVLVGPLSKGYEVTMMQKALFDLKHDFDGR  
 ISITRVTADLSLAKRSVLNPNPKRTI IERS SARSSIAEVQSEIERIFELAKSLQLVVLADDTINHPAQLA  
 KTS LAP IIVFVKVSSPKVLQRLIRSRGKSQMKHLTVQMMAYDKLVQCPPE SFDVILDENQLEDACEHLAE  
 YLEVYWRATHHPAPGPGLLGPPSAIPGLQNGQLLGERGEEHSPLERDSLMP SDEASESSRQAWTGSQRS  
 SRHLEEDYADAYQDLYQPHRQHTSGLPSANGHDPQDRLLAQDSEHNHSDRNWQRNRPWPKDSY

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001206916

**ORF Size:** 1449 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\\_001206916.2](#)

**RefSeq Size:** 2609 bp

**RefSeq ORF:** 1452 bp

**Locus ID:** 784

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

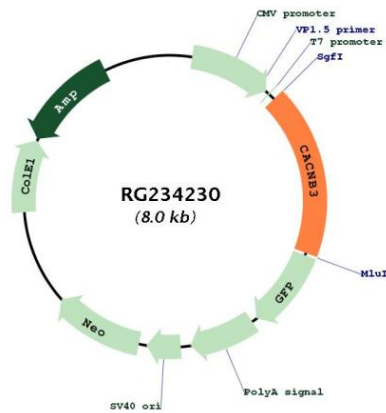
**Cytogenetics:** 12q13.12

**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 RG234230