

## Product datasheet for **RC207229**

### **CACNB3 (NM\_000725) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CACNB3 (NM_000725) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNB3
Synonyms:	CAB3; CACNLB3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC207229 representing NM\_000725  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTATGACGACTCTACGTGCCGGGTTTGAGGACTCGGAGCGGGTTCAGCCGACTCCTACACCAGCC  
 GCCCATCTCTGGACTCAGACGTCTCCCTGGAGGAGGACCGGGAGAGTGCCCGGCGTGAAGTAGAGAGCCA  
 GGCTCAGCAGCAGCTCGAAAGGGCCAAGCACAAACCTGTGGCATTTCGGGTGAGGACCAATGTCAGCTAC  
 TGTGGCGTACTGGATGAGGAGTGCCAGTCCAGGGCTCTGGAGTCAACTTTGAGGCCAAAGATTTTCTGC  
 ACATTAAGAGAAGTACAGCAATGACTGGTGGATCGGGCGGCTAGTAAAAGAGGGCGGGACATCGCCTT  
 CATCCCCAGCCCCAGCGCTGGAGAGCATCCGGCTCAAACAGGAGCAGAAGGCCAGGAGATCTGGGAAC  
 CCTTCCAGCTGAGTGACATTGGCAACCGACGCTCCCCTCGCCATCTCTAGCCAAGCAGAAGCAAAGC  
 AGCGGAAACATGTTCCCACATAGACGTGGTGCCTCCATCGGCCTGTGGTGTGGTGGGACCATCTCT  
 GAAAGTTATGAGGTACAGACATGATGCAGAAGGCTCTCTTCGACTTCTCAAACACAGATTTGATGGC  
 AGGATCTCCATCACCCGAGTACAGCCGACCTCTCCCTGGCAAAGCGATCTGTGCTCAACAAATCCGGGCA  
 AGAGGACCATCATTGAGCGCTCCTCTGCCCGCTCCAGCATTGCGGAAGTGCAGAGTGAGATCGAGCGCAT  
 ATTTGAGCTGGCCAAATCCCTGCAGCTAGTAGTGTGGACGCTGACACCATCAACCACCCAGCACAGCTG  
 GCCAAGACCTCGCTGGCCCCATCATCGTCTTTGTCAAAGTGTCTCACCAAAGTACTCCAGCGTCTCA  
 TTCGCTCCCGGGGAAGTACAGATGAAGCACCTGACCGTACAGATGATGGCATAATGATAAGCTGGTTCA  
 GTGCCACCGGAGTCATTTGATGTGATTCTGGATGAGAACCAGCTGGAGGATGCCTGTGAGCACCTGGCT  
 GAGTACCTGGAGGTTTACTGGCGGGCCACGCACCCAGCCCCGCCCCGGACTTCTGGGCTTCCCCA  
 GTGCCATCCCAGGACTTCAGAACAGCAGCTGCTGGGGAGCGTGGCGAGGAGCACTCCCCCTTGGAGCG  
 GGACAGCTTGATGCCCTCTGATGAGGCCAGCGAGAGCTCCCGCCAAGCCTGGACAGGATCTTACAGCGT  
 AGCTCCCGCCACCTGGAGGAGGACTATGCAGATGCCTACCAGGACCTGTACCAGCCTCACCGCAACACA  
 CCTCGGGGCTGCCTAGTGCTAACGGGCATGACCCCAAGACCGGCTTCTAGCCCAGGACTCAGAGCACAA  
 CCACAGTGACCGAACTGGCAGCGCAACCGGCCTTGGCCAAAGGATAGCTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207229 representing NM\_000725  
 Red=Cloning site Green=Tags(s)

MYDSDYVPGFEDSEAGSADSYTSRPSLSDVLSLEEDRESARREVESQAQQQLERAKHKPVFAVRTNVS  
 YCGVLDDEECPVQSGVNF EAKDFLHIKEKYSNDWWIGRLVKEGGDIAFIPSPQRLESIRLKQEQKARRSGN  
 PSSLSDIGNRRSPPPSLAKQKQAEHVPPYDVVPSMRPVVLVGP SLKGYEVTDMMQALFDFLKHRFDG  
 RISITRV TADLSLAKRSVLNPNPKRTI IERSARSIAEVQSEIERIFELAKSLQLVVL DADTINHPAQL  
 AKTSLAPIIVFVKVSSPKVLQRLIRSRGKSQMKHLTVQMMAYDKLVQCPPE SFDVILDENQLEDACEHLA  
 EYLEVYWRATHHPAPG PGLLGPPSAIPGLQNQQLGERGEEHSPLERDSLMP SDEASESSRQAWTGSSQR  
 SSRHLEEDYADAYQDL YQPHRQHTSGLPSANGHDPQDRLLAQDSEHNHSDRNWQRNRPWP KDSY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_000725

**ORF Size:** 1452 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](#)

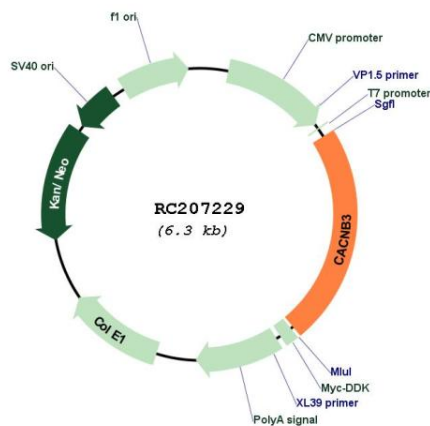
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

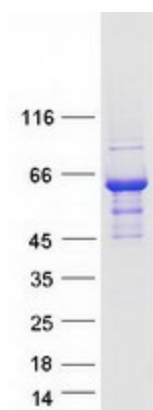
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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:	<a href="#">NM_000725.4</a>
RefSeq Size:	2714 bp
RefSeq ORF:	1455 bp
Locus ID:	784
UniProt ID:	<a href="#">P54284</a>
Cytogenetics:	12q13.12
Domains:	Ca_channel_B, GuKc
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:	54.4 kDa
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 RC207229



Coomassie blue staining of purified CACNB3 protein (Cat# [TP307229]). The protein was produced from HEK293T cells transfected with CACNB3 cDNA clone (Cat# RC207229) using MegaTran 2.0 (Cat# [TT210002]).