

Product datasheet for **RG207229**

CACNB3 (NM_000725) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB3 (NM_000725) 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:

>RG207229 representing NM_000725
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTATGACGACTCTACGTGCCGGGTTTGAGGACTCGGAGCGGGTTACGCCACTCCTACACCAGCC
 GCCCATCTCTGGACTCAGACGTCTCCCTGGAGGAGGACCGGGAGAGTGCCCGCGTGAAGTAGAGAGCCA
 GGCTCAGCAGCAGCTCGAAAGGGCCAAGCACAAACCTGTGGCATTTCGGGTGAGGACCAATGTCAGCTAC
 TGTGGCGTACTGGATGAGGAGTGCCAGTCCAGGGCTCTGGAGTCAACTTTGAGGCCAAAGATTTTCTGC
 ACATTAAGAGAAGTACAGCAATGACTGGTGGATCGGGCGGTAGTAAAAGAGGGCGGGACATCGCCTT
 CATCCCCAGCCCCAGCGCTGGAGAGCATCCGGCTCAAACAGGAGCAGAAGGCCAGGAGATCTGGGAAC
 CCTTCCAGCTGAGTGACATTGGCAACCGACGCTCCCCTCGCCATCTCTAGCCAAGCAGAAGCAAAGC
 AGCGGAAACATGTTCCCCATATGACGTGGTGCCTCCATCGGGCTGTGGTGTGGTGGGACCATCTCT
 GAAAGTTATGAGGTCACAGACATGATGCAGAAGGCTCTCTTCGACTTCTCAAACACAGATTTGATGGC
 AGGATCTCCATCACCCGAGTACAGCCGACCTCTCCCTGGCAAAGCGATCTGTGCTCAACAATCCGGGCA
 AGAGGACCATCATTGAGCGCTCCTCTGCCCGCTCCAGCATTGCGGAAGTGCAGAGTGAGATCGAGCGCAT
 ATTTGAGCTGGCCAAATCCCTGCAGCTAGTAGTGTGGACGCTGACACCATCAACCACCCAGCACAGCTG
 GCCAAGACCTCGCTGGCCCCATCATCGTCTTTGTCAAAGTGTCTCACCAAAGTACTCCAGCGTCTCA
 TTCGCTCCCGGGGAAGTACAGATGAAGCACCTGACCGTACAGATGATGGCATAATGATAAGCTGGTTCA
 GTGCCACCGGAGTCATTTGATGTGATTCTGGATGAGAACCAGCTGGAGGATGCCTGTGAGCACCTGGCT
 GAGTACCTGGAGGTTTACTGGCGGGCCACGCACCCAGCCCCGCCCCGGACTTCTGGGTCTCCCA
 GTGCCATCCCGGACTTCAGAACAGCAGCTGCTGGGGAGCGTGGCGAGGAGCACTCCCCCTTGAGCG
 GGACAGCTTGATGCCCTCTGATGAGGCCAGCGAGAGCTCCCGCCAAGCCTGGACAGGATCTTCACAGCGT
 AGCTCCCGCCACCTGGAGGAGGACTATGCAGATGCCTACCAGGACCTGTACCAGCCTCACCGCAACACA
 CCTCGGGGCTGCCTAGTGCTAACGGGCATGACCCCAAGACCGGCTTCTAGCCCAGGACTCAGAGCACAA
 CCACAGTGACCGGAACTGGCAGCGCAACCGGCCTTGGCCCAAGGATAGCTAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207229 representing NM_000725
 Red=Cloning site Green=Tags(s)

MYDDSYVPGFEDSEAGSADSYTSRPSLSDVSLIEDRESARREVESQAQQQLERAKHKPVFAVRTNVS
 YCGVLDEECPVQSGVNF EAKDFLHIKEKYSNDWWIGRLVKEGGDIAFIPSPQRLESIRLKQEQKARRSGN
 PSSLSDIGNRRSPPPSLAKQKQKQAEHVPPYDVVPSMRPVVLVGP SLKGYEVTDMMQKALFDLKH
 RFDGRISITRVTADLSLAKRSVLNPNPKRTIIERSARSSIAEVQSEIERIFELAKSLQLVLDADTINHPA
 QLAKTSLAPIIVFVKVSSPKVLQRLIRSRGKSQMKHLTVQMMAYDKLVQCPPEFDVILDENQLEDACEHLA
 EYLEVYWRATHHPAPGPGLLGPPSAIPGLQNQQLLGERGEEHSPLERDSLMP SDEASESSRQAWTGS
 SRSSRHLEEDYADAYQDL YQPHRQHTSGLPSANGHDPQDRLLAQDSEHNHSDRNWQRNRPWPKDSY

TRTRPLE – GFP Tag – V

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 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.

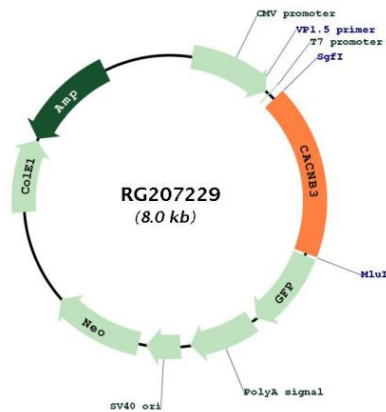
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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: [NM_000725.2, NP_000716.2](#)
RefSeq Size: 2714 bp
RefSeq ORF: 1455 bp
Locus ID: 784
UniProt ID: [P54284](#)
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
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 RG207229