

## Product datasheet for **MG222872**

### **Cacnb3 (NM\_007581) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cacnb3 (NM_007581) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cacnb3
Synonyms:	Beta3; Ca(v)beta3; CAB3; Cchb3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG222872 representing NM\_007581  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTATGACGACTCTACGTGCCGGGTTTGAGGACTCGGAGCGGGTTCAGCCGACTCCTACACCAGCC  
 GCCCTCTCTGGACTCAGACGTCTCCCTGGAGGAGGACCGGGAGAGTGCCCGGCGAGAAGTGGAGAGTCA  
 GGCTCAGCAGCAGCTGGAAGAGCCAAGCACAAACCTGTGGCATTGCTGTGAGGACCAATGTCAGCTAC  
 TGTGGGTTCTGGATGAGGAGTGCCCGTCCAGGGCTCTGGAGTCAACTTTGAGGCCAAAGATTTCTGC  
 ACATTAAGAGAAGTACAGCAATGACTGGTGGATCGGGAGGCTAGTAAAAGAGGGCGGAGACATCGCCTT  
 CATCCCCAGCCCCAACGCCTGGAGAGCATCCGGCTCAAACAGGAACAGAAGGCCAGGAGATCTGGGAAC  
 CCTTCCAGCTGGGTGACATTGGCAACCGACGCTCCTCCTCCGTCTCTAGCCAAGCAGAAGCAAAGC  
 AGCGGAAACATGTTCCCGGTATGATGTGGTGCCTCCATGCGGCTGTGGTGTGGTGGGACCCTCTCT  
 GAAAGGCTATGAGGTCACGGACATGATGCAGAAGCGCTCTTCGACTTCCTTAAACACAGGTTTGTATGGC  
 AGGATCTCCATCACACGGGTACGGCCGACCTCTCGCTGGCCAAGCGCTCTGTGCTCAACAATCCTGGCA  
 AGAGGACCATCATTGAGCGCTCCTCCGCCCGCTCCAGCATTGCTGAAGTGCAGAGTGAGATTGAGCGCAT  
 ATTCGAGCTGGCCAAATCCCTGCAGCTAGTGGTGTGGATGCTGACACCATCAACCACCCAGCACAACTT  
 GCCAAGACCTCACTGGCTCCCATCATCGTCTTTGTCAAAGTGTCTCGCCAAAGGTAAGTGCAGCGACTGA  
 TCCGCTCCAGGGGAAAGTACAGATGAAGCACCTCACTGTACAGATGATGGCGTACGATAAGCTGGTTCA  
 GTGCCACCCGAGTCATTGACGTGATTCTGGATGAGAACCAGCTAGAAGATGCCTGTGAGCACCTGGCT  
 GAATACTTAGAGGTTTACTGGCAGCGACCCACCCAGCACCCGGGCCCCGGACTGCTGGTCCGCCTA  
 GTGCCATCCCTGGACTTCAGAACAGCAGCTGCTGGGGAGCGAGTGGAGGAGCACTCACCCCTGGAGAG  
 GGACAGCCTGATGCCCTCAGATGAGGCCAGCGAGAGCTCCCGCCAGGCCTGGACCGGATCTTCACAGCGC  
 AGCTCTCGCCATCTGGAGGAGGACTATGCAGATGCCTACCAGGACCTGTACCAGCCTCACCGCAACACA  
 CCTCGGGGCTGCCAGTGCTAACGGGCACGCCCAAGACCGGCTCTAGCCCAGGACTCGGAGCATGA  
 CCACAATGACCGAACTGGCAGCGTAACCGCCTTGCCCAAGGACAGCTAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG222872 representing NM\_007581  
 Red=Cloning site Green=Tags(s)

MYDDSYVPGFEDSEAGSADSYTSRPSLSDVSLIEDRESARREVESQAQQQLERAKHKPVFAVRTNVS  
 YCGVLDEECPVQSGVNF EAKDFLHIKEKYSNDWWIGRLVKEGGDIAFIPSPQRLESIRLKQEQKARRSGN  
 PSSLGDIGNRRSPPPSLAKQKQKQAEHVPPYDVVPSMRPVVLVGP SLKGYEVTDMMQKALFDLKH  
 RFDGRISITRVTADLSLAKRSVLNPNPKRTIIERSARSSIAEVQSEIERIFELAKSLQLVLDADTINHPAQL  
 AKTSLAPIIVFVKVSSPKVLQRLIRSRGKSQMKHLTVQMMAYDKLVQCPPESFDVILDENQLEDACEHLA  
 EYLEVYWRATHHPAPGPGLLGPPSAIPGLQNQQLLGERVEEHSPLERDSLMP SDEASESSRQAWTGS  
 SQRSSRHEEDYADAYQDL YQPHRQHTSGLPSANGHDPQDRLLAQDSEHDHNDRNWQRNRPWPKDSY

SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

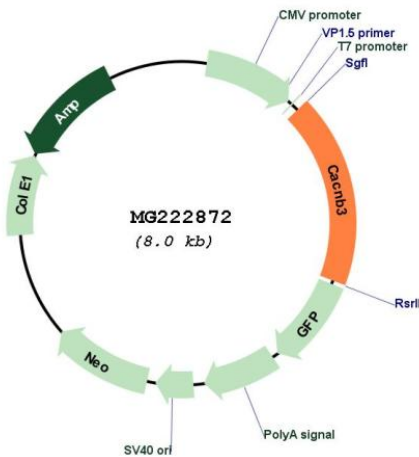
SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_007581

ORF Size: 1452 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\\_007581.3](#), [NP\\_031607.2](#)

**RefSeq Size:** 2837 bp

**RefSeq ORF:** 1455 bp

**Locus ID:** 12297

**UniProt ID:** [P54285](#)

**Cytogenetics:** 15 54.64 cM

**Gene Summary:** Regulatory subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed:24751537). Increases CACNA1B peak calcium current and shifts the voltage dependencies of channel activation and inactivation (By similarity). Increases CACNA1C peak calcium current and shifts the voltage dependencies of channel activation and inactivation (By similarity).[UniProtKB/Swiss-Prot Function]