

## Product datasheet for **MG223010**

### **Cacnb1 (NM\_001159320) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cacnb1 (NM_001159320) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cacnb1
Synonyms:	CAB1; Cchb1; Cchl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG223010 representing NM\_001159320  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGGTGCCACGCCGACCCTGGTAGTGGGCTCAGCAGAGTCTACACGAGCCGACCATCAGACTCTG  
 ATGTGTCTCTGGAGGAGACCGGAAGCCTTAAGGAAGGAGGCAGAGCGCCAGGCCCTTAGCCAGCTCGA  
 GAAAGCCAAGACCAAACAGTGGCTTTTCTGTTTCGGACAAATGTTGGCTACAATCCGTCTCCAGGGAT  
 GAGGTGCCTGTACAGGGAGTGGCCATCACCTTTGAGCCAAAGGACTTCTACACATCAAGGAGAAGTACA  
 ATAATGACTGGTGGATTGGGCGGCTGGTGAAGGAAGGCTGCGAGGTTGGCTTCATCCCCAGCCGGTCAA  
 ACTGGACAGCCTTCGTCTGCTGCAGGAACAGACCCTGCGCCAGAACCCTCAGCTCCAGCAAGTCAAGT  
 GACAACTCCAGTCCAGTCTGGGAGATGTGGTACTGGCACCCCGCCACCCACACCCCTGCCAGTGGTA  
 ATGAAATGACTAACTTTGCCTTTGAGCTAGACCCCTAGAGTTAGAGGAGGAGGAGGCAGAGCTAGGGGA  
 GCACGGCGGCTCAGCCAAGACTAGCGTGAAGCAGTGTACCACGCCGCCACCCACGGCAAGCGCATCCCC  
 TTCTTTAAGAAGACAGAGCAGTGCCTCCATGACGTGGTGCCTTCCATGAGGCCCATCATCTGGTGG  
 GACCGTCGCTCAAGGGCTATGAGGTGACAGACATGATGCAGAAAGCGTTGTTGACTTCCCTCAAGCATCG  
 GTTTGATGGCAGGATTTCCATCACCCGGGTAACAGCTGACATTTCCCTGGCCAAACGCTCCGCTCCTCAAC  
 AACCCAGCAAACACATCATATTGAGCGCTCCAAACAGCGTTCCAGCCTGGCTGAGGTACAGAGTGAAA  
 TTGAGAGGATCTTCGAGCTGGCCCGGACCTTGCAGCTGGTTCGCTTGGACGCTGACACCATCAACACCC  
 AGCCAGCTCTCTAAACGTGCTGGCCCCATCATTGTTACATCAAGATCACATCTCCAAGGTACTG  
 CAGAGGCTCATCAATCCCGAGGGAAGTCTCAATCCAAACACCTCAATGTCCAAATAGCAGCCTCGGAGA  
 AGCTGGCACAGTGTCCCCCGAAATGTTGACATAATCCTGGACGAGAACCAATTGGAAGATGCCCTCGGA  
 GCACCTGGCTGAGTACTTGAAGCCTACTGGAAGGCCACACATCCGCTAGCAGCACGCCACCCCAATCCG  
 CTGCTGAACCGCACCATGGCTACCGCAGCTCTGGCTGCCAGCCCTGCCCCGCTCTCAACCTCCAGGTAC  
 AGGTGCTCACCTCGCTCAGGAGAAATCTCAGCTTCTGGGCGGGCTGGAGGCCTCACCGCGGGGAGGCGA  
 CGCGGTGCCAGCCTCAGGAGCACGCCATG

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

**Protein Sequence:**

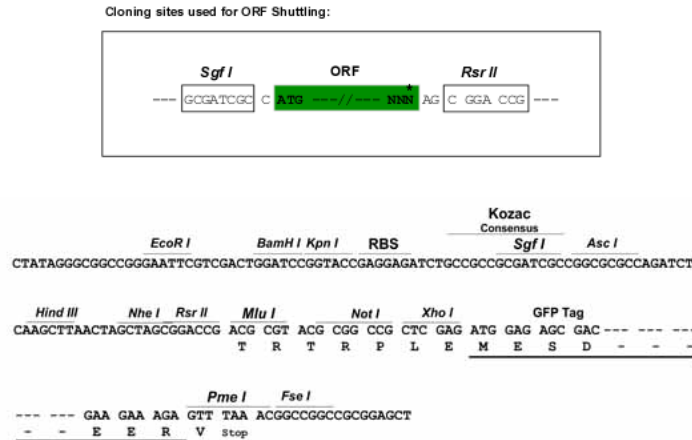
>MG223010 representing NM\_001159320  
 Red=Cloning site Green=Tags(s)

MEVPSRTL VVGS AESYTSRPSDSVLSLEEDREALRKEAERQALALEKAKTKPVAFVVRTNVGYNPSPGD  
 EVPVQGVAITFEPKDFLHIKEKYNDWWIGRLVKEGCEVGFIPSPVKLDSLRLLEQTLRQNLSSSKSG  
 DNSSSSLGDVVTGTRRTPPASGNEMTNFAFELDPLELEEEAEELGEHGS AKTSVSSVTTPPHGKRIP  
 FFKKTEHVPPYDVVPSMRPIILVGP SLKGYEVTMMQKALFDLKHFRFDGRISITRV TADISLAKRSVLN  
 NPSKHII IERSNTRSSLA EVQSEIERIFELARTLQLVALDADTINHPAQLSKTSLAPIIVYIKITSPKVL  
 QRLIKSRGKSQSKHLNVQIAASEKLAQCPEMFDIILDENQLEDACEHLAEYLEAYWKATHPPSSTPPNP  
 LLNRTMATAALAASPAPVSNLQVQLTSLRRNLSFWGGL EASPRGGDAVAQPQEHAM

SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_001159320

**ORF Size:** 1431 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\\_001159320.2](#), [NP\\_001152792.1](#)

**RefSeq Size:** 1617 bp

**RefSeq ORF:** 1434 bp

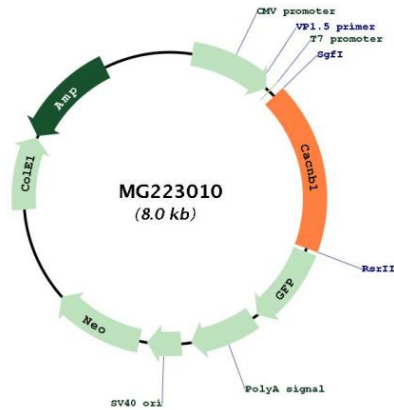
**Locus ID:** 12295

**Cytogenetics:** 11 61.5 cM

**Gene Summary:**

Regulatory subunit of L-type calcium channels. Regulates the activity of L-type calcium channels that contain CACNA1A as pore-forming subunit (By similarity). Regulates the activity of L-type calcium channels that contain CACNA1C as pore-forming subunit and increases the presence of the channel complex at the cell membrane. Required for functional expression L-type calcium channels that contain CACNA1D as pore-forming subunit. Regulates the activity of L-type calcium channels that contain CACNA1B as pore-forming subunit (By similarity). [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG223010