

## Product datasheet for **MG223007**

### **Cacnb1 (NM\_001159319) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cacnb1 (NM_001159319) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cacnb1
Synonyms:	CAB1; Cchb1; Cchl1b1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG223007 representing NM\_001159319  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCCAGAAGAGCGGCATGTCCCGGGCCCTTACCCACCTTCCAAGAGATCCCTATGGAGTCTTCG  
 ACCCCAGCCACAGGGCAAGTACAGCAAGAGGAAAGGGCGGTTCAAAGGTCAGACGGGAGTACGTCTC  
 GGATACAACATCCAACAGCTTCGTCGCCAGGGCTCAGCAGAGTCTACACGAGCCGACCATCAGACTCT  
 GATGTGTCTCTGGAGGAGGACCGGGAAGCCTTAAGGAAGGAGGCAGAGCGCCAGGCCCTAGCCCAGCTCG  
 AGAAAGCCAAGACCAAACAGTGGCTTTTGTGTTGCGACAAATGTTGGCTACAATCCGTCTCCAGGGGA  
 TGAGGTGCCTGTACAGGGAGTGGCCATCACCTTTGAGCCCAAGGACTTCTACACATCAAGGAGAAGTAC  
 AATAATGACTGGTGGATTGGGCGCTGGTAAGGAAGGCTGCGAGGTTGGCTTCATCCCCAGCCCGGTCA  
 AACTGGACAGCCTTCGTCTGCTGCAGGAACAGACCCTGCGCCAGAACCCTCAGCTCCAGCAAGTCAAG  
 TGACAACCTCCAGTCCAGTCTGGGAGATGTGGTACTGGCACCCGCCGCCACACCCCTGCCAGTGCC  
 AAACAGAAGCAGAAATCGACAGAGCACGTGCCCCCTATGACGTGGTGCCTTCCATGAGGCCCATCATCC  
 TGGTGGGACCGTCTGCTCAAGGGCTATGAGGTGACAGACATGATGCAGAAAAGCGTTGTTTACTTCTCAA  
 GCATCGGTTTGTATGGCAGGATTTCCATCACCCGGTAACAGCTGACATTTCCCTGGCCAAACGCTCCGTC  
 CTCAACAACCCAGCAAAACATCATCATTGAGCGCTCCAACACGCGTTCAGCCTGGCTGAGGTACAGA  
 GTGAAATTGAGAGGATCTTCGAGCTGGCCCGGACCTTGCAGCTGGTGCCTTGGACGCTGACACCATCAA  
 CCACCCAGCCAGCTCTCAAACGTCGCTGGCCCCATCATTGTTTACATCAAGATCACATCTCCCAAG  
 GTACTGCAGAGGCTCATCAAATCCCGAGGGAAGTCTCAATCCAACACCTCAATGTCCAATAGCAGCCT  
 CGGAGAAGTGGCACAGTGTCCCCCGAAATGTTGACATAATCCTGGACGAGAACCAATTGGAAGATGC  
 CTGCGAGCACCTGGCTGAGTACTTGAAGCCTACTGGAAGGCCACACATCCGCCTAGCAGCACGCCACCC  
 AATCCGCTGCTGAACCGACCATGGCTACCGCAGCTCTGGCTGCCAGCCCTGCCCCGCTCTCCAACCTCC  
 AGGTACAGGTGCTCACCTCGCTCAGGAGAAATCTCAGCTTCTGGGGCGGGCTGGAGGCTCACCGCGGG  
 AGGCGACGCGGTGGCCAGCCTCAGGAGCACGCCATG

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

**Protein Sequence:**

>MG223007 representing NM\_001159319  
 Red=Cloning site Green=Tags(s)

MVQKSGMSRGPYPPSQEIPMEVFDPSQKYSKRKGRFKRSDGSTSSDTSNSFVRQGSAESYTSRPSDS  
 DVSLEEDREALRKEAERQALALEKAKTKPVAFVAVRTNVGYNPSPGDEVPVQGVAITFEPKDFLHIKEY  
 NNDWWIGRLVKEGCEVGFIPSPVKLDSLRLLEQTLRQNRLLSSSKSGDNSSSLGDVVTGTRRPTPPASA  
 KQKQKSTEHVPPYDVVPSMRPIILVGPSTKGYEVTMMQKALFDLKHFRDGRISITRVTADISLAKRSV  
 LNNPSKHIIERSNTRSSLAEVQSEIERIFELARTLQLVALDADTINHQAQLSKTSLAPIIVYIKITSPK  
 VLQRLIKSRGKSQSKHLNVQIAASEKLAQCPEMFDIILDENQLEDACEHLAEYLEAYWKATHPPSSTPP  
 NPLLNRTMATAALAASPAPVSNLQVQVLTSLRRNLSFWGGLEASPRGGDAVAQPQEHAM

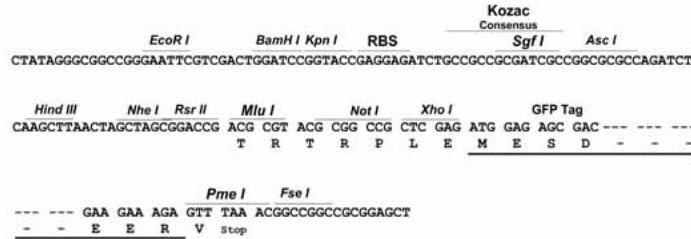
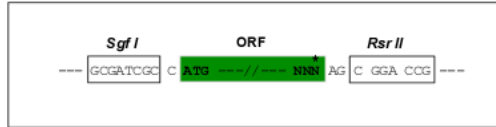
SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

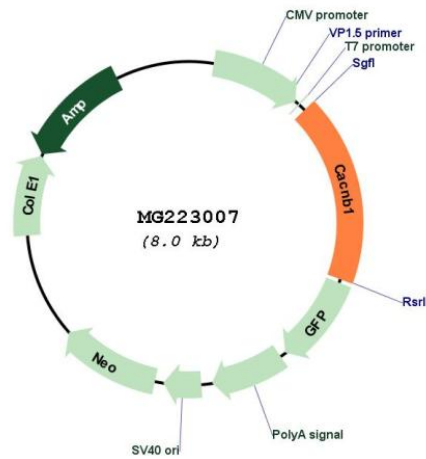
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_001159319

ORF Size: 1437 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\\_001159319.2](#), [NP\\_001152791.1](#)

**RefSeq Size:** 1755 bp

**RefSeq ORF:** 1440 bp

**Locus ID:** 12295

**UniProt ID:** [Q8R3Z5](#)

**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]