

Product datasheet for **MG222999**

Cacnb1 (NM_031173) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacnb1 (NM_031173) 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:

>MG222999 representing NM_031173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCCAGAAGAGCGGCATGTCCCGGGCCCTTACCCACCTTCCAAGAGATCCCTATGGAGTCTTCG
 ACCCCAGCCACAGGGCAAGTACAGCAAGAGGAAAGGGCGGTTCAAAGGTACAGACGGGAGTACGTCTC
 GGATACAACATCCAACAGCTTCGTCGCCAGGGCTCAGCAGAGTCTACACGAGCCGACCATCAGACTCT
 GATGTGTCTCTGGAGGAGGACCGGGAAGCCTTAAGGAAGGAGGCAGAGCGCCAGGCCCTTAGCCAGCTCG
 AGAAAGCCAAGACCAAACAGTGGCTTTTGTGTTGCGACAAATGTTGGCTACAATCCGTCTCCAGGGGA
 TGAGGTGCCTGTACAGGGAGTGGCCATCACCTTTGAGCCCAAGGACTTCTACACATCAAGGAGAAGTAC
 AATAATGACTGGTGGATTGGGCGCTGGTGAAGGAAGGCTGCGAGGTTGGCTTCATCCCCAGCCCGGTCA
 AACTGGACAGCCTTCGTCTGCTGCAGGAACAGACCCTGCGCCAGAACCGCCTCAGCTCCAGCAAGTCAGG
 TGACAACCTCCAGTCCAGTCTGGGAGATGTGGTACTGGCACCCGCCGCCACACCCCTGCCAGTGGT
 AATGAAATGACTAACTTTGCCTTTGAGCTAGACCCCTAGAGTTAGAGGAGGAGGAGGCAGAGCTAGGGG
 AGCACGGCGGCTCAGCCAAGACTAGCGTGAGCAGTGTACCACGCCGCCACCCACGGCAAGCGCATCCC
 TTCTTTAAGAAGACAGAGCACGTGCCCCCTATGACGTGGTGCCTTCCATGAGGCCCATCATCCTGGTG
 GGACCGTCGCTCAAGGGCTATGAGGTGACAGACATGATGCAGAAAGCGTTGTTTGACTTCTCAAGCATC
 GGTTTGATGGCAGGATTTCCATCACCCGGTAACAGCTGACATTTCCCTGGCCAAACGCTCCGTCCTCAA
 CAACCCAGCAAACACATCATCATTGAGCGCTCCAACACGCGTCCAGCCTGGCTGAGGTACAGAGTGAA
 ATTGAGAGGATCTTCGAGCTGGCCCGACCTGCAGCTGGTCCGCTTGGACGCTGACACCATCAACCACC
 CAGCCAGCTCTCTAAAACGCTCGCTGGCCCCCATCATTGTTTACATCAAGATCACATCTCCAAGTACT
 GCAGAGGCTCATCAAATCCCGAGGGAAGTCTCAATCCAAACACCTCAATGTCCAATAGCAGCCTCGGAG
 AAGCTGGCACAGTGTCCCCCGAAATGTTTGACATAATCTGGACGAGAACAATTGGAAGATGCCTGCG
 AGCACCTGGCTGAGTACTTGAAGCCTACTGGAAGGCCACACATCCGCCTAGCAGCACGCCACCCATCC
 GCTGCTGAACCGCACCATGGCTACCGCAGCTCTGGCTGCCAGCCCTGCCCCGCTCCAACCTCCAGGTA
 CAGGTGCTCACCTCGCTCAGGAGAAATCTCAGTCTCTGGGGCGGGCTGGAGGCCTACCGCGGGGAGGCG
 ACGCGGTGGCCAGCCTCAGGAGCACGCCATG

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

Protein Sequence:

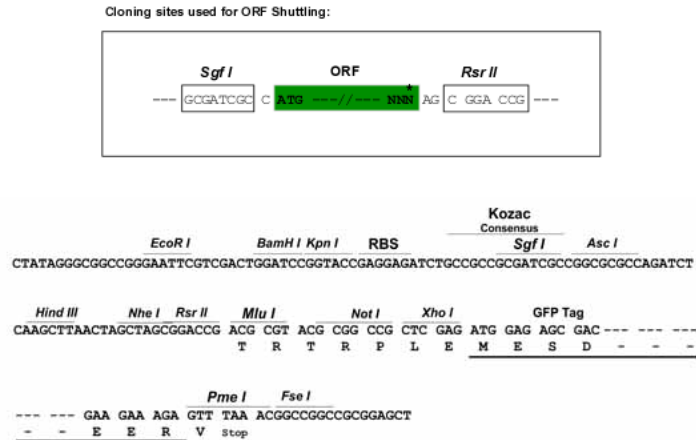
>MG222999 representing NM_031173
 Red=Cloning site Green=Tags(s)

MVQKSGMSRGPYPSPQEIPMEVFDPSQKYSKRKGRFKRSDGSTSSDSTSNSFVRQGSAESYTSRPSDS
 DVSL EEDREALRKEAERQALAQLEKAKTKPVAFVRTNVGYNPSGDEVVQGVAITFEPKDFLHIKEY
 NNDWWIGRLVKEGCEVGFIPSPVKLDSLRLLEQTLRQNRLSSKSGDNSSSLGDVVTGTRRPTPPASG
 NEMTNFAFELDPLELEEEEAELGEHGGSAKTSVSVTTPPHGKRIPFFKKTEHVPPYDVVPSMRPIILV
 GPSLKGVEVTDMMQKALFDLKHFRFDGRISITRVTADISLAKRSVLNPNPSKHIIERSNTRSSLAEVQSE
 IERIFELARTLQLVALDADTINHPAQLSKTSLAPIIVYIKITSPKVLQRLIKSRGKSQSKHLNVQIAASE
 KLAQCPEMFDIILDENQLEDACEHLAEYLEAYWKATHPPSSTPPNPLLNRMTATAALAASPAPVSNLQV
 QVLTSLRRNLSFWGGLEASPRGGDAVAQPQEHAM

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_031173

ORF Size: 1572 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_031173.4](#), [NP_112450.1](#)

RefSeq Size: 1890 bp

RefSeq ORF: 1575 bp

Locus ID: 12295

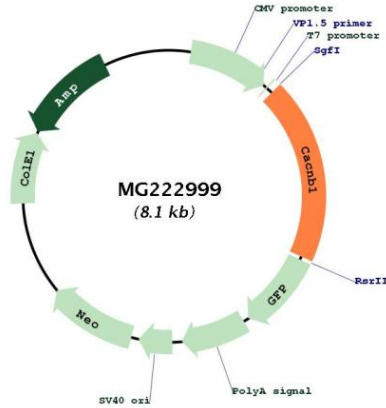
UniProt ID: [Q8R3Z5](#)

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]

Product images:



Circular map for MG222999