

Product datasheet for **RG211727**

CACNB2 (NM_201572) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_201572) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNB2
Synonyms:	CAB2; CACNLB2; CAVB2; MYSB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211727 representing NM_201572
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATCAGGGGAGTGGACTGGACTGCTGAAGATCTCATATGGAAAAGGAGCCAGAAGGAAAAACAGAT
 TTAAGGATCTGATGGAAGCACGTCATCTGATACTACCTCAAATAGTTTTGTTCCGACAGGTTTCGGCAGA
 CTCCTACACTAGCCGTCCATCCGATTCCGATGTATCTCTGGAGGAGGACCGGGAGGCAGTGCAGAGAA
 GCGGAGCGGCAGGCCAGGCACAGTTGGAAAAAGCAAAGCAAAGCCCGTTGCATTTGCGGTTTCGGACAA
 ATGTCAGCTACAGTGGGCCCATGAAGATGATGTTCCAGTGCCTGGCATGGCCATCTCATTCAAGCAAA
 AGATTTTCTGCATGTTAAGGAAAAATTTAACAATGACTGGTGGATAGGGCGATTGGTAAAAGAAGGCTGT
 GAAATCGGATTCATTCCAAGCCAGTCAAAGTAAAGCAATGAGGCTGCAGCATGAACAGAGAGCCAAAGC
 AAGGGAATTTCTACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGACATAGTACCTAGTTC
 CAGAAAAACAACACCTCCATCATCTGGTCAAAATCTGCAGATGAACAAGACCAGTGGAAAACTGCAGGC
 TTGTTTTGGCGGTTTACTACAGAGCACACTCCTCCGTATGATGTGGTACCTTCCATGCGACCAGTGGTCC
 TAGTGGGCCCTTCTCTGAAGGGCTACGAGGTACAGATATGATGCAAAAAGCGCTGTTTGTATTTTTTAA
 ACACAGATTTGAAGGGCGGATATCCATCACAAGGGTACCGCTGACATCTCGCTTGCACCAAGCTCGGTA
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 TCATCCAGCTCAACTCAGTAAACCTCCTTGGCCCTATTATAGTATATGTAAGATTTCTTCTCCTAAG
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 ACCTAGTGTGGAACCAAGTCAAGAAATCCAGCACCCTCTTCTCCTCAGCCCCACACCACAACCATCGC
 AGTGGGACAAGTCCGGCCTCTCCAGGCAAGAGACATTTGACTCGGAAACCCAGGAGAGTGCAGACTCTG
 CCTACGTAGACCAAAGGAAGATTATCCCATGACCACGTGGACCACTATGCCTCACACCGTGACCACAA
 CCACAGAGACGAGACCCACGGGAGCAGTGACCACAGACACAGGGAGTCCCGGCACCGTCCCGGGACGTG
 GATCGAGAGCAGGACCACAACGAGTGAACAAGCAGCGCAGCCGTATAAATCCAAGGATCGCTACTGTG
 AAAAGGATGGAGAAGTATCAAAAAACGGAATGAGGCTGGGAGTGAACAGGGATGTTTACATCCG
 CCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211727 representing NM_201572
 Red=Cloning site Green=Tags(s)

MNQSGLDLLKISYKGGARRKNRFGSDGSTSSDTSNSFVRQGSADSYTSRPSDSVLSLEEDREAVRRE
 AERQAQAQLEKAKTKPVAFVVRTNVSYSAAHEDDVPVPGMAISFEAKDFLHVKEKFNNDWWIGRLVKEGC
 EIGFIPSPVKLENMRLQHEQRAKQKGFYSSKSGGNSSSLGDIVPSSRKSTPPSSGAKSADEQDQWKTAG
 LFWRFTEHTPPYDVVPSMRPVVLVGPLKGYEVTMMQKALFDFLKHREGRISITRVTADISLAKRSV
 LNNPSKHAIERSNTRSSLAEVQSEIERIFELARTLQLVVLADDTINHPAQLSKTSLAPIIVYVKISSPK
 VLQRLIKSRGKSQAKHLNVQMVAADKLAQCPPELFDVILDENQLEDACEHLADYLEAYWKATHPPSSSLP
 NPILLSRLATSSLPLSPTLASNSQGSQGDQRTDRSAPIRSASQAEPEPSVEPVKKSQHRSSSAPHNHNR
 SGTSRGLSRQETFDSETQESRDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSSDHRHRESRHRSRD
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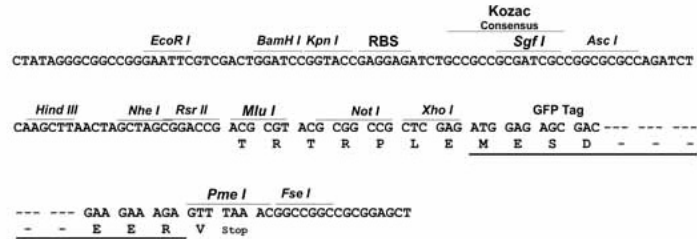
TRTRPLE – GFP Tag – V

Restriction Sites:

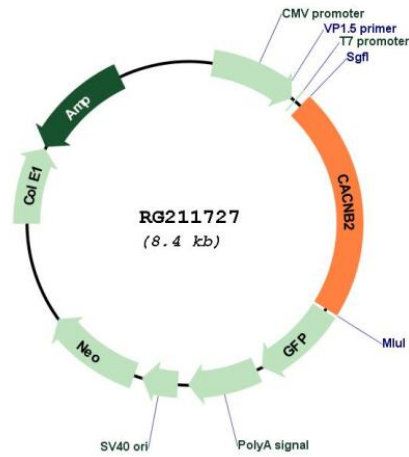
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_201572
 ORF Size: 1824 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:	<ol style="list-style-type: none">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_201572.4
RefSeq Size:	4229 bp
RefSeq ORF:	1827 bp
Locus ID:	783
UniProt ID:	Q08289
Cytogenetics:	10p12.33-p12.31
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 subunit of a voltage-dependent calcium channel protein that is a member of the voltage-gated calcium channel superfamily. The gene product was originally identified as an antigen target in Lambert-Eaton myasthenic syndrome, an autoimmune disorder. Mutations in this gene are associated with Brugada syndrome. Alternatively spliced variants encoding different isoforms have been described. [provided by RefSeq, Feb 2013]