

## Product datasheet for **SC124059**

### **CACNB2 (NM\_000724) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CACNB2 (NM_000724) Human Untagged Clone
Tag:	Tag Free
Symbol:	CACNB2
Synonyms:	CAB2; CACNLB2; CAVB2; MYSB
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >OriGene ORF within SC124059 sequence for NM\_000724 edited (data generated by NextGen Sequencing)

```

ATGCAGTGCTGCGGGCTGGTGCATCGCCGGCGAGTACGGGTGTCCTATGGTTCGGCAGAC
TCCTACACTAGCCGTCCATCCGATTCCGATGTATCTCTGGAGGAGGACCGGGAGGCAGTG
CGCAGAGAAGCGGAGCGGCAGGCCAGGCACAGTTGAAAAAGCAAAGACAAAGCCCGTT
GCATTTGCGGTTTCGACAAATGTCAGCTACAGTGCGCCCATGAAGATGATGTTCCAGTG
CCTGGCATGGCCATCTCATTTCGAAGCAAAGATTTTCTGCATGTTAAGGAAAAATTTAAC
AATGACTGGTGGATAGGGCGATTGGTAAAAAGAAGGCTGTGAAATCGGATTCATTCCAAGC
CCAGTCAAACCTAGAAAACATGAGGCTGCAGCATGAACAGAGAGCCAAGCAAGGAAATTC
TACTCCAGTAAATCAGGAGGAAATTCATCATCCAGTTTGGGTGACATAGTACCTAGTTCC
AGAAAAACAACACCTCCATCATCTGCTATAGACATAGATGCTACTGGCTTAGATGCAGAA
GAAAAATGATATTCAGCAAAACCACCGCTCCCTAAACCCAGTGCAAAACAGTGAACGTCA
CCCCACTCAAAGAGAAAAGAATGCCCTTCTTTAAGAAGACAGAGCACACTCCTCCGTAT
GATGTGGTACCTCCATGCGACCAGTGGTCTAGTGGGCCCTTCTCTGAAGGGCTACGAG
GTCACAGATATGATGCAAAAAGCGCTGTTTGTATTTTTTAAACACAGATTTGAAGGGCGG
ATATCCATCACAAGGGTACCCGCTGACATCTCGCTTGCCAAACGCTCGGTATTAACAAT
CCCAGTAAGCACGCAATATAGAAAAGATCCAACACAAGGTCAAGCTTAGCGGAAGTTCAG
AGTGAAATCGAAAGGATTTTGAACCTGCAAGAACATTGCAGTTGGTGGTCTTGACCGG
GATACAATTAATCATCCAGCTCAACTCAGTAAACCTCCTTGCCCTATTATAGTATAT
GTAAAGATTTCTCTCCTAAGGTTTTACAAAGGTTAATAAAATCTCGAGGGAAATCTCAA
GCTAAACACCTCAACGTCCAGATGGTAGCAGCTGATAAAGTGGCTCAGTGCCTCCAGAG
CTGTTTCGATGTGATCTTGGATGAGAACCAGCTTGGAGTGCCTGTGAGCACCTTGCCGAC
TATCTGGAGGCTACTGGAAGGCCACCCATCCTCCAGCAGTAGCCTCCCAACCTCTC
CTTAGCCGTACATTAGCCACTTCAAGTCTGCCTTTAGCCCAACCTAGCCTCTAATTCA
CAGGGTTCTCAAGGTGATCAGAGGACTGATCGCTCCGCTCCTATCCGTTCTGCTCCCAA
GCTGAAGAAGAACCTAGTGTGGAACCAAGTCAAGAAATCCCAGCACCGCTTCTCCTCCTCA
GCCCCACACCACAACCATCGCAGTGGGACAAGTCGCGGCCTCCTCAGGCAAGAGACATTT
GACTCGGAAACCCAGGAGAGTGCAGACTCTGCCTACGTAGAGCCAAAGGAAGATTATTC
CATGACCACGTGGACCACTATGCCTCACACCGTGACCACAACCACAGAGACGAGACCCAC
GGGAGCAGTGACCACAGACACAGGGAGTCCCGCACCGTTCGCGGACGTGGATCGAGAG
CAGGACCACAACGAGTGAACAAGCAGCGCAGCCGTCATAAATCCAAGGATCGCTACTGT
GAAAAGGATGGAGAAGTGATATCAAAAAACGGAATGAGGCTGGGAGTGAACAGGGAT
GTTTACATCCGCCAATGA
    
```

Clone variation with respect to NM\_000724.3

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_000724 unedited

```

GGCGCGATACATTCTGACACCGGACAAATCAAATTGCCCAAAAGTTACAGAGGTAACAGT
GAATCCAGGATGCTGCTATCAGCCTGTGCATTGTGAAGAAGGCAATCATAGGCGAGCAGC
CGCGGGAGCAGGAACAGCAGCGTCTAAGAAGCAGTACATAAACAGCAGCAGGAGTATG
TTTTCTGCTTTTCAAAGCAGAGTACTGCAGGGTCCGCAATGCAAGACACTCAGATGTT
TGAAAATCTCCCGAGTTGAGAATGGCTACTGTAAAAGCGTCACCAAGAAACTCTGACGAT
CTGGACAGTCTAACTCTGTGTTAGCAATACTTACTTCCGAAAATTAATGCTACTTCTT
GTAGATTTTTGCAAATAGGAAACCCCTTGAAGAAGATCTCAAATACGCCCCCCACCCC
CAAAAAAGACAAACAGGGGAGAAACAAAGTTTTGGCATGCCTGCAGGAACGGTGGCTTTT
TTAGAAACTACCTAGGAGGCAGAAGCTAAGTGATTTGCTCATGCCTTACCTGGGAGTA
GAAGGTGGGAAGAAATGGACCGAGGCTGTGACGAGAAGACAAGGCACAGTGCAGCTTGGT
GAAGCCACACGCTGACTGCGTTCTGCCCTCTTCATGCAGTGTGCGGGCTGGTGCATC
GCCGGCAGTACGGGTGTCTATGGTTCGGCAGACTCCTACACTAGCCGTCATCCGATT
CCGATGTATTTCTGGAGGAGGACCGGGAGGCAGTGCATAGAACCGGAGCGGCAGGCC
AGGCCAGTTGGTAAAAGCAAAGACCAACCCGTTGGCATTGCGGTTTCGGACAAATGTCAGC
TACCGTGGCGCCT
    
```

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000724 unedited CCAGGAGAGGCACTGGGGAGGGGTACAGGGATGCCACCCGGGATCTGTTTCAGGAAACAG CTATGACCGCGGCCCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGAAGTGGGAGAA GTTATAAAAATTTATTTTCCCACGAAATAATCCACAAGCTGTGTAAACAAACATTTCTT ACTAAAACAAATACTCTAACACACAAAGATTGTACATTTCCAGTGAAACACTCACAGTAA AATTGCCTGTATTTTCACTCTCTAGGAGCAAAAACAAGGAGGCAGCAGATGAATGCTTTC CTAGTTACCTTTGGCAGCAAGCTTACTCACATTCCTGACTGCTCAATGGGTTGTTAAAG CAACATATAGCACAATTAATTAATACCGACCGAGGTGGGCAGAATGCTCGATATCAGT CTCTAGTTTCTTCTGTTAGTCTTCAGCATTCCAATTCATCTCAACCATTCACTCAGTCGGT GCACACTTTCTTACATACGGACACACACACGTGCATATAGCGAGTTCCGGCTCGTAGACT CCAGTGCACTGACTAGAACAGACACTAGCTACTAAGAATGTGTCACAATCAGTGTGAACT GTATGGAGTAGAACAACTCTGGAGTTNTATATTTACCATAATTTATGGTGGAAATTACA AACTTACTTANCAGGATGGTATAACATTCAGAATTCAAACCTTTTTTCAGTCAAGCAATCA CCCATATTACAGTATGTACACACTTTCTACTAGATTGAGGAAGT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000724
<b>Insert Size:</b>	4200 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_000724.2</a> , <a href="#">NP_000715.1</a>
<b>RefSeq Size:</b>	3721 bp
<b>RefSeq ORF:</b>	1818 bp
<b>Locus ID:</b>	783
<b>UniProt ID:</b>	<a href="#">Q08289</a>
<b>Cytogenetics:</b>	10p12.33-p12.31
<b>Domains:</b>	Ca_channel_B, SH3, GuKc
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Other
<b>Protein Pathways:</b>	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]

Transcript Variant: This variant (1) represents use of an alternate promoter and therefore differs in the 5' UTR and 5' coding region, compared to variant 2. These differences cause translation initiation at an alternate start codon, and result in an isoform (1) with a shorter and distinct N-terminus, compared to isoform 2.