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Product datasheet for SC123891

CACNB1 (NM_000723) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNB1 (NM_000723) Human Untagged Clone
Tag:	Tag Free
Symbol:	CACNB1
Synonyms:	CAB1; CACNLB1; CCHLB1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>NCBI ORF sequence for NM_000723, the custom clone sequence may differ by one or more nucleotides

ATGGTCCAGAAGACCAGCATGTCCCGGGGCCCTTACCCACCCTCCCAGGAGATCCCCATGGAGGTCTTCG
ACCCCAGCCCGCAGGGCAAATACAGCAAGAGGAAAGGGCGATTCAAACGGTCAGATGGGAGCACGTCCTC
GGATACCACATCCAACAGCTTTGTCCGCCAGGGCTCAGCGGAGTCCTACACCAGCCGTCCATCAGACTCT
GATGTATCTCTGGAGGAGGACCGGGAAGCCTTAAGGAAGGAAGCAGAGCGCCAGGCATTAGCGCAGCTCG
AGAAGGCCAAGACCAAGCCAGTGGCATTTGCTGTGCGGACAAATGTTGGCTACAATCCGTCTCCAGGGGA
TGAGGTGCCTGTGCAGGGAGTGGCCATCACCTTCGAGCCCAAAGACTTCCTGCACATCAAGGAGAAATAC
AATAATGACTGGTGGATCGGGCGGCTGGTGAAGGAGGGCTGTGAGGTTGGCTTCATTCCCAGCCCCGTCA
AACTGGACAGCCTTCGCCTGCTGCAGGAACAGAAGCTGCGCCAGAACCGCCTCGGCTCCAGCAAATCAGG
CGATAACTCCAGTTCCAGTCTGGGAGATGTGGTGACTGGCACCCGCCGCCCCACACCCCCTGCCAGTGCC
AAACAGAAGCAGAAGTCGACAGAGCATGTGCCCCCCTATGACGTGGTGCCTTCCATGAGGCCCATCATCC
TGGTGGGACCGTCGCTCAAGGGCTACGAGGTTACAGACATGATGCAGAAAGCTTTATTTGACTTCTTGAA
GCATCGGTTTGATGGCAGGATCTCCATCACTCGTGTGACGGCAGATATTTCCCTGGCTAAGCGCTCAGTT
CTCAACAACCCCAGCAAACACATCATCATTGAGCGCTCCAACACACGCTCCAGCCTGGCTGAGGTGCAGA
GTGAAATCGAGCGAATCTTCGAGCTGGCCCGGACCCTTCAGTTGGTCGCTCTGGATGCTGACACCATCAA
TCACCCAGCCCAGCTGTCCAAGACCTCGCTGGCCCCCATCATTGTTTACATCAAGATCACCTCTCCCAAG
GTACTTCAAAGGCTCATCAAGTCCCGAGGAAAGTCTCAGTCCAAACACCTCAATGTCCAAATAGCGGCCT
CGGAAAAGCTGGCACAGTGCCCCCCTGAAATGTTTGACATCATCCTGGATGAGAACCAATTGGAGGATGC
CTGCGAGCATCTGGCGGAGTACTTGGAAGCCTATTGGAAGGCCACACACCCGCCCAGCAGCACGCCACCC
AATCCGCTGCTGAACCGCACCATGGCTACCGCAGCCCTGGCTGCCAGCCCTGCCCCTGTCTCCAACCTCC
AGGGACCCTACCTTGCTTCCGGGGACCAGCCACTGGAACGGGCCACCGGGGAGCACGCCAGCATGCACGA
GTACCCAGGGGAGCTGGGCCAGCCCCCAGGCCTTTACCCCAGCAGCCACCCACCAGGCCGGGCAGGCACG
CTACGGGCACTGTCCCGCCAAGACACTTTTGATGCCGACACCCCCGGCAGCCGAAACTCTGCCTACACGG
AGCTGGGAGACTCATGTGTGGACATGGAGACTGACCCCTCAGAGGGGCCAGGGCTTGGAGACCCTGCAGG
GGGCGGCACGCCCCCAGCCCGACAGGGATCCTGGGAGGACGAGGAAGAAGACTATGAGGAAGAGCTGACC
GACAACCGGAACCGGGGCCGGAATAAGGCCCGCTACTGCGCTGAGGGTGGGGGTCCAGTTTTGGGGCGCA
ACAAGAATGAGCTGGAGGGCTGGGGACGAGGCGTCTACATTCGCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000723 unedited
TACGACTGACTATAGGGCGGCCGCGAATTCGGCGCGAGGGGCAGCCGAAGGCCGAGCTGG
GTGGCTGGACCGGGTGCTGGCTGCGCCGCGCTGCTTTCGGCTCCCACGGCCGCTCCCATG
CGCTGAGGGAGCCCGGCTGGGCCGGGCCGGCGGCGGGAGGGGAGGCTCCTCTCCATGGTC
CAGAAGACCAGCATGTCCCGGGGCCCTTACCCACCCTCCCAGGAGATCCCCATGGAGGTC
TTCGACCCCAGCCCGCAGGGCAAATACAGCAAGAGGAAAGGGCGATTCAAACGGTCAGAT
GGGAGCACGTCCTCGGATACCACATCCAACAGCTTTGTCCGCCAGGGCTCAGCGGAGTCC
TACACCAGCCGTCCATCAGACTCTGATGTATCTCTGGAGGAGGACCGGGAAGCCTTAAGG
AAGGAAGCAGAGCGCCAGGCATTAGCGCAGCTCGAGAAGGCCAAGACCAAGCCAGTGGCA
TTTGCTGTGCGGACAAATGTTGGCTACAATCCGTCTCCAGGGGATGAGGTGCCTGTGCAG
GGAGTGGCCATCACCTTCGAGCCCAAAGACTTCCTGCACATCAAGGAGAAATACANTAAT
GACTGGTGGATCGGNCNGCTGGTGAANGAGGGCTGTGAGGTTGCTTCATTTCCAGCCCGT
CAACTGACAGCCTCGCTGCTGANGACAGAACTGCGCAGACCNGCTCGCTCAGCAATCAGC
GATACTCAGNTCAGTCTGGAGAGTGTGCTGCAN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000723 unedited
CCCGGCCAGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGGATCTGTTCAGGA
AACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTGGTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGAGCAAAGGCCTTTGAAAGGGGGGAGTCAG
CCCCCCCTGGAGGCGAATACATGTCAGGTGTGAGCCCCTTGCTTCCTCCCCTTCCCTGGG
CTTAAAGCCCTTCCTCCCGCCGTGTGGCCCCTGCCTTTTAACGAATGTAAACGCCTTGTC
CCCAGCCCTCCAGCTTATTTTTGTTGCGCCCCAAAACTGGACCCCCACCCTCAGCGCAAT
AGCGGGCCTTATTCCGGCCCCGGTTCCGGTTGTCGGTCAACTCTTCCTCATAGTCTTCTT
CCTCGTCCTCCCAAGATCCCTGTCGGGCTGGGGGCGTGCCGCCCCCTGGAGGGTCTCCAA
GCCCTGGCCCCTCTGAGGGGTCAGTCTCCATGTCCACACATGAGTCTCCCAGCTCCGTGT
AAGCAAAATTTCCGCTGCCGGGGGTGTCGGCATCAAAAGTGTCTTGGCGGGACAATGCCC
GTATCGTGCCTGCCCGGCCTGGTGGGTGGCTTCTGGGGTAAAAGCCTGGGGGCTTGCCCA
ACTCCCCTGGTACCTGTGCATGGTGGGGTGCTCCCCGTGTGCCCTTTCATGGCTGGTCCC
CGGAACAAAGTTAGGCCCCTGGGGTTTGAAAACAGGCCAGGCTTTT

Restriction Sites: Please inquire

ACCN: NM_000723

Insert Size: 2500 bp

OTI Disclaimer: 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).

OTI Annotation: A TrueClone.

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_000723.3, NP_000714.3

RefSeq Size: 3687 bp

RefSeq ORF: 1797 bp

Locus ID: 782

UniProt ID: Q02641

Cytogenetics: 17q12

Domains: Ca_channel_B, SH3, GuKc

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: The protein encoded by this gene belongs to the calcium channel beta subunit family. It plays an important role in the calcium channel by modulating G protein inhibition, increasing peak calcium current, controlling the alpha-1 subunit membrane targeting and shifting the voltage dependence of activation and inactivation. Alternative splicing occurs at this locus and three transcript variants encoding three distinct isoforms have been identified. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1), also known as beta-1b2, betaA, and beta-1B, encodes the longest isoform (1).