

Product datasheet for SC124161

CACNA2D1 (NM_000722) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA2D1 (NM_000722) Human Untagged Clone
Tag:	Tag Free
Symbol:	CACNA2D1
Synonyms:	CACNA2; CACNL2A; CCHL2A; LINC01112; lncRNA-N3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_000722 edited
 ATGGCTGCTGGCTGCCTGCTGGCCTTGACTCTGACACTTTTCCAATCTTTGCTCATCGGC
 CCCTCGTCGGAGGAGCCGTTCCCTTCGGCCGTCACATCAAATCATGGGTGGATAAGATG
 CAAGAAGACCTTGTCACTGGCAAAAACAGCAAGTGGAGTCAATCAGCTTGTTGATATT
 TATGAGAAATATCAAGATTTGTATACTGTGGAACCAAATAATGCACGCCAGCTGGTAGAA
 ATTGCAGCCAGGGATATTGAGAACTTCTGAGCAACAGATCTAAAGCCCTGGTGCCTG
 GCATTGGAAGCGGAGAAAGTTCAAGCAGCTCACCAGTGGAGAGAAGATTTTGAAGCAAT
 GAAGTTGTCTACTACAATGCAAAGGATGATCTCGATCCTGAGAAAAATGACAGTGAGCCA
 GGCAGCCAGAGGATAAAACCTGTTTTTATTGAAGATGCTAATTTTGGACGACAAATATCT
 TATCAGCAGCAGCAGTCCATATTCCTACTGACATCTATGAGGGCTCAACAATTGTGTTA
 AATGAACCTCAACTGGACAAGTGCCTTAGATGAAGTTTTCAAAAAGAATCGCGAGGAAGAC
 CCTTCATTATTGTGGCAGGTTTTTGGCAGTGCCACTGGCCTAGCTCGATATTATCCAGCT
 TCACCATGGGTTGATAATAGTAGAACTCAAATAAGATTGACCTTTATGATGTACGCAGA
 AGACCATGGTACATCCAAGGAGCTGCATCTCCTAAAGACATGCTTATTCTGGTGGATGTG
 AGTGGAAGTGTTAGTGGATTGACACTTAACTGATCCGAACATCTGTCTCCGAAATGTTA
 GAAACCTCTCAGATGATGATTTTCGTGAATGTAGCTTCATTTAACAGCAATGCTCAGGAT
 GTAAGCTGTTTTCAGCACCTTGCCAAGCAAATGTAAGAAATAAAAAAGTGTGAAAGAC
 GCGGTGAATAATATCACAGCCAAAGGAATTACAGATTATAAGAAGGGCTTTAGTTTTGCT
 TTTGAACAGCTGCTTAATTATAATGTTTTCCAGAGCAAACCTGCAATAAGATTATTATGCTA
 TTCACGGATGGAGGAGAAG
 AAAGTACGTGATTACGTTTTTCAAGTTGGTCAACACAATTATGACAGAGGACCTATTTCAG
 TGGATGGCCTGTGAAAACAAAGGTTATTATTATGAAATTCCTTCCATTGGTGCAATAAGA
 ATCAATACTCAGGAATATTTGGATGTTTTGGGAAGACCAATGGTTTTAGCAGGAGACAAA
 GCTAAGCAAGTCCAATGGACAAATGTGTACCTGGATGCATTGGAAGTGGGACTTGTCTATT
 ACTGGAACCTTCCGGTCTTCAACATAACCGGCAATTTGAAAAAAGACAACTTAAAG
 AACCAGCTGATTCTTGGTGTGATGGGAGTAGATGTCTTTGGAAGATATTAAGACTG
 ACACCAGTTTTACTGTGCCCAATGGGTATTACTTTGCAATCGATCCTAATGGTTAT



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GTTTTATTACATCCAAATCTTCAGCCAAAGAACCCCAAATCTCAGGAGCCAGTAACATTG
 GATTTCCCTTGATGCAGAGTTAGAGAATGATATTAAGTGGAGATTCGAAATAAGATGATT
 GATGGGAAAAGTGGAGAAAAACATTCAGAACTCTGGTAAATCTCAAGATGAGAGATAT
 ATTGACAAAGGAAACAGGACATACACATGGACACCTGTCAATGGCACAGATTACAGTTTG
 GCCTTGGTATTACCAACCTACAGTTTTTACTATATAAAAGCCAACTAGAAGAGACAATA
 AACTCAGGCCAGATCAAAAAGGGCAAAAATGAAGGATTCGGAAACCCTGAAGCCAGATAAT
 TTTGAAGAATCTGGCTATACATTCATAGCACCAAGAGATTACTGCAATGACCTGAAAAATA
 TCGGATAATAACACTGAATTTCTTTTAAATTTCAACGAGTTTATTGATAGAAAACTCCA
 AACAAACCATCATGTAACGCGGATTTGATTAATAGAGTCTTGCTTGATGCAGGCTTTACA
 AATGAACCTGTCCAAAATTAAGGAGTAAGCAGAAAAATATCAAGGGAGTGAAAGCACGA
 TTTGTTGTGACTGATGGTGGGATTACCAGAGTTTATCCCAAAGAGGCTGGAGAAAATTGG
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 TATGTTTTCACTGCTCCCTACTTAACAAAAGTGGACCTGGTGCCTATGAATCGGCATT
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 GGAATTAATGATGTAATTCCTGGATAGAGAATTTACCAAACCTCAATCAGAGAT
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 CTGGATGATGGTGGGTTTCTTCTGATGGCAAATCATGATGATTATACTAATCAGATTGGA
 AGATTTTTTGGAGAGATTGATCCAGCTTGATGAGACACCTGGTTAATATACAGTTTAT
 GCTTTTAACAAATCTTATGATTATCAGTCAGTATGTGAGCCCGTGTGCACCAAAACAA
 GGAGCAGGACATCGCTCAGCATATGTGCCATCAGTAGCAGACATATTACAAATGGCTGG
 TGGGCCACTGCTGCTGCCTGGTCTATTCTACAGCAGTTTCTTGTGAGTTTGACCTTTCCA
 CGACTCCTTGAGGCAGTTGAGATGGAGGATGATGACTTACGGCCTCCCTGTCCAAGCAG
 AGCTCCTTACTGAACAAAACCCAGTATTTCTTCGATAACGACAGTAAATCATTGAGTGT
 GTATTAGACTGTGGAAACTGTTCCAGAATCTTTCATGGAGAAAAGCTTATGAACACCAAC
 TTAATATTCATAATGGTTGAGAGCAAAGGGACATGTCCATGTGACACACGACTGCTCATA
 CAAGCGGAGCAGACTTCTGACGGTCCAAATCCTTGTGACATGGTTAAGCAACCCAGATAC
 CGAAAAGGCCTGATGTCTGCTTTGATAACAATGTCTTGGAGGATTATACTGACTGTGGT
 GGTGTTTCTGGATTAATCCCTCCCTGTGGTATATCATTGGAATCCAGTTTCTACTACTT
 TGGCTGGTATCTGGCAGCACACCCGCTGTTATGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000722 unedited
 TTTTGAATACGACTGACTATAGGGCGGCCGGAATTCGGCACGAGGCGAGCGCCGGCGGG
 CTCGCCGAGGTCTGTTTCCAAAGTCGCCCTTGATGGCGGCGGAGGCAAGGCGCCNNNNN
 GCGGAGCAGCCGACGCACGCTAGTGGTCCGCCGCCACCGCCCTTCTCGGCTCCGC
 TCCCGCCTTGCCGTCCCCCGCGGCTCCGCCCTCGGGCCCCGGCGCAGCCAGCCCT
 CCAGACGCCCGGTCGCCGCGGCTGTGCTCTTCTCCGCCCGGTTTCCAGCGC
 CGCTCCTTCCCCGCTTGGCAGGGAGGGGCATTGATCTTCGATCGGAAGATGGCTGC
 TGGCTGCCTGCTGGCCTTGACTCTGACACTTTTCCAATCTTGTGCTCATCGCCCCCTGTC
 GGAGGAGCCGTTCCCTTCGGCCGCTCACTATCAAATCATGGGTGGATAAGATGCAAGAAGA
 CCTTGTACACTGGCAAAAACAGCAAGTGGAGTCAATCAGCTTGTGATTTTATGAGAA
 ATATCAAGATTTGTATACTGTGGAACCAATAATGCACGCCAGCTGGTAGAAATTGCAGC
 CAGGGATATTGAGAACTTCTGAGGCACAGATCTAAAGCCCTGGTGCCTGGCATTGGN
 AAGCGAGAAAGTTCAGCAGCTCACCAGTGGAGAAGAGATTTTTCGAAGCATGAAGTTGTC
 TACTACAAATGCANAAGATGATCTCGATCCCTGAGAAAATGACGTGAGCCAGGCAGCCGA

3' Read Nucleotide Sequence:	>Forward primer walk for NM_000722 unedited NAAGAGAGCGGCCGATGGTTAAGCAACCCAAAACCGAAAAGNGCCTGAGTCTGCTTTGAT AACAAATGTCTTGGAGGATTATACTGACTGTGGTGGTGTCTGGATTAATCCCTCCCTG TGGTATATCATTGGAATCCAGTTTCTACTACTTTGGCTGGTATCTGGCAGCACACACCGC CTGTTATGACCTTCTAAAAACCAATCTGCATAGTTAACTCCAGACCCTGCCAAAACAT GAGCCCTGCCCTCAATTACAGTAACGTAGGGTCAGCTATAAAATCAGACAACATTAGCT GGGCCTGTTCCATGGCATAACACTAAGGCGCAGACTCCTAAGGCACCCACTGGCTGCATG TCAGGGTGTGAGATCCTTAAACGTGTGAATGCTGCATCATCTATGTGTAAACATCAAAG CAAAATCCTATACGTGTCTCTATTGGAAAATTTGGGAGTTTGTGTTGCATTGTTGGTG ATTACATGTGAAAGGGTCCCCATAACAATTGTTAATGAACCATAAGAAATGTCTTGATAT TGACCTGGAATTTTACTGCTGCAATTTTACTAAGAAAATCTCTAAGGGGAAAGAAATT ATTTTTGCCTTCACTTTTTCTTCTGTGANAAGTTAATCTGCTTTAAGTAGCAATTATT GAAATATATAGAGAAAGAAGAGATTAACATTGGTCTAAATTGTTGAAATATANATAATGG CTAATTTTCTATGAAAAATTTGCCATGAATAANATGCCTTATGAANAACGGCTTCTTTGC CAAAAATAAACACATTTGATGACCAATTCATTTTATGNGTAATGAATTGATGGTTTTGA AATAGTAACTAANAATTAATAACTAAAGGTGCTTGAGGAAGAAATTTAATATGT
Restriction Sites:	Please inquire
ACCN:	NM_000722
Insert Size:	6400 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_000722.2.
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_000722.2 , NP_000713.2

RefSeq Size:	3822 bp
RefSeq ORF:	3276 bp
Locus ID:	781
UniProt ID:	P54289
Cytogenetics:	7q21.11
Domains:	VWA, Cache
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:	<p>The preproprotein encoded by this gene is cleaved into multiple chains that comprise the alpha-2 and delta subunits of the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. Mutations in this gene can cause cardiac deficiencies, including Brugada syndrome and short QT syndrome. Alternate splicing results in multiple transcript variants, some of which may lack the delta subunit portion. [provided by RefSeq, Nov 2014]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>