

Product datasheet for **SC311422**

CACNA2D4 (NM_172364) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA2D4 (NM_172364) Human Untagged Clone
Tag:	Tag Free
Symbol:	CACNA2D4
Synonyms:	RCD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_172364, the custom clone sequence may differ by one or more nucleotides

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ATGGTCTGTGGCTGCTCTGCCCTCCTTCCCCTCCCCAACCCAGGCCACCATGCCTGCAACTCCCAACT
TCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGCCAATGCCCGTGGCCTGGGCCTTTGT
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CCTCCTGGAGTCCAATGCTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGTGTCCC
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TACATGGACAGCAAGCTCCTCAGCTCGCAGGCTCAGAGCCTGACTGCTCACCCTGTGGCCATGCCAG
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GAGAGAGCTGATGAAGCTGGCGCCCCGGTACAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAAC
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 TTTCTGGGGAGGTGGATGGTGTCTGACCCAGCTGCTCAGCATGGGGGTGTTAGCCAAGTACTA
 TGTATGACTATCAGGCCATGTGCAAACCTCGAGTCAACACAGTGCAGCCCAGCCCTGGTACAGCC
 AATTTCTGCCTTCTTACGCGGACAGGTGGTGTCTGCAGGAGCTGGTGTCTTCTGCTGGAGTGGAGT
 GTCTGGGGCTCCTGGTACGACAGAGGGGCCGAGGCCAAAAGTGTCTTCCATCACTCCCAAAACACAAGA
 AGCAGGACCCGCTGCAGCCCTGCGACACGGAGTACCCCGTGTTCGTGTACCAGCCGGCCATCCGGGAGGC
 CAACGGGATCGTGGAGTGCAGCCCTGCCAGAAGTATTTGGTGCAGCAGATCCCAACAGTAACTC
 CTCTCTGGTGCAGACACCCACCTGTGACTGCAGCATTTCCACCAGTGTGCAGGAGGCGACAGAAG
 TCAAATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCAGAAAGCTCCGCGGACCCAGACTCCTG
 CCACGCCTTCCATCCAGAGGAGAATGCCAGGACTGCGGCGGCGCCTCGGACACCTCAGCCTCGCCGCC
 CTACTCTGCTGCCTGTGTGCTGGGGCTACTGCCCAACTCCTGCGGTGA

Restriction Sites:

Please inquire

ACCN:

NM_172364

OTI Disclaimer:

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.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_172364.3 , NP_758952.3
RefSeq Size:	5343 bp
RefSeq ORF:	3414 bp
Locus ID:	93589
UniProt ID:	Q7Z3S7
Cytogenetics:	12p13.33
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>This gene encodes a member of the alpha-2/delta subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. Various versions of each of these subunits exist, either expressed from similar genes or the result of alternative splicing. Research on a highly similar protein in rabbit suggests the protein described in this record is cleaved into alpha-2 and delta subunits. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]</p>