

Product datasheet for **RG222306**

CACNA2D3 (NM_018398) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA2D3 (NM_018398) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CACNA2D3
Synonyms:	HSA272268
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222306 representing NM_018398 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGGGCGGGCTCGCCGCGCCGCGCTCCCGGGGGCCCTCGGCGCTTCTCGCTGCCGCGTCTCT
ACGCCGCGCTGGGGGACGTGGTGCCTCGGAGCAGCAGATACCGCTCTCCGTGGTGAAGCTCTGGGCTC
GGCTTTTGGTGGGAGATAAAATCCATTGCTGCTAAGTACTCCGTTCCAGCTTCTGCAAAAGAAATAC
AAAGATATGAGAAAGACGTTGCCATAGAAGAAATCGATGGCCTCCAACGGTAAAGAAGCTGGCAAAGA
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CCTGAAACATGAATTTGATGCAGACTTACAGTATGAATACTTCAATGCTGTGCTGATAAATGAAAGGGAC
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AGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAATTCTGAAGACCATCC
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AAGCCAGACAGTCTCCTTCTGCTCCCTCTGCTTTTGTGCTCTTCTCAAGG
    
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG222306 representing NM_018398
 Red=Cloning site Green=Tags(s)

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MAGPGSPRRASRGASALLAAALLYAALGDVVRSEQQIPLSVVKLWASAFGGEIKSIAAKYSGSPLLQKKY
KEYEKDVAIEEIDGLQLVKLAKNMEEMFHKSEAVRRLVEAAEEAHLKHEFDADLQYEFNAVLINERD
KDGNFLELGKEFILAPNDHFNNLPVNIISLSDVQVPTNMYNKDPAIVNGVYWSESLNKVFVDNFRDPSLI
WQYFGSAKGFRRQYPGIKWEPDENGVIADFRCNRKWIQAATSPKDVVILVDVSGSMKGLRLTIKQTVS
SILDITLGDDEFNIIAYNEELHYVEPCLNGTLVQADRTNKEHFREHLDKLFAKGIGMLDIALNEAFNLS
DFNHTGQGSICSQAIMLITDGAVDTYDTIFAKYNWPDVKVRIFTYLIGREAAFADNLKWMACANKGFFTQ
ISTLADVQENVMEYLHVL SRPKVIDQEHVWVTEAYIDSTLPQAQKL TDDQGPVLMTTVAMPVFSKQNET
RSKGILLGVVGTDPVKELLLKTI PKYKLGTHGYAFAITNNGYILTHEPELRLLYEEGKRRRKNPNYSVDLS
EVEWEDRDDVLRNAMVNRKTGKFSMEVKKTVDKGKRVLVMTNDYYYTDIKGTPFSLGVALSRGHGKYFFR
GNVTIEEGLHDLEHPDVSLADEWSYCNLDLHPEHRHLSQLEAIKLYLKGKEPLLQCDKELIQEVLFDVAV
SAPIEAYWTSALNKSNSDKGVEVAFLGTRTGLSRINL FVGAEQLTNQDFLKAGDKENIFNADHFLWY
RRAAEQIPGSFVYSIPFSTGPNKSNVVTASTSIQLLDERKSPVVAAVGIQMKLEFFQRKFWTASRQCAS
LDGKCSISCDDETVNICYLIDNNGFILVSEDTYQTGDFGFEIEGAVMNKLLTMGSFKRITLYDYQAMCRAN
KESSDGAHGLLDYPYNAFLSAVKWIMTELVLFLVEFNLCSSWHSMDTAKAQKQLKQTLPCDTEYPAFVSR
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RPESCHGFHPEENARECGGAPSLQAQTVLLLLLPLLLMLFSR
    
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TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_018398

ORF Size: 3273 bp

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 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:

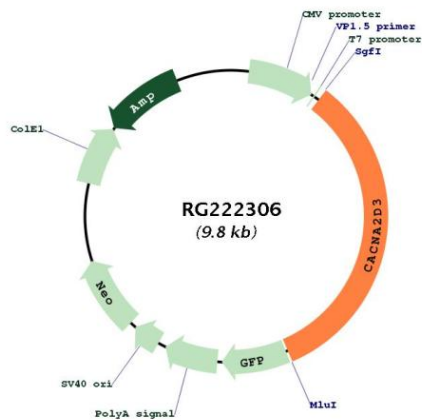
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_018398.2](#), [NP_060868.2](#)
RefSeq Size: 3689 bp
RefSeq ORF: 3276 bp

Locus ID: 55799
UniProt ID: [Q8IZS8](#)
Cytogenetics: 3p21.1-p14.3
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: 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]

Product images:



Circular map for RG222306