

Product datasheet for RC226480

CACNA1C (NM_199460) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA1C (NM_199460) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNA1C
Synonyms:	CACH2; CACN2; CACNL1A1; CaV1.2; CCHL1A1; LQT8; TS; TS. LQT8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC226480 representing NM_199460 Red=Cloning site Blue=ORF Green=Tags(s)

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GCCCGGCCATGCCAACATGAATGCCAATGCGGCAGCGGGGCTGGCCCTGAGCACATCCCCACCCCGG
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GCCAGGCTGGCCACCGGATCTCCAAGTCAAAGTTCAGCCGCTACTGGCGCCGGTGAATCGGTTCTGCA
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Protein Sequence: >RC226480 representing NM_199460
 Red=Cloning site Green=Tags(s)

MV NENT RMYI PEEN HQGS NYGSPR PAHAN MNANAAA GLAPEHIPTPGAALSWQAAIDAARQAKLMGSAGN
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 EQGEQEYKNCELDKNQRQCVEYALKARPLRRYIPKNQH QYKVVYVYNSTYFEYLMFVILLNTICLAMQH
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 QSPNGALLPFVNCRDAGQDRAGGEEDAGCVRARGR PSEELQDSRVYVSSL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8013_h09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

ACCN: NM_199460

ORF Size: 6663 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](#)

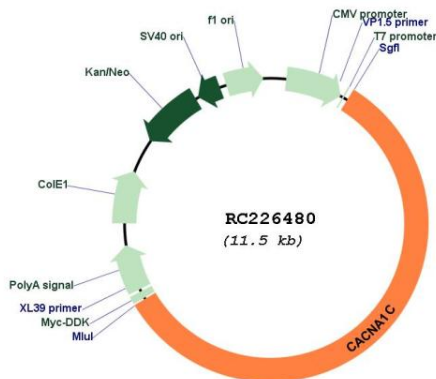
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_199460.2, NP_955630.2](#)
RefSeq ORF: 6666 bp
Locus ID: 775
UniProt ID: [Q13936](#)
Cytogenetics: 12p13.33
Protein Families: Druggable Genome, Ion Channels: Calcium, Transmembrane
Protein Pathways: Alzheimer's disease, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, GnRH signaling pathway, Hypertrophic cardiomyopathy (HCM), Long-term potentiation, MAPK signaling pathway, Type II diabetes mellitus, Vascular smooth muscle contraction
MW: 248.8 kDa
Gene Summary: This gene encodes an alpha-1 subunit of a voltage-dependent calcium channel. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. The alpha-1 subunit consists of 24 transmembrane segments and forms the pore through which ions pass into the cell. The calcium channel consists of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. There are multiple isoforms of each of these proteins, either encoded by different genes or the result of alternative splicing of transcripts. The protein encoded by this gene binds to and is inhibited by dihydropyridine. Alternative splicing results in many transcript variants encoding different proteins. Some of the predicted proteins may not produce functional ion channel subunits. [provided by RefSeq, Oct 2012]

Product images:



Circular map for RC226480