

Product datasheet for RC211587

CACNA1F (NM_005183) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA1F (NM_005183) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNA1F
Synonyms:	AIED; Cav1.4; Cav1.4alpha1; COD3; COD4; CORDX; CORDX3; CSNB2; CSNB2A; CSNBX2; JM8; JMC8; OA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211587 representing NM_005183 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGAATCTGAAGGCGGGAAAGACACCACCCAGAGCCAGTCCAGCCAATGGGGCAGGCCCTGGTC
CCGAATGGGGGCTGTGCCCGGGCCCCAGCTGTGGAAGGTGAAAGCAGTGGGGCATCAGGCCTAGGGAC
CCCTAAGCGAAGAAACCAGCACAGCAAGACAAGACAGTGGCAGTGGCCAGTGCCAGCGGTACCTCGG
GCACTCTTCTGCCTCACCTGGCCAATCCTCTGCGACGGTCTGCATCAGCATCGTGGAGTGAAGCCCT
TCGACATCCTCATCCTGCTGACCATCTTGCCAACTGCGTGGCCCTGGGAGTTTACATCCCTTCCCTGA
GGAGACTCCAACACTGCCAACCAACCTGGAGCAGGTGGAGTACGTATTCTGGTGATTTTCACTGTG
GAGACGGTGCTCAAGATCGTGGCCTACGGGCTGGTGTCCACCCAGCGCTACATCCGCAATGGCTGGA
ACCTACTCGACTTCATCATCGTCGTGGTGGGCTGTTACGCGTTCGCTGGAGCAGGGCCCCGGACGGCC
AGGCGACGCCCCGCACACCGGGGAAAGCCAGGAGGCTTCGATGTGAAGCATTGAGGGCGTTTCGGGTG
CTGCGGCCACTGAGGCTGGTGTCTGGGGTCCCAGCCTGCACATAGTGCTCAATTCATCATGAAGGCTC
TGGTGGCCTGCTGCACATTGCACTGCTCGTCTTTCGTCATCATCATTATGCCATCATTGGGCTCGA
GCTGTTCTTGGACGAATGCACAAGACGTGCTACTTCTGGGATCCGACATGGAAGCGGAGGAGGCCCA
TCGCCCTGTGCGTCTTCGGGATCAGGGCGTGCCTGCACGCTGAACCAGACTGAGTGCCCGGGCGCTGGC
CAGGGCCCAATGGAGGCATCACCAACTTTGACAACCTTCTTTCGCCATGCTGACAGTCTCCAGTGTGT
CACCATGGAAGGCTGGACCGATGTGCTACTGGATGCAAGATGCCATGGGGTATGAACCTGCCCTGGGTG
TACTTTGTGAGCCTTGTATCTTTGGGTCTTCTCGTCCTCAACCTTGTGCTTGGCGTCTGAGTGGGG
AGTTCTCAAGGAGAGAGAGAAAGCGAAAGCTCGCGGGGACTTCCAGAAGCAGCGGGAGAAAGCAGAGAT
GGAGGAAGACCTGCGGGGCTACCTGGACTGGATCACTCAAGCCGAAGAGCTGGACATGGAGGACCCCTCC
GCCGATGACAACCTTGGTTCTATGGCTGAAGAGGGCCGGGCGGGCCATCGGCCACAGCTGGCCGAGCTGA
CCAATAGGAGGCGTGGACGTCTGCGCTGGTTCAGTCATTCTACTCGTCCACACTCCACCAGCAGCCA



[View online »](#)

TGCCAGCCTCCCAGCCAGTGACACCGGTTCCATGACAGAGACCCAAGGCGATGAGGATGAGGAGGAGGGG
GCTCTGGCCAGCTGTACACGCTGCCTAAACAAGATCATGAAAACCAGAGTCTGCCGCCGCTCCGCCGAG
CCAACCGGGTCTTTCGGGCACGCTGCCGTGGGACAGTGAAGTCCAATGCCTGCTACTGGGCTGTGCTGTT
GCTCGTCTTCTCAACACGTTGACCATCGCCTCTGAGCACCACGGGCAGCCTGTGTGGCTCACCCAGATC
CAGGAGATGCCAACAAAGTGTGCTGTCTGTTACGGTGGAGATGCTTCTCAAATGTACGGTCTGG
GCCCTCTGCCTATGTGTCTTCTTCTCAACCGCTTTGACTGCTTTGTGGTCTGTGGGGCATCTTAGA
GACCACCTTGGTGGAGGTGGGCGCCATGCAGCCCTTGGGCATCTCAGTGCCTCCGATGTGTGCCCTCCTC
AGGATCTTTAAGGTCACCAGACACTGGGCTTCTCTGAGCAATCTGGTGGCATCCCTGCTCAATTCATGA
AATCCATCGCATCCTTGCTGCTTCTCCTTCTCCTTTCATCATTATCTTCTCCCTGCTTGGCATGCAGCT
GTTTGGGGCAAGTTCAACTTTGACCAGACCCACACCAAGCGAAGCACCTTTGACACGTTCCCCAGGCC
CTCCTCACTGTCTTTCAGATCCTGACAGGTGAGGACTGGAACGTGGTCAATGATGATGGTATCATGGCAT
ATGGTGGCCCTTCTTCCAGGAATGTTGGTGTGCATCTATTCATCATTCTTTCATCTGTGGCAACTA
CATCTGTGAACGTGTTTCTTGCCATTGCTGTGGACAACCTGGCCAGTGGAGATGCAGGCACTGCCAAG
GACAAGGGCGGGGAGAAGAGCAATGAGAAGGATCTCCACAGGAGAATGAAGGCCTGGTGCCTGGTGTGG
AGAAAGAGGAAGAGGAGGTGCAAGGAGGAAGGAGCAGACATGGAGGAGGAGGAGGAGGAAGAAGA
GGAAGAAGAGGAAGAAGAGGAAGAGGTTGCAAGGGGTGCAAGGGGTGTTGGAACCTCGCAGGAAGTGTACCCAAGGAG
AAGGTGGTACCCATCCCTGAGGGCAGCGCTTCTTCTGCCTCAGCCAAACCAACCCGCTGAGGAAGGGCT
GCCACACCCTCATCCACCATCATGTCTTACCAATCTTATCCTGGTGTTCATCATCCTCAGCAGTGTGTC
CCTGGCCGCTGAGGACCCCATCCGAGCCCACTCCTTCCGCAACCATATTCTGGGTTACTTCGATTATGCC
TTCACCTCCATTTTCACTGTGGAGATTCTACTAAAGATGACAGTGTGGGGCCTTCTGCACCCGCGGT
CCTTCTGCCGTAGCTGGTTAATATGTTGGATCTGCTGGTGGTCAAGTGTGCCCTCATCTCCTTGGCAT
CCACTCCAGGCCATCTCGTGGTGAAGATTCTGCGAGTACTCCGAGTACTGCGGCCCTCCGAAACATCA
AACAGGGCAAGGGACTCAAGCATGTGGTGCAGTGTGATTTGTGGCCATCCGGACCATCGGAACATCA
TGATTGTACCACACTTCTGCAATTTATGTTCCGCTGCATCGGGGTGACGCTCTTCAAGGGAAATTTCTA
CACCTGCACGGACGAGGCCAAACACACCCTCAAGAATGCAAGGGCTCCTTCTGGTATACCCAGATGGA
GACGTGTACGGCCCTGGTCCGGGAGCGGCTCTGGTCAACAGTGATTTCAACTTTGACAATGTCTTT
CAGCCATGATGGCCCTGTTCACTGTCTCCACCTTTGAAGGCTGGCCTGCACTGCTATAACAAGCCATCGA
TGCATATGCAGAGGACCATGGCCCATCTATAATTACCGTGTGGAGATCTCAGTGTCTTTCATTGTCTAC
ATCATCATATTGCGTCTTTCATGATGAACATCTTCGTGGGCTTCGTATCATCACTTCCGTGCCCAGG
GCGAGCAGGAGTACAAAACGTGAGCTGGACAAGAACCAGCGTCAATGTGTGGAATATGCCCTCAAGGC
CCAGCCACTCCGCCGTTACATCCCAAGAACCAGCATCAGTATCGTGTGGGCCACTGTGAACCTGCT
GCCTTTGAGTACCTGATGTTCTGCTCATCCTGCTCAACACAGTTGCCCTAGCCATGCAGCACTATGAGC
AGACTGCTCCCTTCAACTATGCCATGGACATCCTCAACATGGTCTTCACTGGCCTCTTCACTATTGAGAT
GGTGTCAAAATCATCGCCTTCAAGCCCAAGCATTACTTCACTGATGCCTGGAACACGTTTGACGCTCTT
ATTGTGGTGGGACAGCATAGTGGATATTGCCGCTCACTGAAGTCAATAATGGTGGCCACCTTGGCGAGAGCT
CTGAGGACAGCTCCCGCATTTCCATTACCTTCTTTCGCTCTTCCGAGTATGCGGCTGGTCAAGCTTCT
CAGTAAGGGTGAAGGGATCCGCACATTGCTCTGGACATTCATCAAGTCTTCCAGGCCTTGCCTATGTG
GCTCTTTCATCGCAATGATATTCTTTCATCTATGCCGTCATTGGCATGCAGATGTTGGCAAGGTGGCTC
TTCAGGATGGCACACAGATAAACCGAAACAACACTTCCAGACCTTCCACAGGCTGTGCTGCTTCTGTT
CAGGTGTGCCACTGGTGAAGCATGGCAGGAGATAATGCTTGCAGCCTTCCCGAAATCGGTGTGATCCT
GAGTCTGACTTCCGCCCTGGTGAAGAGTTTACCTGTGGTGAATTTTGCATCGCCTATTTTCATCAGCT
TCTTATGCTCTGTGCCTTCTGATCATAAATCTCTTGTGGTGTGATCATGGACAACCTTGTATTATCT
CACCAGAGATTGGTCCATCCTGGGCCCATCACCTTGTGAATTCAGAGGATCTGGTCTGAATATGAC
CCTGGGGCAAGGGCCGATCAAACACTTGGATGTGGTGGCCTGCTGAGACGTATCCAGCCCCCTCTGG
GATTTGGGAAGCTGTGCCACACCGAGTGGCCTGCAAGAGACTTGTGGCAATGAACATGCCCTCAACTC
AGATGGGACGGTACATTCAACGCCACACTCTTGGCCTGGTCCGGACATCCCTGAAGATCAAAACAGAA
GGGAACCTGGAGCAAGCCAACCAGGAGCTGCGGATTGTATCAAAAAGATCTGGAAGCGGATGAAACAGA
AGCTGCTAGATGAGGTATCCCCCACCAGACGAGGAGGAGTCAACCGTGGGCAAAATTCACGCCAATT
TCTGATCCAGGACTATTTCCGCAAAATCCGGCGGAGGAAAGAAAAAGGGCTACTAGGCAACGACGCCGCC
CCTAGCACCTTCTCCGCCCTTACGGCTGGTCTGCGGAGCCTGCAGGACTTGGTCTGAGATGCGGCAGG
CCCTCACCTGTGACACAGAGGAGGAGGAAGAAGAGGGGCAGGAGGGAGTGGAGGAGGAAGATGAAAAGGA
CTTGGAAACTAACAAAGCCAGATGGTCTCCAGCCCTCAGCTCGCCGGGGCTCCGGGATTTCTGTGCT

CTGCCTGTCGGGGACAGACTTCCAGATTCACTCTCCTTTGGGCCAGTGATGATGACAGGGGGACTCCCA
 CCTCCAGTCAGCCAGTGTGCCCCAGGCTGGATCCAACACCCACAGGAGAGGCTCTGGGGCTCTCATTTT
 CACCATCCCAGAAGAAGGAAATTCTCAGCCCAAGGGAACCAAAGGGCAAAAACAGCAAGATGAGGATGAG
 GAAGTCCCTGATCGGCTTTCCTACCTAGATGAGCAGGCAGGGACTCCCCCGTCTCAGTCTTTTGGCAC
 CTCACAGAGCTCAGAGATACATGGATGGGCACCTGGTACCACGCCGCCGTCTGCTGCCCCCACACCTGC
 AGGTCGGAAGCCCTCCTTACCATCCAGTGTCTGCAGCGCCAGGGCAGTTGTGAGGATTTACCCATCCCA
 GGCACCTATCATCGTGGGCGAAATTCAGGGCCCAATAGGGCTCAGGGTTCTGGGCAACACCACCTCAGC
 GGGTTCGGCTCCTGTATGCCCGCTGTTGTTGGTGAAGAGGGCGCAGCGGGGGAGGGGTACCTCGGCAG
 ATCCAGTGGCCCACTGCGCACCTTACCTGTCTGCACGTGCTGGAACCCACTCGGACCCAGCCATGGG
 AAGAGGGGCAGTCCGACAGCTTGGTGGAGGCTGTGCTTATCTCAGAGGGTCTGGGCTCTTTGCTCGAG
 ACCCACGTTTCTGGCCCTGGCCAAGCAGGAGATTGCAGATGCGTGTGCGCTGACGCTGGATGAGATGGA
 CAATGCTGCCAGTGACCTGCTGGCACAGGGAACCAGCTCTCTATAGCGACGAGGAGTCCATCTCTCC
 CGTTCGATGAGGAGACTTGGGAGACGAGATGGCTGCGTCCACGCCCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211587 representing NM_005183
 Red=Cloning site Green=Tags(s)

MSESEGGKDTTPEPSPANGAGPPEWGLCPGPPAVEGESSGASGLGTPKRRNQHSKHKTVAVASAQRSPR
 ALFCLTLANPLRRSCISIVEWKPFIDILILLTIFANCVLGVYIPFPEDDSNTANHNLEQVEYVFLVIFTV
 ETVLKIVAYGLVLHPSAYIRNGWNLDFIIVVVLFSVLLLEQGPGRPGDAPHTGGKPGGFVVKALRAFRV
 LRPLRLVSGVPSLHIVLNSIMKALVPLLHIALLVFVIIYAIIGLELFLGRMHKTCYFLGSDMEAEEDP
 SPCASSGSGRACTLNQTECRGRWPNGGINTFDNFFFAMLTVFQCVTMEGWTDVLYWMQDAMGYELPWV
 YFVSLVIFGSFFVLNLVLGVLSEFSGEREKAKARGDFQKQREKQMEEDLRGYLDWITQAEELDMEDPS
 ADDNLGSMEEGRAGHRPQLAELTNRRLRWRWFSSHSTRSTHSTSSHASLPASDTGSMTEQTQDEDEEEG
 ALASCTRCLNKIMKTRVCRRLRRANRVLRARCRRAVKSNAICYWAVLLLVLNLTIASEHHGQPVWLTQI
 QEYANKVLLCLFTVEMLLKLYGLGPSAYVSSFFNRFDCFVCGGILETTLVEVGAMQPLGISVLRVRL
 RIFKVRHWASLNLVASLLNSMKSIASLLLLLFLFIIIFSLGMLFGGKFNFDQTHTRSTFDTFPQA
 LLTVFQILTGEDWNVVMYDGMAYGGPFFPGMLVCIYFIIILFCGNYILLNVFLAIAVDNLASGDAGTAK
 DKGGKESNEKDLQENEGLVPGVEKEEEEEGARREGADMEEEEEEEEEEEEEEGAGGVELLQEVVPE
 KVVPIPEGSFAFFCLSQTNPLRKGCHTLIHVVFTNLILVFIILSSVSLAAEDPIRAHSFRNHILGYFDYA
 FTSIFTVEILLKMTVFGAFLHRGSFCRSWFNMLDLLVSVSLISFGIHSASISVVKILRVLRLRPLRAI
 NRAKGLKHVVQCVFAIRTIIGNIMIVTLLQFMFACIGVQLFKGKFTYCTDEAKHTPQECKGSFLVYPD
 DVSRPLVRERLWNSDFNFDNL SAMMALFTVSTFEGWPALLYKAIDAYAEDHGPINYNRVEISVFFIVY
 IIIIAFFMMNIFVGFVIIIFRAQGEQEYQNCELDKNQRQCVEYALKAQPLRRYIPKNPHQYRVWATVNSA
 AFEYLMFLILLNLTVALAMQHYEQTAPFNAMDILNMVFTGLFTIEMVLKIIAFKPKHYFTDAWNTFDAL
 IVVGSIVDIAVTEVNNGGHLGESSESSRISITFFRLFRVMRLVKLLSKGEGIRTLTLWTFIKSFQALPYV
 ALLIAMIFFIYAVIGMQMFGKVALQDGTQINRNNNFQTFPQAVLLLFRCATGEAWQEIMLASLPGNRCDP
 ESDFGPGEFTCGSNFAIAYFISFFMLCAFLIINLFAVIMDNFDYLTRDWSILGPHHLDEFKRIWSEYD
 PGAKGRIKHLDDVALLRRIQPPLGFGKLCPHRVACKRLVAMMPLNSDGTVTFNATLFAVVRTSLKIKTE
 GNLEQANQELRIVIKKIWKRMKQKLLDEVIPPPDEEVEVTGKFFYATFLIQDYFRKFRRRKEKGLLGNDA
 PSTSSALQAGRLSLQDLGPEMRQALTCDEEEEEEGQEGVEEEDKLETNKATMVSQPSARRGSGISVS
 LPVGDRLPDSL SFGPSDDDRGTPPTSSQPSVPQAGSNTHRRGSGALIFTIPEEGNSQPKGTGQNKQDEDE
 EVPDRLSYLDEQAGTPPCSULLPPHRAQRYMDGHLVPRRRLPPTPAGRKPSTFIQCLQRQGSCELDPIP
 GTYHRGRNSGPNRAQGSWATPPQRGLLYAPLLLVEEGAAGEGYLGRSSGPLRTFTCLHVPGTHSDPSHG
 KRGSADSLVEAVLISEGLFARDPFVALAKQEIADACRLTLEMDNAAASDLLAQGTSSLYSDEESILS
 RFDEEDLGDEMACHAL

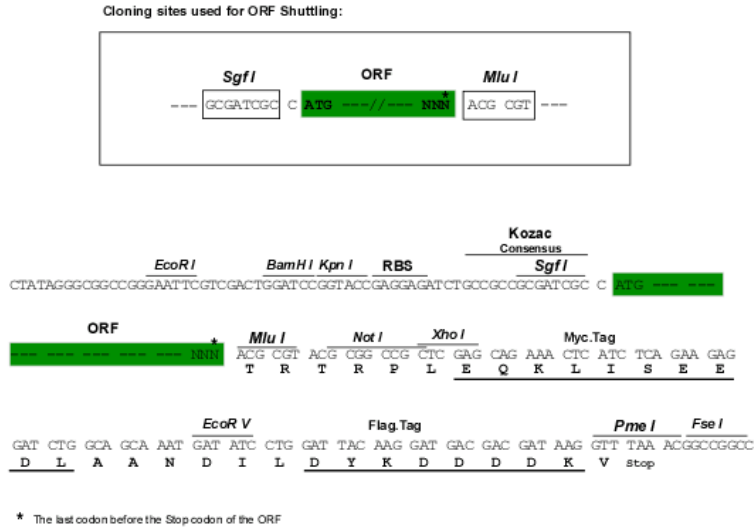
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3366_g01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005183

ORF Size: 5931 bp

OTI Disclaimer: 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_005183.2](#), [NP_005174.2](#)

RefSeq Size: 6080 bp

RefSeq ORF: 5934 bp

Locus ID: 778

UniProt ID: [O60840](#)

Cytogenetics: Xp11.23

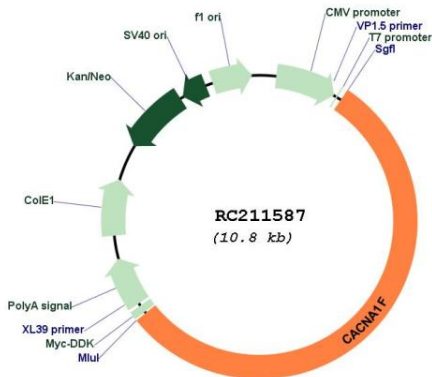
Protein Families: Druggable Genome, Ion Channels: Calcium, Transmembrane

Protein Pathways: Alzheimer's disease, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, GnRH signaling pathway, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway, Vascular smooth muscle contraction

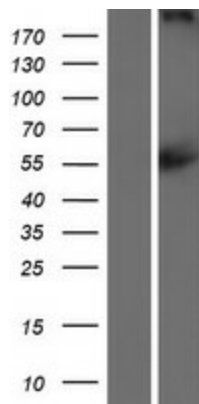
MW: 220.5 kDa

Gene Summary: This gene encodes a multipass transmembrane protein that functions as an alpha-1 subunit of the voltage-dependent calcium channel, which mediates the influx of calcium ions into the cell. The encoded protein forms a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. Mutations in this gene can cause X-linked eye disorders, including congenital stationary night blindness type 2A, cone-rod dystrophy, and Aland Island eye disease. Alternatively spliced transcript variants encoding multiple isoforms have been observed. [provided by RefSeq, Aug 2013]

Product images:



Circular map for RC211587



Western blot validation of overexpression lysate (Cat# [LY417463]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211587 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).