

Product datasheet for RC235381

CACNA1G (NM_001256327) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA1G (NM_001256327) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNA1G
Synonyms:	Ca(V)T.1; Cav3.1; NBR13; SCA42; SCA42ND
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC235381 representing NM_001256327 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGAGGAGGAGGATGGAGCGGGCGCCGAGGAGTCGGGACAGCCCCGGAGCTTCATGCGGCTCAACG
ACCTGTCCGGGGCCGGGGCCGGCCGGGGTCCAGCAGAAAAGACCCGGGACGCGGGACTCCGA
GGCGGAGGGGCTGCCGTACCCGGCGCTGGCCCCGGTGGTTTTCTTCTACTTGAGCCAGGACAGCCGCCG
CGGAGCTGGTGTCTCCGCACGGTCTGTAACCCCTGGTTTGAGCGCATCAGCATGTTGGTCATCCTTCTCA
ACTGCGTGACCCTGGGCATGTTCCGGCCATGCGAGGACATCGCCTGTGACTCCCAGCGCTGCCGGATCCT
GCAGGCCCTTGTGACTTCATCTTTGCCTTCTTTGCCGTGGAGATGGTGGTGAAGATGGTGGCCTTGGGC
ATCTTTGGGAAAAAGTGTACCTGGGAGACACTTGAACCCGGCTTGACTTTTTTCATCGTCATCGCAGGGA
TGCTGGAGTACTCGTGGACCTGCAGAACGTGAGCTTCTCAGCTGTGAGGACAGTCCGTGTGCTGCGACC
GCTCAGGGCCATTAACCGGGTCCCAGCATGCGCATCCTTGTACGTTGCTGTGGATACGCTGCCCATG
CTGGGCAACGTCCTGCTGCTCTGCTTCTCGTCTTCTTCATCTTCGCGCATCGTCGGCGTCCAGCTGTGGG
CAGGGCTGCTTCGGAACCGATGCTTCTACCTGAGAATTCAGCCTCCCCCTGAGCGTGGACCTGGAGCG
CTATTACAGACAGAGAACGAGGATGAGAGCCCTTTCATCTGCTCCAGCCACGCGAGAACGGCATGCGG
TCTGCAGAAGCGTGCCACGCTGCGCGGGGACGGGGCGGTGGCCACCTTGCGGTCTGGACTATGAGG
CCTACAACAGCTCCAGCAACACCACCTGTGTCAACTGGAACCACTACTACCAACTGCTCAGCGGGGGA
GCACAACCCCTTCAAGGGCGCCATCAACTTTGACAACATTGGCTATGCCTGGATCGCCATCTTCCAGGTC
ATCAGCTGGAGGGCTGGTTCGACATCATGTACTTTGTGATGGATGCTCATTCTTCTACAATTTTCATCT
ACTTCATCTCCTCATCATCGTGGGCTCCTTCTCATGATCAACCTGTGCTGGTGGTATTGCCACGCA
GTTCTCAGAGACCAAGCAGCGGGAAAGCCAGCTGATGCGGGAGCAGCGTGTGCGGTTCTGTCCAACGCC
AGCACCCTGGCTAGCTTCTGTAGCCCGGCAGCTGCTATGAGGAGCTGCTCAAGTACCTGGTGTACATCC
TTGTAAGGCAGCCCGCAGGCTGGCTCAGGTCTCTCGGGCAGCAGGTGTGCGGGTTGGGCTGCTCAGCAG
CCCAGCACCCCTCGGGGGCCAGGAGACCAGCCAGCAGCAGCTGCTCTCGCTCCACCCCGCCCTATCC
GTCCACCACCTGGTGCACCACCACCACCACCATCACCACCACTACCACCTGGGCAATGGGACGCTCAGGG



[View online »](#)

CCCCCGGGCCAGCCCGGAGATCCAGGACAGGGATGCCAATGGGTCCCGCCGGCTCATGCTGCCACCACC
 CTCGACGCCTGCCTCTCCGGGGCCCCCTGGTGGCGCAGAGTCTGTGCACAGCTTCTACCATGCCGAC
 TGCCACTTAGAGCCAGTCCGCTGCCAGGCGCCCCCTCCAGGTCCCCATCTGAGGCATCCGGCAGGACTG
 TGGGCAGCGGGAAGGTGTATCCCACCGTGCACACCAGCCCTCCACCGGAGACGCTGAAGGAGAAGGCACT
 AGTAGAGGTGGCTGCCAGCTCTGGGCCCAACCTCACCAGCCTCAACATCCCACCCGGGCCCTACAGC
 TCCATGCCAAGCTGCTGGAGACACAGAGTACAGGTGCCTGCCAAAGCTTTGCAAGATCTCCAGCCCTT
 GCTTGAAAGCAGACAGTGGAGCCTGTGGTCCAGACAGCTGCCCTACTGTGCCCGGGCCGGGCAGGGGA
 GGTGGAGCTCGCCGACCGTGAAATGCCTGACTCAGACAGCGAGGCAAGTTATGAGTTCACACAGGATGCC
 CAGCACAGCGACCTCCGGGACCCCCACAGCCGGCGCAACGGAGCCTGGGCCAGATGCAGAGCCAGCT
 CTGTGCTGGCCTTCTGGAGGCTAATCTGTGACACCTTCCGAAAGATTGTGGACAGCAAGTACTTTGGCCG
 GGGAAATCATGATCGCCATCCTGGTCAACACACTCAGCATGGGCATCGAATACCACGAGCAGCCCGAGGAG
 CTTACCAACGCCCTAGAAATCAGCAACATCGTCTTACCAGCCTCTTTGCCCTGGAGATGCTGCTGAAGC
 TGCTTGTGTATGGTCCCTTTGGTACATCAAGAATCCCTACAACATCTTCGATGGTGTCTTGTGGTGT
 CAGCGTGTGGGAGATCGTGGGCCAGCAGGGGGCGGCCTGTGGTGTGCGGACCTCCGCTGATGCGT
 GTGCTGAAGCTGGTGCCTTCTGCCGGCGCTGCAGCGCAGCTGGTGGTGTCTGAAGACCATGGACA
 ACGTGGCCACCTTCTGCATGCTGCTTATGCTTTCATCTTCATCTTCAGCATCCTGGGCATGCATCTCTT
 CGGCTGCAAGTTTGCCTCTGAGCGGGATGGGGACACCCTGCCAGACCCGGAAGAATTTTACTCCTTGCTC
 TGGGCCATCGTCACTGTCTTTCAGATCCTGACCCAGGAGGACTGGAACAAAGTCTCTACAATGGTATGG
 CCTCCACGTGCTCCTGGGCGGCCCTTATTTTATTGCCCTCATGACCTTCGGCAACTACGTGCTCTTCAA
 TTTGCTGGTCCGCTTCTGGTGGAGGGCTTCCAGGCGGAGGAAATCAGCAAAACGGGAAGATGCGAGTGA
 CAGTTAAGCTGTATTAGCTGCCTGTGACTCCAGGGGGGAGATGCCAAACAGTCCGAATCAGAGCCCG
 ATTTCTTCTCACCAGCCTGGATGGTGTGAGGGGACAGGAAGAAGTGTGGCCTTGGTGTCCCTGGGAGA
 GCACCCGGAGCTGCGGAAGAGCCTGCTGCCGCTCTCATATCCACACGGCCGCCACACCATGTCGCTG
 CCCAAGAGCACACAGCAGGGCCTGGGCGAGGGCCTGGGCCCTGCGTCCGCGCCGACAGCAGCAGCGGGT
 CGGCAGAGCCTGGGCGGCCACAGATGAAGTACCGCCAGCGCCGAGCTCTCCGCACAGCCCTG
 GAGCGCTGCAAGCAGCTGGACCAGCAGGCGCTCCAGCCGGAACAGCCTCGGCCGTGACCCAGCCTGAAG
 CGGAGAAGCCCAAGTGGAGAGCGGCGTCCCTGTTGTGCGGAGAAGGCCAGGAGAGCCAGGATGAAGAGG
 AGAGCTCAGAAGAGGAGCGGGCCAGCCCTGCGGGCAGTGACCATCGCCACAGGGGGTCCCTGGAGCGGA
 GGCAAGAGTTCCCTTTGACCTGCCAGACACTGCAGGTGCCAGGGCTGCATCGCACTGCCAGTGGCCGA
 GGGTCTGCTTCTGAGCACCAGGACTGCAATGGCAAGTCCGCTTCCAGGGCGCTGGCCCGGCCCTGCGGC
 CTGATGACCCCCACTGGATGGGATGACGCCGATGACGAGGGCAACCTGAGCAAAGGGGAACGGTCCG
 CGCGTGGATCCGAGCCCGACTCCCTGCCTGCTGCCTCGAGCGAGACTCCTGGTACGCTACATCTTCCCT
 CCTCAGTCCAGGTTCCGCTCCTGTGTACCCGGATCATACCCACAAGATGTTCCGACCAGTGGTCCCTG
 TCATCATCTTCTTAAGTGCATCACCATCGCCATGGAGCGCCCCAAAATTGACCCCCACAGCGCTGAACG
 CATCTTCTGACCTCTCCAATTACATCTTACCAGCAGTCTTCTGGCTGAAATGACAGTGAAGGTGGT
 GCACTGGGCTGGTGTCTCGGGGAGCAGGCGTACCTGCGGAGCAGTTGGAACGTGCTGGACGGGCTGTTGG
 TGCTCATCTCCGTCATCGACATTCTGGTGTCCATGGTCTCTGACAGCGGCACCAAGATCCTGGGCATGCT
 GAGGGTGTGCGGCTGCTGCGGACCCTGCGCCGCTCAGGGTATCAGCCGGGCGCAGGGGCTGAAGCTG
 GTGGTGGAGACGCTGATGCTCCTCACTGAAACCCATCGGCAACATTGTAGTCATCTGCTGTGCCTTCTTCA
 TCATTTTCGGCATCTTGGGGGTGCAGCTCTTCAAAGGGAAGTTTTTCGTGTGCCAGGGCGAGGATACCAG
 GAACATACCAATAAATCGGACTGTGCCAGGCGATACCGGTGGGTCCGGCACAAGTACAACCTTTGAC
 AACCTTGGCCAGGCCCTGATGTCCTGTTGTTTTGGCCTCCAAGGATGGTTGGGTGGACATCATGTACG
 ATGGGCTGGATGCTGTGGCGTGGACCAGCAGCCATCATGAACCACAACCCCTGGATGCTGCTGTACTT
 CATCTCGTTCCTGCTCATTGTGGCCTTCTTTGCTGAACATGTTTGGGTGTGGTGGTGGAGAATTC
 CACAAGTGTGCGCAGCACCAGGAGGAAGAGGAGGCCCGGGCGGGAGGAGAAGCGCTACGAAGACTGG
 AGAAAAAGAGAAGGAATCTAATGCTGGACGATGTAATTGCTTCCGGCAGCTCAGCCAGCGCTGCGTCAGA
 AGCCAGTGCAAACCTTACTACTCGACTACTCCGCTTCCGGCTCCTGCTCCACCATTGTGCACCAGC
 CACTACCTGGACCTTTCATCACAGGTGTATCGGGCTGAACGTGGTACCATGGCCATGGAGCACTACC
 AGCAGCCCGAGATTCTGGATGAGGCTCTGAAGATCTGAACTACATCTTCACTGTGATCTTTGTCTTGG
 GTCAGTTTTCAAACCTTGTGGCCTTTGGTTCCGTCGGTCTTCCAGGACAGGTGGAACAGCTGGACCTG
 GCCATTGTGCTGTCCATCATGGGCATCAGCTGGAGGAAATCGAGGTCAACGCCCTCGCTGCCATCA
 ACCCCACCATCATCCGCATCATGAGGGTGTGCGCATTGCCGAGTGTGAAGCTGCTGAAGATGGCTGT

GGGCATGCGGGCGCTGCTGGACACGGTGGGGAACCTGGGACTTCTCTTCATGTTGTTGTTTTTCATCTTT
GCAGCTCTGGGCGTGGAGCTCTTTGGAGACCTGGAGTGTGACGAGACACACCCCTGTGAGGGCCTGGGCC
GTCATGCCACCTTTTCGGAACCTTTGGCATGGCCTTCTTAACCCCTTCCGAGTCTCCACAGGTGACAATTG
GAATGGCATTATGAAGGACACCCCTCCGGGACTGTGACCAGGAGTCCACCTGCTACAACACGGTCATCTCG
CCTATCTACTTTGTGTCCTTCGTGCTGACGGCCAGTTCGTGCTAGTCAACGTGGTGATCGCCGTGCTGA
TGAAGCACCTGGAGGAGACAAAGGAGGCCAAGGAGGAGCCGAGCTAGAGGCTGAGCTGGAGCTGGA
GATGAAGACCTCAGCCCCAGCCCCACTCGCCACTGGGCAGCCCTTCTCTGGCCTGGGTCGAGGGC
CCCGACAGCCCCGACAGCCCCAAGCCTGGGGCTCTGCACCCAGCGGCCACGCGAGATCAGCCTCCCACT
TTTCCCTGGAGCACCCACGATGACAGCCCCACCCACGGAGCTGCCAGGACCAGACTTACTGACTGTGCG
GAAGTCTGGGGTCAGCCGAACGCACTCTCTGCCAATGACAGCTACATGTGTCGGCATGGGAGCACTGCC
GAGGGGCCCTGGGACACAGGGCTGGGGCTCCCCAAGCTCAGTCAGGCTCCGTCTTGTCCGTTCACT
CCCAGCCAGCAGATACCAGCTACATCCTGCAGTTCCTCAAGATGCACCTCATCTGCTCCAGCCCCACG
CGCCCCAACCTGGGGCACCATCCCCAACTGCCCCACCAGGACGCTCCCCTTTGGCTCAGAGGCCACTC
AGGCGCCAGGCAGCAATAAGGACTGACTCCTTGACGTTACAGGTCTGGGCAGCCGGGAAGACCTGCTGG
CAGAGGTGAGTGGGCCCTCCCCGCCCTGGCCCGGCCTACTCTTCTGGGGCCAGTCAAGTACCCAGGC
ACAGCAGCACTCCCGCAGCCACAGCAAGATCTCCAAGCAGATGACCCCGCCAGCCCTTGCCAGGCCCA
GAACCCAACTGGGGCAAGGGCCCTCCAGAGACCAGAAGCAGCTTAGAGTTGGACACGGAGCTGAGCTGGA
TTTCAGGAGACCTCCTGCCCCCTGGCGGCCAGGAGGAGCCCCATCCCCACGGGACCTGAAGAAGTGCTA
CAGCGTGGAGGCCAGAGCTGCCAGCGCCGGCCTACGTCTGGCTGGATGAGCAGAGGAGACTCTATC
GCCGTGAGCTGCCTGGACAGCGGCTCCCAACCCACCTGGGCACAGACCCTCTAACCTTGGGGGCCAGC
CTTTGGGGGCCCTGGGAGCCGGCCCAAGAAAAAAGTCAAGCCGCTAGTATCACCATAGACCCCCCGA
GAGCCAAGGTCTCGGACCCCGCCAGCCCTGGTATCTGCCTCCGGAGGAGGGCTCCGTCCAGCGACTCC
AAGGATCCCTTGGCCTCTGGCCCCCTGACAGCATGGCTGCCTCGCCCTCCCCAAGAAAGATGTGCTGA
GTCTCTCCGGTTTATCCTCTGACCCAGCAGACCTGGACCCC

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC235381 representing NM_001256327
 Red=Cloning site Green=Tags(s)

MDEEDGAGAEESGQPRFSMRLNDLSGAGGRPGPGSAEKDPGSADSEAEGLPYPALAPVVFVYLSQDSRP
 RSWCLRTVCNPWFERISMLVILLNCVTLMGFRPCEDIACDSQRCRILQAFDDFIFAFFAVEMVVKMVALG
 IFGKCCYLGDWTNRLDFFVIAGMLEYSLDLQNVSFSAVRTVRVLRPLRAINRVPSMRILVTLTLLDTPM
 LGNVLLLCFFVFFIFGI VGVQLWAGLLRNRCFLPENFSLPLSVDLERYYTENEDESPFICSPRENGMR
 SCRSVPTLRGDGGGPPCGLDYEAYNSSNTTCVNNWQYYTNC SAGEHNPFGAINFDNIGYAWIAIFQV
 ITLEGWVDIMYFVMDAHSFYNFIFYFILLIIVGSFFMINLCLVVIATQFSETKQRESQLMREQRVRFLSNA
 STLASFSEPGSCYEELLYLVYILRKAARRLAQVSRAGVRVGLLSSPAPLGGQETQPSSSCSRSHRRLS
 VHHLVHHHHHHHHYHLGNGTLRAPRASPEIQDRDANGSRRLMLPPPSTPALSGAPPGGAESVHSFYHAD
 CHLEPVRCAQPPRSPSEASGRTVGSGKVYPTVHTSPPPETLKEKALVEVAASSGPPTL TSLNIPPGPYS
 SMHKLLETQSTGACQSSCKISSPCLKADSGACGPDSCPYCARAGAGEVELADREMPDSDSEAVYEFQDA
 QHSDLRDPHSRRQSLGPD AEPSSVLA FWRLICDTFRKIVDSKYFGRGIMIAILVNTLSMGIEYHEQPEE
 LTNALEISNIVFTSLFALEMLLKL VYGPFYIKNPYNI F DGVIVVISWWEIVGQGGGLSVLRTFRMLR
 VLKLVRF PALQRQLVVLMTMDNVATFCMLLMFIFIFISILGMHLFGCKFASERDGTLPDRKNFDSLL
 WAI VTVFQIL TQEDWNKVL YNGMASTSSWAALYFIALMTFGNYVLFNLLVAILVEGFQAEIISKREDASG
 QLSCIQLPVDSQGGDANKSESEP DFFSPSLDGDGDRKKCLALVSLGEHPELRKSLLPPLIIHTAATPMSL
 PKSTSTGLGEALGPASRR TSSSGSAEPGAAHEMKSPPSARSSPHSPWSAASSWTSRRSSRNSLGRAPSLK
 RRSPPSGERRSLLSGEGQESQDEEESSEERASPA GSDHRHRGSLEREAKSSFDPDTLQVPLHRTASGR
 GSASEHQDCNGK SASGR LARALRPDDPPLDGD DADDEGNLSKGERVRAWIRARLPACCLERDSWSAYIFP
 PQSRFRLLCHRIITHKMF DHVVLVII FLNCITIAMERPKIDPHSAERIFL TLSNYIFTAVFLAEMTVKVV
 ALGWCFGEQAYLRSSWNVLDGLLVLISVIDILVSMVSDSGTKILGMLRVLRLLRTRLRPLRVISRAQGLKL
 VVETLMSLKPIGNIVVICCAFFIIFGILGVQLFKGKFFVCQGEDTRNITNKSDCAEASRYRWRHKYNFD
 NLGQALMSL FVLASKDGWVDIMYDGLDAVGVDQQPIMNHNPMWMLLYFISFLLIVAFFVLNMFVGVVVENF
 HKCRQHQEEEEARRREEKRLRRL EKKRRNLMLDDVIASGSSASAASEAQCKPYSDYSRFRLLVHHLCTS
 HYLDL FITGVIGLNVVTMAMEHYQQPQILDEALKICNYIFTVIFVLESVFKLVAFGFRFFQDRWNQLDL
 AIVLLSIMGITLEEIEVNASLPINPTIIRIMRVLRIARVLKLLKMAVGMRALLDTVGNLGLL FMLFFIF
 AALGVELFGDLECDETHPCEGLGRHATFRNFGMAFLTLFRVSTGDNWNGIMKDTLRDCDQESTCYNTVIS
 PIYFVSFVLT AQFVLVNVVIAVLMKHLEESNKEAKEEAELEAELEEMKTLSPQPHSPLGSPFLWPGVEG
 PDSPDSPKPGALHPAAHARSASHFLEHPTMQPHPTELPGPDLLTVRKSGVSRTHSLPNDSYMRHGSTA
 EGPLGHRGWGLPKAQSGSVLSVHSQPADTSYILQLPKDAPHLLQPHSAPTWGTIPKLPPGGRSPLAQRPL
 RRQAAIRTDSDLVQGLGSRELLAEVSGSPPLARAYSFWQSS TQAQQHSRSHSKISKHMTTPAPCPGP
 EPNWKGPPETRSSELELDEL SWISGDLPPGGQEEPPSPRDLKCKYSVEAQSCQRRPTSWLDEQRRHSI
 AVSCLDSGSQPHLGTDP SNLGGQPLGGPGSRPKKLSPPSITIDPPE SQGPRTPPSPGICLRRRAPSSDS
 KDPLASGPPDSMAASPSPKKDVLSL SGLSSDPADLDP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

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_001256327.2
RefSeq Size:	7964 bp
RefSeq ORF:	6834 bp
Locus ID:	8913
UniProt ID:	O43497
Cytogenetics:	17q21.33
Protein Families:	Druggable Genome, Ion Channels: Calcium, Transmembrane
Protein Pathways:	Calcium signaling pathway, MAPK signaling pathway, Type II diabetes mellitus
MW:	252.3 kDa
Gene Summary:	Voltage-sensitive calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division, and cell death. This gene encodes a T-type, low-voltage activated calcium channel. The T-type channels generate currents that are both transient, owing to fast inactivation, and tiny, owing to small conductance. T-type channels are thought to be involved in pacemaker activity, low-threshold calcium spikes, neuronal oscillations and resonance, and rebound burst firing. Many alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Sep 2011]