

Product datasheet for **RR213444**

Cacna1e (NM_019294) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1e (NM_019294) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cacna1e
Synonyms:	CACHA1E; Cav2.3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR213444 representing NM_019294 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTCGCTTCGGGGAGGCGGTGGTCGTTGGCAGACCAGGCTCAGGCGATGGAGACTCGGACCAGAGCA
GGAACCGACAAGGAACCCCGTACCGGCCTCGGGCCGGCGCCGCTACAAGCAGTCAAAGCGCAGAG
GGCGACTATGGCTTTGTACAACCCCATACCAAGTCCGGCAGAACTGTTTCACGGTCAACAGATCCCTGTT
ATCTTCGGAGAAGATAACATTGTCAAGAAATATGCCAAGAACTCATCGATTGGCCGCCATTTGAGTACA
TGATCCTGGCCACCATCATTGCCAACTGCATCGTCTTGGCCCTGGAGCAGCATCTTCTGAGGATGACAA
GACCCCAATGTCCGAAGACTGGAGAAGACAGAACCATATTTATTGGAATCTTCTGCTTTGAAGCTGGG
ATCAAAATCGTGGCTCTAGGATTCATCTTCATAAGGGTTCGTACCTCCGTAACGGCTGGAATGTCATGG
ACTTCATTGTGGTCTCAGTGGCATCCTGGCCACTGCAGGAACCCATTTCAACACCCACGTGGACCTGCG
GACCCCTCCGGCTGTGCGTGTCTGAGGCCCTAAAGCTCGTGTCAAGGAATACCTAGCCTGCAGATCGTG
CTGAAGTCCATCATGAAGCCATGGTGCCTCTTCTGCAGATTGGCCTTCTGCTCTTCTTTGCCATTCTCA
TGTTTGCCATCATTGGCTTGGAGTCTACAGTGGCAAGTTCATCGAGCATGTTTCATGAACAATTCAGG
TATTCTAGAGGGATTTGATCCTCCTCACCCGTGTGGTGTACAGGGCTGCCGGCTGGTTATGAATGTAAG
GACTGGATCGGCCCAATGACGGGATCACCCAGTTTGACAACATCCTTTTTGCTGTGCTGACTGTCTTCC
AATGCATCACTATGGAAGGTGGACCACTGTGCTGTACAATACCAATGATGCCTTAGGAGCCACCTGGAA
CTGGCTGTACTTCATCCCCCTCATCATATCGGATCCTTCTTTGTTCTCAACCTTGCTGGGCGTGCTT
TCCGGGAATTTGCCAAGAAAGAGAGAGAGTGGAGAACCAGAGCATTTCATGAAGCTCCGGCGTCAGC
AACAGATTGAGCGGAGTTGAATGGCTACCGGCCTGGATAGACAAGCAGAGGAAGTCATGCTTGTCTGA
AGAAAATAAAACTCGGGAACATCAGCCTTGAAGTGCTTGAAGGGCAACCATCAAAGGAGCCGGACG
GAGGCCATGACCCGAGACTCCAGCGATGAGCACTGCGTTGATATCTTTCAGTGGGCACACCTCTTGCCA
GAGCCAGTATCAAGAGCACAAAAGTAGACGGAGCCTCCTATTTCCGGCACAAAGGAACGGCTTCTGGTAT
CTCTATCCGACACATGGTCAAGTCGCAAGTGTCTACTGGATCGTCTGAGTGTGTGGCTCTCAATACT
GCCTGTGTGGCCATCGTTCATCACAAACCAGCCACAGTGGCTCACTCACCTCCTACTATGCAGAATTTT



View online »

TGTTTCTGGGACTCTTCCTGTTGGAGATGTCCCTGAAGATGTATGGCATGGGGCCACGCCTTTATTTTCA
 CTCATCCTTCAACTGCTTTGATTTTGGGGTCACAGTGGGCAGCATCTTTGAGGTCGTTTGGGCAATCTTC
 CGACCTGGCACATCTTTTGAATCAGTGTCTTACGAGCTCTCCGGCTCCTAAGGATATTTAAAATAACCA
 AGTATTGGGCATCCCTCCGGAATCTGGTGTTCCTTGATGAGCTCCATGAAGTCTATCATCAGCTTACT
 CTTCTCCTCTTCTCATTGTTGTCTTTGCTCTCCTGGGAATGCAGCTCTTTGGAGGCAGGTTAAAC
 TTTAATGATGGGACTCCTTCGGTAATTTTGATACCTTCCCTGCAGCTATCATGACAGTGTCCAGATCC
 TGACGGGGAAGACTGGAATGAAGTGTGATAACGGCATCCGCTCCAGGGTGGGGTGAAGCTCAGGCAT
 GTGGTCTGCCATCTACTTATTGTGCTCACCTTGTGGAAACTACACACTGCTGAATGTATTCTTGCT
 ATCGCTGTGGACAATCTCGCAATGCCAGGAAGTACCAGGATGAGCAGGAGGAAGAAGAAGCCTTCA
 ACCAGAAACATGCACTGCAGAAGGCCAAGGAGGTGAGCCGATGTCTGCTCCCAACATGCCTTCCATTGA
 GAGGGAGAGGAGACGCCGACACCACATGTCTGTGTGGAAACAGCGCACCAGCCAGCTGAGGAGGCACATG
 CAAATGTCTAGCCAAGAAGCCCTCAACAAGAGGAGGCCCAACATGAACCCCTCAATCCACTCAACC
 CACTGAGTCTCTCAACCCACTCAATGCTCATCTAGCCTCTATCGGAGGCCAGGCCATTGAGGGCCT
 ACCCTGGGCTTGGTCTTGAAAATGTGAAGAGGAGCGTATCAGCCGTGGAGGTTCTCTCAAGGGGGAC
 ATAGTGGCCTGACTAGCGTCTGGACAACAGAGGAGCCCTTTGCTCCCTGGGCAACGGGAGCCACCGT
 GGCTGCCAGATCCTGTATGAAACTGTGACCAACCCAGCAGGAGACTGGGGGAGGAGAGACTGTGGT
 GACTTTTGAAGACCGGGCCAGGCACAGGCAGAGTCAAGGCGAAGCCGGCATCGCCGAGTCAAGACTGAG
 GGCAAGGAGTCTGCCTCTGCCTCCAGAAGCAGGTCTGCCAGCCAGGAGCGGAGTCTGGATGAAGGGGTG
 CCATCGATGGGGAGAAGGAACACGAGCCTCAGAGCAGCCACAGGAGCAAGGAGCCAACTCCATGAAGA
 AGAGAGAACTCAGGACTTAAGGAGGACCAACAGTCTGATGGTCCCAGGGGCTCAGGACTGGTAGGAGCT
 CTTGATGAGGCAGAAACCTCTAGTCCAGCCCAACCTGAGCTGGAAGTGGGGAAGGATGCAGCTCTGA
 CAGAGCAGGAGGCTGAAGGCAGCAGCGAGCAAGCCCTGCTTGGGATGTACAGCTGGATGTGGCCGGGG
 CATTAGCCAGAGTGAACCTGACCTCTCTGCATGACAACCAATGGACAAGGCTACCCTGAGAGAGCC
 AGTGTACAGTCGCCATCCCTGACGTGGACCCCTTGGTGGACTCAACAGTGGTGAACATTAGCAACAAGA
 CGGATGGAGAAGCCAGTCCCTTGAAGGAAGCAGAGACCAAGAGGAAGAGGAGGAGGAAAAGAAAGA
 GCAGAAGAAGGAGAAGCGGGAGACTGAAAAGCCATGGTGCCCATAGCTCTATGTTTATCTTACGACC
 ACTAACCCGATCCGCAAGGCTTGCCTACTTGTGAATCTACGCTACTTTGAGATGTGCATTCTTTGG
 TGATTGCGGCCAGCAGCATTGCCCTGGCAGCTGAGGACCCTGTACTAACTAACTCAGAGCGTAACAAAGT
 CCTGAGATATTTGACTATGTTTTACAGGAGTGTTTACCTTTGAGATGGTGATAAAGATGATAGACCAA
 GGCTTGATCCTGCAGGATGGATCGTACTCCGAGACCTCTGGAATATCCTGGACTTTGTGGTAGTGGTTG
 GTGCATTGGTAGCATTGCTCTGGCGAACGCTTTGGGAACCAACAAGGGGCGGGATCAAGACGATCAA
 GTCTCTGAGGGTACTTCGAGTTCTGCGACCACTGAAAACCATCAAGCGCTTGCCCAACTGAAGGCTGTG
 TTTGACTGCGTGGTGACCTCCTTGAAGAATGTCTTCAACATACTCATTGTCTACAAGCTCTTTATGTTCA
 TCTTTGCCGTATTGCTGTTTCAAGGAAAGTCTTTTATTGCACCGACAGTTCCAAGGACAC
 AGAGAAGGAATGCATAGGCAACTATGTAGACCAGGAAAAACAAGATGGAGGTGAAGGGCCGGGAGTGG
 AAGCGTATGAATCCACTATGACAACATCATCTGGGCCCTGCTGACCCTTTCACCGTCTCCACGGGGG
 AAGGATGGCCTCAGGTTCTGCAGCACTCGTAGATGTGACAGAGGAGGACAGAGGCCCAAGCCGACGAA
 CCGCATGGAGATGTCCATCTTCTATGTTGCTACTTTGTGGTCTTCCCTTTCTTCTTGTCAATATCTTC
 GTGGCCCTCATTATCATCACCTTCCAGGAGCAAGGGGACAAGATGATGGAGGAGTGAAGCTAGAAAAGA
 ATGAGCGGGCATGCATCGACTTCGCCATTAGTGCCAAACCTCTACCCGCTACATGCCACAGAACAGGCA
 CACCTTCCAGTACCGCGTGTGGCACTTCGTAGTCTCGCCATCCTTTGAGTATACCATCATGGCCATGATT
 GCCTTGAACACCGTTGTGCTGATGATGAAGTACTATTCTGCTCCTTGGACCTATGAGCTCGCCCTAAAGT
 ACCTGAACATCGCCTTCACTATGGTGTTCCTAGAATGTGCTTAAAGGTATCGCTTTCGGCTTCTT
 GAACTATTTCCGAGATACCTGGAACATCTTTGACTTCAATACCGTATCGGCAGTATCACAGAAATATC
 CTGACAGACAGCAAGCTGGTGAACACCAGTGGCTTCAATATGAGCTTTCTGGAGCTTCCGAGCTGCAC
 GGCTCATAAAGCTTCTGCGACAGGGCTACACCATCCGCATCTTACTGTGGACCTTCGTGCAGTCTTTAA
 GGCTCTCCCTATGTCTGCCTTCTGATTGCCATGCTTTTCTTCTATCTACGCTATCATTGGGATGCAGGTG
 TTTGAAAACATAAAGTTAGATGAGGAGAGTCATATCAACCGGCACAACAACCTTTCGGAGTTTCTCGGGT
 CTCTCATGCTGCTTTTTCAGGAGCCACAGGGGAGGCTTGGCAGGAGATTATGTTGTCATGTCTGGCGA
 GAAGGGCTGTGAGCCTGACACCACTGCACCCTCAGGGCAGAACGAGAGTGAAGCGCTGTGGCACTGACCTG
 GCCTACGTTTATTTGTCTCCTTCTTCTTCTGCTCCTTCTGATGCTCAACCTGTTTGTGGCTGTTA
 TCATGGACAACCTTGAAGTACCTGACTCGAGATTCGTCCATCCTGGGGCTCACCACTTGGATGAATTTGT

CCGTGTCTGGGCAGAGTATGACAGAGCAGCATGTGGCCGCATCCATTACACTGAGATGTATGAAATGCTG
ACTCTCATGTACCACCCTAGGCCTCGGCAAGAGATGTCCTCCAAAGTGGCCTATAAGAGGTTGGTCC
TGATGAATATGCCAGTGGCTGAGGACATGACAGTCCATTTACCTCCACACTTATGGCTCTGATCCGGAC
AGCTCTGGACATTAATAATCGCCAAAGGTGGTGCAGACAGACAGCAGCTAGACTCAGAGCTACAAAAAGAG
ACCCTGGCATTGGCCCTCACCTGTCCCAAAAGATGTTGGATCTGCTAGTGCCCATGCCAAAGCCTCTG
ACCTGACTGTGGCAAGATCTATGCAGCAATGATGATTATGGACTACTATAAACAGAGTAAGGTAAGAA
ACAGAGACAGCAGCTGGAAGAACAGAAAAATGCACCCATGTTCCAGCGCATGGAGCCCTCCTCACTGCCT
CAGGAGATCATTCTAATGCCAAAGCCCTGCCTTATCTCCAGCAGGACCCTGTTTCTGGCCTGAGTGGTC
GGAGTGGATACCCCTCAATGAGTCCACTCTCCCTCAAGAAATATTCCAGTTGGCTTGTATGGACCCAGC
GGATGATGGACAATCCAGGAACAGCAATCGTGGAGCCAGAGGTTAGTGAATAAAAAGTGTGCAGTCC
TCTAACCATGGCATCTACCTTCTCCGGACACCCAGGAGCATGCGGGATCTGGGAGGGCATCCTCTATGC
CACGTCTGACTATGGATCCCAGGTGGTAACAGACCCTAGCTCTATGCGACGTTCAATTTCTACAATTCG
GGATAAGCGTTCAAATTCCTCCTGGTTGGAGGAGTTCTCCATGGAACGTAGCAGTAAAAACCTACAAG
TCACGACGCAGAAGTTACCATTCTCCCTGAGGCTGTGAGCCACCGCCTGAATTCTGACTCTGGTCACA
AGTCTGACACTCACCGCTCAGGAGGCAGGAGAGAGGCCGATCCAAAGAACGAAAGCATCTCCTCTCTCC
GGATGTCTCCCGCTGCAATTCTGAGGAGCGAGGAACCCAGGCTGACTGGGAGTCCCAGAACGTCCGGAG
TCCAGGTCACCCAGTGAGGGAAGGTCAAAACCCCAACAGACAGGTTACAGGTTCACTGAGTGAGAGCT
CCATTCCTCTATCTCCGACACCAGCACCCCAAGACGAAGTCGTGCGCAGCTCCCACCTGTGCCACAAA
GCCTCGGCCCCCTCTCTCTACAGCTCCCTGATGAGACACACTGGCGGCATCTCTCCACCTCCTGATGGA
AGTGAGGGTGGATCCCCACTGGCCTCTCAAGCTCTGAAAGCAACAGCGCTTGCCTAACCGAGTCTTCCA
ACTCCTTGACCCCCAGCAGGGCCAGCACCCCTCCCCACAGCACTACATCTCTGAGCCCTATCTGGCCCT
CCATGAAGACTCCCACGCTCAGACTGTGGCGAGGAGGAGACTCACCTTTGAGGCAGCTGTAGCTACT
AGCTTGGGCCGGTCCAATACCATTGGCTCTGCCCCACCCCTACGGCACAGCTGGCAGATGCCTAATGGGC
ACTATCGGCGGGCAGGCTGGGGGGCCTGGCCATGATGTGTGGAGCTGTGAGTACCTCCTGAG
TGACACGGAAGAAGACGATAAGTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR213444 representing NM_019294
 Red=Cloning site Green=Tags(s)

MARFGEAVVVGRPGSGDSDQSRNRQGTVPASGPAAYKQSKAQRATMALYNPIPVRQNCFTVNRSLF
 IFGEDNIVRKYAKKLIDWPPFEYMLATIIANCIVLALAEQHLPEDDKTPMSRRLEKTEPYFIGIFCFEAG
 IKIVALGFIFHKGSYLRNGWNVMDFIVVLSGILATAGTHFNTHVLDLRTLRAVRVLRPLKLVSGIPSLQIV
 LKSIMKAMVPLLQIGLLFFAILMFAIIGLEFYSGKLRACFMNNSGILEGFDPPHPCGVQGPCPAGYECK
 DWIGPNDGITQFDNILFAVLTVFQCITMEGWTTVLYNTNDALGATWNWLYFIPLIIIGSFFVLNLVLGVL
 SGFEFAKERERVENRRAFMKLRRQIQIERELNGYRAWIDKAAEVMLAEENKNSGTSALEVLRATIKRSRT
 EAMTRDSSDEHCVDISSVGTPLARASIKSTKVDGASYFRHKERLLRISIRHMVKSQVYWIIVLSVALNT
 ACVAIVVHNQPPWLTHLLYYAEFLFLGLFLEMSLKMGMGPRLYFHSSFNCFDFGVTVSGSIFEVVWAI
 RPGTSFGISVLRALRLRIFKITKYWASLRNLVSLMSSMKSIISLLFLLFLFIVVFFALLGMQLFGGRFN
 FNDGTPSANFDTFPAAIMTVFQILTGEDWNEVL YNGIRSQGGVSSGMWSAIYFIVLTLFGNYTLLNVFLA
 IAVDNLANAQELTKDEQEEEEAFNQKHALQKAKEVSPMSAPNMPSEIERERRRRHHMSVWEQRTSQLRRHM
 QMSSQEALNKEEAPPMNPLNPLNPLSPLNPLNAHPSLYRRPRPIEGLPLGLGLEKCEEERI SRGGS LKGD
 IGGTSLVLDNQRSPLSLGKREPPWLP RSCHGNCDPTQQETGGGETVVT FEDRARHRQSQR SRHRVRTE
 GKESASASRSASQERSLDEGVSIDGEKEHEPQSSHR SKEPTIHEEERTQDLRRTNSLMVPRGSLVGA
 LDEAETPLVQPQPELEVGDAAALTEQEAEGSSEQALLADVQLDVGRIQSQSEPDLSMTTNMDKATTEST
 SVTVAIIPDVPDPLVDSTVVNISNKTGDEASPLKEAETKEEEEEVEKKKQKKEKRETGKAMVPHSSMFI
 STTNPIRKACHYIVNLYFEMCILLVIAASSIALAAEDPVL TNSERNKVLRYFDYVFTGVFTFEMVIKIDQ
 GLILQDGSYFRDLWNILDFVVVVGALVAFALANALGTNKGRIKTIKSLRVLVLRPLKTIKRLPKLKA
 VDCVVTSLKNVFNILIVYKLFMFI FAVIAVQLFKGKFFYCTDSSKDEKECIGNYVDHEKNKMEVKGREW
 KRHEFHVDNIIWALLTLFTVSTGEGWPQVLQHSVDVTEEDRGPSSRNMEMSIFYVVVYFVVPFFVNI
 VALIIITFQEQGDKMEECSLEKNERACIDFAISAKPLTRYMPQNRHTFQYRVWHFVVSFYEYIMAMI
 ALNTVVLMMKYYSAPWTYELALKYLNIAFTMVFSLECVLKVIAFGFLNYFRDTWNIFDFITVIGSITEII
 LTDSKLVNTSGFNMSFLELFRAARLIKLLRQGYTIRILLWTFVQSFKALPYVCLLIAMLFFIYAIIGMQV
 FGNIKLDEESHINRHNFRSFFGSLMLLFRSATGEAWQEIMLSCLGEKGCEPDTTAPSGQNESERCGTDL
 AYYVYVVSFIFFCFLMLNLFVAVIMDNFEYL TRDSSILGPHHLDEFVRVWAEYDRAACGRIHYTEMYEML
 TLMSPPLGLGKRCPSKVAYKRLVLMNMPVAEDMTVHFTSTLMALIRTALDIKIAKGGADRQQLDSELQKE
 TLAIWPHLSQKMLDLLVPMPKASDLTVGKIYAAMMIMDYKQSKVKKQRQQLLEEQKNAPMFQRMESP
 SLPQEIIISNAKALPYLQQDPVSGLSGRSGYPSMSPLSPQEIFQLACMDPADDGQFQEQQSLEPEVSELK
 SVQS SNHGIYLPDPTQEHAGSGRASSMPRLTMDPQVVTDPSSMRRSFSTIRDKRSNSSWLEEF
 SMERSSENTYK SRRRSYHSSLRLSAHRLNSDSGHKSDTHRSGGRERGRSKERKHLSPDVSRN
 SEERGTQADWESPERRQ SRSPSEGRSQT
 PNRQGTGSLSESSIPSIDSTPRRSRRLPPVPPKPRPLL
 SYSSLMRHTGGISPPPDG SEGGSP
 LASQALESNSACLTESSNSLHPQQGHPSPQHYI
 SEPYLALHEDSHASDCGEEETLTFEAAVAT
 SLGRSNTIGSAPPLRHSWQMPNGHYRRRLGGLGLAMMCGAVSDLLSDTEEDDKC

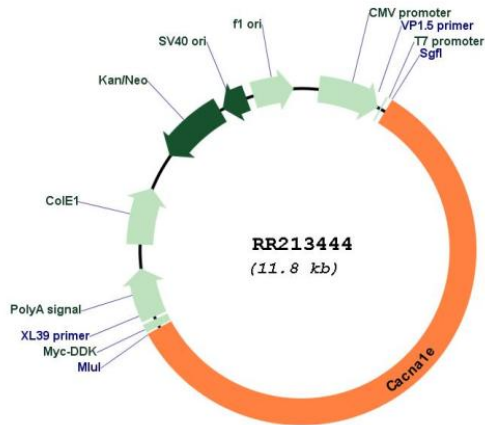
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_019294

ORF Size: 6885 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_019294.2](#), [NP_062167.2](#)

RefSeq Size: 6973 bp

RefSeq ORF: 6888 bp

Locus ID: 54234

Cytogenetics: 13q21

MW: 259.2 kDa

Gene Summary: T-type low voltage-activated calcium channel that may be involved in neuronal firing [RGD, Feb 2006]