

## Product datasheet for RC235378

### CACNA1E (NM\_001205294) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CACNA1E (NM_001205294) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNA1E
Synonyms:	BII; CACH6; CACNL1A6; Cav2.3; DEE69; EIEE69; gm139
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC235378 representing NM_001205294 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCTCGCTTCGGGGAGGCGGTGGTCGCCAGGCCAGGGTCCGGCGATGGAGACTCGGACCAGAGCAGGA  
ACCGGCAAGGAACCCCGTGCCGGCCTCGGGCAGGCCGGCCGCTACAAGCAGACGAAAGCACAGAGGGC  
GCGGACTATGGCTTTGTACAACCCATTCCCGTCCGGCAGAAGTGTTCACCGTCAACAGATCCCTGTT  
ATCTTCGGAGAAGATAACATTGTCAAGAAATATGCCAAGAAGCTCATCGATTGGCCGCCATTTGAGTACA  
TGATCCTGGCCACCATCATTGCCAACTGCATCGTCCTGGCCCTGGAGCAGCATCTTCTGAGGATGACAA  
GACCCCATGTCCGAAGACTGGAGAAGACAGAACCTTATTTATTGGGATCTTTTGCTTTGAAGCTGGG  
ATCAAAATTTGGGCCCTGGGTTTCATCTTCATAAGGGCTCTTACCTCCGCAATGGCTGGAATGTCATGG  
ACTTCATCGTGGTCTCAGTGGCATCCTGGCCACTGCAGGAACCCACTTCAATACTCACGTGGACCTGAG  
GACCCCTCCGGCTGTGCGTGTCTGCGGCCCTTTGAAGCTCGTGTGAGGGATACCTAGCCTGCAGATTGTG  
TTGAAGTCCATCATGAAGCCATGGTACCTCTTCTGCAGATTGGCCTTCTGCTCTTCTTTGCCATCCTGA  
TGTTTGCTATCATTGGTTTGGAGTCTACAGTGGCAAGTTACATCGAGCATGCTTCATGAACAATTCAGG  
TATTCTAGAAGGATTTGACCCCTCACCCATGTGGTGTGAGGGCTGCCAGCTGGTTATGAATGCAAG  
GACTGGATCGGCCCAATGATGGGATCACCCAGTTTGATAACATCCTTTTTGCTGTGCTGACTGTCTTCC  
AGTGCATCACCATGGAAGGTGGACCACTGTGCTGTACAATACCAATGATGCCTTAGGAGCCACCTGGAA  
TTGGCTGTACTTCATCCCTCATCATATTGGATCCTTCTTTGTTCTCAACCTAGTCTGGGAGTGCTT  
TCCGGGAATTTGCCAAGAGAGAGAGAGAGTGGAGAACCGAAGGGCTTTCATGAAGCTGCGGCCACGC  
AGCAGATTGAGCGTGAGCTGAATGGCTACCGTGCCTGGATAGACAAGCAGAGGAAGTCATGCTCGCTGA  
AGAAAATAAAAATGCTGGAACATCCGCTTAGAAGTGCTTGAAGGGCAACCATCAAGAGGAGCCGGACA  
GAGGCCATGACTCGAGACTCCAGTGATGAGCACTGTGTTGATATCTCCTGTGGGCACACCTCTGCCCC  
GAGCCAGTATCAAAAGTCAAAGGTAGACGGGGTCTCTTATTTCCGGCACAAGGAAAGGCTTCTGCGCAT  
CTCCATTCGCCACATGGTTAAATCCCAGGTGTTTTACTGGATTGTGCTGAGCCTTGTGGCACTCAACACT  
GCCTGTGTGGCATTGTCCATCACAAACCAGCCCAAGTGGCTCACCCACCTCCTCTACTATGCAGAATTTCC



[View online >](#)

TGTTTCTGGGACTCTTCCTCTTGAGATGTCCCTGAAGATGTATGGCATGGGGCCTCGCCTTTATTTTCA  
 CTCTTCATTCAACTGCTTTGATTTTGGGGTCACAGTGGGCAGTATCTTTGAAAGTGGTCTGGGCAATCTTC  
 AGACCTGGTACGTCTTTTGAATCAGTGTCTTGCAGCCCTCCGGCTTCTAAGAAATTTAAAATAACCA  
 AGTATTGGGCTTCCCTACGGAATTTGGTGGTCTCCTTGATGAGCTCAATGAAGTCTATCATCAGTTTGGT  
 TTTCTCTCTTCTCTTCATCGTTGTCTTTGCTCTCCTAGGAATGCAGTTATTTGGAGGCAGGTTAAC  
 TTTAATGATGGGACTCCTTCGGCAAATTTGATACCTTCCCTGCAGCCATCATGACTGTGTTCCAGATCC  
 TGACGGGTGAGGACTGGAATGAGGTGATGACAATGGGATCCGCTCCAGGGTGGGTGAGCTCAGGCAT  
 GTGGTCTGCCATCTACTTCATTGTGCTCACCTTGTGGCAACTACACGCTACTGAATGTGTTCTTGCT  
 ATCGCTGTGGATAATCTCGCAACGCCAGGAAGTACCAGGATGAACAGGAGGAAGAAGAGGCCCTTCA  
 ACCAGAAACATGCACTGCAGAAGGCCAAGGAGGTGAGCCCGATGTCTGCACCCAACATGCCTTCGATCGA  
 GAGGGAGCGGAGGCGCCGCCACCATGTCCGTGTGGGAGCAGCGTACCAGCCAGCTGAGGAAGCACATG  
 CAGATGTCAGCCAGGAGGCCCTCAACAGAGAGGAGGCGCCGACCATGAACCCGCTCAACCCCTCAACC  
 CGCTCAGTCCCTCAACCCGCTCAATGCCACCCAGCCTTTATCGGCGACCCAGGGCCATTGAGGGCCT  
 GGCCCTGGGCTGGCCCTGGAGAAGTTCGAGGAGGAGCGCATCAGCCGTGGGGGTCCCTCAAGGGGGAT  
 GGAGGGGACCGATCCAGTGCCCTGGACAACCAGAGGACCCCTTTGTCCCTGGGCCAGCGGAGCCACCAT  
 GGCTGGCCAGGCCTGTATGAAAATGTGACCCGACTCAGCAGGAGGCAGGGGGAGGAGGCTGTGGT  
 GACCTTTGAGGACCGGGCCAGGCACAGGAGAGCCAACGGCGCAGCCGGCATCGCCGCGTCAAGGACGAA  
 GGCAAGGAGTCTCTTACGCTCCCGGAGCAGGTCTGCCAGCCAGGAACGCAGTCTGGATGAAGCCATGC  
 CCACTGAAGGGGAGAAGGACCATGAGCTCAGGGGCAACCATGGTGCCAAGGAGCCAACGATCCAAGAAGA  
 GAGAGCCAGGATTTAAGGAGGACCAACAGTCTGATGGTCCAGAGGCTCCGGGCTGGCAGGAGGCCTT  
 GATGAGGCTGACACCCCTAGTCTGCCCATCTGAGCTGGAAGTGGGAAGCACGTGGTGTGACGG  
 AGCAGGAGCCAGAAGGCAGCAGTGAAGAGGCGCTGCTGGGAATGTGAGCTAGACATGGGCCGGTTCAT  
 CAGCCAGAGCGAGCCTGACCTCTCTGCATCAGGCCAACCGGCAAGGCAAGCCACCCAGGAGCCAGC  
 GTCACCGTCGCCATCCCGACGTGGACCCCTTGGTGGACTCAACCGTGGTGCACATTAGCAACAAGACGG  
 ATGGGGAAGCCAGTCCCTTGAAGGAGGCAGAGATCAGAGAGGATGAGGAGGAGTGGAGAAGAAGAGCA  
 GAAGAAGGAGAAGCGTGAGACAGGCAAAGCCATGGTGCCACAGCTCAATGTTTCTCTCAGCACCACC  
 AACCCGATCCGGAGGGCCTGCCACTACATCGTGAACCTGCGCTACTTTGAGATGTGCATCCTCTGGTGA  
 TTGCAGCCAGCAGCATCGCCCTGGCGGCAGAGGACCCCGTCTGACCAACTCGGAGCGCAACAAAGTCT  
 GAGGTATTTGACTATGTGTTACGGGCGTGTTACCTTTGAGATGGTTATAAAGATGATAGACCAAGGC  
 TTGATCCTGCAGGATGGTCTACTTCCGAGACTTGGAACATCCTGGACTTTGTGGTGTGTTGGCG  
 CATTGGTGGCCTTTGCTCTGGCGAACGCTTTGGGAACCAACAAAGGACCGGACATCAAGACCATCAAGTC  
 TCTGCGGGTGTCCGAGTTCTAAGGCCACTGAAAACCATCAAGCGCTTGCCCAAGCTCAAGGCCGTCTTC  
 GACTGCGTAGTGACCTCCTTGAAGAATGTCTTCAACATACTCATTGTGTACAAGCTTTCATGTTTATCT  
 TTGCTGTGCATCGCAGTTCAGCTCTTCAAGGAAAGTCTTTTATTGCACGGACAGTTCACAGGACACAGA  
 GAAGGAGTGCATAGGCAACTATGTAGATCATGAGAAAAACAAGATGGAGGTGAAGGGCCGGGAATGGAAG  
 CGCCATGAATCCACTACGACAACATTATCTGGGCCCTGCTGACCCTTTCACCGTCTCCACAGGGGAAG  
 GATGGCCTCAAGTCTGCAGCACTCTGTAGATGTGACAGAGGAAGACCGAGGCCCAAGCCGACGAAACCG  
 CATGGAGATGTCTATCTTTATGTAGTCTACTTTGTGGTCTTCCCTTCTTCTTTGTCAATATCTTTGTG  
 GCTCTCATCATCACCTTCCAGGAGCAAGGGGATAAGATGATGGAGGAGTGCAGCCTGGAGAAGAAATG  
 AGAGGGCGTGCATCGACTTCGCCATCAGCGCAAACCTCTCACCCGCTACATGCCGAGAACAGACACAC  
 CTTCAGTACCGGTGTGGCACTTTGTGGTGTCTCCGTCCTTTGAGTACACCATTATGGCCATGATCGCC  
 TTGAATACTGTTGTGCTGATGATGAAGTATTATTCTGCTCCCTGTACCTATGAGCTGGCCCTGAAGTACC  
 TGAATATCGCCTTACCATGGTGTTCCTGGAATGTGTCTGAAGGTCATCGCTTTTGGCTTTTGA  
 CTATTTCCGAGACACCTGGAATATCTTTGACTTCATCACCGTATTGGCAGTATCACAGAAATTATCCTG  
 ACAGACAGCAAGCTGGTGAACACCAGTGGCTTCAATATGAGCTTCTGAAGCTCTCCGAGCTGCCCGCC  
 TCATAAAGCTCCTGCGTCAGGGCTATACCATCGCATTGCTGTGGACCTTTGTGCAGTCTTTAAGGC  
 CCTCCCTATGTCTGCCCTTTAATTGCCATGCTTTTCTTCAATTTATGCCATCATTGGGATGCAGGATTT  
 GGAACATAAAAATTAGACGAGGAGATCATCAACCGGCACAACAACTCCGGAGTTTCTTTGGGTCCC  
 TAATGCTACTCTTCAGGAGTGCCACAGGTGAGGCTGGCAGGAGATTATGCTGTCATGCCTTGGGGAGAA  
 GGGCTGTGAGCCTGACACCACCGCACCATCAGGGCAGAACGAGAACGACGCTGCGGCACCGATCTGGCC  
 TACGTGTAATTTGCTCCTTCATCTTCTGCTCCTTCTGATGCTCAACCTGTTGTGGCCGTATCA  
 TGGACAACCTTGGAGTACCTGACTCGGGACTCCTCCATCCTGGGGCTCACCATTGGACGAGTTGTCCG

CGTCTGGGCAGAATATGACCCGAGCAGCATGTGGCCGCATCCATTACACTGAGATGTATGAAATGCTGACT  
CTCATGTACCTCCGCTAGGCCTCGGCAAGAGATGTCCCTCCAAAGTGGCATATAAGAGGTTGGTCTGA  
TGAACATGCCAGTAGCTGAGGACATGACGGTCCACTTCACCTCCACACTTATGGCTCTGATCCGGACAGC  
TCTGGACATTAATAATGCCAAAGGTGGTGACAGACGGCAGCAGCTAGACTCAGAGCTACAAAAGGAGACC  
CTAGCCATCTGGCCTCACCTATCCCAGAAGATGCTGGATCTGCTTGTGCCATGCCAAAGCCTCTGACC  
TGACTGTGGGCAAAATCTATGCAGCAATGATGATCATGGACTACTATAAGCAGAGTAAGGTGAAGAAGCA  
GAGGCAGCAGCTGGAGGAACAGAAAAATGCCCCATGTTCCAGCGCATGGAGCCTTCATCTGCCTCAG  
GAGATCATTGCTAATGCCAAAGCCTGCCTTACCTCCAGCAGGACCCCGTTTCAGGCCTGAGTGGCCGGA  
GTGGATACCCCTTCGATGAGTCCACTCTCTCCCCAGGATATATTCCAGTTGGCTTGTATGGACCCCGCGA  
TGACGGACAGTTCGAAGAACGGCAGTCTCTGGTGGTGACAGACCCTAGCTCCATGAGACGTTCAATTTCC  
ACTATTCGGGATAAGCGTTCAAATTCCTCGTGGTTGGAGGAATTCTCCATGGAGCGAAGCAGTGAAAATA  
CCTACAAGTCCCGTCGCCGGAGTTACCACTCCTCCTTGGCGGTGTGAGCCACCGCCTGAACTCTGATTC  
AGGCCACAAGTCTGACACTACCCGCTCAGGGGGCAGGGAGCGGGGACGATCAAAGAGCGAAAGCATCTT  
CTCTCTCCTGATGTCTCCCGCTGCAATTCAGAAGAGCGAGGGACCCAGGCTGACTGGGAGTCCCCAGAGC  
GCCGTCAATCCAGGTACCCAGTGAGGGCAGGTCACAGACGCCAACAGACAGGGCACAGGTTCCCTAAG  
TGAGAGCTCCATCCCCTCTGTCTCTGACACCAGCACCCCAAGAAGAAGTCGTCGGCAGCTCCCACCCGTC  
CCGCCAAAGCCCCGGCCCTCCTTTCTACAGTCCCTGATTCGACACGGGGCAGCATCTCTCCACCTG  
CTGATGGAAGCGAGGAGGGCTCCCCGCTGACCTCCAAGCTCTGGAGAGCAACAATGCTTGCTGACCGA  
GTCTTCCAACCTCCGCACCCCCAGCAGAGCCAACATGCCTCCCCACAGCGCTACATCTCCGAGCCCTAC  
TTGGCCCTGCACGAAGACTCCCACGCCTCAGACTGTGGTGGAGGAGACGCTCACTTTGGAAGCAGCCG  
TGGCTACTAGCTGGGCCGTTCCAACACCATCGGCTCAGCCCCACCCCTGCGGCATAGCTGGCAGATGCC  
CAACGGGCACTATCGGCGGGGAGGGCGGGGGGCCTGGGCCAGGCATGATGTGTGGGGCTGTCAACAAC  
CTGCTAAGTGACACGGAAGAAGATGACAAATGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC235378 representing NM\_001205294  
 Red=Cloning site Green=Tags(s)

MARFGEAVVAPRPGSGDSDQSRNRQGTVPVPSGQAAAYKQTKAQRARTMALYNPVPVQNCFTVNRSLF  
 IFGEDNIVRKYAKKLIDWPPFEYMLATIIANCIVLALAEQHLPEDDKTPMSRRLEKTEPYFIGIFCFEAG  
 IKIVALGFIFHKGSYLRNGWVMDFIVVLSGILATAGTHFNTHVLDLRTLRAVRVLRPLKLVSGIPSLQIV  
 LKSIMKAMVPLLQIGLLFFAILMFAIIGLEFYSGKLRACFMNNSGILEGFDPHPHPCGVQGPCPAGYECK  
 DWIGPNDGITQFDNILFAVLTVFQCITMEGWTTVLYNTNDALGATWNWLYFIPLIIIGSFFVLNLVLGVL  
 SGFEFAKERERVENRRAFMKLRRQQIERELNGYRAWIDKAEVMLAEENKNAGTSALEVLRRATIKRSRT  
 EAMTRDSSDEHCVDISSVGTPLARASIKSAKVDGVSFRHKERLLRISIRHMVKSQVYFVIVLSLVALNT  
 ACVAIVVHNNQPQWLTHLLYYAEFLFLGLFLEMSLKMGMGPRLYFHSSFNCFDFGVTGSGIFEVVWAI  
 RPGTSFGISVLRALRLLRIFKITKYWASLRNLVSLMSSMKSIISLLFLLFLFIVVFFALLGMQLFGGRFN  
 FNDGTPSANFDTFPAAIMTVFQILTGEDWNEVMYNGIRSQGGVSSGMWSAIYFIVLTLFGNYTLLNVFLA  
 IAVDNLANAQELTKDEQEEEEAFNQKHALQKAKEVSPMSAPNMPSEIERERRRRHHMSVWEQRTSQLRKH  
 QMSSQEALNREEAPT MNPLNPLNPLSSLNPLNAHPSLYRRPRAIEGLALGLALEKFEERISRGGSLKGD  
 GDRSSALDNQRTPLSLGQREPPWLARPCGNCDOPTQAEAGGGEAVVTFEDRARHRQSQRSRHRRVTE  
 GKESASRSRSASQERSLDEAMPTGEKDHLELRGNHGAKEPTIQEERAQDLRRTNSLMVSRGSLAGGL  
 DEADTPLVLPHELEVGVKHVVLTEQEPEGSSEQALLGNVQLDMGRVISQSEPDLSCITANTDKATTESTS  
 VTVAIPDVPDLVDSTVVHISNKTGDGEASPLKEAIEDEEEVEKKKQKKEKRETKAMVPHSSMFI  
 STTNPIRRACHYIVNLRVYFEMCILLVIAASSIALAAEDPVL TNSERNKVLRYFDYVFTGVFTFEMVIKIDQ  
 GLILQDGSYFRDLWNILDFVVVVGALVAFALANALGTNKGRIKTIKSLRVLVLRPLKTIKRLPKLKA  
 VFDVVVTSKLVNIVNLIIVYKLFMFI FAVIAVQLFKGKFFYCTDSSKDEKECIGNYVDHEKNKMEV  
 KGREWK RHEFHVDNI IWALLTLFTVSTGEGWPQVLQHSVDVTEEDRGPSSNRMEMSIFYVYVYV  
 VVFFVFFVNI FV ALIITFQEQGDKMMEEC SLEKNERACIDFAISAKPLTRYMPQNRHTFQYR  
 VWHFVVSF EYTIMAMIA LNTVVLMKYY SAPCTYELALKYL NIAFTMVFSLECVLKVIAFGFLN  
 YFRDWNIFDITVIGSITEIIL TDSKLVNTSGFNMSFLKLFRAARLIKLLRQGYTIRILLWTFVQ  
 SFKALPYVCLLIAMLFFIYAIIGMQVF GNIKLDEESHINRHNNFRSFFGSLMLLFRSATGEAWQ  
 EIMLSCLGEKGCEPDTTAPSGQNERCGTDLA YVYVVSFIFFCFLMLNLFVAVIMDNFEYL  
 TRDSSILGPHHLDEFVRVWAEYDRAACGRIHYTEMYEMLT LMSPPGLGKRCPSKVAYKRL  
 VLMNMPVAEDMTVHFTSTLMALIRTALDIKIAKGGADRQQLDSELQKET LAIWPHLSQKMLD  
 LLVPMPKASDLTVGKIYAAMMIMDYKQSKVKKQRQQL EEQKNAPMFORMEPSSLPQ EIIANAK  
 ALPYLQQDPVSGLSGRSGYPSMSPLSPQDIFQLACMDPADDGQFQERQSLVVTDPSSMRRSFS  
 TIRDKRSNSSWLEEF SMERSSENTYKSRRSYHSSLRLSAHRLNSDSGHKSDTHRSGGREGRS  
 KERKHL LSPDVSRNCSEERGTQADWESPERRQSRSPSEGRSQT PNRQGTGSLSESSIPSVSDT  
 STPRRSRRQLPPV PPKPRPLLSSYLIRHAGSISPPADGSEEGSPLTSQALESNNACTESSNS  
 PHPQQSQHASPQRYISEPY LALHEDSHASDCGEEETLTFEAAVATSLGRSNTIGSAPPLRHSWQ  
 MPNGHYRRRRRGGPGPMCGAVNN LLSDTEEDDKC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001205294.2</a>
<b>RefSeq Size:</b>	14915 bp
<b>RefSeq ORF:</b>	6756 bp
<b>Locus ID:</b>	777
<b>UniProt ID:</b>	<a href="#">Q15878</a>
<b>Cytogenetics:</b>	1q25.3
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Calcium, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, MAPK signaling pathway, Type II diabetes mellitus
<b>MW:</b>	255.1 kDa
<b>Gene Summary:</b>	<p>Voltage-dependent calcium channels are multisubunit complexes consisting of alpha-1, alpha-2, beta, and delta subunits in a 1:1:1:1 ratio. These 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 the alpha-1E subunit of the R-type calcium channels, which belong to the 'high-voltage activated' group that maybe involved in the modulation of firing patterns of neurons important for information processing. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Apr 2011]</p>