

Product datasheet for RC221733

CACNA1E (NM_000721) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CACNA1E (NM_000721) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CACNA1E
Synonyms: BII; CACH6; CACNL1A6; Cav2.3; DEE69; EIEE69; gm139
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC221733 representing NM_000721
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCTCGCTTCGGGGAGGCGGTGGTCGCCAGGCCAGGGTCCGGCGATGGAGACTCGGACCAGAGCAGGA
 ACCGGCAAGAACCCCGTGCCGGCCTCGGGCAGGGCCGCTACAAGCAGACGAAAGCACAGAGGGC
 GCGGACTATGGCTTTGTACAACCCATTCCCGTCCGGCAGAAGTGTTCACCGTCAACAGATCCCTGTTC
 ATCTTCGGAGAAGATAACATTGTCAGGAAATATGCCAAGAAGCTCATCGATTGGCCGCCATTTGAGTACA
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 GACCCCATGTCCGAAGACTGGAGAAGACAGAACCTTATTTTCATTGGGATCTTTTGCTTTGAAGCTGGG
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GCCTGTGTGGCCATTGTCCATCACAACCCAGCCCCAGTGGCTCACCCACCTCCTCTACTATGCAGAATTTCTGTTTTCTGGGACTCTTCTCTTGGAGATGTCCCTGAAGATGTATGGCATGGGGCCTCGCCTTTATTTTCACTCTTCATTCAACTGCTTTGATTTTGGGGTCACAGTGGGCAGTATCTTTGAAGTGGTCTGGGCAATCTTAGACCTGGTACGTCTTTTGGAAATCAGTGTCTTGGCAGCCCTCCGGCTTCTAAGAATATTTAAAATAACCAAGTATTGGGCTCCCTACGGAATTTGGTGGTCTCCTTGATGAGCTCAATGAAGTCTATCATCAGTTTGCTTTTCTCTCTTCTCTCATCGTTGTCTTTGCTCTCTAGGAATGCAGTTATTTGGAGGCAGGTTAACTTTAATGATGGGACTCCTTCGGCAAATTTTGATACCTTCCCTCAGCCATCATGACTGTGTTCCAGATCCTGACGGGTGAGGACTGGAATGAGGTGATGTACAATGGGATCCGCTCCAGGGTGGGGTCAGCTCAGGCATGTGGTCTGCCATCTACTTCAATTGTGCTCACCTGTTTGGCAACTACACGCTACTGAATGTGTTCTTGGCTATCGCTGTGGATAATCTCGCAACGCCAGGAAGTACCAAGGATGAACAGGAGGAAGAAGAGGCCCTTCAACCAGAAACATGCACTGCAGAAGGCCAAGGAGGTGAGCCGATGTCTGCACCAACATGCCTTCGATCGAAGAGACAGAAGGAGAAGACACCACATGTCGATGTGGGAGCCACGCAGCAGCCACCTGAGGGAGCGGAGGCGCCGGCACCACATGTCGTTGGGAGCAGCGTACCAGCCAGTGAAGAACACATGCAGATGTCCAGCCAGGAGGCCCTCAACAGAGAGGAGGCGCCGACCATGAACCCGCTCAACCCCTCAACCCGCTCAGCTCCCTCAACCCGCTCAATGCCACCCAGCCTTATCGGCGACCAGGGCATTGAGGGCTGGCCCTGGGCTGGCCTGGAGAAGTTCGAGGAGGAGCGCATCAGCCGTGGGGTCCCTCAAGGGGATGGAGGGACCGATCCAGTGCCTGGACAACAGAGGACCCCTTGTCCCTGGGCCAGCGGGAGCCACCATGGCTGGCCAGGCCGTGTCATGGAACTGTGACCCGACTCAGCAGGAGGAGGGGAGGAGGCTGTGGTGACCTTTGAGGACCGGGCCAGGCACAGGCAGAGCAACGGCGCAGCCGGCATCGCCGCGTCAGGACAGAAGGCAAGGAGTCTCTTCCAGCTCCCGGAGCAGGTCTGCCAGCCAGGAACGCAGTCTGGATGAAGCCATGCCACTGAAGGGGAAGAGGACCATGAGCTCAGGGCAACCATGGTGCCAAGGAGCAACGATCCAAGAAGAGAGAGCCAGGATTTAAGGAGGACCAACAGTCTGATGGTGTCCAGAGGCTCCGGCTGGCAGGAGGCTTGTGAGGCTGACACCCCTAGTCTGCCCATCTGAGCTGGAAGTGGGGAAGCAGTGGTGTGACGGAGCAGGAGCCAGAGGCAGCAGTGGCAGGCGCTGCTGGGGAATGTGCACTAGACATGGGCCGGGTATCAGCCAGAGCGAGCCTGACCTCTCCTGCATCAGGGCAACACGGACAAGGCCACCACCGAGAGCACCAGCGTACCCGTGCCATCCCCGACGTGGACCCCTTGGTGGACTCAACCGTGGTGCACATTAGCAACAAGACGGATGGGGAAGCCAGTCCCTTGAAGGAGGCAGAGATCAGAGAGGATGAGGAGGAGTGGAGAAGAAGAAGCAGAAGAAGGAGAAGCGTGAGACAGGCAAGCCATGGTGCCCCACAGCTCAATGTTTCTTTCAGCACCACCAACCCGATCCGGAGGGCTGCCACTACATCGTGAACCTGCGCTACTTTGAGATGTGCATCCTCCTGGTATTGCAGCCAGCAGCATCGCCCTGGCGCAGAGGACCCGCTCCTGACCAACTCGGAGCGCAACAAGTCTGAGGATTTTGGATATGTGTTCACGGCGTGTTCACCTTTGAGATGGTTATAAAGATGATAGCAAGGCTTGTCTGCAGGATGGGTCTACTTCCGAGACTTGTGGAACATCCTGGACTTTGTGGTGGTGGTGGCGCATTGGTGGCCTTGCTCTGGCGAACGCTTTGGGAACCAACAAGGACGGGACATCAAGACCATCAAGTCTCTGCGGGTGTCCGAGTTCTAAGGCCACTGAAAACCATCAAGCGCTTGCCCAAGCTCAAGGCCGCTTTCGACTGCGTAGTGA CCTCTTGAAGAATGTCTTCAACATACTCATTGTGTACAAGCTCTTTCATGTTTCTTGTGTCATCGCAGTTTCAGTCTTCAAGGGAAAGTCTTTTATTGACCGGACAGTCCAAGGACACAGAGAAGGAGTGCATAGGCAACTATGTAGATCATGAGAAAAACAAGATGGAGGTGAAGGGCCGGGAATGGAAGCCCATGAATTCCACTACGACAACATTATCTGGGCCCTGCTGACCCCTTACCCTCTCCACAGGGGAAGGATGGCCTCAAGTCTGACGACTCTGTAGATGTGACAGAGGAAGACCGAGGCCAAGCCGACGAACCCGATGGAGATGTCTATCTTTTATGAGTCTACTTTGGTCTTCCCCTTCTTCTTTGTAATATCTTTGGCTCTCATCATCATCACTCTCCAGGAGCAAGGGGATAAGATGATGGAGGAGTGCAGCCTGGAGAAGAATGAGAGGGCGTGCATCGACTTCGCCATCAGCGCAAAACCTCTCACCCGCTACATGCCGACAGAACAGACACACCTTCCAGTACCCGCTGTGGCCTTTGTGGTGTCTCCGTCCTTTGAGTACACCATTATGGCCATGATCGCCTTGAATACTGTTGTGCTGATGATGAAGTATTATTCTGCTCCCTGTACCTATGAGCTGGCCCTGAAGTACCTGAATATCGCCTTACCATGGTGTTTCCCTGGAATGTGCTCTGAAGGTATCGCTTTTGGCTTTTGAAGTATTTCCGAGACACCTGGAATATCTTGTGACTTATCACCCTGATTGGCAGTATCACAGAAATATCTGACAGACAGCAAGCTGGTGAACACCAGTGGCTTCAATATGAGCTTTCTGAAGCTTCCGAGCTGCCCGCTCATAAAGCTCCTGGTCAAGGCTATACCATACGCATTTTGTGTGGACCTTTGTGACGTCCTTAAGGCCCTCCCTATGCTGCCTTTAATTGCCATGCTTTTCTTATTATGCCATCATTGGGATGCAGGTATTTGGAACATAAAATAGACGAGGAGATCACATCAACCCGCACAACAACCTTCCGGAGTTTCTTTGGTCCCTAATGCTACTCTT CAGGAGTGCCACAGGTGAGGCCTGGCAGGAGATTATGCTGTATGCCTTGGGGAGAAGGGCTGTGAGCCTGACACCACCGCACCATCAGGGCAGAACGAGAACGACGCTGCGGCACCGATCTGGCTACGTGACTTTG

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Protein Sequence: >RC221733 representing NM_000721
 Red=Cloning site Green=Tags(s)

MARFGEAVVARPGSGDSDQSRNRQGTVPVPSGQAAAYKQTKAQRARTMALYNPIPVRQNCFTVNRSLF
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 RVLRLPKTIKRLPKLKA VFDVTVSLKNVFNILIVYKLFMFI FAVIAVQLFKGKFFYCTDSSKDTKECI
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 VWHFVVSFSEYTIMAMIALNTVVLMMKYYSAPCTYELALKYLNIAFTMVFSLECVLKVIAFGFLNYFRD
 TWNIFDFITVIGSITEIILTDSKLVNTSGFNMSFLKLFRAARLIKLLRQGYTIRILLWTFVQSFKALPYV
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 DTHRSGGREGRSKERKHLSPDVSRCNSEERGQTADWESPERRQSRSPSEGRSQTPNRQGTGSLSESSI
 PSVSDTSTPRRSRRLPPVPPKPRLLSYSSLIRHAGSISPPADGSEEGSPLTSQALESNNACLTESSNS
 PHPQQSQHASPQRYISEPYLALHEDSHASDCGEEETLTFEAAVATSLGRSNTIGSAPPLRHWSQMPNGHY
 RRRRRGGPGGMMCGAVNNLLSDTEEDDKC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

ACCN:

NM_000721

ORF Size:

6810 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:

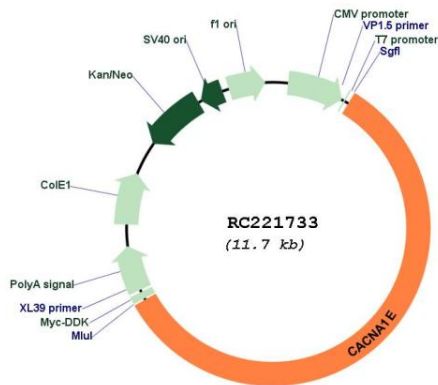
The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_000721.4
RefSeq Size:	9734 bp
RefSeq ORF:	6813 bp
Locus ID:	777
UniProt ID:	Q15878
Cytogenetics:	1q25.3
Domains:	ion_trans
Protein Families:	Druggable Genome, Ion Channels: Calcium, Transmembrane
Protein Pathways:	Calcium signaling pathway, MAPK signaling pathway, Type II diabetes mellitus
MW:	256.9 kDa
Gene Summary:	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]

Product images:



Circular map for RC221733