OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR222925

Cacna1d (NM_028981) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1d (NM_028981) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cacna1d
Synonyms:	8430418G19Rik; C79217; Cach3; Cacn; Cacn4; Cacnl1a2; Cav1.3; Cchl; Cchl1; Cchl1a; Cchl1a2; D-LTC; D-LTCC
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR222925 representing NM_028981 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAACCTTCCGACATTTTCTAGTGATCTAATTTTAATTAAAAGCGTTCTCTCCCAAGAGACTGATGCCC GATATAAAGGCAGAGTTGTAAGTGCGGTAGAAAGCACGGAGGACTTCTCCCAGGCCTTTGCAGAGGCAAA CTATGCAAGAGGCACCAGACTCCCTATTTCTGGTGAAGGACCAACTTCTCAGCCCAACAGCTCCAAGCAA ACTGTCCTATCTTGGCAAGCTGCAATCGATGCTGCTAGACAGGCCAAGGCCGCCCAGACCATGAGCACCT CTGCACCCCCACCTGTAGGATCTCTCTCCCAAAGAAAACGTCAGCAATACGCCAAGAGCAAAAAACAGGG TAACTCGTCTAACAGCCGACCTGCCCGTGCCCTTTTCTGTTTATCCCTCAATAACCCCATCCGAAGAGCC TGCATTAGTATAGTGGAATGGAAACCATTTGACATATTTATATTATTGGCTATTTTTGCCAATTGTGTGG CCTTAGCTATTTACATCCCATTCCCTGAAGATGATTCTAATTCAACAAATCATAACTTGGAAAAAGTAGA ATATGCCTTCCTGATTATTTTTACAGTGGAGACATTTCTGAAGATTATAGCGTATGGACTGTTGCTGCAT CCTAATGCTTACGTTAGGAATGGATGGAATTTACTGGATTTTGTTATAGTAATTGTAGGATTGTTTAGTG TAATTCTGGAACAATTAACCAAAGAAACAGAAGGCGGGAACCACTCTAGTGGCAAATCAGGAGGCTTTGA TGTCAAAGCCCTCCGTGCCTTCCGAGTGTTAAGACCACTTCGACTTGTATCAGGAGTGCCCAGTTTACAA GTTGTTCTGAACTCCATTATAAAAGCCATGGTCCCCCTCCTTCACATAGCCCTTTTGGTATTATTTGTAA TTATCATCTATGCTATTATAGGATTGGAACTTTTTATTGGAAAAATGCACAAAACATGTTTTTTTGCTGA CTCAGATATAGTAGCTGAAGAGGACCCAGCTCCGTGTGCGTTCTCAGGGAATGGACGCCAGTGCACCGCC AATGGCACGGAATGTAGGAGTGGCTGGGTTGGCCCCAATGGAGGCATCACTAACTTTGATAACTTTGCCT TTGCCATGCTCACTGTGTTCCAGTGCATTACCATGGAGGGCTGGACAGATGTGCTCTACTGGGTTAATGA TGCGATAGGATGGGAATGGCCATGGGTGTATTTTGTTAGTCTGATCATCCTTGGCTCATTTTTCGTCCTT AACCTGGTTCTTGGTGTCCTTAGTGGAGAATTCTCCAAGGAAAGAGAGAAGGCTAAAGCTCGTGGAGATT TCCAGAAGCTTCGGGAAAAACAGCAGCTGGAAGAGGACCTCAAGGGCTACCTGGACTGGATCACCCAGGC AGAAGACATCGATCCCGAGAACGAGGAGGAGGGTGGCGAGGAAGGCAAACGAAACACTAGCATGCCCACC

View online »

AGCGAGACTGAATCTGTCAACACAGAGAACGTAAGTGGTGAAGGCGAGACCCAGGGATGCTGTGGAACTC
TCTGTCAGGCCATCTCGAAATCCAAACTCAGCCGTCGATGGCGTCGCTGGAACCGGTTCAATCGCAGGAG
GTGCAGGGCTGCCGTGAAGTCTGTCACGTTTTACTGGCTGGTGATTGTCCTGGTGTTTCTCAACACTTTA
ACTATTTCCTCTGAGCATTACAATCAGCCAGACTGGCTGACACAGATTCAAGACATCGCAAACAAAGTCC
TCTTGGCTCTGTTCACCTGTGAGATGCTGGTGAAGATGTACAGCCTGGGCCTCCAGGCTTACTTTGTCTC
CCTCTTCAACCGCTTCGATTGCTTTGTGGTGTGTGGGGGCATCACCGAAACCATCCTGGTGGAACTGGAG
CTCATGTCTCCCCTGGGGGTCTCCGTGTTCCGGTGTGTGCGCCTCCTGAGAATCTTCAAAGTGACCAGGC
ACTGGACCTCCCTGAGCAACTTGGTGGCATCCTTGTTAAACTCCATGAAGTCCATCGCCTCTCTGCTGTT
ACTCCTCTTCCTCTTCATCATCATCTTCTCCTTGCTGGGGATGCAGTTGTTTGGTGGGAAGTTTAATTTT
GACGAGACTCAAACCAAGCGAAGCACCTTTGACAACTTTCCGCAAGCACTCCTGACGGTGTTCCAGATCC
TGACAGGTGAAGACTGGAATGCGGTGATGTATGACGGCATCATGGCCTATGGAGGCCCTTCCTCTTCCGG
GATGATTGTCTGTATCTACTTCATCATCCTTTTCATCTGTGGTAACTATATCCTGCTGAATGTCTTCTTG
GCCATCGCTGTGGACAATTTGGCTGATGCTGAAAGTCTGAACACTGCTCAGAAAGAGGAAGCTGAAGAAA
AAGAAAGGAAAAAGATTGCCAGAAAAGAAAGCCTAGAAAACAAAAAGAACAACAAACCAGAAGTCAACCA
GATAGCCAACAGTGACAACAAGGTTACAATTGATGATTATCAGGAAGATGCTGAAGACAAGGACCCTTAC
CCGCCCTGTGATGTGCCAGTAGGTGAAGAGGAAGAGGAGGAGGAAGAGGATGAGCCCGAAGTTCCTGCTG
GTCCCCGCCCTCGCAGAATCTCAGAGTTGAACATGAAGGAGAAGATTGCGCCCATCCCAGAAGGAAGCGC
CTTCTTCATTCTTAGCAAGACCAACCCGATACGTGTGGGTTGCCACAAGCTCATTAACCACCACATCTTC
ACCAACCTTATCCTGGTCTTCATCATGCTGAGCAGCGCTGCCCTGGCTGCAGAGGACCCCATCCGTAGCC
ACTCATTCCGCAACACGATACTGGGCTACTTTGACTATGCCTTCACAGCCATCTTTACGGTTGAAATCCT
GTTAAAGATGACAACTTTTGGAGCCTTCTTGCACAAAGGGGCTTTCTGCAGGAACTACTTCAATTTGCTG
GACATGCTGGTTGTTGGGGTGTCGCTGGTGTCCTTTGGGATTCAGTCCAGCGCCATCTCCGTTGTGAAGA
TTCTGAGGGTTTTGAGGGTCTTGCGGCCTCTCAGAGCAATCAACAGAGCAAAGGGACTTAAGCACGTGGT
CCAGTGTGTCTTTGTGGCCATCCGAACCATTGGCAACATCATGATCGTCACGACCCTGCTCCAGTTCATG
TTTGCATGCATTGGGGTCCAGCTGTTCAAGGGGAAGTTCTACCGTTGCACAGATGAAGCCAAAAGTAACC
CTGAGGAGTGCAGGGGGCTTTTCATTCTTTATAAGGACGGCGATGTTGACAGTCCTGTGGTCCGTGAGAG
GATCTGGCAAAATAGTGATTTCAATTTTGACAATGTCCTTTCGGCTATGATGGCGCTGTTCACAGTCTCA
ACTTTTGAGGGCTGGCCCGCGTTGCTGTACAAAGCTATTGATTCAAACGGTGAGAACGTTGGTCCTGTCT
ACAACTACCGTGTGGAGATCTCCATCTTCTTCATCATCTACATCATCATCGTTGCCTTCTTCATGATGAA
CATCTTTGTGGGCTTCGTCATCGTCACCTTCCAGGAACAGGGAGAAAAAGAGTATAAGAACTGTGAGCTG
GACAAAAATCAGCGTCAGTGTGTTGAATATGCCTTGAAAGCACGCCCCTTAAGGAGATACATCCCCAAAA
ACCCATACCAGTACAAGTTCTGGTATGTGGTGAACTCCTCGCCTTTCGAATACATGATGTTCGTCCTCAT
CATGCTCAACACGCTCTGCCTGGCCATGCAGCACTATGAGCAGTCCAAGATGTTCAATGATGCCATGGAC
ATTCTGAACATGGTCTTCACAGGGGTCTTCACTGTTGAGATGGTTTTGAAAGTCATTGCTTTCAAGCCCA
AGGGGTATTTTAGTGACGCCTGGAACACGTTTGACTCCCTCATCGTAATCGGCAGCATTATAGACGTGGC
CCTCAGCGAAGCCGACAACTCTGAAGAGAGCAATAGAATCTCCATCACCTTTTTCCGTCTTTTCCGAGTG
ATGCGGTTGGTGAAACTTCTCAGCAGGGGGGAAGGCATCCGGACACTGCTGTGGACCTTCATCAAGTCCT
TTCAGGCGCTGCCGTATGTTGCCCTCCTCATTGCCATGCTCTTCTTCATCTACGCTGTCATAGGCATGCA
GATGTTTGGGAAAGTTGCCATGAGAGATAACAACCAGATCAATAGGAACAACAACTTCCAGACCTTTCCT
CAGGCAGTGCTCCTACTCTTCAGGTGTGCAACAGGGGAAGCCTGGCAGGAGATCATGCTTGCCTGCCTCC
CAGGAAAGCTGTGCGACCCAGACTCCGATTACAACCCAGGAGAGGAGTACACTTGTGGGAGCAACTTTGC
CATTGTCTACTTCATCAGCTTTTACATGCTCTGTGCATTCCTGATCATCAACCTCTTTGTGGCTGTCATC
ATGGACAATTTTGACTATCTGACTCGGGACTGGTCTATTCTGGGGCCTCACCACTTGGACGAATTCAAAA
GAATATGGTCAGAATATGACCCTGAAGCAAAGGGAAGGATAAAACACCTTGATGTGGTCACTCTGCTCCG
GCGGATCCAGCCTCCCCTGGGGTTTGGAAAATTATGCCCACACCGAGTAGCATGTAAGAGATTGGTTGCC
ATGAACATGCCTCTCAACAGTGATGGGACAGTCATGTTCAATGCAACCCTGTTTGCTTTGGTCCGGACAG
CTCTCAAGATCAAGACTGAAGGGAACCTGGAGCAAGCTAATGAAGAACTCCGAGCTGTGATCAAGAAAAT
CTGGAAGAAGACAAGCATGAAGCTGCTTGACCAAGTTGTCCCTCCAGCTGGTGATGATGAGGTAACCGTG
GGGAAGTTCTATGCCACTTTCCTGATACAGGACTACTTTAGGAAATTCAAGAAACGGAAAGAGCAAGGAC
TGGTGGGGAAGTACCCTGCGAAGAACACCACGATTGCCCTACAGGCGGGATTAAGGACCCTGCATGACAT
TGGGCCAGAAATCCGACGGGCTATATCCTGTGACTTGCAAGATGACGAGCCAGAAGACTCCAAACCAGAA
GAAGAAGATGTATTCAAAAGAAATGGTGCCCTGCTTGGAAACCATGTCAATCATGTTAATAGTGATAGGA

GAGATTCCCTTCAGCAGACCAATACCACCCACCGTCCCCTGCATGTCCAAAGGCCTTCAATGCCACCTGC
AAGTGATACTGAGAAACCGCTGTTTCCTCCAGCAGGAAATTCGGGGTGTCATAACCATCATAACCATAAT
TCCATAGGGAAGCAAGCTCCCACCTCAACAAATGCCAATCTCAATAATGCCAATATGTCCAAAGCTGCCC
ACGGAAAGCCGCCCAGCATTGGGAACCTTGAGCATGTGTCTGAAAATGGGCATTACTCCTGCAAGCATGA
TCGAGAGCTTCAAAGAAGGTCCAGTATTAAAAGAACCCGCTATTACGAGACTTACATTAGGTCTGAGTCA
GGAGATGAGCAATTTCCAACCATTTGCCGTGAAGATCCTGAGATACACGGCTACTTCCGAGACCCCCGCT
GCTTGGGGGAACAGGAGTATTTCAGTAGCGAGGAGTGCTGTGAGGACGACAGCTCTCCCACCTGGAGCAG
GCAAAACTACAACTACTACAACAGGTACCCAGGCAGCTCCATGGACTTTGAGAGGCCCCGAGGCTACCAC
CACCCCCAAGGCTTCTTAGAAGATGATGACTCTCCCACTGGCTATGATTCACGGAGATCTCCGAGGAGAC
GTCTTCTACCTCCTACCCCACCATCCCATCGGAGGTCCTCCTTCAACTTTGAGTGTCTGCGCAGGCAAAG
CAGCCAAGACGATGTCCTTCCATCGCCTGCCCTGCCTCACCGCGCTGCCCTGCCCCTGCACCTGATGCAG
CAGCAGATCATGGCCGTTGCAGGCCTAGATTCCAGTAAAGCCCAGAAGTACTCACCGAGCCACTCTACCC
GGTCGTGGGCCACCCCTCCAGCAACCCCTCCATACCGAGACTGGAGCCCATGCTACACCCCTTTGATCCA
GGTGGACCGCTCAGAATCTATGGACCAGGTCAATGGCAGCCTGCCATCCCTACACCGAAGCTCCTGGTAC
ACAGATGAACCCGACATCTCCTATAGGACTTTCACGCCAGCTAGTCTGACTGTCCCCAGCAGCTTCCGGA
ACAAGAACAGCGACAAGCAGAGGAGTGCAGACAGCCTGGTGGAGGCAGTCCTGATATCCGAAGGCTTGGG
ACGCTACGCGAGGGACCCCAAATTTGTCTCAGCGACAAAACATGAGATTGCCGATGCCTGTGACCTAACC
ATAGACGAGATGGAAAGTGCTGCCAGCACCCTGCTCAATGGCAGTGTGTGTCCTCGAGCCAATGGGGACA
TGGGCCCCATCTCCCACCGCCAGGACTATGAGCTCCAGGACTTTGGTCCTGGCTACAGTGACGAGGAGCC
AGACCCTGGGCGAGAGGAAGAGGACCTGGCAGATGAGATGATTTGCATTACCACCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

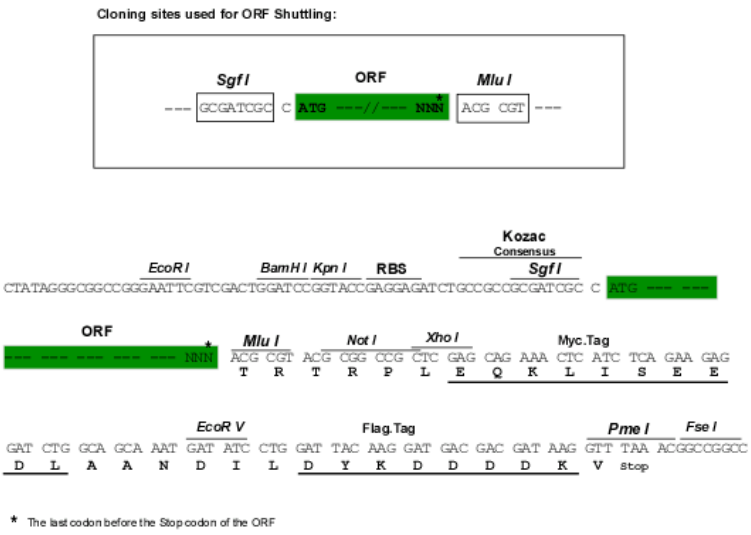
>MR222925 representing NM_028981
Red=Cloning site Green=Tags(s)

MNLPTFSSDLILIKSVLSQETDARYKGRVVSAVESTEDFSQAFAEANYARGTRLPISGEGPTSQPNSSKQ
TVLSWQAAIDAARQAKAAQTMSTSAPPPVGSLSQRKRQQYAKSKKQGNSSNSRPARALFCLSLNNPIRRA
CISIVEWKPFDIFILLAIFANCVALAIYIPFPEDDSNSTNHNLEKVEYAFLIIFTVETFLKIIAYGLLLH
PNAYVRNGWNLLDFVIVIVGLFSVILEQLTKETEGGNHSSGKSGGFDVKALRAFRVLRPLRLVSGVPSLQ
VVLNSIIKAMVPLLHIALLVLFVIIIYAIIGLELFIGKMHKTCFFADSDIVAEEDPAPCAFSGNGRQCTA
NGTECRSGWVGPNGGITNFDNFAFAMLTVFQCITMEGWTDVLYWVNDAIGWEWPWVYFVSLIILGSFFVL
NLVLGVLSGEFSKEREKAKARGDFQKLREKQQLEEDLKGYLDWITQAEDIDPENEEEGGEEGKRNTSMPT
SETESVNTENVSGEGETQGCCGTLCQAISKSKLSRRWRRWNRFNRRRCRAAVKSVTFYWLVIVLVFLNTL
TISSEHYNQPDWLTQIQDIANKVLLALFTCEMLVKMYSLGLQAYFVSLFNRFDCFVVCGGITETILVELE
LMSPLGVSVFRCVRLLRIFKVTRHWTSLSNLVASLLNSMKSIASLLLLLFLFIIIFSLLGMQLFGGKFNF
DETQTKRSTFDNFPQALLTVFQILTGEDWNAVMYDGIMAYGGPSSSGMIVCIYFIILFICGNYILLNVFL
AIAVDNLADAESLNTAQKEEAEEKERKKIARKESLENKKNNKPEVNQIANSDNKVTIDDYQEDAEDKDPY
PPCDVPVGEEEEEEEEDEPEVPAGPRPRRISELNMKEKIAPIPEGSAFFILSKTNPIRVGCHKLINHHIF
TNLILVFIMLSSAALAAEDPIRSHSFRNTILGYFDYAFTAIFTVEILLKMTTFGAFLHKGAFCRNYFNLL
DMLVVGVSLVSFGIQSSAISVVKILRVLRVLRPLRAINRAKGLKHVVQCVFVAIRTIGNIMIVTTLLQFM
FACIGVQLFKGKFYRCTDEAKSNPEECRGLFILYKDGDVDSPVVRERIWQNSDFNFDNVLSAMMALFTVS
TFEGWPALLYKAIDSNGENVGPVYNYRVEISIFFIIYIIIVAFFMMNIFVGFVIVTFQEQGEKEYKNCEL
DKNQRQCVEYALKARPLRRYIPKNPYQYKFWYVVNSSPFEYMMFVLIMLNTLCLAMQHYEQSKMFNDAMD
ILNMVFTGVFTVEMVLKVIAFKPKGYFSDAWNTFDSLIVIGSIIDVALSEADNSEESNRISITFFRLFRV
MRLVKLLSRGEGIRTLLWTFIKSFQALPYVALLIAMLFFIYAVIGMQMFGKVAMRDNNQINRNNNFQTFP
QAVLLLFRCATGEAWQEIMLACLPGKLCDPDSDYNPGEEYTCGSNFAIVYFISFYMLCAFLIINLFVAVI
MDNFDYLTRDWSILGPHHLDEFKRIWSEYDPEAKGRIKHLDVVTLLRRIQPPLGFGKLCPHRVACKRLVA
MNMPLNSDGTVMFNATLFALVRTALKIKTEGNLEQANEELRAVIKKIWKKTSMKLLDQVVPPAGDDEVTV
GKFYATFLIQDYFRKFKKRKEQGLVGKYPAKNTTIALQAGLRTLHDIGPEIRRAISCDLQDDEPEDSKPE
EEDVFKRNGALLGNHVNHVNSDRRDSLQQTNTTHRPLHVQRPSMPPASDTEKPLFPPAGNSGCHNHHNHN
SIGKQAPTSTNANLNNANMSKAAHGKPPSIGNLEHVSENGHYSCKHDRELQRRSSIKRTRYYETYIRSES
GDEQFPTICREDPEIHGYFRDPRCLGEQEYFSSEECCEDDSSPTWSRQNYNYYNRYPGSSMDFERPRGYH
HPQGFLEDDDSPTGYDSRRSPRRRLLPPTPPSHRRSSFNFECLRRQSSQDDVLPSPALPHRAALPLHLMQ
QQIMAVAGLDSSKAQKYSPSHSTRSWATPPATPPYRDWSPCYTPLIQVDRSESMDQVNGSLPSLHRSSWY
TDEPDISYRTFTPASLTVPSSFRNKNSDKQRSADSLVEAVLISEGLGRYARDPKFVSATKHEIADACDLT
IDEMESAASTLLNGSVCPRANGDMGPISHRQDYELQDFGPGYSDEEPDPGREEEDLADEMICITTL

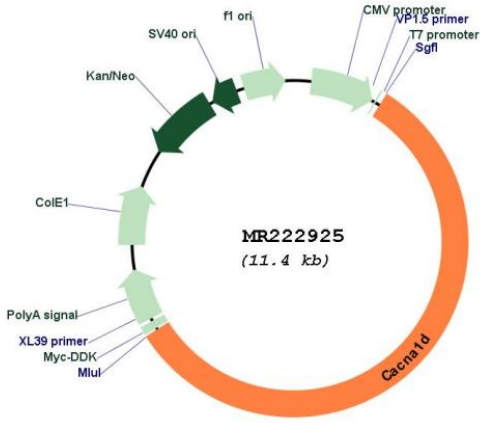
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_028981
ORF Size:	6498 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_028981.3, NP_083257.2
RefSeq Size:	8705 bp
RefSeq ORF:	6501 bp
Locus ID:	12289
UniProt ID:	Q99246
Cytogenetics:	14 18.43 cM
MW:	245.7 kDa
Gene Summary:	This gene encodes a pore-forming subunit of the L-type, voltage-activated calcium channel family. These channels have been found to play a role in heart and smooth muscle contraction and in the transmission of auditory information. Homozygous knockout mice for this gene exhibit deafness and heart defects. These channels have also been linked to mitochondrial oxidative stress in a mouse model of Parkinson's disease. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Nov 2014]