

Product datasheet for **RC237361**

CACNA2D1 (NM_001302890) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CACNA2D1 (NM_001302890) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CACNA2D1
Synonyms: CACNA2; CACNL2A; CCHL2A; LINC01112; lncRNA-N3
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC237361 representing NM_001302890
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCTGCTGGCTGCCTGCTGGCCTTGACTCTGACTTTTCCAATCTTTGCTCATCGGCCCTCGTCGG
AGGAGCCGTTCCCTTCGGCCGCTCACTATCAAATCATGGGTGGATAAGATGCAAGAAGACCTTGTCACACT
GGCAAAACAGCAAGTGGAGTCAATCAGCTTGTGATATTTATGAGAAATATCAAGATTTGTATACTGTG
GAACCAAATAATGCACGCCAGCTGGTAGAAATTGCAGCCAGGGATATTGAGAACTTCTGAGCAACAGAT
CTAAAGCCCTGGTGCCTGGCATTGGAAGCGGAGAAAGTTCAAGCAGCTCACCAGTGGAGAGAAGATT
TGCAAGCAATGAAGTTGTCTACTACAATGCAAAGGATGATCTCGATCCTGAGAAAATGACAGTGAGCCA
GGCAGCCAGAGGATAAAACCTGTTTTTCATTGAAGATGCTAATTTTGGACGACAAATATCTTATCAGCAGC
CAGCAGTCCATATTCCTACTGACATCTATGAGGGCTCAACAATTTGTGTTAAATGAACTCAACTGGACAAG
TGCCTTAGATGAAGTTTTCAAAAAGAATCGCGAGGAAGACCCTTCATTATTGTGGCAGGTTTTTGGCAGT
GCCACTGGCCTAGCTCGATATTATCCAGCTTCACCATGGGTTGATAATAGTAGAACTCCAATAAGATTG
ACCTTTATGATGTACGCAGAAGACCATGGTACATCCAAGGAGCTGCATCTCCTAAAGACATGCTTATTCT
GGTGGATGTGAGTGAAGTGTAGTGGATTGACACTTAACTGATCCGAACATCTGTCTCCGAAATGTTA
GAAACCCTCTCAGATGATGATTTCTGTAATGTAGCTTCAGATAGTAAAGAGATTTCTCTCTCCCGAAG
AGATTTTCAATGCAGAG

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ACAAGGATGACGACGATAAGGTTTAA



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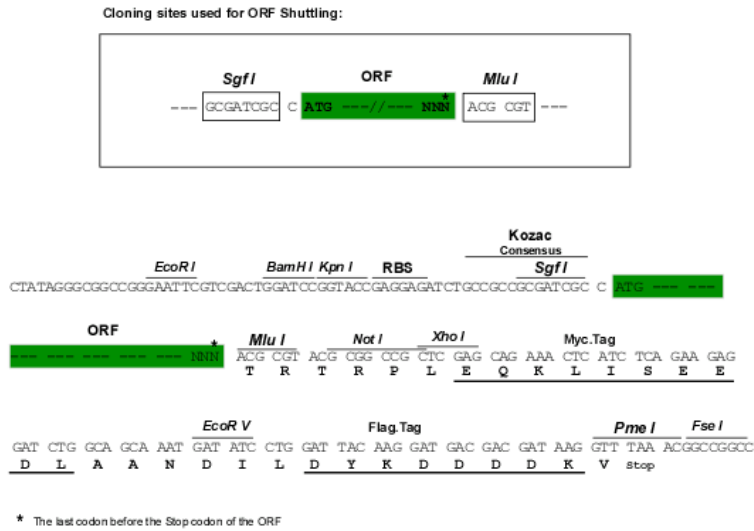
Protein Sequence: >RC237361 representing NM_001302890
 Red=Cloning site Green=Tags(s)

MAAGCLLALTLTLFQSLIIGPSSEEPFSAVTIKSWVDKMQEDLVTAKTASGVNQLVDIYEKYQDLTYV
 EPNNARQLVEIAARDIEKLLSNRSKALVRLALEAEKVQAAHQWREDFASNEVVYNAKDDLDPEKNDSEP
 GSQRIKPVFIEDANFGRQISYQHAHVHIPTDIYEGSTIVLNELNWTLSALDEVFKKNREEDPSLLWQVFGS
 ATGLARYYPASPWVDNSRTPNKIDLYDVRRRRPWYIQGAASPKDMLILVDVSGSVSGLTLKLI RTSVSEML
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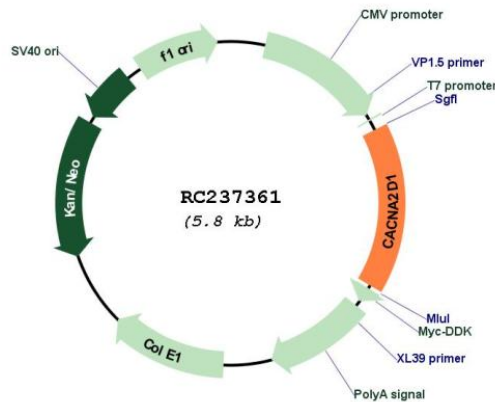
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001302890

ORF Size: 927 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:	<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_001302890.2
RefSeq Size:	1538 bp
RefSeq ORF:	930 bp
Locus ID:	781
Cytogenetics:	7q21.11
Protein Families:	Druggable Genome, Ion Channels: Other
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway
MW:	35.1 kDa
Gene Summary:	The preproprotein encoded by this gene is cleaved into multiple chains that comprise the alpha-2 and delta subunits of the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. Mutations in this gene can cause cardiac deficiencies, including Brugada syndrome and short QT syndrome. Alternate splicing results in multiple transcript variants, some of which may lack the delta subunit portion. [provided by RefSeq, Nov 2014]