

Product datasheet for **RC205809**

CACNG6 (NM_145814) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CACNG6 (NM_145814) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CACNG6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205809 representing NM_145814 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGTGGTCCAACCTTCTTCTGCAAGAGGAGAACCGGGCGGGGGCCGGGGCCGGCGGGGCGC
ACGGGCAGGGCAGGTCGGGGCTGACGCCGAGCGCAGGGGAAGGTGAAGCTGGCGCTGCTGCTGGCCG
CGTGGGCGCCACGCTGGCGGTGCTGTCCGTGGGCACCGAGTTCTGGGTGGAGCTCAACACCTACAAGGC
AACGGCAGCGCCGTGTGCGAAGCGGCCACCTGGGGCTGTGGAAGCGTGCACCAAGCGGCTGTGGCAGG
CGGAGTGCCCGTGGACAGGGACACCTGCGGCCCGCGGAGCTGCCCGGAGAAGCAAACCTGCACCTATTT
TAAATTCTTACCACGGGGGAGAATGCACGCATCTTTCAGAGAACCACAAAGAAAGAGGTGAATCTGGCA
GCTGCGGTGATAGCAGTCTGGCCTGGCAGTCATGGCCTTGGGGTGCCTCTGTATCATCATGGTCTCA
GTAAAGGTGCAGAGTTCTGCTCCGAGTTGGAGCCGTCTGCTTTGGCCTCTCAGGCCTGCTGCTCTTGGT
GAGCCTGGAGGTGTTCCGGCATTCCGTGAGGGCCCTGCTGCAGAGAGTCAGCCCGGAGCCTCCCCGGCC
CCACGCCTCACCTACGAGTACTCTGCTCCCTGGGCTGCGGCGTGGGGCCGGCCTGATCCTGCTGTTGG
GGGCCGGTCTTCTGCTGCTCACACTGCCTTCTGGCCCTGGGGTCCCTCTGTCCAAGCGGGGCA
CCGGGCCACC

ACGCGTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205809 representing NM_145814
 Red=Cloning site Green=Tags(s)

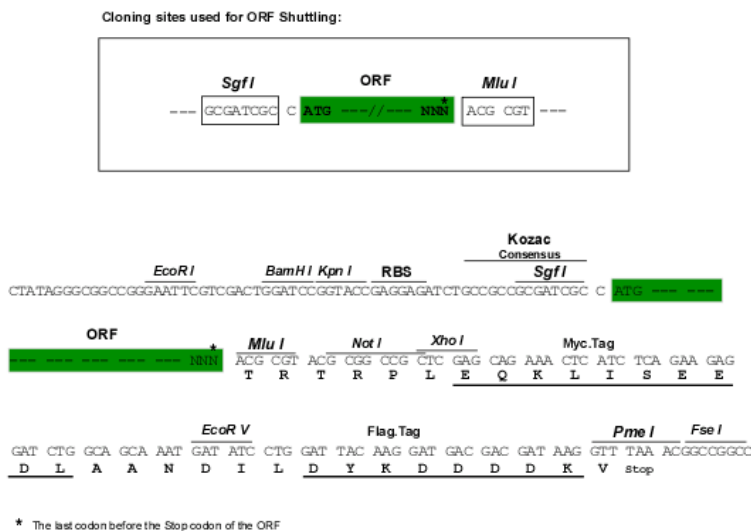
MMWSNFFLQEENRRRGAAGRRRAHGQGRSGLTPEREGVKVLALLLAAVGATLAVLSVGTEFWVELNTYKA
 NGSACEAAHLGLWKACTKRLWQADVPVDRDTCGPAELPGEANCTYFKFFTTGENARIFQRTTKKEVNLA
 AAVIAVLGLAVMALGCLCIIMVLSKGAEFLLRVGAVCFGLSGLLLLVSLEVFRHSVRALLQRVSPPEPPPA
 PRLTYEYSWSLGGVGVAGLILLGAGCFLLLTLPSWPWGSGLCPKRGHRAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2453_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145814

ORF Size: 780 bp

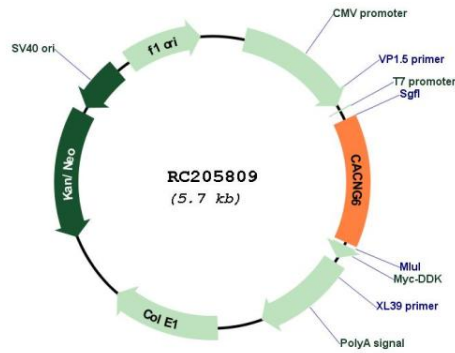
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

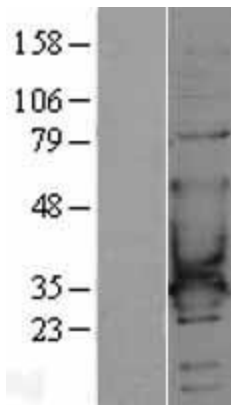
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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:	<u>NM_145814.1, NP_665813.1</u>
RefSeq Size:	1886 bp
RefSeq ORF:	783 bp
Locus ID:	59285
UniProt ID:	<u>Q9BXT2</u>
Cytogenetics:	19q13.42
Protein Families:	Druggable Genome, Ion Channels: Other, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway
MW:	27.9 kDa
Gene Summary:	Voltage-dependent calcium channels are composed of five subunits. The protein encoded by this gene represents one of these subunits, gamma, and is one of two known gamma subunit proteins. This particular gamma subunit is an integral membrane protein that is thought to stabilize the calcium channel in an inactive (closed) state. This gene is part of a functionally diverse eight-member protein subfamily of the PMP-22/EMP/MP20 family and is located in a cluster with two family members that function as transmembrane AMPA receptor regulatory proteins (TARPs). Alternative splicing results in multiple transcript variants. Variants in this gene have been associated with aspirin-intolerant asthma. [provided by RefSeq, Dec 2010]

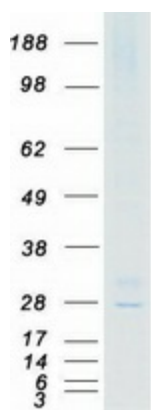
Product images:



Circular map for RC205809



Western blot validation of overexpression lysate (Cat# [LY407851]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205809 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CACNG6 protein (Cat# [TP305809]). The protein was produced from HEK293T cells transfected with CACNG6 cDNA clone (Cat# RC205809) using MegaTran 2.0 (Cat# [TT210002]).