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Product datasheet for RC219086

CALM1 (NM_006888) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CALM1 (NM_006888) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CALM1
Synonyms:	CALML2; caM; CAM2; CAM3; CAMB; CAMC; CAMI; CAMIII; CPVT4; DD132; LQT14; PHKD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC219086 representing NM_006888
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGATCAGCTGACCGAAGAACAGATTGCTGAATTCAAGGAAGCCTTCTCCCTATTTGATAAAGATG
GCGATGGCACCATCACAACAAAGGAACTTGGAACTGTCATGAGGTCACTGGGTCAGAACCCAACAGAAGC
TGAATTGCAGGATATGATCAATGAAGTGGATGCTGATGGTAATGGCACCATTGACTTCCCCGAATTTTTG
ACTATGATGGCTAGAAAAATGAAAGATACAGATAGTGAAGAAGAAATCCGTGAGGCATTCCGAGTCTTTG
ACAAGGATGGCAATGGTTATATCAGTGCAGCAGAACTACGTCACGTCATGACAAACTTAGGAGAAAAACT
AACAGATGAAGAAGTAGATGAAATGATCAGAGAAGCAGATATTGATGGAGACGGACAAGTCAACTATGAA
GAATTCGTACAGATGATGACTGCAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219086 representing NM_006888
Red=Cloning site Green=Tags(s)

MADQLTEEQIAEFKEAFSLFDKDGDGTITTKELGTVMRSLGQNPTEAELQDMINEVDADGNGTIDFPEFL
TMMARKMKDTDSEEEIREAFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYE
EFVQMMTAK

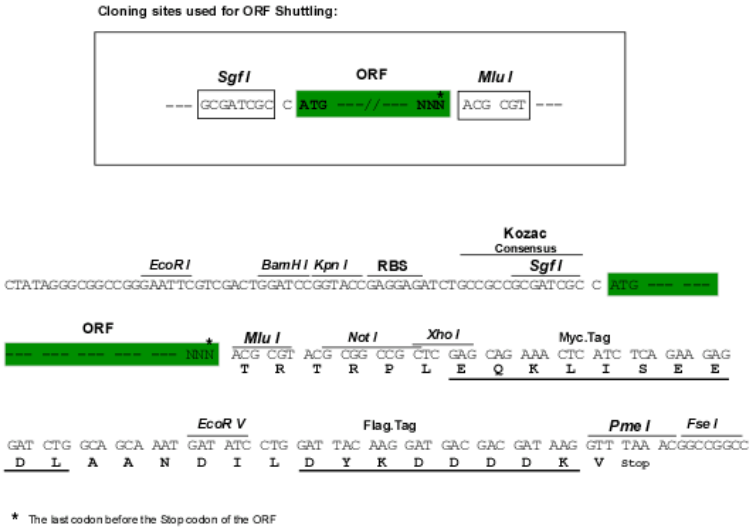
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6112_a06.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006888

ORF Size: 447 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.

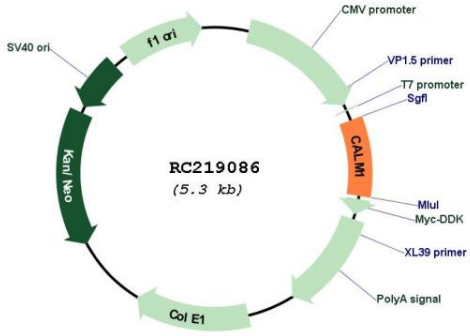
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

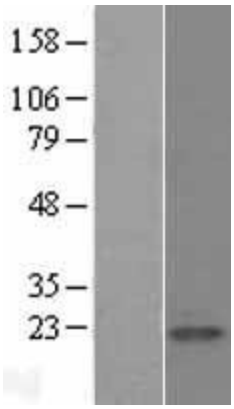
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_006888.6
RefSeq Size:	3718 bp
RefSeq ORF:	450 bp
Locus ID:	801
UniProt ID:	P62158
Cytogenetics:	14q32.11
Domains:	EFh
Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Calcium signaling pathway, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Phosphatidylinositol signaling system, Vascular smooth muscle contraction
MW:	16.7 kDa
Gene Summary:	This gene encodes one of three calmodulin proteins which are members of the EF-hand calcium-binding protein family. Calcium-induced activation of calmodulin regulates and modulates the function of cardiac ion channels. Two pseudogenes have been identified on chromosome 7 and X. Multiple transcript variants encoding different isoforms have been found for this gene.A missense mutation in the CALM1 gene has been associated with ventricular tachycardia.[provided by RefSeq, May 2020]

Product images:



Circular map for RC219086



Western blot validation of overexpression lysate (Cat# [LY402054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219086 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).