

Product datasheet for **RC215099**

KCNMA1 (NM_002247) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNMA1 (NM_002247) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNMA1
Synonyms:	bA205K10.1; BKTM; CADEDS; hSlo; IEG16; KCa1.1; LIWAS; MaxiK; mSLO1; PNKD3; SAKCA; SLO; SLO-ALPHA; SLO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215099 representing NM_002247 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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GGGTTCCGTCCTCAATCCACATGATCTTGCAAGAGTCAAGATAGAGTCAGCAGATGCATGCCTGATCCTT
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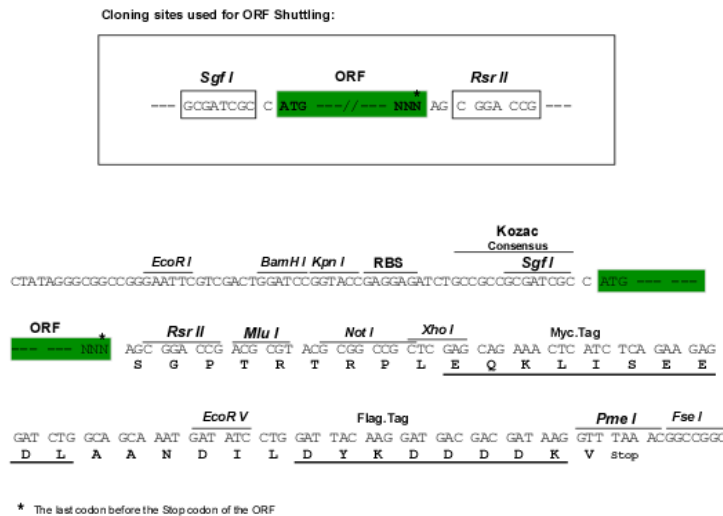
Protein Sequence: >RC215099 representing NM_002247
 Red=Cloning site Green=Tags(s)

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 TLKPVDEKEEAVAEAVGWMTSVKDWAGVMISAQTLTGRVLLVLFALSIGALVIYFIDSSNPIESCQNFY
 KDFTLQIDMAFNVFLLYFGLRFIAANDKLWFLEVNVSVDVFFVPPVFVSVYLNRSWGLRFLRALRLI
 QFSEILQFLNILKTSNSIKLVNLLSIFISTWLTAAAGFIHLVENSQDPWENFQNNQALTYWECVYLLMVTM
 STVGYGDVYAKTTLGRLFMVFFILGGLAMFASYVPEIIEIIGNRKKYGGYSYSAVSGRKHIVVCGHITLES
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 IAIEYKSNANRESRILINPGNHLKIQEGLGFFIASDAKEVKRAFFYCKACHDDITDPKRIKCKGCKRLED
 EQPSTLSPKKQRNGGMRNSPNTSPKLMRHDPLLIPGNDQIDNMDSNVKKYDSTGMFHWCAPKEIEKVIL
 TRSEAAMTVLSGHVVVICIFGDVSSALIGLRNLVMPLRASNPHYHELKHIIVVGSIEYKREWETLHNFPK
 VSILPGTPLSRADLRVNINLDCMCVILSANQNNIDDTSLQDKECILASLNIKSMQFDDSIGVLQANSQG
 FTPPGMDRSPDNVHGMRLRQPSITTVGNIPITELVNDTNVQFLDQDDDDDPDELTLTQPFACGTAF
 AVSVLDSLMSATYFNDNILTLIRTLVTGGATPELEALIAEENALRGGYSTPQTLANRDRCRVAQLALLDG
 PFADLGDGGCYGDLFCKALKTYNMLCFGIYRLRDAHLSTPSQCTKRYVITNPPYEFELVPTDLIFCLMQF
 DHNAGQSRASLSHSSHSQSSSKKSSSVHSIPSTANRQNRPKSRESRDQKQYVQEERL

SGPTRRRLRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_002247
 ORF Size: 3534 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_002247.4](#)

RefSeq Size: 6103 bp

RefSeq ORF: 3537 bp

Locus ID: 3778

UniProt ID: [Q12791](#)

Cytogenetics: 10q22.3

Domains: BK_channel_a, ion_trans

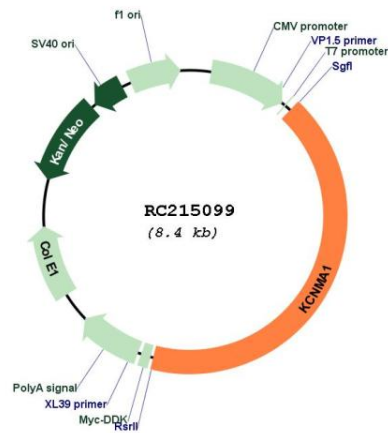
Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

Protein Pathways: Vascular smooth muscle contraction

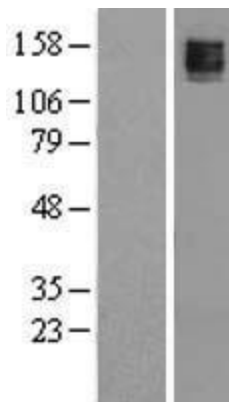
MW: 130.8 kDa

Gene Summary:

MaxiK channels are large conductance, voltage and calcium-sensitive potassium channels which are fundamental to the control of smooth muscle tone and neuronal excitability. MaxiK channels can be formed by 2 subunits: the pore-forming alpha subunit, which is the product of this gene, and the modulatory beta subunit. Intracellular calcium regulates the physical association between the alpha and beta subunits. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RC215099



Western blot validation of overexpression lysate (Cat# [LY400815]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215099 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).