

Product datasheet for RC222841

KCNMB2 (NM 181361) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: KCNMB2 (NM 181361) Human Tagged ORF Clone

Tag: Myc-DDK Symbol: KCNMB2 **Mammalian Cell**

Selection:

Neomycin

pCMV6-Entry (PS100001) Vector: E. coli Selection: Kanamycin (25 ug/mL) >RC222841 ORF sequence **ORF Nucleotide**

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTTTATATGGACCAGTGGCCGGACCTCTTCATCTTATAGACATGATGAAAAAAAGAAATATTTACCAGA AAATCAGGGACCATGACCTCCTGGACAAAAGGAAAACAGTCACAGCACTGAAGGCAGGAGAGGACCGAGC TATTCTCCTGGGACTGGCTATGATGGTGTGCTCCATCATGATGTATTTTCTGCTGGGAATCACACTCCTG CGCTCATACATGCAGAGCGTGTGGACCGAAGAGTCTCAATGCACCTTGCTGAATGCGTCCATCACGGAAA CATTTAACTGCTCCTTCAGCTGTGGTCCAGACTGCTGGAAACTTTCTCAGTACCCCTGCCTCCAGGTGTA AAGTGCTCCTATATACCTAAATGTGGAAAAAATTTTGAAGAATCCATGTCCCTGGTGAATGTTGTCATGG AAAACTTCAGGAAGTATCAACACTTCTCCTGCTATTCTGACCCAGAAGGAAACCAGAAGAGTGTTATCCT AACCAAACTCTACAGTTCCAACGTGCTGTTCCATTCACTCTTCTGGCCAACCTGTATGATGGCTGGGGGGT GTGGCAATTGTTGCCATGGTGAAACTTACACAGTACCTCTCCCTACTATGTGAGAGGATCCAACGGATCA ATAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222841 protein sequence

Red=Cloning site Green=Tags(s)

MFIWTSGRTSSSYRHDEKRNIYQKIRDHDLLDKRKTVTALKAGEDRAILLGLAMMVCSIMMYFLLGITLL RSYMQSVWTEESQCTLLNASITETFNCSFSCGPDCWKLSQYPCLQVYVNLTSSGEKLLLYHTEETIKINQ KCSYIPKCGKNFEESMSLVNVVMENFRKYQHFSCYSDPEGNQKSVILTKLYSSNVLFHSLFWPTCMMAGG

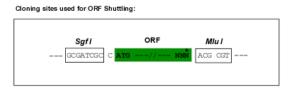
VAIVAMVKLTQYLSLLCERIQRINR

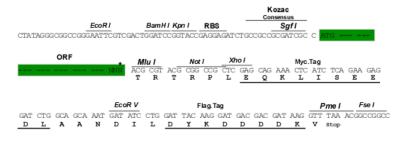
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6439 c06.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





 $[\]star$ The last codon before the Stop codon of the ORF

ACCN: NM_181361

ORF Size: 705 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: <u>NM 181361.3</u>

 RefSeq Size:
 2698 bp

 RefSeq ORF:
 708 bp

 Locus ID:
 10242

 UniProt ID:
 Q9Y691

 Cytogenetics:
 3q26.32

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

Protein Pathways: Vascular smooth muscle contraction

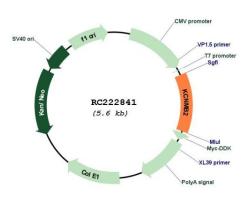
MW: 27.1 kDa

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 and the modulatory beta subunit. The protein encoded by this gene is an auxiliary beta subunit which decreases the activation time of MaxiK alpha subunit currents. Alternative splicing results in multiple transcript variants of this gene. Additional variants are discussed in the literature, but their

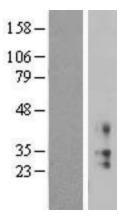
full length nature has not been described. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RC222841





Western blot validation of overexpression lysate (Cat# [LY405752]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222841 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).