

Product datasheet for MR201831

Kcnmb1 (NM_031169) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kcnmb1 (NM_031169) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Kcnmb1
Synonyms: BKbeta1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201831 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGAAGAAGCTGGTATGGCCAGAAGCGGGAGAGACACGAGCCCTCTGCCTGGGAGTGGCAATGG
 TAGTGTGTGCTGCCATCACCTACTACGTCTGGGTACAACGTGCTGCCCTCTACCAGAAAAGTGTGTG
 GACCCAGGAATCCATATGTCACCTGATTGAAACTAATATCAAGGACCAGGAAGAGCTGGAGGCAAGAAG
 GTGCCCCAGTACCCATGCCTTTGGGTCAATGTATCAGCTGTGGGCAGATGGCCATGCTGTATCACAGG
 AAGACTCGGGATCAAAACCAACAGTGTCTATATCCCAGGAACCTGGACAACCTACCAGACAGCCTT
 GGCAGATGTGAAGAAGGTGAGAGCAATTTCTATAAGCACCATGAATTCTATTGCCTTTCTGCACCTCAA
 GTCAACGAGACCAGCGTGTACCAGCGCCTCTACGGGCCCCAAGTCTCTCTCTCTCTCTCTCTGGC
 CCACCTTCTGCTGACTGGGGTCTTCTTATTGCCATGGTGAAGCTCAACAGGTCCTATCCATCTT
 GGCAGCTCAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201831 protein sequence
 Red=Cloning site Green=Tags(s)

MGKKL VMAQKRGETRALCLGVAMVVCAAITYYVLGTTVLPL YQKSVWTQESICHL IETNIKDQEELEGKK
 VPQYPCLWVNVSAVGRWAMLYHTEDTRDQNOQCSYIPRNL DNYQTALADVKKVRANFYKHHEFYCLSAPO
 VNETSVVYQRL YGPQVLLFSFFWPTFLLTGLLLLIAMVKLNRSLSILAAQK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_031169

ORF Size: 576 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: [NM_031169.1](#), [NM_031169.2](#), [NM_031169.3](#), [NM_031169.4](#), [NP_112446.2](#)

RefSeq Size: 4188 bp

RefSeq ORF: 576 bp

Locus ID: 16533

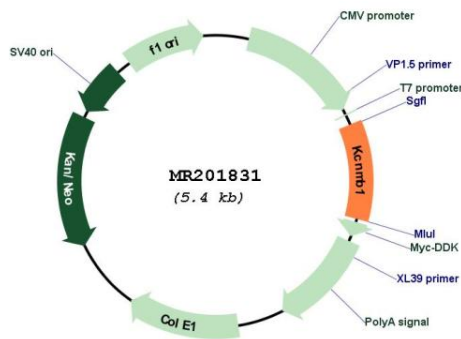
UniProt ID: [Q8CAE3](#)

Cytogenetics: 11 A4

MW: 21.8 kDa

Gene Summary: Regulatory subunit of the calcium activated potassium KCNMA1 (maxiK) channel. Modulates the calcium sensitivity and gating kinetics of KCNMA1, thereby contributing to KCNMA1 channel diversity. Increases the apparent Ca(2+)/voltage sensitivity of the KCNMA1 channel. It also modifies KCNMA1 channel kinetics and alters its pharmacological properties. It slows down the activation and the deactivation kinetics of the channel. Acts as a negative regulator of smooth muscle contraction by enhancing the calcium sensitivity to KCNMA1. Its presence is also a requirement for internal binding of the KCNMA1 channel opener dehydrosoyasaponin I (DHS-1) triterpene glycoside and for external binding of the agonist hormone 17-beta-estradiol (E2). Increases the binding activity of charybdotoxin (CTX) toxin to KCNMA1 peptide blocker by increasing the CTX association rate and decreasing the dissociation rate. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201831