

Product datasheet for SC306659

KCNJ1 (NM 153766) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: KCNJ1 (NM_153766) Human Untagged Clone

Tag: Tag Free Symbol: KCNI1

Synonyms: KIR1.1; ROMK; ROMK1

Vector: pCMV6 series

Fully Sequenced ORF: >NCBI ORF sequence for NM_153766, the custom clone sequence may differ by one or more

nucleotides

ATGTTCAAACATCTTCGGAAATGGGTCGTCACTCGCTTTTTTTGGGCATTCTCGGCAAAGA GCAAGGCTAGTCTCCAAAGATGGAAGGTGCAACATAGAATTTGGCAATGTGGAGGCACAG TCAAGGTTTATATTCTTTGTGGACATCTGGACAACGGTACTTGACCTCAAGTGGAGATAC AAAATGACCATTTTCATCACAGCCTTCTTGGGGAGTTGGTTTTTCTTTGGTCTCCTGTGG TATGCAGTAGCGTACATTCACAAAGACCTCCCGGAATTCCATCCTTCTGCCAATCACACT CCCTGTGTGGAGAATATTAATGGCTTGACCTCAGCTTTTCTGTTTTCTCTGGAGACTCAA GTGACCATTGGATATGGATTCAGGTGTGTGACAGAACAGTGTGCCACTGCCATTTTTCTG CTTATCTTTCAGTCTATACTTGGAGTTATAATCAATTCTTTCATGTGTGGGGCCATCTTA GCCAAGATCTCCAGGCCCAAAAAACGTGCCAAGACCATTACGTTCAGCAAGAACGCAGTG ATCAGCAAACGGGGAGGGAAGCTTTGCCTCCTAATCCGAGTGGCTAATCTCAGGAAGAGC CTTCTTATTGGCAGTCACATTTATGGAAAGCTTCTGAAGACCACAGTCACTCCTGAAGGA GAGACCATTATTTTGGACCAGATCAATATCAACTTTGTAGTTGACGCTGGGAATGAAAAT TTATTCTTCATCTCCCCATTGACAATTTACCATGTCATTGATCACAACAGCCCTTTCTTC CACATGGCAGCGGAGACCCTTCTCCAGCAGGACTTTGAATTAGTGGTGTTTTTAGATGGC ACAGTGGAGTCCACCAGTGCTACCTGCCAAGTCCGGACATCCTATGTCCCAGAGGAGGTG GATTTCCATAACTTTAGCAAGACAGTGGAAGTGGAGACCCCTCACTGTGCCATGTGCCTT TATAATGAGAAAGATGTTAGAGCCAGGATGAAGAGAGGCTATGACAACCCCAACTTCATC TTGTCAGAAGTCAATGAAACAGATGACACCAAAATGTAA

Restriction Sites: Please inquire **ACCN:** NM 153766

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).



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OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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 153766.1, NP 722450.1</u>

 RefSeq Size:
 2616 bp

 RefSeq ORF:
 1119 bp

 Locus ID:
 3758

 UniProt ID:
 P48048

 Cytogenetics:
 11q24.3

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

Gene Summary:

Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel. It is activated by internal ATP and probably plays an important role in potassium homeostasis. The encoded protein has a greater tendency to allow potassium to flow into a cell rather than out of a cell. Mutations in this gene have been associated with antenatal Bartter syndrome, which is characterized by salt wasting, hypokalemic alkalosis, hypercalciuria, and low blood pressure. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (4, also known as rom-k4) differs in the 5' UTR and coding region compared to variant 1. The resulting isoform (b) is shorter at the N-terminus than isoform a. Variants 2, 4 and 5 all encode isoform b but differ in their 5' UTRs.