

## Product datasheet for RC215003

### KCNJ1 (NM\_153766) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNJ1 (NM_153766) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNJ1
Synonyms:	KIR1.1; ROMK; ROMK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215003 representing NM_153766 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCAAACATCTTCGGAAATGGGTCGTCACCTCGCTTTTTGGGCATTCTCGGCAAAGAGCAAGGCTAG  
TCTCAAAGATGGAAGGTGCAACATAGAATTTGGCAATGTGGAGGCACAGTCAAGGTTTATATTCTTTGT  
GGACATCTGGACAACGGTACTTGACCTCAAGTGGAGATACAAAATGACCATTTTCATCACAGCCTTCTTG  
GGGAGTTGGTTTTCTTTGGTCTCCTGTGGTATGCAGTAGCGTACATTACAAAGACCTCCCGGAATTCC  
ATCCTTCTGCCAATCACACTCCCTGTGTGGAGAATATTAATGGCTTGACCTCAGCTTTTCTGTTTTCTCT  
GGAGACTCAAGTGACCATTTGGATATGGATTCAGGTGTGTGACAGAACAGTGTGCCACTGCCATTTTCTG  
CTTATCTTTCACTATACTTGGAGTTATAATCAATTCATGTGTGGGGCCATCTTAGCCAAGATCT  
CCAGGCCCAAAAAACGTGCCAAGACATTACGTTCAAGCAAGAACGAGTATCAGCAAACGGGGAGGGAA  
GCTTTGCCTCCTAATCCGAGTGGCTAATCTCAGGAAGAGCCTTCTTATTGGCAGTCACATTTATGAAAAG  
CTTCTGAAGACCACAGTCACTCCTGAAGGAGAGACCATTATTTGGACCAGATCAATATCAACTTTGTAG  
TTGACGCTGGGAATGAAAATTTATCTTCATCTCCCCATTGACAATTTACCATGTCATTGATCACAACAG  
CCCTTTCTCCACATGGCAGCGGAGACCCTTCTCCAGCAGGACTTTGAATTAGTGGTGTTTTAGATGCC  
ACAGTGGAGTCCACCAGTGTACCTGCCAAGTCCGGACATCCTATGTCCCAGAGGAGGTGCTTTGGGGCT  
ACCGTTTTGCTCCCATAGTATCCAAGACAAGGAAGGAAATACCGAGTGGATTTCCATAACTTTAGCAA  
GACAGTGAAGTGGAGACCCCTCACTGTGCCATGTGCCTTTATAATGAGAAAGATGTTAGAGCCAGGATG  
AAGAGAGGCTATGACAACCCCACTTCATCTTGTGAGAAGTCAATGAAACAGATGACACCAAAATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC215003 representing NM\_153766  
Red=Cloning site Green=Tags(s)

MFKHLRKWVTRFFGHSRQRARLVSKDGRCNIEFGNVEAQSRIFFVDIWTTVLDLKWRYKMTIFITAFL  
 GSWFFFGLLWYAVAYIHKDLPEFHPSANHTPCVENINGL TSAFLFSLETQVTIGYGFRVCVTEQCATAIFL  
 LIFQSIILGVIINSFMCGAILAKISRPKKRAKTITFSKNAVISKRGGKLCLLIRVANLRKSLIGSHIYGK  
 LLKTTVTPEGETIILDQININVFVDAGNENLFFISPLTIYHVIDHNSPFFHMAAETLLQQDFELVVFLDG  
 TVESTSATCQVRTSYVPEEVLWGYRFAPIVSKTKEGKYRVDFHNFSKTVEVETPHCAMCLYNEKDVRARM  
 KRGYDNPINFILSEVNETDDTKM

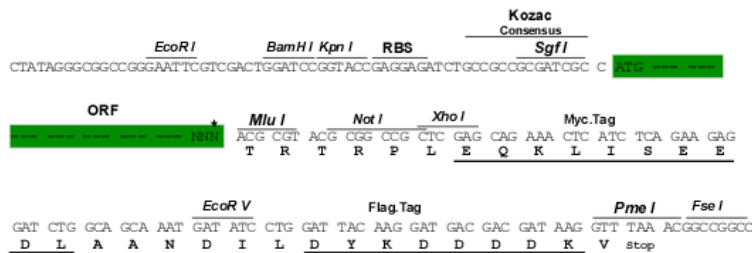
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6584\\_d03.zip](https://cdn.origene.com/chromatograms/mk6584_d03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_153766

**ORF Size:** 1116 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\\_153766.3](#)

**RefSeq Size:** 2616 bp

**RefSeq ORF:** 1119 bp

**Locus ID:** 3758

**UniProt ID:** [P48048](#)

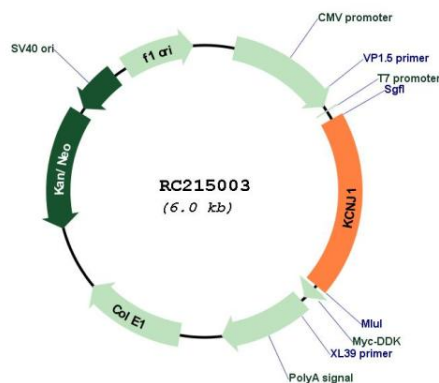
**Cytogenetics:** 11q24.3

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

**MW:** 42.5 kDa

**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]

## Product images:



Circular map for RC215003