

## Product datasheet for **SC306658**

### KCNJ1 (NM\_153764) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNJ1 (NM_153764) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNJ1
Synonyms:	KIR1.1; ROMK; ROMK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC306658 representing NM_153764 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCAAACATCTTCGGAAATGGGTCGTCACCTCGCTTTTTGGGCATTCTCGGCAAAGAGCAAGGCTAG  
TCTCCAAAGATGGAAGGTGCAACATAGAATTTGGCAATGTGGAGGCACAGTCAAGGTTTATATTCTTTGT  
GGACATCTGGACAACGGTACTTGACCTCAAGTGGAGATACAAAATGACCATTTTCATCACAGCCTTCTTG  
GGGAGTTGGTTTTCTTTGGTCTCCTGTGGTATGCAGTAGCGTACATTACAAAGACCTCCCGGAATTCC  
ATCCTTCTGCCAATCACACTCCCTGTGTGGAGAATATTAATGGCTTGACCTCAGCTTTTCTGTTTTCTCT  
GGAGACTCAAGTGACCATTTGGATATGGATTCAGGTGTGTGACAGAACAGTGTGCCACTGCCATTTTCTG  
CTTATCTTTCAGTCTATACTTGGAGTTATAATCAATTCTTTCATGTGTGGGGCCATCTTAGCCAAGATCT  
CCAGGCCCAAAAAACGTGCCAAGACATTACGTTCCAGCAAGAACGCAGTGATCAGCAAACGGGGAGGGAA  
GCTTTGCCTCCTAATCCGAGTGGCTAATCTCAGGAAGAGCCTTCTTATTGGCAGTCACATTTATGGAAAG  
CTTCTGAAGACCACAGTCACTCCTGAAGGAGAGACCATTATTTGGACCAGATCAATATCAACTTTGTAG  
TTGACGCTGGGAATGAAAATTTATTCTTCATCTCCCCATTGACAATTTACCATGTCATTGATCACAACAG  
CCCTTTCTTCCACATGGCAGCGGAGACCCTTCTCCAGCAGGACTTTGAATTAGTGGTGTTTTTAGATGCC  
ACAGTGGAGTCCACCAGTGTACCTGCCAAGTCCGGACATCCTATGTCCCAGAGGAGGTGCTTTGGGGCT  
ACCGTTTTGCTCCCATAGTATCCAAGACAAGGAAGGAAATACCGAGTGGATTTCCATAACTTTAGCAA  
GACAGTGAAGTGGAGACCCCTCACTGTGCCATGTGCCTTTATAATGAGAAAGATGTTAGAGCCAGGATG  
AAGAGAGGCTATGACAACCCCACTTCATCTTGTGAGAAGTCAATGAAACAGATGACACCAAAATGTAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Please inquire



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<b>ACCN:</b>	NM_153764
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_153764.1</a> , <a href="#">NP_722448.1</a>
<b>RefSeq Size:</b>	2446 bp
<b>RefSeq ORF:</b>	1119 bp
<b>Locus ID:</b>	3758
<b>UniProt ID:</b>	<a href="#">P48048</a>
<b>Cytogenetics:</b>	11q24.3
<b>Protein Families:</b>	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 (2, also known as rom-k2) 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.