

Product datasheet for **RG216647**

KCNJ1 (NM_153764) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: KCNJ1 (NM_153764) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: KCNJ1
Synonyms: KIR1.1; ROMK; ROMK1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG216647 representing NM_153764
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTTCAAACATCTTCGGAAATGGGTCGTCCTACTCGCTTTTTGGGCATTCTCGGCAAAGCAAGGCTAG
 TCTCCAAAGATGGAAGGTGCAACATAGAATTTGGCAATGTGGAGGCACAGTCAAGGTTTATATTCTTTGT
 GGACATCTGGACAACGGTACTTGACCTCAAGTGGAGATACAAAATGACCATTTTCATCACAGCCTTCTTG
 GGGAGTTGGTTTTCTTTGGTCTCCTGTGGTATGCAGTAGCGTACATTACAAAAGACCTCCCGGAATTCC
 ATCCTTCTGCCAATCACACTCCCTGTGTGGAGAATATTAATGGCTTGACCTCAGCTTTTCTGTTTTCTCT
 GGAGACTCAAGTACCATTGGATATGGATTCAGGTGTGTGACAGAACAGTGTGCCACTGCCATTTTCTG
 CTTATCTTTCACTATACTTGGAGTTATAATCAATTCATGTGTGGGGCCATCTTAGCCAAGATCT
 CCAGGCCCAAAAAACGTGCCAAGACATTACGTTCAAGCAAGAACGAGTATCAGCAAACGGGGAGGGAA
 GCTTTGCCTCCTAATCCGAGTGGCTAATCTCAGGAAGAGCCTTCTATTGGCAGTCACATTTATGAAAAG
 CTTCTGAAGACCACAGTCACTCCTGAAGGAGAGACCATTATTTGGACCAGATCAATATCAACTTTGTAG
 TTGACGCTGGGAATGAAAATTTATCTTCATCTCCCCATTGACAATTTACCATGTCATTGATCACAACAG
 CCCTTTCTCCACATGGCAGCGGAGACCCTTCTCCAGCAGGACTTTGAATTAGTGGTGTTTTTAGATGCC
 ACAGTGGAGTCCACCAGTGTACCTGCCAAGTCCGGACATCCTATGTCCCAGAGGAGGTCTTTGGGCT
 ACCGTTTTGCTCCCATAGTATCCAAGACAAGGAAGGAAATACCGAGTGGATTTCCATAACTTTAGCAA
 GACAGTGAAGTGGAGACCCCTCACTGTGCCATGTGCCTTTATAATGAGAAAGATGTTAGAGCCAGGATG
 AAGAGAGGCTATGACAACCCCACTTCATCTTGTGAGAAGTCAATGAAACAGATGACACCAAAATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG216647 representing NM_153764
 Red=Cloning site Green=Tags(s)

MFKHLRKWVTRFFGHSRQRARLVSKDGRCNIEFGNVEAQSRIFFVDIWTTVLDLKWRYKMTIFITAF
 LGSWFFFGLLWYAVAYIHKDLPEFHPSANHTPCVENINGLTS AFLF SLETQVTIGYGFRCVTEQCATAIFL
 LIFQSIILGVIINSFMCGAILAKISRPKKRAKTITFSKNAVISKRGGKLC LLIRVANLRKSL LIGSHIYGK
 LLKTTVTPEGETIILDQININ FVVDAGNENLFFISPLTIYHVIDHNSPFHMAAETLLQQDFELVVFLDG
 TVESTSATCQVRTSYVPEEVLWGYRFAPIVSKTKEGKYRVDFHNF SKTVEVETPHCAMCLYNEKDV RARM
 KRGYDNP NFILSEVNETDDTKM

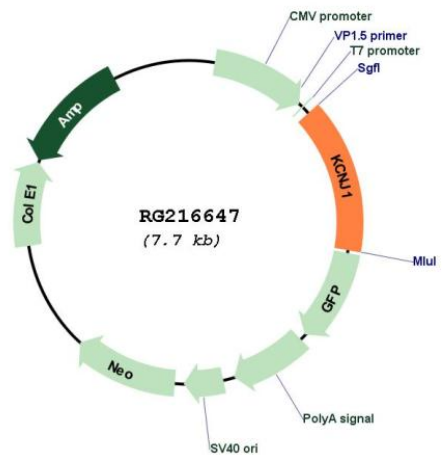
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_153764

ORF Size:	1116 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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_153764.3
RefSeq Size:	2446 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]