

Product datasheet for RC223353

KCNJ1 (NM_000220) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNJ1 (NM_000220) 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:	>RC223353 representing NM_000220 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATGCTTCCAGTCGGAATGTGTTTGACACGTTGATCAGGGTGTGACAGAAAGTATGTTCAAACATC
TTCGAAATGGGTCGTCCTCGCTTTTTGGGCATTCTCGGCAAAGAGCAAGGCTAGTCTCAAAGATGG
AAGGTGCAACATAGAATTTGGCAATGTGGAGGCACAGTCAAGTTTATATCTTTGTGGACATCTGGACA
ACGGTACTTGACCTCAAGTGGAGATACAAAATGACCATTTTCATCACAGCCTTCTGGGGAGTTGGTTTT
TCTTTGGTCTCCTGTGGTATGCAGTAGCGTACATTCAAAAGACCTCCCGAATTCATCCTTCTGCCAA
TCACACTCCCTGTGTGGAGAATTAATGGCTTGACCTCAGCTTTTCTGTTTTCTCTGGAGACTCAAGTG
ACCATTGGATATGGATTAGGTGTGTGACAGAAGTGTGCCACTGCCATTTTTCTGCTTATCTTTTCAGT
CTATACTTGGAGTTATAATCAATCTTTTCATGTGTGGGGCCATCTTAGCCAAGATCTCCAGGCCAAAAA
ACGTGCCAAGACCATTACGTTACGAAGAAGCAGTGCATCAGCAAACGGGGAGGGAAGCTTTGCCTCCTA
ATCCGAGTGGCTAATCTCAGGAAGAGCCTTCTTATTGGCAGTCACATTTATGAAAGCTTCTGAAGACCA
CAGTCACTCCTGAAGGAGAGACCATTATTTGGACCAGATCAATATCAACTTTGTAGTTGACGCTGGGAA
TGAAAATTTATCTTTCATCTCCCATTTGACAATTTACCATGTATTGATCACAACAGCCCTTTCTCCAC
ATGGCAGCGGAGACCCTTCTCCAGCAGGACTTTGAATTAGTGGTGTGTTTATAGATGGCAGAGTGGAGTCCA
CCAGTGCTACCTGCCAAGTCCGGACATCCTATGTCCAGAGGAGGTGCTTTGGGGTACCGTTTTGCTCC
CATAGTATCCAAGACAAAGGAAGGAAATACCGAGTGGATTTCCATAACTTTAGCAAAGACAGTGGAAAGTG
GAGACCCCTCACTGTCCATGTGCCCTTTAATGAGAAAGATGTTAGAGCCAGGATGAAGAGAGGCTATG
ACAACCCCAACTTCATCTGTGAGAAGTCAATGAAACAGATGACACCAAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC223353 representing NM_000220
Red=Cloning site Green=Tags(s)

MNASSRNVFDLIRVLTESMFKHLRKWVTRFFGHSRQRARLVSKDGRNCIEFGNVEAQSRIFFVDIWT
 TVLDLKWRYKMTIFITAFLGSWFFGLLWYAVAYIHKDLPEFHPSANHTPCVENINGLTS AFLFSLETQV
 TIGYGFRVCVTEQCATAIFLLIFQSI L GVIINSFMCGAILAKISRPKRAKTIITFSKNAVISKRGGKLCLL
 IRVANLRKSL L I GSHIYGKLLKTTVTPEGETIILDQININ FVVDAGNENLFFISPLTIYHVIDHNSPFFH
 MAAETLLQQDFELVVFLDGTVESTSATCQVRTSYVPEEVLWGYRFAPIVSKTKEGKYRVDFHNSKTVEV
 ETPHCAMCLYNEKDVRARMKRGYDNPFI L SEVNETDDTKM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3487_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000220

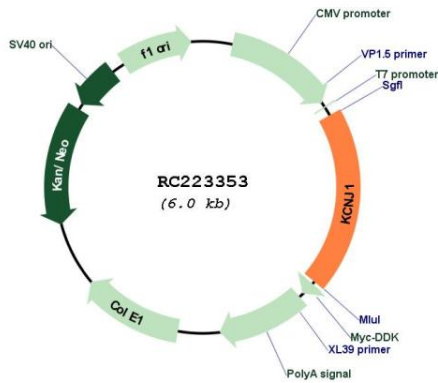
ORF Size: 1173 bp

OTI Disclaimer: 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.

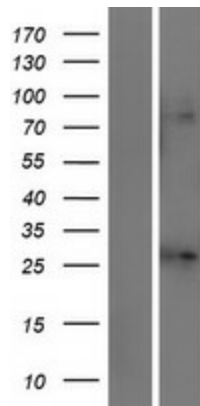
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<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_000220.6
RefSeq Size:	2332 bp
RefSeq ORF:	1176 bp
Locus ID:	3758
UniProt ID:	P48048
Cytogenetics:	11q24.3
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	44.6 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 RC223353



Western blot validation of overexpression lysate (Cat# [LY400081]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223353 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).