

Product datasheet for **RC217518**

Kir2.1 (KCNJ2) (NM_000891) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kir2.1 (KCNJ2) (NM_000891) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kir2.1
Synonyms:	ATFB9; HHBIRK1; HHIRK1; IRK1; KIR2.1; LQT7; SQT3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217518 representing NM_000891
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCAGTGTGCGAACCAACCGCTACAGCATCGTCTCTTCAGAAGAAGACGGTATGAAGTTGGCCACCA
 TGGCAGTTGCAAATGGCTTTGGGAACGGGAAGAGTAAAGTCCACACCCGACAACAGTGCAGGAGCCGCTT
 TGTGAAGAAAGATGGCCACTGTAATGTTTCAAGTTCATCAATGTGGGTGAGAAGGGGCAACGGTACCTCGCA
 GACATCTTACCACGTGTGTGGACATTCGCTGGCGGTGGATGCTGGTTATCTTCTGCCTGGCTTTTCGTCC
 TGTTCATGGCTGTTTTTGGCTGTGTGTTTTGGTTGATAGCTCTGCTCCATGGGGACCTGGATGCATCCAA
 AGAGGGCAAAGCTTGTGTGTCGAGGTCAACAGCTTACGGCTGCCTTCTCTTCCATTGAGACCCAG
 ACAACCATAGGCTATGGTTTCAGATGTGTACGGATGAATGCCCAATTGCTGTTTTTCATGGTGGTGTTC
 AGTCAATCGTGGCTGCATCATCGATGCTTTCATCATTGGCGCAGTCATGGCCAAGATGGCAAAGCCAAA
 GAAGAGAAACGAGACTCTTGTCTTCAGTACAATGCCGTGATTGCCATGAGAGACGGCAAGCTGTGTTTG
 ATGTGGCGAGTGGCAATCTTCGAAAAGCCACTTGGTGAAGCTCATGTTCGAGCACAGCTCCTCAAAT
 CCAGAATTACTTCTGAAGGGGAGTATATCCCTCTGGATCAAATAGACATCAATGTTGGGTTTGACAGTGG
 AATCGATCGTATATTTCTGGTGTCCCAATCACTATAGTCCATGAAATAGATGAAGACAGTCCTTTATAT
 GATTTGAGTAAACAGGACATTGACAACGACAGCTTTGAAATCGTGGTCATACTGGAAGGCATGGTGAAG
 CCACTGCCATGACGACACAGTGGCGTAGCTCTTATCTAGCAAATGAAATCCTGTGGGGCCACCGCTATGA
 GCCTGTGCTCTTTGAAGAGAAGCACTACTACAAAGTGGACTATTCCAGGTTCCACAAAACCTACGAAGTC
 CCCAACACTCCCCTTTGTAGTCCAGAGACTTAGCAGAAAAGAAATATATCCTCTCAAATGCAAATTCAT
 TTTGCTATGAAAATGAAGTTGCCCTCACAAAGCAAAGAGGAAGACGACAGTGAATAATGGAGTTCAGAAA
 CACTAGTACGGACACGCCCTGACATAGACCTTACAACAGGCAAGTGTACCTTAGAGCCCAGGCC
 TTACGGCGAGAGTCGGAGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217518 representing NM_000891
 Red=Cloning site Green=Tags(s)

MGSVRTNRYISVSSEEDGMKLATMAVANGFNGKSKVHTRQQCRSRFVKKDGHCNVQFINVGEKGQRYLA
 DIFTTCDIRWRWMLVIFCLAFVLSWFFGCVFWLIALLHGDLDASKEGKACVSEVNSFTAFLFSIETQ
 TTIGYGFRCVTDECPVIAFMVVFQSIIVGCIIDAFIIGAVMAKMAKPKRNETLVFSHNAVIAMRDGKLC
 MWRVGNLRKSHLVEAHVRAQLLKSRIITSEGEYIPLDQIDINVGFDSGIDRIFLVSPITIVHEIDEDSPLY
 DLSKQIDNADFEIVVILEGMVEATAMTTQCRSSYLANEILWGHRYEPVLFEEKHYKVDYSRFHKTYEV
 PNTPLCSARDLAEKKYILSNANSFCYENEVALTSKEEDDSENGVPESTSTDTPPDIDLHNQASVPLEPRP
 LRRESEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1709_a06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000891

ORF Size: 1281 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.

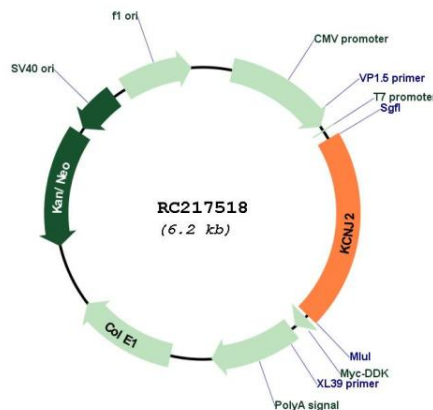
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
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_000891.3](#)

RefSeq Size:	5397 bp
RefSeq ORF:	1284 bp
Locus ID:	3759
UniProt ID:	P63252
Cytogenetics:	17q24.3
Domains:	IRK
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	48.1 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. The encoded protein, which has a greater tendency to allow potassium to flow into a cell rather than out of a cell, probably participates in establishing action potential waveform and excitability of neuronal and muscle tissues. Mutations in this gene have been associated with Andersen syndrome, which is characterized by periodic paralysis, cardiac arrhythmias, and dysmorphic features. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC217518