

Product datasheet for **RC222272**

KIR2.3 (KCNJ4) (NM_004981) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KIR2.3 (KCNJ4) (NM_004981) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KIR2.3
Synonyms:	HIR; HIRK2; HRK1; IRK-3; IRK3; Kir2.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222272 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGCACGGACACAGCCGCAACGGCCAGGCCACGTGCCCCGGCGGAAGCGCCGAACCGCTTCGTCAAGA
 AGAACGGCCAATGCAACGTGTACTTCGCCAACCTGAGCAACAAGTCGACGCGCTACATGGCGGACATCTT
 CACCACCTGCGTGGACACGCGCTGGCGCTACATGCTCATGATCTTCTCCGCGGCCTTCCTTGTCTCCTGG
 CTCTTTTTCGGCCTCCTCTTCTGGTGTATCGCCTTCTTCCACGGTGACCTGGAGGCCAGCCAGGGGTGC
 CTGCGCGGGGGGCCGCGCGGGTGGTGGCGGAGCAGCCCGGTGGCCCCAAGCCCTGCATCATGCA
 CGTGAACGGCTTCTGGTGCCTTCTGTTCTCGGTGGAGACGACGACCATCGGCTATGGGTCCGG
 TGCGTGACAGAGGAGTGGCCGCTGGCAGTCATCGCTGTGGTGGTCCAGTCCATCGTGGGCTGCGTCATCG
 ACTCCTTCATGATTGGCACCATCATGGCCAAGATGGCGCGGCCAAGAAGCGGGCGCAGAGCTTGCTGTT
 CAGCCACCACGCGGTCAATTCGGTGCAGCAGCGCAAGCTCTGCCTCATGTGGCGCTGGGCAACCTGCGC
 AAGAGCCACATTTGTGGAGGCCACGTGCGGGCCAGCTCATCAAGCCCTACATGACCCAGGAGGGCGAGT
 ACCTGCCCTTGACACGCGGGACCTCAACGTGGGCTATGACATCGGCCTGGACCGCATCTTCTGGTGTG
 GCCCATCATATTGTCCACGAGATCGACAGGACAGCCCGCTTTATGGCATGGGCAAGGAGGAGCTGGAG
 TCGGAGGACTTTGAGATCGTGGTTCATCTGGAGGGCATGGTGGAGGCCACGGCCATGACCAACAGGCC
 GCAGCTCCTACCTGGCCAGCGAGATCCTGTGGGGCCACCGCTTTGAGCCTGTGGTCTTCGAGGAGAAGAG
 CCACTACAAGTGGACTACTCGCGTTTTCAAGACCTACGAGGTGGCCGCGCAGCCCTGCTGCTCGGCC
 CGGGAGCTGCAGGAGAGTAAGATCACCGTGTGCCCGCCACCGCCCTCCAGTGCCTTCTGCTACG
 AGAACGAGCTGGCCCTTATGAGCCAGGAGGAAGAGGAGATGGAGGAGGAGGAGCTGCGGCGGCCCGGT
 GGCCGCGAGGCTGGGCTGGAGGCGGGTTCCAAGGAGGAGGCGGGCATCATCCGGATGCTGGAGTTCGGC
 AGCCACCTGGACCTGGAGCGCATGCAGGCTTCCCTCCCGCTGGACAACATCTCTACCGAGGGAGTCTG
 CCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222272 protein sequence
 Red=Cloning site Green=Tags(s)

MHGHSRNGQAHVPRRRNRNFVKKNGQCNVYFANLSNKSQRYMADIFTTCVDTRWRYMLMIFSAFLVSW
 LFFGLLFWCIAFFHGDLEASPGVPAAGGPAAGGGGAAPVAPKPCIMHVNGFLGAFLFSVETQTTIGYGR
 CVTEECPLAVIAVVVQSIVGCVDSFMIGTIMAKMARPKKRAQTLLFSHHAVISVRDGLCLMWRVGNLR
 KSHIVEAHVRAQLIKPYMTQEGEYLPDQDRLNVGYDIGLDRIFLVSPHIIIVHEIDEDSPLYGMGKEELE
 SEDFEIVVILEGMVEATAMTTQARSSYLASEILWGRFEPVVFEEKSHYKVDYSRPHKTYEVAGTPCCSA
 RELQESKITVLPAPPPPSAFCYENELALMSQEEEEEEEEAAAAAAGLGLAGSKEEAGIIRMLEFG
 SHLDLERMQASLPLDNISYRRESAI

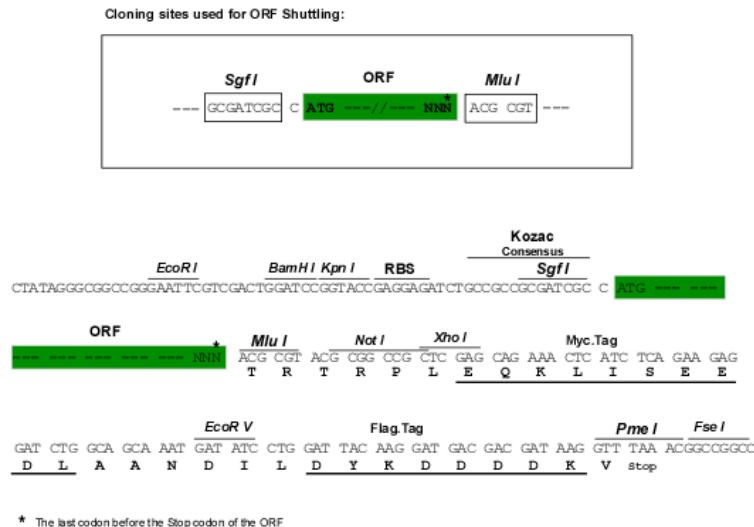
TRTRPLE**QKLISEEDLA**NDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6610_b03.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004981

ORF Size: 1335 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.

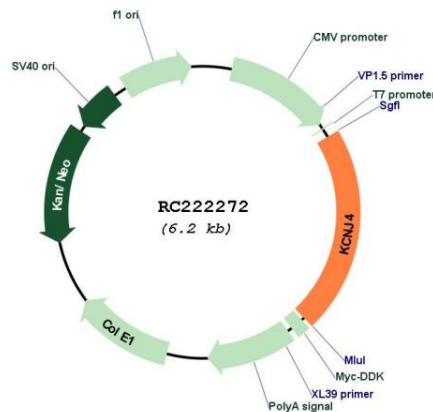
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

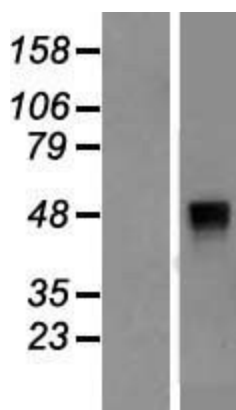
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_004981.1, NP_004972.1</u>
RefSeq Size:	1913 bp
RefSeq ORF:	1338 bp
Locus ID:	3761
UniProt ID:	<u>P48050</u>
Cytogenetics:	22q13.1
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	49.5 kDa
Gene Summary:	Several different potassium channels are known to be involved with electrical signaling in the nervous system. One class is activated by depolarization whereas a second class is not. The latter are referred to as inwardly rectifying K ⁺ channels, and they have a greater tendency to allow potassium to flow into the cell rather than out of it. This asymmetry in potassium ion conductance plays a key role in the excitability of muscle cells and neurons. The protein encoded by this gene is an integral membrane protein and member of the inward rectifier potassium channel family. The encoded protein has a small unitary conductance compared to other members of this protein family. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC222272



Western blot validation of overexpression lysate (Cat# [LY417610]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222272 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).