OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG222272

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:	TurboGFP
Symbol:	KIR2.3
Synonyms:	HIR; HIRK2; HRK1; IRK-3; IRK3; Kir2.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG222272 representing NM_004981
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCACGGACACAGCCGCAACGGCCAGGCCCACGTGCCCCGGCGGAAGCGCCGCAACCGCTTCGTCAAGA
AGAACGGCCAATGCAACGTGTACTTCGCCAACCTGAGCAACAAGTCGCAGCGCTACATGGCGGACATCTT
CACCACCTGCGTGGACACGCGCTGGCGCTACATGCTCATGATCTTCTCCGCGGCCTTCCTTGTCTCCTGG
CTCTTTTTCGGCCTCCTCTTCTGGTGTATCGCCTTCTTCCACGGTGACCTGGAGGCCAGCCCAGGGGTGC
CTGCGGCGGGGGGCCCGGCGGCGGGTGGTGGCGGAGCAGCCCCGGTGGCCCCCAAGCCCTGCATCATGCA
CGTGAACGGCTTCCTGGGTGCCTTCCTGTTCTCGGTGGAGACGCAGACGACCATCGGCTATGGGTTCCGG
TGCGTGACAGAGGAGTGCCCGCTGGCAGTCATCGCTGTGGTGGTCCAGTCCATCGTGGGCTGCGTCATCG
ACTCCTTCATGATTGGCACCATCATGGCCAAGATGGCGCGGCCCAAGAAGCGGGCGCAGACGTTGCTGTT
CAGCCACCACGCGGTCATTTCGGTGCGCGACGGCAAGCTCTGCCTCATGTGGCGCGTGGGCAACCTGCGC
AAGAGCCACATTGTGGAGGCCCACGTGCGGGCCCAGCTCATCAAGCCCTACATGACCCAGGAGGGCGAGT
ACCTGCCCCTGGACCAGCGGGACCTCAACGTGGGCTATGACATCGGCCTGGACCGCATCTTCCTGGTGTC
GCCCATCATCATTGTCCACGAGATCGACGAGGACAGCCCGCTTTATGGCATGGGCAAGGAGGAGCTGGAG
TCGGAGGACTTTGAGATCGTGGTCATCCTGGAGGGCATGGTGGAGGCCACGGCCATGACCACCCAGGCCC
GCAGCTCCTACCTGGCCAGCGAGATCCTGTGGGGCCACCGCTTTGAGCCTGTGGTCTTCGAGGAGAAGAG
CCACTACAAGGTGGACTACTCGCGTTTTCACAAGACCTACGAGGTGGCCGGCACGCCCTGCTGCTCGGCC
CGGGAGCTGCAGGAGAGTAAGATCACCGTGCTGCCCGCCCCACCGCCCCCTCCCAGTGCCTTCTGCTACG
AGAACGAGCTGGCCCTTATGAGCCAGGAGGAAGAGGAGATGGAGGAGGAGGCAGCTGCGGCGGCCGCGGT
GGCCGCAGGCCTGGGCCTGGAGGCGGGTTCCAAGGAGGAGGCGGGCATCATCCGGATGCTGGAGTTCGGC
AGCCACCTGGACCTGGAGCGCATGCAGGCTTCCCTCCCGCTGGACAACATCTCCTACCGCAGGGAGTCTG
CCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

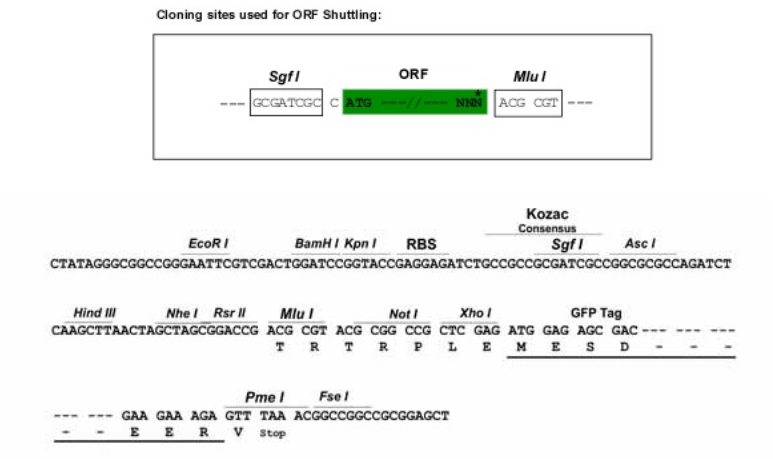
>RG222272 representing NM_004981
Red=Cloning site Green=Tags(s)

MHGHSRNGQAHVPRRKRRNRFVKKNGQCNVYFANLSNKSQRYMADIFTTCVDTRWRYMLMIFSAAFLVSW
LFFGLLFWCIAFFHGDLEASPGVPAAGGPAAGGGGAAPVAPKPCIMHVNGFLGAFLFSVETQTTIGYGFR
CVTEECPLAVIAVVVQSIVGCVIDSFMIGTIMAKMARPKKRAQTLLFSHHAVISVRDGKLCLMWRVGNLR
KSHIVEAHVRAQLIKPYMTQEGEYLPLDQRDLNVGYDIGLDRIFLVSPIIIVHEIDEDSPLYGMGKEELE
SEDFEIVVILEGMVEATAMTTQARSSYLASEILWGHRFEPVVFEEKSHYKVDYSRFHKTYEVAGTPCCSA
RELQESKITVLPAPPPPPSAFCYENELALMSQEEEEMEEEAAAAAAVAAGLGLEAGSKEEAGIIRMLEFG
SHLDLERMQASLPLDNISYRRESAI

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-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.

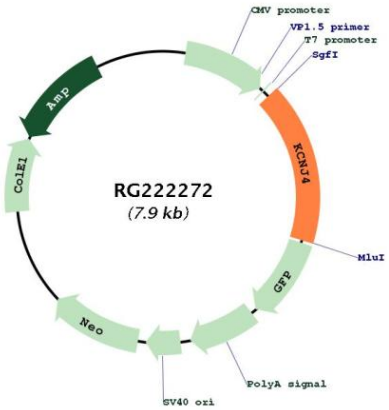
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.

RefSeq: NM_004981.1, NP_004972.1

RefSeq Size:	1913 bp
RefSeq ORF:	1338 bp
Locus ID:	3761
UniProt ID:	P48050
Cytogenetics:	22q13.1
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
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 RG222272