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Product datasheet for RG217518

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:	TurboGFP
Symbol:	Kir2.1
Synonyms:	ATFB9; HHBIRK1; HHIRK1; IRK1; KIR2.1; LQT7; SQT3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG217518 representing NM_000891
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCAGTGTGCGAACCAACCGCTACAGCATCGTCTCTTCAGAAGAAGACGGTATGAAGTTGGCCACCA
TGGCAGTTGCAAATGGCTTTGGGAACGGGAAGAGTAAAGTCCACACCCGACAACAGTGCAGGAGCCGCTT
TGTGAAGAAAGATGGCCACTGTAATGTTCAGTTCATCAATGTGGGTGAGAAGGGGCAACGGTACCTCGCA
GACATCTTCACCACGTGTGTGGACATTCGCTGGCGGTGGATGCTGGTTATCTTCTGCCTGGCTTTCGTCC
TGTCATGGCTGTTTTTTGGCTGTGTGTTTTGGTTGATAGCTCTGCTCCATGGGGACCTGGATGCATCCAA
AGAGGGCAAAGCTTGTGTGTCCGAGGTCAACAGCTTCACGGCTGCCTTCCTCTTCTCCATTGAGACCCAG
ACAACCATAGGCTATGGTTTCAGATGTGTCACGGATGAATGCCCAATTGCTGTTTTCATGGTGGTGTTCC
AGTCAATCGTGGGCTGCATCATCGATGCTTTCATCATTGGCGCAGTCATGGCCAAGATGGCAAAGCCAAA
GAAGAGAAACGAGACTCTTGTCTTCAGTCACAATGCCGTGATTGCCATGAGAGACGGCAAGCTGTGTTTG
ATGTGGCGAGTGGGCAATCTTCGGAAAAGCCACTTGGTGGAAGCTCATGTTCGAGCACAGCTCCTCAAAT
CCAGAATTACTTCTGAAGGGGAGTATATCCCTCTGGATCAAATAGACATCAATGTTGGGTTTGACAGTGG
AATCGATCGTATATTTCTGGTGTCCCCAATCACTATAGTCCATGAAATAGATGAAGACAGTCCTTTATAT
GATTTGAGTAAACAGGACATTGACAACGCAGACTTGAAATCGTGGTCATACTGGAAGGCATGGTGGAAGC
CACTGCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

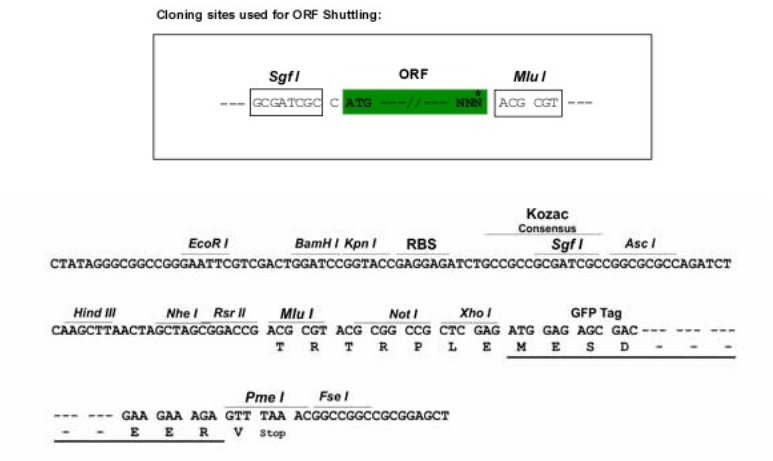
>RG217518 representing NM_000891
Red=Cloning site Green=Tags(s)

MGSVRTNRYSIVSSEEDGMKLATMAVANGFGNGKSKVHTRQQCRSRFVKKDGHCNVQFINVGEKGQRYLA
DIFTTCVDIRWRWMLVIFCLAFVLSWLFFGCVFWLIALLHGDLDASKEGKACVSEVNSFTAAFLFSIETQ
TTIGYGFRCVTDECPIAVFMVVFQSIVGCIIDAFIIGAVMAKMAKPKKRNETLVFSHNAVIAMRDGKLCL
MWRVGNLRKSHLVEAHVRAQLLKSRITSEGEYIPLDQIDINVGFDSGIDRIFLVSPITIVHEIDEDSPLY
DLSKQDIDNADLKSWSYWKAWWKPLP

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000891

ORF Size: 918 bp

OTI Disclaimer: 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_000891.2, NP_000882.1

RefSeq Size: 5397 bp

RefSeq ORF: 1284 bp

Locus ID: 3759

UniProt ID: P63252

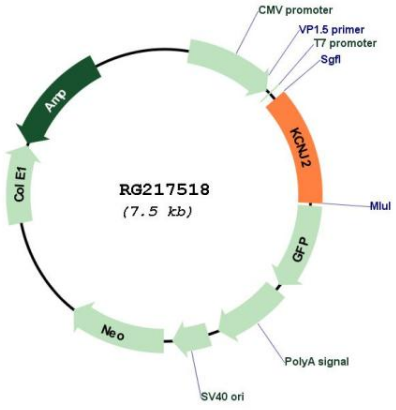
Cytogenetics: 17q24.3

Domains: IRK

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

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 RG217518