

## 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCAGTGTGCGAACCAACCGCTACAGCATCGTCTCTTCAGAAGAAGACGGTATGAAGTTGGCCACCA  
TGGCAGTTGCAAATGGCTTTGGGAACGGGAAGAGTAAAGTCCACACCCGACAACAGTGCAGGAGCCGCTT  
TGTGAAGAAAGATGGCCACTGTAATGTTTCAGTTCATCAATGTGGGTGAGAAGGGCAACGGTACCTCGCA  
GACATCTTACCACGTGTGTGGACATTCGCTGGCGGTGGATGCTGGTTATCTTCTGCCTGGCTTTTCGTC  
TGTCATGGCTGTTTTTGGCTGTGTGTTTTGGTTGATAGCTCTGCTCCATGGGGACCTGGATGCATCCAA  
AGAGGGCAAAGCTTGTGTGCCGAGGTCAACAGCTTACGCGTGCCTTCTCTTCCATTGAGACCCAG  
ACAACCATAGGCTATGGTTTCAGATGTGTACGGATGAATGCCCAATTGCTGTTTTTCATGGTGGTGTTC  
AGTCAATCGTGGGCTGCATCATCGATGCTTTCATCATTGGCGCAGTCATGGCCAAGATGGCAAAGCCAAA  
GAAGAGAAACGAGACTCTGTCTTCAGTCACAATGCCGTGATTGCCATGAGAGACGGCAAGCTGTGTTTTG  
ATGTGGCAGTGGGCAATCTTCGAAAAGCCACTTGGTGGAAAGCTCATGTTTCGAGCACAGCTCCTCAAT  
CCAGAATTACTTCTGAAGGGAGTATATCCCTCTGGATCAAATAGACATCAATGTTGGGTTTGACAGTGG  
AATCGATCGTATATTTCTGGTGTCCCAATCACTATAGTCCATGAAATAGATGAAGACAGTCCTTTATAT  
GATTTGAGTAAACAGGACATTGACAACGCAGACTTGAAATCGTGGTCATACTGGAAGGCATGGTGGAAAGC  
CACTGCCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG217518 representing NM\_000891  
 Red=Cloning site Green=Tags(s)

MGSVRTNRYISIVSSEEDGMKLATMAVANGFNGKSKVHTRQQCRSRFVKKDGHCVNQFINVGEKGQRYLA  
 DIFTTCDIRWRWMLVIFCLAFVLSWLFVFCVFWLIALLLHGLDASKEGKACVSEVNSFTAFLFSIETQ  
 TTIGYGFRCVTDECPIAVFMVVFQSIIVGCIIDAFIIGAVMAKMAKPKKRNETLVFSHNAVIAMRDGKLC  
 MWRVGNLRKSHLVEAHVRAQLLKSRLTSEGEYIPLDQIDINVGFDSGIDRIFLVSPITIVHEIDEDSPLY  
 DLSKQDIDNADLKSWSYWKAWWKPLP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000891

**ORF Size:** 918 bp

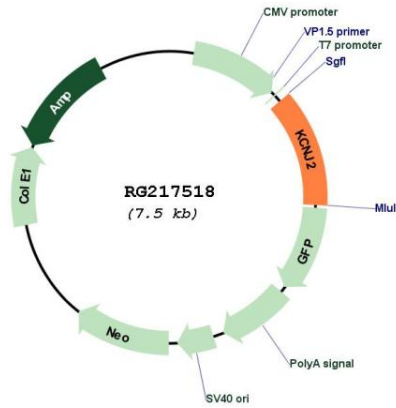
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_000891.2</a></u> , <u><a href="#">NP_000882.1</a></u>
<b>RefSeq Size:</b>	5397 bp
<b>RefSeq ORF:</b>	1284 bp
<b>Locus ID:</b>	3759
<b>UniProt ID:</b>	<u><a href="#">P63252</a></u>
<b>Cytogenetics:</b>	17q24.3
<b>Domains:</b>	IRK
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>Gene Summary:</b>	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