

## Product datasheet for **RG207051**

### Kir2.2 (KCNJ12) (NM\_021012) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Kir2.2 (KCNJ12) (NM_021012) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kir2.2
Synonyms:	hIRK; hIRK1; hkir2.2x; IRK-2; IRK2; kcnj12x; KCNJN1; Kir2.2; Kir2.2v
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207051 representing NM_021012 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCGCGCCAGCCGGGCCAACCCCTACAGCATCGTGTTCATCGGAGGAGGACGGGCTGCACCTGGTCA  
CCATGTCGGGCGCCAACGGCTTCGGCAACGGCAAGGTGCACACGCGCGCAGGTGCCCAACCGCTTCGT  
CAAGAAGAATGGCCAGTGAACATTGAGTTCGCCAACATGGACGAGAAGTCACAGCGCTACCTGGCTGAC  
ATGTTACCACCTGTGTGACATCCGCTGGCGGTACATGCTGCTCATCTTCTCGTGGCCTTCCTTGCT  
CCTGGCTGCTGTTCGGCATCATCTTCTGGGTTCATCGCGGTGGCACACGGTGACCTGGAGCCGGCTGAGGG  
CCGGGGCCGCACACCCTGTGTGATGCAGGTGCACGGCTTCATGGCGGCCTTCCTCTTCTCCATCGAGACG  
CAGACCACCATCGGCTACGGGCTGCGCTGTGTGACGGAGGAGTGCCCGGTGGCCGTCTTCATGGTGGTGG  
CCCAGTCCATCGTGGGCTGCATCATCGACTCCTTCATGATTGGTGCCATCATGGCCAAGATGGCAAGGCC  
CAAGAAGCGGGCACAGACGCTGCTGTTACGCCACAACGCCGTGGTGGCCCTGCGTGACGGCAAGCTCTGC  
CTCATGTGGCGTGTGGTAACCTGCGCAAGAGCCACATTTGGAGGCCATGTGCGCGCGCAGCTCATCA  
AGCCGCGGGTACCGAGGAGGGCGAGTACATCCCGCTGGACCAGATCGACATCGATGTGGCTTCGACAA  
GGGCTGGACCGCATCTTCTGGTGTGCGCCATCACCATCTTGCATGAGATTGACGAGGCCAGCCCGCTC  
TTCGGCATCAGCCGGCAGGACCTGGAGACGGACGACTTTGAGATCGTGGTTCATCCTGGAAGGCATGGTGG  
AGGCCACAGCCATGACCACCCAGGCCCGCAGCTCCTACCTGGCCAATGAGATCCTGTGGGTCACCGCTT  
TGAGCCCGTGCTCTTCGAGGAGAAGAACCAGTACAAGATTGACTACTCGCACTTCCACAAGACCTATGAG  
GTGCCCTCTACGCCCGCTGCAGTGCAGGATCTGGTAGAGAACAAGTTCCTGCTGCCAGCGCCAACCT  
CCTTCTGCTACGAGAACGAGCTGGCCTTCTGAGCCGTGACGAGGAGGATGAGGCGGACGGAGACCAGGA  
CGGCCGAAGCCGGGACGGCCTCAGCCCCAGGCCAGGCATGACTTTGACAGACTCCAGGCTGGCGGGGG  
GTCCTGGAGCAGCGCCCTACAGACGGGAGTCAGAGATC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG207051 representing NM\_021012  
Red=Cloning site Green=Tags(s)

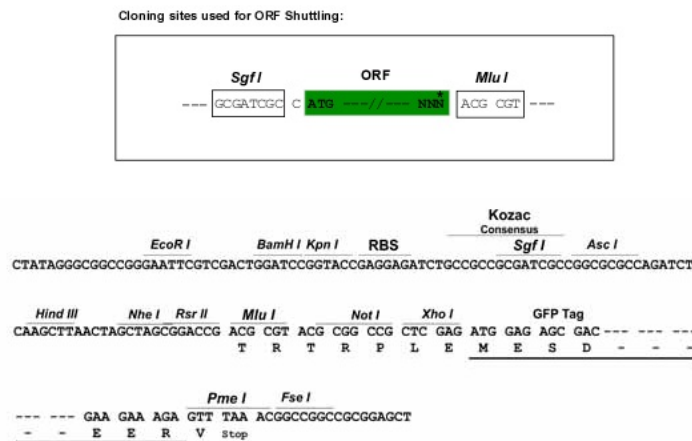
```
MTAASRANPYSIVSSEEDGLHLVTMSGANGFGNGKVHTRRRRCNRNFVKKNGQCNIIEFANMDEKSQRYLAD
MFTTCVDIRWRYMLLIFSLAFLASWLLFGIIFWVIAVAHGDLEPAEGRGRTPCVMQVHGFMAAFLLFSIET
QTTIGYGLRCVTEECPVAVFMVVAQSIIVGCIIDSFMIGAIMAKMARPKKRAQTLLFSHNNAVVALRDGKLC
LMWRVGNLRKSHIVEAHVRAQLIKPRVTEEGEYIPLDQIDIDVGFDKGLDRIFLVSPITILHEIDEASPL
FGISRQDLETDDFEIVVILEGMVEATAMTTQARSSYLANEILWGHFEPVLFEEKNQYKIDYSHFKTYE
VPSTPRCSAKDLVENKFLLPANSFCYENELAFLSRDEEDEADGDQDGRSRDGLSPQARHDFDRLQAGGG
VLEQRPYRRESEI
```

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2656\\_f04.zip](https://cdn.origene.com/chromatograms/ja2656_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_021012

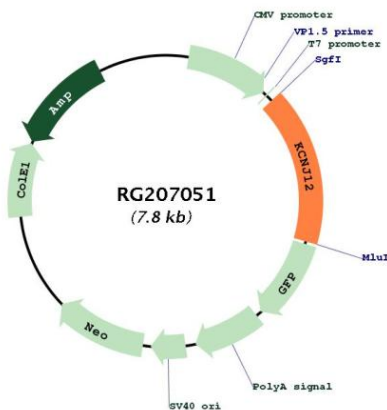
**ORF Size:** 1299 bp

**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](#)

<b>OTI Annotation:</b>	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>	<a href="#">NM_021012.5</a>
<b>RefSeq Size:</b>	5230 bp
<b>RefSeq ORF:</b>	1302 bp
<b>Locus ID:</b>	3768
<b>UniProt ID:</b>	<a href="#">Q14500</a>
<b>Cytogenetics:</b>	17p11.2
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>Gene Summary:</b>	This gene encodes an inwardly rectifying K <sup>+</sup> channel which may be blocked by divalent cations. This protein is thought to be one of multiple inwardly rectifying channels which contribute to the cardiac inward rectifier current (IK1). The gene is located within the Smith-Magenis syndrome region on chromosome 17. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG207051