

## Product datasheet for SC118770

### GIRK2 (KCNJ6) (NM\_002240) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GIRK2 (KCNJ6) (NM_002240) Human Untagged Clone
Tag:	Tag Free
Symbol:	GIRK2
Synonyms:	BIR1; GIRK-2; GIRK2; hiGIRK2; KATP-2; KATP2; KCNJ7; KIR3.2; KPLBS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118770 sequence for NM_002240 edited (data generated by NextGen Sequencing)

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ATGGCCAAGCTGACAGAATCCATGACTAACGTCCTGGAGGGCAGCTCCATGGATCAGGAC
GTCGAAAAGCCAGTGGCCATTCACCAGCCAAAAGTTGCCTAAGCAGGCCAGGGATGACCTG
CCAAGACACATCAGCCGAGATCGGACCAAAGGAAAATCCAGAGGTACGTGAGGAAAAGAC
GGAAAAGTGAATGTTTCATCACGGCAACGTGAGGGAGACCTATCGTACCTGACCGATATC
TTCACCACATTAGTGGACCTGAAGTGGAGATTCAACCTATTGATTTTTGTCATGGTTTAC
ACAGTGACCTGGCTCTTTTTGGAATGATCTGGTGGTTGATCGCATACATACGGGGAGAC
ATGGACCACATAGAGGACCCCTCCTGGACTCCTTGTGTTACCAACCTCAACGGGTTTCGTC
TCTGCTTTTTTATTCTCAATAGAGACAGAAACCACCTATGGTTATGGCTACCGGGTCATC
ACAGATAAATGCCCGGAGGGAATTATTCTCTCTTAATCCAATCTGTGTTGGGGTCCATT
GTCAATGCATTCATGGTGGGATGCATGTTGTAAAAATCTCTCAACCCAAGAAGAGGGCA
GAGACCCTGGTCTTTTCCACCCATGCAAGTATCTCCATGCGGGATGGGAACTGTGCCTG
ATGTTCCGGGTAGGGGACCTTAGGAATCCACATTGTGGAGGCTTCCATCAGAGCCAAG
TTGATCAAATCCAACAGACCTCGGAGGGGGAGTTCATCCCGTTGAACAGACGGATATC
AACGTAGGGTATTACACGGGGGATGACCGTCTGTTTCTGGTGTACCCGCTGATCATTAGC
CATGAAATTAACCAACAGAGTCCCTTTCTGGGAGATCTCCAAGCCAGCTGCCAAAGAG
GACTGGAATTTGGTTCATCCTAGAAGGAATGGTGAAGCCACAGGGATGACATGCCAA
GCTCGAAGCTCCTACATCACCAGTGAGATCCTGTGGGGTTACCGGTTACACCTGTCCTG
ACCCTGGAGGATGGGTTCTACGAAGTTGACTACAACAGCTTCCATGAGACCTATGAGACC
AGCACCCCATCCCTTAGTGCCAAAGAGCTGGCCGAGTTAGCCAGCAGGGCAGAGCTGCC
CTGAGTTGGTCTGTATCCAGCAAACCAACATGCAGAACTGGAGACTGAAGAGGAA
GAAAAGAACCTCGAAGAGCAAACAGAAAGAAATGGTGATGTGGCAAACCTGGAGAATGAA
TCCAAAGTTTAG

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Clone variation with respect to NM\_002240.2  
495 a=>g;1032 c=>t



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002240 unedited  
 GGGTCAACATTTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGGGTCGCTT  
 CGTGCGCTGCCAGCGGGGCTCAGCCAGTCGGCTGGAATTGAGTAGCATTTCATTGAATCTG  
 CGGATTTTCATGACGTCTCTCTGCGTGGTCCACCACTTTTCTCCTAACCGGGGATTTTTTT  
 TTTCTTCTGCCACTCTTATCTTTCCCACTTCATTCCACCCAGTCTCCCTCCCCCGTCCC  
 TGCCCAAACGCGCGCCCTCCGCCCTCCCTTGCCCCAGCGCCAGCCCTGCTCTCCGC  
 GCTCGGCCAGAGGGAGCCAGTCCGGAGACGGCCGCACCTGGCTGGAGAGGCTGGGCGGGC  
 GGAGGGTGGAGACCCCGGACCGCGGAAGCCGACCTGGAGCCGGAGCAGCCGCGAGC  
 AGAATGGAGTCTCCTAACAGCCTCTCGGTGCTGATGTGAAATTTGACCATCTGATTCCAG  
 TTTTTTCTTTTCTTTTCTTTTTCATTTTCTTCCCTCGCCATCCGTCGTGATGAA  
 TTGTTTCAGTCTTGTCCGTTTCAAGAGAGGAGATCATGATTGAGTGAAGCCACCCCGTCC  
 GCAGCCAGGAAAAGCACAAGAAGAACTGCAACAATGGCCAAGTGCAGAAATCCATGA  
 CTAACGTCTGGAGGGCGACTCCATGGATCAGGACGTGAAAGCCAGTGGCCATTACCC  
 AGCCAAAGTTGCCTAAGCAGGCCAGGGATGACCTGCCAAGACACATCAGCCGAGATCGGA  
 CCCAAGGAAAATCCAGAGGTACGTGAGGAAAGACCGAAAAGTGCATGTTTCATCACGGCAA  
 CGTGAGGGAGACCTATCGCTACCTGACCGATATCTTACCACATTAGTGGACCCTGAAGT  
 GGAGAT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002240 unedited  
 NNNTTCTTTGGCCGCGGCCGATCTANGATCGGTTTTTTTTTTTTTTTTTTTGTGCATATCC  
 CAGGTAATAATCTTTGACACACCTTTTTGAGTGATCTGGTATTGTACAACACATGCAGGTA  
 AGTAACTGAAATCTCCAGGAGTTGGATGTGTAGTATTTGGGAGGAGACCAGGCTTGGGC  
 CACAAATGAGGGCACTTTGCACTTTCATCAAATCCATGTCTACCTTGCAATCTGAATAA  
 CTGAGAGAGGGCAGGTAGATATTTTACACCTTGAAGATTTGTTTTCTGGTCATGTAAAAA  
 TTAATATAAAACAATAAAGAACAAGCAAGAGAGACAGAAAAAGAAAGAGAATGAGAGA  
 CAAGGAAAGATTGTGTTGGGGGAGAAGACAAAGCTTTCCCTTTACCCCTACGTTCT  
 CTACTAANCTCCCCTTCTTCCCACCACCACACCCCTCCCTTNCACCCATCCCCTTTACA  
 ATCTTACTCTCCCCACCCCTTCCCAGCCTCCTAACCGCCCCCTCACTGCCAGATTT  
 CTCCATCTCCCCCTTCTCTTGACCTACCCCTCCTCCCCCTTTCTTTTCTCCA  
 TTTTGTCTTTTTCTCCCCCGCCCTTTTCCGCTTCTCCCCACATTTTCTCGGCCCT  
 CCCTCCCCCCCCATCCATCCTCCCCCCCCCCTCAACCACCCCGCACCACCCACC  
 CCCCTCCTTACCCCCACATCCCTCCACCCCGCCCGCTCCGCCCGCCCTCC  
 TCCCCCGCCCTTCTCCCTCCGTTGCTATACTCTGCTTCTCCTCTCCTCGTCTCC  
 CCCCTCCCCCCCCACTCCCTGCCCGCCACCCCGT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002240

**Insert Size:**

2200 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_002240.2](#), [NP\\_002231.1](#)

**RefSeq Size:** 2485 bp

**RefSeq ORF:** 1272 bp

**Locus ID:** 3763

**UniProt ID:** [P48051](#)

**Cytogenetics:** 21q22.13

**Domains:** IRK

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

**Gene Summary:** This gene encodes a member of the G protein-coupled inwardly-rectifying potassium channel family of inward rectifier potassium channels. This type of potassium channel allows a greater flow of potassium into the cell than out of it. These proteins modulate many physiological processes, including heart rate in cardiac cells and circuit activity in neuronal cells, through G-protein coupled receptor stimulation. Mutations in this gene are associated with Keppen-Lubinsky Syndrome, a rare condition characterized by severe developmental delay, facial dysmorphism, and intellectual disability. [provided by RefSeq, Apr 2015]