

## Product datasheet for RC233709

### GIRK1 (KCNJ3) (NM\_001260509) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GIRK1 (KCNJ3) (NM_001260509) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GIRK1
Synonyms:	GIRK1; KGA; KIR3.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC233709 representing NM_001260509 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTCTGCACTCCGAAGGAAATTTGGGGACGATTATCAGGTAGTGACCACATCGTCCAGCGGCTCGGGCT  
TGCAGCCCCAGGGGCCAGGCCAGGACCCTCAGCAGCAGCTTGTGCCCAAGAAGAAGCGGCAGCGGTTTCGT  
GGACAAGAACGGCCGGTGAATGTACAGCACGGCAACCTGGGCAGCGAGACAAGCCGCTACCTCTCGGAC  
CTCTTCACCACGCTGGTGGACCTCAAGTGGCGCTGGAACCTCTTCATCTTATTCTCACCTACACCGTGG  
CCTGGCTTTTCATGGCGTCCATGTGGTGGTGATCGCCTACACTCGGGGCGACCTGAACAAAGCCCACGT  
CGGTAACCTACACGCCTTGCCTGGCCAATGTCTATAACTTCCTTCTGCCTTCTCTTCTTCATCGAGACG  
GAGGCCACCATCGGCTATGGCTACCGATACATCACAGACAAGTGCCCGAGGGCATCATCTTCTCTCT  
TCCAGTCCATCTGGGCTCCATCGTGGACGCCTTCTCATCGGCTGCATGTTTCATCAAGATGTCCCAGCC  
CAAGAAGCGCGCCGAGACCCTCATGTTACAGCGAGCACGCGGTGATCTCCATGAGGGACGGAAAACTCAGC  
CTTATGTTCCGGGTGGGCAACCTGCGCAACAGCCACATGGTCTCCGCGCAGATTCGCTGCAAGCTGCTCA  
AATCTCGGCAGACACCTGAGGGTGAGTTCCTTCCCCTTGACCAACTTGAAGTGGATGTAGGTTTTAGTAC  
AGGGCAGATCACTTTTTCTTGTGTCCCCCTCACAATTTGCCACGTGATCGATGCCAAAAGCCCCTTT  
TATGACCTATCCAGCGAAGCATGCAAAGTGAACAGTTCGAGATTGTCGTCATCCTAGAAGGCATTGTGG  
AAACAACCTGGTGAG

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC233709 representing NM\_001260509  
 Red=Cloning site Green=Tags(s)

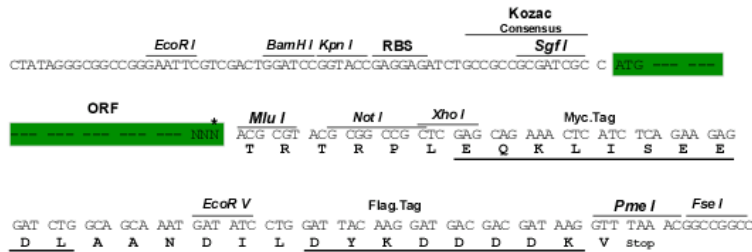
MSALRRKFGDDYQVVTSSSGSGLQPQPGQDPQQQLVPKKRQRFVDKNGRCNVQHNLGSETSRYLSD  
 LFTTLVDLKWVWNLFIILTYTVAWLFMASMWWVIAYTRGDLNKAHVGNYPVCVANVYNFPSAFLFFIET  
 EATIGYGYRYITDKCEPGEIILFLFQSILGSIVDAFLIGCMFIKMSQPKKRAETLMFSEHAVISMRDGKLT  
 LMFVRVGNLRNSHMVSAQIRCKLLKSRQTPEGEFLPLDQLELDVGFSTGADQLFLVSPLTICHVIDAKSPF  
 YDLSQRSMQTEQFEIVILEGIVETTGE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001260509

**ORF Size:** 924 bp

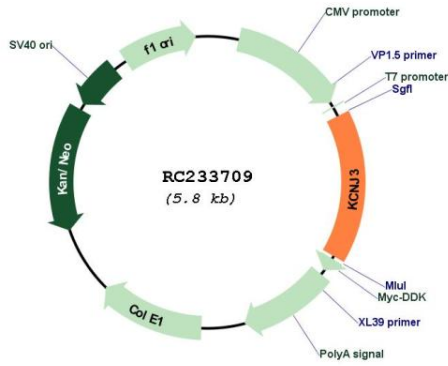
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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_001260509.2</a>
<b>RefSeq Size:</b>	1145 bp
<b>RefSeq ORF:</b>	927 bp
<b>Locus ID:</b>	3760
<b>UniProt ID:</b>	<a href="#">P48549</a>
<b>Cytogenetics:</b>	2q24.1
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>MW:</b>	35.4 kDa
<b>Gene Summary:</b>	<p>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, is controlled by G-proteins and plays an important role in regulating heartbeat. It associates with three other G-protein-activated potassium channels to form a heteromultimeric pore-forming complex that also couples to neurotransmitter receptors in the brain and whereby channel activation can inhibit action potential firing by hyperpolarizing the plasma membrane. These multimeric G-protein-gated inwardly-rectifying potassium (GIRK) channels may play a role in the pathophysiology of epilepsy, addiction, Down's syndrome, ataxia, and Parkinson's disease. Alternative splicing results in multiple transcript variants encoding distinct proteins. [provided by RefSeq, May 2012]</p>

Product images:



Circular map for RC233709