

## Product datasheet for RC205322L1

#### OriGene Technologies, Inc.

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## GIRK1 (KCNJ3) (NM\_002239) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: GIRK1 (KCNJ3) (NM\_002239) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: GIRK1

Synonyms: GIRK1; KGA; KIR3.1

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

ORF Nucleotide

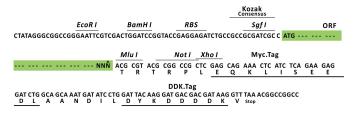
The ORF insert of this clone is exactly the same as(RC205322).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_002239

ORF Size: 1503 bp



### GIRK1 (KCNJ3) (NM\_002239) Human Tagged Lenti ORF Clone - RC205322L1

**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:** <u>NM 002239.2</u>

 RefSeq Size:
 4740 bp

 RefSeq ORF:
 1506 bp

 Locus ID:
 3760

 UniProt ID:
 P48549

Cytogenetics: 2q24.1

Domains: IRK

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

**MW:** 56.7 kDa

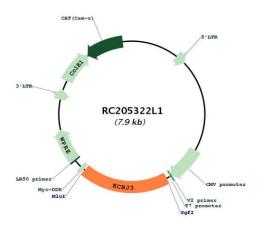
**Gene Summary:** Potassium channels are present in most mammalian cells, where they participate in a wide

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, 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.

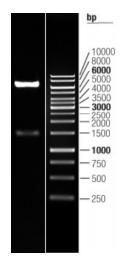
[provided by RefSeq, May 2012]



# **Product images:**



Circular map for RC205322L1



Double digestion of RC205322L1 using Sgfl and Mlul  $\,$