

## Product datasheet for **RG209103**

### Kir6.2 (KCNJ11) (NM\_000525) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Kir6.2 (KCNJ11) (NM_000525) Human Tagged ORF Clone                          |
| Tag:                      | TurboGFP  |
| Symbol:                   | Kir6.2  |
| Synonyms:                 | BIR; HHF2; IKATP; KIR6.2; MODY13; PHHI; PNDM2; TNDM3                        |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG209103 representing NM_000525<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTCCCGAAGGGCATCATCCCCGAGGAATACGTGCTGACACGCCTGGCAGAGGACCCTGCCGAGC  
CCAGGTACCGTGCCCGCCAGCGGAGGGCCCGCTTTGTGTCCAAGAAAGGCAACTGCAACGTGCCACAA  
GAACATCCGGGAGCAGGGCCGCTTCTGCAGGACGTGTTACCACGCTGGTGGACCTCAAGTGCCACAC  
ACATTGCTCATCTTACCATGTCCTTCTGTGCAGCTGGCTGCTTTCGCCATGGCTGGTGGCTCATCG  
CCTTCGCCACGGTGACCTGGCCCCAGCGAGGGCACTGCTGAGCCCTGTGTACCAGCATCCACTCCTT  
CTCGTCTGCCTTCTTTTCTCCATTGAGGTCCAAGTACTATTGGCTTTGGGGGGCGCATGGTACTGAG  
GAGTGCCCACTGGCCATCCTGATCCTCATCGTGCAGAATCGTGGGGCTCATGATCAACGCCATCATGC  
TTGGTGCATCTTATGAAGACTGCCAAGCCACCGCAGGGCTGAGACCCTCATCTTACGAAGCATGC  
GGTATCGCCCTGCGCCACGGCCGCTCTGCTTATGCTACGTGTGGGTGACCTCCGCAAGAGCATGATC  
ATCAGCGCCACCATCCACATGCAGGTGGTACGCAAGACCACCGCCCGAGGGCGAGGTGGTGCCTCC  
ACCAGGTGGACATCCCCATGGAGAACGGCGTGGTGGAAACAGCATCTTCTGGTGGCCCGCTGATCAT  
CTCAGATCATCGTCATCCTGGAAGCGTGGTGGAAACCGGGCATCACCACCCAGGCCCGCACCTCCT  
ACCTGGCCGATGAGATCCTGTGGGGCCAGCGCTTTGTGCCATTGTAGCTGAGGAGGACGGACGTTACTC  
TGTGGACTACTCAAGTTTGGAAACACCATCAAAGTGCCACACCACTCTGCACGGCCCGCCAGCTTGT  
GAGGACCACAGCCTACTGGAAGCTCTGACCCTCGCCTCAGCCCGCGGGCCCTGCGCAAGCGCAGCGTGC  
CCATGGCCAAGGCCAAGCCCAAGTTCAGCATCTCTCCAGATTCCCTGTCC

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209103 representing NM\_000525  
 Red=Cloning site Green=Tags(s)

```

MLSRKGIPEEYVLTALAEDPAEPRYRARRARFVSKKGNCNVAHKNIREQGRFLQDVFVTLVLDLKWPH
TLLIFTMSFLCSWLLFAMAWLLIAFAHGDLAPSEGTAEPVTSIHSFSSAFLFSIEVQVTIGFGGRMVTE
ECPLAILILIVQNIIVGLMINAIMLGICIFMKTAQAHRRAETLIFSKHAVIALRHGRLCFMLRVGDLRKSMI
ISATIHMQVVRKTTSPGEGVPLHQVDIPMENGVGGNSIFLVAPLIIYHVIDANSPLYDLAPSDLHHHQD
LEIIIVILEGVVETTGITQARTSYLADEILWGQRFVPIVAEEDGRYSVDYSKFGNTIKVPTPLCTARQLD
EDHSLLEALTLASARGPLRKRSVPMKAKPKFSISPDLS
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000525

**ORF Size:** 1170 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).

**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\\_000525.3](#), [NP\\_000516.3](#)

**RefSeq Size:** 3418 bp

**RefSeq ORF:** 1173 bp

**Locus ID:** 3767

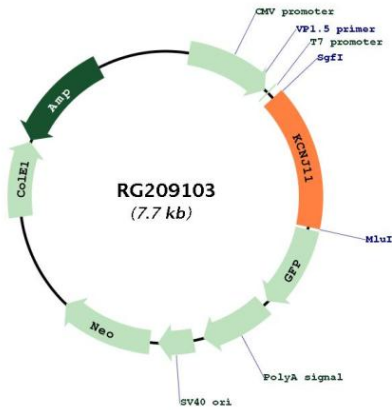
**Cytogenetics:** 11p15.1

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

**Protein Pathways:** Type II diabetes mellitus

**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 is found associated with the sulfonylurea receptor SUR. Mutations in this gene are a cause of familial persistent hyperinsulinemic hypoglycemia of infancy (PHHI), an autosomal recessive disorder characterized by unregulated insulin secretion. Defects in this gene may also contribute to autosomal dominant non-insulin-dependent diabetes mellitus type II (NIDDM), transient neonatal diabetes mellitus type 3 (TNDM3), and permanent neonatal diabetes mellitus (PNDM). Multiple alternatively spliced transcript variants that encode different protein isoforms have been described for this gene. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RG209103