

## Product datasheet for **MG227234**

### **Kcnj10 (NM\_001039484) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Kcnj10 (NM\_001039484) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Kcnj10  
**Synonyms:** BIR10; BIRK-1; Kir1.2; Kir4.1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG227234 representing NM\_001039484  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGACGTCGGTTCGCTAAGGTCTATTACAGTCAGACGACTCAGACAGAGAGCCGCCCTAGTGGCCCCAG  
 GAATACGCCGGAGGAGGGTCTCACGAAAGACGGCCGGAGCAATGTGAGAATGGAGCACATTGCTGACAA  
 ACGTTTCTCTACCTCAAGGATCTATGGACGACCTTCATTGACATGCAATGGCGCTACAAGCTTCTGCTC  
 TTCTCTGCAACCTTTCAGGCACGTGGTTCCTCTTGGTGTGGTGTGGTATCTGGTAGCTGTGGCCATG  
 GGGACCTGTTGGAGCTGGGACCTCTGCCAACCACACGCCTTGTGTGGTGCAGGTGCACAGCTCACCGG  
 AGCCTTCCCTCTTCTCCCTGGAATCCCAGACCACCATCGGCTATGGCTTCCGCTACATCAGTGAGGAATGC  
 CCACTGGCCATCGTGCTTCTTATTGCGCAGCTGGTGTCTACCACCATTCTGAAAATCTTCATCACAGGTA  
 CCTTCTTGC AAAGATTGCCCGCCTAAGAAGAGGGCCGAGACGATCCGCTTCAGCCAGCATGCCGTTGT  
 GGCTTCCCATAACGGGAAGCCTTGCTTATGATCCGGGTTGCCAATATGCGGAAGAGTCTCCTCATTGGA  
 TGCCAGGTGACAGGCAAAGTCTTCAAACGCACCAGACAAAGGAGGGTGAGAATATTCGGCTCAACCAGG  
 TCAACGTGACTTCCAAGTAGACACAGCCTCAGACAGCCCCTTCTCATCTACCCTGACTTTCTACCA  
 CGTGGTAGATGAGACCAGCCCCATAAAAGATCTCCCGCTCCGAGTGGGGAGGGGACTTTGAGCTGGTG  
 CTGATCCTGAGTGGGACAGTGGAGTCCACCAGTGCCACCTGCCAAGTTCGCACTTCTACCTACCTACCGGAGG  
 AGATCCTCTGGGGTTACGAGTTCACGCCTGCGATCTCACTGTACGCCAGTGGCAAATACATAGCTGACTT  
 CAGCCTTTTCGACCAGGTTGTGAAAGTGGCATCTCCAGTGGTCTCCGCGATAGCACCGTACGCTATGGA  
 GACCCCGAGAAGCTCAAGTTGGAGGAGTCATTAAGAGAGCAAGCTGAAAAGGAAGGCAGTGCCCTTAGTG  
 TCGCATCAGCAACGTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG227234 representing NM\_001039484  
Red=Cloning site Green=Tags(s)

MTSVAKVYYSQTTQTESRPLVAPGIRRRRVLTKDGRSNVRMEHIADKRFLYLKDLWTTFIDMQWRYKLLL  
 FSATFAGTWFLFGVVWYLVAVAHGDLELGPANHTPCVVQVHTLTGAFLESLQSQTIGYGFYI SEEC  
 PLAIVLLIAQLVLTILEIFITGTFLAKIARPKKRAETIRFSQHAVVASHNGKPCLMIRVANMRKSLIG  
 CQVTGKLLQTHQKEGENIRLNQVNVTFQVDTASDSPFLILPLTFYHVVDETSPLKDLPLRSGEQDFELV  
 LILSGTVESTATCQVRTSYLPEEILWGYEFTPAISLSASGKYIADFLFDQVVKVASPSGLRDSTVRYG  
 DPEKLLKEESLREQAEKEGSALSVRISNV

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1980\\_d08.zip](https://cdn.origene.com/chromatograms/ja1980_d08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001039484

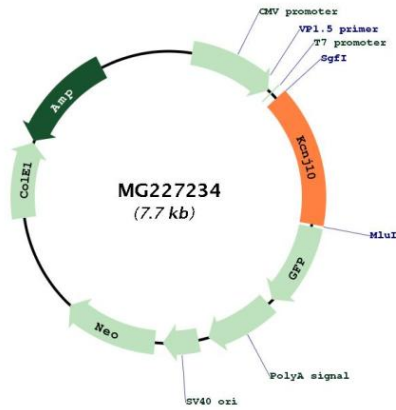
**ORF Size:** 1137 bp

**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>	<u><a href="#">NM_001039484.1</a></u> , <u><a href="#">NP_001034573.1</a></u>
<b>RefSeq Size:</b>	5407 bp
<b>RefSeq ORF:</b>	1140 bp
<b>Locus ID:</b>	16513
<b>UniProt ID:</b>	<u><a href="#">Q9JM63</a></u>
<b>Cytogenetics:</b>	1 79.69 cM
<b>Gene Summary:</b>	May be responsible for potassium buffering action of glial cells in the brain. Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. Can be blocked by extracellular barium and cesium (By similarity). In the kidney, together with KCNJ16, mediates basolateral K(+) recycling in distal tubules; this process is critical for Na(+) reabsorption at the tubules (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227234