

## Product datasheet for RC210184

### KCNJ5 (NM\_000890) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNJ5 (NM_000890) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNJ5
Synonyms:	CIR; GIRK4; KATP1; KIR3.4; LQT13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210184 representing NM_000890 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCTGGCGATTCTAGGAATGCCATGAACCAGGACATGGAGATTGGAGTCACTCCCTGGGACCCCAAGA  
AGATTCAAAACAGGCCCGGATTATGTCCCATGACACAGACCGTACGCGCTGCTGGCCGAGGGCAA  
GAAACCACGCCAGCGCTACATGGAGAAGAGCGGCAAGTCAATGTGCACCACGGCAACGTCCAGGAGACC  
TACCGGTACCTGAGTGACCTCTTACCACCTGGTGGACCTCAAGTGGCGCTTCACTTGTCTTCA  
CCATGGTTTACACTGTCACCTGGCTGTTCTTCGGCTTCATTTGGTGGCTCATTGCTTATATCCGGGGTGA  
CCTGGACCATGTTGGCGACCAAGAGTGGATTCCCTTGTGTTGAAAACCTCAGTGGCTTCGTGCCGCTTTC  
CTGTTCTCCATTGAGACCGAAACAACATTGGGTATGGCTCCGAGTCATCACAGAGAAGTGTCCAGAGG  
GGATTATACTCCTCTTGGTCCAGGCCATCCTGGGCTCCATCGTCAATGCCTTCATGGTGGGGTGCATGTT  
TGTCAAGATCAGCCAGCCCAAGAAGAGAGCGGAGACCCTCATGTTTTCCAACAACGCAGTCATCTCCATG  
CGGACGAGAAGCTGTGCCTCATGTTCCGGGTGGGCGACCTCCGCAACTCCCACATCGTGGAGGCCCTCA  
TCCGGGCAAGCTCATCAAGTCCCGCAGACCAAGAGGGGGAGTTCATCCCCCTGAACCAGACAGACAT  
CAACGTGGGCTTTGACACGGGCGACGACCGCTCTTCTGGTGTCTCCTGTATCATCTCCACGAGATC  
AACGGAAGAGCCCTTTCTGGGAGATGTCTCAGGCTCAGCTGCATCAGGAAGAGTTTGAAGTTGTGGTCA  
TTCTAGAAGGGATGGTGAAGCCACAGGATGACCTGCCAAGCCCGAGCTCCTACATGGATACAGAGGT  
GCTCTGGGCCACCGATTACACAGTCTCACCTTGGAAAAGGGCTTCTATGAGGTGGACTACAACACC  
TTCCATGATACCTATGAGACCAACACACCAGCTGCTGTGCCAAGGAGCTGGCAGAAATGAAGAGGGAAG  
GCCGGCTCCTCCAGTACCTCCCCAGCCCCACTGCTGGGGGCTGTGCTGAGGCAGGGCTGGATGCAGA  
GGCTGAGCAGAATGAAGAAGATGAGCCCAAGGGCTGGTGGTCCAGGGAGGCCAGGGGCTCGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210184 representing NM\_000890  
Red=Cloning site Green=Tags(s)

MAGDSRNAMNQDMEIGVTPWDPKKIPKQARDYVPIATDRTRLLAEGKKPRQRYMEKSGKCNVHHGNVQET  
 YRYLSDLFTTLVDLKWRFNLLVFTMYYVTWLFVFGFIWWLIAYIRGDLDHVGDQEWIPCVENLSGFVSAF  
 LFSIETETTIGYGRVITEKCEPIIILLVQAILGSIVNAFMVGMCFVKISQPKKRAETLMFSNNAVISM  
 RDEKLCMLFRVGLRNSHIVEASIRAKLIKSRQKEGEFIPLNQTDINVGFDTGDDRLFLVSPLIISHEI  
 NEKSPFWEMSQQLHQEEFEVVVILEGMVEATGMTCCQARSSYMDTEVLWGHFRFTPVLTLKGFYEVDYNT  
 FHDTYETNTPSCCAKELAEKREGRLQLYLPSPPLLGGCAEAGLDAEAEQNEEPEPKLGGSSREARGSV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6271\\_e04.zip](https://cdn.origene.com/chromatograms/mk6271_e04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000890

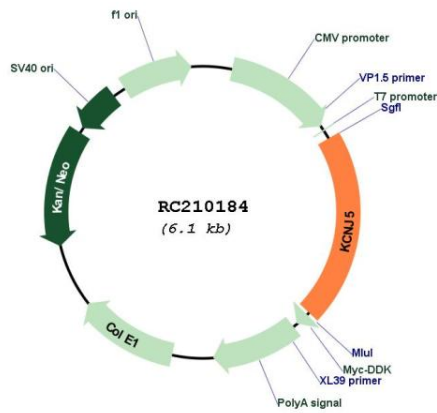
**ORF Size:** 1257 bp

**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.

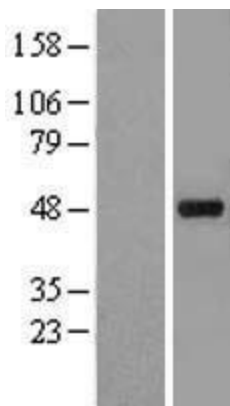
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_000890.5</a></u>
<b>RefSeq Size:</b>	2912 bp
<b>RefSeq ORF:</b>	1260 bp
<b>Locus ID:</b>	3762
<b>UniProt ID:</b>	<u><a href="#">P48544</a></u>
<b>Cytogenetics:</b>	11q24.3
<b>Domains:</b>	IRK
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>MW:</b>	47.5 kDa
<b>Gene Summary:</b>	This gene encodes an integral membrane protein which belongs to one of seven subfamilies of inward-rectifier potassium channel proteins called potassium channel subfamily J. The encoded protein is a subunit of the potassium channel which is homotetrameric. It is controlled by G-proteins and has a greater tendency to allow potassium to flow into a cell rather than out of a cell. Naturally occurring mutations in this gene are associated with aldosterone-producing adenomas. [provided by RefSeq, Aug 2017]

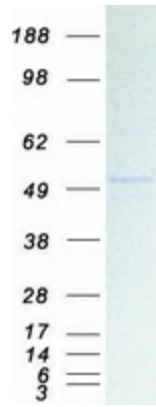
Product images:



Circular map for RC210184



Western blot validation of overexpression lysate (Cat# [LY424464]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210184 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KCNJ5 protein (Cat# [TP310184]). The protein was produced from HEK293T cells transfected with KCNJ5 cDNA clone (Cat# RC210184) using MegaTran 2.0 (Cat# [TT210002]).