

## Product datasheet for **MR221662**

### **Kcnj2 (NM\_008425) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnj2 (NM_008425) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnj2
Synonyms:	IRK1; Kcnf1; Kir2.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR221662 representing NM\_008425  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCAGTGTGAGAACCAACCGCTACAGCATCGTCTCTTCGGAGGAAGATGGCATGAAGCTGGCCACTA  
 TGGCAGTTGCCAATGGCTTTGGGAATGGCAAGAGTAAAGTCCATACCCGACAACAGTGCAGGAGCCGCTT  
 TGTGAAGAAAGATGGTCATTGCAATGTTCAAGTTTATCAACGTGGGTGAGAAGGGACAGAGGTACCTGGCA  
 GACATCTTTACTACCTGTGTCGACATCCGCTGGAGGTGGATGCTGGTTATCTTCTGTCTTGCCTTCGTGC  
 TCTCCTGGCTGTTCTTTGGCTGTGTGTTTTGGTTGATAGCCCTGCTCCATGGGGATCTAGATACTTCTAA  
 AGTGAGCAAAGCATGCGTGTGAGAGTCAACAGCTTACGGCTGCCTTCTCTTCCATCGAGACCCAG  
 ACAACCATTGGCTATGGTTTCAGGTGTGTGACAGACGAGTGCCCAATTGCTGTCTTCATGGTGGTATTCC  
 AGTCAATCGTAGGCTGCATCATTGACGCCCTTCATCATTGGTGCAGTCATGGCGAAGATGGCAAAGCCAAA  
 GAAGAGAAATGAGACTCTTGCTTCAGTCACAATGCTGTGATTGCCATGAGGGATGGCAAACCTGCTTG  
 ATGTGGAGAGTGGTAACCTTCGAAAGAGCCACCTTGTGGAAGCTCATGTCCGGGCACAGCTTCTCAAA  
 CTAGGATCACTTCAGAAGGGGAGTATATCCCTTTGGACCAGATAGACATCAATGTTGGTTTTGATAGTGG  
 AATTGACCGCATATTTCTAGTGTCCCCATCACTATCGTTCACGAAATAGATGAAGACAGCCCTTTATAT  
 GACTTGAGTAAGCAGGACATTGACAATGCAGACTTTGAAATTGTTGTCATACTGGAAGGCATGGTGGAGG  
 CGACTGCCATGACAACTCAATGCCGGAGTTCGTATCTGGCCAATGAAATTCTCTGGGGTCAACCGCTATGA  
 GCCAGTGTCTTTGAAGAGAAACTACTATAAAGTAGACTATTCAAGATTCCATAAGACTTATGAAGTA  
 CCTAACACCCCTTTGTAGTGCCAGAGACTTAGCAGAGAAGAAATACATCTTTCAAATGCAAATTCAT  
 TTTGCTATGAAAATGAAGTTGCCCTAACAAAGCAAAGAGGAAGAGGAGGATAGTGAGAACGGAGTCCCAGA  
 GAGCACAAGCACAGACTCACCTCTGGCATAGATCTCCACAACCGCAAGCGTACCTCTAGAGCCACAG  
 CCCTTAAGGCGAGAATCGGAGATA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR221662 representing NM\_008425  
 Red=Cloning site Green=Tags(s)

MGSVRTNRYISVSSEEDGMKLATMAVANGFNGKSKVHTRQQCRSRFVKKDGHCNVQFINVGEKGQRYLA  
 DIFTTCDIRWRWMLVIFCLAFVLSWFFGCVFWLIALLHGDLDTSKVSACVSEVNSFTAFLFSIETQ  
 TTIGYGFRCVTDECPVAVFMVVFQSIIVGCIIDAFIIGAVMAKMAKPKRNETLVFSHNAVIAMRDGKLC  
 MWRVGNLRKSHLVEAHVRAQLLKSRIITSEGEYIPLDQIDINVGFDSGIDRIFLVSPITIVHEIDEDSPLY  
 DLSKQDIDNADFEIVVILEGMVEATAMTTQCRSSYLANEILWGHRYEPVLFEEKHYKVDYSRFHKTYEV  
 PNTPLCSARDLAEKKYILSNANSFCYENEVALTSKEEEEDSENGVPESTSTDSPPGIDLHNQASVPLEPR  
 PLRRESEI

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9017\\_h12.zip](https://cdn.origene.com/chromatograms/mm9017_h12.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**ACCN:** NM\_008425

**ORF Size:** 1284 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](#)

**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).

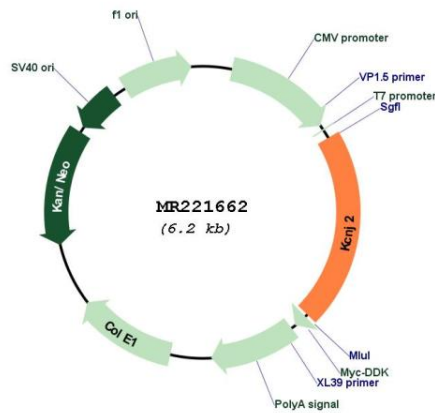
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_008425.4](#), [NP\\_032451.1](#)

RefSeq Size: 5468 bp  
 RefSeq ORF: 1287 bp  
 Locus ID: 16518  
 UniProt ID: [P35561](#)  
 Cytogenetics: 11 75.23 cM  
 MW: 48.8 kDa

**Gene Summary:** Probably participates in establishing action potential waveform and excitability of neuronal and muscle tissues. 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.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR221662