

Product datasheet for **MC227642**

Kcnj12 (NM_001267593) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnj12 (NM_001267593) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcnj12
Synonyms:	IRK-2; IRK2; Kir2.2; MB-IRK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC227642 representing NM_001267593
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGACCGCAGCCAGTCGGGCCAACCCCTACAGCATCGTATCATCAGAGGAGGACGGGCTGCACCTGGTTA
 CCATGTCAGGCGCCAACGGTTTTGGCAATGGCAAGGTGCATACACGGCGCCGGTGCCGAACCGCTTCGT
 CAAGAAGAACGGTCAGTGAACATTGAATTCGCCAACATGGACGAGAAGTCACAACGCTACCTGGCTGAC
 ATGTTTACCACGTGTGTGGACATCCGCTGGCGCTACATGCTGCTCATCTTCTCTCTGGCCTTTCTTGCT
 CCTGGTTGTTGTTGGCATCATCTTCTGGGTATTGCTGTCGCCCACGGGACCTGGAGCCAGCCGAGGG
 CCGTGGCCGTACACCCTGTGTGCTGCAGGTCCACGGCTTCATGGCAGCCTTTCTTCTCCATTGAGACA
 CAGACCACCATTTGGCTACGGGTACGCTGTGTGACTGAAGAGTGGCCGGTGGCTGTCTTCATGGTGGTGG
 CGCAGTCCATTGTGGGTGCATCATTGACTCCTTCATGATTGGTGCCATCATGGCCAAGATGGCACGGCC
 CAAGAAGCGCGCACAGACTCTGCTTTTCAGCCATAATGCCGTGGTGGCTCTGCGTGACGGCAAGCTCTGC
 CTCATGTGGCGCGTGGGCAACCTGCGTAAGAGTCACATCGTGGAGGCCATGTGCGGGCCAGCTCATCA
 AGCCCAGGGTCACAGAGGAGGGTGAGTACATCCCACTGGACCAGATTGACATCGATGTGCGCTTTGACAA
 GGGCTAGACCGTATCTTCTGGTATCACCCATCACCATCTTGCACGAGATTGATGAGGCCAGCCCACTG
 TTTGGCATTAGCCGTAGGACCTTGAGACAGACGACTTTGAGATTGTGGTCATCTGGAGGGCATGGTAG
 AGGCCACAGCCATGACCACACAGGCTCGCAGTTCTACCTGGCTAACGAGATCCTGTGGGGCCACCGCTT
 TGAGCCAGTGCTCTTGAAGAGAAGAACCAGTACAAGATTGACTATTCACACTCCACAAGACCTACGAG
 GTGCCATCTACACCCGCTGCAGCGCCAAGGACCTGGTGGAGAACAAGTTCCTCCTGCCAGCGCCAACCT
 CTTTCTGCTATGAGAACGAGCTGGCCTTCCTGAGCAGAGATGAGGAGGACGAGGTGGCTACCGACCGGGA
 TGGCCGACGCCCTCAGCCCGAGCATGACTTTGACAGACTGCAGGCCAGCAGCGCTGCCCTTGAACGGCCC
 TACAGACGGGAGTCGGAGATT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI

ACCN: NM_001267593

Insert Size: 1284 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001267593.1](#), [NP_001254522.1](#)

RefSeq Size: 4427 bp

RefSeq ORF: 1284 bp

Locus ID: 16515

UniProt ID: [P52187](#)

Cytogenetics: 11 37.96 cM

Gene Summary: Inward rectifying potassium channel that is activated by phosphatidylinositol 4,5-bisphosphate and that probably participates in controlling the resting membrane potential in electrically excitable cells. 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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region and initiates translation at a downstream, in-frame start codon, compared to variant 1. The encoded isoform (2) has a shorter N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.