

Product datasheet for **MR206914**

Kcnj14 (NM_145963) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnj14 (NM_145963) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnj14
Synonyms:	A930026G01Rik; IRK4; Kir2.4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206914 representing NM_145963
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCTGGCTAGGGCCCTGCGCCGCTGAGCGGCGCTGGAGCCAGGAAACAGTCGAGCTGGGGATG
 AGGAAGAGGCGGGGCCGACTGTGCCGAATGGGTGGGCTCCTGGACCGGTAGCTGGGAGCCGGCGCCG
 CGGGCGCTTCGTCAAAAAGATGGGCACTGCAATGTGCGCTTCGTGAATCTGGGCGGCCAGGGCGCGCGC
 TACCTAAGTGACCTGTTACACATGTGTGGAGCTGCGCTGGCGCTGGATGTGCCTGCTCTTCTCTGTT
 CCTTCTCGCCTCCTGGTTGCTCTTCGGCTGACCTTCTGGCTCATCGCCTCGCTGCACGGCGACCTAGC
 TGCCCCACCGCCACCGGCTCCCTGTTTCTCGCAAGTGGCCAGCTTCTGGCTGCCTTCTCTTTGCACTG
 GAGACACAGACGTCCATAGGCTATGGTGTGCGCAGCGTACCGAGGAGTGTCCAGCTGCTGTGGCCGCTG
 TGGTGTGCAGTGCATCGCAGGCTGTGTCTCGACGCTTCGTCGTGGTGCAGTTATGGCCAAGATGGC
 CAAGCCAAGAAACGCAACGAGACACTAGTCTTCAGTGAGAACGCAGTGGTGGCTCTGCGAGACCACCGT
 CTCTGCCTCATGTGGCGGGTGGCAACCTGCGACGCACTACCTGGTGAAGCTCACGTGCGGGGCCAGC
 TGCTGCAGCCCCGTGTGACCCCCGAGGGTGTAGTACATCCCACTGGACCACCAGGATGTAGATGTTGGTTT
 TGATGGAGGCACTGATCGCATCTTCTCGTCTCCCCATTACCATTGTGCATGAGATTGACTCTGCCAGT
 CCACTGTATGAGCTGGGGCGGGCCGAGCTGGCCCGGGCTGACTTTGAGCTGGTGGTCATTCTTGAAGGTA
 TGGTTGAGGCCACAGCCATGACTACACAGTGCCGCTCATTTACCTCCAGGTGAGCTGCTCTGGGGACA
 TCGCTTCGAGCCGGTCTTCCAGCGTGGCTCCAGTATGAGGTTGACTATCGCCACTTCCATCGAACA
 TATGAGGTCCCAGGACACCAGTCTGCAGTGCCAAGGAGCTGGATGAACGGGCAGAGCAGGCTTCCACA
 GCCCTAAGTCAAGTTTCCCTGGCTCCCTCACTGCATTTTGTATGAGAATGAACCTGCTCTGAGCTGCTG
 CCAGGAGGAAGATGAGGAGGAGGACACTAAGGAGGGGACTTCAGCAGAGACCCCAGAGAGGGCTGCCAGC
 CCCAAGCTCTTACACCAACCTGGCTCTGACCCTGCCTCCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206914 representing NM_145963
 Red=Cloning site Green=Tags(s)

MGLARALRRLSGALEPGNSRAGDEEEAGAGLCRNGWAPGPVAGSRRRGRFVKKDGHCVRFVNLGGQGAR
 YLSDLFTTCVDVRWRWMLLFFSCSFLASWLLFGLTFWLIASLHGDLAAPPPAPCFVSQVASFLLAFAL
 ETQTSIGYGVRSVTEECPAVAVAVVLQCIAGCVLDAFVVGAVMAKMAKPKRNETLVFSENAVVALRDHR
 LCLMWRVGNLRRSHLVEAHVRAQLLQPRVTEPEGEYIPLDHQDQDVGDFDGGTDRIFLVSPITIVHEIDSAS
 PLYELGRAELARADFELVVILEGMVEATAMTTQCRSSYLPGELLWGHFEPVLFQRGSQYEVDIRHFHRT
 YEVPGTPVCSAKELDERAEQASHSPKSSFPGLTAFCEYENELALSCCQEEDDEEDTKEGTS AETPERAAS
 PQALTPTLALTLPP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9017_g12.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_145963

ORF Size: 1302 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_145963.2](#), [NP_666075.1](#)

RefSeq Size: 2639 bp

RefSeq ORF: 1305 bp

Locus ID: 211480

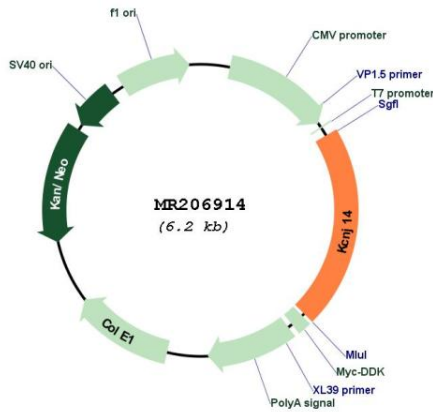
UniProt ID: [Q8JZN3](#)

Cytogenetics: 7 B3

MW: 48.1 kDa

Gene Summary: 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. KCNJ14 gives rise to low-conductance channels with a low affinity to the channel blockers Barium and Cesium (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206914