

## Product datasheet for **RR209777**

### **Kcna2 (NM\_012970) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcna2 (NM_012970) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcna2
Synonyms:	BK2; NGK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR209777 representing NM\_012970  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACAGTGGCTACCGGAGACCCAGTGGATGAGGCTGCTGCCCTCCCTGGGCACCCTCAAGACACCTATG  
 ACCCAGAGGCAGACCACGAGTGTGTGAGAGAGTGGTATTAAACATCTCAGGCCTCGGGTTCGAGACTCA  
 GCTAAAGACCTTAGCCAGTTCCAGAGACCCTCTTAGGAGACCCCAAGAAACGGATGAGGTACTTTGAT  
 CCCCTCCGAAATGAGTACTTTTTGATCGCAACCGCCCTAGCTTTGATGCCATTTTGTACTACTACCAGT  
 CTGGGGGACAGTTGAGGCGACCTGTGAATGTGCCCTTAGATATCTTCTCTGAAGAAATCCGGTTTTATGA  
 GCTAGGAGAAGAGGCAATGGAGATGTTTCGGGAGGATGAAGGCTATATCAAGGAAGAAGAACGTCCCCTG  
 CCTGAAAATGAGTTTCAGAGACAGGTGTGGCTTCTTTGAATACCCTGAGAGCTCAGGGCCGCCAGGA  
 TCATAGCCATTGTATCTGTGATGGTCATTCTGATCTCGATCGTCAGCTTCTGTCTGGAAACCTTGCCCAT  
 CTTCCGGGATGAGAACGAGGACATGCATGGTGGTGGGGTACCTTCCACACCTATTCCAACAGCACCATT  
 GGGTACCAGCAGTCCACCTCCTTACCAGCCCTTCTTTCATCGTAGAGACTCTCTGCATCATCTGGTTCT  
 CCTTTGAGTTTCTGGTTAGATTCTTTCCTGTCCAGCAAAGCTGGCTTCTTACCAACATCATGAACAT  
 CATTGACATTGTGGCTATCATCCCTTACTTTATCACCTGGGGACAGAGTTAGCTGAGAAGCCAGAGGAC  
 GCCCAGCAAGGCCAGCAGGCCATGTCACTGGCCATTCTCCGTGTCATCCGGTTGGTAAGAGTCTTTAGGA  
 TTTTCAAGTTGTCCAGACACTCCAAAGGTCTGCAGATTCTAGGTGAGACCCTCAAAGCCAGCATGAGGGA  
 ATGGGCTCCTGATATCTTCTTCTTATTGGGGTATCCTCTTCTCTAGTGTGTCTATTTTGCAGAA  
 GCTGATGAGCGAGATCCAGTTCACAGCATCCCGGATGCCTTCTGGTGGCAGTCTGCTCCATGACAA  
 CTGTAGGCTATGGAGACATGGTTCCAATACCATTGGGGAAAGATAGTGGGTTCTCTGTGTCAATTGC  
 AGGTGTGTTAACCATTGCCTTACCAGTCCCTGTATAGTGTCTAATTTCAACTACTTCTACCACCGGGAG  
 ACAGAGGGAGAGGAGCAGGCCAGTACTTGCAAGTGACAAGTTGTCCAAAGATCCCGTCTCCCTGACC  
 TAAAGAAAAGTAGAAGTGCCTTACCATAAGTAAGTCTGATTACATGGAGATACAGGAGGGAGTAAACAA  
 CAGTAATGAGGACTTTAGAGAGGAGAACTTAAAAACAGCCAACCTGTACCTTGGCTAACACAAACTATGTG  
 AATATTACCAAAATGTTAACTGATGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR209777 representing NM\_012970  
 Red=Cloning site Green=Tags(s)

MTVATGDPVDEAAALPGHPQDITYDPEADHECCERVVINISGLRFETQLKTLAQFPETLLGDPKKRMRYFD  
 PLRNEYFFDRNRPSFDAILYYYQSGGRLRRPVNVPLDIFSEEIRFYELGEEAMEMFREDEGYIKEEERPL  
 PENEFRQVWLLFEYPESSGPARIIAIVSVMVILISIVSFCLETLPFRDENEDMHGGGVTFHTYSNSTI  
 GYQSTSFDPFFIVETLCIIWFSFEFLVRFACPSKAGFFTNIMNIIDIVAIIPYFITLGTLEAKPED  
 AQQGQAMSLAILRVIRLVRFIRFKLSRHSKGLQILGQTLKASMRELGLLIFFLFIGVILFSSAVYFAE  
 ADERDSQFPSIPDAFWVAVVSMTTVGYGDMVPTTIGGKIVGSLCAIAGVLTIALPVPVIVSNFNFYHRE  
 TEGEEQAQYLQVTSCPPIPSSPDLKKSRSASTISKSDYMEIQEGVNSNEDFRENLKTANCTLANTNYV  
 NITKMLTDV

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_012970

**ORF Size:** 1497 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\\_012970.3](#), [NP\\_037102.1](#)

**RefSeq Size:** 2324 bp

**RefSeq ORF:** 1500 bp

**Locus ID:** 25468

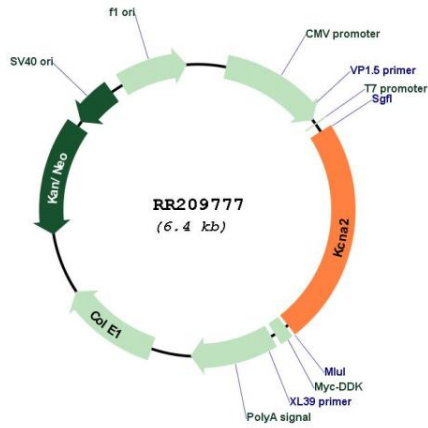
**UniProt ID:** [P63142](#)

**Cytogenetics:** 2q34

**MW:** 56.7 kDa

**Gene Summary:** delayed-rectifier K<sup>+</sup> channel expressed in heart and brain [RGD, Feb 2006]

**Product images:**



Circular map for RR209777