

## Product datasheet for **RC211800**

### **KCNG2 (NM\_012283) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNG2 (NM_012283) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNG2
Synonyms:	KCNF2; KV6.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC211800 representing NM\_012283.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGAGCCATGGCCCTGCTCCCCGGGCGGCGGGGACCCGCGCCCGGCACGTATCATCAACGTG
GCGCGCTGCCCGTGGCCCTGGCATGGGCCGCGTGGCGCGATGCCCCCTCGCGCCTGGAGCGCCTG
CGCGCCTGCCGTGGCCACGACGACCTGCTGCGCGTGTGTGACGACTACGACGTGAGCCGCGACGATTC
TTCTTCGACCGCAGCCCGTGGCCCTCCGCGCCATCGTGGCGCTTTTGGCGCAGGGAAGCTGCGACTG
CTGCGGGGCCGTGCGCGCTGGCCTCCGCGACGAGCTGGCCTACTGGGCATCGACGAGGCGCGCCTG
GAGCGTCTGCTGCGCCGCTGCGCCGCGGAGGAGGAGGCGCCGAGGCCCGCGGGGGCCGACG
GAGCGGGGGCGCAGGGGAGCCGGCGCGCCCTGGGACCTCGGGGGCGGCTGCAGCGCGCCGGCGG
CGCCTGCGCGACGTGGTGGACAACCCGCACTCGGGGCTGGCGGCAAGCTCTTCGCTGCGTGTCCGTG
TCCTTCGTGGCCGTACGGCCGTGGCCCTGCTGAGCACCATGCCGGACATCCGCGCCGAGGAGGAG
CGGGGCGAGTGTCCCCAAGTGGCGCAGCCTGTTCTGCTGGAGACCGTGTGCGTGGCCTGTTCTCC
TTGAGATTCCTGCTGCGCTCCCTGACGGCCGAGAGCAAGTGGCCTTCTGCGCGGCCACTCAACATC
ATTGACATCCTGGCGCTCCTGCCGTTTACGTGTGCGCGTGTGGGGCTGGCGGAGGCCCGGGGGG
ACCAAGCTCCTGGAGCGCGGGGCTGGTGTGCGGCTGTGCGTGCCTGCGCTGCGCGTGTCTACGTGATG
CGCCTGGCGGCCACTCGCTGGGGTGCCTTGCCTGGCCTGACCATGCGCCGCTGCGCGCGGAGTTC
GGGCTGTGCTGCTTCTCTGCGTGGCCATGGCGCTTTCGCGCCACTGGTGCACCTGGCCGAGCGC
GAGCTGGGCGCGCCGCGACCTCTCCAGCGTGGCCGCGAGCTATTGGTGGGCGTATCTCCATGACC
ACCGTGGGCTACGGCGACATGGTCCCGCGAGCTTGGCCGGCAGGTGGTGGCGCTCAGCAGCATCTC
AGCGGCATCCTGCTCATGGCCTTCCCGTCACTCCATCTTCCACACCTTTTCGCGCTCCTACTCCGAG
CTCAAGGAGCAGCAGCAGCGCGCGCCAGCCCGAGCCGCGCCTGACGAGGAGACACGCACTCGGCC
ACAGCCACCGAGGACAGCTCGCAGGGCCCCGACAGCGGGCCTGGCCGACGACTCCGCGGATGCGCTG
TGGGTGCGGGCAGGGCGC
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Protein Sequence:**

>Peptide sequence encoded by RC211800  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MEPWPCSPGGGGTRARHVIINVGGCRVRLAWAALARCLARLERLRACRGHDDLRCDDYDVSDEF
FFDRSPCAFRAIVALLRAGKLRLLRGPICALAFRDELAYWGIDEARLERCCLRRLRRREEAAEARAGPT
ERGAQGSAPRALGPRGRLQRGRRRLRDVVDNPHSLAGKLFACVSVFVAVTAVGLCLSTMPDIRAEEE
RGECSPKCRSLFVLETVCVAFWFSEFLLRSLQAESKCAFLRAPLNIIDILALLPFVYSPLLGLAAGPGG
TKLLERAGLVLRLRLRVLVYMLARHSLGLRSLGLTMRRCAREFGLLLLFLCVAMALFAPLVHLAER
ELGARRDLSSVPASYWVAVISMTTVGYGDMVPRSLPGQVVALSSILSGILLMAFPVTSIFHTFSRSYSE
LKEQQQRAASPEPALQEDSTHSATATEDSSQGPDSAGLADDSADALWVRAGR
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6848\\_c05.zip](https://cdn.origene.com/chromatograms/mk6848_c05.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_012283

**ORF Size:** 1398 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 Size:** 1401 bp

**RefSeq ORF:** 1401 bp

**Locus ID:** 26251

**UniProt ID:** [Q9UJ96](#)

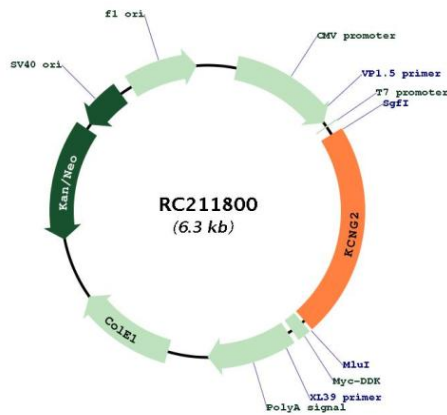
**Cytogenetics:** 18q23

**Protein Families:** Druggable Genome, Ion Channels: Potassium, Transmembrane

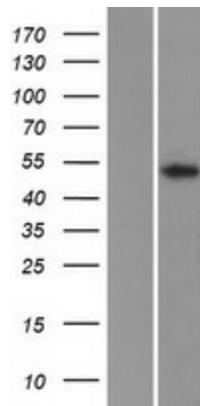
**MW:** 51.2 kDa

**Gene Summary:** Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, subfamily G. This member is a gamma subunit of the voltage-gated potassium channel. The delayed-rectifier type channels containing this subunit may contribute to cardiac action potential repolarization. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC211800



Western blot validation of overexpression lysate (Cat# [LY415851]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211800 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).