

Product datasheet for **RC207222**

KCNG1 (NM_002237) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNG1 (NM_002237) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNG1
Synonyms:	K13; KCNG; KH2; KV6.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207222 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCCTCTTACCGGGAGACAATTCTGACTACGACTACAGCGCGCTGAGCTGCACCTCGGACGCCTCT
 TCCACCCGGCCTTCTCCCGCAGCGCCAGGCCATCAAGGGCGCGTTCTACCGCCGGGCGCAGCGGCTGCG
 GCCGAGGATGAGCCCCGCCAGGGCTGTAGCCCGAGGACCGCCGCCGTCGGATCATCATCAACGTAGGC
 GGCATCAAGTACTCGCTGCCCTGGACCACGCTGGACGAGTTCCCGCTGACGCGCCTGGGCCAGCTCAAGG
 CCTGCACCAACTTCGGCGACATCCTCAACGTGTGCGATGACTACGACGTACCTGCAACGAGTTCTTCTT
 CGACCGCAACCCGGGGCCTTCGGCACTATCCTGACCTTCTGCGCGGGCAAGCTGCGGCTGTGCGC
 GAGATGTGCGCGTGTCTTCCAGGAGGAGCTGCTGTACTGGGCATCGCGGAGGACCACCTGGACGGCT
 GCTGCAAGCGCCGCTACCTGCAGAAGATTGAGGAGTTCGCGGAGATGGTGGAGCGGGAGGAAGAGGACGA
 CGCGCTGGACAGCGAGGGCCGCGACAGCGAGGGCCCGCCGAGGGCGAGGGCCGCTGGGGCGCTGCATG
 CGGCGACTGCGCGACATGGTGGAGAGGCCGCACTCGGGGCTGCCTGGCAAGGTGTTCGCCTGCCTGTCCG
 TGCTCTTCGTGACCGTCAACCGCGTCAACCTCTCCGTACGACCTTGCCAGCCTGAGGGAGGAGGAGGA
 GCAGGGCCACTGTTCCAGATGTGCCACAACGTCTTTCATCGTGGAGTCCGTGTGCGTGGGCTGGTCTCC
 CTGGAGTTCCTCTGCGGCTCATTACGGCGCCAGCAAGTTCGCCTTCTGCGGAGCCCGCTGACGCTGA
 TCGACCTGGTGGCCATCCTGCCCTACTACATCACGCTGCTGGTGGACGGCGCCCGCGGGCCGTCGAA
 GCCCGCGCGGCAACAGCTACCTGGACAAGTGGGGCTGGTGTGCGCGTGTGCGGGCGCTGCGCATC
 CTGTACGTGATGCGCCTGGCGGCCACTCCCTGGGGCTGCAGACGCTGGGGCTCACGGCCCGCCGTCGA
 CCCGCGAGTTCGGGCTCCTGCTCTTCTCTGATGCGCATGCGCCTTTCGCGCCCTGCTCTACGT
 CATCGAGAACGAGATGGCCGACAGCCCCGAGTTACCAGCATCCCTGCCTGCTACTGGTGGGCTGTCATC
 ACCATGACGACGGTGGGCTATGGCGACATGGTCCCGAGGACACCCGGGCCAGGTAGTGGCCCTGAGCA
 GCATACTGGGCGGCATCCTGCTCATGGCCTTCCAGTCACCTCCATCTTCCACACCTTCTCCGCTCCTA
 CCTGGAGCTCAAGCAGGAGCAAGAGAGGGTGTGTTCCGGAGGGCGCAGTTCCTCATAAAACCAAGTCG
 CAGCTGAGCGTGTCCAGGACAGTGACATCTTGTTCGGAAGTGCCTCCTCGGACACCAGAGACAATAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207222 protein sequence
 Red=Cloning site Green=Tags(s)

MTLLPGDNSDYDYSALSCTSDASFHPAFLPQRQAIKGAFYRRAQRLRPQDEPRQGCQPEDRRRRRIIINVG
 GIKYSLPWTTLDEFPLTRLGQLKACTNFGDILNVCDYDVTCEFFFDNRNPGAFGTILFRLRAGLRLLR
 EMCALSFQEELLYWGIAEDHLDGCKRRYLQKIEEFAEMVEREEEDDALDSEGRDSEGPAEGEGRGRCM
 RRLRDMVERPHSGLPGKVFACL SVLFVTVTAVNLSVSTLPSLREEEEQGHCSQMCHNVFIVESVCVGFWS
 LEFLLRLIQAPSKFAFLRSPLTLIDLVAI LPPYITLLVDGAAAGRRKPGAGNSYLDKVG LVRVLRALRI
 LYVMLARHSLGLQTLGLTARRCTREFGLLLLFLCMAIALFAPLLYIENEMADSPFTSIPACYWWAVI
 TMTTVGYGDMVPRSTPGQVVALSSILGGILLMAFPVTSIFHTFSRSYLELQEQERVMFRAQFLIKTKS
 QLSVVSQSDILFGSASSDTRDNN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6341_b01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_002237

ORF Size: 1539 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_002237.4](#)

RefSeq Size: 2237 bp

RefSeq ORF: 1542 bp

Locus ID: 3755

UniProt ID: [Q9UIX4](#)

Cytogenetics: 20q13.13

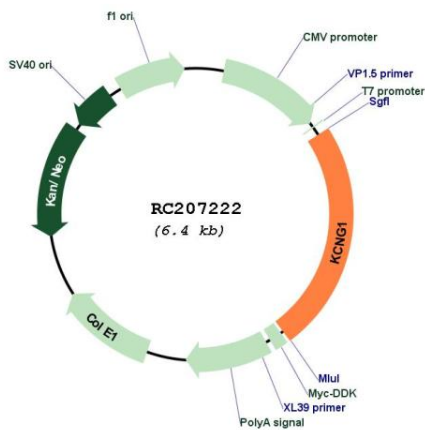
Domains: BTB, K_tetra, ion_trans

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

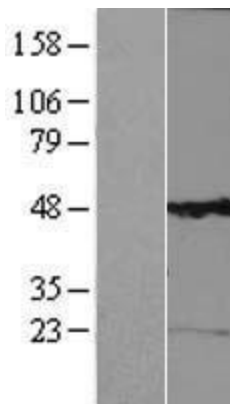
MW: 57.9 kDa

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 gene is abundantly expressed in skeletal muscle. Multiple alternatively spliced transcript variants have been found in normal and cancerous tissues. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207222



Western blot validation of overexpression lysate (Cat# [LY419456]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207222 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).