

Product datasheet for **RC210392**

Kv1.8 (KCNA10) (NM_005549) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv1.8 (KCNA10) (NM_005549) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kv1.8
Synonyms:	Kcn1; Kv1.8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC210392 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGATGTGTGGCTGAAAGAAATGGAGTTGCGCTGGTCAATTTTGATAATTCAGATGAAATCCAAG
 AAGAGCCAGGCTATGCCACAGACTTCGACTCAACCAGCCAAAAGGCCGGCCTGGGGCAGCTCCTTCTC
 CAACGGGAAGATCCTCATCAGCGAAAGCACCAACCATGAGACGGCCTTCTCAAGCTTCCGGGAGACTAT
 GCTGACCCCCAGGGCTGAGCCAGTGGTCTAAATGAAGGAAACCAGCGGGTATCATCAACATTGCTG
 GGCTGAGATTTGAGACCCAGCTCAGAACCCTTAGTCAGTCCCAGAGACTCTCTGGGAGACCGGGAGAA
 AAGGATGCAGTCTTTGACTCCATGAGAAATGAGTATTTCTTTGATCGTAACCGGCCAGTTTTGATGGA
 ATCCTATATTATTACCAATCTGGTGGGAAATTCGGCGCCAGCCAATGTTCCATTGATATCTTTGCTG
 ATGAAATCTCCTTCTATGAGCTGGTAGTGAGGCCATGGACCAGTCCGGGAGGATGAAGGCTTCATCAA
 AGACCTGAAACTGCTACCCACCAATGACATCCACCGTCAGTTCGGCTCCTTTGAGTACCCTGAA
 AGTTCACGCGCTGCCCGTGTGGCCGTGGTCTCGGTGTGGTGTGGTGCATCTCCATCACCATCTTCT
 GCCTGGAGACTGCCAGAGTCCGGGAGGATAGGGAGCTGAAGTGGTGCAGAGACCCCAATCTCAACAT
 GAGCAAGACAGTCTCTCCAGACCATGTTACCAGACCTTTCTCATGGTGGAGTCTACCTGCATCGTG
 TGGTTCACCTTCGAGCTGGTGTCCGGTTCGTGGTCTGCCCCAGCAAGACTGACTTCTTCAGGAACATCA
 TGAACATCATTGACATCATCTCCATTATCCCCTACTTTGCAACTCTATCACAGAGCTAGTCCAGGAGAC
 AGAGCCGAGTGCCCAACAGAATGTCCCTGGCCATCTGAGGATCATCCGCTGGTGGGGTCTCCGC
 ATCTTCAAGCTCTCGGCCACTCCAAGGGGCTGCAGATCCTCGGGCAAACTGAAGCGCTCCATTCGCGG
 AGTTGGGGTGTGCATCTTTCTTCTTATTGGAGTCACTCTTCTCCAGTGCAGTCTACTTTGCTGA
 GGTGGATGAGCCAGAGTCCCATTCTCTAGCATTCTGATGGCTTCTGGTGGGCAGTGGTACCATTGACA
 ACTGTAGGCTATGGGACATGTGCCGACCACCCAGGGGGAAGATTGTGGGCACTCTGTGTGCCATTG
 CAGGGGTCTCACCATTGCCCTCCCTGTGCCTGTCTCCTCAACTCAATTACTTCTACCACCGGGA
 GACTGAGAATGAAGAAAAGCAGAATCCCGGGAGAAATTGAAAGAATCCTCAACAGTGTAGGCTCAAGA
 ATGGGCAGCACAGACTCTTAATAAGACCAATGGTGGCTGTCCACAGAGAAGTCTAGGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210392 protein sequence
 Red=Cloning site Green=Tags(s)

MDVCGWKEMEVALVNFNSDEIQEEPYATDFDSTSPKGRPGSSFSNGKILISESTNHETAFSKLPGDY
 ADPPGPEPVVLNEGNQRVIINIAGLRFETQLRRLSQFPETLLGDREKRMQFFDSMRNEYFFDRNRPSFDG
 ILYYYQSGGKIRRANVPIDIFADEISFYELGSEAMDQFREDEGFIKDPETLLPTNDIHRQFWLLFEYPE
 SSSAARAVAVVSVLVVVISITIFCLETLPEFREDRELKVVVRPNLNMSKTVLSQTMFTDPFFMVESTCIV
 WFTFELVLRVVCPSKTDFFRNIMNIIDIISIIPYFATLITELVQETEPSAQQNMSLAILRIIRLVRVFR
 IFKLSRHSKGLQILGQTLKASMRELGLLIFFLFIGVILFSSAVYFAEVDEPESHFSSIPDGFVAVVTMT
 TVGYGDMCPTTPGGKIVGTLCAIAGVLTIALPVPVIVSNFNFYHRETENEKQNIPEIERILNSVGSR
 MGSTDSLNTNGCSTEKSRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6006_g06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_005549

ORF Size: 1533 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_005549.2](#), [NP_005540.1](#)

RefSeq Size: 1959 bp

RefSeq ORF: 1536 bp

Locus ID: 3744

UniProt ID: [Q16322](#)

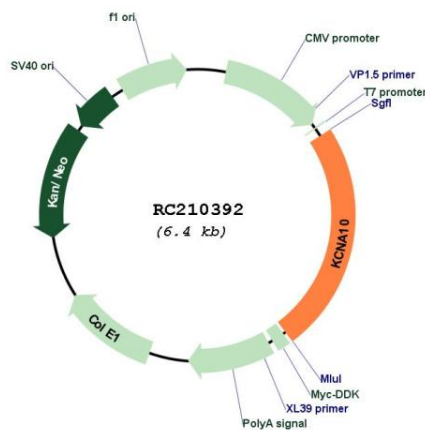
Cytogenetics: 1p13.3

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

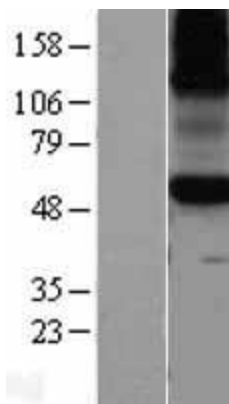
MW: 57.8 kDa

Gene Summary: Potassium 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. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in *Drosophila*, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It is specifically regulated by cGMP and postulated to mediate the effects of substances that increase intracellular cGMP. This gene is intronless, and the gene is clustered with genes KCNA2 and KCNA3 on chromosome 1. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC210392



Western blot validation of overexpression lysate (Cat# [LY401703]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210392 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).