

Product datasheet for RC214602

Kv beta 2 (KCNAB2) (NM_172130) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 2 (KCNAB2) (NM_172130) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kv beta 2
Synonyms:	AKR6A5; HKvbeta2; HKvbeta2.1; HKvbeta2.2; KCNA2B; KV-BETA-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214602 representing NM_172130 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTATCCAGAATCAACGACGGGCTCCCCGGCTCGGCTCTCGCTGCGGCAGACGGGCTCCCCGGGATGA
TCTACAGGAACCTGGGCAAGTCTGGCCTGCGGGTCTCCTGCTGGGACTTGAACATGGGTGACCTTCGG
AGGCCAGATCACCGATGAGATGGCAGAGCAGCTCATGACCTTGGCCTATGATAATGGCATCAACCTTTC
GATACAGCAGAAGTCTACGCAGCCGGCAAGGCTGAAGTGGTACTGGAAACATCATTAAAGAAGAAAGGAT
GGAGGCGGTCCAGCCTCGTCATCACCACCAAGATCTTCTGGGGCGAAAGCGGAGACGGAGCGGGGCT
GTCCAGGAAGCACATAATCGAAGGTCTGAAAGCTTCCCTGGAGCGACTGCAGCTGGAGTACGTGGATGTG
GTGTTTGCCAACCGCCCGGACCCCAACACCCCGATGGAAGAGACCGTCCGCGCCATGACCACGTCATCA
ACCAGGGGATGGCCATGTACTGGGGCACGTACGCTGGAGCTCCATGGAGATCATGGAGGCTACTCCGT
GGCCCGGCAGTTCAACCTGACCCCGCCATCTGCGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAA
GTGGAGGTGCAGCTGCCGGAGCTGTTCCACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCT
GTGGCATTGTTTCTGGCAAGTACGACAGTGGCATCCCACCTACTCAAGAGCCTCCTTGAAGGGCTACCA
GTGGCTGAAGGACAAGATCCTCAGTGAGGAGGGCCGGCCAGCAAGCCAAGCTGAAGGAGCTGCAGGCC
ATCGCCGAGCGCCTGGGCTGCACCCTGCCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGAGTCA
GCTCCGTGCTCCTGGGGGCTCCAATGCCGACCAGCTCATGGAGAACATTGGGGCAATACAGGTCCTTCC
GAAACTGTCATCTTCCATTATCCACGAGATTGATAGTATTTTGGCAATAAACCTACAGCAAAAAGGAC
TACAGATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC214602 representing NM_172130
 Red=Cloning site Green=Tags(s)

MYPESTTGSPARLSLRQTGSPGMIYRNLGKSGLRVSLGLGTWVTFGGQITDEMAEQLMTLAYDNGINLF
 DTAEVYAAGKAEVVLGNIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHIEGLKASLERLQLEYVDV
 VFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLTTPICEQAEYHMFQREK
 VEVQLPELFHKIGVGMATWSPLACGIVSGKYDSGIPPYSRASLKG YQWLKDKILSEEGRRQAKLKELQA
 IAERLGCTLPQLAIAWCLRNEGVSSVLLGASNADQLMENIGAIQVLPKLSSSIIHEIDSILGNKPYSKKD
 YRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6476_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_172130

ORF Size: 1059 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_172130.3](#)

RefSeq Size: 3129 bp

RefSeq ORF: 1062 bp

Locus ID: 8514

UniProt ID: [Q13303](#)

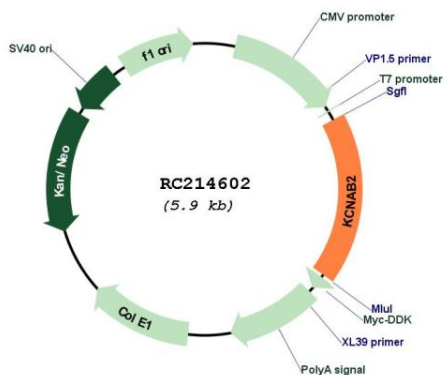
Cytogenetics: 1p36.31

Protein Families: Druggable Genome, Ion Channels: Other

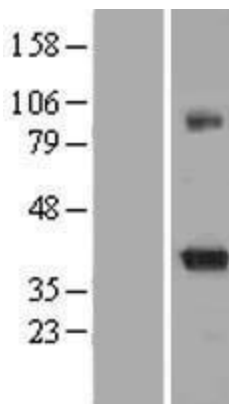
MW: 39.1 kDa

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. 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 is one of the beta subunits, which are auxiliary proteins associating with functional Kv-alpha subunits. This member alters functional properties of the KCNA4 gene product. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Dec 2010]

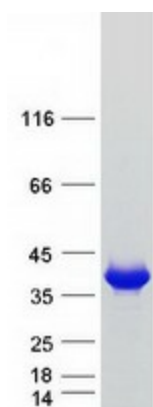
Product images:



Circular map for RC214602



Western blot validation of overexpression lysate (Cat# [LY406850]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214602 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KCNA2 protein (Cat# [TP314602]). The protein was produced from HEK293T cells transfected with KCNA2 cDNA clone (Cat# RC214602) using MegaTran 2.0 (Cat# [TT210002]).