

## Product datasheet for **RC232414**

### **Kv beta 2 (KCNAB2) (NM\_001199863) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Kv beta 2 (KCNAB2) (NM\_001199863) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** KCNAB2  
**Synonyms:** AKR6A5; HKvbeta2; HKvbeta2.1; HKvbeta2.2; KCNA2B; KV-BETA-2  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC232414 representing NM\_001199863  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGCAGAGCAGCTCATGACCTTGGCCTATGATAATGGCATCAACCTCTTCGATACAGCAGAAGTCTACG  
CAGCCGGCAAGGCTGAAGTGGTACTGGAAACATCATTAAAGAAGAAAGGATGGAGGCGGTCCAGCCTCGT  
CATCACCACCAAGATCTTCTGGGGCGGAAAGGCGGAGACGGAGCGGGCCTGTCCAGGAAGCACATAATC  
GAAGGTCTGAAAGCTTCCCTGGAGCGACTGCAGCTGGAGTACGTGGATGTGGTGTGGCCAAACCGCCCGG  
ACCCCAACACCCCGATGGAAGAGACCGTCCGCGCCATGACCCACGTCATCAACCAGGGGATGGCCATGTA  
CTGGGGCACGTCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTCCGTGGCCCGGCAGTTCAACCTG  
ACCCCGCCCATCTGCGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAAGTGGAGGTGCAGCTGCCGG  
AGCTGTTCCACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCTGTGGCATTGTTCTGGCAA  
GTACGACAGTGGCATCCCACCCTACTCAAGAGCCTCCTTGAAGGGCTACCAAGTGGCTGAAGGACAAGATC  
CTCAGTGAGGAGGGCCGCGCCAGCAAGCAAGCTGAAGGAGCTGCAGGCCATCGCCGAGCGCCTGGGCT  
GCACCCCTGCCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGAGTCAGCTCCGTGCTCTCTGGGGC  
CTCCAATGCGGACCAGCTCATGGAGAACATTGGGGCAATACAGGTCCTTCCGAAACTGTCATCTTCCATT  
ATCCACGAGATTGATAGTATTTGGGCAATAAACCCCTACAGCAAAAAGGACTACAGATCC

**ACGCGT**ACGCGGCGCCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232414 representing NM\_001199863  
 Red=Cloning site Green=Tags(s)

MAEQLMTLAYDNGINLFDTAEVYAAGKAEVVLGNIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHII  
 EGLKASLERLQLEYVDVVFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNL  
 TPPICEQAEYHMFQREKVEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKGYQWLKDKI  
 LSEEGRRQQAQKLKELQAI AERLGCTLPQLAI AWCLRNEGVSSVLLGASNADQLMENIGAIQVLPKLSSSI  
 IHEIDSILGNKPYSKKDYRS

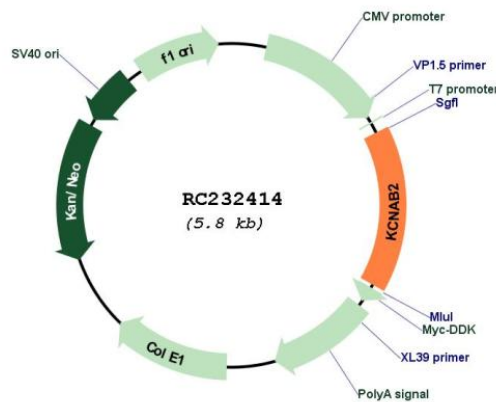
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001199863

**ORF Size:** 900 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001199863.2</a>
<b>RefSeq Size:</b>	3690 bp
<b>RefSeq ORF:</b>	903 bp
<b>Locus ID:</b>	8514
<b>UniProt ID:</b>	<a href="#">Q13303</a>
<b>Cytogenetics:</b>	1p36.31
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Other
<b>MW:</b>	34.1 kDa
<b>Gene Summary:</b>	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]