

## Product datasheet for RC215331

### Kv beta 1 (KCNAB1) (NM\_003471) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 1 (KCNAB1) (NM_003471) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kv beta 1
Synonyms:	AKR6A3; hKvb3; hKvBeta3; KCNA1B; KV-BETA-1; Kvb1.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215331 representing NM_003471 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCATCTGTATAAACCTGCCTGTGCAGACATCCCGAGCCCCAAGCTGGGTCTGCCAAAATCCAGTGAAT  
CGGCTCTAAAATGTAGATGGCACCTAGCAGTGACCAAGACTCAGCCTCAGGCGCCTGCAAACCTGTGAG  
GCCAGTGGAGCAGCCGAACAGAAATATGTGAAAAGTTTCTACGTGTTTATGGAATTTTCGTTGCAGGAA  
ACCACCAGAGCAGAGACGGGCATGGCATACAGGAATCTTGAAAATCAGGACTCAGAGTTTCTTGTCTGG  
GTCTTGGAAACATGGGTGACATTTGGAGGTCAAATTTAGATGAGGTTGCTGAACGGCTGATGACCATCGC  
CTATGAAAGTGGTGTAACTCTTTGATACTGCCGAACTATGCTGCTGAAAAGGCTGAAGTATTCTG  
GGGAGCATCATCAAGAAGAAAGGCTGGAGGAGTCCAGTCTGGTCATAACAACCAAACCTCTACTGGGGT  
GAAAAGCTGAAACAGAAAGAGGGCTGTCAAAGCATATTATTGAAGGATTGAAGGGCTCCCTCCAGAG  
GCTGCAGCTCGAGTATGTGGATGTGGTCTTTGCAAATCGACCCGACAGTAACACTCCCATGGAAGAAAT  
GTCCGAGCCATGACACATGTGATAAACCAAGGCATGGCGATGACTGGGGCACCTCGAGATGGAGTGCTA  
TGGAGATCATGGAAGCCTATTCTGTAGCAAGACAGTTCATATGATCCCACCGTCTGTGAACAAGCTGA  
GTACCATCTTTCCAGAGAGAGAAAGTGGAGTCCAGCTGCCAGAGCTCTACCACAAAATAGGTGTTGGC  
GCAATGACATGGTCTCCACTTGCCTGTGGAATCATCTCAGGAAAATACGGAACGGGGTGCCTGAAAGT  
CCAGGGCTTCACTGAAGTGTACCAAGTGGTTGAAAGAAAGAATTGTAAGTGAAGAAGGGAGAAAACAGCA  
AAACAAGCTAAAAGACCTTTCCCAATTGCGGAGCGTCTGGGATGCACACTACCTCAGCTAGCTGTTGCG  
TGGTGCCTGAGAAATGAAGGTGTGAGTTCTGTGCTCCTGGGATCATCCACTCCTGAACAACCTATTGAAA  
ACCTTGGTGCCATTAGGTTCTCCCAAAGATGACATCACATGTGGTAAATGAGATTGATAACATACTGCC  
CAACAAGCCCTACAGCAAGAAGGACTATAGATCA

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC215331 representing NM\_003471  
Red=Cloning site Green=Tags(s)

MHL YKPACADIPSPKLG LPKSSESALKCRWHLAVTKTQPQAACKPVRPSGAAEQYVEKFLRVHGISLQE  
TTRAETGMAYRNLGKSGLRVSLGLGTWVTFGGQISDEVAERLMTIAYESGVNLFDTAEVYAAGKAEVIL  
GSIKKKGWRRSSLVITTKLYWGGKAETERGLSRKHIEGLKGS LQRLQLEYVDVVFANRPDSNTPMEEI  
VRAMTHVINQGMAMYWGTSRWSAMEIMEAYSVARQFNMIPPVCEQAEYHLFQREKVEVQLPELYHKIGVG  
AMTWSPLACGIIISGKYGNVPESSRASLKC YQWLKERIVSEEGRQQNKLKDLSP IAERLGCTLPQLAVA  
WCLRNEGVS SVLLGSSTPEQLIENLGAIQVLPKMTSHVNEIDNILRNKPYSKDYRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6810\\_g03.zip](https://cdn.origene.com/chromatograms/mk6810_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_003471

**ORF Size:** 1224 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\\_003471.3](#)

**RefSeq Size:** 3301 bp

**RefSeq ORF:** 1227 bp

**Locus ID:** 7881

**UniProt ID:** [Q14722](#)

**Cytogenetics:** 3q25.31

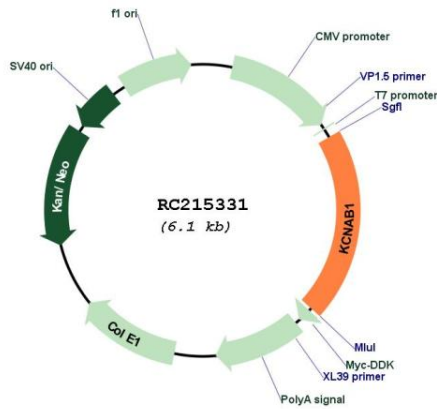
**Domains:** aldo\_ket\_red

**Protein Families:** Druggable Genome, Ion Channels: Other

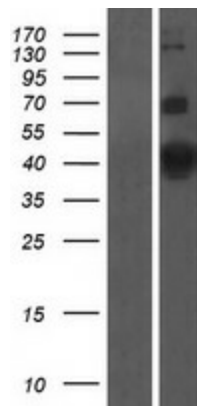
**MW:** 45.3 kDa

**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 includes distinct isoforms which are encoded by alternatively spliced transcript variants of this gene. Some of these isoforms are beta subunits, which form heteromultimeric complexes with alpha subunits and modulate the activity of the pore-forming alpha subunits. [provided by RefSeq, Apr 2015]

Product images:



Circular map for RC215331



Western blot validation of overexpression lysate (Cat# [LY418655]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215331 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).