

Product datasheet for **SC123984**

Kv beta 1 (KCNAB1) (NM_003471) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 1 (KCNAB1) (NM_003471) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv beta 1
Synonyms:	AKR6A3; hKvb3; hKvBeta3; KCNA1B; KV-BETA-1; Kvb1.3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_003471 edited
 ATGCATCTGTATAAACCTGCCTGTGCAGACATCCCGAGCCCAAGCTGGGTCTGCCAAA
 TCCAGTGAATCGGCTCTAAAATGTAGATGGCACCTAGCAGTGACCAAGACTCAGCCTCAG
 GCGGCCTGCAAACTGTGAGGCCAGTGGAGCAGCCGAACAGAAATATGTGAAAAAGTTT
 CTACGTGTTTCATGGAATTTCTGTTGCAGGAAACCCAGAGCAGAGACGGGCATGGCATA
 AGGAATCTTGAAAAATCAGGACTCAGAGTTTCTTGCTGGGTCTTGGAACATGGGTGACA
 TTTGGAGGTCAAATTTTCAGATGAGGTTGCTGAACGGCTGATGACCATCGCCTATGAAAGT
 GGTGTTAACCTCTTTGATACTGCCGAAGTCTATGCTGCTGAAAGGCTGAAGTGATTCTG
 GGGAGCATCATCAAGAAGAAAGGCTGGAGGAGTCCAGTCTGGTCATAACAACCAAACCTC
 TACTGGGGTGGAAAAGCTGAAACAGAAAGAGGGCTGTCAAGAAAGCATATTATTGAAGGA
 TTGAAGGGCTCCCTCCAGAGGCTGCAGTCTGAGTATGTGGATGTGGTCTTTGCAAATCGA
 CCGGACAGTAACACTCCCATGGAAGAAATTGTCCGAGCCATGACACATGTGATAAACCAA
 GGCATGGCGATGTACTGGGGCACCTCGAGATGGAGTGCTATGGAGATCATGGAAGCCTAT
 TCTGTAGCAAGACAGTTCAATATGATCCCACCGGTCTGTGAACAAGCTGAGTACCATCTT
 TTCCAGAGAGAGAAAAGTGGAGGTCCAGCTGCCAGAGCTCTACCACAAAATAGGTGTTGGC
 GCAATGACATGGTCTCCACTTGCCTGTGGAATCATCTCAGGAAAATACGGAAACGGGGTG
 CCTGAAAGTTCAGGGCTTCACTGAAGTGCTACCAGTGGTTGAAAGAAAGAAATTGTAAGT
 GAAGAAGGGAGAAAACAGCAAAAACAGCTAAAAGACCTTTCCCAATTGCGGAGCGTCTG
 GGATGCACACTACCTCAGCTAGCTGTTGCGTGGTGCCTGAGAAATGAAGGTGTGAGTTCT
 GTGCTCCTGGGATCATCCACTCCTGAACAACCTCATTGAAAACCTTGGTGCCATTCAGGTT
 CTCCCAAAGATGACATCATGTGGTAAATGAGATTGATAACATACTGCGCAACAAGCCC
 TACAGCAAGAAGGACTATAGATCATAA



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_003471 unedited AGTTCGAATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACCAGCGGGAACCTTA GGAGCCTGCTCGCTAAAAATGATAAGAGAGATCTAAAGAAAACAAGCTAAACCTTTTGA GGGACATACTGAAGCCAGATAACCCAAGTATTACAGCAAGATACAGTGAGTCTTAAAG TTAAGCACCGTGAATTAGCTTTGCTTCCTTGGGTTTTTGAACATGCATCTGTATAAAC CTGCCTGTGCAGACATCCCGAGCCCAAGCTGGGTCTGCCAAAATCCAGTGAATCGGCTC TAAAATGTAGATGGCACCTAGCAGTGACCAAGACTCAGCCTCAGGCGGCCTGCAAACCTG TGAGGCCAGTGGAGCAGCCGAACAGAAATATGTGAAAAAGTTTCTACGTGTTTCATGGAA TTTCGTTGCAGGAAACCCAGAGCAGAGACGGGCATGGCATAACAGGAATCTTGGAAAAT CANGACTCAGAGTTTCTTGGTCTTGGAACATGGGTGACATTTGGAGGTCAAATTT CAGATGANGTTGCTGAACGGCTGATGACCATCGCCTATGAAAAGTGGTGTAACTCTTTG ATACTGCCGAAATCTATGCTGCTGGGAAGGCTGAAGTGATTCTGGGGAGCATCATCAAGA AGAAAGGGCTGGAGGAGTCCAGTCTGGTCATAACACCCAACTCTACTGGGTGGAAAAG CTNGAACAGAAAAGGGCTGTCAAGAAAGCATATTATTGAAAGGATGAAGGGCTCCCTCC AAAGCTGCANNCTCAGTATGTGGATGTGGTCTTTGCAAATCGACCGCCAGTAACCCTCCC ATGGAAGAAATTTTCCAACCATGAACATGTGGATAACAAGCCATGGCGATGCTTGGGG CACCCCGAAGGATGCTTGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_003471
Insert Size:	4000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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_003471.2 , NP_003462.2
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

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]

Transcript Variant: This variant (2) has an alternate 5' sequence including the 5' UTR and the 5' coding region, as compared to variant 1. It encodes isoform 2, also known as kvb1.2, which has a shorter and distinct N-terminus than isoform 1.