

Product datasheet for **SC310485**

Kv beta 2 (KCNAB2) (NM_003636) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 2 (KCNAB2) (NM_003636) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv beta 2
Synonyms:	AKR6A5; HKvbeta2; HKvbeta2.1; HKvbeta2.2; KCNA2B; KV-BETA-2
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_003636 edited
 GGAAAATGGCCTTGTCTCCGGTTCCTCCGTTCCAGGAGCAGAATTTCCCACTGTAAAA
 ACCGAGCAAGTCTGGATAAGTGAAGGCTGGCTCCATGTATCCAGAATCAACGACGGGCTCC
 CCGGCTCGGCTCTCGTCCGGCAGACGGGCTCCCCGGGATGATCTACAGTACTCGGTAT
 GGGAGTCCAAAAGACAGCTCCAGTTTTACAGGAACCTGGGCAAGTCTGGCCTGCGGGTCC
 TCCTGCCTGGGACTTGGAACTATGATAATGGCATCAACCTCTTCGATACAGCAGGAGTCA
 GAGCAGCTCATGACCTTGGCCTATGATAATGGCATCAACCTCTTCGATACAGCAGGAGTCA
 TACGCAGCCGGCAAGGCTGAAGTGGTACTGGGAAACATCATTAAAGAAAGGATGGAGG
 CGGTCCAGCCTCGTCATCACCACCAAGATCTTCTGGGGCGGAAAGGCGGAGACGGAGCGG
 GGCTGTCCAGGAAGCACATAATCGAAGGTCTGAAAGCTTCCCTGGAGCGACTGCAGCTG
 GAGTACGTGGATGTGGTGTTCGCAACCGCCGGACCCCAACACCCCGATGGAAGAGACC
 GTCCGCGCCATGACCCACGTCAACCAAGGGATGGCCATGTACTGGGGCACGTACGC
 TGGAGCTCCATGGAGATCATGGAGGCTACTCCGTGGCCCGCAGTTCAACCTGACCCCG
 CCCATCTCGGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAAGTGGAGGTGCAGCTG
 CCGGAGCTGTTCCACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCTGTGGC
 ATTGTTTCTGGCAAGTACGACAGTGGCATCCACCTACTCAAGAGCCTCCTTGAAGGGC
 TACCAGTGGCTGAAGGACAAGATCCTCAGTGAGGAGGGCCGGCGCCAGCAAGCCAAGCTG
 AAGGAGCTGCAGGCCATCGCCGAGCGCCTGGGCTGCACCTGCCCCAGCTGGCCATAGCC
 TGGTGCCTGAGGAATGAGGGAGTCAAGTCCGTGCTCCTGGGGGCTCCAATGCGGACCAG
 CTCATGGAGAATTTGGGGCAATACAGGTCTTCCGAACTGTGCTTCCATTATCCAC
 GAGATTGATAGTATTTGGGCAATAAACCTACAGCAAAAAGGACTACAGATCCTAAGCC
 GCCCCCGCCCGCTGCTCGGACAGTTTCCGTCCCTCCTAGTCTCTGTTGCTCGCTTAA
 GCTGTTTTGAAGCAAGTGAAGAGTGTGGTTTGCATCCAAGAGAAAACACCACACTGTGA
 TGTGATCGGAAATGATCTCCCAAGTCCGCTGCCAGACACCACCTGCTTCGCCGGACA
 ATGTGCAAGTCCAGTCTGTGCCGGGAAGGCACTGGTTAGGAAGGATGTTCAAACGGTCC
 CACCCAAGCCTGTCACTCTGCTCATCCTCCAAGACCACCAGCTTTCTCCAGCCACAG
 CCAAGATCCCAAAGTCAAGGCCAAAGATTTCCAAGGTTCCCAAAGTCAAGGCCAGGCC
 AAGGCCTGGTGGGTCTTGGGGCGGCAGGGCCGGCCTCTCCTGCTGAGAATCCCA
 CTTGGTGTAGGGGAGAGGGGAAAGGGTCTGGCCATCGAGGGGCCCTTCTGCCAGGG
 CCTTGGTGTGGGGCAGGGCCTCCCACTGGGGTCTTCTCCACCTCCCACTTTCCAA
 GG

Restriction Sites: Please inquire

ACCN: NM_003636

Insert Size: 1700 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_003636.2](#), [NP_003627.1](#)

RefSeq Size: 3171 bp

RefSeq ORF: 1104 bp

Locus ID: 8514

UniProt ID: [Q13303](#)

Cytogenetics: 1p36.31

Domains: aldo_ket_red

Protein Families: Druggable Genome, Ion Channels: Other

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]

Transcript Variant: This variant (1), also known as HKvbeta2.1, encodes the longer isoform (1).
Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.