

Product datasheet for RC232593

Kv beta 2 (KCNAB2) (NM_001199861) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 2 (KCNAB2) (NM_001199861) 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:	>RC232593 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

RCATGTATCCAGAATCAACGACGGGCTCCCCGGCTCGGCTCTCGCTGCGGCAGACGGGCTCCCCGGGAT
GATCTACAGTACTCGGTATGGGAGTCCAAAAGACAGCTCCAGTTTTACAGGAACCTGGGCAAGTCTGGC
CTGCGGGTCTCCTGCCTGGGACTTGAACATGGGTGACCTTCGGAGGCCAGATCACCGATGAGATGGCAG
AGCAGCTCATGACCTTGGCCTATGATAATGGCATCAACCTCTTCGATACAGCAGAAGTCTACGCAGCCGG
CAAGGCTGAAGTGGTACTGGGAAACATCATTAGAAGAAAGGATGGAGGCGGTCCAGCCTCGTCATCACC
ACCAAGATCTTCTGGGGCGAAAGGCGGAGACGGAGCGGGCCTGTCCAGGAAGCACATAATCGAAGGTC
TGAAAGCTTCCCTGGAGCGACTGCAGCTGGAGTACGTGGATGTGGTGTTCGCAACCGCCCGGACCCCAA
CACCCCGATGGAAGAGACCGTCCGCGCCATGACCCACGTCATCAACCAGGGGATGGCCATGTACTGGGGC
ACGTCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTCCGTGGCCCGGACAGTTCAACCTGACCCCGC
CCATCTGCGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAAGTGGAGGTGCAGCTGCCGGAGCTGTT
CCACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCTGTGGCATTGTTCTGGCAAGTACGAC
AGTGGCATCCCACCCTACTCAAGAGCCTCCTTGAAGGGCTACCAGTGGCTGAAGGACAAGATCCTCAGTG
AGGAGGGCCGGCCAGCAAGCCAAGCTGAAGGAGCTGCAGGCCATCGCCGAGCGCTGGGCTGCACCCT
GCCCGAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGAGTCAGCTCCGTGCTCCTGGGGCCTCCAAT
GCGGACCAGCTCATGGAGAACATTGGGGCAATACAGTCTTCCGAAACTGTCGTCTTCCATTATCCACG
AGATTGATAGTATTTGGCAATAAACCTACAGCAAAAAGGACTACAGATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC232593 protein sequence
Red=Cloning site Green=Tags(s)

XCIQNQRAPRLGSRGRRAPPG*STVLGMGVPKDSSSF TGTWASLACGSPAWDLEHG*PSEARSPMRWQ
 SSS*PWPIMASTSSIQKSTQPARLKWYWETSLRRKDGSGPASSPPRSGAERRRRSGACPGST*SKV
 *KLPWSDCSWSTMMWCLPTARTPTPRWKRPSAP*PTSSTRGWPC T GARHAGAPWRSWRPTPWPGSST*PR
 PSARLSTTCSSVRKWRCSRCSTR*EWAP*PGPLWPVALFLASTTVASHPTQEPP*RTSG*RTRSSV
 RRAGASKPS*RSCRPSAWAAPCP SWP*PGA*GMRESAPCSWGPPMRTSSWRTL GQYRSFRNCRLPLST
 RLIVFWAINPTAKRTTD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6466_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001199861

ORF Size: 1101 bp

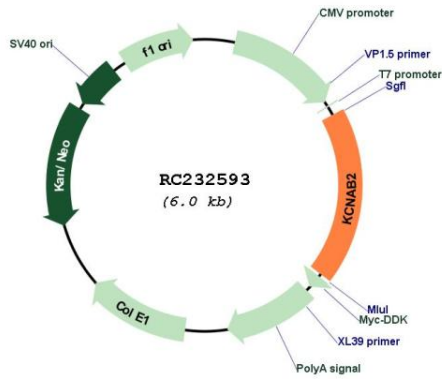
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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:	<u>NM_001199861.1, NP_001186790.1</u>
RefSeq Size:	4282 bp
RefSeq ORF:	1104 bp
Locus ID:	8514
UniProt ID:	<u>Q13303</u>
Cytogenetics:	1p36.31
Protein Families:	Druggable Genome, Ion Channels: Other
MW:	41 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC232593