

Product datasheet for RC211690

Kv beta 2 (KCNAB2) (NM_003636) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv beta 2 (KCNAB2) (NM_003636) 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:	>RC211690 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTATCCAGAATCAACGACGGGCTCCCCGGCTCGGCTCTCGCTGCGGCAGACGGGCTCCCCGGGATGA
TCTACAGTACTCGGTATGGGAGTCCAAAAGACAGCTCCAGTTTTACAGGAACCTGGGCAAGTCTGGCCT
GCGGGTCTCTGCCTGGGACTTGAACATGGGTGACCTTCGGAGGCCAGATCACCGATGAGATGGCAGAG
CAGCTCATGACCTTGGCCTATGATAATGGCATCAACCTCTTCGATACAGCAGAAGTCTACGCAGCCGGCA
AGGCTGAAGTGGTACTGGGAAACATCATTAAAGAAGAAAGGATGGAGGCGGTCCAGCCTCGTCATCACCAC
CAAGATCTTCTGGGGCGAAAGGCGGAGACGGAGCGGGGCTGTCCAGGAAGCACATAATCGAAGGTCTG
AAAGCTTCCCTGGAGCGACTGCAGCTGGAGTACGTGGATGTGGTGTGGCAACCGCCCGGACCCCAACA
CCCCGATGGAAGAGACCGTCCGCGCCATGACCCACGTCATCAACCAGGGGATGGCCATGTAAGGGGAC
GTCACGCTGGAGCTCCATGGAGATCATGGAGGCCACTCCGTGGCCCGCAGTTC AACCTGACCCCGCCC
ATCTGCGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAAGTGGAGGTGCAGCTGCCGGAGCTGTTCC
ACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCTGTGGCATTGTTTCTGGCAAGTACGACAG
TGGCATCCCACCCTACTCAAGAGCCTCCTTGAAGGGCTACCAGTGGCTGAAGGACAAGATCCTCAGTGAG
GAGGGCCGCGCCAGCAAGCCAAGCTGAAGGAGCTGCAGGCCATCGCCGAGCGCCTGGGTCACCCCTGC
CCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGAGTCAGCTCCGTGCTCCTGGGGGCTCCAATGC
GGACCAGCTCATGGAGAATTGGGGCAATACAGTCTTCCGAAACTGTCGTCTTCCATTATCCACGAG
ATTGATAGTATTTGGGCAATAAACCTACAGCAAAAAGGACTACAGATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC211690 protein sequence
Red=Cloning site Green=Tags(s)

MYPESTTGSPARLSLRQTGSPGMIYSTRYGSPKRQLQFYRNLGKSGLRVSLGLGTWVTFGGQITDEMAE
 QLMTLAYDNGINLFDTAEVYAAGKAEVVLGNIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHIEGL
 KASLERLQLEYVDVVFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLTTP
 ICEQAEYHMFQREKVEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKGQWLKDKILSE
 EGRRQAKLKELQAIAERLGCTLPQLAIWCLRNNEGVSLLGASNADQLMENIGAIQVLPKLSSSIHE
 IDSILGNKPYSKKDYRS

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_003636

ORF Size: 1101 bp

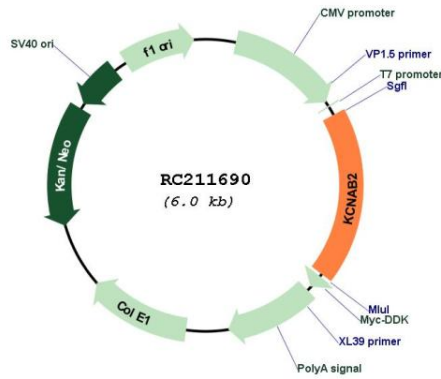
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

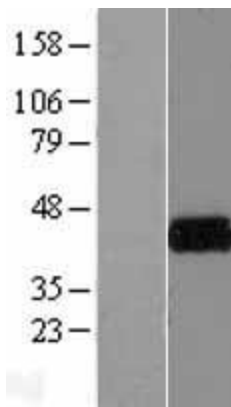
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_003636.1
RefSeq Size:	4224 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
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>

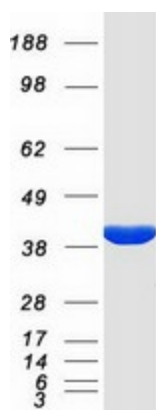
Product images:



Circular map for RC211690



Western blot validation of overexpression lysate (Cat# [LY418536]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211690 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KCNAB2 protein (Cat# [TP311690]). The protein was produced from HEK293T cells transfected with KCNAB2 cDNA clone (Cat# RC211690) using MegaTran 2.0 (Cat# [TT210002]).