

Product datasheet for **SC125885**

Kv1.2 (KCNA2) (BC043564) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv1.2 (KCNA2) (BC043564) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv1.2
Synonyms:	HBK5; HK4; HUKIV; KV1.2; MGC50217; MK2; NGK1; potassium channel; potassium voltage-gated channel, shaker-related subfamily, member 2; RBK2; voltage-gated potassium channel protein Kv1.2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for BC043564 edited
 GGCACATAGAAGAGTGAGCCATCATCTGGTTTCCAGCGCCAAGACTTCTGCAGGAGAGCC
 TCCGCTGGGCTTTCAAGTTGGCAACGTACACCTCCTGAGGACAGCCAGGACTCCAGCTT
 TTGCTGAGCTTTGCATCTTGCCCTCCTTCTTCAAAGGCTCCAGGCCATGCTCGGCTGT
 CTTCAAGTCCCGCATGCCCTGGCCAGGCACCTCACCGCCCTCCAGCCCAGCCCAATCC
 TAGAGCTCACCTCCAGGACCCAGAGTCTGCCCTTCTGCCAGAATGACTACCATATATTT
 CTAGCTCGAGTGAGAAGACGTGATGAGGAGTTGGGCTGCCTGTTGGTGATCTCAGATTC
 CTGCAGCATCTGATCAGCTCTGCAAGGAAGAGAGCTTCAGTCTCTGGTCAGCCAAGCGA
 GGCTGTCTCTCCAGTCTCAGAGAGCTCTCGGGCTCTCCTGCAGGAGACCAGGCCAATG
 CTCCTGTGCTTCTGGGGCCAGTAGCAGCACCTGAGCTCCCTGCCACCAGGCAGCTGAA
 AGGCATAGCGTGAGGTGCTTCTCTCAGTCCAATTATGACAGTGGCCACCGGAGACCCAG
 CAGACGAGGCTGCTGCCCTCCCTGGGCACCCACAGGACACCTATGACCCAGAGGCAGACC
 ACGAGTGTGTGAGAGGGTGGTATCAACATCTCAGGGCTGCGGTTTGAGACCCAGCTAA
 AGACCTTAGCCAGTTTCCAGAGACCCTTTAGGGGACCCAAAGAAACGAATGAGGTA
 TTGACCCCTCCGAATGAGTACTTTTTGATCGGAACCGCCCTAGCTTTGATGCCATTT
 TGTAATACTACCAGTCCAGGGGCGGATTGAGGCGACCTGTGAATGTGCCCTTAGATATAT
 TCTCTGAAGAAATTCGGTTTTATGAGCTGGGAGAGAAGCGATGGAGATGTTTCGGGAAG
 ATGAAGGCTACATCAAGGAGGAAGAGCGTCTCTGCCTGAAAAAGAGTTTCCAGAGACAAG
 TGTGGCTTCTCTTTGAATACCCAGAGAGCTCAGGGCTGCCAGGATTATAGCTATTGTTG
 CTGTGATGGTGATTCTGATCTCAATTGTCAGCTTCTGTCTGGAACATTGCCCATCTTCC
 GGGATGAGAATGAAGACATGCATGGTAGTGGGGTACCTTCCACACCTATTCCAACAGCA
 CCATCGGGTACCAGCAGTCCACTTCCCTCACAGACCCTTCTTTCATTGTAGAGACTCT
 GCATCATCTGGTTCTCCTTTGAATTCTTGGTGAGGTTCTTTCCTGTCCCAGCAAAGCCG
 GCTTCTTCCCAACATCATGAACATCATTGACATTTGTGGCCATCATCCCTACTTTCATCA
 CCTGGGACAGAGTTGGCTGAGAAGCCAGAGGACGCTCAGCAAGGCCAGCAGGCCATGT
 CACTGGCCATCCTCCGTGTATCCGGTTGGAACGCAGACCTCTGCAAAGCCAGAAGAGTA
 AGCGGGGAAGGCAGCATCTGAACACCTCACATGACTGCACCTTAGGAATTAACCTAGTCG
 CGGGCATGACTGTACAGTGGACCAGGGCATCTGGTCTGATGACAGGCAGACACCAGCTG
 TAACTACATTGCACAGGATGATTGATATTATCATTCTTGCTGACATATTCTGGAAGCTT
 TCAGCCCCAACAACTGCCACCCAGGACTTCTGCAGCTGAGAGTTCTGTGTGTCAGTA
 GGGTCTGATATTTGTACATAGGTTATACATATATGTGTACATATGTGCCCAATGAACAT
 TGCTGTCCACCTGATCATGGGTGATACATAGACTTCATAGAGCTCCACAGTCTTTGTAA
 ATATTGACACAAGTAAATAAGTATATAAATATATATTACTGGGGATTTATTTAAACATCA
 TTCTGTGTGATATGAAAAAATAAAATTTTTGACAGACAAAAAATAAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for BC043564 unedited
 NGGCGTTCAAATTTGTATACGACTACTATGGGCGCCGGAATCAAATCTGGTACCGGT
 CCGGAATTCCTGGGATGGCACATAGAAGAGTGAGCCATCATCTGGTTTCCAGCGCCAAGA
 CTCTGCAGGAGAGCCTCCGCTGGGCTTTCAAGTTGGCAACGTACACCTCCTGAGGACA
 GCCAGGACTCCAGCTTTTGTGAGCTTTGCATCTTGCTCCTTCTTCAAAGGCTCCAG
 GCCATGCTCGGCTGTCTTCAAGTCCCGCATGCCCTGGCCAGGCACCTCACCGCCCTC
 CAGCCCAGCCCAATCCTAGAGCTCACCTCCAGGACCCAGAGTCTGCCCTTCTGCCAGAA
 TGACTCACCATATTTCTAGCTCGAGTGAGAAGACGTGATGAGGAGTTGGGCTGCCTGTT
 GGTGCATCTCAGATTCCTGCAGCATCTGATCAGCTCTGCAAGGAAGAGAGCTTACGCT
 CTGGTCAGCCAAGCGAGGCTGTCTCTCCAGCTCTCAGAGAGCTCTCGGGCTCTCCTGCA
 GGAGACCAGGCCAATGCTCCTGTGCTTCTGGGGCCAGTAGCAGCACCCCTGAGCTCCCTG
 CCACCAGGCAGCTGAAAGGCATAGCGTGAGGTGCTTCTCAGTCCCAATTATGACAGTG
 GCCACCGGAGACCCAGCAGCAGGCTGCTGCCCTCCCTGGGCACCCACAGGACACCTAT
 GACCCAGAGGCAGACCAGAGTGTGTGAGAGGGTGGTATCAACATCTCAGGGCTGCNG
 TTTGAGACCCAGCTAAAGACTTAGNCCATTTCCAGAGACCCTTTAGGGACCCAAAGAA
 ACGAATGGAGTACTTTGACCCCTCCGAATGA

Restriction Sites:	NotI-NotI
ACCN:	BC043564
Insert Size:	2000 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:	<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:	BC043564.1 , AAH43564.1
RefSeq Size:	2022 bp
RefSeq ORF:	1068 bp
Locus ID:	3737
Cytogenetics:	1p13.3
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
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 contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the delayed rectifier class, members of which allow nerve cells to efficiently repolarize following an action potential. The coding region of this gene is intronless, and the gene is clustered with genes KCNA3 and KCNA10 on chromosome 1. [provided by RefSeq, Jul 2008]