

Product datasheet for **SC303558**

Kv1.2 (KCNA2) (NM_004974) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv1.2 (KCNA2) (NM_004974) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv1.2
Synonyms:	DEE32; EIEE32; HBK5; HK4; HUKIV; KV1.2; MK2; NGK1; RBK2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_004974 edited
GGCACATAGAAGAGTGAGCCATCATCTGGTTTCCAGCGCCAAGACTTCTGCAGGAGAGCC
TCCGCTGGGCTTTCAAGTTGGCAACGTACACCTCCTGAGGACAGCCAGGACTCCAGCTT
TTGCTGAGCTTTGCATCTTGCCCTCCTTCTTCAAAAGGCTCCAGGCCATGCTCGGCTGT
CTTCAAGTCCCGCATGCCCTGGCCAGGCACCTCACGCCCTCCAGCCCAGCCCAATCC
TAGAGCTACCTCCAGGACCCAGAGTCTGCCCTTCTGCCAGAATGACTCACCATTATTT
CTAGCTCGAGTGAGAAGACGTGATGAGGAGTTGGGCTGCCTGTTGGTGCATCTCAGATTC
CTGCAGCATCTGATCAGCTCTGCAAGGAAGAGAGCTTACGTCTCTGGTCAGCCAAGCGA
GGCTGTCTCTCCAGCTCTCAGAGAGCTCTCGGGCTCTCCTGCAGGAGACCAGGCCAATG
CTCCTGTGCTTCTGGGGCCAGTAGCAGCACCTGAGCTCCCTGCCACCAGGCAGCTGAA
AGGCATAGCGTGAGGTGCTTCTCTCAGTCCAATTATGACAGTGGCCACCGGAGACCCAG
CAGACGAGGCTGCTGCCCTCCCTGGGCACCCACAGGACACCTATGACCCAGAGGCAGACC
ACGAGTGTGTGAGAGGGTGGTATCAACATCTCAGGGCTGCGGTTTGGAGCCAGCTAA
AGACCTTAGCCAGTTTCCAGAGACCCTTTAGGGGACCCAAAGAAACGAATGAGGTA
TTGACCCCTCCGAATGAGTACTTTTTCGATCGGAACCGCCCTAGCTTTGATGCCATTT
TGTAATACTACCAGTCCAGGGGCGGATTGAGGCGACCTGTGAATGTGCCCTTAGATATAT
TCTCTGAAGAAATTCGGTTTTATGAGCTGGGAGAGAAGCGATGGAGATGTTTCGGGAAG
ATGAAGGCTACATCAAGGAGGAAGAGCGTCTCTGCCTGAAAAAGAGTTTCCAGAGACAAG
TGTGGCTTCTCTTTGAATACCCAGAGAGCTCAGGGCTGCCAGGATTATAGCTATTGTTG
CTGTGATGGTGATTCTGATCTCAATTGTCAGCTTCTGTCTGGAACATTGCCATCTTCC
GGGATGAGAATGAAGACATGCATGGTAGTGGGGTACCTTCCACACCTATTCCAACAGCA
CCATCGGGTACCAGCAGTCCACTTCCCTCACAGACCCTTTCTTATTGTAGAGACTCT
GCATCATCTGGTTCTCCTTTGAATTCTTGGTGAGGTTCTTTGCCGTGCCAGCAAAGCCG
GCTTCTTACCAACATCATGAACATCATTGACATTGTGGCCATCATCCCTACTTCATCA
CCCTGGGGACAGAGTTGGCTGAGAAGCCAGAGGACGCTCAGCAAGGCCAGCAGGCCATGT
CACTGGCCATCCTCCGTGTCATCCGGTTGGTAAGAGTCTTTAGGATTTTCAAGTTGTCCA
GACTCTCAAAGGTCTCCAGATTCTAGGTCAGACCCTCAAAGCCAGCATGAGAGAATTGG
GCCTCCTGATATTCTTTCTTTCATAGGGGTATCCTTTTCTCTAGTGTGTGATTTTG
CAGAGGCCGATGAGCGAGAGTCCCAGTCCCCAGCATCCCAGATGCCTTCTGGTGGGCAG
TCGTCTCCATGACAACTGTAGGCTATGGAGACATGGTTCCGACTACCATTGGGGGAAAGA
TAGTGGGTTCCCTATGTGCGATTGCAGGTGTGTTAACTATTGCCTTACCAGTCCCTGTCA
TTGTGTCCAATTTCAACTACTTCTACCACCGGGAGACAGAGGGAGAGGAACAGGCCAAT
ACTTGCAAGTGACAAGCTGTCCAAGATCCCATCCTCCCCTGACCTAAAGAAAAGTAGAA
GTGCCCTTACCATTAGTAAGTCTGATTACATGGAGATCCAGGAGGGTGTAAATAACAGTA
ATGAGGACTTTAGAGAGGAAAACTTGAAAACAGCCAACCTGTACCTTGGCTAACACAACT
ATGTGAATATTACAAAATGTTAACTGATGTCTGA
    
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_004974 unedited</p> <pre>GTCAAATTTGTATACGACTCATATAGGGCGGCCGCGATTCAAATCTGGTACCGGTCCGGA ATTCGCGGGATGGCACATAGAAGAGTGAGCCATCATCTGGTTTCCAGCGCCAAGACTTCT GCAGGAGAGCCTCCGCTGGGCTTCAAGTTGGCAACGTCACACCTCTGAGGACAGCCAG GACTCCAGCTTTTGTGTAGCTTTGCATCTTGCCTCCTTCTTCAAAGGCTCCAGGCCA TGCTCGGCTGTCTCAAGTCCCGCATGCCCTGGCCAGGCACCTACCGCCCCCTCCAGCC CAGCCCAATCCTAGAGCTCACCTCCAGGACCCAGAGTCTGCCCTTCTGCCAGAATGACT CACCATTAATTTCTAGCTCGAGTGAGAAGACGTGATGAGGAGTTGGGCTGCCTGTTGGTGC ATCTCAGATTCCTGCAGCATCTGATCAGCTCTGCAAGGAAGAGAGCTTACGTCTCTGGT CAGCCAAGCGAGGCTGTCTCTCCAGCTCTCAGAGAGCTCTCGNGCTCTCCTGCAGGAGA CCAGGCCAATGTCTGTGCTTCTGGGCCAGTAGCAGCACCTGAGCTCCCTGCCACC AGGCAGCTGANAGGCATAGCGTGAGGTGCTTCTCTCAGTCCCAATTATGACAGTGGCCAC CGGAGACCCAGCAGACGAAGCTGTGCCCTCCCTGGGCACCCACAGGACACCTATGACCC AGAGGCAGACCAGANTGCTGTGAAAGGGTGGTATCAACATCTCAGGGTGNCGTTTGA GACCCAGCTAAAGACTTTANCCAGTTTCCAGAGACCCTTTAGGGGACCCAAAGAAACG ATGAAGTACTTTGAACCCCTC</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' genomic read for NM_004974 unedited</p> <pre>NGCCCCCTGGNGATGGCACTTCCCAGGNCCAGNANGAACACTGGNNGNAGGGGTACAG GGNATGCCACCCGGGATCTGTTCCAGGAAACAGCTATGACCGCGGCCGCAATCTAGATCAG ACATCAGTTAACATTTTGGTAATATTCACATAGTTTGTGTTAGCCAAGGTACAGTTGGCT GTTTTCAAGTTTTCTCTCTAAAGTCTCATTACTGTTATTTACACCCTCCTGGATCTCC ATGTAATCAGACTTACTAATGGTAGAGGCACTTCTACTTTTCTTAGGTACAGGGGAGGAT GGGATCTTTGGACAGCTTGTCACTTGAAGTATTGGGCCTGTTCTCTCCCTCTGTCTCC CGGTGGTAGAAGTAGTTGAAATTGGACACAATGACAGGGACCGGTAAGGCAATAGTTAAC ACACCTGCAATCGCACATAGGGAACCCACTATCTTTCCCCAATGGTAGTCGGAACCATG TCTCCATAGCCTACAGTTGTGATGGAGACGACTGCCACCCAGAAAGCATCTGGGATGCTG GGGAATGGGACTCTCGCTCATCGGCCTCTGCANAATACACAGCACTAGAGAAAAGGATG ACCCCTATGAAGAGAAAAGAAATATCANGAGGCCCAATTCTCTCATGCTGGCTTTGAGGGTC TGACCTAGAATCTGGAGACCTTTGGAGTGTCTGGACAACCTGAAAATCCTAAAGACTCTT ACCAACCGGATGACACGNAGGATGGCCAGTGACATGGCCTGCTGGCCTTGCTGAGCGTCC TCTGGCTTCTCAGCCAATCTGTCCCCAGGGTGTGAAGTAGGGGATGATGGNCCACATG TCAATGATGTTTATGATGTTGGTGAACCCNNCTTCTGCTGGACAGNCAAGAACCTN</pre>
Restriction Sites:	Please inquire
ACCN:	NM_004974
Insert Size:	2100 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:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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_004974.2 , NP_004965.1
RefSeq Size:	2142 bp
RefSeq ORF:	1500 bp
Locus ID:	3737
UniProt ID:	P16389
Cytogenetics:	1p13.3
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longer protein (isoform a).</p>