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Product datasheet for SC124007

Kv1.8 (KCNA10) (NM_005549) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv1.8 (KCNA10) (NM_005549) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv1.8
Synonyms:	Kcn1; Kv1.8
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_005549 edited
GGCACCAGGTGAAGGGAGCATAAGTAACTTGTTCTCTGTCACGCAGACACTAAGTGGCCA
AGCCAGGATTGGGAGCTGGCCCTCCTGTCTGCCCCCAGAGCCTGTGCTCCTGACCAGGAT
GGAGAGCCTGCCTCAGGCTGGATGAGGGGCAGCCCCCACACCCAGCCTGCTGACCTCCCC
ACTGAATTCAGGTCTCCTGACGGACGCTGCTCTCAGTTTCCAGCTCTACCCTTTCCATGG
CCCTAAGGCTGACATCGCCACCTCTGCTTTCCACTCAGAAAGGCTGGAGGAGCTGGGCAC
TCGAGGGACCAGAGGGGCTACAGTGAGCAGCAGAGCCAGCGAGTCTTGCCTAAGACCCCA
TCTTACCATTCCCTGGTTGGGGAAACTGAGGTTCTTGGAGAGTGAGGCAACATAATCCCG
ACCACGTGAGACAGAGAGGTACAGAATCCACACTCTTCCGGCCGGGCCGTGGTTCAGCAT
GAGCCGAAGAGATGGGGCTTGGCTCTAAGAGGGGCAGAGACCAGAAAGGGTGAGGTTTGA
GAGCCACTCACTGGGGAGAATCTGCAAGACCTGAGGCCTGGCCGACCCTAAAGTGAAAGA
AAAGCGGCATCAAAGAGCTCACAGCAGGCAGTGAAGGCTGAGGATCTTCATGCTTCTTCC
CTGGCTCCCCTAGAATGGATGTGTGTGGCTGGAAAGAAATGGAGGTTGCGCTGGTCAATT
TTGATAATTCAGATGAAATCCAAGAAGAGCCAGGCTATGCCACAGACTTCGACTCAACCA
GCCCAAAAGGCCGGCCTGGGGGCAGCTCCTTCTCCAACGGGAAGATCCTCATCAGCGAAA
GCACCAACCATGAGACGGCCTTCTCCAAGCTTCCGGGAGACTATGCTGACCCCCCAGGGC
CTGAGCCAGTGGTCCTAAATGAAGGAAACCAGCGGGTGATCATCAACATTGCTGGGCTGA
GATTTGAGACCCAGCTCAGAACCCTTAGTCAGTTCCCAGAGACTCTCCTGGGAGACCGGG
AAAAAAGGATGCAGTTCTTTGACTCCATGAGAAATGAGTATTTCTTTGATCGGAACCGGC
CCAGTTTTGATGGAATCCTATATTATTACCAATCTGGTGGGAAAATTCGGCGCCCAGCCA
ATGTTCCCATTGATATCTTTGCTGATGAAATCTCCTTCTATGAGCTGGGTAGTGAGGCCA
TGGACCAGTTCCGGGAGGATGAAGGCTTCATCAAAGACCCTGAAACACTGCTACCCACCA
ATGACATCCACCGTCAGTTCTGGCTCCTCTTTGAGTACCCTGAAAGTTCCAGCGCTGCCC
GTGCTGTGGCCGTGGTCTCGGTGTTGGTTGTGGTCATCTCCATCACCATCTTCTGCCTGG
AGACACTGCCAGAGTTCCGGGAGGATAGGGAGCTAAAGGTGGTCAGAGACCCCAATCTCA
ACATGAGCAAGACAGTCCTCTCCCAGACCATGTTCACCGACCCTTTCTTCATGGTGGAGT
CTACCTGCATCGTGTGGTTCACCTTCGAGCTGGTGCTCCGGTTCGTGGTCTGCCCCAGCA
AGACTGACTTCTTCAGGAACATCATGAACATCATTGACATCATCTCCATTATCCCCTACT
TTGCAACTCTCATCACAGAGCTAGTCCAGGAGACAGAGCCGAGTGCCCAACAGAACATGT
CCCTGGCCATCCTGAGGATCATCCGCCTGGTGAGGGTCTTCCGCATCTTCAAGCTCTCGC
GCCACTCCAAGGGGCTGCAGATCCTCGGGCAAACACTGAAGGCGTCCATGCGGGAGTTGG
GGTTGCTCATCTTCTTTCTCTTCATTGGAGTCATCCTCTTCTCCAGTGCAGTCTACTTTG
CTGAGGTGGATGAGCCAGAGTCCCATTTCTCTAGCATTCCTGATGGCTTCTGGTGGGCAG
TGGTCACCATGACAACTGTAGGCTATGGGGACATGTGCCCGACCACCCCAGGGGGGAAGA
TTGTGGGCACTCTGTGTGCCATTGCAGGGGTCCTCACCATTGCCCTCCCTGTGCCTGTCA
TTGTCTCCAACTTCAATTACTTCTACCACCGGGAGACTGAGAATGAAGAAAAGCAGAACA
TCCCAGGAGAAATTGAAAGAATCCTCAACAGTGTAGGCTCAAGAATGGGCAGCACAGACT
CTCTTAATAAGACCAATGGTGGCTGTTCCACAGAGAAGTCTAGGAAATGATCAGTCCAGG
GCTTCTTGGGTCCATCCTGTCTCTCTTCTCTCTTCTCTCTCTCTCTCTCGCTTTCTCC
CCTCCTCTCTCTCTTCCTTCTGCCTTCCCTTCCTCCCTTCATTCCTTCCTCTTTCCCTCT
CCCTTCTCTCATTTCATCTTTCCAAAGATCAAAATGTATCTTTTGTGATCAATAACTATC
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TTCAATACATTATAGAAAGATTTGGATCTCTTTTCCTATGAAGGGATAGTTCAGGTCCCC
AGACCAGAAATACTGGTATCACCCGGGAGGATGAAAATGCAGAATC

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_005549 unedited
GTGNATAGGNAGCATAATTCACTTGTCCTTTGTCACGCAGGCACTACCTGGCCAATCCAG
GATGGCAGCTGGCATCTCCTGTCTGCCCCCAGAGCCTGTGCTCCTGACCAGGTAGGCAGA
GCCTGGACTCAGCTGGATGAGGGGCAGCCCCCGCACCCAGCCTGCTGACCTCCCCACTGA
ATTCAGGTCTCCTGACGGACGCTGCTCTTAGTTTCCAGCTCTACCCTTTCCATGCCCCTA
ATGCTGCAATCGCCACCTCTGTTTTCCACTCACAAACGCTGGTAGAGCTGGGCACTCGAG
GGACCATTGCCCCTACCGTGATCTTTATAGCCAGCGAGTCTTGCCTAACACCCCATGCTT
ACCCTTCCCTGGTTGGGGAAACTCGAGTCCTTGGACATTGAGGCCTCCATATTTCGACCG
CGGTGATATTATCCGTTCAGAATCCACCCGCTTTCGGCCGTGTCCGCGTTTTACTCTCGA
CCCCAATAGATGGCTCTCGGCCCCTTACACGGGCCTAGCCCCAAGCGGGTGCCGCTTTTA
GAACCCCATCCCTCGCCGACCACCTGCCGGTACCTCATGTCCTGTCCCTTTCTCTTTGAT
GCCAGAAAAACGCGCATATAACCGCCTCACGCGTATGACGTGTGAGGCACGAGGATTTGT
ATGGCCTCTAGCCGTGTGTGCCCGACTACCGGTTGTCGTGCTGTTTGCCCACGACACTCC
GGCTGCTCCCTGCTTTTCTTTATCACCTTTTTACCATTAATCGGCTCCGACGGCCCCGGT
CGAGTGGTATTGGAACGGTGGGATGGTCTTAATCTCCCCGAGGTTTCGCCCGGGTGTGTC
TTTTAATTATTATCACGGCGGACCATCCACTCTGATGCCCACATTTATCTTTTTTGCCCC
ACACCCGG
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3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_005549 unedited
TTCATTTCTCCTGAGATGTTCTGCTTTATTTCATTCTCAGTCTCCCGGTGGTAGAAGTAA
TTGAAGTTGGAGACAATGACAGGCACAGGGAGGGCAATGGTGAGGACCCCTGCAATGGCA
CACAGAGTGCCCACAATCTTCCCCCCTGGGGTGGTCGGGCACATGTCCCCATAGCCTACA
GTTGTCATGGTGACCACTGCCCACCAGAAGCCATCAGGAATGCTAGAGAAATGGGACTCT
GGCTCATCCACCTCAGCAAAGTAGACTGCACTGGAGAAGAGGATGACTCCAATGAAGAGA
AAGAAGATGAGCAACCCCAACTCCCGCATGGACGCCTTCAGTGTTTGCCCGAGGATCTGC
AGCCCCTTGGAGTGGCGCGAGAGCTTGAAGATGCGGAAGACCCTCACCAGGCGGATGATC
CTCAGGATGGCCAGGGACATGTTCTGTTGGGCACTCGGCTCTGTCTCCTGGACTAGCTCT
GTGATGAGAGTTGCAAAGTAGGGGATAATGGAGATGATGTCAATGATGTTCATGATGTTC
CTGAAGAAGTCAGTCTTGCTGGGGCAGACCACGAACCGGAGCACCAGCTCGAAGGTGAAC
CACACGATGCAGGTAGACTCCACCATGAAGAAAGGGTCGGTGAACATGGTCTGGGAGAGG
ACTGTCTTGCTCATGTTGAGATTGGGGTCTCTGACCACCTTTAGCTCCCTATCCNTCCGG
AACTCTGGCAGTGTN
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Restriction Sites: Please inquire

ACCN: NM_005549

Insert Size: 3000 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: no

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_005549.2, NP_005540.1
RefSeq Size:	1959 bp
RefSeq ORF:	1536 bp
Locus ID:	3744
UniProt ID:	Q16322
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 is specifically regulated by cGMP and postulated to mediate the effects of substances that increase intracellular cGMP. This gene is intronless, and the gene is clustered with genes KCNA2 and KCNA3 on chromosome 1. [provided by RefSeq, Jul 2008]