

Product datasheet for **SC117021**

Kv2.1 (KCNB1) (NM_004975) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv2.1 (KCNB1) (NM_004975) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv2.1
Synonyms:	DEE26; DRK1; Kv2.1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_004975, the custom clone sequence may differ by one or more nucleotides

```
ATGCCGGCGGGCATGACGAAGCATGGCTCCCGCTCCACCAGCTCGCTGCCGCCCAGCCCATGGAGATCG
TGCGCAGCAAGGCGTGCTCTCGGCGGGTCCGCCTCAACGTGGGGGGCTGGCGCAGGAGTACTCTGGCG
TACCTTGGACCGCTGCCCGCAGCGGGCTGGGCAAGCTCCGCGACTGCAACACGCACGACTCGTGCTC
GAGGTGTGCGATGACTACAGCCTCGACGACAACGAGTACTTCTTTGACCGCCACCGGGCGCCTTACCT
CCATCCTCAACTTCTACCGCACTGGGCGACTGCACATGATGGAGGAGATGTGCGCGCTCAGCTTCAGCCA
AGAGCTCGACTACTGGGGCATCGACGAGATCTACCTGGAGTCTGCTGCCAGGCCGCTACCACCAGAAG
AAAGAGCAGATGAACGAGGAGCTCAAGCGTGAGGCCGAGACCCTACGGGAGCGGGAAGGCGAGGAGTTG
ATAACACGTGCTGCGCAGAGAAGAGGAAAAAATCTGGGACCTACTGGAGAAGCCCAATTCCTCTGTGGC
TGCCAAGATCCTTGCCATAATTTCCATCATGTTTCATCGTCTCTCCACCATTGCCCTGTCCCTCAACACG
CTGCCTGAGCTACAGAGCCTCGATGAGTTCGGCCAGTCCACAGACAACCCCAAGTGGCCACGTGGAGG
CCGTGTGCATCGCATGGTTCACCATGGAGTACCTGCTGAGTTCTCTCTCGCCAAGAAGTGGAAAGTT
CTTCAAGGGCCCACTCAATGCCATTGACTTGTGGCCATTCTGCCATACTATGTACCATTTTCTCACC
GAATCCAACAAGAGCGTCTGCAATTCAGAATGTCCGCCGCGTGGTCCAGATCTTCCGCATCATGCGAA
TTCTCCGCATCCTTAAGCTTGCACGCCACTCCACTGGCCTCCAGTCTCTGGGCTTCACTTTGCGGAGGAG
CTACAATGAGTTGGGCTTGTCTATCCTTCTCTTGCCATGGGCATTATGATCTTCTCCAGCCTTGTCTTC
TTTGCTGAGAAGGATGAGGACGACACCAAGTTCAAAAGCATCCCAGCCTCTTTCTGGTGGGCCACCATCA
CCATGACTACTGTTGGGTATGGAGACATCTACCCCAAGACTCTCTGGGGAAAATGTTGGGGGACTCTG
CTGCATTGCAGGAGTCTGGTGATTGCTCTTCCCATCCCCATCATCGTCAATAACTTCTGTAGTTCTAT
AAGGAGCAGAAGAGACAGGAGAAAGCAATCAAACGGCGAGAGGCTCTGGAGAGAGCAAGGAAATGGCA
GCATCGTATCCATGAACATGAAGGATGCTTTTGGCCGGAGCATTGAGATGATGGACATTGTGGTTGAGAA
AAATGGGGAGAATATGGGTAAGAAAGACAAAGTACAAGATAAACCCTTGTCTCTAACAATGGAATGG
ACAAAGAGGACACTGTCTGAAACCAGCTCAAGTAACTCTTTGAAACCAAGGAACAGGGATCCCCTGAAA
AAGCCAGATCGTCTTCTAGTCTCAGCACCTGAACGTTTCCAGCAGTTGGAAGACATGTACAATAAGATGGC
CAAGACCAATCCCAACCCATCCTCAATACCAAGGAGTCAAGCAGCACAGAGCAAACCAAGGAAGAACTT
GAAATGGAGAGTATCCCCAGCCCCGTAGCCCCTCTGCCCACTCGCACAGAAGGGTCAATTGACATGCGAA
GTATGTCAAGCATTGATAGTTTTCATTAGCTGTGCCACAGACTTCCCTGAGGCCACCAGATTTCCCACAG
CCCTTTGACATCACTCCCAGCAAGACTGGGGGCAGCACAGCCCCAGAAGTGGGCTGGCGGGGAGCTCTG
GGTGCCAGTGGTGGTAGGTTTGTGGAGGCCAACCCAGCCCTGATGCCAGCCAGCACTCTAGTTTCTTCA
TCGAGAGCCCCAAGAGTTCCATGAAAATAACAACCCCTTGAAGCTCCGAGCACTTAAAGTCAACTTCAT
GGAGGGTGACCCCACTCCCTCCCCGTTCTAGGGATGTACCATGACCCTCTCAGGAACCGGGGGAGT
GCTGCGGTGCTGTGCTGGACTGGAGTGTGCCACGCTTTTGGACAAGGCTGTGCTGAGCCAGAGTCTC
CCATCTACACCACAGCAAGTGTAAAGACACCCCGGTCTCTGAGAAACACACAGCAATAGCGTTCAA
CTTTGAGGCGGGTGTCCACCAGTACATTGACGCAGACACAGATGATGAGGGACAGCTGCTCTACAGTGTG
GACTCCAGCCCCCAAAAGCCTCCCTGGGAGCACCAGTCCGAAGTTCAGCACGGGGACAAGATCGGAGA
AAAACCACTTTGAAAGCTCCCCTTACCACCTCCCCTAAGTTCTTAAGGCAGAAGTGTATTTACTCCAC
AGAAGCATTGACTGGAAAAGGCCCAAGTGGTCAAGAAAAGTGAACCTTGAGAACCACATCTCCCCTGAC
GTCCGTGTGTTGCCAGGGGGAGGAGCCATGGAAGCACACGAGATCAGAGCATCTGA
```

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_004975 unedited</p> <pre>CTTCCGCACTAGGATCAGCGATGTTGGCGGCATGACGTAACATGAAATCCCGTCCAC CAGCTCGCTGCCGCCGAGCCCATGGAGATCGTGCGCAGCAAGGCGTGCTCTCGGCGGGT CCGCCTCAACGTGCGGGGGCTGGCGCACGAGGACTCTGGCGTACCCTGGACCTGCGTCC CTTACGCGGTTTGGCAAGTTCCTCGACTGCAACATGCACGACTCGCTGCTCGAGGTGTG GATGACTACAGCCTGGAGTACTACTAGTACTTCTTTGACCGCCACCCGGGCGCCTTACC TCCATCCTCAACTTCTACCGCACTGGGGACTGCACATGATGGAGGAGATGTGCGCGCTC AGCTTCAGCCAAGAGCTCGACTACTGGGCATCGACGAGATCTACCTGGAGTCTGTGCTG CAGGCCCGCTACCACCAGAAAGAGCAGATGAACGAGGAGCTCAAGCGTGAGGCCGAG ACCCTACGGGAGCGGAAAGGCGAGGAGTTCGATAACACGTGCTGCGCAGAGAAGAGGAAA AAACTCTGGGACCTACTGGAGAAGCCAAATTCCTCTGTGGCTGCCAAGATCCTTGCCATA ATTTCCATCATGTTTCATCGTCTCTCCACCATTGCCCTGTCCCTCAACACGCTGCCTGAG CTACAGAGCCTCGATGAGTTCGGCCAGTCCACAGAACACCCCCAGCTGGCCACGTGGAG GCCGTGTGCATCGCATGGTTCACCATGGAGTACCTGCTGAGGTTCTCTACTCGCCCAAG AAGTGGAAAGTCTTCAAAGGCCCCCTCAATGCCATTGGATTGTTGGCCATTCTGCCCTAC TATGTACCATTTTTCTAACCGAATCCAACAAGA</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_004975 unedited</p> <pre>GGCCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTAACTGAAAACCCA NAAAACAAAACAGAAATTTCTATTATAGTAGGTACTTTCCTTGCTGCAGCAGGAATTATTC AGTCTGAACTGGGCATTTCAATGCGTGGTATTTTTTCTTTTCAATTTTGAAGTAAAAA AATCATATTTTTATGCTGTTCTTCAGTAACACACAGTCTTTTGAATAAACTATTTCTTT TGCAATTTTGACACTTGCAATATCTTTTGAGTCTACACTAGTGATGTAAAGAAAGCGTGT CCTCCTCAACCCATAAAACAATGCTCTGAGTTCATGCTGTTGGCTGGGTGCCACCTTCT GAACCTTCCCAGATTGCCAGGGGGCAATTAGAATTGAGTACAAGTGGTGAACCTCACCC TGATGGTATCTCAAAAATAAATCTCAGGTACTATGAAATACCGAAGTCAATGAAGACATT TGAGTAAGGGTTTTGCGCTGGGATCGTGGCTTATGGCGCAGAGACTTCCCATGACCAAT CATTCCCTGTAGCTGTCTAACAGTGGAAATCCATCCAGGAGGTGATGGACAGGTGTTCTTA GGGTGGCTGGGCAACATTCAATACCAAATGGTCAACCCACTTTTCAACACCAGCCGC TTGTTCCAGCATCCTTCTAGCTGAAGCCAGNAGGACTGTCAATGTTGCCCTCCGAGGC TGAGATGGAAAGCCACGAGAGATGGGGAGTATGTGGCCCTCGTCTGTCTAAAAGTGTGG TAGTGGTGGCTGTGAGTTCACATGTCATCTCCCAAGAGGCTATAGAGTGTACAAGGA GTGCTGTGCCTATGCNNTGCCACTCATGCTGATGACTGTGCTGCTAAGTCTANGGAGC CTCCTGAATCCTCTTTCTTGAGGCTTACGGCTTCTGNTCCAGTCTGCAAAAACCTTNGC AGTAACTAACGTCTCTTGA</pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_004975
Insert Size:	3420 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).
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_004975.2 , NP_004966.1
RefSeq Size:	3756 bp
RefSeq ORF:	2577 bp
Locus ID:	3745
UniProt ID:	Q14721
Cytogenetics:	20q13.13
Domains:	BTB, K_tetra, Kv2channel, ion_trans
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
Protein Pathways:	Taste transduction
Gene Summary:	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, shab-related subfamily. This member is a delayed rectifier potassium channel and its activity is modulated by some other family members. [provided by RefSeq, Jul 2008]