

Product datasheet for **SC300026**

KCNQ1 (NM_000218) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: KCNQ1 (NM_000218) Human Untagged Clone
Tag: Tag Free
Symbol: KCNQ1
Synonyms: ATFB1; ATFB3; JLNS1; KCNA8; KCNA9; Kv1.9; Kv7.1; KVLQT1; LQT; LQT1; RWS; SQT2; WRS
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000218 edited
 GCAGGCCCTCCTCGTTATGGCCGCGCCTCCTCCCGCCAGGGCCGAGAGGAAGCGCTG
 GGGTTGGGGCCGCTGCCAGGCCCGCCCGGGGAGCGCGGGCTGGCCAAGAAGTGCC
 CTTCTCGCTGGAGCTGGCGGAGGGCGGCCCGGGCGGGCGCGCTCTACGCGCCATCGC
 GCCCGGCCCCAGGTCCCGCGCCCCCTGCGTCCCGGCCGCGCCGCGCGCCCCAGT
 TGCTCCGACCTTGGCCGCGGCCGCGGTGAGCCTAGACCCGCGCTCTCCATCTACAG
 CACGCGCCCGCGGTGTTGGCGGCACCCACGTCCAGGGCCGCGTCTACAACCTCCTCGA
 GCGTCCCACCGGTGAAATGCTTCGTTTACCACTTCGCCGTCTTCTCATCGTCTGGT
 CTGCTCATCTTACGCTGTCCACCATCGAGCAGTATGCCGCCCTGGCCACGGGGAC
 TCTTTTGGATGGAGATCGTGTGGTGGTGTCTTCGGGACGGAGTACGTGGTCCGCT
 CTGGTCCCGCGCTGCCGAGCAAGTACGTGGGCTCTGGGGCGGCTGCGCTTTGCCCC
 GAAGCCATTTCATCATCGACCTCATCGTGGTGGTGGCCTCCATGGTGGTCTCTGCGT
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 CCTGAGGATGCTACACGTGACCGCCAGGGAGGCACCTGGAGGCTCCTGGGCTCCGTGGT
 CTTTCATCCACCGCCAGGAGCTGATAACCACCTGTACATCGGCTTCTGGGCTCATCTT
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 GTTCGGCAGTACGCAGATGCGCTGTGGTGGGGGTGGTACAGTCAACCATCCGCTGGA
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 TGCCATCTCTTCTTTCGCTCCAGCGGGATTCTTGGCTCGGGTTTGCCTGAAGGT
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 CATCCGGAAGGCCCCCGGAGCCACACTCTGCTGTACCCAGCCCAACCCAAGAAGTC
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 GAAGATGCTCACAGTCCCCATATCACGTGCGACCCCGCAGAAGAGCGGGGCTGGACCA
 CTTCTCTGTCGACGGCTATGACAGTTCTGTAAGGAAGAGCCCAACTGCTGGAAGTGAG
 CATGCCCATTTTCATGAGAACCAACAGCTTCGCCGAGGACCTGGACCTGGAAGGGGAGAC
 TCTGCTGACCCATCACCCACATCTCACAGCTGCGGGAACCATCGGGCCACCATTAA



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GGTCATTGCGACGCATGCAGTACTTTGTGGCCAAGAAGAAATTCAGCAAGCGCGGAAGCC
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CATCAAGGAGCTGCAGAGGAGGCTGGACCAGTCCATTGGGAAGCCCTCACTGTTTCATCTC
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TTTGTGGTGATTTGGATCTGTGTTTTAATGAGTTTACGGTGTGATTTTGATTATTAAT
GTGCAAGCTTTTCTAATAAACGTGGAGAATCCCAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
    
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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000218 unedited
NACGTAGCATTGNTATACGACTCACTATAGGGCGCCGCGCAATTCGACAGCCCTCCT
CGTTATGGCCGCGGCTCCTCCCGCCAGGCCAGAGGAAGCGCTGGGTTGGGGCCGC
CTGCCAGGCGCCCGCGGGCAGCGGGCTGGCCAAGAAGTCCCTTCTCGTGAGAG
CTGGCGGAGGGCGCCCGCGGGCGCGGCTCTACGCGCCATCGCGCCCGCGCCCA
GGTCCCGCGCCCTGCGTCCCGGGCGCGCCCGCGCGCCCAAGTTGCCTCCGACCTT
GGCCCGCGCCCGCGGTGAGCCTAGACCCGCGGCTCTCCATCTACAGCACGCGCCCGC
GTGTTGGCGCGCACCCACGTCCAGGGCCGCGTCTACAATTCTCGAGCGTCCCACCGGC
TGGAAATGCTTCGTTTACCATTTCGCGTCTTCTCATCGTCTGGTCTGCCTCATCTT
AGCGTGTGTCCACCATCGAGCAGTATGCCGCCCTGGCCACGGGACTCTTCTGGATG
GAGATCGTGTGGTGGTGTCTTCGGGACGGAGTACGTGGTCCGCTCTGGTCCGCGGC
TGCCGCAGCAAGTACGTGGGCTCTGGGGCGGCTGCGCTTGGCCGGAAGCCATTTCC
ATCATCGAACTCATCGTGGTCTGGCCCTCCATGGTGGGCCTCTGCGTGGGCTCCAAGGG
CAAGTGTTTGCCAGTACGCCATTAGGGCATCCGCTTCTGCAATCCTGAGGATGCTA
CACCTCGACCCAGGGAGGCACCTGGAGGCTCCTGGGCTCCGTGGTCTTATCCCCGC
CAGGAGCTGAAAACCCCTGTACAACGGCTTCTGGGCTCACTTCTCTCGAATTGGG
TACTG
    
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3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000218 unedited</p> <pre> CTCATTGCTNGATGGTCAACTTGCCAGGGCCAGCAGAGCACTGGGGNAGGGTCACAGGGC TGCCACCCGGGATCTGTTTCAGGAAACAGCTATGATCGCGGCCGCAATCTAGAGTCGAGTT TT GTTTGCACAATTAATAATCAAAATCACACCGTGAAACTCATTAAAACACAGATCCCAATC ACCACAAATTATTGATTCTATGCGACGTAATGCCAAAAGGAACCCCTGTCCTGTGTAG GAAACCGTCACTTTTCTGCGGCTCAACAGCTGGCAAGGGGAGGTGGCAGTCCCCTTCTGT GTGTTTGGCTGGCTGCTGGGACTGGGCGAGGGGTTGGAGCCGGAGCCCCACGCACAGTG GGCTCAAGGGCGGAGAGGCAGGGCTCCTCTCCAGCTAGGAAGAGCTGGCAGTCTAACCCA GGGAAGTGGGCGTTCCCCCACTCAACCACGTGCCCTGGGGAAATGGTGAGACTGTCCCT CCTGCTGGAAGCTGGGGCTCAAGAACAATCTCCACAGTCTCCTGCCATGGGTGAGCAT TTCCTGAGAGTGAGGGAGCCAGGCCAGGCCCTCAAATGGGCTCCTGGGCTTTTATTGC CCGCGGCCCTGTAATCAGCGTGGGCTTGTCTGCCCTGCCTGTGCCTGGCAGGGTCTTG AATTGAAGCTGGGTCCAAGGGTGCTGTCTCCCTCAGGAACCCCTGGGCAACAG GGTGGGCTGCCCTCAACCTGGGCTACTTCTTGGCTACATGGGCCAGGCCTTGGGCC TGCCCTTGGGTCCAACCACCATGCCCATGATGGTAACATTACATGTGGGGGGCCAAGGC CCTTGGGGTAA </pre>
Restriction Sites:	Please inquire
ACCN:	NM_000218
Insert Size:	3100 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_000218.2 , NP_000209.2
RefSeq Size:	3262 bp
RefSeq ORF:	2031 bp
Locus ID:	3784
UniProt ID:	P51787
Cytogenetics:	11p15.5-p15.4
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
Protein Pathways:	Vibrio cholerae infection
Gene Summary:	<p>This gene encodes a voltage-gated potassium channel required for repolarization phase of the cardiac action potential. This protein can form heteromultimers with two other potassium channel proteins, KCNE1 and KCNE3. Mutations in this gene are associated with hereditary long QT syndrome 1 (also known as Romano-Ward syndrome), Jervell and Lange-Nielsen syndrome, and familial atrial fibrillation. This gene exhibits tissue-specific imprinting, with preferential expression from the maternal allele in some tissues, and biallelic expression in others. This gene is located in a region of chromosome 11 amongst other imprinted genes that are associated with Beckwith-Wiedemann syndrome (BWS), and itself has been shown to be disrupted by chromosomal rearrangements in patients with BWS. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Aug 2011]</p> <p>Transcript Variant: This variant (1) encodes the longer isoform (1).</p>