

Product datasheet for **SC121929**

KCNG1 (NM_002237) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNG1 (NM_002237) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNG1
Synonyms:	K13; KCNG; kH2; KV6.1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC121929 sequence for NM_002237 edited (data generated by NextGen Sequencing)

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ATGACCCTCTTACCGGGAGACAATTCTGACTACGACTACAGCGCGCTGAGCTGCACCTCG
GACGCCTCTTCCACCCGGCCTTCTCCCGCAGCGCCAGGCCATCAAGGGCGCGTTCTAC
CGCCGGGCGCAGCGGCTGCGGCCGAGGATGAGCCCCGCCAGGGCTGTACGCCCCGAGGAC
CGCCGGCTCGGATCATCATCAACGTAGCGGCATCAAGTACTCGCTGCCCTGGACCAG
CTGGACGAGTCCCGCTGACGCGCTGGGCCAGCTCAAGGCCGTGCACCAACTTCGACAGC
ATCCTCAACGTGTGCGATGACTACGACGTACCTGCAACGAGTTCTTCTCGACCACAAC
CCGGGGGCTTCCGCACTATCCTGACCTTCTGCGCGCGGCAAGCTGCGGCTGTGCGC
GAGATGTGCGCGCTGTCTTCCAGGAGGAGCTGTGACTGGGGCATCGCGGAGGACCAC
CTGGACGGCTGTGCAAGCGCCGTACCTGCAGAAGATTGAGGAGTTCGCGGAGATGGTG
GAGCGGGAGGAAGAGGACGACGCGCTGGACAGCGAGGGCCGACAGCGAGGGCCCGGCC
GAGGGCGAGGGCCGCTGGGGCGCTGCATGCGGCGACTGCGCGACATGGTGGAGAGGCCG
CACTCGGGGCTGCCTGGCAAGGTGTTGCGCTGCCTGTGCGTGCTTTCGTGACCGTCACC
GCCGTCAACCTCTCCGTACGACCTTGCCAGCCTGAGGGAGGAGGAGGAGCAGGGCCAC
TGTTCCAGATGTGCCACAACGTCTTATCGTGGAGTCGGTGTGCGTGGGCTGGTTCCTC
CTGGAGTTCCTCCTGCGGCTCATTACAGGCGCCAGCAAGTTCGCTTCTGCGGAGCCCG
CTGACGCTGATCGACCTGGTGGCCATCCTGCCCTACTACATCACGCTGTGGTGGACGGC
GCCGCGCAGGCCGTGCAAGCCCGGCGCGGGCAACAGCTACCTGGACAAGTGGGGCTG
GTGCTGCGCGTGTGCGGGCGCTGCGCATCCTGTACGTGATGCGCTGGCGCGCCACTCC
CTGGGGCTGCAGACGCTGGGGCTCACGGCCCGCGCTGCACCCGCGAGTTCGGGCTCCTG
CTGCTTCTCCTGCGTGGCCATCGCCCTTTCGCGCCCTGCTTACGTATCGAGAAC
GAGATGGCCGACAGCCCCGAGTTCACAGCATCCCTGCCTGCTACTGGTGGGCTGTCATC
ACCATGACGACGTTGGGCTATGGCGACATGGTCCCAGGAGCACCCCGGGCCAGGTAGTG
GCCCTGAGCAGCATCCTGAGCGGCATCCTGCTCATGGCCTTCCAGTCACCTCCATCTTC
CACACCTTCTCCCGCTCTACCTGGAGCTCAAGCAGGAGCAAGAGAGGGTATGTTCCGG
AGGGCGCAGTTCCTCATCAAACCAAGTCGACGCTGAGCGTGTCCAGGACAGTGACATC
TTGTTCCGAAAGTGCCTCCTCGGACACCAGAGACAATAACTGA
    
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Clone variation with respect to NM_002237.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_002237 unedited
GTTTTTCGNATTTTGGTATACGACTTCACTATAGGGCGGCCGCGATTTCGGCACCAAGNAGC
CCGGCGGGGACCGGGAGGACAGAGACGGGGCGGCCGTGGCTCCGAGGGCGGGAGCTGAGCC
GGGCCCCGGGACCGAAGTTTGGCGGCGGCTCCGGGAGGACAGCGGGCTCCCCGGGCGAC
TTCCAGGCCCTCTCGCGTCTTCCGCCCCGACCCGTGGGACCGGGGGGACGGAAGCC
GCGGCCGGGCAACTCCGAGGCGGGGACGCCGACGGAACTTGAGGGAGCAGGCTGCC
TAATGAAGGAGCCAGGCTTGACACAGACAATTCTAGAAGTGGTGGCCGAGAGGGATGT
GAAGGCCCAAAATGACCCTCTTACCGGGAGACAATTCTGACTACGACTACAGCGCGCTGA
GCTGCACCTCGGACGCCTCCTTCCACCCGGCCTTCTCCCGCAGCGCCAGGCCATCAAGG
GCGCGTCTTACCGCCGGGCGCAGCGGCTGCGGCCGAGGATGAGCCCCGCGAGGGCTGTC
AGCCCCGAGGACCGCCGCTCGGATCATCATCAACGTAGCGGCATCAAGTACTCGCTGC
CCTGGACCACGCTGGACGAGTTCGCGTACGCGCCTGGGCCAGCTCAAGGCCTGCACCA
ACTTCGACGACATCCTCAACGTGTGCGATGACTACGACGTACCTGCAACGAGTTCCTCT
TCGACCGCACCCGGNGGCTTCCGCACTATCCTGACCTTCTGCGCGCGGGCAAGCTGC
GGCTGCTGCGCGAGATGTGCGCGCTGCCTTCCAGAGGAGCTGCTGACTGGGCATCGCGG
AGGACACCTGGACGCTGTGAAGCGCGCTACTGCAAGATATGGGGAGTTCGCGCAATGGN
GGACGCGAAGGAAAAGACCACCCCTGCCAACA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002237 unedited CATATGCTGCACCGCGGCTCGCAATCTACGATCGAGTTTTTTTTTTTTTTTTTTGCTGT TTCTGCTGTTTGTATTTTTTTTTTTTTTCTCCAGGCAGACCCATAAAGCAAGTTTTTGT GGGCATGTTATTTGCATGGTGAAAAGAACAAGGCATCTCCTTATTGAGGGAAACACAT AGGGGCTGGGTGGGCGGGGCTGGGCTGATGACCCAGCTTCCTTTCACGGCTGCAGGCGG AGGGGCAGGGCCCTCTGCTGATGTTCTAGTGTCTTCCCGGGTGTGGGAGTGAGGGTG TCCTTCCCGGGTGCCTGGGAGTCGGTGCCTGCCAGGACTGCACTCGGAAGCGGCCTGT CCCTCTCCAGGCGTCTGCAGTGGATGGCAATGGCTTCGGGCCACAGATGGCAGGCAGGGC AGGCGTGTCTCCGCGCTCAGTTATTGTCTCTGGTGTCCGAGGAGGCACTTCCGAACAAG ATGCTACTGTCTGGGACACGCTCAGCTGCGACTTGGTTTTGATGAGGAACTGCGCCCTC CGGAACATCACCTCTCTTGCTCTGCTTGGCTCCAGGTAGGAGCGGGAGAAGGTGTGG AAGATGGAGGTGACTGGGAAGGCCATGAGCAGGATGCCGCTCAGGATGCTGCTCAGGGCC ACTACCCTGCCCGNGTGCTCCTGGGACCATGTCGCCATAGCCCACCGTCGTCATGGTGA TGACAGCCACCAGTACCAGGCAGGGATGCTGGTGAACCTCTGGGCTGTCGGCCATCTTGT TCTTGAGACCTACAGCAGGGCCCTAAGAGGCTATGCCCTCANAGGAGAGCACAGGACCC CAACCTCCGGTGACGGGGCCCTGACCCACGTTTGCAGCCCGAGGGGCGCCACGCC ATACTTCGGATGCCCCCCCCCA
Restriction Sites:	NotI-NotI
ACCN:	NM_002237
Insert Size:	2300 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:	<u>NM_002237.2</u> , <u>NP_002228.2</u>
RefSeq Size:	1931 bp
RefSeq ORF:	1542 bp
Locus ID:	3755
UniProt ID:	<u>Q9UIX4</u>
Cytogenetics:	20q13.13
Domains:	BTB, K_tetra, ion_trans

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

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. This gene encodes a member of the potassium channel, voltage-gated, subfamily G. This gene is abundantly expressed in skeletal muscle. Multiple alternatively spliced transcript variants have been found in normal and cancerous tissues. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) encodes the longer isoform (1).