

Product datasheet for **SC123979**

KCNH2 (NM_172056) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | KCNH2 (NM_172056) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | KCNH2 |
| Synonyms: | ERG-1; ERG1; H-ERG; HERG; HERG1; Kv11.1; LQT2; SQT1 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >NCBI ORF sequence for NM_172056, the custom clone sequence may differ by one or more nucleotides

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ATGCCGGTGCGGAGGGGCCACGTCGCGCCGAGAACACCTTCTGGACACCATCATCCGCAAGTTTGAGG
GCCAGAGCCGTAAGTTCATCATCGCCAACGCTCGGGTGGAGAAGTGCGCCGTCATCTACTGCAACGACGG
CTTCTGCGAGCTGTGCGGCTACTCGCGGCCGAGGTGATGCAGCGACCCGACCTGCGACTTCTGCGAC
GGGCCGCGCAGCAGCGCCGCGCTGCGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGAGCGCAAAG
TGGAAATCGCCTTCTACCGAAAAGATGGGAGCTGCTTCTATGTCTGGTGGATGTGGTGCCCGTGAAGAA
CGAGGATGGGGTGTATCATGTTTCACTTTCGAGGTGGTATGGAGAAGGACATGGTGGGGTCC
CCGGCTCATGACACCAACCACGGGGCCCCCACCAGCTGGCTGGCCCCAGGCCGCGCAAAGACCTTCC
GCCTGAAGCTGCCCGGCTGCTGGCGTGACGGCCGGGAGTCGTGGTGGGTCGGGGCGCGGGGCGG
CGCGGGCGCCCCGGGGCGTGGTGGTGGACGTGGACCTGACGCCCGCGCACCCAGCAGCGAGTCGCTG
GCCCTGGACGAAGTGACAGCCATGGACAACCACGTGGCAGGGCTCGGGCCCGGAGGAGCGGGCTGCGC
TGGTGGGTCCCGCTCTCCGCCCGCAGCGCGCCCGGCCAGCTCCATCGCCCCGGGCGCACAGCCTCAA
CCCCGACGCTCGGGCTCCAGCTGCAGCCTGGCCCGGACGCGCTCCCGAGAAAGCTGCGCCAGCGTGGC
CGCGCCTCGTGGCCGACGACATCGAGGCCATGCGCGCCGGGGTGTGCCCCCGCACCCGCGCCACGCCA
GCACCGGGGCCATGCACCACTGCGCAGCGGCTTGTCAACTCCACTCGGACTCCGACCTCGTGGCCTA
CCGACCAATTAGCAAGATCCCCAAATCACCTCAACTTTGTGGACCTCAAGGGCGACCCCTTCTGGCT
TCGCCCACCAAGTACCGTGCATAGCACCTAAGATAAAGGAGCGAACCCACAATGTCCTGAGAAGG
TCACCCAGGTCTGTCCCTGGGCGCCGACGTGCTGCCTGAGTACAAGTGCAGGCACCGCGCATCCACCG
CTGGACCATCTGCATTACAGCCCTCAAGGCCGTGTGGACTGGTCTCTGCTGCTGGTGCATCTACTAC
ACGGTGTCTTACACCCCTACTCGGCTGCTTCTGCTGAAGGAGACGGAAGAAGGCCCGCTGCTACCG
AGTGTGGCTACGCTGCCAGCCGCTGGCTGTGGTGGACCTCATCGTGGACATCATGTTTATTGTGGACAT
CCTCATCAACTCCGACACCTACGTCAATGCCAACGAGGAGGTGGTCAAGCCACCCCGCCGATCGCC
GTCCACTACTTCAAGGGCTGGTTCCTCATCGACATGGTGGCCGCCATCCCTTCGACCTGCTCATCTTCG
GCTCTGGCTGAGGAGCTGATCGGGTGTGAAGACTGCGCGGCTGCTGCGGCTGGTGGCGTGGCGCG
GAAGCTGGATCGTACTCAGAGTACGGCGCGCCGCTGCTGTTCTTGCTCATGTGCACCTTTCGCTCATC
GCGCACTGGTAGCCTGCATCTGGTACGCCATCGGCAACATGGAGCAGCCACACATGGACTCACGCATCG
GCTGGCTGCACAACCTGGGCGACCAGATAGGCAAACCCTACAACAGCAGCGGCTGGGCGGCCCTCCAT
CAAGGACAAGTATGTGACGGCGCTACTTACCTTACAGCAGCTCACCAGTGTGGGCTTCGGCAACGTC
TCTCCCAACCAACTCAGAGAAGATCTTCCATCTGCGTCATGCTCATTGGCTCCCTCATGTATGCTA
GCATCTTCGGCAACGTGTGCGCCATCATCCAGCGGCTGTACTCGGGCACAGCCCGCTACCACACACAGAT
GCTGCGGGTGGGGAGTTCATCCGCTTCCACCAGATCCCCAATCCCTGCGCCAGCGCCTCGAGGAGTAC
TTCCAGCAGCCTGGTCTACACCAACGGCATCGACATGAACGCGGTGCTGAAGGGCTTCCCTGAGTGCC
TGCAGGCTGACATCTGCCTGCACCTGAACCGCTCACTGCTGCAGCACTGCAAACCCTCCGAGGGGCCAC
CAAGGGTGCCTTCGGGCCCTGGCCATGAAGTTCAAGACCACACATGCACCGCCAGGGGACACACTGGTG
CATGCTGGGGACCTGCTACCGCCCTGTACTTATCTCCCGGGCTCCATCGAGATCCTGCGGGGCGACG
TCGTGCTGGCCATCCTGGGTATGGGGTGGGGGGCGGCACTGGACTGAAATGCCCTCTGCAGCCTCAAG
AGGTGCGAGCCTTCTGAATATGCAGTCACTGGGGCTGTGGACCTGGGACTGCCTGCAGGGTCACTGGGCT
CCTTTAATTACCTAAACTCAGGCCCTCAAGCGGGCCATGGAGAGGAGCCCCACGTGGGGTGGAGCTG
CTGAACCTGGGGTCCACATTCTCCTTCCCTTCCAGGATCCGCCACAAACAGACACTTTTTGCTTCTT
AAAGTAG
    
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| 5' Read Nucleotide Sequence: | <p>>OriGene 5' read for NM_172056 unedited</p> <pre>TCAAATTTTGTAAATACGACTTCACTATAGGGCGGCCGGAATTCGCACGAGGGCCCGCC GGCCCCCCATGGGCTCAGGATGCCGGTGCAGAGGGGCCACGTCGCGCCGAGAACACCT TCCTGGACACCATCATCCGCAAGTTTGAGGGCCAGAGCCGTAAGTTCATCATCGCCAACG CTCGGGTGGAGAACTGCGCCGTCATCTACTGCAACGACGGCTTCTGCGAGCTGTGCGGCT ACTCGCGGGCCGAGGTGATGCAGCGACCCTGCACCTGCGACTTCCTGCACGGGCCGCGCA CGCAGCGCCGCGCTGCCGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGAGCGCAAAG TGGAAATCGCCTTCTACCGGAAAGATGGGAGCTGCTTCCATGTCTGGTGGATGTGGTGC CCGTGAAGAACGAGGATGGGGCTGTCATCATGTTTCATCCTCAATTCGAGGTGGTGTGG AGAAGGACATGGTGGGGTCCCNNTTNTGATCCCCNCCCCCCCCGGGCCCCCCCCCCC CNNCTGGGCTGGCGCCCGGGGCGCTGCCNTTGTCCCTTCTCCTGGTGTCTGCCCGCG CCTTTGGGCTCTTGACTGGCCCGGGGGCTNTTTCGGTCTCGTTCTGGTCTGGNTCCG CTCGGTCTCGTCTCCCTCCTCCGGCCCTGTGGGGTGGGCGCGGTGTTCTTTGCTCGC TCCCGGTCCTTGTGGTTGGTTCGTGCGCCCTCGTTTGTAGNCGCGTGGCCCTTGT GCTTACCTTCTTGTGTTGGGCTCTGTCTCTCGTGTGTGTACCCGGGGTGGGCGTTG TGTGTTGCNCGGTGCTCGCTCTCCCTCGTTTGGGCGCCGGTGCCTGTGCTGTGGTTT GTGGCGTGTGCTAGCTCTCGTTCCTGTTAATCTCTTGTGGCGTTCGTGTTGACTGATTAT TGCCGCGCTCGGTCTAGGTCATATGCGTTAGACTTAGTACACGTAACGCATTGCGG AATGTGATAGTGATAGAT</pre> |
| 3' Read Nucleotide Sequence: | <p>>OriGene 3' read for NM_172056 unedited</p> <pre>GAACATGATGACAGCCCCATCCTCGTTCTTACGGGCACCACATCCACCAGACATAGGAA GCAGCTCCCATCTTCCGGTAGAAGGCGATTTCCACTTTGCGCTCCTCGGCGCCAGCAG TGCTTGCAGGATCTGCGCGGCAGCGCGGCGCTGCGTGCAGGAGCCGTCAGGAAGTCGCA GGTGCAGGGTTCGCTGCATCACCTCGGCCGCGAGTAGCCGCACAGCTCGCAGAAGCCGTC GTTGCAGTAGATGACGGCGCAGTTCTCCACCCGAGCGTTGGCGATGATGAACTTACGGCT CTGGCCCTCAAATTGCGGATGATGGTGTCCAGGAAGGTGTTCTGCGGCGCGACGTGGCC CCTCCGCACCGGCATCCTGAGCCATGGGCGGGCCGGGCGGGCCCTCGTGCCGAATTCGC GGCCGCCCTATAGTGAGTCGTATTACAAAATTCTGACGGTTCACTAAACGAGCTCGCTT ATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAACGGGGCGGGGTTATTA CGACATTTTGGAAAGTCCCGTTGATTTTGGTGCCAAAACAACTCCCATGACGTCAAAT GGGGTGGAGACTTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCCCATTGTGACT GCCAAAACCGCATCACCATGGGTATAGCGATTACCTAATCCTTAAAGTTCGGCAATTAG GAAAATCCCCCATAGGATGTGCCGTGCCTAAATGCCGGCGGGCAATTTCCCGTTTTGGC CTAAAATGGGGGGGGCC</pre> |
| Restriction Sites: | Please inquire |
| ACCN: | NM_172056 |
| Insert Size: | 3600 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:

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_172056.1](#), [NP_742053.1](#)

RefSeq Size: 3164 bp

RefSeq ORF: 2667 bp

Locus ID: 3757

UniProt ID: [Q12809](#)

Cytogenetics: 7q36.1

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

Gene Summary: This gene encodes a voltage-activated potassium channel belonging to the eag family. It shares sequence similarity with the Drosophila ether-a-go-go (eag) gene. Mutations in this gene can cause long QT syndrome type 2 (LQT2). Transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (2), also known as HERG-USO, differs in the 3' UTR and 3' coding region compared to variant 1, resulting in a shorter isoform (b) with a different C-terminus compared to isoform a.