

Product datasheet for **SC128170**

KCNH2 (NM_000238) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: KCNH2 (NM_000238) 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: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000238 edited
 GCCCGCCCGCCCGCCCATGGGCTCAGGATGCCGGTGCCGAGGGGCCACGTCGCGCCGCA
 GAACACCTTCTGGACACCATCATCCGCAAGTTTGAGGGCCAGAGCCGTAAGTTCATCAT
 CGCCAACGCTCGGGTGGAGAAGTGCGCCGTCATCTACTGCAACGACGGCTTCTGCGAGCT
 GTGCGGCTACTCGCGGGCCGAGGTGATGCAGCGACCCTGCACCTGCGACTTCTGCACGG
 GCCGCGCAGCAGCGCCGCGCTGCCGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGA
 GCGCAAAGTGAAATCGCCTTCTACCGAAAGATGGGAGCTGCTTCTATGTCTGGTGGAA
 TGTGGTGGCCGTGAAGAACGAGGATGGGGCTGTCATCATGTTTCATCCTCAATTTGAGGT
 GGTGATGGAGAAGGACATGGTGGGGTCCCCGGCTCATGACACCAACCACGGGGCCCCC
 CACCAGCTGGCTGGCCCCAGGCCGCGCAAGACCTTCCGCCTGAAGCTGCCCGCGCTGCT
 GCGCTGACGGCCCGGGAGTCGTCGGTGGGTCGGGCGGCGGGCGGGCGGGCGGGCCCC
 GGGGGCCGTGGTGGTGGACGTGGACCTGACGCCCGCGGCACCCAGCAGCGAGTCGCTGGC
 CCTGGACGAAGTGACAGCCATGGACAACCAGTGGCAGGGCTCGGGCCCCGCGGAGGAGCG
 GCGTGGCTGGTGGGTCCCGGCTCTCCGCCCGCAGCGCGCCCGCCAGCTCCCATCGCC
 CCGGGCGCACAGCCTCAACCCCGACGCCTCGGGCTCCAGCTGCAGCCTGGCCCGGACGCG
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 GCGCAGCGGCTTGTCAACTCCACCTCGACTCCGACCTCGTGCCTACCGCACCATTAG
 CAAGATCCCCAAATCACCTCAACTTTGTGGACCTCAAGGGCGACCCCTTCTTGGCTTC
 GCCCACCAGTGACCGTGAGATCATAGCACCTAAGATAAAGGAGCGAACCACAATGTCAC
 TGAGAAGTCAACCAGGTCTGTCCCTGGGCGCCGACGTGCTGCCTGAGTACAAGTGCA
 GGCACCGCGCATCCACCCTGGACCATCCTGCATTACAGCCCTTCAAGGCCGTGTGGGA
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 CCTGCTGAAGGAGACGGAAGAAGGCCCGCCTGCTACCGAGTGTGGCTACGCCTGCCAGCC
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 CCGCACCACTACGTCAATGCCAACGAGGAGTGGTCAGCCACCCCGGCCGATTGCCGT
 CCACTACTCAAGGGCTGGTTCCTCATCGACATGGTGGCCGCATCCCCCTCGACCTGCT



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CATCTTTGGCTCTGGCTCTGAGGAGCTGATCGGGCTGCTGAAGACTGCGCGGCTGCTGCG
 GCTGGTGC CGTGGCGCGGAAGCTGGATCGCTACTCAGAGTACGGCGCGGCCGTGCTGTT
 CTTGCTCATGTGCACCTTTGCGCTCATCGCGCACTGGCTGGCCTGCATCTGGTACGCCAT
 CGGCAACATGGAGCAGCCACACATGGACTCACGCATCGGCTGGCTGCACAACCTGGGCGA
 CCAGATAGGCAAACCCTACAACAGCAGCGGCCTGGGCGGCCCTCCATCAAGGACAAGTA
 TGTGACGGCGCTCTACTTCACCTTCAGCAGCCTACCAGTGTGGGCTTCGGCAACGTCTC
 TCCCAACACCAACTCAGAGAAGATCTTCTCCATCTGCGTCATGCTCATTGGCTCCCTCAT
 GTACGCTAGCATCTTCGGCAACGTGTCGGCCATCATCCAGCGGCTGTACTCGGGCACAGC
 CCGCTACCACACACAGATGCTGCGGGTGCGGGAGTTCATCCGCTTCCACCAGATCCCAA
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 CTCAGGAGTGTCCAACATTTTCACTTCTGGGGGACAGTCGGGGCCGCCAGTACCAGGA
 GCTCCCTCGATGCCCCGCCCCACCCCCAGCCTCCTCAACATCCCCCTCTCCAGCCCGGG
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 GCTGGAGACCCGGCTGAGTGCAGACATGGCCACTGTCTGACGCTGTACAGAGGCAGAT
 GACGCTGGTCCC GCCCTACAGTGTGTGACCACCCCGGGCCTGGCCCCACTTCCAC
 ATCCCCGCTGTTGCCGTGAGCCCTCCCCACCCTCACCTTGGACTCGTTTTCTCAGGT
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 TAATTAAGGATCATATGAATAATTAATGAAGATGCTGATGACTATGAATAATAAATAATT
 ATCCTGAGGAGACTCAA AAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence: >OriGene 5' read for NM_000238 unedited
 NNAAGGTTTCGNCAATTTGTNATACGACTCACTATAGGCGGCCGCGAATTCGCACGAGGCC
 GCCCGGCCCGCCATGGGCTCAGATGCCGGTGGGAGGGGCCACGTGCGCGCCGACAGAC
 CTTCTGGACACCATCATCCGCAAGTTTGGGGCCAGAGCCGTAAGTTTCATCATCGCCAA
 CGCTCGGGTGGAGAACTGCGCCGTCATCTACTGCAACGACGGCTTCTGCGAGCTGTGCGG
 CTACTCGGGCCGAGGTGATGCAGCGACCCTGCACCTGCGACTTCTGCACGGGCCGCG
 CACGAGCGCCGCGCTGCCGCGCAGATCGCGCAGCAGTCTGGGCGCCGAGGAGCGCAA
 AGTGAAAATCGCCTTCTACCGAAAAGATGGGAGCTGCTTCTATGTCTGGTGGATGTGGT
 GCCCGTGAAGAACGAGGATGGGGCTGTCAATCATGTTTCATCCTCAATTTTCGAGGTGGTGT
 GGAGAAGGACATGGTGGGGTCCCCGGCTCATGACACCAACCACGGGGCCCCCACCAG
 CTGGCTGGCCCCAGGCCGCGCAAGACCTTCCGCTGAAGCTGCCGCGCTGCTGGCGCT
 GACGGCCCGGAGTCGTGGTGGTGGTGGGCGCGCGGGCGCGGGCGCCCGGGGGC
 CGTGGTGGTGGACGTGGACCTGACGCCCGCGCACCCAGCAGCGAGTCGCTGGCCCTGGA
 CGAAGTGACAGCCATGGACAACCAGTGGCAGGGCTCGGGCCCGGAGGAGCGGCGTGC
 GCTGGTGGGTCCCGGCTCTCCGCCCGCAGCGCGCCCGGCCAGTCCCATCGCCCGGGC
 GCACAGCCCTCACCCCGACGCCTCGGGTCCAGCTGCAGCCTGGCCCGGACGCCN

3' Read Nucleotide Sequence: >OriGene 3' read for NM_000238 unedited
 NCCGGCATGGNGATGGCACTTCCAGGNCCAGNAAAGCACTGGGGNAGGGTCACAGGATGC
 CACCCGGGATCTGTTTCAGGAAACAGCTATGACCGCGGCCCAATCTAGAGTCGAGTTTTT
 TTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGTCTCCTCAGGATAATTATTTATTATTCATA
 GTCATCAGCATCTTATTAATTATTCATATGATCCTTAATTATTATCCTTAACAATAAGA
 GCAGTAAATAGCAGAAAAGTCCTTGAGGTGCCTAAGGCCAGGGCCGGGTGCCTCCGGGC
 AGTTAGACCAGCTAATGCCCTCAGGGCAGTGGGGGACCACAGGCCACCTACTGCCGG
 CCCTGCCCTGCCCTCTACTGGGGCCAGGGGACTGCAGGAGAAGATGGTCCCAAGGG
 CTGGGGGAGGAGCTGTGCTTTTCGAGTTCCTCTCCCTTCCACGGTCAGGGCCTCCTGAGC
 AGGGCCTCCAAGGGGAGCGGCCACGAGCGCCTTGATCCCTGGGTGAGCCACGTGTCCAC
 ACTGGGCAGCCCCACTAACTGCCCGGGTCCGAGCCGTGTCTGTGCAGGGCTGGGAGGTG
 AGGGCCCCANCTGGCCCGGTAGGGAGAGGCGTCTGTGGGGCCTTCTTGGGGAAGCTCT
 GGGGCCCGGGGAGGCTCCTCACACGCCATGAACTGGGAAACCTGAGAAAAGCGAGTCC
 AAGGTGAGGGTGGGAGGGGGCTGACGGCAACAGCGGGATGTGGAAGTGGGGCCAGGC
 CCCGGGTGGTCACAGCACTGTAGGCGGGCGGACCAGCGTCATCTGCCTCTGTAGCAGC
 TGCAAGACAGTGGCCATGTCTGCACTCAGCCGGTCTCCAGCCTGTTGA

Restriction Sites: Please inquire

ACCN: NM_000238

Insert Size: 4300 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:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
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_000238.2</u> , <u>NP_000229.1</u>
RefSeq Size:	3900 bp
RefSeq ORF:	3480 bp
Locus ID:	3757
UniProt ID:	<u>Q12809</u>
Cytogenetics:	7q36.1
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transcription Factors, Transmembrane
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a).</p>