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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:

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>OriGene sequence for NM_000238 edited
GCCCGCCCGGCCCGCCCATGGGCTCAGGATGCCGGTGCGGAGGGGCCACGTCGCGCCGCA
GAACACCTTCCTGGACACCATCATCCGCAAGTTTGAGGGCCAGAGCCGTAAGTTCATCAT
CGCCAACGCTCGGGTGGAGAACTGCGCCGTCATCTACTGCAACGACGGCTTCTGCGAGCT
GTGCGGCTACTCGCGGGCCGAGGTGATGCAGCGACCCTGCACCTGCGACTTCCTGCACGG
GCCGCGCACGCAGCGCCGCGCTGCCGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGA
GCGCAAAGTGGAAATCGCCTTCTACCGGAAAGATGGGAGCTGCTTCCTATGTCTGGTGGA
TGTGGTGCCCGTGAAGAACGAGGATGGGGCTGTCATCATGTTCATCCTCAATTTCGAGGT
GGTGATGGAGAAGGACATGGTGGGGTCCCCGGCTCATGACACCAACCACCGGGGCCCCCC
CACCAGCTGGCTGGCCCCAGGCCGCGCCAAGACCTTCCGCCTGAAGCTGCCCGCGCTGCT
GGCGCTGACGGCCCGGGAGTCGTCGGTGCGGTCGGGCGGCGCGGGCGGCGCGGGCGCCCC
GGGGGCCGTGGTGGTGGACGTGGACCTGACGCCCGCGGCACCCAGCAGCGAGTCGCTGGC
CCTGGACGAAGTGACAGCCATGGACAACCACGTGGCAGGGCTCGGGCCCGCGGAGGAGCG
GCGTGCGCTGGTGGGTCCCGGCTCTCCGCCCCGCAGCGCGCCCGGCCAGCTCCCATCGCC
CCGGGCGCACAGCCTCAACCCCGACGCCTCGGGCTCCAGCTGCAGCCTGGCCCGGACGCG
CTCCCGAGAAAGCTGCGCCAGCGTGCGCCGCGCCTCGTCGGCCGACGACATCGAGGCCAT
GCGCGCCGGGGTGCTGCCCCCGCCACCGCGCCACGCCAGCACCGGGGCCATGCACCCACT
GCGCAGCGGCTTGCTCAACTCCACCTCGGACTCCGACCTCGTGCGCTACCGCACCATTAG
CAAGATTCCCCAAATCACCCTCAACTTTGTGGACCTCAAGGGCGACCCCTTCTTGGCTTC
GCCCACCAGTGACCGTGAGATCATAGCACCTAAGATAAAGGAGCGAACCCACAATGTCAC
TGAGAAGGTCACCCAGGTCCTGTCCCTGGGCGCCGACGTGCTGCCTGAGTACAAGCTGCA
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GCTGGCTGTGGTGGACCTCATCGTGGACATCATGTTCATTGTGGACATCCTCATCAACTT
CCGCACCACCTACGTCAATGCCAACGAGGAGGTGGTCAGCCACCCCGGCCGCATTGCCGT
CCACTACTTCAAGGGCTGGTTCCTCATCGACATGGTGGCCGCCATCCCCTTCGACCTGCT
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CATCTTTGGCTCTGGCTCTGAGGAGCTGATCGGGCTGCTGAAGACTGCGCGGCTGCTGCG
GCTGGTGCGCGTGGCGCGGAAGCTGGATCGCTACTCAGAGTACGGCGCGGCCGTGCTGTT
CTTGCTCATGTGCACCTTTGCGCTCATCGCGCACTGGCTGGCCTGCATCTGGTACGCCAT
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TGTGGTCCCCCCACTGCCCTGAGGGCATTAGCTGGTCTAACTGCCCGGAGGCACCCGGCC
CTGGGCCTTAGGCACCTCAAGGACTTTTCTGCTATTTACTGCTCTTATTGTTAAGGATAA
TAATTAAGGATCATATGAATAATTAATGAAGATGCTGATGACTATGAATAATAAATAATT
ATCCTGAGGAGACTCCAAAAAAAAAAAAAAAAAAAAAAA

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5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_000238 unedited
NNAAGGTTCGNCATTTGTNATACGACTCACTATAGGCGGCCGCGAATTCGCACGAGGCCC
GCCCGGCCCGCCCATGGGCTCAGATGCCGGTGCGGAGGGGCCACGTCGCGCCGCAGACAC
CTTCCTGGACACCATCATCCGCAAGTTTGAGGGCCAGAGCCGTAAGTTCATCATCGCCAA
CGCTCGGGTGGAGAACTGCGCCGTCATCTACTGCAACGACGGCTTCTGCGAGCTGTGCGG
CTACTCGCGGGCCGAGGTGATGCAGCGACCCTGCACCTGCGACTTCCTGCACGGGCCGCG
CACGCAGCGCCGCGCTGCCGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGAGCGCAA
AGTGGAAATCGCCTTCTACCGGAAAGATGGGAGCTGCTTCCTATGTCTGGTGGATGTGGT
GCCCGTGAAGAACGAGGATGGGGCTGTCATCATGTTCATCCTCAATTTCGAGGTGGTGAT
GGAGAAGGACATGGTGGGGTCCCCGGCTCATGACACCAACCACCGGGGCCCCCCCACCAG
CTGGCTGGCCCCAGGCCGCGCCAAGACCTTCCGCCTGAAGCTGCCCGCGCTGCTGGCGCT
GACGGCCCGGGAGTCGTCGGTGCGGTCGGGCGGCGCGGGCGGCGCGGGCGCCCCGGGGGC
CGTGGTGGTGGACGTGGACCTGACGCCCGCGGCACCCAGCAGCGAGTCGCTGGCCCTGGA
CGAAGTGACAGCCATGGACAACCACGTGGCAGGGCTCGGGCCCGCGGAGGAGCGGCGTGC
GCTGGTGGGTCCCGGCTCTCCGCCCCGCAGCGCGCCCGGCCAGCTCCCATCGCCCCGGGC
GCACAGCCCTCACCCCCGACGCCTCGGGCTCCAGCTGCAGCCTGGCCCGGACGCCN
```

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_000238 unedited
NCCGGCATGGNGATGGCACTTCCAGGNCCAGNAAAGCACTGGGGNAGGGTCACAGGATGC
CACCCGGGATCTGTTCAGGAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGTCTCCTCAGGATAATTATTTATTATTCATA
GTCATCAGCATCTTCATTAATTATTCATATGATCCTTAATTATTATCCTTAACAATAAGA
GCAGTAAATAGCAGAAAAGTCCTTGAGGTGCCTAAGGCCCAGGGCCGGGTGCCTCCGGGC
AGTTAGACCAGCTAATGCCCTCAGGGCAGTGGGGGGACCACAGGCCCCACCTACTGCCGG
CCCTGCCCCTGCCCCTCTCACTGGGGCCCAGGGGACTGCAGGAGAAGATGGTCCCAAGGG
CTGGGGGAGGAGCTGTGCTTTCGAGTTCCTCTCCCCTTCCACGGTCAGGGCCTCCTGAGC
AGGGCCTCCAAGGGGAGCGGCCCAGCAGCGCCTTGATCCCTGGGTGAGCCACGTGTCCAC
ACTGGGCAGCCCCACTAACTGCCCGGGTCCGAGCCGTGTCTGTGCAGGGGCTGGGAGGTG
AGGGCCCCCANCTGGCCCGGTAGGGAGAGGCGTCCTGTGGGGCCTTCTTGGGGAAGCTCT
GGGGCCCCCGGGGGCAGCTCCTCACACGCCATGAACTGGGAAACCTGAGAAAGCGAGTCC
AAGGTGAGGGTGGGGAGGGGGCTGACGGGCAACAGCGGGGATGTGGAAGTGGGGCCAGGC
CCCGGGGTGGTCACAGCACTGTAGGCGGGCGGGACCAGCGTCATCTGCCTCTGTAGCAGC
TGCAAGACAGTGGCCATGTCTGCACTCAGCCGGGTCTCCAGCCTGTTGA
```

Restriction Sites: Please inquire

ACCN: NM_000238

Insert Size: 4300 bp

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OTI Disclaimer:	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. 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
OTI Annotation:	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.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000238.2, NP_000229.1
RefSeq Size:	3900 bp
RefSeq ORF:	3480 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 (1) encodes the longest isoform (a).

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