

## Product datasheet for **RC234408**

### **KCNH2 (NM\_001204798) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNH2 (NM_001204798) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNH2
Synonyms:	ERG-1; ERG1; H-ERG; HERG; HERG1; Kv11.1; LQT2; SQT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234408 representing NM\_001204798  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCCCCAGCCGGGAAGGCGAGCAGGACAGGGGCTCTGCGGCCAGGGCCAGAAAGCCGGGTGA  
 GCGGGCCGTGCGCATCTCCAGCCTCGTGGCCAGGAGTCTGTCCCTGGGCGCCGACGTGCTGCCTGA  
 GTACAAGCTGCAGGCACCGCGCATCCACCCTGGACCATCCTGCATTACAGCCCTTCAAGGCCGTGTGG  
 GACTGGCTCATCTGCTGCTGGTCACTACACGGCTGTCTTACACCCTACTCGGCTGCCTTCTGCTGA  
 AGGAGACGGAAGAAGGCCCGCTGCTACCGAGTGTGGCTACGCTGCCAGCCGCTGGCTGTGGTGGACCT  
 CATCGTGGACATCATGTTCAATTGTGGACATCCTCATCACTTCCGCACCACCTACGTCATGCCAACGAG  
 GAGGTGGTCAAGCACCAGCCGCGCATCGCCGCTCCACTACTTCAAGGGCTGGTTCTCATCGACATGGTGG  
 CCGCCATCCCCTTCGACCTGCTCATCTTGGCTCTGGCTCTGAGGAGCTGATCGGGCTGCTGAAGACTGC  
 GCGGCTGCTGCGGCTGGTGGCGGTGGCGGGAAGCTGGATCGCTACTCAGAGTACGGCGCGCCGCTGCTG  
 TTCTTGCTCATGTGCACCTTTGGCTCATCGCGCACTGGCTAGCCTGCATCTGGTACGCCATCGGCAACA  
 TGGAGCAGCCACACATGGACTCACGCATCGGCTGGCTGCACAACCTGGGCGACCAGATAGGCAAACCTTA  
 CAACAGCAGCGGCTGGGCGGCCCTCCATCAAGGACAAGTATGTGACGGCGCTCTACTTCACTTACAGC  
 AGCCTCACAGTGTGGGCTTCGGCAACGCTCTCCCAACCAACTCAGAGAAGATCTTCTCCATCTGCG  
 TCATGCTCATTGGCTCCCTCATGTATGTAGCATCTTCGGCAACGTGTGGCCATCATCCAGCGGCTGTA  
 CTCGGGCACAGCCGCTACCACACAGATGCTGCGGGTGGGGAGTTCATCCGCTTCCACCAGATCCCC  
 AATCCCCTGCGCAGCGCTCGAGGAGTACTTCCAGCAGCCTGGTCTACACCAACGGCATCGACATGA  
 ACGCGGTGCTGAAGGGCTTCCCTGAGTGCCTGCAGGCTGACATCTGCCTGCACCTGAACCGCTCAAGT  
 GCAGCATGCAAACCTTCCGAGGGGCCACCAAGGGCTGCCTTCGGGCCCTGGCCATGAAGTTCAAGACC  
 ACACATGCACCGCCAGGGGACACACTGGTGCATGCTGGGACCTGCTCACCGCCCTGTACTTTCATCTCCC  
 GGGGCTCCATCGAGATCTGCGGGGCGACGTCGTGTCGTCATCTGGTATGGGGTGGGGGCGGGGCAC  
 TGGACTGGAAATGCCCTCTGCAGCCTCAAGAGGTGCGAGCCTTCTGAATATGCAGTCACTGGGGCTGTGG  
 ACCTGGGACTGCCTGCAGGGTCACTGGGCTCCTTAAATCACCTAAACTCAGGCCCTCCAAGCGGGGCCA  
 TGGAGAGGAGCCCCAGTGGGGTGGGCTGCTGAACTCTGGGGTCCCACATTCTCTTCCCTTCAAGAT  
 CCGCCACAAACAGACACTTTTGTCTTCTTAAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC234408 representing NM\_001204798  
 Red=Cloning site Green=Tags(s)

MAAPAGKASRTGALRPRAQKGRVRRRAVRISLVAQEVL SLGADVLPEYKIQAPRIHRWTILHYSPPKAVW  
 DWLILLVIYTAFTVFPYSAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANE  
 EVVSHPGRIAVHYFKGWFLIDMVAaipfdllifgsgseelIglLkTARLLRLVRVARKLDRYSEYGA AVL  
 FLLMCTFALIAHWLACIWIYAIGNMEQPHMSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFS  
 SLTSVGFGNVSPNTNSEKIFSIcVmlIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIP  
 NPLRQRLEEFYQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKT  
 THAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAIILGMGWGAGTGLEMPSSAASRGASLLNMQSLGLW  
 TWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGS HILLPFIRIRHKQTLFASLK

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001204798

**ORF Size:** 1644 bp

**OTI Disclaimer:** 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001204798.2](#)

**RefSeq Size:** 2463 bp

**RefSeq ORF:** 1647 bp

**Locus ID:** 3757

**UniProt ID:** [Q12809](#)

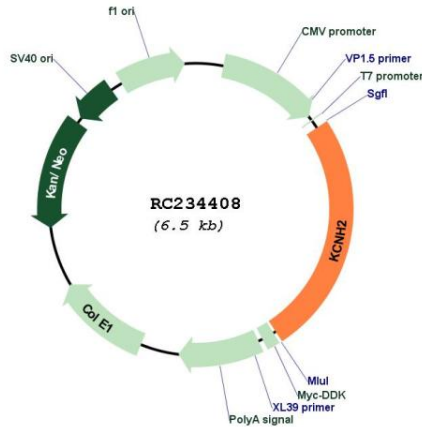
**Cytogenetics:** 7q36.1

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

**MW:** 61.4 kDa

**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]

**Product images:**



Circular map for RC234408