

## Product datasheet for **RG234408**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNH2 (NM_001204798) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNH2
Synonyms:	ERG-1; ERG1; H-ERG; HERG; HERG1; Kv11.1; LQT2; SQT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234408 representing NM\_001204798  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGGCCCCAGCCGGGAAGGCGAGCAGGACAGGGGCTCTGCGGCCAGGGCCAGAAAGCCGGGTGA  
 GCGGGCCGTGCGCATCTCCAGCCTCGTGGCCAGGAGTCTGTCCCTGGGCGCCGACGTGCTGCCTGA  
 GTACAAGCTGCAGGCACCGCATCCACCCTGGACCATCCTGCATTACAGCCCTTCAAGGCCGTGTGG  
 GACTGGCTCATCTGCTGCTGGTCTACACGGCTGTCTTACACCCTACTCGGCTGCCTTCTGCTGA  
 AGGAGACGGAAGAAGGCCCGCTGCTACCGAGTGTGGCTACGCTGCCAGCCGCTGGCTGTGGTGGACCT  
 CATCGTGGACATCATGTTCAATTGTGGACATCCTCATCACTTCCGCACCACCTACGTCATGCCAACGAG  
 GAGGTGGTCAAGCCACCCCGCCGATCGCCGCTCCACTACTTCAAGGGCTGGTTCTCATCGACATGGTGG  
 CCGCCATCCCCTTCGACCTGCTCATCTTGGCTCTGGCTCTGAGGAGCTGATCGGGCTGCTGAAGACTGC  
 GCGGCTGCTGCGGCTGGTGGCGTGGCGGGAAGCTGGATCGCTACTCAGAGTACGGCGCGCCGCTGCTG  
 TTCTTGCTCATGTGCACCTTTGCGCTCATCGCGCACTGGCTAGCCTGCATCTGGTACGCCATCGGCAACA  
 TGGAGCAGCCACACATGGACTCACGCATCGGCTGGCTGCACAACCTGGGCGACCAGATAGGCAAACCCCTA  
 CAACAGCAGCGGCTGGGCGGCCCTCCATCAAGGACAAGTATGTGACGGCGCTCTACTTCACTTACCTCAGC  
 AGCCTCACAGTGTGGGCTTCGGCAACGCTCTCCCAACCAACTCAGAGAAGATCTTCTCCATCTGCG  
 TCATGCTCATTGGCTCCCTCATGTATGTAGCATCTTCGGCAACGTGTGGCCATCATCCAGCGGCTGTA  
 CTCGGGCACAGCCGCTACCACACACAGATGCTGCGGGTGGGGAGTTCATCCGCTTCCACCAGATCCCC  
 AATCCCCTGCGCAGCGCTCGAGGAGTACTTCCAGCAGCGCTGGTCTACACCAACGGCATCGACATGA  
 ACGCGGTGCTGAAGGGCTTCCCTGAGTGCCTGCAGGCTGACATCTGCCTGCACCTGAACCGCTCACTGCT  
 GCAGCATGCAAACCTTCCGAGGGGCCACCAAGGGCTGCCTTCGGGCCCTGGCCATGAAGTTCAAGACC  
 ACACATGCACCGCCAGGGGACACACTGGTGCATGCTGGGACCTGCTCACCGCCCTGTACTTTCATCTCCC  
 GGGGCTCCATCGAGATCTGCGGGGCGACGTCGTCGTGGCCATCCTGGGTATGGGGTGGGGGGCGGGCAC  
 TGGACTGGAAATGCCCTCTGCAGCCTCAAGAGGTGCGAGCCTTCTGAATATGCAGTCACTGGGGCTGTGG  
 ACCTGGGACTGCCTGCAGGGTCACTGGGCTCCTTAAATCACCTAAACTCAGGCCCTCAAGCGGGGCCA  
 TGGAGAGGAGCCCCAGTGGGGTGGGCTGCTGAACTCTGGGGTCCCACATTCTCTTCCCTTCCAGGAT  
 CCGCCACAACAGACACTTTTGTCTTCTTAAAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234408 representing NM\_001204798  
 Red=Cloning site Green=Tags(s)

MAAPAGKASRTGALRPRAQKGRVRRRAVRISLVAQEVLVLGADVLPEYKLPAPRIHRWTILHYPFKAVW  
 DWLILLVITYAVFTPYSAFLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANE  
 EVVSHPGRIAVHYFKGWFLIDMVAIPFDLLIFGSGSEELIGLLKTARLLRVRVARKLDRYSEYGA AVL  
 FLLMCTFALIAHWLACIWIYAIGNMEQPHMSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFS  
 SLTSVGFGNVSPNTNSEKIFVICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIP  
 NPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGLRALAMKFKT  
 THAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAIILGMGWGAGTGLEMPASAASRGASLLNMQSLGLW  
 TWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGS HILLPFIRIRHKQTLFASLK

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**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

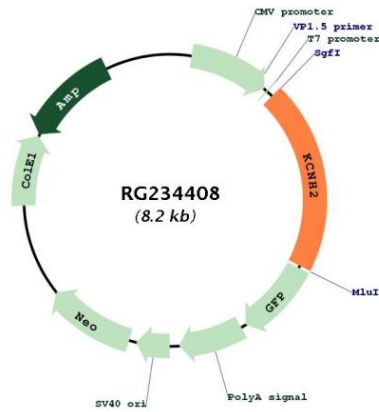
**UniProt ID:** [Q12809](#)

**Cytogenetics:** 7q36.1

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

**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 RG234408