

Product datasheet for **RG216847**

KCNH2 (NM_172056) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNH2 (NM_172056) 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:

>RG216847 representing NM_172056
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCGGTGGGAGGGGCCAGTCGCGCCGAGAACCTTCCTGGACACCATCATCCGCAAGTTTGAGG
 GCCAGAGCCGTAAGTTCATCATCGCAACGCTCGGGTGGAGAAGTGCAGCGTCATCTACTGCAACGACGG
 CTTCTGCGAGCTGTGCGGCTACTCGCGGCCGAGGTGATGCAGCGACCCCTGCACCTGCGACTTCCTGCAC
 GGGCCGCGCAGCAGCGCCGCGTGCAGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGAGCGCAAAAG
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 CGAGGATGGGGTGTATCATGTTCATCTCAATTTGAGGTGGTGGTGGAGAAGGACATGGTGGGGTCC
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 GCCTGAAGCTGCCCGCGTGTGGCGTACGGCCGGGAGTCGTCGGTCCGGTGGGCGCGCGGGCGG
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 CCCCAGCGCTCGGGCTCCAGCTGCAGCCTGGCCCGGACGCGCTCCCGAGAAAGTGCGCCAGCGTGGC
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 TCGCCCACCAGTGACCGTGAATCATAGCACCTAAGATAAAGGAGCGAACCCACAATGTCAGTGAAGG
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 GCTCTGGCTCGAGGAGCTGATCGGCTGCTGAAGACTGCGCGGCTGCTGCGGCTGGTGGCGTGGCGG
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 GCGCACTGGCTAGCCTGCATCTGGTACGCCATCGGCAACATGGAGCAGCCACACATGGACTCACGCATCG
 GCTGGCTGCACAACCTGGGCGACAGATAGGCAAACCCTACAACAGCAGCGGCTGGGCGGCCCTCCAT
 CAAGGACAAGTATGTGACGGCGCTCTACTTACCTTACAGCAGCTCACCAAGTGTGGGCTTCGGAACGTC
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 CATGCTGGGGACCTGCTCACCGCCTGTACTTCACTCTCCGGGGCTCCATCGAGATCCTGCGGGGCGACG
 TCGTCTGGCCATCCTGGGTATGGGGTGGGGGGCGGCACTGGACTGGAATGCCCTCTGCAGCCTCAAG
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 CCTTTAATTCACCTAAACTCAGGCCCTCAAGCGGGGCCATGGAGAGGAGCCCCACGTGGGGTGGGCTG
 CTGAACCTGGGGTCCACATTCTCCTCCCTCAGGATCCGCCACAAACAGACACTTTTTGCTTCCTT
 AAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >RG216847 representing NM_172056
 Red=Cloning site Green=Tags(s)

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MPVRRGHVAPQNTFLDTIIRKFEGQSRKFIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLH
GPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGCFLCLVDVVPVKNEGDGAVIMFILNFEVMEKDMVGS
PAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSVGGAGGAGAPGAVVVDVLDTPAAPSSSEL
ALDEVTAMDNHVAGLGPAEERRALVGPSPPRSAPGQLPSRAHSLNPDASGSSCSLARTRSRESCASVR
RASSADDIEAMRAGVLPVPPRHASTGAMHPLRSGLLNSTSDSLVRYRTISKIPQITLNFVDLKGDPFLA
SPTSDREIIAPKIKERTHNVTQVLSLQADVLPEYKLGAPRIHRWTLHYSFPAKAVDWDLILLVIY
TAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIA
VHYFKGWFLIDMVAIIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDYSEYGAAVLFLLMCTFALI
AHLWACIWIYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFVNV
SPNTNSEKIFISICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQREEY
FQHAWSYTNIDMNAVLKGFPECLQADICLHLNRSLLQHCXKFRGATKGCRLALAMKFKTTHAPPGDTLV
HAGDLLTALYFISRGSIEILRGDVVVAIILGMWGAGTGLEMPASAARGASLLNMQSLGLWTWDCQLQGHWA
PLIHLNSGPPSGAMERSPTWGEAAELWGSHELLPFRIRHKQTLFASLK
  
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TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja3650_e06.zip

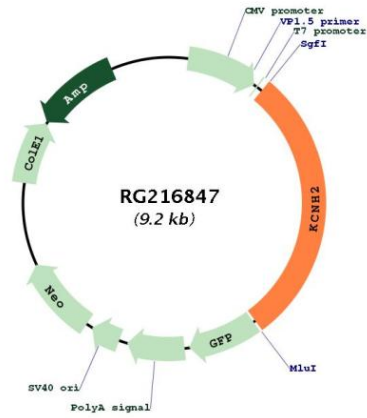
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN:	NM_172056
ORF Size:	2664 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:	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:	<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:	NM_172056.2
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]

Product images:



Circular map for RG216847