

Product datasheet for **RC216847**

KCNH2 (NM_172056) Human Tagged ORF Clone

Product data:

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

>RC216847 representing NM_172056
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCGGTGGGAGGGGCCAGTCGCGCCGAGAACACCTTCTGGACACCATCATCCGCAAGTTTGAGG
 GCCAGAGCCGTAAGTTTCATCATCGCAACGCTCGGGTGGAGAAGTGCAGCGTCACTACTGCAACGACGG
 CTTCTGCGAGCTGTGCGGCTACTCGCGGCCGAGGTGATGCAGCGACCCCTGCACCTGCGACTTCTGCAC
 GGGCCGCGCAGCAGCGCCGCGTGCAGCGCAGATCGCGCAGGCACTGCTGGGCGCCGAGGAGCGCAAAAG
 TGGAAATCGCCTTCTACCGAAAGATGGGAGCTGCTTCTATGTCTGGTGGATGTGGTCCCGTGAAGAA
 CGAGGATGGGGTGTATCATGTTTCATCTCAATTTGAGGTGGTGGTGGAGAAGGACATGGTGGGGTCC
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 GCCTGAAGCTGCCCGCGTGTGGCGTACGGCCGGGAGTCGTCGGTCCGGTGGGCGCGCGGGCGG
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 GCACCGGGGCCATGCACCACTGCGCAGCGGCTTGTCAACTCCACTCGGACTCCGACCTCGTGGCCTA
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 GTCCACTACTTCAAGGGCTGGTTCTCATCGACATGGTGGCCGCCATCCCCTCGACCTGCTCATCTTTG
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 GCATCTTCGGCAACGTGTGCGCCATCATCCAGCGGCTGTACTCGGGCACAGCCCGCTACACACACAGAT
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 CTGAACCTGGGGTCCACATTCTCCTCCCTCAGGATCCGCCACAAACAGACACTTTTTGCTTCTT
 AAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216847 representing NM_172056
 Red=Cloning site Green=Tags(s)

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MPVRRGHVAPQNTFLDTIIRKFEQSRKFIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLH
GPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGCFLCLVDVVPVKNEGDGAVIMFILNFEVMEKDMVGS
PAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSFGGAGGAGAPGAVVVDVLDTPAAPSSSESL
ALDEVTAMDNHVAGLGAPEERRALVGPSPPRSAPGQLPSRAHSLNPDASGSSCLARTRSRESCASVR
RASSADDIEAMRAGVLPppprHASTGAMHPLRSGLLNSTSDSLVRYRTISKIPQITLNFVDLKGDPFLA
SPTSDREIIAPKIKERTHNVTQVLSLQADVLPEYKQLAPRIHRWTILHYSFPKAVWDWILLVYIY
TAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVSHPGRIA
VHYFKGWFLIDMVAaipFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDYSEYGAAVLFLMCTFALI
AHLWACIWIYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFNGV
SPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQLEEY
FQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMFKKTHAPPGDTLV
HAGDLLTALYFISRGSIEILRGDVVVAILGMGWGAGTGLEMP SAASRGASLLNMQSLGLWTWDC LQGHWA
PLIHLNSGPPSGAMERSPTWGEAAELWGS HILLPFRIRHKQTLFASLK
  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6838_e01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

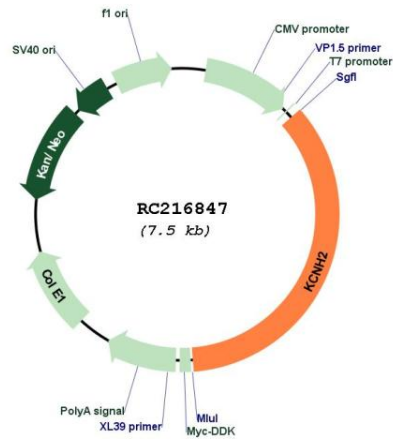


* The last codon before the Stop codon of the ORF

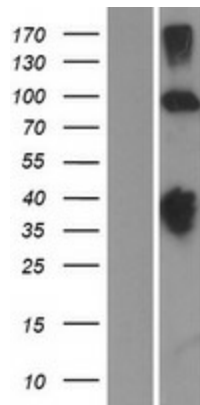
ACCN: NM_172056

ORF Size:	2664 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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
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
MW:	97.4 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 RC216847



Western blot validation of overexpression lysate (Cat# [LY406814]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216847 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).