

Product datasheet for **MG227000**

Kcnh2 (NM_013569) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnh2 (NM_013569) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcnh2
Synonyms:	AI326795; ERG1; LQT; Lqt2; M-erg; Merg1; merg1a; merg1b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG227000 representing NM_013569 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGGTGCGGAGGGGCCACGTCGCGCCGAGAACACCTTCCTCGACACCATCATCCGCAAGTTTGAGG
GCCAGAGCCGCAAGTTCATCATCGCTAACGCGCGCGTAGAGAAGTGCCTGTCTACTGCAACGACGG
CTTCTGCGAACTGTGTGGCTACTCGCGGCCGAGGTGATGCAGCGGCCCTGCACCTGCGATTTCTGCAT
GGGCCGCGCAGCAGCGCCGTGCCGCCGCGCAGATCGCGCAGGCCCTGCTGGGCGCAGAGGAGCGCAAAG
TGGAGATCGCCTTCTACCGAAAGATGGGAGCTGCTTCTGTGTCTGGTGGATGTGGTACCCGTGAAGAA
TGAAGATGGGGCTGTGATCATGTTCACTCTCAACTTTGAAGTAGTGATGGAGAAGGACATGGTAGGGTCC
CCGGCTCATGACACCAACCACAGGGGCCCTCTACCAGCTGGCTAGCTTCTGGCCGGGCCAAGACTTTCC
GCCTGAAGCTGCCTGCCTTGTGGCACTGACGGCCAGGAATCATCTGTGCGGACAGGAAGCATGCGCAG
TGCTGGAGCCCTGGGGCGGTGGTGGTGGATGTGGACCTGACGCCGCGCAGCAGCCAGCAGTGAAGTCCCTG
GCCTTGGATGAGGTTTCTGCCATGGACAACCATGTGGCAGGGCTTGGCCCTGCAGAAGAGAGGGCAGCAC
TGGTGGGCCCGGGTCTGCTTACCAGTAGCCAGCATCCGAGGCCCTCACCCATCGCCACGAGCTCAGAG
CCTTAACCCTGATGCCTCAGTTCCAGCTGCAGCCTGGCCCGACACGCTCCCGTGAGAGCTGCGCTAGC
GTGCGCCGCGCATCATCCGCGGATGACATTGAGGCAATGCGGGCTGGAGCGCTGCCCCCTCCGCCCGCC
ATGCAAGCACAGGGGCCATGCACCCCTGCGCAGTGGCCTGCTTAACTCCACCTCAGACTCTGACCTTGT
ACGCTACCGAACCATTAGCAAGATACCCCAAATCACTCTCAACTTTGTGGACCTCAAAGGCGACCCTTTC
CTGGCTTACCCACCAAGTACCGGGAGATTATAGCACCCAAGATAAAGAGCGGACCCACAATGTACCCG
AGAAGGTACCCAGTCTGTCTTGGGAGCAGATGTGCTGCCTGAGTATAAGCTGCAGGCCCAAGAAT
CCACCGCTGGACCATCTCCACTACAGCCCTTCAAGGCGGTGTGGGACTGGCTCATCTGCTGCTGGTC
ATCTACACGGCAGTCTTACACCGTACTCGGCCCTTCTGCTGAAGGAGACTGAAGATGGGTCCCAAG
CCCCTGACTGTGGCTACGCTGCCAGCCCTGGCTGTAGTGGACCTCATCGTGGACATCATGTTTATTGT
GGACATCTTATCAATTTCCGTACCACCTATGTTAATGCCAACGAGGAGTGGTTAGCCATCTGGCCG



[View online >](#)

ATTGCTGTGCACTACTTCAAGGGCTGGTTTCTCATTGACATGGTGGCTGCCATCCCCTTCGACCTGCTCA
TCTTTGGCTCTGGCTCCGAGGAGCTGATCGGGCTGCTGAAAACGCGAGGCTGCTGCGGCTGGTGC GCGT
GGCTCGGAAGCTGGACCGCTACTCGGAGTACGGGGCAGCAGTGTCTTCTGCTCATGTGCACCTTCGCC
CTCATTGCGCACTGGTTGGCCTGCATCTGGTACGCGATCGGCAACATGGAACAGCCTCACATGGACTCAC
ACATCGGCTGGCTGCACAACCTGGGGCACCAGATCGGCAAGCCCTACAACAGCAGCGGCTGGGAGGCC
CTCCATCAAGGACAAGTATGTCACAGCGCTCTACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTT
AATGTCTCTCCCAACCAACTCAGAGAAGATCTTCTCCATCTGTGTGTCATGCTCATTGGCTCCCTCATGT
ATGCCAGCATCTTCGGCAACGTGTCCGCCATCATCCAGCGGCTGTACTCGGGCACGGCCCGTACCACAC
ACAGATGCTCCGGGTGCGGGAGTTTATCCGCTTTCACCAGATTCCCAACCCATTACGCCAGCGCCTCGAG
GAGTACTTCCAGCATGCTTGGTCTACACCAATGGCATCGACATGAACGCGGTGCTGAAGGGCTTCCTG
AGTGCCTCCAGGCTGACATCTGCCTACACCTGAACCGCTCGTGTGTCAGCATTGCAAGCCATTCCGAGG
GGCCACTAAAGGCTGCCTGAGGGCGCTGGCTATGAAGTTCAAGACCACACATGCACCACCAGGGGACACA
CTAGTGCACGCCGGGACCTGCTTACTGCCCTCTACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTT
GTGATGTCGTGGTGGCCATCTTGGGGAAGAACGACATCTTTGGAGAGCCTCTGAACCTATATGCCGTCC
TGGAAAGTCCAATGGGGATGTGCGGGCCCTCACGTACTGTGACCTGCACAAGATCCATCGTGATGACTTG
CTGGAGGTGTTGGACATGTATCCCGAGTTCTCAGATCACTTTTGGTCTAGCCTGGAGATCACCTTCAACC
TTCCGAGATACCAACATGATTCTGGCTCCCCAGGCAGTGCAGAAGTAGAGAGCGGCTTAAACAGGCAACG
CAAGCGCAAACCTGTATTCCGCAAGCGTACAGACAAGGACACAGAGCAGCCAGGGGAGGTGTGAGCCCTG
GGGCAAGGCCCTGCCCGAGTTGGGCCAGGGCCGAGTTGCCGGGGACAGCCGGGAGGGCCATGGGGGGAGA
GCCCATCCAGCGGCCCTTCCAGCCCAGAGAGCAGTGAAGATGAGGGCCCTGGTCCGAGCTCCAGTCCCCT
CCGCCTGGTGCCTTCTCCAGCCCCAGGCCTCCGGGAGACCCCCAGGTGGGGAGCCTTTGACAGAGGAT
GGGGGAGAAAAGTGACACCTGTAATCCCTTGTGAGGTGCCTTCTCTGGGGTGTCCAATATTTTCACTTCT
GGGGGACAGTCGGGGGCGCCAGTACCAGGAGTTGCCTCGATGCCCTGCCCTGCCCTGCCCTGCCCTCCCAA
CATCCCCTTGTCTAGCCCTGGTCCGCGATCCCGGGGTGATGTGGAGAGCAGGCTGGACGCACTCCAGAGA
CAGCTGAACAGGCTGAAACCCGGCTAAGTGCAGACATGGCCACTGTCTACAGTGCTACAGAGGCAAAA
TGACCCTGGTCCCTCCTGCCTACAGTGCTGTGACCACCCCTGGGCCCGGCCCACTTCCGCATCCCCTTT
GTTGCCTGTGCGCCCTGTCCCCTCTCACCTGGACTCGCTTCTCAGGTTTCCAGTTTCGTGGCGTTT
GAGGAGCTTCTGCAGGAGCCCCAGAGCTCCCCAAGATGGCCCCACTCGACGCTTCTCCCTGCCCGGCC
AGCTGGGGGCCCTTACCTCCCAGCCCCTGCACAGACATGGCTCAGATCCAGGCAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG227000 representing NM_013569
 Red=Cloning site Green=Tags(s)

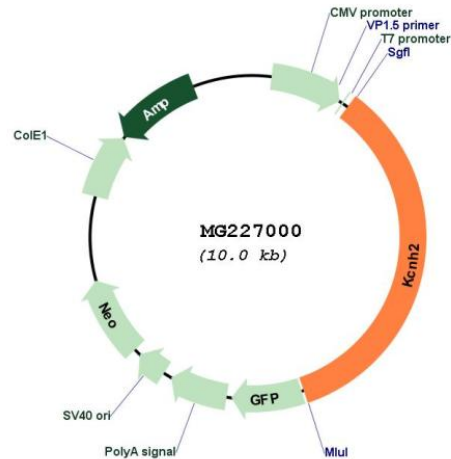
```

MPVRRGHVAPQNTFLDTIIRKFEQSRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLH
GPRTRRRAAAQIAQALLGAEERKVEIAFYRKDGCFLCLVDVVPVKNEGAVIMFILNFEVMEKDMVGS
PAHDTNHRGPSTSWLASGRAKTFRLKLPALLALTARESSVRTGSMRSAGAPGAVVDVLDLTPAAPSSSESL
ALDEVSAMDNHVAGLGPAEERRALVGPASPVASIRGPHSPRAQSLNPDASGSSCSLARTRSRESCAS
VRRASSADDIEAMRAGALPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPF
LASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPYKQLQAPRIHRWTILHYSFPKAVWDWLIILLV
IYTAVFTPYSAFLLKETEDGSQAPDCGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEVVSHPGR
IAVHYFKGWFLIDMVAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLMCTFA
LIAHWLACIWIYAIGNMEQPHMDSHIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGF
NVSPNTNSEKIFSI CVM LIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNLRQRL
EYFQHAWSYTNIDMNAV LKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPDGT
LVHAGDLLTALYFISRGSIEILRGDVVVA I LGNDIFGEPLNL YARPGKSNGDVRALTYCDLHKIHRDDL
LEVLDMPYEFSDHFWSSLEITFNL RDTNMIPGSPGSAELES GFNRQRKRKLSFRRRTDKDT EQPGEVSAL
GQGP ARVGP GPCRGQPGGPWGES P SSGPSPESSEDEGPRSSSPLRLVPFSSPRPPGDPGGPELTD
GEKSDTCNPLSGAFSGVSNIFSWGDSRGRQYQELPRCPAPAP SLLNIPLSSPGRRSRGDVESRLDALQR
QLNRLETRLADMATV LQLLQRQMTL VPPAYS AVTTPGPGPTSASPLLPVGPVPTLTLDSL SQVSQFVA
EELPAGAPELPQDGPTRRLSLPGQLGALTSQPLHRHGS DPGS
  
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI
Cloning Scheme:



Plasmid Map:


ACCN: NM_013569

ORF Size: 3486 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_013569.2](#), [NP_038597.2](#)

RefSeq Size: 4221 bp

RefSeq ORF: 3489 bp

Locus ID: 16511

Cytogenetics: 5 10.94 cM

Gene Summary:

Pore-forming (alpha) subunit of voltage-gated inwardly rectifying potassium channel. Channel properties are modulated by cAMP and subunit assembly. Mediates the rapidly activating component of the delayed rectifying potassium current in heart (IKr) (By similarity).
[UniProtKB/Swiss-Prot Function]