

Product datasheet for **MR225331**

Kcnq2 (NM_001003824) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001003824) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnq2
Synonyms:	HNSPC; KQT2; Nmf134
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225331 representing NM_001003824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACCAGCGGGGAAAAGAAGCTCAAGGTGGGCT
 TCGTGGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGGCTACTCATCGCGGCTCCGAGGC
 CCCAAGCGCGGAGCGTTTTGAGCAAGCCGCGACGGCGCGGGAGCCGGGAAAGCCCCGAAGCGC
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGGCGTTCA
 TCTACCACGCCTACGTGTTCTTTTAGTCTTCTCCTGCCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA
 GTACGAGAAGAGCTCTGAGGGGGCCCTCATACCTTGGAAATCGTACTATCGTGGTATTCGGTGTGAG
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGGTATCGAGGCTGGAGGGCAGGCTCAAGTTG
 CCAGGAAGCCGTTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGCAAATCTTGGGATGATCCGT
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA
 CTGCCTGGTACATTGGCTTCTCTGCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGGTCTGATCACCTGACGACCATTTGGCTAC
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTACCCTCATTGGTGTCTCGT
 TCTTTGCTCTTCTGTGGCATTTTGGGATCCGGCTTGGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA
 ACACCTTGAGAAACGGCGGAACCTGCGGCAGGTCTGATCCAGTCTGCCTGGAGATTCTATGCTACTAAC
 CTCTCACGCCACCGACCTGCACCTCACGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGAC
 TCATCCACCTCTGAACCAGCTGGAGCTGCTGAGGAATCTCAAGAGCAAATCTGGACTCACCTTCAGGAA
 GGAGCCACAGCCAGAGCCATCACCAAGTCAGAAGGTCAGTTTGAAGATCGTGTCTTCTCCAGCCCCGA
 GGCATGGCTGCCAAGGAAAGGGGTCTCCCCAGGCCAGACGGTCCGGCGGTCCCCAGTGCGGATCAGA
 GTCTTGATGACAGCCGAGCAAGGTGCCAAGAGCTGGAGCTTTGGTGACCGCAGCCGACACGCCAGGC
 TTTCCGCATCAAGGGTGTGCATCCCGGCAGAATCAGAAGAAGCAAGCCTCCCTGGGGAGGACATCGTA
 GAGGACAACAAGAGCTGTAAGTGCAGTGTGACTGAAGATCTTACCCTGGCCTCAAAGTTAGCATCA
 GAGCTGTGTGTTATGCGGTTCTTGGTATCTAAGCGAAAGTTCAAAGAGAGTCTGCGCCCATATGATGT
 GATGGACGTCATCGAACAGTACTCGGCTGGACACTTGGATATGTTGTCCCGCATCAAGAGCCTGCAGTCC
 AGGATAGATATGATTGTGGGCCCCACCCCTTCAACTCCCCGGCACAAGAAGTACCCTACCAAAGGAC
 CCACGGCCCTTCGAGAGAGTACCCCCAGTACTACCTAGAGTGGACCAGATTGTGGGGCGGGGCCAAC
 AATAACGGATAAAGACCCGACCAAAGGCCAGCGGAAACGGAGCTGCCCGAAGACCCAGCATGATGGGA
 CGGCTTGGGAAGGTGGAGAAACAGGTCTTGTCCATGGAAAAGAAGCTCGACTTCTTGGTGAAGCATATA
 CACAGAGAATGGGCATCCACCAGCAGAGACAGAGGCCTATTTTGGGGCAAGGAGCCTGAGCCGGCACC
 ACCCTACCACAGCCAGAGGACAGCCGTGACCATGCAGACAAGCATGGCTGTATCATTAAAGATCGTCCGC
 TCCACCAGCTCTACGGGCCAGAGGAACTACGCAGCACCCCGCCATCCCCCTGCCAGTGTCTCCCT
 CCACCTCGTGGCAGCAGGCCACCAGCGCCATGGCACCTCCCCTGTGGGAGACCATGGCTCACTGGTCTC
 CGACTGGAGAGGAGTGTGGCATGATGAGCTGTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225331 representing NM_001003824
 Red=Cloning site Green=Tags(s)

MVQKSRNGGVYPGTSGEKKLKVG FVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR
 NAFYRKLQNFLYNVLERPRGWAFIYHAYVLLVFSCLVLSVFSTIKEYESSEGALYILEIVTIVVFVGE
 YFVRIWAAGCCCRYRGRGRLKFARKPFVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR
 MDRRGGTWKL LGSVVYAHSKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWGLITLTTIGY
 GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATN
 LSRTDLHSTWQYYERTVTVPMYRILIPPLNQLELLRNLKSKSGLTFRKEQPPEPSPQKVS LKDRVFSSPR
 GMAAKGKGSQAQTVRRSPSADQSLDSDSPKVPKSWFSDRSRTRQAFRIKGAASRQNSEEASLPGEDIV
 EDNKCSCNEFVTEDLTPGLKVSIRAVCMRFLVSKRKFESLRPYDVMVIEQYSAGHLDMLSRIKSLQS
 RIDMIVGPPPPSTPRHKKYPTKGP TAPSRESPQYSPRVQIVGRGPTITDKDR TKGPAETELPEDPSMMG
 RLKGVKQVLSMEKKLDFL VSIYTRMQGIPPAETEAYFGAKEPEPAPPYHSPEDSRDHADKHGCIKIVR
 STSSTGQRNYAAPPAIPPAQCPPSTSWQQSHQRHGTSPVGDHGSLVLRRLERSAGMMSCH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001003824

ORF Size: 2277 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_001003824.2](#), [NP_001003824.1](#)

RefSeq Size: 3007 bp

RefSeq ORF: 2280 bp

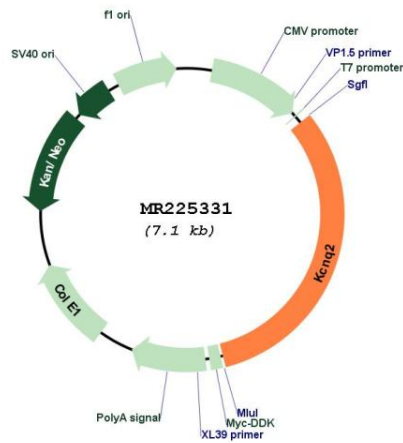
Locus ID: 16536

Cytogenetics: 2 103.57 cM

MW: 84.9 kDa

Gene Summary: Associates with KCNQ3 to form a potassium channel with essentially identical properties to the channel underlying the native M-current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons as well as the responsiveness to synaptic inputs. Therefore, it is important in the regulation of neuronal excitability.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225331