

Product datasheet for **MR225345**

Kcnq2 (NM_001006679) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kcnq2 (NM_001006679) 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)
ORF Nucleotide Sequence: >MR225345 representing NM_001006679
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCCGGCACCAGCGGGAAAAGAAGCTCAAGTGGGCT
 TCGTGGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGCGCTACTCATCGGGCTCCGAGGC
 CCCAAGCGCGCAGCGTTTTGAGCAAGCCGCGACGGCGCGCGGGAGCCGGGAAGCCCCGAAGCGC
 AACGCCTTCTACCGCAAGCTGCAGAATTCCTCTACAACGTGCTAGAGCGGCCCGCGGTGGCGTTCA
 TCTACCACGCCTACGTGTTCTTTAGTCTTCTCCTGCCTTGTGTTTTCTGTGTTTTCCACCATCAAGGA
 GTACGAGAAGAGCTCTGAGGGGGCCCTCTACATCTTGAAATCGTGACTATCGTGGTATTCGGTGTGAG
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGGTATCGAGGCTGGAGGGCAGGCTCAAGTTTG
 CCAGGAAGCCGTTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGCAGTCTTGCAAATCTTGCGGATGATCCGT
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA
 CTGCCTGGTACATTGGCTTCCTCTGCCTCATCTGGCCTCATTCTGGTGTACTTGGCAGAAAAGGGTGA
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGTCTGATCACCTGACGACCATTGGCTAC
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGGACCTTACCCTATTGGTGTCTCGT
 TCTTTGCTCTTCCGTGCTGGCATTGTTGGGATCCGGCTTTGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA
 ACACTTTGAGAAACGGCGGAACCCTGCGCAGGTCTGATCCAGGTGAGCCTTAGTCCCTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR225345 representing NM_001006679
 Red=Cloning site Green=Tags(s)

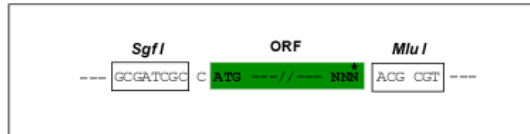
MVQKSRNGGVYPGTSGEKKLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR
 NAFYRKLQNFLYNVLERPRGWAFIYHAYVLLVFSCLVLSVFSTIKEYESSEGALYILEIVTIVVFGVE
 YFVRIWAAGCCCRYRGRGLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR
 MDRRGGTWKLKLSVYVAHSEKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGY
 GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFERRNPAAGLIQVLSLSPC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001006679

ORF Size: 1041 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_001006679.1](#), [NP_001006680.1](#)

RefSeq Size: 1734 bp

RefSeq ORF: 1044 bp

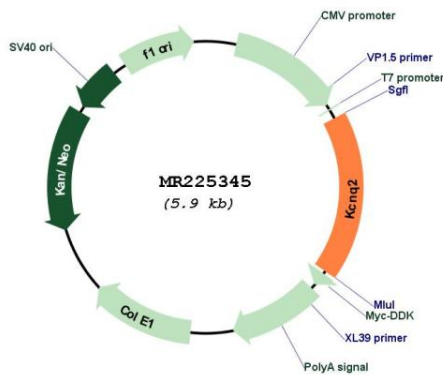
Locus ID: 16536

Cytogenetics: 2 103.57 cM

MW: 38.9 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 MR225345