

## Product datasheet for **MR225343**

### **Kcnq2 (NM\_001006677) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001006677) 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:**

>MR225343 representing NM\_001006677  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACCAGCGGGGAAAAGAAGCTCAAGTGGGCT  
 TCGTGGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGGCTACTCATCGCGGCTCCGAGGC  
 CCCAAGCGCGGACGCTTTTGTAGCAAGCCGCGACGGCGCGGGAGCCGGGAAGCCCCGAAGCGC  
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGCGTTCA  
 TCTACCACGCCTACGTGTTCTTTTGTCTCTCTGCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA  
 GTACGAGAAGAGCTCTGAGGGGGCCCTCATACCTTGGAAATCGTACTATCGTGTATTCTGGTGTGAG  
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGTATCGAGGCTGGAGGGCAGGCTCAAGTTG  
 CCAGGAAGCCGTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC  
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGCAAATCTTGGGATGATCCGT  
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA  
 CTGCCTGGTACATTGGCTTCTCTGCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA  
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGTCTGATCACCTGACGACCATTTGGCTAC  
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTACCCTCATTGGTGTCTCGT  
 TCTTTGCTCTTCTGCTGGCATTTTGGGATCCGGCTTGGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA  
 ACACCTTGAGAAACGGCGGAACCCTGCGGACAGTCTGATCCAGTCTGCCTGGAGATTCTATGCTACTAAC  
 CTCTCACGACCCGACCTGCATCCAGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGAA  
 TCATCCCACCTCTGAACAGCTGGAGCTGCTGAGGAATCTCAAGAGCAAATCTGGACTCACCTTCAGGAA  
 GGAGCCACAGCCAGAGCCATCACCAAGGTCAAGTTCCTCCTCCAGCCGCCCTGGTGTGTGTGTAC  
 CACCTTGCTTGTCTCTGTGTATACCATGTGTCATGGGGCAGGGCTACCATGGGGCCCTGTGTGT  
 GCTTCTATGTACAGCAAGTAAGTGTGTCTGGCACACCCAGGGTCACTTCTCAGTTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR225343 representing NM\_001006677  
 Red=Cloning site Green=Tags(s)

MVQKSRNGGVYPGTSGEKKLVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR  
 NAFYRKLQNFLYNVLERPRGWAFIYHAYVFLVFSCLVLSVFSTIKEYESSEGALYILEIVTIVVFGVE  
 YFVRIWAAGCCCRYRGRGRLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR  
 MDRRGGTWWKLLGSVVYAHSKELVTAWYIGFLCLILASFLVYLAEKGENDFDHYADALWWGLITLTTIGY  
 GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATN  
 LSRTDLHSTWQYYERTVTVPMYRLIPPLNQLELLRNLKSKSGLTFRKEPQPEPSRSPVPPASSRPGVCC  
 HLALLSLCIHHVSWGRATMGPCVCFYVQVTVCPGTPRVTSQL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_001006677

**ORF Size:** 1389 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\\_001006677.1](#), [NP\\_001006678.1](#)
**RefSeq Size:** 2059 bp

**RefSeq ORF:** 1392 bp

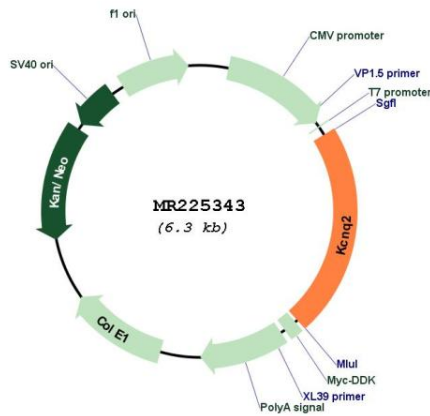
**Locus ID:** 16536

**Cytogenetics:** 2 103.57 cM

**MW:** 52.1 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 MR225343