

## Product datasheet for **MC219164**

### **Kcnq2 (NM\_001006674) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001006674) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcnq2
Synonyms:	HNSPC; KQT2; Nmf134
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC219164 representing NM\_001006674  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACCAGCGGGGAAAAGAAGCTCAAGTGGGCT  
 TCGTGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGGCTACTCATCGGGCTCCGAGGC  
 CCCAAGCGCGGAGCGTTTTGAGCAAGCCGCGACGGCGCGGGAGCCGGGAAGCCCCGAAGCGC  
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGGCGTTCA  
 TCTACCACGCCTACGTGTTCTTTTGTCTCTCTGCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA  
 GTACGAGAAGAGCTCTGAGGGGGCCCTACATCTTGGAAATCGTACTATCGTGGTATTCGGTGTGAG  
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGGTATCGAGGCTGGAGGGCAGGCTCAAGTTG  
 CCAGGAAGCCGTTCTGTGTGATTGATATCATGGTGTGCTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC  
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGGAAATCTTGGCGATGATCCGT  
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA  
 CTGCTGTGATATTGGTTCCTCTGCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA  
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGCTGATCACCTGACGACCATTTGGCTAC  
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTTACCCCTATTGGTGTCTCGT  
 TCTTTGCTCTTCTGTGGCATTGTTGGGATCCGGCTTTGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA  
 ACACCTTGAGAAACGGCGGAACCTGCGGCAGGCTGTATCCAGTCTGCTGGAGATTCTATGCTACTAAC  
 CTCTCACGCCACCGACCTGCACTCCACGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGAC  
 TCATCCCACCTCTGAACCAGCTGGAGCTGCTGAGGAATCTCAAGAGCAAATCTGGACTCACCTTCAGGAA  
 GGAGCCACAGCCAGAGCCATACCAAGTCAGAAGGTGAGTTTGAAGATCGTGTCTTCTCCAGCCCCGA  
 GGATGGCTGCCAAGGAAAGGGTCTCCCCAGGCCAGACGGTCCGGCGGTCCCCAGTGGGATCAGA  
 GTCTTGATGACAGCCGAGCAAGGTGCCAAGAGCTGGAGCTTTGGTGGCCGAGCCGACACGCCAGGC  
 TTTCCGCATCAAGGGTGTGATCCCGCAGAATTGAGAAGAAGCAAGCCTCCCTGGGAGGACATCGTA  
 GAGGACAACAAGAGCTGTAAGTGCAGTTTGTGACTGAAGATCTTACCCCTGGCTCAAAGTTAGCATCA  
 GAGCTGTGTGTTATGCGGTTCTTGGTATCTAAGCGAAAGTTCAAAGAGAGTCTGCGCCCATATGATGT  
 GATGGACGTATCGAACAGTACTCGGCTGGACACTTGGATATGTTGTCCCGCATCAAGAGCTGCAGTCC  
 AGTCTCTGCGACTGGAGAGGAGTCTGGCATGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001006674
- Insert Size:** 1713 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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\\_001006674.2](#), [NP\\_001006675.1](#)

**RefSeq Size:** 2520 bp

**RefSeq ORF:** 1713 bp

**Locus ID:** 16536

**UniProt ID:** [Q9Z351](#)

**Cytogenetics:** 2 103.57 cM

**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]  
Transcript Variant: This variant (6) lacks two alternate in-frame exons, and it also contains alternate 3' exon structure resulting in an alternate 3' coding region, compared to variant 1. The encoded isoform (6) has a distinct C-terminus and is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.