

## Product datasheet for **MC221368**

### **Kcnq2 (NM\_001003825) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001003825) Mouse Untagged Clone
Tag:	Tag Free
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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**Fully Sequenced ORF:** >MC221368 representing NM\_001003825  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACAGCGGGGAAAAGAAGCTCAAGGTGGGCT  
 TCGTGGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGCGCTACTCATCGGGCTCCGAGGC  
 CCCAAGCGCGGAGCGTTTTGAGCAAGCCGCGACGGCGCGGGAGCCGGGAAGCCCCGAAGCGC  
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGCGTTCA  
 TCTACCACGCCTACGTGTTCTTTTAGTCTTCTCTGCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA  
 GTACGAGAAGAGCTCTGAGGGGGCCCTACATCTTGAAATCGTACTATCGTGGTATTCGGTGTGAG  
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGTATCGAGGCTGGAGGGCAGGCTCAAGTTG  
 CCAGGAAGCCGTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC  
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGCAAATCTTGGGATGATCCGT  
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA  
 CTGCCTGGTACATTGGCTTCTCTGCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA  
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGGTCTGATCACCTGACGACCATTTGGCTAC  
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTACCCTCATTGGTGTCTCGT  
 TCTTTGCTCTTCTGTGGCATTGTTGGGATCCGGCTTGGCCCTGAAAGTCCAAGAGCAGCATCGGAAAA  
 ACATTTGAGAAACGGCGGAACCCTGCGGCAAGTCTGATCCAGTTCGCTGGAGATTCTATGCTACTAAC  
 CTCTCACGCCACCGACCTGCATCCAGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGAC  
 TCATCCCACCTCTGAACCAGCTGGAGCTGCTGAGGAATCTCAAGAGCAAATCTGGACTCACCTTCAGGAA  
 GGAGCCACAGCCAGAGCCATCACCAAGTCAGAAGGTGAGTTTGAAGATCGTGTCTTCTCCAGCCCCGA  
 GGATGGCTGCCAAGGAAAGGGGTCTCCCCAGGCCAGACGGTCCGGCGGTCCCCAGTCCGGATCAGA  
 GTCTTGATGACAGCCGAGCAAGGTGCCAAGAGCTGGAGCTTTGGTGGCCGAGCCGACACGCCAGGC  
 TTTCCGCATCAAGGGTGTGATCCCGCAGAATTCAGAAGAAGCAAGCCTCCCTGGGGAGGACATCGTA  
 GAGGACAACAAGAGCTGTAAGTGCAGTGTGACTGAAGATCTTACCCTGGCCTCAAAGTTAGCATCA  
 GAGCTGTGTGTTATGCGGTTCTTGGTATCTAAGCGAAAGTTCAAAGAGAGTCTGCGCCCATATGATGT  
 GATGGACGTATCGAACAGTACTCGGCTGGACACTTGGATATGTTGTCCCGCATCAAGAGCTGCAGTCC  
 AGGCAAGAGCCCCTGCCTGTCCAGTCTGGGCATGAACAGGGCCCTCCGGGACAAAACCAGGCATGGCACA  
 AGGGGCACCAAGGGCTGGGTGACAGAGTGGACCAGATTGTGGGGCGGGGCCAACAAATACGGATAAGGA  
 CCGCACCAAGGGCCAGCGGAAACGGAGCTGCCGAAGACCCAGCATGATGGGACGGCTTGGGAAGGTG  
 GAGAAACAGGTCTTGTCCATGGAAAAGAAGCTCGACTTCTTGGTGGATCTATACACAGAGAATGGGCA  
 TCCCACCAGCAGAGACAGAGGCCATTTTGGGGCAAGGAGCCTGAGCCGGCACCACCCTACCACAGCCC  
 AGAGGACAGCCGTGACCATGCAGACAAGCATGGCTGTATCATTAAAGATCGTCCGCTCCACCAGCTTACG  
 GGCCAGAGGAACACGCAGACCCCCAGCCATCCCCCTGCCAGTGTCTCCCTCCACCTCGTGGCAGC  
 AGAGCCACCAGGCCATGGCACCTCCCCGTGGGAGACCATGGCTCACTGGTCTGCGACTGGAGAGGAG  
 TGCTGGCATGATGAGCTGTCAT**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001003825  
**Insert Size:** 2265 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001003825.3</a> , <a href="#">NP_001003825.1</a>
<b>RefSeq Size:</b>	3058 bp
<b>RefSeq ORF:</b>	2265 bp
<b>Locus ID:</b>	16536
<b>Cytogenetics:</b>	2 103.57 cM
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (3) lacks two alternate in-frame exons and uses an alternate in-frame splice site, and it also contains alternate 3' exon structure resulting in an alternate 3' coding region, compared to variant 1. The encoded isoform (3) 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.</p>