

## Product datasheet for **MG225334**

### **Kcnq2 (NM\_001006668) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001006668) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcnq2
Synonyms:	HNSPC; KQT2; Nmf134
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG225334 representing NM\_001006668  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACCAGCGGGGAAAAGAAGCTCAAGGTGGGCT  
 TCGTGGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGGCTACTCATCGCGGCTCCGAGGC  
 CCCAAGCGCGGAGCGTTTTGAGCAAGCCGCGACGGCGCGGGAGCCGGGAAGCCCCGAAGCGC  
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGGCGTTCA  
 TCTACCACGCCTACGTGTTCTTTTAGTCTTCTCCTGCCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA  
 GTACGAGAAGAGCTCTGAGGGGGCCCTCATACCTTGGAAATCGTACTATCGTGGTATTCGGTGTGAG  
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGGTATCGAGGCTGGAGGGCAGGCTCAAGTTG  
 CCAGGAAGCCGTTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC  
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGCAAATCTTGGGATGATCCGT  
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA  
 CTGCCTGGTACATTGGCTTCTCTGCCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA  
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGGTCTGATCACCTGACGACCATTTGGCTAC  
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTACCCTCATTGGTGTCTCGT  
 TCTTTGCTCTTCTGTGGCATTTTGGGATCCGGCTTGGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA  
 ACACCTTGAGAAACGGCGGAACCTGCGGCAGGTCTGATCCAGTTCGCTGGAGATTCTATGCTACTAAC  
 TCCTCACGCCACCGACCTGCACCTCACGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGAC  
 TCATCCCACCTCTGAACCAGCTGGAGCTGCTGAGGAATCTCAAGAGCAAATCTGGACTCACCTTCAGGAA  
 GGAGCCACAGCCAGAGCCATCACCAAGCCCGGAGGCATGGCTGCCAAGGAAAGGGGTCTCCCCAGGCC  
 CAGACGGTCCGGCGGTCCCCAGTGCAGGATCAGAGTCTTGATGACAGCCGAGCAAGGTGCCAAGAGCT  
 GGAGCTTTGGTGACCGCAGCCGCACACGCCAGGCTTCCGCATCAAGGGTGTGATCCCCGAGAAATTC  
 AGAAGAAGCAAGCCTCCCTGGGGAGGACATCGTAGAGGACAACAAGAGCTGTAAGTGCAGATTTGTGACT  
 GAAGATCTTACCCTGGCCTCAAAGTTAGCATCAGAGCTGTGTGTTATGCGGTTCTTGGTATCTAAGC  
 GAAAGTCAAAGAGAGTCTGCGCCCATATGATGTGATGGACGTCATCGAACAGTACTCGGCTGGACACTT  
 GGATATGTTGCCGCATCAAGAGCCTGCAGTCCAGGATAGATATGATTGTGGGCCCCCACCCTTCA  
 ACTCCCCGGCACAAGAAGTACCCTACCAAAGACCCACGCCCCCTCGAGAGAGTCACCCAGTACTCAC  
 CTAGAGTGGACCAGATTGTGGGGCGGGCCCAACAATAACGGATAAGGACCGCACCAAAGGCCAGCGGA  
 AACGGAGCTGCCGAAGACCCAGCATGATGGGACGGCTTGGGAAGGTGGAGAAACAGGTCTTGTCCATG  
 GAAAAGAAGCTCGACTTCTTGGTGTGATCTATACACAGAGAATGGGCATCCCACCAGCAGAGACAGAGG  
 CCTATTTTGGGGCAAGGAGCCTGAGCCGGCACCACCCTACCACAGCCAGAGGACAGCCGTGACCATGC  
 AGACAAGCATGGCTGTATCATTAAAGATCGTCCGCTCCACCAGCTTACGGGCCAGAGGAACACGCAGCA  
 CCCCCAGCCATCCCCCTGCCAGTGTCTCCCTCCACCTCGTGGCAGCAGAGCCACCAGCGCCATGGCA  
 CCTCCCCGTGGGAGACCATGGTCACTGGTCTGCGACTGGAGAGGAGTGTGGCATGATGAGCTGTCA  
 C

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG225334 representing NM\_001006668  
Red=Cloning site Green=Tags(s)

```
MVQKSRNGGVYPGTSGEKLLKGVFVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR
NAFYRKLQNFLYNVLERPRGWAFIYHAYVLLVFSCLVLSVFSTIKEYEKSSEGALYILEIVTIVFVGV
YFVRIWAAGCCCRYRGRGLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR
MDRRGGTWKLLGSVYVAHSKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWGLITLTTIGY
GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATN
LSRTDLHSTWQYYERTVTVPMYRILIPLNQLELLRNLSKSGLTFRKEPQPEPSPSPRGMMAKGGKSPQA
QTVRRSPSADQSLDDSPSKVPSWSFGDRSRTQAFRIKGAASRQNSEEASLPGEDIVEDNKSCNCFVT
EDLTPGLKVSIRAVCMRFLVSKRKFESLRPYDVMVIEQYSAGHLDMLSRIKSLQSRIDMIVGPPPPS
TPRHKKYPTKGPTAPSRESPQYSPRVQIVGRGPTITDKDRTKGPAETELPEDPSMMGRLGKVEKQVLSM
EKKLDLFSIYTQRMGIPPAETEAYFGAKEPEPAPPYHSPEDSRDHADKHGCIIVRSTSTGQRNYAA
PPAIPPAQCPPSTSWQQSHQRHGTSPVGDHGSLVLRRLERSAGMMSCH
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001006668

**ORF Size:** 2241 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\\_001006668.2](#), [NP\\_001006669.1](#)

**RefSeq Size:** 2971 bp

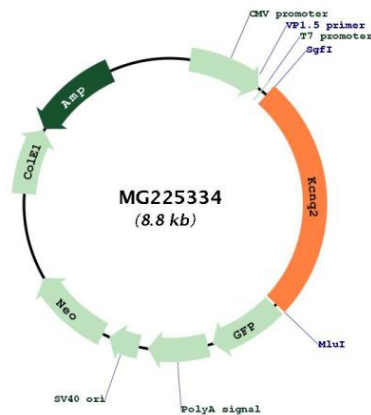
**RefSeq ORF:** 2244 bp

**Locus ID:** 16536

**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]

### Product images:



Circular map for MG225334