

Product datasheet for **MR231258**

Kcnq2 (NM_001302888) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001302888) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnq2
Synonyms:	HNSPC; KQT2; Nmf134
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>MR231258 representing NM_001302888
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCGGCACCAGCGGGGAAAAGAAGCTCAAGGTGGCT
 TCGTGGGCTGGACCCCGCGCGCCGACTCCACACGCGACGGCGGCTACTCATCGCGGCTCCGAGGC
 CCCAAGCGCGGACGCTTTTGTAGCAAGCCGCGACGGCGCGGGAGCCGGGAAGCCCCGAAGCGC
 AACGCCTTCTACCGCAAGCTGCAGAATTTCTCTACAACGTGCTAGAGCGGCCCGCGGCTGGCGTTCA
 TCTACCACGCCTACGTGTTCTTTTAGTCTTCTCCTGCCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA
 GTACGAGAAGAGCTCTGAGGGGGCCCTACATCTTGAAATCGTACTATCGTGTATTCTGGTGTGAG
 TACTTTGTGAGGATCTGGGCTGCAGGCTGCTGTTGCCGGTATCGAGGCTGGAGGGCAGGCTCAAGTTG
 CCAGGAAGCCGTTCTGTGTGATTGATATCATGGTGTGATTGCCTCCATTGCTGTGCTGGCTGCTGGTTC
 CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGGGTTCTTGCAAATCTTGGGATGATCCGT
 ATGGACCGGAGGGGTGGCACCTGGAAGCTCTTGGGATCGGTAGTCTACGCTCACAGCAAGGAGCTGGTGA
 CTGCCTGGTACATTGGCTTCTCTGCCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA
 GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGCTGATCACCTGACGACCATTTGGCTAC
 GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTACCCTCATTGGTGTCTCGT
 TCTTTGCTCTTCTGTGGCATTTTGGGATCCGGCTTGGCCCTGAAAGTCCAAGAGCAGCATCGGCAAAA
 ACACCTTGAGAAACGGCGGAACCTGCGGCAGGTCTGATCCAGTGCCTGGAGATTCTATGCTACTAAC
 CTCTCACGCCAGCCTGCACCTCACGTGGCAGTACTACGAGCGGACAGTCACTGTCCCCATGTACAGCT
 CACAAACTCAAACCTATGGGGCTCCAGACTCATCCACCTCTGAACCAGCTGGAGCTGTGAGGAATCT
 CAAGAGCAAATCTGGACTCACCTTCAGGAAGGAGCCACAGCCAGAGCCATCACCAGTCAAGAGGTCAGT
 TTGAAAGATCGTGTCTTCTCCAGCCCCGAGGCATGGCTGCCAAGGGAAAAGGGTCTCCCGAGGCCAGA
 CGGTCCGGCGGTCCCCAGTGGGATCAGAGTCTTGATGACAGCCGAGCAAGGTGCCAAGAGCTGGAG
 CTTTGGTGACCGCAGCCGACACGCCAGGCTTCCGCATCAAGGGTGTGATCCCGGAGAAATTCAGAA
 GCAAGCCTCCCTGGGAGGACATCGTAGAGGACAACAAGAGCTGTAAGTGCAGTTTGTGACTGAAGATC
 TTACCCTGGCCTCAAAGTTAGCATCAGAGCTGTGTGTATGCGGTTCTTGGTATCTAAGCGAAAGTT
 CAAAGAGAGTCTGCGCCATATGATGTGATGGACGTCATCGAACAGTACTCGGCTGGACACTTGGATATG
 TTGTCCCGCATCAAGAGCCTGCAGTCCAGAGTGGACCAGATTGTGGGGCGGGCCCAACAATAACGGATA
 AGGACCGCACAAAGGCCAGCGGAAACGGAGCTGCCCGAAGACCCAGCATGATGGGACGGCTTGGGAA
 GGTGGAGAAACAGGTCTTGTCCATGGAAAAGAAGCTCGACTTCTTGGTGTGAGCATCTATACAGAGAATG
 GGCATCCCACCAGCAGAGACAGAGGCCTATTTGGGGCCAAGGAGCTGAGCCGGCACCACCTACCACA
 GCCCAGAGGACAGCCGTGACCATGCAGACAAGCATGGCTGTATCATTAAAGATCGTCCGCTCCACCAGCTC
 TACGGGCCAGAGGAACTACGCAGACCCCCAGCCATCCCCCTGCCAGTGTCTCCCTCCACCTCGTGG
 CAGCAGAGCCACCAGCGCATGGCACCTCCCCTGTGGGAGACCATGGCTCACTGGTACGCATCCCACCAC
 CCCCTGCACAGAGCGGTGCTGTGCTACGGTGGGGCAACAGAGCCAGTACCGAGTTCTTGAGGCT
 GGAGGGCACCCCAGCCTGCAGGCCCTTGAGGCTGCCCTGCGGGATAGCGACAGTCCATCTCCATCCCT
 TCGGTGGACCATGAGGAGCTGGAGCGCTCTTACGCGGTTTCAATCTCCAGTCCAAGGAGAACCCTGG
 ATGCCCTGGGAGCTGTTATGCAGCTGTGGCACCATGCGCCAAGTCAAGCCCTACATTGCAGAGGGAGA
 GTCTGACACAGACTCAGACCTCTGCACACCATGTGGCCCTCCCCACGCTCTGCCACTGGTGGGGCCCC
 TTTGGAGATGTGGCTTGGCAGGGCCCCAGGAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231258 representing NM_001302888

Red=Cloning site Green=Tags(s)

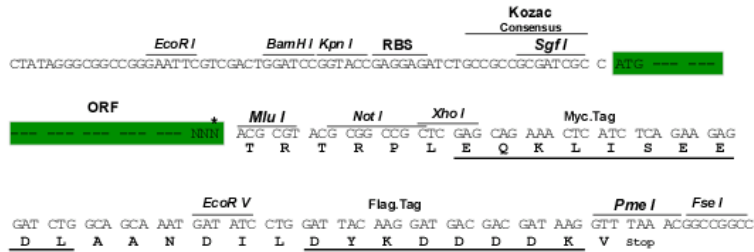
MVQKSRNGGVYPGTSGEKCLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR
NAFYRKLQNFLYNVLERPRGWAFIYHAYVFLLVFSLVLSVFSTIKEYEKSSEGALYILEIVTIVVFGVE
YFVRIWAAGCCCRYRGWRGRLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR
MDRRGGTWKLLGSVVYAHSKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGY
GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATN
LSRTDLHSTWQYYERTVTVPMYSSQTQTYGASRLIPPLNQLELLRNLKSKSGLTFRKEPQPEPSPSQKVS
LKDRVFSPPRGMAAKGKGSQAQTVRRSPSADQSLDDSPSKVPKSWSFGDRSRTRQAFRIKGAASRQNSE
ASLPGEDIVEDNKSCNCFVTEDLTPGLKVSIRAVCMRFLVSKRKFESLRPYDVMVIEQYSAGHLDL
LSRIKSLQSRVDQIVGRGPTITDKDRTKGPAETELPEDPSMMGRLGKVEKQVLSMEKKLDFLVSIIYQRM
GIPPAETEAYFGAKEPEPAPPYHSPEDSRDHADKHGCIKIVRSTSTGQRNYAAPPAIPPAQCPPSTSW
QQSHQRHGTSPVGDHGLVRIPPPPAHERSL SAYGGNRASTFLRLEGTPACRPSEAALRSDTISISIP
SVDHEELERSFSGFSISQSKENLDALGSCYAAVAPCAKVRPYIAEGESDTSDLCTPCGPPPRSATGEGP
FGDVAWAGPRK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

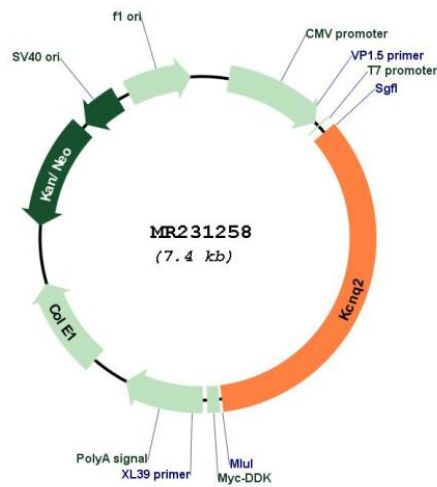
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001302888
ORF Size:	2553 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:	<ol style="list-style-type: none">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_001302888.1 , NP_001289817.1
RefSeq Size:	8244 bp
RefSeq ORF:	2556 bp
Locus ID:	16536
UniProt ID:	Q9Z351
Cytogenetics:	2 103.57 cM
MW:	94.3 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]