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Product datasheet for MG225340

Kcnq2 (NM_001006675) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnq2 (NM_001006675) 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)

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ORF Nucleotide Sequence:

>MG225340 representing NM_001006675
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGCAGAAGTCGCGCAACGGTGGCGTGTACCCCGGCACCAGCGGGGAAAAGAAGCTCAAGGTGGGCT
TCGTGGGGCTGGACCCCGGCGCGCCCGACTCCACACGCGACGGCGCGCTACTCATCGCGGGCTCCGAGGC
CCCCAAGCGCGGCAGCGTTTTGAGCAAGCCGCGGACGGGCGGCGCGGGAGCCGGGAAGCCCCCGAAGCGC
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TCTACCACGCCTACGTGTTCCTTTTAGTCTTCTCCTGCCTTGTGCTTTCTGTGTTTTCCACCATCAAGGA
GTACGAGAAGAGCTCTGAGGGGGCCCTCTACATCTTGGAAATCGTGACTATCGTGGTATTCGGTGTTGAG
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CCAGGGCAATGTCTTTGCCACATCTGCGCTTCGGAGCTTGCGGTTCTTGCAAATCTTGCGGATGATCCGT
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CTGCCTGGTACATTGGCTTCCTCTGCCTCATCCTGGCCTCATTTCTGGTGTACTTGGCAGAAAAGGGTGA
GAATGACCACTTTGACACCTACGCAGATGCACTCTGGTGGGGTCTGATCACCCTGACGACCATTGGCTAC
GGGGACAAGTACCCTCAGACCTGGAACGGGAGGCTGCTGGCAGCGACCTTTACCCTCATTGGTGTCTCGT
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GAGCTGTGTGTGTTATGCGGTTCTTGGTATCTAAGCGAAAGTTCAAAGAGAGTCTGCGCCCATATGATGT
GATGGACGTCATCGAACAGTACTCGGCTGGACACTTGGATATGTTGTCCCGCATCAAGAGCCTGCAGTCC
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AGGGGCACCAAGGGCTGGGTGACAGGTGTGCAGAACAGGGCCAGTACCAGCTTTGGAGGTCTCTTCCCAC
CTTGTTGGCTTCTTGTTGCTTTCTGCTGTGTTTCCACACTGTCTGTTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG225340 representing NM_001006675
Red=Cloning site Green=Tags(s)

MVQKSRNGGVYPGTSGEKKLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSVLSKPRTGGAGAGKPPKR
NAFYRKLQNFLYNVLERPRGWAFIYHAYVFLLVFSCLVLSVFSTIKEYEKSSEGALYILEIVTIVVFGVE
YFVRIWAAGCCCRYRGWRGRLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIR
MDRRGGTWKLLGSVVYAHSKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGY
GDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATN
LSRTDLHSTWQYYERTVTVPMYRLIPPLNQLELLRNLKSKSGLTFRKEPQPEPSPSQKVSLKDRVFSSPR
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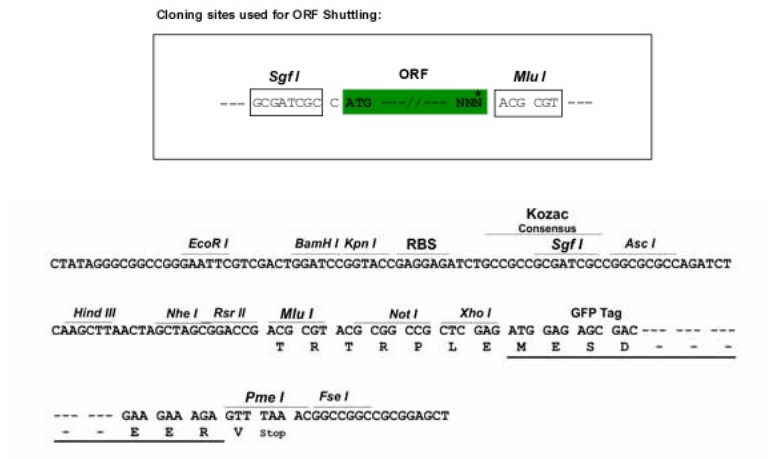
EDNKSCNCEFVTEDLTPGLKVSIRAVCVMRFLVSKRKFKESLRPYDVMDVIEQYSAGHLDMLSRIKSLQS
RQEPLPVQSGHEQGPPGQNQAWHKGHQGLGDRCAEQGQYQLWRSLPTLLASCCFLLCFHTVCF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

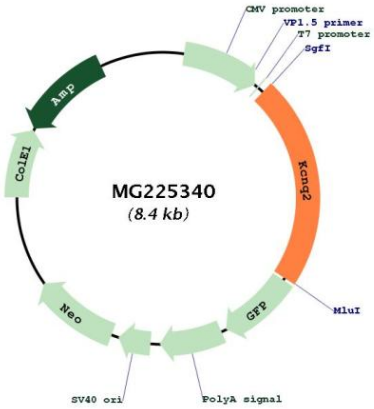
Cloning Scheme:



ACCN:	NM_001006675
ORF Size:	1869 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_001006675.1, NP_001006676.1
RefSeq Size:	2939 bp
RefSeq ORF:	1872 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 MG225340