

Product datasheet for **MG226715**

Kcnk2 (NM_010607) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kcnk2 (NM_010607) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Kcnk2
Synonyms: A430027H14Rik; AI848635; TREK-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG226715 representing NM_010607
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCCCTGACTTGCTGGATCCCAAGTCTGCTGCTCAGAAGTCCAAACCGAGGCTCTCATTCTCT
 CAAAACCCACCGTGTCTTCCCGGTGGAGAGTGACTCGGCCATTAATGTTATGAAATGGAAGACAGT
 CTCACGATTTTCTGGTGGTCTCTACCTGATCATCGGAGCCACGGTGTCAAGGCATTGGAGCAG
 CCTCAGGAGATTTCCAGAGGACCACCATTGTGATCCAGAAGCAGACCTCATAGCCAGCATGCCTGCC
 TCAACTCCACCGAGCTGGACGAAGTCCAGCAATAGTGGCAGCAATAAACGCAGGGATTATCCCTT
 AGGAAACAGCTCCAATCAAGTTAGTCACTGGGACCTCGGAAGCTTTTCTTTTCTGCTGGTACTGTTATC
 ACAACCATAGGATTTGAAACATCTCCCAAGTGAAGGTGGAAAAATATTCTGCATCATCTATGCCT
 TGCTGGGAATTCCTCTTTGGCTTTCTACTGGCTGGGTTGGTATCAGCTAGGAACTATATTTGGAAA
 AGGAATTGCCAAGTGGAAAGACACATTTAATAGTGGAAATGTTAGTCAGACGAAGATTTCGTATCATCTCC
 ACCATCATCTTCATCCTGTTGGCTGTCTCTTTGTGGCTCTCCCTGCGGTATATTCAGACACATAG
 AAGGCTGGAGCGCCCTGGACGCTATCTATTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTA
 CGTGGCAGGTGGATCAGACATTTGAATATCTGGACTTCTACAAGCCTGTGGTGTGGTCTGGATCCTCGTT
 GGGCTGGCCTACTTTGCAGCTGTTCTGAGCATGATTGGGACTGGCTACGGGTGATCTCTAAGAAGACGA
 AGGAAGAGGTGGGAGAGTTCAGAGCGCATGCCGCTGAGTGGACAGCCAATGTCACGCGGAGTTCAGGA
 AACGAGGAGGCGGCTGAGCGTGGAGATCTACGACAAGTCCAGCGTGCCACATCCGTGAAGCGGAAGCTC
 TCCGACAGCTGGCGGGCAACCACAACCAGGAAGTCACTCCGTGAGGAGACCCTGTCTGTGAACCACC
 TGACCAGCGAGAGGGAAGTCTGCCTCCCTTGTGAAGGCTGAGAGCATCTATCTGAACGGTCTGACACC
 AACTGTGCTGGTGGAGACATAGCTGTCATTGAGAACATGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG226715 representing NM_010607
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MAAPDLLDPKSAQAQNSKPRLSFSSKPTVLASRVESDSAINVMMKWKTVSTIFLVVVLVLIIGATVFKALEQ
 PQEISQRTTIVIQKQTFIAQHACVNSTELDELIQQIVAANAGIPLGNSSNQVSHWDLGSSFFAGTVI
 TTIGFGNISPRTEGGKIFCIIYALLGIPLFGLLAGVGDQLGTIFGKGIKVEDTFIKWVNSQTKIRIIS
 TIIIFILFGCVLFVALPAVIFKHIEGWSALDAIYFVVITLTTIGFGDYVAGGSDIEYLDYKPVVWFVILV
 GLAYFAAVLSMIGDWRVLSKKTKEEVGEFRAHAAEWTANVTAEFKETRRRLSVEIYDKFQRATSVKRRKL
 SAELAGNHNQELTPCRRTLSVNHLTSEREVLPPLLKAESIYLNGLTPHCAGEDIAVIENMK

TRTRPLE - GFP Tag - V

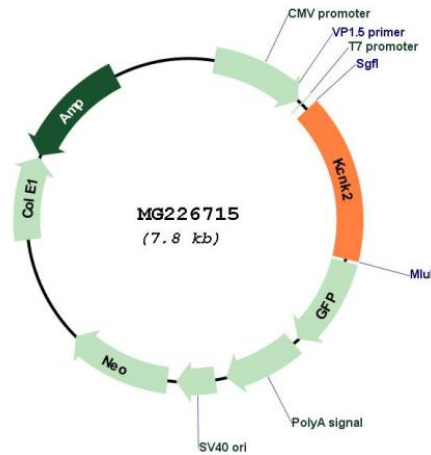
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_010607

ORF Size:	1233 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_010607.3 , NP_034737.2
RefSeq Size:	3516 bp
RefSeq ORF:	1236 bp
Locus ID:	16526
UniProt ID:	P97438
Cytogenetics:	1 H6
Gene Summary:	Ion channel that contributes to passive transmembrane potassium transport. Reversibly converts between a voltage-insensitive potassium leak channel and a voltage-dependent outward rectifying potassium channel in a phosphorylation-dependent manner. In astrocytes, forms mostly heterodimeric potassium channels with KCNK1, with only a minor proportion of functional channels containing homodimeric KCNK2 (PubMed:24496152). In astrocytes, the heterodimer formed by KCNK1 and KCNK2 is required for rapid glutamate release in response to activation of G-protein coupled receptors, such as F2R and CNR1 (PubMed:24496152).[UniProtKB/Swiss-Prot Function]