

Product datasheet for **MG227299**

Kcnk2 (NM_001159850) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kcnk2 (NM_001159850) 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: >MG227299 representing NM_001159850
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTTGCCAGCGCCTCGCGGGAGAGACCCGGCTATACTGCAGGAGTGCGGCCCTGACTTGCTGGATC
 CCAAGTCTGCTGCTCAGAACTCCAAACCGAGGCTCTATTCTCCTCAAACCCACCGTCTTGTCCCG
 GGTGGAGAGTGACTCGGCCATTAATGTTATGAAATGGAAGACAGTCTCCACGATTTTCTGGTGGTCGTC
 CTCTACCTGATCATCGGAGCCACGGTGTCAAGGCATTGGAGCAGCCTCAGGAGATTTCCAGAGGACCA
 CCATTGTGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCACTCCACCGAGCTGGACGAACT
 CATCCAGCAAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGCTCCAATCAAGTTAGT
 CACTGGGACCTCGGAAGCTCTTTCTTTTGTGGTACTGTTATCACAACCATAGGATTTGGAAACATCT
 CCCACGAACTGAAGGTGAAAAATATTCTGCATCATCTATGCCTTGCTGGGAATCCCCTCTTTGGCTT
 TCTACTGGCTGGGGTTGGTGATCAGCTAGGAATATTTGGAAAAGGAATTGCCAAAGTGAAGACACA
 TTTATTAAGTGAATGTTAGTCAGACGAAGATTCGTATCATCTCCACCATCATCTTATCCTGTTTGGCT
 GTGCTCTTTTGGCTCTCCCTGCGGTCATATTAAGCACATAGAAGGCTGGAGCGCCCTGGACGCTAT
 CTATTTTGTGGTTACTACTCTGACGACCATTTGGATTTGGAGACTACGTGGCAGGTGGATCAGACATTGAA
 TATCTGGACTTCTACAAGCCTGTGGTGTGGTTCTGGATCCTCGTTGGGCTGGCCTACTTTGCAGCTGTT
 TGAGCATGATTGGGACTGGCTACGGGTGATCTCTAAGAAGACGAAGGAAGAGGTGGGAGAGTTTCAGAGC
 GCATGCCGCTGAGTGGACAGCCAATGTCACGGCCGAGTTCAAGGAAACGAGGAGGCGGCTGAGCGTGGAG
 ATCTACGACAAGTTCAGCGTGCCACATCCGTGAAGCGGAAGCTCTCCGAGAGCTGGCGGGCAACCACA
 ACCAGGAACTGACTCCGTGTAGGAGGACCCTGTCTGTGAACACCTGACCAGCGAGAGGGAAGTCTGCC
 TCCCTTGCTGAAGGCTGAGAGCATCTATCTGACCGGTCTGACCCACACTGTGCTGGTGAGGACATAGCT
 GTCATTGAGAACATGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG227299 representing NM_001159850
 Red=Cloning site Green=Tags(s)

MLASASRERPGYTAGVAAPDLLDPKSAQNSKPRLSFSSKPTVLSRVESDSAINVMKWKTVSTIFLVV
 LYLIIGATVFKALEQPQEISQRTTIVIQKQTFIAQHACVNSTELDELIQQIVAAINAGIIPLGNSSNQVS
 HWDLGSSFFAGTVITTTIGFGNISPRTEGGKIFCIIYALLGIPLFGFLLAGVGDQLGTIFGKGIKVEDT
 FIKWNVSQTKIRIISTIIIFILFGCVLFVALPAVIFKHIEGWSALDAIYFVVITLTTIGFGDYVAGGSDIE
 YLDFYKPVVWFILVGLAYFAAVLSMIGDWRVLSKKTKEEVGEFRAHAAEWTANVTAEFKETRRRLSVE
 IYDKFQRATSVKRKLSAELAGNHNQELTPCRRTLSVNHLTSEREVLPLLKAESIYLNGLTPHCAGEDIA
 VIENMK

TRTRPLE - GFP Tag - V

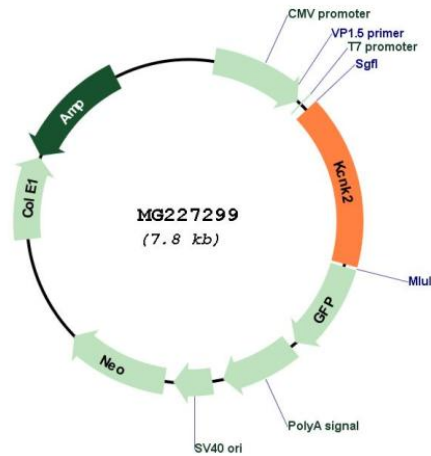
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001159850

ORF Size:	1278 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_001159850.1 , NP_001153322.1
RefSeq Size:	3423 bp
RefSeq ORF:	1281 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]