

Product datasheet for **MR227299**

Kcnk2 (NM_001159850) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnk2 (NM_001159850) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnk2
Synonyms:	A430027H14Rik; AI848635; TREK-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR227299 representing NM_001159850
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTGGCAGCGCTCGCGGGAGAGACCCGGCTATACTGCAGGAGTGGCGGCCCTGACTTGTGGATC
 CCAAGTCTGCTGCTCAGAACTCCAAACCGAGGCTCTATTCTCCTCAAAACCCACCGTGTCTGCTCCCG
 GGTGGAGAGTGACTCGGCCATTAATGTTATGAAATGGAAGACAGTCTCCACGATTTTCTGGTGGTCTGTC
 CTCTACCTGATCATCGGAGCCACGGTGTCAAGGCATTGGAGCAGCCTCAGGAGATTTCCAGAGGACCA
 CCATTGTGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCAACTCCACCGAGCTGGACGAACT
 CATCCAGCAAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGCTCCAATCAAGTTAGT
 CACTGGGACCTCGGAAGCTTTTCTTTCTTGTGGTACTGTTATCACACCATAGGATTTGGAAACATCT
 CCCCACGAACTGAAGGTGAAAAATATTCTGCATCATCTATGCCTTGTGGGAATCCCCTTTTGGCTT
 TCTACTGGCTGGGTTGGTGTGATCAGCTAGGAACTATTTGGAAAAGGAATTGCCAAAGTGAAGACACA
 TTATTAAGTGAATGTTAGTCAGACGAAGATTGTATCATCTCCACCATCATCTTCATCCTGTTTGGCT
 GTGCCTCTTTGTGGCTCTCCCTGCGGTATATCAAGCATAGAAAGGCTGGAGCGCCCTGGACGCTAT
 CTATTTTGTGGTTACTACTCTGACGACCATTTGGATTTGGAGACTACGTGGCAGGTGGATCAGACATTGAA
 TATCTGGACTTCTACAAGCCTGTGGTGTGGTCTGGATCCTCGTTGGGCTGGCCTACTTTGCAGCTGTT
 TGAGCATGATTGGGGACTGGCTACGGGTGATCTCTAAGAAGACGAAGGAAGAGGTGGGAGAGTTCAGAGC
 GCATGCCGCTGAGTGGACAGCCAATGTCACGGCCGAGTCAAGGAAACGAGGAGGCGGCTGAGCGTGGAG
 ATCTACGACAAGTCCAGCGTCCACATCCGTGAAGCGGAAGCTCTCCGACAGCTGGCGGGCAACCACA
 ACCAGGAACTGACTCCGTGTAGGAGGACCCTGTCTGTGAACCACCTGACCAGCGAGAGGGAAGTCTGCC
 TCCCTTGTGAAGGCTGAGAGCATCTATCTGAACGGTCTGACACCACACTGTGCTGGTGGAGACATAGCT
 GTCATTGAGAACATGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227299 representing NM_001159850
 Red=Cloning site Green=Tags(s)

MLASASRERPGYTAGVAAPDLLDPKSAAQNSKPRLSFSSKPTVLSRVESDSAINVMKWTVSTIFLVV
 LYLIIIGATVFKALEQPQEISQRTTIVIQKQTFIAQHACVNSTELDELIQQIVAAINAGIIPLGNSNQVS
 HWDLGSSFFFAGTVITTTIGFNI SPRTTEGGKIFCIIYALLGIPLFGFLLAGVGDQLGTIFGKGIKVEDT
 FIKWNVSQTKIRIISTIIIFILFGCVLFVALPAVIFKHIEGWSALDAIYFVVITLTTIGFDYVAGGSDIE
 YLDFYKPVVWFILVGLAYFAAVLSMIGDWLRVISKKTKEEVGEFRAHAAEWANVTAEFKETRRLSVE
 IYDKFQRATSVKRKLSAELAGNHQELTPCRRLTSVNHLTSEREVLPLLKAESIYLNGLTPHCAGEDIA
 VIENMK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1464_g03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


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:

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

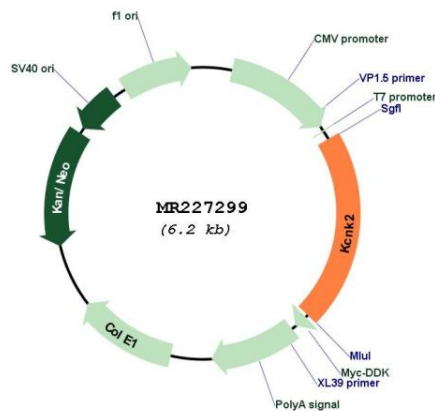
UniProt ID: [P97438](#)

Cytogenetics: 1 H6

MW: 47.3 kDa

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]

Product images:



Circular map for MR227299