

Product datasheet for MR229782

Kcnk2 (NM_001281847) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnk2 (NM_001281847) 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)
ORF Nucleotide Sequence:	>MR229782 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGTGCAGTGGCGGCCCTGACTTGCTGGATCCCAAGTCTGCTGCTCAGAACTCCAAACCGAGGCTCT
CATTCTCCTCAAACCCACCGTCTTCCCGGGTGGAGAGTACTCGGCCATTAATGTTATGAAATG
GAAGACAGTCTCCACGATTTTCTGGTGGTCGCTCTACCTGATCATCGGAGCCACGGTGTCAAGGCA
TTGGAGCAGCCTCAGGAGATTTCCAGAGGACCACCATTGTGATCCAGAAGCAGACCTTCATAGCCAGC
ATGCCTGCGTCAACTCCACCGAGCTGGACGAATCATCCAGCAAATAGTGGCAGCAATAAACGCAGGGAT
TATCCCCTTAGGAAACAGCTCCAATCAAGTTAGTCACTGGGACCTCGGAAGCTCTTCTCTTTGCTGGT
ACTGTTATCACAACCATAGGATTTGAAACATCTCCCCACGAAGTGAAGGTGAAAAATATTCTGCATCA
TCTATGCCTTGGTGGAAATCCCCTCTTTGGCTTTCTACTGGCTGGGGTTGGTGTACAGTAGGAACTAT
ATTTGGAAAAGGAATTGCCAAAGTGAAGACACATTTATTAAGTGAAGTGTAGTCAGACGAAGATTCGT
ATCATCTCCACCATCATCTTCATCCTGTTGGCTGTGCTCTTTGTGGCTCTCCCTGCGGTCAATTCA
AGCACATAGAAGGCTGGAGCGCCTGGACGCTATCTATTTGTGGTTATCACTCTGACGACCATTGGATT
TGGAGACTACGTGGCAGGTGGATCAGACATTGAATATCTGGACTTCTACAAGCCTGTGGTGTGGTTCTGG
ATCCTCGTTGGGCTGGCCTACTTTGCAGCTGTTCTGAGCATGATTGGGGACTGGCTACGGGTGATCTCA
AGAAGACGAAGGAAGAGGTGGGAGAGTTCAGAGCGCATGCCGCTGAGTGGACAGCCAATGTCACGGCCGA
GTTCAAGGAAACGAGGAGCGGCTGAGCGTGGAGATCTACGACAAGTTCAGCGTGCCACATCCGTGAAG
CGGAAGCTCTCCGAGAGCTGGCGGGCAACCACAACCAGGAAGTACTCCGTGTAGGAGGACCCTGTCTG
TGAACCACCTGACCAGCGAGAGGGAAGTCTGCCTCCCTTGTGAAGGCTGAGAGCATCTATCTGAACGG
TCTGACACCACACTGTGCTGGTGGAGACATAGCTGTCATTGAGAACATGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR229782 protein sequence
Red=Cloning site Green=Tags(s)

MGAVAAPDLLDPKSAQNSKPRLSFSSKPTVLASRVESDSAINVMKWTVSTIFLVVLYLIIGATVFKA
 LEQPQEISQRTTIVIQKQTFIAQHACVNSTELDELIQQIVAAINAGIPLGNSSNQVSHWDLGSSFFFAG
 TVITTIIGFGNISPRTEGGKIFCIIYALLGIPLFGFLLAGVGDQLGTIFGKGIKVEDTFIKWNVSQTKIR
 IISTIIIFILFGCVLFVALPAVIFKHIEGWSALDAIYFVVITLTTIGFGDYVAGGSDIEYLDYFKPVVWF
 ILVGLAYFAAVLSMIGDWLRVISKKTKEEVGEFRAHAAEWTANVTAEFKETRRRLSVEIYDKFQRATSVK
 RKLSAELAGHNQELTPCRRTLSVNHLTSEREVLPPLLKAESIYLNGLTPHCAGEDIAVIENMK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001281847

ORF Size: 1245 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_001281847.1](#), [NP_001268776.1](#)

RefSeq Size: 3314 bp

RefSeq ORF: 1245 bp

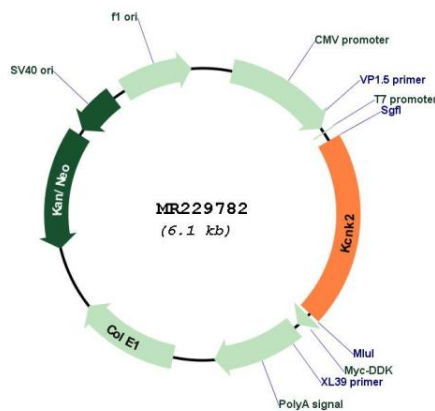
Locus ID: 16526

Cytogenetics: 1 H6

MW: 45.6 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 MR229782