

Product datasheet for **RC214082**

KCNK2 (NM_001017424) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNK2 (NM_001017424) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNK2
Synonyms:	hTREK-1c; hTREK-1e; K2p2.1; TPKC1; TREK; TREK-1; TREK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214082 representing NM_001017424
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGATGAACCCACGAGCAAAAAGGGATTCTACTTGGCGGCACCTGACTTGTGGATCCTAAATCTGCCG
 CTCAGAACTCCAAACCGAGGCTCTCGTTTTCCACGAAACCCACAGTGCTTCCCGGGTGGAGAGTGA
 CACGACCATTAATGTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGCTCTATCTGATC
 ATCGGAGCCACCGTGTCAAAGCATTGGAGCAGCCTCATGAGATTTACAGAGGACCACCATTGTGATCC
 AGAAGCAAACATTCATATCCCAACATTCCTGTGCAATTCGACGGAGCTGGATGAACTATTAGCAAAT
 AGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACCTCCAATCAAATCAGTCACTGGGATTTG
 GGAAGTTCCTTCTTTGCTGGCACTGTATTACAACCATAGGATTTGGAAACATCTACCACGCACAG
 AAGGCGGCAAAAATTCTGTATCATCTATGCCTTACTGGGAATCCCCTCTTTGGTTTTCTTTGGCTGG
 AGTTGGAGATCAGCTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGAAGATACGTTTATTAAGTGG
 AATGTTAGTCAGACCAAGATTTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGACTCTTTG
 TGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGTGCCTGGACGCCATTTATTTTGTGGT
 TATCACTCTAACAACTATTGGATTTGGTACTACGTTGCAGGTGGATCCGATATTGAATATCTGGACTTC
 TATAAGCCTGTCGTGTGGTTCTGGATCCTGTAGGGCTTGCTTACTTTGCTGTCTCCTGAGCATGATTG
 GAGATTGGCTCCGAGTGATATCTAAAAAGACAAAAGAAGAGGTGGGAGAGTTCAGAGCACACGCTGCTGA
 GTGGACAGCCAACGTACAGCCGAATTCAAAGAAACCAGGAGCGACTGAGTGTGGAGATTTATGACAAG
 TTCCAGCGGGCCACCTCCATCAAGCGGAAGCTCTCGGCAGAACTGGCTGGAAACCACAATCAGGAGCTGA
 CTCCTTGTAGGAGACCCTGTGAGTGAACCACCTGACCAGCGAGAGGGATGTCTTGCCTCCCTTACTGAA
 GACTGAGAGTATCTATCTGAATGGTTTACGCCACACTGTGCTGGTGAAGAGATTGCTGTGATTGAGAAC
 ATCAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214082 representing NM_001017424
 Red=Cloning site Green=Tags(s)

MMNPRAKRDFYLAAPDLLDPKSAAQNSKPRLSFSTKPTVLASRVESDTTINVMKWKTVSTIFLVVLYLI
 IGATVFKALEQPHEISQRTTIVIQKQTFISQHSVCNSTELDELIQQIVAAINAGIPLGNTSNQISHWDL
 GSSFFFAGTVITIGFGNISPRTEGGKIFCIIYALLGIPLFGLLAGVGDQLGTIFGKGIKVEDTFIKW
 NVSQTIRIISTIIIFILFGCVLFVALPAIFKHIEGWSALDAIYFVVITLTTIGFGDYVAGGSDIEYLD
 YKPVVWFVILVGLAYFAAVLSMIGDWLRVISKTKKEEVGEFRAHAAEWTANVTAEFKTRRRRLSVEIYDK
 FQRATSIKRKLSAELAGNHNQELTPCRRRLSVNHLSERDVLPLLKTESIYLNGLTPHCAGEEIAVIEN
 IK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6100_d08.zip

Restriction Sites:

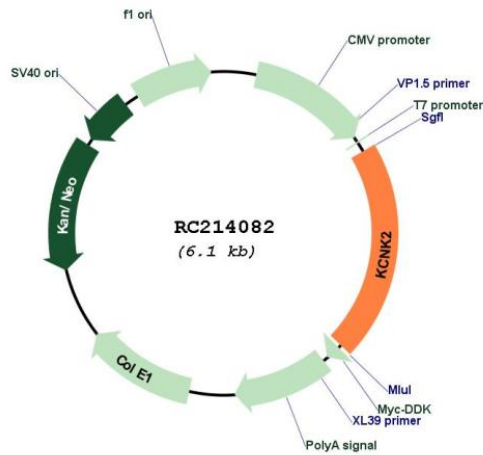
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001017424

ORF Size: 1266 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_001017424.3](#)

RefSeq Size: 3340 bp

RefSeq ORF: 1269 bp

Locus ID: 3776

UniProt ID: [O95069](#)

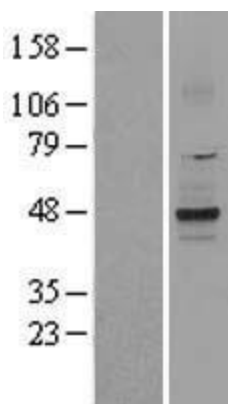
Cytogenetics: 1q41

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

MW: 46.7 kDa

Gene Summary: This gene encodes one of the members of the two-pore-domain background potassium channel protein family. This type of potassium channel is formed by two homodimers that create a channel that leaks potassium out of the cell to control resting membrane potential. The channel can be opened, however, by certain anesthetics, membrane stretching, intracellular acidosis, and heat. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Western blot validation of overexpression lysate (Cat# [LY400395]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214082 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).