

Product datasheet for **RC222775**

KCNK10 (NM_021161) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNK10 (NM_021161) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNK10
Synonyms:	K2p10.1; PPP1R97; TREK-2; TREK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222775 representing NM_021161
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTTTTCTCTACACAGACTTCTTTCTTTCCTTGGTGGCCGTTCCCGCAGCAGCACCGGTGTGCCAGC
 CCAAGAGCGCCACTAACGGGCAACCCCGGCTCCGGCTCCGACTCCAACCTCCGCGCTGTCCATTTCCCTC
 CCGAGCCACAGTGGTAGCCAGGATGGAAGGCACCTCCCAAGGGGCTTGCAGACCGTCATGAAGTGAAG
 ACGGTGGTTGCCATCTTTGTGGTTGTGGTGGTCTACCTTGTCACTGGCGGTCTTGTCTTCCGGGCATTGG
 AGCAGCCCTTTGAGAGCAGCCAGAAGAATACCATCGCCTTGAGAAAGCGGAATTCCTGCGGGATCATGT
 CTGTGTGAGCCCCAGGAGCTGGAGACGTTGATCCAGCATGCTCTTGTGCTGACAATGCGGGAGTCAGT
 CCAATAGGAACTCTTCCAACAACAGCAGCCACTGGGACCTCGGCAGTGCCTTTTTCTTTGCTGAACTG
 TCATTACGACCATAGGGATATGGGAATATTGCTCCGAGCACTGAAGGAGGCAAAATCTTTGTATTTTATA
 TGCCATCTTTGGAATCCACTCTTTGGTTTCTTATTGGCTGGAATTGGAGACCAACTTGGAAACCATCTTT
 GGGAAAAGCATTGCAAGAGTGGAGAAGGCTTTTCGAAAAAGCAAGTGAGTCAGACCAAGATCCGGGTCA
 TCTCAACCATCCTGTTTCTTGGCCGGCTGCATTGTGTTTGTGACGATCCCTGTGTCATCTTTAAGTA
 CATCGAGGGCTGGACGGCCTTGGAGTCCATTTACTTTGTGGTGGTCACTCTGACCACGGTGGGCTTTGGT
 GATTTTGTGGCAGGGGAAACGCTGGCATCAATTATCGGGAGTGGTATAAGCCCCTAGTGTGGTTTTGGA
 TCCTTGTGGCCTTGCCACTTTGCAGCTGTCTCAGTATGATCGGAGATTGGCTACGGGTTCTGTCCAA
 AAAGACAAAAGAAGAGGTGGGTGAAATCAAGGCCCATGCGGCAGAGTGAAGGCCAATGTCACGGCTGAG
 TTCCGGGAGACACGGCGAAGGCTCAGCGTGGAGATCCACGATAAGCTGCAGCGGGCGCCACCACCCGCA
 GCATGGAGCGCCGGCGGCTGGCCCTGGACACCGCCGCTTCAAGGCCTCATCCAGGAGAGCATCAACAACCGGCC
 CTCTGTCTTTGCTGCCCTGGACACCGCCGCTTCAAGGCCTCATCCAGGAGAGCATCAACAACCGGCC
 AACAACTGCGCCTGAAGGGCCGGAGCAGCTGAACAAGCATGGGCAGGGTGCCTCCGAGGACAACATCA
 TCAACAAGTTCGGGTCCACCTCCAGACTCACCAAGAGGAAAAACAAGGACCTCAAAAAGACCTTGCCCGA
 GGACGTTCCAGAAAATCTACAAGACCTTCCGGAATTACTCCCTGGACGAGGAGAAGAAAGAGGAGGAGACG
 GAAAAGATGTGTAACCTCAGACAACCTCCAGCACAGCCATGCTGACGGACTGTATCCAGCAGCAGCTGAGT
 TGGAGAACGGAATGATACCCACGGACACCAAGACCGGGAGCCGGAGAACAACCTACTTGAAGACAG
 AAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222775 representing NM_021161
 Red=Cloning site Green=Tags(s)

MFFLYTDFFLSLVAVPAAAPVCQPKSATNGQPPAPPTPRLSISSRATVVARMEGTSQGGQLQVMKWK
 TVVAIFVVVVYLVVTGGLVFRALQPFESSQKNTIALEKAFLRDHVCVSPQELETLIQHALDADNAGVS
 PIGNSSNNSHWDLGSAFFAGTVITTIYGNIAIPSTEGGKIFCILYAFIPIPLFGFLLAGIGDQLGTIF
 GKSIARVEKVFRRKQVSQTKIRVISTILFILAGCIVFVTIPAVIFKYIEGWTALESIFYVVVTLTTVGF
 DVFAGGNAGINREWYKPLVWFILVGLAYFAAVLSMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAE
 FRETRRRLSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQESINNR
 PNNLRKLGPEQLNKHGQASEDNIINKFGSTSRITKRKNKDLKTLPELVQKIYKTFRNYSLDEEKKEET
 EKMCNSDNSSTAMLTDICIQHAELNGMIPTDTKDREPENNSLLEDNRN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6108_d12.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_021161

ORF Size: 1614 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_021161.4](#)
RefSeq Size: 2710 bp

RefSeq ORF: 1617 bp

Locus ID: 54207

UniProt ID: [P57789](#)

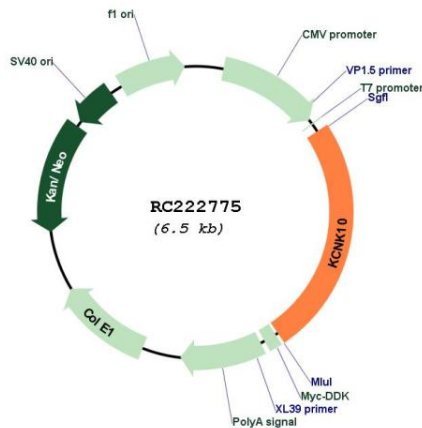
Cytogenetics: 14q31.3

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

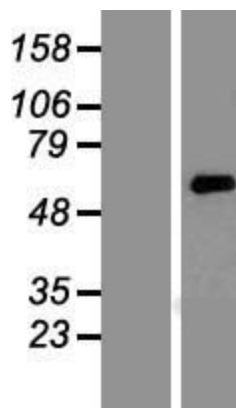
MW: 59.6 kDa

Gene Summary: The protein encoded by this gene belongs to the family of potassium channel proteins containing two pore-forming P domains. This channel is an open rectifier which primarily passes outward current under physiological K⁺ concentrations, and is stimulated strongly by arachidonic acid and to a lesser degree by membrane stretching, intracellular acidification, and general anaesthetics. Several alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Sep 2008]

Product images:



Circular map for RC222775



Western blot validation of overexpression lysate (Cat# [LY412052]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222775 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).