

Product datasheet for **RG210446**

KCNK10 (NM_138318) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNK10 (NM_138318) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNK10
Synonyms:	K2p10.1; PPP1R97; TREK-2; TREK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG210446 representing NM_138318
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGATGGATTTAAGGGGGACAGGACTGAAGGCTGTCGAGTGATTCACTGGCCGTTCCCGCAGCAG
 CACCGGTGTGCCAGCCAAAGAGCGCCACTAACGGGCAACCCCGGCTCCGGCTCCGACTCCAACCTCCGCG
 CCTGTCCATTTCTCCCGAGCCACAGTGGTAGCCAGGATGGAAGGCACCTCCCAAGGGGGCTTGCAGACC
 GTCATGAAGTGAAGACGGTGGTTGCCATCTTTGTGGTTGGTGGTCTACCTTGTCACTGGCGGTCTTG
 TCTTCCGGCATTGGAGCAGCCCTTTGAGAGCAGCCAGAAGAATACCATCGCCTTGAGAGAAGCGGAATT
 CCTGCGGGATCATGTCTGTGTGAGCCCCAGGAGCTGGAGACGTTGATCCAGCATGCTCTTGATGCTGAC
 AATGCGGGAGTCAGTCCAATAGGAACTCTTCAAACAACAGCAGCCACTGGGACCTCGGCAGTGCCTTTT
 TCTTTGCTGGAAGTGCATTACGACCATAGGGTATGGGAATATTGCTCCGAGCACTGAAGGAGGCAAAAT
 CTTTTGTATTTATATGCCATCTTTGGAATCCACTCTTTGGTTTCTTATTGGCTGGAATTGGAGACCAA
 CTTGGAACCATCTTTGGGAAAAGCATTGCAAGAGTGGAGAAGGCTTTTCGAAAAAAGCAAGTGAGTCAGA
 CCAAGATCCGGGTCACTCAACCATCTGTTTCATCTTGGCCGGCTGCATTGTGTTTGTGACGATCCCTGC
 TGTCACTTTAAGTACATCGAGGGCTGGACGGCCTTGAGTCCATTTACTTTGTGGTGGTCACTCTGACC
 ACGGTGGGCTTTGGTGATTTTGTGGCAGGGGAAACGCTGGCATCAATTATCGGGAGTGGTATAAGCCCC
 TAGTGTGGTTTTGGATCCTTGTGGCCTTGCTACTTTGCAGCTGCTCCTCAGTATGATCGGAGATTGGCT
 ACGGTTCTGTCCAAAAGACAAAAGAAGAGGTGGTGAATCAAGGCCCATGCGGCAGAGTGAAGGCC
 AATGTCACGGCTGAGTTCGGGAGACACGGCGAAGGCTCAGCTGGAGATCCACGATAAGCTGCAGCGGG
 CGGCCACCATCCGCAGCATGGAGCGCCGGCGGCTGGCCCTGGACCAGCGGGCCCACTCACTGACATGCT
 GTCCCCCGAGAAGCGCTCTGTCTTTGCTGCCCTGGACACCGGCCCTTCAAGGCCTCATCCAGGAGAGC
 ATCAACAACCGGCCCAACAACCTGCGCCTGAAGGGGCCGGAGCAGCTGAACAAGCATGGGACGGTGCCT
 CCGAGGACAACATCATCAACAAGTTCGGGTCCACCTCCAGACTCACCAAGAGGAAAAACAAGGACCTCAA
 AAAGACCTTGCCCGAGGACGTTCCAGAAAATCTACAAGACCTTCCGGAATTACTCCTGGACGAGGAGAAG
 AAAGAGGAGGAGACGAAAAGATGTGTAACCTCAGACAACCTCAGCACAGCCATGCTGACGGACTGTATCC
 AGCAGCACGCTGAGTTGGAGAACGGAATGATACCCACGGACACCAAGACCGGGAGCCGGAGAACAACCT
 ATTACTTGAAGACAGAAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG210446 representing NM_138318
 Red=Cloning site Green=Tags(s)

MEDGFKGDRTEGCRSDSVAVPAAAPVCQPKSATNGQPPAPAPTPTPRLSISSRATVVARMEGTSQGGGLQT
 VMKWKTVVAIFVIVVVVYLVTGGLVFRALQPFESSQKNTIALEKAEFLRDHVCVSPQELETLIQHALDAD
 NAGVSPIGNSSNNSHWDLGSAFFAGTVITTIYGNIAIPSTEGGKIFCILYAFIPIPLFGFLLAGIGDQ
 LGTIFGKSIARVEKVFRRKQVSQTKIRVISTILFILAGCIVFVTIPAVIFKYIEGWTALESIFVIVVTLT
 TVGFGDFVAGGNAGINREWYKPLVWFILVGLAYFAAVLSMIGDWLRVLSKKTKEEVEIKAHAAEWKA
 NVTAEFRETRRRLSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQES
 INNRPNNLRKGPQLNKHGQGAEDNIINKFGSTSRITKRKNKDLKKTLPEDVQKIYKTFRNYSLDEEK
 KEEETEKMNSDNSSTAMLTDICIQHALENGMIPTDTKDREPENNSLLEDNRN

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_138318

ORF Size: 1629 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_138318.2](#)

RefSeq Size: 2401 bp

RefSeq ORF: 1632 bp

Locus ID: 54207

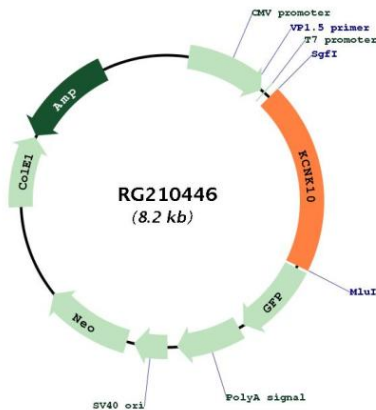
UniProt ID: [P57789](#)

Cytogenetics: 14q31.3

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

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 RG210446