

## Product datasheet for **RG214082**

### KCNK2 (NM\_001017424) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** KCNK2 (NM\_001017424) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** KCNK2  
**Synonyms:** hTREK-1c; hTREK-1e; K2p2.1; TPKC1; TREK; TREK-1; TREK1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG214082 representing NM\_001017424  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGATGAACCCACGAGCAAAAAGGGATTCTACTTGCGGCACCTGACTTGCTGGATCCTAAATCTGCCG  
 CTCAGAACTCCAAACCGAGGCTCTCGTTTTCCACGAAACCCACAGTGCTTCCCGGGTGGAGAGTGA  
 CACGACCATTAATGTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGCTCTATCTGATC  
 ATCGGAGCCACCGTGTCAAAGCATTGGAGCAGCCTCATGAGATTCACAGAGGACCACCATTGTGATCC  
 AGAAGCAAACATTCATATCCCAACATTCCTGTGCAATTCGACGGAGCTGGATGAACTATTGAGCAAA  
 AGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACCTCCAATCAAATCAGTCACTGGGATTTG  
 GGAAGTTCCTTCTTTGCTGGCACTGTATTACAACCATAGGATTTGAAACATCTCACCACGCACAG  
 AAGCGCGCAAAATATTCTGTATCATCTATGCCTTACTGGGAATCCCTCTTTGGTTTTCTCTTGCTGG  
 AGTTGGAGATCAGCTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAAGATACGTTTATTAAGTGG  
 AATGTTAGTCAGACCAAGATTTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGACTCTTTG  
 TGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGTGCCTGGACGCCATTTATTTGTGGT  
 TACTACTTAACAACATTTGGATTTGGTACTACGTTGCAGGTGGATCCGATATTGAATATCTGGACTTC  
 TATAAGCCTGTCGTGTGGTTCTGGATCCTGTAGGGCTTGCTTACTTTGCTGCTGCTGAGCATGATT  
 GAGATTGGCTCCGAGTGATATCTAAAAAGACAAAAGAAGAGGTGGGAGAGTTCAGAGCACACGCTGCTGA  
 GTGGACAGCCAACGTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGAGATTTATGACAAG  
 TTCCAGCGGGCCACCTCCATCAAGCGGAAGCTCTCGGCAGAACTGGTGGAAACCACAATCAGGAGCTGA  
 CTCCTTGTAGGAGGACCCTGTCAGTGAACCACCTGACCAGCGAGAGGGATGTCTTGCCTCCCTTACTGAA  
 GACTGAGAGTATCTATCTGAATGGTTTGACGCCACACTGTGCTGGTGAAGAGATTGCTGTGATTGAGAAC  
 ATCAAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG214082 representing NM\_001017424  
 Red=Cloning site Green=Tags(s)

MMNPRAKRDFYLAAPDLLDPKSAQAQNSKPRLSFSTKPTVLASRVESDTTINVMKWKTVSTIFLVVLYLI  
 IGATVFKALEQPHEISQRTTIVIQKQTFISQHSVCVNSTELDELIQQIVAAINAGIPLGNTSNQISHWDL  
 GSSFFFAGTVITTIGFGNISPRTEGGKIFCIIYALLGIPLFGLLAGVGDQLGTIFGKGIKVEDTFIKW  
 NVSQTKIRIISTIIIFILFGCVLFVALPAIFKHIEGWSALDAIYFVVITLTTIGFDYVAGSDIEYLD  
 YKPVVWFVILVGLAYFAAVLSMIGDWRVISKTKKEEVGEFRAHAAEWTANVTAEFKETRRRLSVEIYDK  
 FQRATSIKRKLSAELAGNHNQELTPCRRTL SVNHLT SERDVL PPLLKTESIYLNGLTPHCAGEEIAVIEN  
 IK

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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

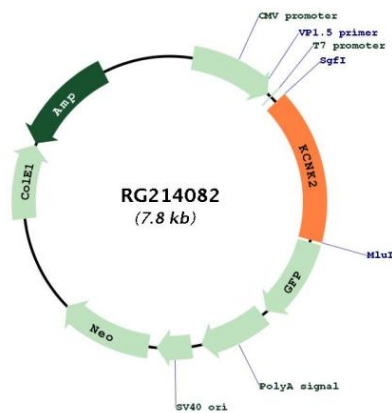
**UniProt ID:** [O95069](#)

**Cytogenetics:** 1q41

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

**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:



Circular map for RG214082