

## Product datasheet for **SC121923**

### **KCNK10 (NM\_138317) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNK10 (NM_138317) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNK10
Synonyms:	K2p10.1; PPP1R97; TREK-2; TREK2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_138317, the custom clone sequence may differ by one or more nucleotides

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ATGAAATTTCCAATCGAGACGCCAAGAAAACAGGTGAACTGGGATCCTAAAGTGGCCGTTCCCGCAGCAG
CACCGGTGTGCCAGCCCAAGAGCGCCACTAACGGGCAACCCCGGCTCCGGCTCCGACTCCAACCTCCGCG
CCTGTCCATTTCTCCAGCCACAGTGGTAGCCAGGATGGAAGGCACCTCCAAGGGGGCTTGACAGACC
GTCATGAAGTGAAGACGGTGGTTGCCATCTTTGTGGTTGGTGGTCTACCTTGTCACTGGCGGTCTTG
TCTTCCGGGCATTGGAGCAGCCCTTTGAGAGCAGCCAGAAGAATACCATCGCCTTGAGAGAAGCGGAATT
CCTGCGGGATCATGTCTGTGTGAGCCCCAGGAGCTGGAGACGTTGATCCAGCATGCTCTTGATGCTGAC
AATGCGGGAGTCAGTCCAATAGGAACTCTTCCAACAACAGCAGCCACTGGGACCTCGGCAGTGCCTTTT
TCTTTGCTGGAAGTGCATTACGACCATAGGGTATGGGAATATTGCTCCGAGCACTGAAGGAGGCAAAAT
CTTTTGTATTTTATATGCCATCTTTGGAATCCACTCTTTGGTTTCTTATTGGCTGGAATTGGAGACCAA
CTTGGAACCATCTTTGGGAAAAGCATTGCAAGAGTGGAGAAGGTCTTTGAAAAAAGCAAGTGAGTCAGA
CCAAGATCCGGGTCACTCAACCATCTGTTCATCTTGGCCGGCTGCATTGTGTTTGTGACGATCCCTGC
TGTCACTTTAAGTACATCGAGGGCTGGACGGCCTTGGAGTCCATTTACTTTGTGGTGGTCACTCTGACC
ACGGTGGGCTTTGGTGATTTTGTGGCAGGGGAAACGCTGGCATCAATTATCGGGAGTGGTATAAGCCCC
TAGTGTGGTTTTGGATCCTTGTGGCCTTGCTACTTTGCAGCTGCTCCTCAGTATGATCGGAGATTGGCT
ACGGGTCTGTCCAAAAAGACAAAAGAAGAGGTGGGTGAAATCAAGGCCCATGCGGCAGAGTGGAAGGCC
AATGTCACGGCTGAGTTCGGGGAGACACGGCGAAGGCTCAGCGTGGAGATCCACGATAAGCTGCAGCGGG
CGGCCACCATCCGACGATGGAGCGCCGGCGCTGGGCCCTGGACCAGCGGGCCCACTCACTGGACATGCT
GTCCCCGAGAAGCGCTGTCTTTGCTGCCCTGGACACCGCCGCTTCAAGGCCTCATCCAGGAGAGC
ATCAACAACCGCCCAACAACCTGCGCCTGAAGGGGCGGAGCAGTGAACAAGCATGGGCAGGGTGCCT
CCGAGGACAACATCATCAACAAGTTCGGGTCCACCTCCAGACTACCAAGAGGAAAAACAAGGACCTCAA
AAAGACCTTGCCCGAGGACGTTCAAGAAATCTACAAGACCTTCCGGAATTACTCCCTGGACGAGGAGAAG
AAAGAGGAGGAGACGAAAAAGATGTGTAACCTCAGACAACCTCCAGCACAGCCATGCTGACGGACTGTATCC
AGCAGCACGCTGAGTTGGAGAACGGAATGATACCCACGGACACCAAGACCGGGAGCCGGAGAACAACCT
ATTACTTGAAGACAGAACTAA
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_138317 unedited

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GAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTGCAGTGGGCTTCTCCG
TAGCCCCAGCCTTCAGGCTGCGCAGCCCTAACCTGCCGGCACCCTTTTGGGAAGCAGC
TTGGCTCTTCCATCTCCCAAGCCTTCTCTCCATCCTTTTCATCCACCCCTCGCCGATCT
TACTTTTTCTTTTACCCACGGGGCCGCGCCGGCCACCCCTGGCCGGTGCANACACCCA
AGCCCTCTCCAGTCTCCCCAAGCTAATATTTTCCCACCTGTCTTTTCTGGGGTTCTCT
CCCCGAACCAATCCCAGGCTTCCCATCCTCGGAAAATGGTTTGGTGGACTGGCTAACCG
AAGCGTGGAAAGCTTGGAGACCTTATTAATAATTGGGGTCTTTCAATTCTTCCCCTTTT
GGGCAACGAAACATTGAAATTTCCAATCGAGACGCCAAGAAACAAGTGAAGTGGGATC
CCTAAGTGGCCGTTCCGGCACAGCACCAGTGTGCCAGCCCCAAGAGCGCCACTAACGG
GCAACCCCGGGCTCCGGCTCCGACTCCAACTCCGCGCCCTGTCCATTTCCCTCCCGAG
CCCACAGTGGTAGCCAGGATGGAAGGCACCCTNCCAAGGGGGCTTGACAGAACCGTCAT
GGAAGTGGGAAGAACGGTGGTTGCCATCCTTTGTGGTTGGTGGTCTACCTTGTCACTG
GCGGTCTTTGTCTTCCGGCATTGGANACGCCCTTTGAAAGCAGCCGAAGAATACCTTCC
GCCTTGGAGAAGAGCGGAATTTCCGCGGAAACGT
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_138317 unedited CAACTCAACGTGCTGCTGGATACAGTCCGTCAGCATGGCTGTGCTGGAGTTGNNTGAGTT ACACATCTTTTCCGTCTCCTCCTCTTTCTCTCCTCGTCCAGGGAGTAATTCCGGAAGGT CTTGATGATTTTCTGAACGTCCTCGGGCAAGGCTTTTTGAGGTCCTTGTTCCTCTT GGTGAGTCTGGAGGTGGACCCGAACCTTGTGATGATGTTGTCCTCGGACGCACCCTGCCC ATGCTTGTTCAGCTGCTCCGGCCCTTCAGGCGCAGGTTGTTGGCCGGTTGTTGATGCT CTCCTGGGATGAGGCCTTGAAGCGGCCGGTGTCCAGGGCAGCAAAGACAGAGCGCTTCTC GGGGACAGCATGTCCAGTGAGTGGGCCCGCTGGTCCAGGCCAGCCCGCGCTCCAT GCTGCGGATGGTGGCCGCCGCTGCAGCTTATCGTGGATCTCCACGCTGAGCCTTCGCCG TGTCTCCCGAACTCAGCCGTGACATTGGCCTTCCACTCTGCCGCATGGGCCCTTGATTTT ACCCACCTCTTCTTTTGTCTTTTGGACAGAACCCGTAGCCAATCTCCGATCATACTGAG GACAGCTGCAAAGTAGGCAAGGCCAACAAAGGATCCAAAACCACTAGGNGCTTATACCA CTCCCGATAATTGATGCCAGCGTTCCCTTGCCACAAATCACCAAAGCCACCGTGGTC AGAGTGACCACCACANAATAAATTGACTTCAAAGCCGTCCAGGCCCTCATGACTTAAGA TGACCACCGTTCCC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_138317
<b>Insert Size:</b>	3000 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_138317.1</a> , <a href="#">NP_612190.1</a>
<b>RefSeq Size:</b>	2484 bp
<b>RefSeq ORF:</b>	1632 bp
<b>Locus ID:</b>	54207
<b>UniProt ID:</b>	<a href="#">P57789</a>
<b>Cytogenetics:</b>	14q31.3
<b>Protein Families:</b>	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<sup>+</sup> 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]

Transcript Variant: This variant (2, also known as TREK2 splice variant c) has a different 5' terminal exon compared to transcript variant 1, and encodes a slightly longer isoform (2) with a distinct N-terminus compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.