

Product datasheet for **SC121661**

KCNT2 (NM_198503) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNT2 (NM_198503) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNT2
Synonyms:	EIEE57; KCa4.2; SLICK; SLO2.1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_198503, the custom clone sequence may differ by one or more nucleotides

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ATGGTTGATTTGGAGAGCGAAGTGCCCCCTCTGCCTCCCAGGTACAGGTTTCGAGATTTGCTGCTAGGGG
ACCAAGGATGGCAAACGACGACAGGGTACAAGTTGAATTCTATATGAATGAAAATACATTTAAAGAAAAG
ACTAAAATTATTTTTCATAAAAAACCAGAGATCAAGTCTAAGGATACGCCTGTTCAATTTTTCTCTCAAA
TTACTAAGCTGCTTATTATACATAATCCGAGTACTACTAGAAAACCCTTCACAAGGAAATGAATGGTCTC
ATATCTTTTGGTGAACAGAAGTCTACCTTTGTGGGGCTTACAGGTTTCAGTGGCATTGATAAGTCTGTT
TGAACAATATTACTTGGTTATCTTAGTTATAAGGAAACATCTGGGAACAGATTTTACGAATACCCTTC
ATCTTGGAAATAATTAATGCAGTCCCTTCATTATCTCAATATTCTGGCCTTCCTTAAGGAATCTATTTG
TCCAGTCTTTTGAAGTGTGGCTTGCCAAACATGCCTTGAAAAATATGATTAATGATCTACACAGAGC
CATTACAGCTACACAGTCTGCAATGTTTAAATCAAGTTTTGATTTTAAATATCTACATTACTATGCCTTATC
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ATTTCTGCATTGTGACGTTTTCTACTGTGGGCTTCGGGGATGTCACCTGAAACATGGTCTCCAAGCT
TTTTGTAGTTGCTATGATTTGTGTTGCTCTGTGGTCTACCCATACAGTTTGAACAGCTGGCTTATTTG
TGGATGGAGAGACAAAAGTCAGGAGGAAACTATAGTCGACATAGAGCTCAAAGTAAAAGCATGTCGTCC
TGTGTGCAGCTCACTGAAGATTGATTTACTTATGGATTTTTTAAATGAATTCATGCTCATCCTAGGCT
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AGATGGATGACGCTGAGGCTGTTTTATTCTCAGTAGCCGTTGTGAAGTGGATAGGACATCATCTGATCA
CCAAACAATTTTGGAGCATGGGCTGTGAAAGATTTTGTCCAAATTTGCTCCTTTGTATGTCAGATATTA
AAGCCTGAAAATAAATTTACATCAAAATTTGCTGATCATGTTGTTTGTGAAGAAGAGTTTAAATACGCCA
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GCAAGAAGGCCAGCAATCGCCAGAACAATGGCAGAAGATGACGGTAGATGCTCCGGGAATGAAGTCTAC
CACATTGTTTTGGAAGAAAGTACATTTTTTGTGAATATGAAGGAAAGAGTTTACATATGCCTCTTTCC
ATGCACACAAAAGTTTGGCGTCTGCTTGATTGGTGTAGGAGGGAGGATAATAAAAACATTTTGTCTGAA
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TCCAGGTCCTCGATACATTATGAATTCTACAGACATATGCTTTTATATTAATATTACCAAAGAAGAGAAT
 TCAGCATTTAAAAACCAAGACCAGCAGAGAAAAAGCAATGTGTCCAGGTCGTTTTATCATGGACCTTCCA
 GATTACCTGTACATAGCATAATTGCCAGCATGGTACTGTGGCTATAGACTTGCAAGATACAAGCTGTAG
 ATCAGCAAAGTGGCCCTACCCTGTCTCTTCTACAGAGGGAAGCAAAGAAATAAGAAGACCTAGCATTGCT
 CCTGTTTTAGAGGTTGCAGATACATCATCGATTCAAACATGTGATCTTCTAAGTGACCAATCAGAAGATG
 AAACACACCAGATGAAGAAATGTCTTCAAACCTAGAGTATGCTAAAGGTTACCCACCTTATTCTCCATA
 TATAGGAAGTTCACCCACTTTTTGTCTATCCTCCTCATGAAAAAGTACCATTTTGTGCTTAAGATTAGAC
 AAGAGTTGCCAACATAACTACTATGAGGATGCAAAAGCCTATGGATTCAAAAAAACTAATTATAGTTG
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 AATCTACAGGACTGAGTCTCAGAACTTACTACATCTGAGTCTCAAATATCTATCAGTGTAGAAGAGTGG
 GAAGACACCAAAGACTCCAAAGAACAAGGGCACCACCGCAGCAACCACCGCAACTCAACATCCAGTGACC
 AGTCGGACCATCCCTTGTGCGGAGAAAAAGCATGCAGTGGGCCCGAAGACTGAGCAGAAAAGGCCAAAA
 ACACCTCTGGTAAAACAGCTGAAAAATAACCCAGCAGCGACTGAACCTCTACAGGAGGTCAGAAAAGACAA
 GAGCTTGTGAACTTGTGAAAAATAGAATGAAACACTTGGGCTTTTCTACAGTGGGATATGATGAAATGA
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 TGTTGTATACTTAATTCGACCAGATCCACTGGCCTACCTTCCAAACAGTGAAGCCAGTGAAGAAACAGC
 ATCTGCAATGTCACTGGTCAAGATTCTCGGGAGGAAACTCAACTTTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_198503 unedited
 GTATACGACTCACTATAGCGCGCCGCAATTCGCACGAGGCTTTCTTTCTCCCTCTCTC
 CTCCTTTGTTGTTTGATGTTTCCACTCTTTGAGGAAGGATGGTTGATTTGGAGAGCGAA
 GTGCCCTCTGCCTCCCAGGTACAGGTTTCGAGATTTGCTGCTAGGGGACCAAGGATGG
 CAAAACGACGACAGGTTACAAGTTGAATTCTATATGAATGAAAATACATTTAAAGAAAGA
 CTAATAATATTTTTCATAAAAAACCAGAGATCAAGTCTAAGGATACGCCTGTTCAATTTT
 TCTCTCAAATTAAGCTGCTTATTATACATAATCCGAGTACTACTAGAAAACCTTCA
 CAAGGAAATGAATGGTCTCATATCTTTGGGTGAACAGAAGTCTACCTTTGTGGGCTTA
 CAGGTTTCAGTGGCATTGATAAGTCTGTTTGAACAATATTACTTGGTTATCTTAGTTAT
 AAGGGAAACATCTGGGAACAGATTTTACGAATACCCTTCACTTTGGAAATAATTAATGCA
 GTTCCCTTCATTATCTCAATATTCTGGCCTTCTTAAGGAATCTATTTGTCCCAGTCTTT
 CTGAACTGTTGGCTTGCCAAACATGCCTTGAAAAATATGATTAATGATCTACACAGAGCC
 ATTCAGCGTACACAGTCTGCAATGTTTAAATCAAGTTTTGATTTTAAATATCTACATTA
 TGCTTATCTTACCTGCATTTGTGGGATCCAACATCTGGAACGAATAGGAAAGAAGCTG
 AATCTCTTTGACTCCCTTTATTTCTGCATTGTGACGTTTTCTACTGTGGGCTTCNGNGAT
 GTCACTCTGAAACATGGTCTNNCAGCTTNTTGTAGTTGCTATGAT

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_198503 unedited CTAAGGCTATTGGGCGATGGTCAACTTGCCAGGTTCCANGGGAAAGGCACTGGAGGAAGG GAGTCACAGGGCATGCCACCCGGGTATCTGTTCAGGCAAACAGCTATGACCGCGGCCGCA ATCTATAGTCGAGTTTTTTTTTTTTTTTTTTCATCATTAGAAATAATTTTATTATTATT TTAAAGCAGTTCAATGTAAGTGGTAGCAAAATGGTACAGACAATAAACAGATTCAATTCC CATTGGGCTACAAGGACTATTATTGACTTTATATTTTTTTCATGTGCAAGTATAATTA TTTTAAAAGGCAACATTTTCATTTAAAAGTCTTTTATAAGCATGTTTTTATTCTTTAAATA ACAGAAAAGACTAATAAATTATCATTATTGTAGCAAGCTGGTATGAACTGTGTCAAATATT AAATTTGGACTAATGTTTCATAGTCAAAAATAATTATTTTAAAATTTATGAAACAAAATTT TTAGTTATATAGGAAATATAATCATATCCTAGCTTAAAATCCTAGTCTCAACAACTGTCA TAATGCAAAAATACCAAACCTTCATATCTGTGGGGAAATAAAAAGATTTGTAATCTTAC ATTTATTCCTAAAATAATGAAGTAAAAAAGTCAACTTAAAGAAACATCATACTTGACT CTTGATATGCAAAATATAAAACAAGTTCATAAAAATTTATGTGTTTTTCTCTGCACATATA TAAGTCCCATTCTGCCTTCAGTTTTAACATTTATATGGGGAAAGGGGGGGGGAAAAA TTATTTTCAGGGTTTTTACATATTCACCTTTTCGCCTCCAATCTTTTAAATTTTAAAGGC CGGCCCAATTTTAGCTAAACCGTTAAAAAATTCCTCTTCTCGGACAAAGNAAAAATA AAACAGGGTCTCTGGGTGGAGGGAGGAGTAG
Restriction Sites:	NotI-NotI
ACCN:	NM_198503
Insert Size:	6000 bp
OTI Disclaimer:	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).
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:	<ol style="list-style-type: none"> 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:	<u>NM_198503.2</u> , <u>NP_940905.2</u>
RefSeq Size:	5909 bp
RefSeq ORF:	3408 bp
Locus ID:	343450
UniProt ID:	<u>Q6UVM3</u>
Cytogenetics:	1q31.3
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane

Gene Summary:

Outward rectifying potassium channel. Produces rapidly activating outward rectifier K(+) currents. Activated by high intracellular sodium and chloride levels (PubMed:14684870, PubMed:16687497, PubMed:29069600). Channel activity is inhibited by ATP and by inhalation anesthetics, such as isoflurane (PubMed:16687497) (By similarity). Inhibited upon stimulation of G-protein coupled receptors, such as CHRM1 and GRM1 (PubMed:16687497).

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.