

Product datasheet for **SC304801**

KCC2 (SLC12A5) (NM_020708) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: KCC2 (SLC12A5) (NM_020708) Human Untagged Clone
Tag: Tag Free
Symbol: KCC2
Synonyms: DEE34; EIEE34; EIG14; hKCC2; KCC2
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_020708 edited
GGGCGCCGCGAATTCGCCCTTAGAGCTACAGCGAACGAGAGCGGCGAAGCGGGTAG
AGGGCGCGGGCGAGGCGGCGCAGCCATCCCCGGACCAGGGCCGCGCCACCATGCT
AAACAACCTGACGACTGCGAGGACGGCGATGGGGGAGCCAACCCGGGTGATGGCAACCC
CAAGGAAAGCAGTCCCTTCATCAACAGCACCGACACAGAGAAGGAAAGGAGTATGATGG
CAAGAACATGGCCTTGTGGAGGAGATGGACACCAGCCATGGTGTCTCCTTGTCT
CAGTGGCTGGCCAACTACACCAACCTGCCCCAGGGAAGTAGGGAGCATGAAGAGGCAGA
AAACAATGAGGGTGAAAAAAGAAGCCGGTGCAGGCCACGCATGGGCACCTTCATGGG
CGTGTACCTGCCGTGCCTGCAGAACATCTTTGGCGTCATCCTCTTCTGCGGCTCACCTG
GGTGGTGGCATTGCAGGCATCATGGAGTCCTTCTGCATGGTGTTCATCTGCTGCTCCTG
TACGATGCTCACGGCCATCTCCATGAGTGAATTGCAACGAATGGTGTGTGCTGCTGCTGG
TGGCTCCTACTACATGATTTCCAGGTCTCTGGGCCAGAGTTTGGGGGTGCCGTGGGCCCT
CTGCTTCTACCTGGCACTACCTTTGCAGGAGCCATGTACATCCTGGGCACCATCGAAAT
CCTGCTGGCTTACCTCTTCCCAGCCATGGCCATCTTCAAGGCAGAAGATGCCAGTGGGGA
GGCAGCAGCCATGCTGAACAACATGCGTGTTCACGGCACCTGTGTGCTCACCTGCATGGC
CACTGTGGTGTGGTGGTGTCAAGTATGTCAACAAGTTTGCCTTGTCTTCTGGGTTG
TGTCATCCTCTCCATCCTGGCCATCTATGCTGGGGTCACTAAGTCTGCCTTCGACCCACC
CAACTTCCCGATCTGCCTCCTGGGTAACCGCACGCTGTCTGCCATGGCTTTGATGTCTG
TGCCAAGCTGGCTTGGGAAGGAAATGAGACGGTGACCACACGGCTATGGGGCCTTTTCTG
CTCCTCTCGTTCCTCAACGCCACCTGTGATGAATACTTCAACCGAAACAATGTCACAGA
GATCCAGGGCATCCCTGGTGTGCTGCCAGTGGCCTCATCAAAGAGAACCTCTGGAGCTCCTA
CCTGACCAAGGGCGTGATTGTGGAGAGGAGTGGGATGACCTCGGTGGGCTGGCCGATGG
CACTCCTATCGACATGGACCACCCTTATGTCTTCAGTGATATGACCTCCTACTTACCCT
GCTGGTTGGCATCTACTTCCCCTCAGTCACAGGGATCATGGCTGGTTCTAACCGCTGG
GGACCTGAGGGATGCCAGAAAGTCAATCCCCTGGCACCATCCTGGCCATCGCCACCAC
CTCTGCTGTCTACATCAGCTCCGTTGTTCTGTTTGGGGCCTGCATTGAGGGGGTCTGCT
GCGGGACAAGTTTGGCGAAGCTGTGAATGGCAACCTCGTGGTGGCACTCTGGCCTGGCC



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ATCTCCATGGGTAATTGTCATCGGATCCTTCTTCTCCACCTGTGGGGCTGGGCTGCAGAG
CCTCACGGGGGCCCCACGCCTGCTGCAGGCCATCTCGAGGGATGGCATTGTGCCCTTCT
GCAGGTCTTTGGCCATGGCAAGGCCAATGGAGAGCCGACCTGGGCCCTGCTCCTGACTGC
CTGCATCTGCGAGATTGGCATCCTCATTGCATCCCTCGACGAGGTGGCCCCATCCTCTC
TATGTTCTTCTGATGTGCTACATGTTTGTGAATCTGGCCTGTGCAGTGCAGACGCTGT
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CATGAGCCTCTGCCTGGCCCTCATGTTTCATCTGCTCCTGGTATTATGCACTGGTAGCCAT
GCTCATTGCTGGACTCATCTACAAGTACATTGAGTACCGTGGGGCAGAGAAGGAGTGGGG
CGATGGGATACGAGGTCTGTCTCTCAGTGCGGCTCGCTATGCCCTTTACGCCTGGAGGA
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CCTCGGGGGCTGCAGCACAACACTGTGCTTGTGGCTGGCCCCCAACTGGCGCCAGAA
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CTATGAGAAGACGTTGGTGTGGAGCAGGTTCCAGATCCTCAAACAGATGCATTTAAC
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CAGTGAAGAGAAGCCAGAGGAGGAGGTGCAGCTGATCCACGATCAGAGTCTCCAGCTG
CCCCAGCAGCTCCCCGTCAGGGGAGGAGCCTGAGGGGGAAGGGGAGACAGATCCGGA
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TGTACCCTTTACATACAGACCTGTGCCCGTGTCTTGGCCCTTACCCCGCTGCCTGAA
GCCCCGAGGCCACGCCTGTTGGGGCTGATTCGAGAGGGGCGCCCCGCGCGCAGAGACCA
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CGTCTCGCCGGAGGAGACGCTGCAATAAAGGTTGGGAGAAGGCGCGGAAAGGAGAGGAGC
TGGGGCTTGGGACCCCAAGTATCCATGCGGCCATTCTCCCTTCCCACTCCCGC
CGCGGTCTCGCTCTGCGCTCCTCCGGCGCTGCTCCCTGGCTCCCGCGGCCCCGAGGCC
CGCGGGGTGGGAAGGCCGCGCTTCCGCTCCTCCGCGCCCTTCTCGCCGAGCCGTGGGGC
GCGGGCGGCCGAGCCTATACATAGTGTACAGGAGACATCGCGTGTATTTTAAACGCCCC
ATATTTATGTGACTAGAAGCGCAACAGACTTCTCG

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_020708 unedited</p> <pre> NGGCGTCAAAATTTGTATACGACTCACTATAGGGCGGCCGCGATTGCGCCCTTAGAGCTAC AGCGAACGAGAGAGCGGCCGAAGGCGGGTAGAGGGGCGCGGGCGAGGCGGCCAGCCATCC CCGGACAGGGGCCGCGCCGCCACCATGCTAAACAACCTGACGGACTGCGAGGACGGCGAT GGGGGAGCCAACCCGGGTGATGGCAACCCCAAGGAAAGCAGTCCCTTCATCAACAGCACC GACACAGAGAAGGAAAGGAGTATGATGGCAAGAACATGGCCTTGTTTGAGGAGGAGATG GACACCAGCCCTATGGTGTCTCCTTGCTCAGTGGCCTGGCCAACTACACCAACCTGCC CAGGGAAGTAGGGAGCATGAAGAGGCAGAAAACAATGAGGGTGGAAAAAAGAAGCCGGTG CAGGCCCCACGCATGGGCACCTTCATGGGCGTGTACCTGCCGTGCCTGCAGAATCTTTT GGCGTCATCCTCTTCTGCGGCTCACCTGGGTGGTGGCATTGCAGGCATCATGGAGTCC TTCTGCATGGTGTTCATCTGCTGCTCCTGTACGATGCTCACGGCCATCTCCATGAGTGCA ATTGCAACGAATGGTGTGTGCCTGCTGGTGGCTCCTACTACATGATTTCCAGGTCTCTG GGCCAGAGTTTGGGGTGCCGTGNGCCTCTGCTTCTACCTGGGCACTACCTTTGCAGGA GCCATGTACATCCTGGGCACCATCGAAATCCTGCTGGCTTACCTCTTCCAGCCATGGCC ATCTTCAAGGCAAGATGCCAGTGGGAGGCCACCCATGCTGAACACATGCGTGTTTA CGGCACCTGTGTGCTCACCTGCATGGCCACTGGGGG </pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_020708 unedited</p> <pre> NCATTGGNGATGGCACTTCCAGGNCCAGNATAGCACTGGGGNAGGGTCACAGGNAGCCA CCCGGGATCTGTTTCAGGAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTT TTTTTTTTTTAAAGGTATAATAAAATTTTTTATTGCATTTTTGTGCAGACGGGAGTCT AAAAAAGTAATACAGTAAAGCCATAAAGCATTAAATGGGAGCATTCAACAATAAAGGAA AGAACCAACCCTCTCCTTTTCATATTGGCACAAGAACAAGATCAATACTGAGGCAGG ATGCGGCATACTGAACACTTACACTGAAAATTAAGGCAGGCCTAATAATAATAGCAGTA ATAGTAATAAAACTCTTGATTTGGTTTGCAACCTCTCCTATTTACAAGGGTTTTCAACT TCATTGCATTGCCCTGCACATAGATCATCTAAAACAAAAGCAACTAGTTATCACTACA AGGCTATTGAAATATTGCACTCAGAATAAAAGTCACTTGAATGGACATGAAACATCTAAC TACAGTGATTATAAAGATAACTTGATGAATGACTTGTGATAACATTCATAACAAATATTG CACATGTAGCACAGAAAATTTGGTTTTTTGTTGTGGGATGCTGTTCATCAACGAAAAC TTTGCTCTTGCCAACCAGACAATCTGGGCCAGATAGTGCAACTTTGGTCCCTAATTGA TGTTGATACAGCCCCCTTCTGCACAGCCCATCACATCAGCTCTGGAATATTCAGGCCCC CANAAAGGCAGACCTGGCTGTGGTGTTCACAAGGAGGGCTACTGAAAGATGCAGGGGCT GGTGTCTTAACACCTCCAGCTCCCTTGTGAGTACTTGAAAGAATCTATCATGCCCC </pre>
Restriction Sites:	Please inquire
ACCN:	NM_020708
Insert Size:	3351 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).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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_020708.3](#), [NP_065759.1](#)

RefSeq Size: 6059 bp

RefSeq ORF: 3351 bp

Locus ID: 57468

UniProt ID: [Q9H2X9](#)

Cytogenetics: 20q13.12

Protein Families: Transmembrane

Gene Summary: K-Cl cotransporters are proteins that lower intracellular chloride concentrations below the electrochemical equilibrium potential. The protein encoded by this gene is an integral membrane K-Cl cotransporter that can function in either a net efflux or influx pathway, depending on the chemical concentration gradients of potassium and chloride. The encoded protein can act as a homomultimer, or as a heteromultimer with other K-Cl cotransporters, to maintain chloride homeostasis in neurons. Alternative splicing results in two transcript variants encoding different isoforms. [provided by RefSeq, Sep 2008]
Transcript Variant: This variant (2) differs in the 5' UTR and 5' coding region, compared to variant 1. The resulting isoform (2, also known as KCC2b) has a distinct N-terminus and is shorter than isoform 1.