

## Product datasheet for **SC302962**

### NKCC1 (SLC12A2) (NM\_001046) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NKCC1 (SLC12A2) (NM\_001046) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** NKCC1  
**Synonyms:** BSC; BSC2; KILQS; NKCC1; PPP1R141  
**Mammalian Cell Selection:** None  
**Vector:** [pCMV6-XL5](#)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_001046 edited  
GGGGCCCTCTGTGGCCGTCCAGGCTAGCGCGGGCCCGCAGGCGGGGAGAAAGACTCT  
CTCACCTGGTCTTGC GGCTGTGGCCACC CGCCAGGGGTGTGGAGGGCGTGCTGCCGG  
AGACGTCCGCGGGCTCTGCAGTTCGCGGGGGTTCGGGAGCTATGGAGCCGCGGCCCA  
CGGCGCCCTCCTCCGGCCCGGGACTGGCCGGGTTCGGGAGACGCCGTCAGCCGCTG  
CGCTGGCCGACGACAGGGTGAACTGCCCGCACGGCTGTGCCCTCGGTGCCGAGGATG  
CTGCGCCCGAGCCGGGACGGCGGGGGTCCGCGATGAGGGCCCCGCGCGGGCGGGG  
ACGGGTGGGCAGACCCTTGGGGCCACCCGAGCCAGAGCCGTTCCAGGTGGACTGG  
TTCCGAGAACCGGGCGGGCCGCTGCTGCGCGGGCGGGCGGGCGGGCGGCGGCGG  
CGGCTGGTGTGGGGCGGGGCCAAGCAGACCCCGCGGACGGGAAGCCAGCGGCGAGA  
GCGAGCCGGTTAAAGGCAGCGAGGAAGCAAGGGCCGCTTCCGCGTGAATTCGTGGACC  
CAGCTGCCTCCTCGTCCGCTGAAGACAGCCTGTGATGCTGCCGGGTTCGGAGTCGACG  
GGCCCAACGTGAGCTTCCAGAACGGCGGGACACGGTGTGAGCGAGGGCAGCAGCCTGC  
ACTCCGGCGGGCGGGCGGCAGTGGGCACCACCAGCACTACTATTATGATACCCACACCA  
ACACCTACTACCTGCGCACCTTCGGCCACAACACCATGGACGCTGTGCCAGGATCGATC  
ACTACGGCACACAGCCGCGCAGCTGGGCGAGAAGCTGCTCCGGCCTAGCCTGGCGGAGC  
TCCACGACGAGCTGAAAAGGAACCTTTTGAGGATGGCTTTGCAAATGGGGAAGAAAGTA  
CTCCAACCAGAGATGCTGTGGTACGTATACTGCAGAAAGTAAAGGAGTCGTGAAGTTTG  
GCTGGATCAAGGGTGTATTAGTACGTTGTATGTTAAACATTTGGGGTGTGATGCTTTCA  
TTAGATTGTCATGGATTGTGGTCAAGCTGGAATAGGTCTATCAGTCCTGTAATAATGA  
TGCCACTGTTGTGACAACTATCACAGGATTGTCTACTTCAGCAATAGCAACTAATGGAT  
TTGTAAGAGGAGGAGGAGCATATTATTTAATATCTAGAAGTCTAGGGCCAGAATTTGGTG  
GTGCAATGGTCTAATCTTCGCCTTTGCCAACGCTGTTGCAGTTGCTATGTATGTGGTTG  
GATTTGCAGAAACCGTGGTGGAGTTGCTTAAGGAACATTCATACTTATGATAGATGAAA  
TCAATGATATCCGAATTTGGAGCCATTACAGTCGTGATTCTTTTAGGTATCTCAGTAG  
CTGGAATGGAGTGGGAAGCAAAAGCTCAGATTGTTCTTTTGGTGTATCTACTTCTTGCTA  
TTGGTGATTTTCGTCATAGGAACATTTATCCCACTGGAGAGCAAGAAGCCAAAAGGTTTT



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TTGGTTATAAATCTGAAATATTTAATGAGAACTTTGGGCCGATTTTCGAGAGGAAGAGA  
 CTTTCTTTTCTGTATTTGCCATCTTTTTCTCTGCTGCAACTGGTATTCTGGCTGGAGCAA  
 ATATCTCAGGTGATCTTGACAGATCCTCAGTCAGCCATACCCAAAGGAACACTCCTAGCCA  
 TTTTAATTACTACATTGGTTTACGTAGGAATTGCAGTATCTGTAGGTTCTTGTGTGTTTC  
 GAGATGCCACTGGAAACGTTAATGACACTATCGTAACAGAGCTAACAACTGTACTTCTG  
 CAGCCTGCAAATTAACCTTTGATTTTTTCATCTTGTGAAAGCAGTCCTTGTCTATGGCC  
 TAATGAACAACCTCCAGGTAATGAGTATGGTGTGAGGATTTACACCACTAATTTCTGCAG  
 GTATATTTTCAGCCACTCTTCTTCAGCATTAGCATCCCTAGTGAGTGCTCCCAAATAT  
 TTCAGGCTCTATGTAAGGACAACATCTACCCAGCTTTCAGATGTTTGCTAAAGTTATG  
 GGAAAAAATGAACCTCTTCGTGGCTACATCTTAACATTCTTAATTGCACCTGGATTCA  
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 CTGCATTCAAATACTACAACATGTGGATACACTTCTGGAGCAATTCTTGTTCATAG  
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 GCACCAAGGATGTGGTAGTAAGTGTGGAATATAGTAAAAAGTCCGATTTAGATACTTCCA  
 AACCACTCAGTAAAAACCAATTACACACAAGTTGAGGAAGAGGATGGCAAGACTGCAA  
 CTCAACCACTGTTGAAAAAGAATCCAAAGGCCCTATTGTGCCTTTAAATGTAGCTGACC  
 AAAAGCTTCTGAAAGCTAGTACACAGTTTCAGAAAAACAAGGAAAGAATACTATTGATG  
 TCTGGTGGCTTTTGTGATGGAGGTTTGACCTTATTGATACCTTACCTTCTGACGACCA  
 AGAAAAATGAAAGACTGTAAGATCAGAGTATTCATTGGTGGAAAGATAAACAGAAATAG  
 ACCATGACCGGAGAGCGATGGCTACTTTGCTTAGCAAGTCCGGATAGACTTTTCTGATA  
 TCATGGTTCTAGGAGATATCAATACCAAACCAAGAAAGAAAATATTATAGCTTTTGAGG  
 AAATCATTGAGCCATACAGACTTCATGAAGATGATAAAGAGCAAGATATTGCAGATAAAA  
 TGAAAGAAGATGAACCATGGCGAATAACAGATAATGAGCTTGAACCTTTATAAGACCAAGA  
 CATACCGGCAGATCAGGTTAAATGAGTTATTAAGGAACATTCAAGCACAGCTAATATTA  
 TTGTATGAGTCTCCAGTTGCACGAAAAGGTGCTGTGTCTAGTGCTCTCTACATGGCAT  
 GGTTAGAAGCTCTATCTAAGGACCTACCACCAATCCTCCTAGTTCGTGGGAATCATCAGA  
 GTGTCTTACCTTCTATTCATAAATGTTCTATACAGTGGACAGCCCTCCAGAATGGTACT  
 TCAGTGCCTAGTGTAGTAAGTGAATCTTCAATGACACATTAACATCACAATGGCGAATG  
 GTGACTTTTCTTTCACGATTTTCATTAATTTGAAAGCACACAGGAAAGTTGCTCCATTGAT  
 AACGTGTATGGAGACTTCGGTTTTAGTCAATTCATATCTCAATCTTAATGGTGATTCTT  
 CTCTGTTGAACTGAAGTTTGTGAGAGTAGTTTTCTTTGCTACTTGAATAGCAATAAAG  
 CGTGTTAACTTTTTGATTGATGAAAGAAGTACAAAAAGCCTTTAGCCTTGAGGTGCCTTC  
 TGAAATTAACCAATTTTCATCCATATATCCTCTTTATAAACTTATAGAATGTCAAAAA  
 AAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001046  
**Insert Size:** 4200 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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:** The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM\_001046.2.

**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\\_001046.2](#), [NP\\_001037.1](#)

**RefSeq Size:** 6891 bp

**RefSeq ORF:** 3639 bp

**Locus ID:** 6558

**UniProt ID:** [P55011](#)

**Cytogenetics:** 5q23.3

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Vibrio cholerae infection

**Gene Summary:** The protein encoded by this gene mediates sodium and chloride transport and reabsorption. The encoded protein is a membrane protein and is important in maintaining proper ionic balance and cell volume. This protein is phosphorylated in response to DNA damage. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

Transcript Variant: This variant (1) encodes the longer isoform (1).