

Product datasheet for **RG235211**

NKCC1 (SLC12A2) (NM_001256461) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NKCC1 (SLC12A2) (NM_001256461) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: SLC12A2
Synonyms: BSC; BSC2; KILQS; NKCC1; PPP1R141
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235211 representing NM_001256461
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCCGCGGCCACGGCGCCCTCTCCGGCGCCCCGGGACTGGCCGGGGTGGGGAGACGCCGTGAG
CCGCTGCGCTGGCCGAGCCAGGGTGGAACTGCCCGCACGGCTGTGCCCTCGGTGCCGAGGATGCTGC
GCCCGGAGCCGGGACGGCGGGGGTCCGCGATGAGGGCCCCGGCGGGGACGGGCTGGGAGAG
CCCTTGGGGCCACCCGAGCCAGAGCCGTTTCCAGGTGGACCTGGTTTCCGAGAACGCCGGCGGGCCG
CTGCTGCGGGCGGGCGGGCGGGCGGGCAGCGGGCGGGCTGGTCTGGGGCGGGGCAAGCAGACCCC
CGCGGACGGGAAAGCCAGCGGCGAGAGCGAGCCGGCTAAAGGCAGCGAGGAAGCCAAAGGGCCGTTCCGC
GTGAACCTCGTGACCCAGCTGCCTCTCGTCGGCTGAAGACAGCCTGTGATGCTGCCGGGTGCGGAG
TCGACGGGCCAACGTGAGCTTCCAGAACGGCGGGGACACGGTGTGAGCGAGGGGACGAGCCTGCACTC
CGCGGGCGGGCGGGCAGTGGGCACCACCAGCACTACTATTATGATACCCACACCAACACCTACTACCTG
CGCACCTTCGGCCACAACACCATGGACGCTGTGCCAGGATCGATCACTACCGGCACACAGCCGCGCAGC
TGGGCGAGAAGCTGCTCCGGCTAGCCTGGCGGAGCTCCACGACGAGCTGGAAAAGGAACCTTTGAGGA
TGGCTTGGCAAATGGGGAAGAAAGTACTCCAACCAGAGATGCTGTGGTCACTGATGTTAAACATTTGGGGTGTGATGC
TTTTATTAGATTGTCATGGATTGTGGTCAAGCTGGAATAGGTCTATCAGTCTTGAATAATGATGCGC
CACTGTTGTGACAACTATCACAGATTGTCTACTTCAGCAATAGCAACTAATGGATTTGTAAGAGGAGGA
GGAGCATATTATTAATCTAGAAGTCTAGGGCCAGAATTTGGTGGTCAATTGGTCTAATCTTCGCT
TTGCCAACGCTGTTGCAGTTGCTATGATGTGGTTGGATTTGCAGAAACCGTGGTGGAGTTGCTTAAGGA
ACATTCATACTTATGATAGATGAAATCAATGATATCCGAATTATTGGAGCCATTACAGTCGTGATTCTT
TTAGGTATCTCAGTAGCTGGAATGGAGTGGGAAGCAAAGCTCAGATTGTTCTTTGGTGATCTACTTC
TTGCTATTGGTATTTCGTCATAGGAACATTTATCCCACTGGAGAGCAAGAAGCCAAAAGGGTTTTTTGG
TTATAAATCTGAAATATTAATGAGAACTTTGGGCCGATTTTCGAGAGGAAGAGACTTTCTTTTCTGTA



[View online >](#)

TTTGCCATCTTTTTCTGCTGCAACTGGTATTCTGGCTGGAGCAAATATCTCAGGTGATCTTGACAGATC
CTCAGTCAGCCATACCCAAAGGAACACTCCTAGCCATTTAATTACTACATTGGTTTACGTAGGAATTGC
AGTATCTGTAGGTTCTTGTGTTGTTTCGAGATGCCACTGGAAACGTTAATGACACTATCGTAACAGAGCTA
ACAAACTGTACTCTGCAGCCTGCAAATTAACCTTTGATTTTTTCATCTTGTGAAAGCAGTCTTGTCTCT
ATGGCCTAATGAACAACCTCCAGGTAATGAGTATGGTGTGAGGATTTACACCCTAATTTCTGCAGGTATG
ATTTTCAGCCACTCTTTCTTTCAGCATTAGCATCCCTAGTGAGTGTCTCCAAAAATATTTTCAGGCTCTATGT
AAGGACAACATCTACCCAGCTTTCCAGATGTTTGTCTAAAGGTTATGGGAAAAATAATGAACCTCTTCGTG
GCTACATCTTAACATTCTTAATTGCACCTGGATTTCATCTTAATTGCTGAACTGAATGTTATTGCACCAAT
TATCTCAAACCTCTTCTTGCATCATATGCATTGATCAATTTTTTCAGTATTCCATGCATCACTTGCAAAA
TCTCCAGGATGGCGTCTGCATTCAAATACTACAACATGTGGATCACTTCTTGGAGCAATTCTTGTGTT
GCATAGTAATGTTTCGTCATTAACGGTGGGCTGCATTGCTAACATATGTGATAGTCTTGGGCTGTATAT
TTATGTTACCTACAAAAACCAGATGTGAATTGGGGATCTCTACACAAGCCCTGACTTACCTGAATGCA
CTGCAGCATTCAATTCGTCTTTCTGGAGTGAAGACCACGTGAAAACTTTAGGCCACAGTGTCTTGTTA
TGACAGGTGCTCCAACTCACGTCCAGCTTTACTTCATCTTGTTTCATGATTTACAAAAAATGTTGGTTT
GATGATCTGTGGCCATGTACATATGGGTCTCGAAGACAAGCCATGAAAGAGATGCCATCGATCAAGCC
AAATATCAGCGATGGCTTATTAAGAACAAAATGAAGGCATTTTATGCTCCAGTACATGCAGATGACTTGA
GAGAAGGTGCACAGTATTTGATGCAGGCTGCTGGTCTTGGTCGTATGAAGCCAAACACACTTGCCTTGG
ATTTAAGAAAGATTGGTTGCAAGCAGATATGAGGGATGTGGATATGTATATAAATTTATTTTCATGATGCT
TTTGACATACAATATGGAGTAGTGGTTATTCGCCTAAAAGAAGGTCTGGATATATCTCATCTTCAAGGAC
AAGAAGAATTATTGTCATCACAAGAGAAATCTCCTGGCACCAAGGATGTGGTAGTAAGTGTGGAATATAG
TAAAAAGTCCGATTTAGATACTTCAAACCACTCAGTAAAAACCAATTACACACAAGAATCCAAAGGC
CCTATTGTGCCTTTAAATGTAGCTGACCAAAAGCTTCTTGAAGCTAGTACACAGTTTCAGAAAAACAAG
GAAAGAATACTATTGATGTCTGGTGGCTTTTTGATGATGGAGGTTTGACCTTATTGATACCTTACCTTCT
GACGACCAAGAAAAAATGGAAAGACTGTAAGATCAGAGTATTCATTGGTGGAAAGATAAACAGAATAGAC
CATGACCGGAGAGCGATGGCTACTTTGCTTAGCAAGTTCCGGATAGACTTTTCTGATATCATGGTTCTAG
GAGATATCAATACCAAACCAAAGAAAGAAAAATATTATAGCTTTTGAGGAAATCATTGAGCCATACAGACT
TCATGAAGATGATAAAGAGCAAGATATTGCAGATAAAATGAAAGAAGATGAACCATGGCGAATAACAGAT
AATGAGCTTGAACCTTTAAGACCAAGACATACCGGCAGATCAGGTTAAATGAGTTATTAAGGAACATT
CAAGCACAGCTAATATTATTGTCATGAGTCTCCAGTTGCACGAAAAGGTGCTGTGTCTAGTGTCTCTA
CATGGCATGGTTAGAAGCTCTATCTAAGGACCTACCACCAATCCTCCTAGTTCGTGGGAATCATCAGAGT
GTCCTTACCTTCTATTCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG235211 representing NM_001256461
 Red=Cloning site Green=Tags(s)

```
MEPRPTAPSSGAPGLAGVGETPSAAALAAARVELPGTAVPSVPEDAAPASRDGGGVRDEGPAAAGDGLGR
PLGPTPSQSRFQVDLVSENAGRAAAAAAAAAAAAAAAAAAGAGAKQTPADGEASGESEPAKGSEEAKGRFR
VNFVDPAASSSAEDSLSDAAGVGVDPNVSFQNGGDTVLSGSSLHSGGGGGSGHHQHYYDTHNTYYL
RTFGHNTMDAVPRIDHYRHTAAQLGEKLLRPSLAELHDELEKEPFEDGFANGEESTPTRDAVVVYTAESK
GVVKFGWIKGVLVRCMLNIWGVMLFIRLSWIVGQAGIGLSVLVIMMATVVTITGLSTSAIATNGFVRGG
GAYYLISRSLGPEFGGAIGLIFAFANAVAVAMYVVGFAETVVELLKEHSILMIDEINDIRIIGAITVVIL
LGISVAGMEWEAKAIVLLVILLAIIGDFVIGTFIPLESKPKGFFGYKSEIFNENFGPDFREEETFFSV
FAIFFPAATGILAGANISGDLADPQSAIPKGTLLAILITLVVYGIASVSGSCVVRDATGNVNDTIVTEL
TNCTSAACKLNDFSSCESSPCS YGLMNNFQVMSMVS GF TPLISAGIFSATLSSALASLVSA PKIFQALC
KDNIYPAFQMF AKGYGK NNEPLRGYIL TFLIALGFILIAELNVI APIISNFFLASYALINFSVFHASLAK
SPGWRPAFKYYNMWISLLGAILCCIVMFVINWAAALLTYVIVLGLYIYVYKPKPDVNWGSSTQALTYLNA
LQHSIRLSGVEDHVKNFRPQCLVMTGAPNSRPALLHLVHDFTKNVGLMICGHVHMGPRRQAMKEMSIDQA
KYQRWLIK NKMKA FYAPVHADDLREGA QYLMQAAGLGRMKPNTLVLGFKKDWLQADMRD VDMYINLFHDA
FDIQYGVVIVIRLKEGLDISHLQGGQEE LSSQEKSPGTKDVVVSVEYSKSDLDTSKPLSEKPI THKESKG
PIVPLNVA DQKLEASTQFQKKQKNTIDVWVLFDDGGLTLLIPYLLTTKKKWKDC KIRVFIGGKINRID
HRRAMATLLSKFRIDFSDIMVLGDINTKPKKENIIAFEEIIEPYRLHEDDKEQDIADKMKDEPWRTD
NELELYKTKYRQIRLNELLKEHSSTANIIVMSLPVARKGAVSSALYMAWLEALS KDLPPILLVRGNHQS
VLTFFYS
```

TRTRPLE - GFP Tag - V

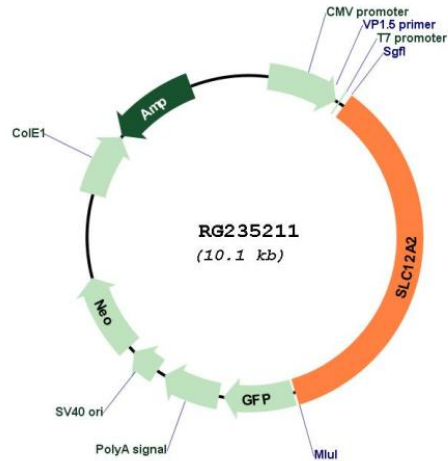
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001256461

ORF Size: 3588 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_001256461.2](#)

RefSeq Size: 6843 bp

RefSeq ORF: 3591 bp

Locus ID: 6558

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]