

Product datasheet for RC216145

SLC12A1 (NM_000338) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SLC12A1 (NM_000338) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SLC12A1
Synonyms: BSC1; NKCC2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC216145 representing NM_000338
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGATCGCC

ATGTCACTGAACAACCTCTCCAATGATTTCTGGATTCAGTGCCAGTAATACCAATCGCTTCAAGTTA
 GTGTCATAAATGAGAACCATGAGAGCAGTGCAGCTGCAGATGACAATACTGACCCACCACATTATGAAGA
 AACCTCTTTGGGGATGAAGCTCAGAAAAGACTCAGAATCAGCTTAGGCCTGGGAATCAGGAGTGTAT
 GACAATTTCTCCACAGTGGAGAACTGCTAAAACAGATGCCAGTTTTCACGCTTATGATTCTCACAA
 ACACATACTATCTACAACTTTGGCCACAACACCATGGATGCCGTTCCCAAGATAGAGTACTATCGTAA
 CACCGGCAGCATCAGTGGGCCAAGGTCAACCGACCCAGCTGCTTGAGATTCACGAGCAACTCGCAAAG
 AATGTGGCAGTACCCCAAGTTCAGCTGACAGAGTTGCTAACGGTGTGGGATACCTGGAGATGAACAAG
 CTGAAAATAAGGAAGATGATCAAGCTGGTGTGGAAGTTGGATGGGTGAAAGGTGTGCTGGTAAGATG
 CATGCTGAACATCTGGGGAGTCACTGCTCTTCAATTCGCCTCTCCTGGATTGTTGGAGAAGCTGGAATTGGT
 CTTGGAGTTATCATCATTGGCCTATCCACCATAGTAACGACAATCACAGGTATGTCCACGCTGCTATTG
 CCACGAACGGAGTTGTTAGAGGAGTGGGGCCTACTATCTTATTTCCAGAAGTTTAGGGCCGAGTTCGG
 TGGGTCAATAGGCCTGATCTTTGCTTTTGCTAATGCAGTGGCTGTTGCTATGATGTGGTGGGATTCGCT
 GAAACTGTAGTAGATCTACTTAAGGAGAGTATTGATGATGGTGGATCCAACCAATGACATCCGGATTA
 TAGGCTCCATCACAGTGGTATTCTTCTAGGAATTTAGTGTAGCTGGAATGGAATGGGAGGCAAGGCCCA
 AGTCATTCTTCTGGTCATTCTTCTAATTGCTATTGCAAACCTTCTCATTGGAAGTGCATTCCATCCAAC
 AATGAGAAAAAGTCCAGAGGTTTCTTTAATTACCAAGCATCAATATTTGCAGAAAACCTTTGGGCCAGCT
 TCACAAAGGGTGAAGGCTTCTTCTGTCTTTGCCATTTTTTCCAGCAGCTACTGGGATTCTTGCTGG
 TGCCAATATCTCAGGAGATTTGGAGGATCCCAAGATGCCATCCCAGAGGAACCATGCTGGCCATTTTC
 ATCACCCTGTTGCTACTTAGGGTTGCAATTTGTGTAGGGCCTGTGGTCCGAGATGCCACCGGGA
 ACATGAATGACACCATCATTTCTGGGATGAACTGCAATGGTTCAGCAGCATGTGGTTGGCTATGACTT
 CTCAGATGTCGACATGAACCATGTCAGTACGGGCTGATGAACAATTTCCAGGTCATGAGCATGGTATCA



[View online >](#)

GGTTTCGGCCCCCTCATCACTGCGGGAATCTTTCTGCAACACTCTCCTCCGCCCTGGCCTCCCTTGTCAGCGACCCAAAGTGTCCAGGCTCTGTGCAAGGACAACATCTACAAAGCCCTGCAGTTTTTTGCAAAGGATATGGGAAAAACAATGAACCCCTGAGAGGATATATTCTCACTTTTCTTAGCCATGGCATTATTCTTATTGCGGAACTGAACACCATTGCTCCCATCATCTCCAACTTTTCTGGCCTCATATGCATTATTAATTCTCCTGCTTCCATGCCTCTTAGCCAAATCTCCAGGATGGAGACCTGCGTATGGAATTTACAACATGTGGTATCTCTTTTGGAGCTGTTTTGTGCTGTGCAGTCATGTTTGCATCAACTGGTGGCCAGCTGCATCCACACAGGCTCTTTCTACGTGAGTGCTTTAGACAATGCTCTGGAATTAACCACAGTGGAAAGACCACGTAAAAAAGTTCAGGCCCCAGTGCATTGTCTTAACAGGGGACCATGACAAGACCTGCTCTCCTGGACATACTCACGCCTTTACCAAGAACAGTGGCCTTTGCATCTGCTGTGAAGTCTTTGTGGGACCGCGCAAAGTGTGTTAAGGAGATGAACAGTGGCATGGCGAAAAACAGGCCTGGCTTATAAAGAACAATAAAGGCTTTTATGCTGCAGTGGCGCAGACTGTTTCAGGGATGGTGTCCGAAGTCTTCTCAGGCCTCAGGCTTAGGAAGAATGAAACCAACACTCTGGTATTGGATATAAGAAAACTGGAGGAAAGCTCCCTTGACAGAGATTGAGAATACGTGGGAATCATACATGATGCATTTGATTTTGGAGATTGGCGTGGTTATAGTCAGAATCAGCCAAGGATTTGACATCTCTCAGGTTCTCAGGTGCAAGAGGAATTAGAGAGATTAGAACAGGAGAGACTAGCATTGAAGCGACTATCAAAGATAATGAGTGTGAAGAGGAAAGTGGAGGCATCCGAGGCTTGTTTTAAAAAGCTGGCAAGTTGAACATTACTAAGACAACGCCTAAAAAAGATGGCAGCATTAAACACAGCCAGTCGATGCA TGTGGGAGAGTTCAACCAGAAACTGGTGGAAAGCCAGCACTCAATTTAAAAAGAAACAAGAAAAAGGCACAATTGATGTTTGGTGGTGTGTTGATGATGGAGGGTTAACACTTCTTATCCCCTATATCTTAACTCTCAGAAAATGGAAAGACTGTAATTAAGAATCTATGTGGGAGGGAAGATCAACCCGATTGAAGAAGAAAAATGCAATGGCTTCCCTTCTGAGCAATTTAGGATAAAAATTTGCAGACATCCATATCATCGGTGACATCAACATTAGGCCAAACAAGAGAGCTGGAAAGTCTTTGAAGAGATGATTGAACCATATCGTCTCCATGAAAGCTGCAAAGATTTAAACAAGTCTGAGAAATTAAGAAAGAGAACTCCGTGAAAAATTACAGATGCAGAAGTGGAGCAGTCAAGGAAAAGATTACCGCAAGTTCGACTGAATGAACCTTACAGGAGACTCCAGAGCTGCTAATCTCATTGTCCTGAGCCTTCCCGTGGCAAGAAAGGGATCCATATCGGATTTGTTGATATGGCTTGGTGGAAATCCTCACAAAGAACCTCCACCTGCTTACTAGTTAGAGGAAATCAGAAAAATGTCTTGACATT TACTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

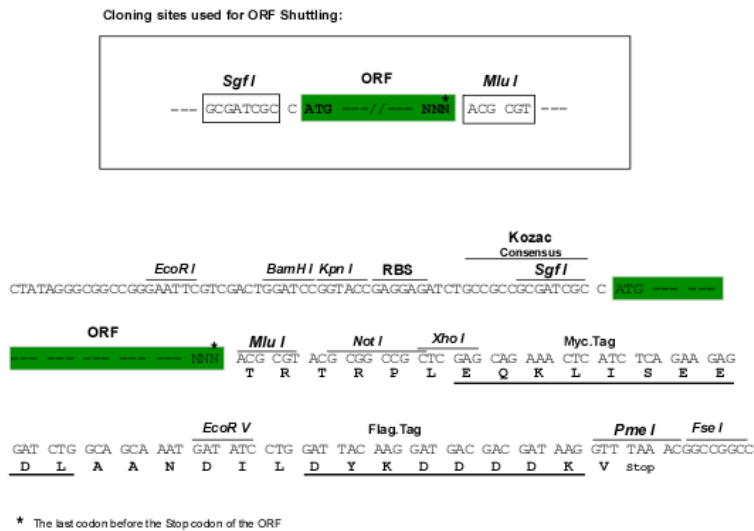
Protein Sequence:

>RC216145 representing NM_000338
 Red=Cloning site Green=Tags(s)

MSLNSSNVFLDSVPSNTNRFQVSVINENHESSAAADDNTDPPHYEETSFGDEAQKRLRISFRPGNQECYDNFLHSGETAKTDASFHAYDSHTNTYYLQTFGHNTMDAVPKIEYYRNTGSI SGPKVNRPSLLEIHEQLAKNVAVTPSSADRVANGDGI PGDEQAENKEDDQAGVVKFGWVKGVLVRCMLNIWGVMLFIRLSWIVGEAGIGLGVIIIGLSTIVTTITGMSTSAIATNGVVRGGGAYYLISRSLGPEFGGSI GLIFAFANAVAVAMYVVGFAETVVDLLKESDSMMVDPNDIRIIGSITVVILLGISVAGMEWEAKAQVILLVILLIAIANFFIGTVIPSNNEKKS RGFNFYQASIFAENFGPRFTKGEFFSVFAIFFPAATGILAGANISGDLEDPQDAIPRGTMLAIFITTVAYLVGVAICVGACVVRDATGNMNDTII SGMNCNGSAAACGLGYDFSRCRHEPCQYGLMNNFQVMMSVSGFPLITAGIFSATLSSALASLVSA PKVFQALCKDNIYKALQFFAKGYGKNNEPLRGYILTFLIAMAFILIAELNTIAPIIISNFFLAS YALINFSCFHASYAKSPGWRPAYGIYNMWVSLFGAVLCCA VMFVINWWAAVITYVIEFFLYVYVTCKKPDVNWGSSTQALSYVSALD NAELETTVEDHVKNFRPQCIVLTGGPMTRPALLDI THAFTKNSGLCICCEVFVGRKLCVKEMNSGMAKKQAWLIK NKIKAFYA AVAADCFRDGVRSL LQASGLGRMKPNTLVIGYKKNWRKAPL TEIENYVGI IHDAFD FEIGVVIVRISQGFDISQVLVQVEELERLEQERLALEATIKDNECEEESSGIRGLFKKAGKLNITKTTPKKDG SINTSQSMHVGEFVNQKLVEASTQFKKKQEKGTIDVWWLFDDGGLTLLIPYILTLRKKWKDCKLRIYVGGKINRI EEEKIAMASLLSKFRKIFADIHIIGDINIRPNKESWKVFEEMIEPYRLHESCKDLTTAEKLR ETPWKITDAELEAVKEKSYRQVRLNELLQEHSRAANLIVLSLPVARKGSI SDLLYMAWLEILTKNLPPVLLVRGNHKNVLT FYS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8001_a06.zip
 Restriction Sites: SgfI-MluI
 Cloning Scheme:



ACCN: NM_000338

ORF Size: 3297 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000338.1](#), [NP_000329.1](#)

RefSeq Size: 3362 bp

RefSeq ORF: 3300 bp

Locus ID: 6557

UniProt ID: [Q13621](#)

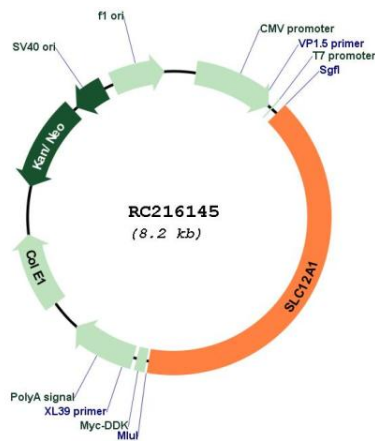
Cytogenetics: 15q21.1

Protein Families: Druggable Genome, Transmembrane

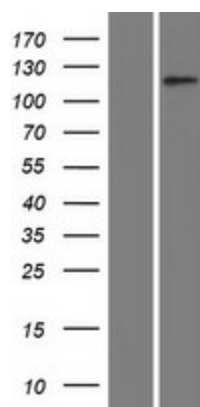
MW: 121.3 kDa

Gene Summary: This gene encodes a kidney-specific sodium-potassium-chloride cotransporter that is expressed on the luminal membrane of renal epithelial cells of the thick ascending limb of Henle's loop and the macula densa. It plays a key role in concentrating urine and accounts for most of the NaCl resorption. It is sensitive to such diuretics as furosemide and bumetanide. Some Bartter-like syndromes result from defects in this gene. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional splice variants have been described but their biological validity in humans has not been experimentally proven. [provided by RefSeq, May 2010]

Product images:



Circular map for RC216145



Western blot validation of overexpression lysate (Cat# [LY424782]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216145 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).