

## Product datasheet for **RG226304**

### SLC12A3 (NM\_001126107) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC12A3 (NM_001126107) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC12A3
Synonyms:	NCC; NCCT; TSC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226304 representing NM_001126107 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGAAGTGGCCACAACAGAGACGCCTGGGGACGCCACTTTGTGCAGCGGGCGCTTCACCATCAGCA  
CACTGCTGAGCAGTGATGAGCCCTCTCCACCAGCTGCCTATGACAGCAGCCACCCAGCCACCTGACCCA  
CAGCAGCACCTTCTGCATGCGCACCTTTGGCTACAACACGATCGATGTGGTGCCACATATGAGCACTAT  
GCCAACAGCACCCAGCCTGGTGAGCCCCGAAGGTCGGGCCACACTGGCTGACCTGCACCTCTCTCTCA  
AGGAAGGCAGACACCTGCATGCCCTGGCCTTTGACAGCCGGCCAGCCACGAGATGACTGATGGGCTGGT  
GGAGGGCGAGGCAGGCACCCAGCAGCAGAGAAGAACCCCGAGGAGCCAGTGCCTTCGGCTGGGTCAAGGGG  
GTGATGATTCTGTTGCATGCTCAACATTTGGGGCGTGATCCTCTACCTGCGGCTGCCCTGGATTACGGCCC  
AGGCAGGCATCGTCTGACCTGGATCATCATCCTGCTGTGCGTACCGGTGACCTCCATCAGAGCCCTCTC  
CATCTCAGCCATCTCCACCAATGGCAAGGTCAGTCAAGTGGCACCTACTTCTCATCTCCCGGAGTCTG  
GGCCAGAGCTTGGGGGCTCCATCGCCCTATTTTCGCTTTCCGCAATGCCGTGGGTGTGGCCATGCACA  
CGGTGGGCTTTGCAGAGACCGTGCAGGACCTGCTCCAGGAGTATGGGGCACCCATCGTGGACCCATTAA  
CGACATCCGCATCATTGGCGTGGTCTCGGTCACTGTGCTGCTGGCCATCTCCCTGGCTGGCATGGAGTGG  
GAGTCCAAGGCCAGGTGCTGTTCTTCTTGTGCATCATGGTCTCCTTTGCCAACTATTTAGTGGGGACGC  
TGATCCCCCATCTGAGGACAAGGCCTCCAAAGGCTTCTTCAGCTACCGGGCGGACATTTTGTCCAGAA  
CTTGGTGCCTGACTGGCGGGTCCAGATGGCACCTTCTTCGGAATGTTCTCCATCTTCTTCCCCTCGGCC  
ACAGGCATCCTGGCAGGGGCCAACATATCTGGTGACCTCAAGGACCTGCTATAGCCATCCCAAGGGGA  
CCCTCATGGCCATTTTCTGGACGACATTTCTACCTGGCCATCTCAGCCACCATTTGGCTCCTGCGTGGT  
GCGTGATGCCTCTGGGGTCTGAATGACACAGTGACCCCTGGCTGGGGTGCCTGCGAGGGGCTGGCCTGC  
AGCTATGGCTGGAACCTCACCGAGTGACCCAGCAGCACAGCTGCCACTACGGCCTCATCAACTATTACC  
AGACCATGAGCATGGTGTGAGGCTTCGCGCCCTGATCACGGCTGGCATCTTCGGGGCCACCTCTCCTC  
TGCCCTGGCCTGCCTGTCTGCTGCCAAAGTCTTCAGTGCCTTTGCGAGGACCAGCTGTACCCACTG



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ATCGGCTTCTTCGGCAAAGGCTATGGCAAGAACAAGGAGCCCGTGCCTGGCTACCTGCTGGCCTACGCCA  
 TCGCTGTGGCCTTCATCATCATCGCTGAGCTCAACACCATAGCCCCATCATTTCCAACCTTCTTCTCTG  
 CTCCTATGCCCTCATCAACTTACAGTGTCCACGCCCTCCATCACCACCTGCCTGGGTGGAGACCTTCA  
 TTCCAATACTACAACAAGTGGCGGGCGCTGTTGGGGCTATCATCTCCGTGGTATCATGTTCTCTCTCA  
 CCTGGTGGGCGGCCCTCATCGCCATTGGCGTGGTGTCTTCTCTCTGCTATGTATCTACAAGAAGCC  
 AGAGGTAATTTGGGGCTCCTCGGTACAGGCTGGCTCCTACAACCTGGCCCTCAGTACTCGTGGGCTC  
 AATGAGGTGGAAGACCACATCAAGAACTACCGCCCCAGTGCCTGGTGTCTACGGGGCCCCCAACTTCC  
 GCCCGGCCCTGGTGGACTTTGTGGGCACCTTACCCGGAACCTCAGCCTGATGATCTGTGGCCACGTGCT  
 CATCGGACCCCAAGCAGAGGATGCCTGAGCTCCAGCTCATCGCCAACGGGCACACCAAGTGGTGAAC  
 AAGAGGAAGATCAAGGCCTTCTACTCGGATGTCATTGCCGAGGACCTCCGAGAGGCGTCCAGATCTCA  
 TGCAGGCCGAGGTCTCGGGAGAATGAAGCCCAACATTCTGGTGGTTGGTTCAAGAAGAAGTGGCAGTC  
 GGCTACCCGGCCACAGTGAAGACTACATTGGCATCCTCCATGATGCCTTTGATTTCAACTATGGCGTG  
 TGTGTATGAGGATGCGGGAGGGACTCAACGTGTCCAAGATGATGCAGGCGCACATTAACCCCGTGTG  
 ACCCAGCGGAGGACGGGAAGGAAGCCAGCGCCAGAGGTGCCAGGCCATCAGTCTCTGGCGCTTTGACCC  
 CAAGGCCCTGGTGAAGGAGGAGCAGGCCACCACCTCTCCAGTGGAGCAGGGCAAGAAGACCATAGAC  
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 GGAGCAATGCAAGATCCGTGTGTTCTGAGCGGCCAGATTAACAGGATGGACCAGGAGAAAGGCGAT  
 CATTCTCTGCTGAGCAAGTTCGACTGGGATTCCATGAAGTCCACATCCTCCCTGACATCAACCAGAAC  
 CCTCGGGCTGAGCACACCAAGAGGTTTGAAGACATGATTGCACCTTCCGTCTGAATGATGGCTTCAAGG  
 ATGAGGCCACTGTCAACGAGATGCGCGGGGACTGCCCTGGAAGATCTCAGATGAGGAGATTACGAAGAA  
 CAGAGTCAAGTCCCTTCGGCAGGTGAGGCTGAATGAGATTGTGCTGGATTACTCCGAGACGCTGCTCTC  
 ATCGTATCACTTTGCCATAGGGAGGAAGGGGAAGTCCCCAGCTCGTGTACATGGCTGGCTGGAGA  
 CCCTGTCCCAGGACCTCAGACCTCAGTATCCTGATCCGAGGAAACCAGGAAAACGTGCTCACCTTTTA  
 CTGCCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG226304 representing NM\_001126107  
 Red=Cloning site Green=Tags(s)

MAELPTTETPGDATALCSGRFTISTLLSSDEPSPAAYDSSHPSHLTHSSTFCMRTFGYNTIDVVPTYEHY  
 ANSTQPGEPKVRPTLADLHSFLKEGRHLHALAFDSRPSHEMTDGLVEGEAGTSSEKNPEEPVRFWVKG  
 VMIRCMLNIWGVILYLRLPWITAQAGIVLTWIIILLSVTVTSITGLSISAISTNGKVKSGGTYFLISRSL  
 GPGLGGSIGLIFAFANAVGVAMHTVGFVETVDRLLQEYGAIVDPINDIRIIGVVSVTVLLAISLAGMEW  
 ESKAQVLFLLVIMVSFANYLVGTLIPPSKASKGFFSYRADIFVQNLVPDWRGPDGTFGFMFSIFFPSA  
 TGILAGANISGDLKDPALAIKPKGLMAIFWTTISYLAISATIGSCVVRDASGVLNDTVTPGWGACEGLAC  
 SYGWNFTECTQQHSCHYGLINYQTMSMVSGFAPLITAGIFGATLSSALACLVSAAKVFQCLCEDQLYPL  
 IGFFGKGYGKNKEPVRGYLLAYIAVAFIIIAELNTIAPIIISNFFLCSYALINFSCFHASITNSPGWRPS  
 FQYINKWAALFGAIIISVIMFLLTWWAALIAIGVVLFLLLYVIYKPEVNWGSSVQAGSYNLAISYVGL  
 NEVEDHIKNYRQCLVLTGPPNFRPALVDFVGTFRNLSLMICGHVLIIPHKQRMPELQLIANGHTKWLN  
 KRKIKAFYSVDVIAEDLRRGVQILMQAAGLGRMKPNILVVGFKKNWQSAHPATVEDYIGILHDAFDNFYGV  
 CVMRMREGLNVSKMMQAHINPVFDPADGKEASARGARPSVSGALDPKALVKEEQATTIFQSEQGKKTID  
 IYWLFDDGGLTLLIPYLLGRKRRWSKCKIRVFGGQINRMDQERKAIISLLSKFRLGFHEVHILPDINQN  
 PRAEHTKRFEDMIAPFRLNDGFKDEATVNEMRRDCPWKISDEEITKNRVKSLRQVRLNEIVLDYSRDAAL  
 IVITLPIGRKPKCSSLYMAWLETLSQDLRPPVILIRGNQENVLTFYQC

TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI



<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001126107.1</a> , <a href="#">NP_001119579.1</a>
<b>RefSeq Size:</b>	5579 bp
<b>RefSeq ORF:</b>	3090 bp
<b>Locus ID:</b>	6559
<b>UniProt ID:</b>	<a href="#">P55017</a>
<b>Cytogenetics:</b>	16q13
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Gene Summary:</b>	This gene encodes a renal thiazide-sensitive sodium-chloride cotransporter that is important for electrolyte homeostasis. This cotransporter mediates sodium and chloride reabsorption in the distal convoluted tubule. Mutations in this gene cause Gitelman syndrome, a disease similar to Bartter's syndrome, that is characterized by hypokalemic alkalosis combined with hypomagnesemia, low urinary calcium, and increased renin activity associated with normal blood pressure. This cotransporter is the target for thiazide diuretics that are used for treating high blood pressure. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]