

## Product datasheet for **RG203903**

### **SLC38A1 (NM\_001077484) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SLC38A1 (NM_001077484) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC38A1
Synonyms:	ATA1; NAT2; SAT1; SNAT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG203903 representing NM\_001077484  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGATGCATTTCAAAGTGGACTCGAATTAAGTGGTTCGAAAACATGACAGTGCCCGAGGATGATAACA  
 TTAGCAATGACTCCAATGATTTACCGAAGTAGAAAATGGTCAGATAAATAGCAAGTTTATTCTGATCG  
 TGAAGTAGAAGAAGTCTCACAACAGCCATTTGGAAAAAAGAAGTGTGATGAGTATATCCAGGTACA  
 ACCTCCTTAGGCATGTCTGTTTTAACCTAAGCAACGCCATTATGGGCAGTGGGATTTGGGACTCGCCT  
 TTGCCCTGGCAAACACTGGAATCCTACTTTTTCTGGTACTTTTGACTTCAGTGACATTGTGTCTATATA  
 TTCAATAAACCTCCTATTGATCTGTTCAAAGAAAACAGGCTGCATGGTGTATGAAAAGCTGGGGAAACA  
 GTCTTTGGCACCACAGGAAGTTCGTAATCTTTGGAGCCACCTCTACAGAACTGGAGCAATGCTGA  
 GCTACCTCTTCATCGTAAAAATGAACTACCCTCTGCCATAAAGTTTCTAATGGGAAAGGAAGACATT  
 TTCAGCCTGGTACGTGGATGGCCGCTTCTGGTGGTATAGTTACCTTTGGCATAATTCTCCCTCTGTGT  
 CTCTTGAAGAACTTAGGGTATCTTGGCTATACTAGTGGATTTCCCTTGAGCTGTATGGTTTTTTTCTAA  
 TTGTGGTTATTTACAAGAAATTTCAAATCCCTGCATTGTTCCAGAGCTAAATCAACAATAAGTGCTAA  
 TTCAACAAATGCTGACACGTGTACGCCAAAATATGTTACCTTCAATTCAAAGACCGTGTATGCTTTACCC  
 ACCATTGCATTTGCATTTGTTGGCACCCGTCAGTCCCTGCCAATTTACAGTGAGCTTAAAGACCGATCAC  
 AGAAAAAATGCAGATGGTTTCAAACATCTCCTTTTTCGCCATGTTTGTATGTACTTCTTGACTGCCAT  
 TTTTGGCTACTTGACATTCTATGACAACGTGCAGTCCGACCTCCTCACAAATATCAGAGTAAAGATGAC  
 ATTCATCCTGACAGTGGCTGGCTGTCATTGTTGCTGTGATCCTCACAGTGCCGGTGTATTTTTCA  
 CGGTTTCGTTCACTTTTGAAGTGGTAAGAAAACAAAGTTTAAATTTATGTCGTCATACCGTGGTTTCA  
 CTGCATACTCTTGGTTGTTATCAACTTGTGGTATCTTCATACCCTCCATGAAGGATATTTTTGGAGTC  
 GTAGGAGTTACATCTGCTAACATGCTTATTTTCTTCTTCTTCTTTATTTAAAAATCACAGACC  
 AGGATGGAGATAAAGGAACCAAGAATTTGGGCTGCCCTTTTCTGGGCTGGGGGTGTTGTTCTCCTT  
 GGTGAGCATTCCCTTGGTCATCTATGACTGGGCTGCTCATCGAGTAGTGACGAAGGCCAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG203903 representing NM\_001077484  
 Red=Cloning site Green=Tags(s)

MMHFKSGLELTELQNMTPEDDNISNDSNDFTEVENQINSKFI SDRESRRSLTNSHLEKKKCDEYIPGT  
 TSLGMSVFNLSNAIMGSGILGLAFALANTGILLFVLLTSVTLLSIYSINLLLICSKETGCMVYEKLEGEQ  
 VFGTTGKVFVIGATSLQNTGAMLSYLFIVKNELPSAIKFLMGKEETFSAWYVDGRVLVVIIVTFGIILPLC  
 LLKNLGYLGYTSGFSLSCMVFFLIVVIYKFKQIPCIPELNSTISANSTNADTCTPKYVTFNSKTVYALP  
 TIAFAFVCHPSVLPYSELKDRSQKMQMVSNI SFFAMFVYFLTAIFGYLTFYDQVSDLLHKYQSKDD  
 ILILTURLAVIVAVILVTPVLFVTVRSSLFELAKTKFNLCRHTVVTCILLVVINLLVIFIPSMKDIFGV  
 VGVTSANMLIFILPSSLYLKITDQDGDKGTQRIWAALFLGLGVLSLVSIPLVIYDWACSSSSDEGH

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_001077484.2</a></p>
<b>RefSeq Size:</b>	<p>8148 bp</p>
<b>RefSeq ORF:</b>	<p>1464 bp</p>
<b>Locus ID:</b>	<p>81539</p>
<b>UniProt ID:</b>	<p><a href="#">Q9H2H9</a></p>
<b>Cytogenetics:</b>	<p>12q13.11</p>
<b>Protein Families:</b>	<p>Transmembrane</p>
<b>Gene Summary:</b>	<p>Amino acid transporters play essential roles in the uptake of nutrients, production of energy, chemical metabolism, detoxification, and neurotransmitter cycling. SLC38A1 is an important transporter of glutamine, an intermediate in the detoxification of ammonia and the production of urea. Glutamine serves as a precursor for the synaptic transmitter, glutamate (Gu et al., 2001 [PubMed 11325958]).[supplied by OMIM, Mar 2008]</p>