

## Product datasheet for **RG238594**

### SLC38A1 (NM\_001278390) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A1 (NM_001278390) 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)



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**ORF Nucleotide Sequence:**

>RG238594 representing NM\_001278390.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGATGCATTTCAAAGTGGACTCGAATTAAGTGGTTCAAAACATGACAGTCCCCGAGGATGATAAC
ATTAGCAATGACTCCAATGATTTACCGAAGTAGAAAATGGTCAGATAAATAGCAAGTTTATTTCTGAT
CGTGAAAGTAGAAGAAGTCTCACAAACAGCCATTTGGAAAAAAGAAGTGTGATGAGTATATTCCAGGT
ACAACCTCCTTAGGCATGTCTGTTTTTAACTAAGCAACGCCATTATGGGCAAGTGGGATTTTGGGACTC
GCCTTTGCCCTGGCAAACACTGGAATCCTACTTTTTCTGGTACTTTTACTTTCAGTGACATTGCTGTCT
ATATATCAATAAACCTCCTATTGATCTGTTCAAAGAAACAGGCTGCATGGTGTATGAAAAGCTGGGG
GAACAAGTCTTTGGCACCACAGGAAGTTCGTAATCTTTGGAGCCACCTCTACAGAACACTGGAGCA
ATGCTGAGCTACCTTTCATCGTAAAAATGAACTACCCTCTGCCATAAAGTTTCTAATGGGAAAGGAA
GAGACATTTTCAGCCTGGTACGTGGATGGCCGCTTCTGGTGGTATAGTTACCTTTGGCATAATTCTC
CCTCTGTGTCTTTGAAGAACTTAGGGTATCTGGCTATACTAGTGGATTTTCTTGAGCTGTATGGTT
TTTTCTTAATTGTGGTTATTTACAAGAAATTTCAAATCCCTGCATTGTTCCAGAGCTAAATTCACA
ATAAGTGCTAATTCACAATGCTGACACGTGTACGCCAAAATATGTTACCTTCAATTCAAAGACCGTG
TATGCTTTACCCACCATTCATTTGCATTTGTTTGCACCCGTCAGTCTGCCAATTTACAGTGAGCTT
AAAGACCGATCACAGAAAAAATGCAGATGGTTTCAAACATCTCCTTTTTCGCCATGTTTGTATGTAC
TTCTTGACTGCCATTTTGGCTACTTGACATCTATGACAACGTGCAGTCCGACCTCCTTCAAAAAT
CAGAGTAAAGTACATCTCATCTGACAGTGGCTGGCTGTCATTGTTGCTGTGATCCTCACAGTG
CCGGTGTATTTTACGGTTCGTTTCATCTTTATTTGAACTGGCTAAGAAAAAAGTTTAAATTTATGT
CGTCATACCGTGGTTACCTGCATCTCTGGTGTATCAACTGTTGGTGTATCCTACCCCTCCATG
AAGGATATTTTTGGAGTGTAGGAGTTACATCTGCTAACATGCTTATTTTCACTTCTCCTCATCTCTT
TATTTAAAAATCACAGACCAGGATGGAGATAAAGGAACTCAAAGAATTTGGCTCTTTCTCTTCTCCAG
TTTCCAGTCCAGCCCTGTTGGCTCTCAGAAATGCATCATCTTCTCCCTGCAGCGCTCTCACTGAACATG
CTCAAGCGCAAGGAACTATAATCTTGTGTTCTCTGGATTCTGGATTTAGTAATCTGTAT
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238594  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MMHFKSGLLELTELQNMTPEDDNI SNDSNDFTEVENGQINSKFI SDRESRRSLTNSHLEKKKCD EYIPG
T TSLGMSVFNLSNAIMSGILGLAFALANTGILLFLVLLTSVTLLSIYSINLLL ICSKETGCMVYEKLG
EQVFGTTGKFVIFGATSLQNTGAMLSYLFIVKNELPSAIKFLMGKEETFSAWYVDGRVLVVI VTFGIIL
PLCLLKNLGYLGYTSGFSLSCMVFFLIVVIYKFKQIPCIPELNSTISANSTNADTCTPKYVTFNSKTV
YALPTIAFAFVCHPSVLP IYSELKDRSQKMQMVSNISFFAMFVMYFLTAIFGYLTFYDNVQSDLLHKY
QSKDDILILTVRLAVIVAVILTVPVLFVTRSSLFELAKKTKFNLCRHTVVTCILLVVINLLVIFIPSM
KDIFGVGVTSANMLIFILPSSLYLKITDQDGDKTQRIWLF LFLQFPVQPCWLSECIILLPAALSLNM
LKRKELIILCSLDSGFSNLY
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001278390

**ORF Size:** 1509 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).

**RefSeq:** [NM\\_001278390.1](#), [NP\\_001265319.1](#)

**RefSeq Size:** 2885 bp

**RefSeq ORF:** 1512 bp

**Locus ID:** 81539

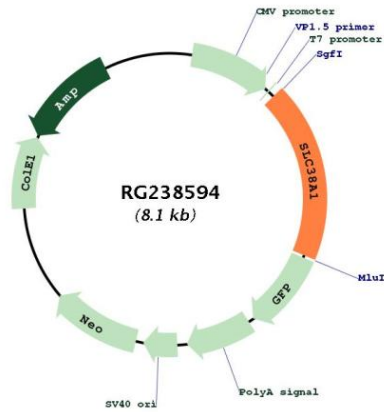
**Cytogenetics:** 12q13.11

**Protein Families:** Transmembrane

**MW:** 56.6 kDa

**Gene Summary:** 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]

Product images:



Circular map for RG238594