

Product datasheet for **RG238512**

SLC38A1 (NM_001278388) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A1 (NM_001278388) 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:

>RG238512 representing NM_001278388.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGATGCATTTCAAAGTGGACTCGAATTAAGTGGTTCGAAACATGACAGTCCCCGAGGATGATAAC
ATTAGCAATGACTCCAATGATTTACCGAAGTAGAAAATGGTCAGATAAATAGCAAGTTTATTTCTGAT
CGTGAAAGTAGAAGAAGTCTCACAAACAGCCATTTGGAAAAAAGAAGTGTGATGAGTATATTCCAGGT
ACAACCTCCTTAGGCATGTCTGTTTTTAACTAAGCAACGCCATTATGGGCAAGTGGGATTTTGGGACTC
GCCTTGGCCCTGGCAAACACTGGAATCCTACTTTTTCTGGTACTTTTACTTTCAGTGACATTGCTGTCT
ATATATCAATAAACCTCCTATTGATCTGTTCAAAGAAACAGGCTGCATGGTGTATGAAAAGCTGGGG
GAACAAGTCTTTGGCACCACAGGGAAGTTCGTAATCTTTGGAGCCACCTCTACAGAACACTGGAGCA
ATGCTGAGCTACCTTTCATCGTAAAAATGAACTACCCTCTGCCATAAAGTTTCTAATGGGAAAGGAA
GAGACATTTTCAGCCTGGTACGTGGATGGCCGCTTCTGGTGGTATAGTTACCTTTGGCATAATTCTC
CCTCTGTGTCTTTGAAGAACTTAGGGTATCTGGCTATACTAGTGGATTTTCTTGAGCTGTATGGTT
TTTTTCCTAATTGTGGTTATTTACAAGAAATTTCAAATCCCTGCATTGTTCCAGAGCTAAATTCACA
ATAAGTGCTAATTCACAATGCTGACACGTGTACGCCAAAATATGTTACCTTCAATTCAAAGACCGTG
TATGCTTTACCCACCATTCATTTGCATTTGTTTGGCACCCTCAGTCTGCCAATTTACAGTGAGCTT
AAAGACCGATCACAGAAAAAATGCAGATGGTTTCAAACATCTCCTTTTTCGCCATGTTTGTATGTAC
TTCTTGACTGCCATTTTGGCTACTTGACATCTATGACAACGTGCAGTCCGACCTCCTTCAAAAATAT
CAGAGTAAAGATGACATTCTCATCTGACAGTGGCGCTGGCTGTCATTGTTGCTGTGATCCTCACAGTG
CCGGTGTATTTTACGGTTCGTTTCATCTTTATTTGAACTGGCTAAGAAAAAAGTTTAAATTTATGT
CGTCATACCGTGGTTACCTGCACTCTGGTGTATCAACTGTTGGTGTATCCTACACCTCCATCCATG
AAGGATATTTTTGGAGTGTAGGAGTTACATCTGCTAACATGCTTATTTTCATTCTTCTTCATCTCTT
TATTTAAAAATCACAGACCAGGATGGAGATAAAGGAACTCAAAGAATTTGGGCTGCCCTTTTCTGGGC
CTGGGGGTGTTGTTCTCCTTGGTCAGCATTCCCTTGGTCATCTATGACTGGGCTGCTCATCGAGTAGT
GACGAAGGCCAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238512
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MMHFKSGLLELTELQNMTPEDDNISNDSNDFTEVENGQINSKFI SDRESRRSLTNSHLEKKKCD EYIPG
T TSLGMSVFNLSNAIMSGILGLAFALANTGILLFLVLLTSVTL LSIYSINLL ICSKETGCMVYEKLG
EQVFGTTGKFVIFGATSLQNTGAMLSYLFIVKNELPSAIKFLMGKEETFSAWYVDGRVLVVI VTFGIIL
PLCLLKNLGYLGYTSGFSLSCMVFFLIVVIYKFKQIPCIPELNSTISANSTNADTCTPKYVTFNSKTV
YALPTIAFAFVCHPSVLP IYSELKDRSQKMQMVSNISFFAMFV MYFLTAIFGYLTFYDNVQSDLLHKY
QSKDDILILTVRLAVIVAVILTVPVLFVTRSSLFELAKKTKFNL CRHTVVTCILLVVINLLVIFIPSM
KDIFGVGVTSANMLIFILPSSLYLKITDQDGDKGTQRIWAALFLGLGVLFSLVSIPLVIYDWACSSSS
DEGH
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001278388

ORF Size: 1461 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_001278388.2](#)

RefSeq Size: 8385 bp

RefSeq ORF: 1464 bp

Locus ID: 81539

UniProt ID: [Q9H2H9](#)

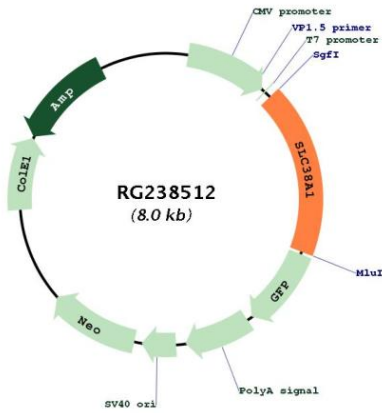
Cytogenetics: 12q13.11

Protein Families: Transmembrane

MW: 54 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 RG238512