

Product datasheet for **RG219066**

SLC38A1 (NM_030674) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A1 (NM_030674) 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:

>RG219066 representing NM_030674
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATGCATTTCAAAGTGGACTCGAATTAAGTGGTTCGAAAACATGACAGTGCCTCGAGGATGATAACA
 TTAGCAATGACTCCAATGATTTACCGAAGTAGAAAATGGTCAGATAAATAGCAAGTTTATTCTGATCG
 TGAAAGTAGAAGAAGTCTCACAACAGCCATTTGGAAAAAAGAAGTGTGATGAGTATATCCAGGTACA
 ACCTCCTTAGGCATGTCTGTTTTAACCTAAGCAACGCCATTATGGGCAGTGGGATTTGGGACTCGCT
 TTGCCCTGGCAAACACTGGAATCCTACTTTTTCTGGTACTTTTGACTTCAGTGACATTGTGTCTATATA
 TTCAATAAACCTCCTATTGATCTGTTCAAAGAAACAGGCTGCATGGTGTATGAAAAGCTGGGGAAACA
 GTCTTTGGCACCACAGGGAAGTTCGTAATCTTTGGAGCCACCTCTACAGAACTGGAGCAATGCTGA
 GCTACCTTTCATCGTAAAAATGAACTACCTCTGCCATAAAGTTTCTAATGGGAAAGGAAGACATT
 TTCAGCCTGGTACGTGGATGGCCGCTTCTGGTGGTATAGTTACCTTTGGCATAATTCTCCCTCTGTGT
 CTCTTGAAGAAGTTAGGGTATCTTGGCTATACTAGTGGATTTTCCTTGAGCTGTATGGTTTTTTCCATA
 TTGTGGTTATTTACAAGAAATTTCAAATCCCTGCATTGTTCCAGAGCTAAATCAACAATAAGTGCTAA
 TTCAACAAATGCTGACACGTGTACGCCAAAATATGTTACCTTCAATTCAAAGACCGTGTATGCTTTACCC
 ACCATTGCATTTGCATTTGTTGGCCACCGTCAGTCCGCAATTTACAGTGAGCTTAAAGACCGATCAC
 AGAAAAAATGCAGATGGTTTCAAACATCTCCTTTTTCGCCATGTTTGTATGACTTCTTGACTGCCAT
 TTTTGGCTACTTGACATTCTATGACAACGTGCAGTCCGACCTCCTCACAAATATCAGAGTAAAGATGAC
 ATTCATCCTGACAGTGGCTGGCTGTCATTGTTGCTGTGATCCTCACAGTCCCGGTGTTATTTTTCA
 CGGATCGTTCATCTTTATTTGAAGTGGTAAGAAAAAAGTTTAAATTTATGTCGTCATACCGTGGTTAC
 CTGCATACTCTTGGTTGTTATCAACTGTTGGTATCTTCATACCTCCATGAAGGATATTTTTGGAGTC
 GTAGGAGTTACATCTGCTAACATGCTTATTTTCTTCTCCTTCTCTTTATTTAAAAATCACACCA
 GGATGGAGATAAAGGAAGTCAAAGAATTTGGGCTGCCCTTTTCTTGGCCTGGGGGTGTTGTTCTCCTTG
 GTCAGCATTCCCTTGGTATCTATGACTGGCCTGCTCATCGAGTAATGGTGAAGGCCACTGAAACCCGC
 CGAGAAAAAGAAACATCCCTGTTGTCTGCTCAGTCAAGTCCCCACACATCAGCAATCTCTACCCTTCT
 TTTGCAAGTTTACAGAAGCAAACAGAAATGTACAGGATACT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG219066 representing NM_030674
 Red=Cloning site Green=Tags(s)

MMHFKSGLELTELQNMTPEDDNI SNDSNDFTEVENQINSKFI SDRESRRSLTNSHLEKKKCDEYIPGT
 TSLGMSVFNLSNAIMGSGILGLAFALANTGILLFLVLLTSVTLLSIYSINLLLICKSKETGCMVYEKLGEG
 VFGTTGKVFVIFGATSLQNTGAMLSYLFIVKNELPSAIKFLMGKEETFSAWYVDGRVLVVIIVTFGIILPLC
 LLKNLGYLGYTSGFSLSCMVFFLIVVIYKFKQIPCIPELNSTISANSTNADTCTPKYVTFNSKTYALP
 TIAFAFVCHPSVLP IYSELKDRSQKMQMVSNISFFAMFVYFLTAIFGYLTFYDNVQSDLLHKYQSKDD
 ILILTIVRLAVIVAVILTVPVLFVFDTRSSLFELAKKTKFNL CRHTVVTCILLVVINLLVIFIPSMKDFGV
 VGVTSANMLIFILPSSLYLKITTRMEIKELKEFGLPFSWAWGCCSPWSAFPWSSMTGPAHRVMVKATETR
 REKETSLLSAQSSPHTSAISHHFFCKFTEANRNVQDT

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_030674

ORF Size: 1581 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.

RefSeq: [NM_030674.2](#), [NP_109599.2](#)

RefSeq Size: 8487 bp

RefSeq ORF: 1464 bp

Locus ID: 81539

UniProt ID: [Q9H2H9](#)

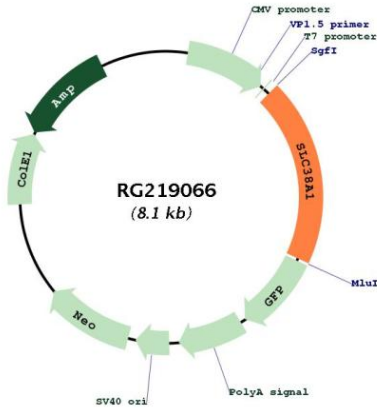
Cytogenetics: 12q13.11

Domains: Aa_trans

Protein Families: Transmembrane

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 RG219066