

Product datasheet for **RC203903**

SLC38A1 (NM_001077484) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A1 (NM_001077484) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC38A1
Synonyms:	ATA1; NAT2; SAT1; SNAT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203903 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATGCATTTCAAAGTGGACTCGAATTAAGTGGTTCGAAAACATGACAGTGCCCGAGGATGATAACA
 TTAGCAATGACTCCAATGATTTACCGAAGTAGAAAATGGTCAGATAAATAGCAAGTTTATTCTGATCG
 TGAAGTAGAAGAAGTCTCACAACAGCCATTTGGAAAAAAGAAGTGTGATGAGTATATCCAGGTACA
 ACCTCCTTAGGCATGTCTGTTTTAACCTAAGCAACGCCATTATGGGCAGTGGGATTTGGGACTCGCCT
 TTGCCCTGGCAAACACTGGAATCCTACTTTTTCTGGTACTTTTGACTTCAGTGACATTGTGTCTATATA
 TTCAATAAACCTCCTATTGATCTGTTCAAAGAAACAGGCTGCATGGTGTATGAAAAGCTGGGGAAACA
 GTCTTTGGCACCACAGGAAGTTCGTAATCTTTGGAGCCACCTCTACAGAACTGGAGCAATGCTGA
 GCTACCTCTTCATCGTAAAAATGAACTACCTCTGCCATAAAGTTTCTAATGGGAAAGGAAGACATT
 TTCAGCCTGGTACGTGGATGGCCGCTTCTGGTGGTGTAGTTACCTTTGGCATAATTCTCCCTCTGTGT
 CTCTTGAAGAAGTTAGGGTATCTTGGCTATACTAGTGGATTTTCCTTGAGCTGTATGGTTTTTTTCTAA
 TTGTGGTTATTTACAAGAAATTTCAAATCCCTGCATTGTTCCAGAGCTAAATCAACAATAAGTGTAA
 TTCAACAAATGCTGACACGTGTACGCCAAAATATGTTACCTTCAATTCAAAGACCGTGTATGCTTTACCC
 ACCATTGCATTTGCATTTGTTGGCACCCGTCAGTCTGCCAATTTACAGTGAGCTTAAAGACCGATCAC
 AGAAAAAATGCAGATGGTTTCAAACATCTCCTTTTTCGCCATGTTTGTATGTACTTCTTGACTGCCAT
 TTTTGGCTACTTGACATTCTATGACAACGTGCAGTCCGACCTCCTCACAAATATCAGAGTAAAGATGAC
 ATTCTCATCCTGACAGTGGCTGGCTGTCATTGTTGCTGTGATCCTCACAGTCCCGGTGTTATTTTTCA
 CGGTTCTGTTTCACTTTTGAAGTGGTAAGAAAAAAGTTTAAATTTATGTCGTCATACCGTGGTTAC
 CTGCATACTCTTGGTTGTTATCAACTTGTGGTGTATCTCATACCTCCATGAAGGATATTTTTGGAGTC
 GTAGGAGTTACATCTGCTAACATGCTTATTTTCTTCTTCTTCTTTATTTAAAAATCACAGACC
 AGGATGGAGATAAAGGAAGTCAAAGAAATTTGGGCTGCCCTTTTCTGGGCTGGGGGTGTTGTTCTCCTT
 GGTGAGCATTCCCTTGGTGTATGACTGGGCTGCTCATCGAGTAGTGACGAAGGCCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203903 protein sequence
 Red=Cloning site Green=Tags(s)

MMHFKSGLELTELQNMTPEDDNI SNDSNDFTEVENGQINSKFI SDRESRRSLTNSHLEKKKCD EYIPGT
 TSLGMSVFNLSNAIMGSGILGLAFALANTGILLFLVLLTSVTLLSIYSINLLLICSKETGCMVYEKLG EQ
 VFGTTGKFVIFGATSLQNTGAMLSYLFIVKNELPSAIKFLMGKEETFSAWYVDGRVLLVIVTFGIILPLC
 LLKNLGYLGYTSGFSLSCMVFFLIVVIYKQFQIPCIPELNSTISANSTNADTCTPKYVTFNSKTVYALP
 TIAFAFVCHPSVLP IYSELKDRSQKMQMVSNI SFFAMFVYFLTAIFGYLTFYDNVQSDLLHKYQSKDD
 ILILTVRLAVIVAVILTVPVLFVTVRSSLFELAKKTKFNL CRHTVVTCILLVVINLLVIFIPSMKDFIGV
 VGVTSANMLIFILPSSLYLKITDQDGDKGTQRIWAALFLGLGVLFSLVSIPLVIYDWACSSSSDEGH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6724_c05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001077484

ORF Size: 1461 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

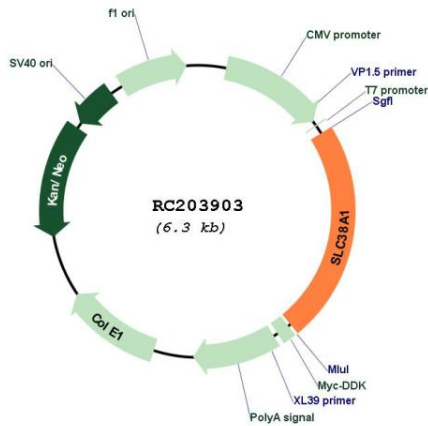
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

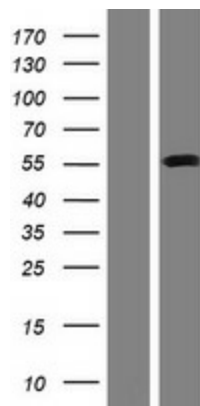
RefSeq: [NM_001077484.2](#)
RefSeq Size: 8148 bp
RefSeq ORF: 1464 bp
Locus ID: 81539
UniProt ID: [Q9H2H9](#)
Cytogenetics: 12q13.11
Protein Families: Transmembrane
MW: 54 kDa

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 RC203903



Western blot validation of overexpression lysate (Cat# [LY421438]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203903 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).