

Product datasheet for **RC201892**

SLC38A2 (NM_018976) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A2 (NM_018976) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC38A2
Synonyms:	ATA2; PRO1068; SAT2; SNAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201892 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAGGCCGAAATGGGACGATTAGTATTTCCCGGATGAAGACAGCAGCAGCTACAGTTCCAACA
 GCGACTTCAACTACTCTACCCACCAAGCAAGCTGCTCTGAAAAGCCATTATGCAGATGTAGATCCTGA
 AAACCAGAACTTTTTACTTGAATCGAATTTGGGGAAGAAGAAGTATGAAACAGAATTTTCATCCAGGTA
 ACTTCCTTTGGAATGTCAGTATTTAATCTGAGCAATGCGATTGTGGGCAGTGGAATCCTTGGGCTTTCTT
 ATGCCATGGCTAATACTGGAATTGCTCTTTTATAATTCTCTTGACATTTGTGTCAATTTTTCCCTGTA
 TTCTGTTTCATCTCTTTGAAGACTGCCAATGAAGGAGGGTCTTTATTATATGAACAATTGGGATATAAG
 GCATTTGGATTAGTTGGAAGCTTGCAGCATCTGGATCAATTACAATGCAGAACATTGGAGCTATGTCAA
 GCTACCTCTTCATAGTAAATATGAGTTGCCTTTGGTGATCCAGGCATTAACGAACATTGAAGATAAAAC
 TGGATTGGTATCTGAACGGGAATTTGGTTCTGTTGGTGTCTTGGTGGTATTCTTCCTTTGTCTG
 CTGTTTAGAAATTTAGGATATTTGGGATATACAGTGGCCTTTCTTGTGTGTATGGTGTCTTTCTGA
 TTGTGGTCATTTGCAAGAAATTTCAAGTTCCGTGTCTGTGGAAGCTGCTTTGATAATTAACGAAACAAT
 AAACACCACCTTAACACAGCCAAACAGCTCTTGACCTGCTTTGTACATAACGTGACTGAAAATGACTCT
 TGCAGACCTCACTATTTTATTTCAACTCACAGACTGTCTATGCTGTGCCAATTCGATCTTTTCATTTG
 TCTGTCATCTGCTGTTCTTCCCATCTATGAAGAACTGAAAGACCGCAGCCGTAAGAATGATGAATGT
 GTCCAAGATTTCAATTTTTGCTATGTTTCTCATGTATCTGCTGCCGCCCTTTGGATACCTAACATTT
 TACGAACATGTTGAGTCAGAATTGCTTCATACCTACTCTTCTATCTTGGGAAGTATTTCTTCTCTCA
 TTGTCCGTCTGGCTGTGTTAATGGCTGTGACCTGACAGTACCAGTAGTTATTTCCCAATCCGGAGTTC
 TGTAACTCACTTGTGTGTGCATCAAAAGATTTCAAGTTGGTGGCGTCATAGTCTCATTACAGTGTCTATC
 TTGGCATTTACCAATTTACTTGTCTCTTGTCCCAACTATTAGGGATATCTTTGGTTTTATTGGTGCAT
 CTGCAGCTTCTATGTTGATTTTTATTCTTCTCTGCTTCTATATCAAGTTGGTGAAGAAAGAACCTAT
 GAAATCTGTACAAAGATTGGGGCTTTGTTCTTCTGTTAAGTGGTGTACTGGTGTGACCGGAAGCATG
 GCCTTGATTGTTTGGATTGGGTACACAATGCACCTGGAGGTGGCCAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201892 protein sequence
 Red=Cloning site Green=Tags(s)

MKKAEMGRFSISPDESSSYSSNSDFNYSYPTKQAALKSHYADVDPENQNFLLLESNLGKKKYETEFHPGT
 TSFGMSVFNLSNAIVGSGILGLSYAMANTGIALFIILLTFVSIFSLYSVHLLKLTANEGGSLLYEQLGYK
 AFGLVGKLAASGSITMQNIGAMSSYLFIVKYELPLVIQALTNIEDKTGLWYLNNGNYLVLLVSLVILPLS
 LFRNLGYLGYTSGLSLLCMVFLLIVVICKKFQVPCPVEAALIINETINTTLTQPTALVPALSHNVTENDS
 CRPHYFIFNSQTVYAVPILIFSVCVPAVLPIYEELKDRSRRRMNVSKISFFAMFLMYLLAALFGYLT
 YEHVESELLHTYSSILGTDILLIVRLAVLMAVTLTPVVIPIRSSVTHLLCASKDFSWWRHSLITVSI
 LAFTNLLVIFVPTIRDIFGFIGASAASMLIFILPSAFYIKLVKKEPMKSVQKIGALFFLLSGVLVMTGSM
 ALIVLDWVHNAPGGGH

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6013_f08.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_018976

ORF Size: 1518 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_018976.5](#)

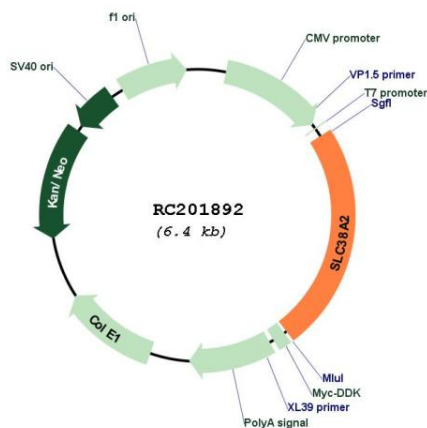
RefSeq Size: 4961 bp

RefSeq ORF: 1521 bp

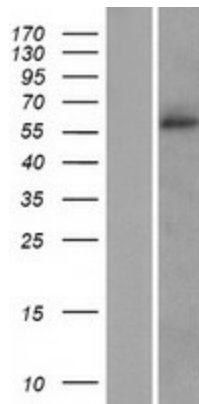
Locus ID: 54407

UniProt ID:	<u>Q96QD8</u>
Cytogenetics:	12q13.11
Domains:	Aa_trans
Protein Families:	Druggable Genome, Transmembrane
MW:	56 kDa
Gene Summary:	Functions as a sodium-dependent amino acid transporter. Mediates the saturable, pH-sensitive and electrogenic cotransport of neutral amino acids and sodium ions with a stoichiometry of 1:1. May function in the transport of amino acids at the blood-brain barrier and in the supply of maternal nutrients to the fetus through the placenta.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC201892



Western blot validation of overexpression lysate (Cat# [LY402721]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201892 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).