

Product datasheet for **MR223314**

Slc38a1 (NM_001166456) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc38a1 (NM_001166456) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc38a1
Synonyms:	AA408026; AA409865; AL022800; AU015942; NAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR223314 representing NM_001166456
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATGCATTTCAAAGTGGCCTCGAGCTAACGGAGCTGCAGAACATGACGGTGCCCGAAGATGACAACG
 TCAGCAACGACTCTAATGACTTCACAGAAGTAGAAAACGGCCAGATAAATAGCAAGTTTCTCAGATCG
 GGAGAGTAGGAGGAGTCTCACAAACAGCCATCTGGAGAAAAGGAAATGCGACGAGTATATTCCAGGAACA
 ACCTCCCTGGGAATGTCTGTCTTTAACCTGAGCAACGCCATCATGGGCAGTGGAACTTTGGGCCTTGCTT
 TCGCCTTGCCCAACCCGGGATCCTCCTCTTTCTGATACTTCTGACTTCGGTGACACTGCTGTCTATATA
 TTCAATAAACCTACTGCTGATCTGTTCCAAGGAAACCGGCTGCATGGTGTATGAGAAGCTGGGAGAGCAA
 GTCTTCGGCACCACGGGAAGCTGGTGTCTTCGGAGCCACCTCTCTGCAGAACACTGGGCGATGCTGA
 GCTACCTCTTCATAGTAAAAACGAATTCCTTCAGCCATAAAATCCCTCATGGGAGAGGAGGATGCATT
 TTCAGCCTGGTACGTCGATGGCCGAGTGTGGTGGTGTGGTGACCTTTGGCATAATCCTCCGCTGTGT
 CTCTTGAAAGAACTGGGGTATCTTGGCTACACGAGTGGGTTTTCCCTAAGCTGCATGATGTTTTCTCAA
 TAGTGGTCATCTACAAGAAATTCAGACTCCCTGCATGAGTGTGGAGCAGAACTCGACAGTCAGTGCTAA
 TGTGACCGACGCGTGACACCAAAGTATGTCACCTTCAACTCAAAGACGGTGTATGCTTTACCAACCATC
 GCCTTCGCGTTTGTCTGCCACCCGTCCTGCTCCCAATCTACAGCGAGCTCAAAGACCGGTCACAGAAGA
 AAATGCAGATGGTTTCCAACATCTCTTCTTTGCTATGTTTGTACTTCTGACGGCCATCTTTGG
 GTACTTGACGTTTTATGAAAAGGTGCAGTCAGATCTCCTTCAAGTACCAGAGCACAGGCGACATTCTC
 ATCCTAACCGTGGCGTGGCCGTCATCGTGGCCGTCATCCTCACCGTGCCTGTGCTGTTTTTACAGTTC
 GATCATCGTTATTTGAGCTGGCCAAGAAGACAAAGTCCACCTGTGCCCATGCTTTGGTGACCATCAT
 ACTCTTGATCATTATCAACCTGTTGGTGTCTTCATCCCTCCATGAAGGATATCTTTGGAGTCGTAGGA
 GTCACGCTGCTAATATGCTCATTCTTCTTCTTCTTCTTTATTTAAAAATCACGAACCAGGACG
 GAGATAAAGGCACTCAAAGAATTTGGGCGGCCCTTTTCTTGGGCTTGGGGGTGTTGTTCTCCTTGATCAG
 CATCCCTCTGGTCATCTACGACTGGGCTTGCTCCTCTGGCACCAGCAAGGCCAC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223314 representing NM_001166456
 Red=Cloning site Green=Tags(s)

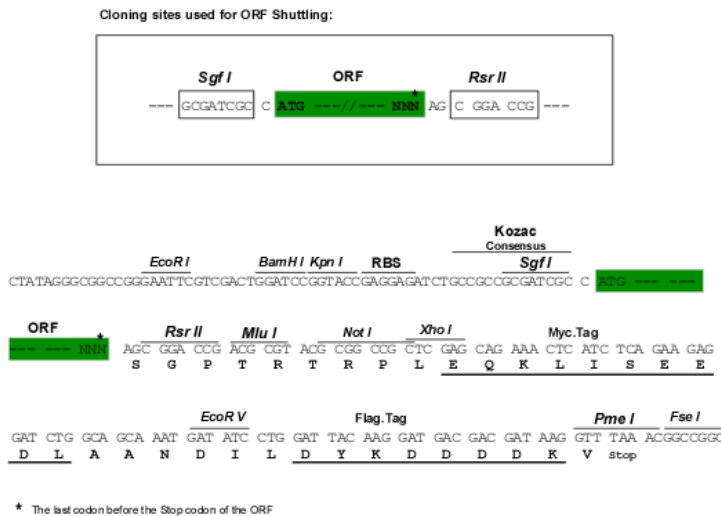
MMHFKSGLELTELQNMTPEDDNVSNDSNDFTEVENGQINSKFI SDRESRRSLTNSHLEKRKCDEYIPGT
 TSLGMSVFNLSNAIMSGILGLAFALANTGILLFLILLTSVTLLSIYSINLLI CSKETGCMVYEKLG EQ
 VFGTTGKLVIFGATSLQNTGAMLSYLFIVKNELPSAIKSLMGEEDAFSAWYVDGRVLMVMVTFGIILPLC
 LLKNLGYLGYTSGLSCMMFFLIVVIYKKFQTPCMSVEQNSTVSANVTDACPKYVTFNSKTVYALPTI
 AFAFVCHPSVLPPIYSELKDRSQKMQMVSNISFFAMFVYFLTAIFGYLTFYEKQSDLLHKYQSTGDIL
 ILTVRLAVIVAVILVPLVFFTVRSSLFELAKKTKFHLCRHVLVTIILLIIINLLVIFIPSMKDFGVVG
 VTSANMLIFILPSSLYLKITNQDGDGKTQRIWAALFLGLGVLFSLISIPLVIYDWACSSGTDEGH

SGPTRTRPLE**QKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:



ACCN: NM_001166456

ORF Size: 1455 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_001166456.1](#), [NP_001159928.1](#)

RefSeq Size: 7059 bp

RefSeq ORF: 1458 bp

Locus ID: 105727

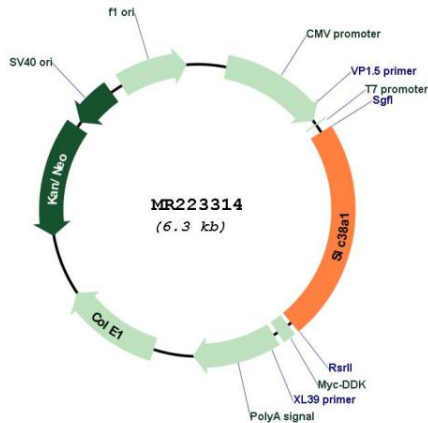
UniProt ID: [Q8K2P7](#)

Cytogenetics: 15 F1

MW: 53.8 kDa

Gene Summary: Functions as a sodium-dependent amino acid transporter. Mediates the saturable, pH-sensitive and electrogenic cotransport of glutamine and sodium ions with a stoichiometry of 1:1. May also transport small zwitterionic and aliphatic amino acids with a lower affinity. May supply glutamatergic and GABAergic neurons with glutamine which is required for the synthesis of the neurotransmitters glutamate and GABA.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR223314