

Product datasheet for **MR226303**

Slc1a2 (NM_011393) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc1a2 (NM_011393) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc1a2
Synonyms:	1700091C19Rik; 2900019G14Rik; AI159670; Eaat2; GLT-1; GLT1; MGLT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR226303 representing NM_011393
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCAGTGCCAACAATATGCCAAGCAGGTAGAAGTGGCATGCACGACAGCCACCTCAGCTCCGATG
 AGCCAAAGCACCGAAACCTGGGCATGCGCATGTGCGACAAGCTGGGGAAAAATCTCCTGCTCACTGAC
 TGTGTTTGGTGTATCCTGGGAGCAGTGTGTGGCGGGCTGCTTCGCTTGGCATCGCCATCCACCCTGAT
 GTGGTCATGTTGATAGCCTTCCCGGGGACATACTCATGAGGATGCTGAAGATGCTCATCTCCCTCTTA
 TCATCTCCAGTTAATCACAGGGTTGTCAGGCCTGGATGCTAAAGCCAGCGGCCCTAGGCACGAGAGC
 TATGGTGTATTACATGTCCACGACCATCATTGCCGCCGTGCTGGGGTTCATCCTGGTGTGGCAATCCAC
 CCAGGCAATCCAAACTCAAGAAGCAGCTAGGGCCCGGAAGAAGAACGACGAGGTGTCTAGCCTGGATG
 CCTTCTGGATCTCATTAGAAATCTTCCCGGAGAACCTGGTGAAGCCTGTTTCCAACAGATTACAGAC
 AGTGACAAAGAAAGTTCTGGTGGCACCTCCATCTGAGGAGCCAATACCACCAAGCGGTGATCTCCATG
 TTGAATGAAACCATGAACGAGGCCCTGAAGAACTAAGATCGTTATCAAGAAGGCCTGGAGTTCAAGG
 ACGGGATGAACGTCTTAGGTCTGATCGGATTCTTCATTGCTTTCGGCATTGCCATGGGGAAGATGGGTGA
 ACAGGCCAAGCTGATGGTGGAGTCTTCAACATTCTGAATGAGATCGTGATGAAGTTAGTGATCATGATC
 ATGTGGTACTCCCTCTGGGATCGCCTGCTTGATTTGTGGGAAGATCATCGCCATCAAGGACTTAGAAG
 TGGTTGCTAGGCAGCTGGGGATGTACATGATCACCGTATCGTGGGCCTCATCATTACGGGGGCATCTT
 TCTCCCCTTGATTTACTTGTAGTGACCAGAAAAATCCATTCTCCTTTTTTGTGGCATATCCAAGCC
 TGGACTACTGCTCTGGAACTGCTTCCAGTGTGGAACCTTGCCTGTACCTCCGTTGCTTGGAAAGATA
 ATCTAGGGATTGACAAGCGTGTGACCAGATTCGCTCTCCAGTCGGAGCAACCATTAACATGGATGGCAG
 AGCCCTTTACGAGGCTGTGGCAGCCATCTCATAGCCCAAATGAATGGAGTCATCTTGGATGGAGGTCAG
 ATTGTGACTGTAAGCCTTACAGCCACCCTGGCAGCATTGGTGCAGCCAGTATCCAGCGCCGGGCTGG
 TCACCATGCTCCTCATTCTCACAGCTGTGGCCTGCCAACGGAGGATATCAGTCTGCTGGTGGCAGTGGA
 CTGGCTGCTGGATAGAATGAGAACTTCAATGATGTTGGTGGCGATTCTTTGGGGCTGGGATTGTCTAT
 CACCTTCCAAGTCTGAGCTGGACACCATTGACTCCCAACACCGAATGCAGGAAGACATCGAAATGACCA
 AGACGCAGTCCATTTACGACGACAAGAACCACAGGAAAGCAACTCTAATCAGTGTGTCTATGCCGCACA
 CAACTCTGTCGTAATAGATGAGTGAAGGTACCTTCCATTCTGGATATCGAGACCTGCATA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226303 representing NM_011393
 Red=Cloning site Green=Tags(s)

MVSANNMPKQVEVRMHSHLSSDEPKHRNLGMRMCDKLGKNNLLSLTVFVILGAVCGGLRLASPIHPD
 VVMLIAFPDILMRMLKMLILPLIISSLITGLSGLDAKASGRLGTRAMVYYMSTTIIAAVLGVILVLAIH
 PGNPKLKKQLGPGKKNDEVSSLDLFLDLIRNLPENLVQACFQQIQTVTKKVLVAPPSEEANTTKAVISM
 LNETMNEAPEETKIVIKKLEFKDGMNVLGLIGFFIAFGIAMGKMGEQAKLMVEFFNILNEIVMKLVIMI
 MWYSPLGIACLICGKIIAIKDLVVARQLGMYMITVIVGLIIHGGIFLPLIYFVTRKNPFSFFAGIFQA
 WITALGTASSAGTLPVTFRCLEDNLGIDKRVTRFVLPVGATINMDGTALYEAVAAIFIAQMNGVILDGGQ
 IVTVSLTATLASIGAASIPSAGLVTMLLILTAVGLPTEDISLLVAVDWLLDRMRTSVNVVGDVSGFAGIVY
 HLSKSELDTIDSQHRMQEDIEMTKTQSIYDDKNHRESNSNQCVYAAHNSVVIDECKVFPFPLDIETCI

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_011393

ORF Size: 1674 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_011393.1](#), [NM_011393.2](#), [NP_035523.1](#)

RefSeq Size: 2127 bp

RefSeq ORF: 1677 bp

Locus ID: 20511

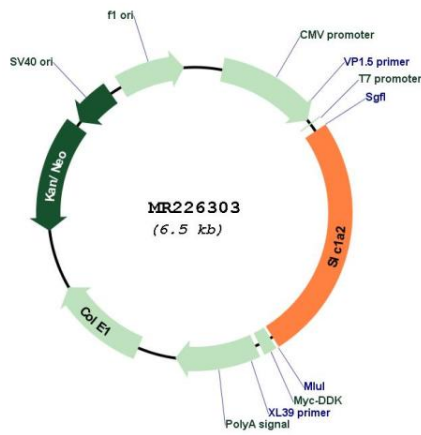
UniProt ID: [P43006](#)

Cytogenetics: 2 54.13 cM

MW: 61.1 kDa

Gene Summary: Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7698742, PubMed:7557442, PubMed:9373176). Functions as a symporter that transports one amino acid molecule together with two or three Na(+) ions and one proton, in parallel with the counter-transport of one K(+) ion. Mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport (By similarity). Essential for the rapid removal of released glutamate from the synaptic cleft, and for terminating the postsynaptic action of glutamate (PubMed:9180080).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226303