

Product datasheet for **MR226163**

Slc1a2 (NM_001077515) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc1a2 (NM_001077515) 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:

>MR226163 representing NM_001077515
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCAGTGCCAACAATATGCCAAGCAGGTAGAAGTGGCGATGCATGACAGCCACCTCAGCTCCGATG
 AGCCAAAGCACCGAAACCTGGGCATGCGCATGTGCGACAAGCTGGGGAAAAATCTCCTGCTCACTGAC
 TGTGTTTGGTGTATCCTGGGAGCAGTGTGTGGCGGGCTGCTTCGCTTGGCATCGCCATCCACCCTGAT
 GTGGTCATGTTGATAGCCTTCCCGGGGACATACTCATGAGGATGCTGAAGATGCTCATCTCCCTCTTA
 TCATCTCCAGTTAATCACAGGGTTGTCAGGCCTGGATGCTAAAGCCAGCGGCCCTAGGCACGAGAGC
 TATGGTGTATTACATGTCCACGACCATCATTGCCGCCGTGCTGGGGTTCATCCTGGTGTGGCCATCCAC
 CCAGGCAATCCAAACTCAAGAAGCAGCTAGGGCCCGGAAGAAGAACGACGAGGTGTCTAGCCTGGATG
 CCTTCTGGATCTCATTAGAAATCTTCCCGGAGAACCTGGTGAAGCCTGTTCCAGCAGATTACAGC
 AGTGACAAAGAAAGTTCTGGTGGCACTCCATCTGAGGAGCCAAATACCACCAAGCGGTGATCTCCATG
 TTGAATGAAACCATGAACGAGGCCCTGAAGAACTAAGATCGTTATCAAGAAGGCCTGGAGTTCAAGG
 ACGGGATGAACGTCTTAGGTCTGATCGGATTTTATTGCTTTCGGCATTGCCATGGGGAAGATGGGTGA
 ACAGGCCAAGCTGATGGTGGAGTTCTTCAACATTCTGAATGAGATCGTGATGAAGTTAGTGATCATGATC
 ATGTGGTACTCCCTCTGGGATCGCCTGCTTGATTTGTGGGAAGATCATCGCCATCAAGGACTTAGAAG
 TGGTTGCTAGGCAGCTGGGGATGTACATGATCACCGTATCGTGGGCCTCATCATTACGGGGGCATCTT
 TCTCCCCTTGATTTACTTGTAGTGACCAGAAAAATCCATTCTCCTTTTTGCTGGCATATCCAAGCC
 TGGACTACTGCTCTGGAACTGCTTCCAGTGTGGAACCTTGCCTGTACCTCCGTTGCTTGGAAAGATA
 ATCTAGGGATTGACAAGCGTGTGACCAGATTCGTCCTCCAGTCGGAGCAACCATTAACATGGATGGCAC
 AGCCCTTACGAGGCTGTGGCAGCCATCTCATAGCCAAATGAATGGGGTCATCTTGGATGGAGGTCAG
 ATTGTGACTGTAAGCCTTACAGCCACCCTGGCAGCATTGGTGCAGCCAGTATCCAGCGCCGGGCTGG
 TCACCATGCTCCTCATTCTCACAGCTGTGGCCTGCCAACGGAGGATATCAGTCTGCTGGTGGCGGTGGA
 CTGGCTGCTGGATAGAATGAGAACTTCAATGATGTTGGTGGCGATTCTTTGGGGCTGGGATTGTCTAT
 CACCTTCCAAGTCTGAGCTGGACACCATTGACTCCCAACACCGAATGCAGGAAGACATCGAAATGACCA
 AGACGCAGTCCATTTACGACGACAAGAACCACAGGAAAGCAACTCTAATCAGTGTGTCTATGCCGACA
 CAACTCTGTCGTAATAGATGAGTGAAGTAACCTGGCGCCAATGAAAGTCAGTACTGCAGTGT
 GAGGAAGAACCTTGAAACGTGAAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226163 representing NM_001077515
 Red=Cloning site Green=Tags(s)

MVSANNMPKQVEVRMHDShLSSDEPKHRNLGMRMCDKLGKNNLLSLTVFGVILGAVCGLLRLASPIHPD
 VVMLIAFPDILMRMLKMLILPLIISSLITGLSGLDAKASGRLGTRAMVYYMSTTIIAAVLGVILVLAIH
 PGNPKLKKQLGPGKKNDEVSSLDLIRNLPENLVQACFQQIQTVTKKVLVAPPSEEANTTKAVISM
 LNETMNEAPEETKIVIKKGLFEKDMNVLGLIGFFIAFGIAMGKMGQAKLMVEFFNILNEIVMKLVIMI
 MWYSPLGIACLICGKIIAIKDLEVVARQLGMYMITVIVGLIIHGGIFLPLIYFVTRKNPFSFFAGIFQA
 WITALGTASSAGTLPVTFRCLEDNLGIDKRVTRFVLPVGATINMDGTALYEAVAIFIAQMNGVILDGGQ
 IVTVSLTATLASIGAASIPSAGLVTMLLILTAVGLPTEDISLLVAVDWLLDRMRTSVNVVGDVSGFAGIVY
 HLSKSELDTIDSQHRMQEDIEMTKTQSIYDDKNHRESNSNQCVYAAHNSVVIDECKVTLAANGKSADCSV
 EEPWKREK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001077515

ORF Size: 1707 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_001077515.2](#), [NP_001070983.1](#)

RefSeq Size: 10998 bp

RefSeq ORF: 1710 bp

Locus ID: 20511

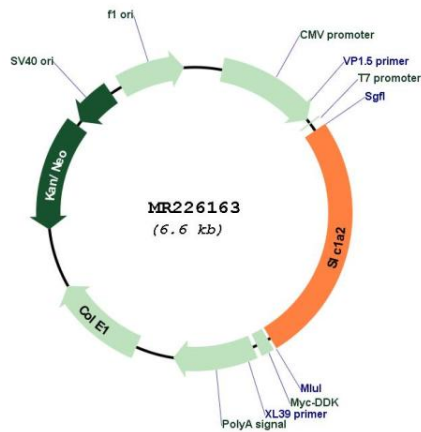
UniProt ID: [P43006](#)

Cytogenetics: 2 54.13 cM

MW: 62.2 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 MR226163