

Product datasheet for **MG226163**

Slc1a2 (NM_001077515) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc1a2 (NM_001077515) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc1a2
Synonyms:	1700091C19Rik; 2900019G14Rik; AI159670; Eaat2; GLT-1; GLT1; MGLT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG226163 representing NM_001077515
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCAGTGCCAACAATATGCCAAGCAGGTAGAAGTGGCGATGCATGACAGCCACCTCAGCTCCGATG
 AGCCAAAGCACCGAAACCTGGGCATGCGCATGTGCGACAAGCTGGGGAAAAATCTCCTGCTCACTGAC
 TGTGTTTGGTGTATCCTGGGAGCAGTGTGTGGCGGGCTGCTTCGCTTGGCATCGCCATCCACCCTGAT
 GTGGTCATGTTGATAGCCTTCCCGGGGACATACTCATGAGGATGCTGAAGATGCTCATCTCCCTCTTA
 TCATCTCCAGTTAATCACAGGGTTGTCAGGCCTGGATGCTAAAGCCAGCGGCCCTAGGCACGAGAGC
 TATGGTGTATTACATGTCCACGACCATCATTGCCGCCGTGCTGGGGTTCATCCTGGTGTGGCCATCCAC
 CCAGGCAATCCAAACTCAAGAAGCAGCTAGGGCCCGGAAGAAGAACGACGAGGTGTCTAGCCTGGATG
 CCTTCTGGATCTCATTAGAAATCTCTCCCGGAGAACCTGGTGAAGCCTGTTCCAGCAGATTACAGC
 AGTGACAAAGAAAGTTCTGGTGGCACCTCCATCTGAGGAGCCAATACCACCAAGCGGTGATCTCCATG
 TTGAATGAAACCATGAACGAGGCCCTGAAGAACTAAGATCGTTATCAAGAAGGCCTGGAGTTCAAGG
 ACGGGATGAACGTCTTAGGTCTGATCGGATTTTATTGCTTTCGGCATTGCCATGGGGAAGATGGGTGA
 ACAGGCCAAGCTGATGGTGGAGTTCTTCAACATTCTGAATGAGATCGTGATGAAGTTAGTGATCATGATC
 ATGTGGTACTCCCTCTGGGTATCGCCTGCTTGATTTGTGGGAAGATCATCGCCATCAAGGACTTAGAAG
 TGGTTGCTAGGCAGCTGGGGATGTACATGATCACCGTATCGTGGGCCTCATCATTACGGGGGCATCTT
 TCTCCCCTTGATTTACTTGTAGTGACCAGAAAAATCCATTCTCCTTTTTTGTGGCATATTCGAAGCC
 TGGACTACTGCTCTGGAACTGCTTCCAGTGTGGAACCTTGCCTGTACCTCCGTTGCTTGGAAAGATA
 ATCTAGGGATTGACAAGCGTGTGACCAGATTCGCTCTCCAGTCGGAGCAACCATTAACATGGATGGCAC
 AGCCCTTACGAGGCTGTGGCAGCCATCTTCATAGCCCAAATGAATGGGGTCATCTTGGATGGAGGTCAG
 ATTGTGACTGTAAGCCTTACAGCCACCCTGGCAGCATTGGTGCAGCCAGTATCCAGCGCCGGGCTGG
 TCACCATGCTCCTCATTCTCACAGCTGTGGCCTGCCAACGGAGGATATCAGTCTGCTGGTGGCGGTGGA
 CTGGCTGCTGGATAGAATGAGAACTTCAATGATGTTGGTGGCGATTCTTTGGGCTGGGATTGTCTAT
 CACCTTCCAAGTCTGAGCTGGACACCATTGACTCCCAACACCGAATGCAGGAAGACATCGAAATGACCA
 AGACGCAGTCCATTTACGACGACAAGAACCACAGGAAAGCAACTCTAATCAGTGTGTCTATGCCGACA
 CAACTCTGTCGTAATAGATGAGTGCAAGGTAACCTGGCGCCAATGAAAGTCAGTCTGACTGCAGTGT
 GAGGAAGAACCTTGAAACGTGAAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG226163 representing NM_001077515
 Red=Cloning site Green=Tags(s)

MVSANNMPKQVEVRMHDShLSSDEPKHRNLGMRMCDKLGNL LLSLTVFVILGAVCGLLRLASPIHPD
 VVMLIAFPDILMRMLKMLILPLIISSLITGLSGLDAKASGR LGTRAMVYYMSTTIIAAVLGVILVLAIH
 PGNPKLKKQLGPGKKNDEVSSLDLFLIRNLPENLVQACFQQIQTVTKKVLVAPPSEEANTTKAVISM
 LNETMNEAPEETKIVIKKLEFKDGMNVLGLIGFFIAFGIAMGKMGEQAKLMVEFFNILEIVMKLVIMI
 MWYSPLGIACLICGKIIAIKDLVVARQLGMYMITVIVGLIIHGGIFLPLIYFVTRKNPFSFFAGIFQA
 WITALGTASSAGTLPVTFRCLEDNLGIDKRVTRFVLPVGATINMDGTALYEAVAAIFIAQMNGVILDGGQ
 IVTVSLTATLASIGAASIPSAGLVTMILLITAVGLPTEDISLLVAVDWLLDRMRTSVNVVGD SFGAGIVY
 HLSKSELDTIDSQHRMQEDIEMTKTQSIYDDKNHRESNSNQCVYAAHNSVVIDECKVTLAANGKSADCSV
 EEPWKREK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

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

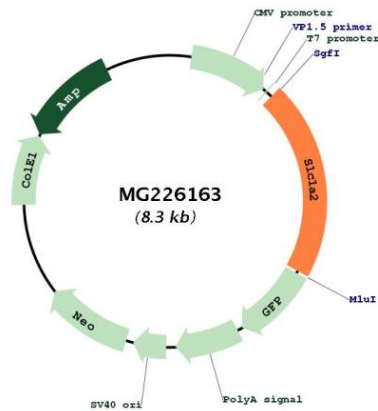
UniProt ID: [P43006](#)

Cytogenetics: 2 54.13 cM

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 MG226163