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Product datasheet for MC202720

Slc3a2 (NM_008577) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc3a2 (NM_008577) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc3a2
Synonyms:	4F2; 4F2HC; AI314110; Cd98; Ly-10; Ly-m10; Ly10; Mdu1; Mgp-2hc; NACAE
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

Fully Sequenced ORF:

>BC065173 sequence for NM_008577
GCTCTGCTAGCCTCACGGCCACGGGACGCCTCTCTGAACGGGGATCCAGGCAGGATTAGAGCTGCCTCAC
TGACTACAGGCCGTGTCGTGTCACCGTTTCTGCAGGCACCATGAGCCAGGACACCGAAGTGGACATGAAA
GATGTGGAGCTGAACGAGCTAGAACCGGAGAAGCAGCCCATGAATGCAGCGGACGGGGCGGCGGCCGGGG
AGAAGAACGGTCTGGTGAAGATCAAGGTGGCGGAGGACGAGACGGAGGCCGGGGTCAAGTTCACCGGCTT
ATCCAAGGAGGAGCTACTGAAGGTAGCGGGCAGCCCTGGCTGGGTGCGCACCCGCTGGGCGCTGCTGCTG
CTCTTCTGGCTCGGTTGGCTGGGCATGCTGGCGGGCGCCGTGGTTATCATCGTTCGGGCGCCGCGCTGCC
GTGAGCTGCCTGTACAGAGGTGGTGGCACAAGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTTGT
AGGCCGGGATGCGGGAGGCATAGCTGGTCTGAAGAGCCATCTGGAGTACTTGAGCACCCTGAAGGTGAAG
GGCCTGGTGTTAGGCCCAATTCACAAGAACCAGAAGGATGAAATCAATGAAACCGACCTGAAACAGATTA
ATCCCACTTTGGGCTCCCAGGAAGATTTTAAAGACCTTCTACAAAGTGCCAAGAAAAAGAGCATTCACAT
CATTTTGGACCTCACTCCCAACTACCAGGGCCAGAATGCGTGGTTCCTCCCTGCTCAGGCTGACATTGTA
GCCACCAAAATGAAGGAAGCTCTGAGTTCTTGGTTGCAGGACGGTGTGGATGGTTTCCAATTCCGGGATG
TGGGAAAGCTGATGAATGCACCCTTGTACTTGGCTGAGTGGCAGAATATCACCAAGAACTTAAGTGAGGA
CAGGCTTTTGATTGCAGGGACTGAGTCCTCTGACCTGCAGCAAATTGTCAACATACTTGAATCCACCAGC
GACCTGCTGTTGACCAGCTCCTACCTGTCAAATTCCACTTTCACTGGGGAGCGTACTGAATCCCTAGTCA
CTAGGTTTTTGAATGCCACTGGCAGCCAATGGTGCAGCTGGAGTGTGTCGCAAGCAGGACTCCTCGCAGA
CTTTATACCGGACCATCTTCTCCGACTCTACCAGCTGCTGCTCTTCACTCTGCCAGGGACTCCTGTTTTT
AGCTACGGGGATGAGCTTGGCCTTCAGGGTGCCCTTCCTGGACAGCCTGCGAAGGCCCCACTCATGCCGT
GGAATGAGTCCAGCATCTTTCACATCCCAAGACCTGTAAGCCTCAACATGACAGTGAAGGGCCAGAATGA
AGACCCTGGCTCCCTCCTTACCCAGTTCCGGCGGCTGAGTGACCTTCGGGGTAAGGAGCGCTCTCTGTTG
CACGGTGACTTCCATGCACTGTCTTCCTCACCTGACCTCTTCTCCTACATACGACACTGGGACCAGAATG
AGCGTTACCTGGTGGTGCTCAACTTCCGAGATTCGGGCCGGTCAGCCAGGCTAGGGGCCTCCAACCTCCC
TGCTGGCATAAGCCTGCCAGCCAGCGCTAAACTTTTGCTTAGTACCGACAGTGCCCGGCAAAGCCGTGAG
GAGGACACCTCCCTGAAGCTGGAAAACCTGAGCCTGAATCCTTATGAGGGCTTGCTGTTACAGTTCCCCT
TTGTGGCCTGATCCTTCCTATGCAGAACCTACCACCCTCCTTTGTTCTCCCCAGGCCTTTTGGATTCTAG
TCTTCCTCTCCTTGTTTTTAAACTTTTGCAGATTACATACGAATTCTTATACTGGGTGTTTTTGTCTTCA
AATAAAAACATCACCCCTGCCTCATGAAAAAAAAAAAAAAAAAAAA

Restriction Sites: AscI-NotI

ACCN: NM_008577

Insert Size: 1581 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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: BC065173, AAH65173

RefSeq Size:	1866 bp
RefSeq ORF:	1581 bp
Locus ID:	17254
UniProt ID:	P10852
Cytogenetics:	19 5.44 cM
Gene Summary:	Component of several heterodimeric amino acid transporter complexes. The precise substrate specificity depends on the other subunit in the heterodimer (PubMed:9915839). The heterodimer with SLC3A2 functions as sodium-independent, high-affinity transporter that mediates uptake of large neutral amino acids such as phenylalanine, tyrosine, L-DOPA, leucine, histidine, methionine and tryptophan (PubMed:9915839). The complexes with SLC7A6 and SLC7A7 mediate uptake of dibasic amino acids. The complexes function as amino acid exchangers (By similarity). Required for targeting of SLC7A5 and SLC7A8 to the plasma membrane and for channel activity (PubMed:9915839). Plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine (By similarity). The heterodimer with SLC7A5/LAT1 may play a role in the transport of L-DOPA across the blood-brain barrier (Probable). May mediate blood-to-retina L-leucine transport across the inner blood-retinal barrier (By similarity). The heterodimer with SLC7A5/LAT1 can mediate the transport of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane. When associated with SLC7A5 or SLC7A8, involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane. The heterodimer with SLC7A5 is involved in the uptake of toxic methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes. Together with ICAM1, regulates the transport activity SLC7A8 in polarized intestinal cells, by generating and delivering intracellular signals. When associated with LAPTM4B, the heterodimer formed by SLC3A2 and SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation (By similarity). [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) differs in the 5' coding region and 5' UTR, compared to variant 1. This results in a shorter and distinct N-terminus in isoform b, compared to isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.