

## Product datasheet for MR205257

### Slc7a6 (NM\_178798) Mouse Tagged ORF Clone

#### Product data:

|                           |                                                                   |
|---------------------------|-------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                               |
| Product Name:             | Slc7a6 (NM_178798) Mouse Tagged ORF Clone                         |
| Tag:                      | Myc-DDK                                                           |
| Symbol:                   | Slc7a6                                                            |
| Synonyms:                 | Al643885; LAT-2; LAT3; y+LAT-2                                    |
| Mammalian Cell Selection: | Neomycin                                                          |
| Vector:                   | pCMV6-Entry (PS100001)                                            |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                              |
| ORF Nucleotide Sequence:  | >MR205257 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGAAGCACAGGAGCTTGGGAGCCCCACCCACCTACCATCTTCTCCCAAAGCCAACCAGCACACTG  
 TAAAGAAGATGCCGGCTCACCATCTCAAGGGTCTCCAGAAACGATGCAGCTGAAGAAGGAGATCTCCTT  
 GCTGAACGGGGTCAGCCTGGTGGTGGGCAACATGATTGGCTCAGGGATCTTTGTCTACCGAAGGGTGTC  
 CTCAAGTACACTGCTTCCTATGGGTGTCACTTATAGTGTGGGCCATTGGTGGGCTCTTCTGTCTGTGG  
 GTGCCCTTTGCTATGCAGAACTGGGACCACCATCACAAATCAGGGGCTAGCTATGCTTATATTCTAGA  
 GGCCTTCGGGGGCTTCATTGCCTTTATCCGTCTGTGGGTCTCACTTCTAATTGTTGAGCCCAACAGTCAG  
 GCCATCATCGCCATCACCTTTGCCAACTATATCATCAAGCCCTCCTTCCCACTGTGATCCTCCATATG  
 TGGCCTGCCGTCTCCTCGCTGCTGCCTGCGTATGTCTGCTGACATTTGTGAAGTGTGCCTACGTCAAGTG  
 GGGCACACGAGTACAAGACACATTCACGTATGCCAAGGTCCTGGCACTCATTGCCATCATTATCATGGGC  
 CTTGTAACTGTGTCAAGGACACACTGAGCACTTTCAGGACGCCCTTAAAGGTTCTCGTGAATGTGG  
 GAGACCTCTCTTGGCCTGTACTCTGCCCTCTTCTTACTCAGGTTGGGACACCCTTAATTTTGTAAAC  
 AGAAGAAATCAAAAACCCAGAAAGGAATTTGCCCTTGGCCATTGGGATTCTATGCCAATTGTGACACTC  
 ATCTACATCCTGACCAACGTGGCCTATTACACAGTGCTGAACATTCAGGATGCCATAAGAGTGACGCTG  
 TGGCTGTGACATTTGCTGACCAGACATTGCGCATGTTCAAGTTGGACCATCCCATTTGCTGTTGCTCTGTC  
 CTGCTTCGGGGGCTAAATGCATCCATCTTTGCTTCATCAAGGTTGTTTTTCTGGGCTCTCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:** >MR205257 protein sequence  
 Red=Cloning site Green=Tags(s)

MEAQELGSPTPTYHLLPKANQHTVKEDAGSPSQGSPETMQLKKEISLLNGVSLVVGNMIGSGIFVSPKGV  
 LKYTASYGLSLIVWAIGGLFSVVGALCYAELGTTITKSGASYAYILEAFGGFIAFIRLWVSL LIVEPTSQ  
 AIIAITFANYIIKPSFPTCDPPYVACRLAAACVCLLTFVNCAYVKWGRVQDTFTYAKVLALIAIIIMG  
 LVKLCQGHTEHFQDAFKGSSWNVGDLSLALYSALFSYSGWDTLNFVTEEIKNPERNLPLAIGISMPIVTL  
 IYILTNAVYYTVLNIQDVHKSDAVAVTFADQTFGMFSWTIPIAVALSCFGGLNASIFASSRLFFRGLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_178798

**ORF Size:** 1044 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq Size:** 3730 bp

**RefSeq ORF:** 1548 bp

**Locus ID:** 330836

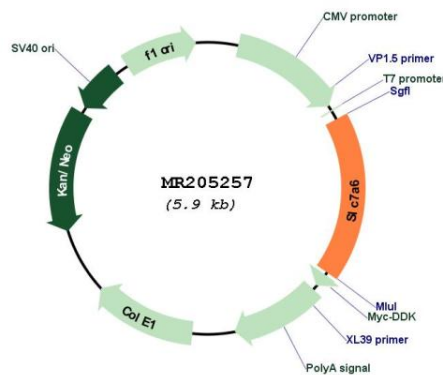
**UniProt ID:** [Q8BGK6](#)

**Cytogenetics:** 8 D3

**MW:** 37.6 kDa

**Gene Summary:** Involved in the sodium-independent uptake of dibasic amino acids and sodium-dependent uptake of some neutral amino acids. Requires coexpression with SLC3A2/4F2hc to mediate the uptake of arginine, leucine and glutamine. Also acts as an arginine/glutamine exchanger, following an antiport mechanism for amino acid transport, influencing arginine release in exchange for extracellular amino acids. Plays a role in nitric oxide synthesis via transport of L-arginine. Involved in the transport of L-arginine in monocytes. Reduces uptake of ornithine in retinal pigment epithelial cells (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR205257