

Product datasheet for **MR217580**

Slc7a2 (NM_001044740) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc7a2 (NM_001044740) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc7a2
Synonyms:	20.5; A1158848; Atrc2; CAT-2; Cat2; Tea
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR217580 representing NM_001044740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTCCCTGCAGAGCAGTGTGACTTTCGCGCATGTCTGATCCGGAGAAAAATTGTCACTGGACA
 GCCTTGAAGATCCAAACTCTGCCGCTGCTTAACCACCGTGGACCTCATCGCTTTGGGGTTGGAAGCAC
 TCTGGGCGCTGGGTCTACGTCCTGGCTGGGGAAGTCGCCAAAGCCGATTCTGGCCCGAGTATCGTGGTG
 TCTTCTCATCGCTGCCCTGGCCTCGGTTATGGCCGGCCTTTGCTATGCTGAATTTGGGCCCGAGTAC
 CCAAGACTGGATCTGCGTATCTATACACTTACGTACGGTCCGAGAGCTGTGGCCTTCACTGGCTG
 GAATCTCATCCTGTCATATGTCATAGGTACGTCCAGTGTGCAAGAGCATGGAGTGGCACCTTCGACGAA
 CTTCTTAATAACAGATTGGCCAGTTTTTCAAACGTAATCAAATGAATTACTGGTCTGGCAGAGT
 ATCCAGACTTCTTGGCGTGTGCCTTGTATTACTCCTGGCAGGCTTTTATCTTTGGAGTAAAAGAGTC
 TGCTTGGGTGAATAAATTTTTACAGCTATTAATCCTGGTCTCTCTTTGTCATGGTGGCTGGGTTT
 GTGAAAGGAAATGTGGCTAACTGGAAGTACAGTGAAGAGTTTCTCAAAAATATATCAGCAAGTGCCAGAG
 AACCACCTTCTGAGAACGGAACAAGCATCTACGGGGCTGGCGGCTTTATGCCCTATGGCTTTACAGGGAC
 GTTGGCTGGTGTGCAACGTGCTTTATGCCTTTGTGGGCTTTGACTGCATTGCAACAACGGGTGAAGAG
 GTTCGGAATCCGCAAAAGGCGATCCCATCGGAATAGTGACGTCCTTACTTGTCTGCTTTATGGCTTACT
 TTGGGGTTTCTGCAGCTTAAACGCTTATGATGCCTTACTACCTCCTGGATGAGAAAAGTCCACTCCCGGT
 CGCGTTTGGATATGTCAGATGGAGCCCCGCAAAATATGTTGTCTCGGCAGGCTCCCTCTGCGCCTTATCA
 ACAAGTCTTCTGGATCCATTTCCCAATGCCTCGTGAATCTATGCTATGGCGGAGGATGGGTTGCTTT
 TCAAATGTCTAGCTCAAATCAATTCCAAAACGAAGACACCAGTAATTGCTACTTTGTCGCGGTGCAGT
 GGCAGCTGTGATGGCCTTTCTTTTTGACCTGAAGGCCCTCGTGGACATGATGTCTATTGGCACCCCTCATG
 GCCTACTCTCTGGTGGCAGCCTGTGTGCTTATTCTCAGGTACCAACCTGGCTTGTGTTATGACCAGCCCA
 AATACACCCTGAGAAAGAACTCTGGAATCATGTACCAATGCGACTTTGAAGAGCGAGTCCAGGTAC
 CATGCTGCAAGGACAGGGTTTACGCTACGAACCTCTTACGCCCTCTGCCCTGCCACACGACAGTGC
 GCTTCCCTTGTGAGCTTTCTGGTGGATTCTGGCTTTCTCATCTGGGCTTGGATTTCTAACCCAGT
 ATGGCGTCCAGGCCATTGCCAGACTGGAAGCCTGGAGCCTGGCTCTTCTCGCCCTGTTCTTGTCTCTG
 CGTTGCCGTCATTCTGACCATTTGGAGGCAGCCACAGAATCAGCAAAAAGTAGCCTTATGGTCCCGTTC
 TTACCGTTTCTGCCGGCCTTACGATCCTGGTCAACATTTACTTGATGGTCCAGTTAAGTGGGACACTT
 GGATCAGATTCAGCATCTGGATGGCGCTTGGCTTTCTGATCTACTTCGCCTATGGCATTAGACACAGCTT
 GGAGGGTAACCCAGGGATGAAGAAGACGATGAGGATGCCTTTTACAGACAACATCAATGCAGCAACAGAA
 GAAAAGTCCGCCATGCAAGCAAATGACCATCACCAAGAAACCTCAGCTTACCTTTCATACTTATGAAA
 AGACAAGTGAATGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR217580 representing NM_001044740
Red=Cloning site Green=Tags(s)

MIPCRAVLT FARCLIRRKIVTLDLSLEDSKLCRCLTTVDLIA LGVGSTLGAGVYVLAGEVAKADSGPSIVV
 SFLIAALASVMAGLCYAEFGARVPKTGSAYLYTYVTGELWAFITGWNLILSYVIGTSSVARAWSGTFDE
 LLNKQIGQFFKTYFKMNYTGLAEYPDFFAVCLVLLLAGLLSFGVKESAWVNKFFTA INILVLLFVMVAGF
 VKGNVANWKISEEFLKNI SASAREPPSENGTSIYGAGGFMPYGF TGLAGAATCFYAFVGFDCIATTGEE
 VRNPQKAIPIGIVTSLLVCFMAYFGVSAALTLMPYYLLDEKSPLPVAFEYVRWSPAKYVVSAGSLCAL S
 TSLLSGIFMPRVIYAMAEDGLLFKCLAQINSKTKTPVIATLSSGAVAAVMAFLFDLKALVDMMSIGTLM
 AYLVAACVILIRYQPGLCYDQPKYTPEKETLESCTNATLKSESQVTMLQGQGSRLRFLSPSALPTRQS
 ASLVSFLVGLAFLILGLSILTTYGVQAIARLEAWSLALLALFLVLCVAVILT IWRQPQNQKQVAFMVPF
 LPFLPAFSILVNIYLMVQLSADTWIRFSIWMALGFLIYFAYGIRHSLEGNRDEEDED AFS DNINAATE
 EK SAMQANDHHQRNLSL PFI LHEKTSEC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001044740

ORF Size: 1974 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_001044740.2](#), [NP_001038205.1](#)

RefSeq Size: 7708 bp

RefSeq ORF: 1977 bp

Locus ID: 11988

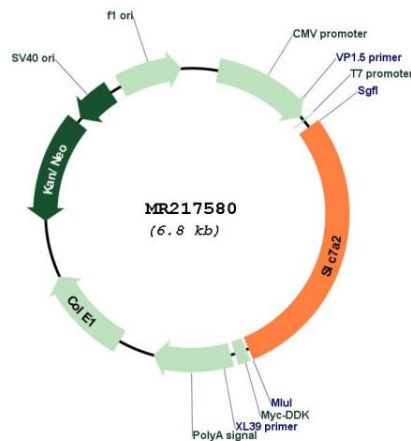
UniProt ID: [P18581](#)

Cytogenetics: 8 23.89 cM

MW: 72.2 kDa

Gene Summary: Isoform 1 functions as low-affinity, high capacity permease involved in the transport of the cationic amino acids (arginine, lysine and ornithine). Isoform 2 also functions as permease that mediates the transport of the cationic amino acids (arginine, lysine and ornithine), but it has much higher affinity for arginine than isoform 1. May play a role in classical or alternative activation of macrophages via its role in arginine transport.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR217580