

Product datasheet for **MG217580**

Slc7a2 (NM_001044740) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc7a2 (NM_001044740) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slc7a2
Synonyms:	20.5; A1158848; Atrc2; CAT-2; Cat2; Tea
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MG217580 representing NM_001044740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTCCCTGCAGAGCAGTGCTGACTTTCGCGCGATGTCTGATCCGGAGAAAAATTGTCACACTGGACA
 GCCTTGAAGATCCAAACTCTGCCGCTGCTTAACCACCGTGGACCTCATCGCTTTGGGGTTGGAAGCAC
 TCTGGGCGCTGGGGTCTACGTCCTGGCTGGGGAAGTCGCCAAAGCCGATTCTGGCCCGAGTATCGTGGTG
 TCTTTCCTCATCGCTGCCCTGGCCTCGGTTATGGCCGGCCTTTGCTATGCTGAATTTGGGCCCCGAGTAC
 CCAAGACTGGATCTGCGTATCTATACACTTACGTACGGTCCGAGAGCTGTGGGCCTTCACACTGGCTG
 GAATCTCATCCTGTCATATGTCATAGGTACGTCCAGTGTGCAAGAGCATGGAGTGGCACCTTCGACGAA
 CTTCTTAATAACAGATTGGCCAGTTTTTCAAACGTACTTCAAATGAATTACTGGTCTGGCAGAGT
 ATCCAGACTTCTTTGCCGTGTGCCTTGTATTACTCCTGGCAGGTCTTTTATCTTTGGAGTAAAAGAGTC
 TGCTTGGGTGAATAAATTTTTACAGCTATTAATATCCTGGTCTTCTCTTTGTCATGGTGGCTGGGTTT
 GTGAAAGGAAATGTGGCTAACTGGAAGATCAGTGAAGAGTTTCTCAAAAATATATCAGCAAGTGCCAGAG
 AACCACCTTCTGAGAACGGAACAAGCATCTACGGGGCTGGCGGCTTTATGCCCTATGGCTTTACAGGGAC
 GTTGGCTGGTGTGCAACGTGCTTTTATGCCTTTGTGGGCTTTGACTGCATTGCAACAACGGGTGAAGAG
 GTTCGGAATCCGCAAAAGGCGATCCCATCGGAATAGTGACGTCCTTACTTGTCTGCTTTATGGCTTACT
 TTGGGGTTTCTGCAGCTTAAACGCTTATGATGCCTTACTACCTCCTGGATGAGAAAAGTCCACTCCCGGT
 CGCGTTTGGATATGTCAGATGGAGCCCCGCCAAATATGTTGTCTCGGCAGGCTCCCTCTGCGCCTTATCA
 ACAAGTCTTCTGGATCCATTTCCCAATGCCTCGTGAATCTATGCTATGGCGGAGGATGGGTTGCTTT
 TCAAATGTCTAGCTCAAATCAATTCAAAACGAAGACACCAGTAATTGCTACTTTGTCTGGGTGCAGT
 GGCAGCTGTGATGGCCTTTCTTTTTGACCTGAAGGCCCTCGTGGACATGATGTCTATTGGCACCCCTCATG
 GCCTACTCTCTGGTGGCAGCCTGTGTGCTTATTCTCAGGTACCAACCTGGCTTGTGTTATGACCAGCCCA
 AATACACCCTGAGAAAGAACTCTGGAATCATGTACCAATGCGACTTTGAAGAGCGAGTCCAGGTACAC
 CATGCTGCAAGGACAGGGTTTCAGCCTACGAACCTCTTCAGCCCTCTGCCCTGCCACACGACAGTGC
 GCTTCCCTTGTGAGCTTTCTGGTGGATTCTGGCTTTCTCATCTGGGCTTGAGTATTCTAACCCAGT
 ATGGCGTCCAGGCCATTGCCAGACTGGAAGCCTGGAGCCTGGCTCTTCTCGCCCTGTTCTTGTCTCTG
 CGTTGCCGTATTCTGACCATTTGGAGGCAGCCACAGAATCAGCAAAAAGTAGCCTTCATGGTCCCGTTC
 TTACCGTTTCTGCCGGCCTTCAGCATCCTGGTCAACATTTACTTGATGGTCCAGTTAAGTGGGACACTT
 GGATCAGATTCAGCATCTGGATGGCGCTTGGCTTTCTGATCTACTTCGCCTATGGCATTAGACACAGCTT
 GGAGGGTAACCCAGGGATGAAGAAGACGATGAGGATGCCTTTTCAGACAACATCAATGCAGCAACAGAA
 GAAAAGTCCGCCATGCAAGCAAATGACCATCACCAAAAGAACTCAGCTTACCTTTCATACTTCATGAAA
 AGACAAGTGAATGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG217580 representing NM_001044740
 Red=Cloning site Green=Tags(s)

MIPCRAVLTFARCLIRRKIVTLDLSLEDSKLCRCLTTVDLIALGVGSTLGAGVYVVLAGEVAKADSGPSIVV
 SFLIAALASVMAGLCYAEFGARVPKGTGSAYLYTYVTGELWAFITGWNLILSYVIGTSSVARAWSGTFDE
 LLNKQIGQFFKTYFKMNYTGLAEYDFFAVCLVLLLAGLLSFGVKESAWVNKFFTAIINILVLLFVMVAGF
 VKGNVANWKISEEFLKNIASAREPPSENGTISIYGAGGFMPYGFGTLAGAATCFYAFVGFDCIATTGEE
 VRNPQKAIPIGIVTSLVCFMAYFGVSAALTLMPYYLLDEKSPVPVAFEYVRWSPAKYVVSAGSLCAL
 TSLGSIFFMPRIYAMAEDGLLFKCLAQINSKTKTPVIATLSSGAVAAVMAFLFDLKALVDMMSIGTLM
 AYLVAACVLIILRYQPGLCYDQPKYTPEKETLESCTNATLKSESQVMTLQGGFSLRRLFSPALPTRQS
 ASLVSFLVGLAFLILGLSILTTYGVQAIARLEAWSLALLALFLVLCVAVILTIWRQPQNQQKVAFMVPP
 LPFLPAFSILVNIYLMVQLSADTWIRFSIWMALGFLIYFAYGIRHSLEGNPRDEEDEDADFSDNINAATE
 EKSAMQANDHHQRNLSLPPFILHEKTSEC

TRTRPLE - GFP Tag - V

Restriction Sites:

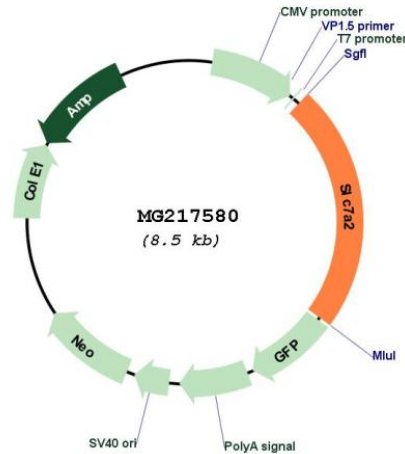
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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

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]