

## Product datasheet for **RG207016**

### **SLC7A6 (NM\_001076785) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SLC7A6 (NM_001076785) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC7A6
Synonyms:	LAT-2; LAT3; y+LAT-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG207016 representing NM\_001076785  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAAGCCAGGGAGCCTGGGAGGCCACACCCACCTACCATCTTGTCCCTAACACCAGCCAGTCCCAGG  
 TGGAGAAGATGTCAGCTCGCCACCTCAAAGGTCTCCGAAACTATGCAGCTGAAGAAGGAGATCTCCCT  
 GCTGAATGGGGTCAAGCTGGTGGTGGGCAACATGATCGGCTCAGGGATCTTTGTCTCACCAAGGGTGTG  
 CTGGTACACACTGCCTCTATGGGATGTCACTGATTGTGTGGGCCATTGGTGGGCTCTTCTCTGTTGTGG  
 GTGCCCTTTGTTATGCAGAGCTGGGACCACCATACCAAGTCGGGAGCCAGCTACGCTTATATTCTAGA  
 GGCCTTTGGGGCTTCATTGCCTTCATCCGCTGTGGGTCTCACTGCTAGTTGTTGAGCCACCAGGTCAG  
 GCCATCATCGCCATCACCTTTGCCAACTACATCATCCAGCCGCTTCCCAGCTGTGATCCCCATAACC  
 TGGCTGCCGTCTCCTGGCTGCTGCTTGCATATGTCTGCTGACATTTGTGAAGTGTCCATGTCAAGTG  
 GGCACACGTGTGCAGGACACGTTCACTTACGCCAAGGTCGTAGCGCTCATTGCCATCATTGTGATGGGC  
 CTTGTTAAACTGTGCCAGGGACACTCTGAGCACTTTCAGGACGCCTTTGAGGGTTCTCCTGGGACATGG  
 GAAACCTCTCTTGGCCCTACTCTGCCTCTTCTTACTCAGGTTGGGACACCCCTTAATTTTGTAAAC  
 AGAAGAAATCAAAAACCCAGAAAGAAATTTGCCCTTGGCCATTGGGATTTCTATGCCAATTGTGACGCTC  
 ATCTACATCCTGACCAATGTGGCCTATTACACAGTGTGAACATTTAGATGTCTTAGCAGTGTGCTG  
 TGGCTGTGACATTTGCTGACCAGACGTTGGCATGTTGAGCTGGACCATCCCCATTGCTGTTGCCCTGTC  
 CTGCTTTGGGGCCTCAATGCATCCATCTTTGCTTCATCAAGGTTGTTCTTCGTGGGCTCCCGGGAGGGC  
 CACCTACCGGACCTTCTGTCCATGATCCACATGAGCGTTTTACACCTATCCCTGCTTTACTGTTCAATT  
 GCACCATGGCACTCATCTACCTCATCGTGGAGGATGTTTTCCAGCTTATCAACTACTTCAGCTTCAGCTA  
 CTGGTTCTTCGTGGGCTGTCTGTTGTTGGACAGCTCTACCTCCGCTGGAAGGAGCCCAAGCGGCCCGG  
 CCTCTCAAGCTGAGCGTGTTTTTCCCATCGTGTCTGCATATGCTCCGTGTTTCTGGTGATAGTCCCC  
 TCTTCACTGACACCATTAATCCCTCATTGGCATCGGGATTGCCCTTTCTGGAGTCCCTTCTACTTTCAT  
 GGGTGTACCTGCCAGAGTCCCGGAGGCCATTGTTTATCGGAATGCTCCTGGCTGCTATCACCAGAGGC  
 ACCCAGCAGCTTTGCTTTGTGCTGCTGACTGAGCTTGATGTAGCCGAAGAAAAAAGGATGAGAGGAAAA  
 CTGAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG207016 representing NM\_001076785  
 Red=Cloning site Green=Tags(s)

MEAREPGRPTPTYHLVPNTSQSQVEEDVSSPPQRSSETMQLKKEISLLNGVSLVGNMIGSGIFVSPKGV  
 LVHTASYGMSLIVWAIGLFSVVGALCYAELGTTITKSGASYAYILEAFGGFIAFIRLWVSLVVEPTGQ  
 AIIAITFANYIIQPSFPPCDPPYLACRLLAAACICLLTFVNCAYVKWTRVQDTFTYAKVVALIAIIVMG  
 LVKLCQGHSEHFQDAFEGSSWDMGNLSLALYSALFSYSGWDTLNFVTEEIKNPERNLPLAIGISMPIVTL  
 IYILTNVAYYTVLNI SDVLS SDAVAVTFADQTFGMFSWTIPIAVALSCFGGLNASIFASSRFFVGSREG  
 HLPDLLSMIHIERFTPIPALFNCTMALIYLIVEDVFQLINYSFSYWFVGLSVVQQLYLRWKEPKRPR  
 PLKLSVFFPIVFCICSVFLVIVPLFTDTINSLIGIGIALSGVPFYFMGVYLPESRRPLFIRNVLAITRG  
 TQQLCFCVLTLDVAEEKDERKTD

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001076785

**ORF Size:** 1545 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\\_001076785.3](#)

**RefSeq Size:** 6362 bp

**RefSeq ORF:** 1548 bp

**Locus ID:** 9057

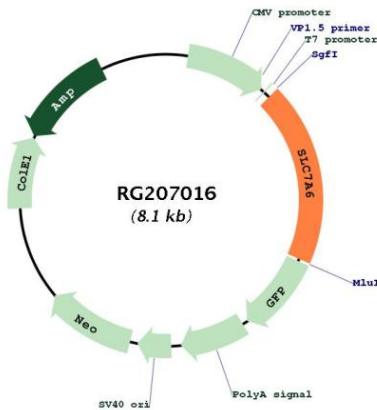
**UniProt ID:** [Q92536](#)

**Cytogenetics:** 16q22.1

**Protein Families:** Druggable Genome, Transmembrane

**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 in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. Involved in the transport of L-arginine in monocytes. Reduces uptake of ornithine in retinal pigment epithelial (RPE) cells.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG207016