

Product datasheet for **SC108459**

SLC7A6 (NM_003983) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Tag Free
Symbol:	SLC7A6
Synonyms:	LAT-2; LAT3; γ+LAT-2
Mammalian Cell	None
Selection:	
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



Fully Sequenced ORF: >OriGene ORF within SC108459 sequence for NM_003983 edited (data generated by NextGen Sequencing)

ATGGAAGCCAGGGAGCCTGGGAGGCCACACCCACCTACCATCTTGTCCCTAACACCAGC
 CAGTCCCAGGTGGAAGAAGATGTCAGCTCGCCACCTCAAAGGTCCTCCGAAACTATGCAG
 CTGAAGAAGGAGATCTCCCTGCTGAATGGGGTCAGCCTGGTGGTGGCAACATGATCGGC
 TCAGGGATCTTTGTCTACCCAAGGGTGTGCTGGTACACACTGCCTCTATGGGATGTCA
 CTGATTGTGTGGGCCATTGGTGGGCTTTCTCTGTTGTGGGTGCCCTTTGTTATGCAGAG
 CTGGGGACCAACATCACCAAGTCGGGAGCCAGCTACGCTTATATTCTAGAGGCCCTTTGGG
 GGCTTCATTGCCTTCATCCGCCTGTGGGTCTACTGCTAGTTGTTGAGCCACCGGTGAG
 GCCATCATCGCCATCACCTTTGCCAACTACATCATCCAGCCGTCCTTCCCAGCTGTGAT
 CCCCCATACCTGGCCTGCCGTCTCTGGCTGCTGCTTGCATATGTCTGCTGACATTTGTG
 AACTGTGGCCTATGTCAAGTGGGGCACACGTGTGAGGACACGTTCACTTACGCCAAGGTC
 GTAGCGCTCATTGCCATCATTGTATGGGCCTTGTAAACTGTGCCAGGGACACTCTGAG
 CACTTTCAGGACGCCTTTGAGGGTTCCTCTGGGACATGGGAAACCTCTCTCTGGCCCTC
 TACTCTGCCCTCTTCTTACTCAGGTTGGGACACCTTAATTTTGTAAACAGAAGAAATC
 AAAAAACCCAGAAAGAAATTTGCCCTTGGCCATTGGGATTTCTATGCCAATTGTGACGCTC
 ATCTACATCCTGACCAATGTGGCCTATTACACAGTGTGAACATTTAGATGTCTTAGC
 AGTGATGTGTGGCTGTGACATTTGCTGACCAGACGTTTGGCATGTTAGCTGGACCATC
 CCCATTGCTGTTGCCCTGTCTGCTTTGGGGCCTCAATGCATCCATCTTTGCTTCATCA
 AGGTTGTTCTTCTGTGGGCTCCCGGAGGGCCACCTACCGGACCTTCTGTCCATGATCCAC
 ATTGAGCGTTTTACACCTATCCCTGCTTTACTGTTCAATTGCACCATGGCACTCATCTAC
 CTCATCGTGGAGGATGTTTTCCAGCTTATCAACTACTTCAGCTTCAGCTACTGGTTCTTC
 GTGGGCCTGTCTGTTGTGGACAGCTCTACCTCCGCTGGAAGGAGCCCAAGCGGCCCGG
 CCTCTCAAGCTGAGCGTGTTCCTCCCATCGTGTCTGCATATGCTCCGTGTTCTGGTG
 ATAGTGGCCCTTTCACTGACACCATTAAATCCCTCATTGGCATCGGGATTGCCCTTCT
 GGAGTCCCTTTCTACTTCATGGGTGTTTACCTGCCAGAGTCCCGGAGGCCATTGTTTATT
 CGGAATGTCTGCTGTATCACCAGAGGACCCAGCAGCTTTGCTTTTGTGTCCTGACT
 GAGCTTGATGTAGCCGAAGAAAAAAGGATGAGAGGAAAACTGACTAG

Clone variation with respect to NM_003983.5

5' Read Nucleotide Sequence: >OriGene 5' read for NM_003983 unedited

ATACACTCACTATAGCGGCCGCGNAATTCGCACGAGGTGTGGCCGAGGCAGACAAGTGG
 AATTAGGCCTTGCTGCAGGGGACTTCATTTCTTCTCAGTACTGGACCATTTATGAGGA
 GGTGGCTTATGAAAGTGTGATGTTCCGCTATTTCTTGACAGGCCACAGCAAACACAGGTG
 TGCAGGAACCGTTTGTATGGAAGCCAGGAGCCTGGGAGGCCACACCCACCTACCATC
 TTGTCCCTAACACCAGCCAGTCCCAGGTGGAAGAAGATGTCAGCTCGCCACCTCAAAGGT
 CCTCCGAAACTATGCAGCTGAAGAAGGAGATCTCCCTGCTGAATGGGGTCAGCCTGGTGG
 TGGGCAACATGATCGGCTCAGGGATCTTTGTCTACCCAAGGGTGTGCTGGTACACACTG
 CCTCTATGGGATGTCACTGATTGTGTGGGCCATTGGTGGGCTCTTCTGTTGTGGGTG
 CCCTTTGTTATGCAGAGCTGGGGACCAACATCACCAGTCCGGAGGCCAGCTACGCTTATA
 TTCTAGAGGCCTTTGGGGGCTTCATTGCCTTCATCCGCCTGTGGGTCTCACTGCTAGTTG
 TTGAGCCACCGGTGAGGCCATCATCGCCATCACCTTTGCCAACTACATCATCCAGCCGT
 CCTTCCCAGCTGTGATCCCCATACCTGGCCTGCCGTCTNCTGGCTGCTGCTTGCATAT
 GTCTGCTGACATTTGTGAAGTGTGCCTATGTCAAGTGGGGCACACGTGTGCAGAACACGT
 TCACTTACCCAAAGGCGNAGCGCTCATTGCCATCATTGTGCTTGGCCTTGTAAACTGT
 GCCAGGGCACTCTGACACTTTAGGACCCCTTTGAGAGGTTCTCTGGGACTGGGAACTCT
 CTTTGGCCTTACTTGCCTCTTTTTTAATAAGGTTGGAACCTTTATTTGTACAAAGAA
 TCAAACCCGAAGAATT

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_003983 unedited <pre> CCGGTCAAGAGANAATTCATTGGCTGGTTTTTNAACAGNGNAATGCAATCAAACAATTG CATATTCTTTTGGGGAGGTTTGTCAATAACACGTTAGAAGGGAGAAGGTACAAAAATATT TACAATATGGGGGCAACTCTTACAACAACAAAAATCCTATACGGAGGGGAGAAGTGACA AAATACTCCACGGAGGGGAGAAGTGACAAAATACTCCAGTGTGAAGGAAGTTGGTTTAGA TGATAGGAAAGTGATGGCTTGTAAAAAAGAAATTCTATATCTTTTTTATTATT GAGCAAGGATTTTGCATTACAATCGGGAACAAAACAGACCTTTCTGANAAGAGAAGGGG CTCCTGCAGTAGCCTAGGAAAATCACATTTAGAATCCACTCCCGGATGTCATTCTAGGC TCTGCTGACTACAACANCTGAGTGAGGAGGAAAGAGGCAGCANCAGACAGCGGATGTGG AGCAAGTACCCTCTGGATGTGCAAAAGGAGTTCGGCTATGACAGCCCCACGACCTGNAT TCAGACTGATGGTCTTGTGATGTCCATGAGGTTCTGCCACATGCCCTTGAGGGCTGAG TCCAAGGATAACTGCCCTGCTGACATGCTGCTAGGTTNNNCACCTCACATGNGGNNNGNA AAGCATTCAAACATATNGCGGAATCATCCACCACCGNAAAATTTATGTTACGGGAGN NNGGCNNNTGNNTNACATATTAACCTTTTGCCTNAATTAAGGNNNNCTACACTTGA TTGGAATAANCNCTTCTNNNNNAGGGCTATTTANNNTNAAGCTTCTCTGCCAAATNN NNNCCTGAAATAGACTCCNCGCTGTCCCCATGNGNNNNNGGAGGACGCAACCACTAAT AAAAAGATGNNNGNNNGNNNNNNGGNGCGCGTATTGNATCTGTTCTTTTCGA TCATTATNCTTTAG </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_003983
Insert Size:	5270 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_003983.3</u> , <u>NP_003974.2</u>
RefSeq Size:	6327 bp
RefSeq ORF:	1548 bp
Locus ID:	9057

UniProt ID:	<u>Q92536</u>
Cytogenetics:	16q22.1
Domains:	aa_permeases
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] Transcript Variant: This variant (2) lacks an alternate exon in the 5' UTR. Variants 1 and 2 encode the same protein. 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.