

Product datasheet for **RC200379**

SLC7A7 (NM_003982) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	SLC7A7
Synonyms:	LAT3; LPI; MOP-2; γ+LAT-1; Y+LAT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence: >RC200379 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTTGACAGCACTGAGTATGAAGTGGCCTCCAGCCTGAGGTGAAACCTCCCTTTGGGTGATGGG
 CCAGCCAGGGCCGAGCAGGTGAAGCTGAAGAAGGAGATCTCACTGCTTAACGCGGTGTGCCTGATTGT
 GGGGAACATGATCGGCTCGGGCATCTTTGTTTCCCCAAGGGTGTGCTCATATACAGTGCCTCCTTTGGT
 CTCTCTCTGGTCATCTGGGTGTGGGGGCTCTTCTCCGTCTTTGGGGCCCTTTGTTATGCGGAAGTGG
 GCACCAACCATTAAGAAATCTGGGGCCAGCTATGCCTATATCCTGGAGGCCTTTGGAGGATTCCTTGCTTT
 CATCAGACTCTGGACCTCCCTGCTCATCATTGAGCCACCAGCCAGGCCATCATTGCCATCACCTTTGCC
 AACTACATGGTACAGCCTCTCTCCGAGCTGCTTCGCCCCTTATGCTGCCAGCCGCTGCTGGTGCTG
 CCTGCATTTGTCTTAACTTCATTAAGTGTGCCTATGTCAAATGGGAACCTGGTACAAGATATTTT
 CACCTATGCTAAAGTATTGGCACTGATCGCGTCATCGTTGCAGGCATTGTTAGACTTGGCCAGGGAGCC
 TCTACTCATTTTGAGAATTCCTTTGAGGGTTCATCATTGTCAGTGGGTGACATTGCCCTGGCACTGTACT
 CAGCTCTGTTCTCTACTCAGGCTGGGACACCCTCAACTATGTCACTGAAGAGATCAAGAATCCTGAGAG
 GAACCTGCCCTCTCCATTGGCATCTCCATGCCATTGTCAACATCATCTATCTTGACCAATGTGGCC
 TATTACTGTGCTAGACATGAGAGACATCTTGCCAGTGATGCTGTTGCTGTGACTTTTGAGATCAGA
 TATTTGGAATATTAACTGGATAATCCACTGTCAGTTGCATTATCTGTGTTTGGTGGCCTCAATGCCTC
 CATTGTGGCTGCTTCTAGGCTTTTCTTTGTTGGCTCAAGAGAAGGCCATCTCCCTGATGCCATCTGCATG
 ATCCATGTTGAGCGGTTACACCAAGTGCCTTCTGCTCTTCAATGGTATCATGGCATTGATCTACTTGT
 GCGTGAAGACATCTCCAGCTCATTAAGTACTACAGCTTCAGCTACTGGTCTTTGTGGGGCTTTCTAT
 TGTGGGTGAGCTTTATCTGCGCTGGAAGGAGCCTGATCGACCTCGTCCCCTCAAGCTCAGCGTTTCTTC
 CCGATTGTCTTCTGCTCTGCACCATCTTCTGGTGGCTGTTCCACTTTACAGTGATACTATCAACTCCC
 TCATCGGCATTGCCATTGCCCTCTCAGGCCTGCCCTTTACTTCTCATCATCAGAGTGCCAGAACATAA
 GCGACCGCTTTACCTCCGAAGGATCGTGGGTCTGCCACAAGGTACCTCCAGGTCTGTGTATGTCAGTT
 GCTGCAGAAATGGATTTGGAAGATGGAGGAGAGATGCCAAGCAACGGGATCCCAAGTCTAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200379 protein sequence
 Red=Cloning site Green=Tags(s)

MVDSTEYEVASQPEVETSPLDGASPGPEQVKKKEISLLNGVCLIVGNMIGSGIFVSPKGVLIYSASFG
 LSLVIWAVGGLFSVFGALCYAELGTTIKKSGASYAYILEAFGGFLAFIRLWTSLLIIIEPTSQAIITFA
 NYMVQLPFPSCFAPYAASRLAAACICLLTFINCAVYKWTLVQDIFTYAKVLALIAIVIVAGIVRLGQGA
 STHFENSFEGSSFAVGDIALLYSALFSYSGWDTLNYVTEEIKNPERNLPLSIGISMPITVIIYILTNA
 YYTVLDMRDILASDAVAVTFADQIFGIFNWIPLSVALSCFGGLNASIVAASRLFFVGSREGHLPAICM
 IHVERFTVPVPSLLFNGIMALIYLCVEDIFQLINYYSFYWFVGLSIVGQLYLRWKEPDRPRPLKLSVFF
 PIVFLCTIFLVAVPLYSDTINSLIGIAIALSGLPFYFLIIRVPEHKRPLYLRRIVGSATRYLQVLCMSV
 AAEMDLEDGGEMPQKQDPKSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6397_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003982

ORF Size: 1533 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.

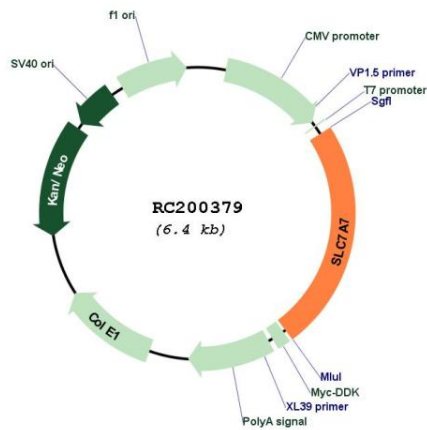
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003982.4](#)

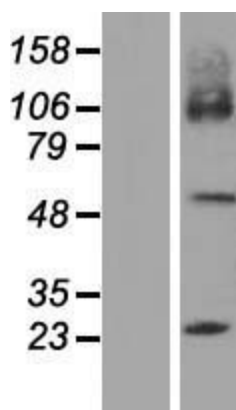
RefSeq Size:	2531 bp
RefSeq ORF:	1536 bp
Locus ID:	9056
Cytogenetics:	14q11.2
Domains:	aa_permeases
Protein Families:	Druggable Genome, Transmembrane
MW:	56 kDa

Gene Summary: The protein encoded by this gene is the light subunit of a cationic amino acid transporter. This sodium-independent transporter is formed when the light subunit encoded by this gene dimerizes with the heavy subunit transporter protein SLC3A2. This transporter is found in epithelial cell membranes where it transfers cationic and large neutral amino acids from the cell to the extracellular space. Defects in this gene are a cause of lysinuric protein intolerance (LPI). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2011]

Product images:



Circular map for RC200379



Western blot validation of overexpression lysate (Cat# [LY426648]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225880] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).