

Product datasheet for **RC212948**

SLC6A19 (NM_001003841) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC6A19 (NM_001003841) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC6A19
Synonyms:	B0AT1; HND
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC212948 representing NM_001003841
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGAGGCTCGTGCTGCCAACCCCGCCTAGACGCCGGATCCCGTCCCTGGCTGAGCTGGAGACCA
 TCGAGCAGGAGGAGGCCAGCTCCCGGCCGAAGTGGGACAACAAGGCGCAGTACATGCTCACCTGCCTGGG
 CTTCTGCGTGGGCTCGGCAACGTGTGGCGCTTCCCTACCTGTGTGACAGCCACGGAGGAGGAGCCTTC
 ATGATCCCGTTCTCATCTGCTGGTCTGGAGGGCATCCCCCTGCTGTACCTGGAGTTCGCCATCGGGC
 AGCGGCTCGCGGGGGCAGCCTGGGTGTGTGGAGCTCCATCCACCCGGCCCTGAAGGGCCTAGGCCCTGGC
 CTCCATGCTCACGTCCTCATGGTGGGACTGTATTACAACACCATCATCTCCTGGATCATGTGGTACTTA
 TTCAACTCCTCCAGGAGCCTCTGCCCTGGAGCGACTGCCCGCTCAACGAGAACCAGACAGGGTATGTGG
 ACGAGTGCAGGAGCTCCCTGTGGACTACTTCTGGTACCGAGAGACGCTCAACATCTCCACGTCAT
 CAGCGACTCGGGCTCCATCCAGTGGTGGATGCTGCTGTGCTGGCCTGCGCATGGAGCGTCTGTACATG
 TGACCATCCCGGCATCGAGACCACGGGAAGGCCGTACATCACCTCCACGCTGCCCTATGTGCTCC
 TGACCATCTTCTCATCCGAGGCCTGACGCTGAAGGGCGCCACCAATGGCATCGTCTTCTTCCACGCC
 CAACGTACCGAGCTGGCCAGCCGGACACCTGGCTGGACGCGGGCGCACAGGTCTTCTTCTCTCTCC
 CTGGCCTTCGGGGCCTCATCTCCTTCTCCAGTACAACCTGTGTCACAACAACCTGCGAGAAGGACTCGG
 TGATTGTGTCCATCATCAACGGCTTACATCGGTGTATGTGGCCATCGTGGTCTACTCCGTCATTGGGTT
 CCGCGCCACGCAGCGCTACGACGACTGCTTCAGCACGAACATCCTGACCTCATCAACGGGTTCCACCTG
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 CCTACCGCAGCTGGTGTCCAGACCTGGACATCAACGCCTTCTCTCAGAGGCCGTGGAGGGCACAGG
 CCTGGCCTTCATCGTCTTACCGAGGCCATCACCAAGATGCCGTTGTCCCACTGTGGTCTGTGCTCTTC
 TTCATTATGCTCTTCTGCTGGGCTGTATCTATGTTTGGGAACATGGAGGGCGTCTGTGCCCCTGC
 AGGACCTCAGAGTCATCCCCCGAAGTGGCCAAAGGAGGTGCTCACAGGCCTCATCTGCCTGGGACATT
 CCTCATTGGCTTCATCTTACGCTGAACTCCGGCCAGTACTGGCTCTCCCTGCTGGACAGCTATGCCGGC
 TCCATTCCCTGCTCATCATCGCCTTCTGCGAGATGTTCTCTGTGGTCTACGTGTACGGTGTGGACAGGT
 TCAATAAGGACATCGAGTTCATGATCGGCCACAAGCCCAACATCTTCTGGCAAGTACGTGGCGCGTGGT
 CAGCCCCCTGCTCATGCTGATCATCTTCTCTTCTTCTCGTGGTAGAGGTGAGTACAGGAGCTGACCTAC
 AGCATCTGGGACCCTGGCTACGAGGAATTTCCCAATCCAGAAGATCTCTACCCGAATGGGTGTATG
 TGGTGGTGGTGTGTGGCTGGAGTGCCTCCCTCACCATCCCTGGCTATGCCATCTACAAGCTCATCAG
 GAACCACTGCCAGAAGCCAGGGGACCATCAGGGGCTGGTGGACACTGTCCACAGCCTCCATGAACGGG
 GACCTGAAGTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212948 representing NM_001003841
 Red=Cloning site Green=Tags(s)

MVRLVLPNPGLDARIPSLAELETIEQEEASSRPKWDNKAQYMLTCLGFCVGLGNVWRFPYLCQSHGGGAF
 MIPFLILLVLEGIPLLYLEFAIGQRLRRGSLGVWSSIHPALKGLGLASMLTSFMVGLYYNTIISWIMWYL
 FNSFQEPLPWSDCPLNENQTYVDECARSSPVDYFWYRETLNISTSIDSGSIQWMLLCLACAWSVLYM
 CTIRGIETTGVAVYITSTLPYVVLTIIFLIRGLTLKGATNGIVFLFTPNTVTELAQPDWLDAGAQQVFFSFS
 LAFGGLISFSSYNSVHNNCEKDSVIVSIINGFTSVYVAIVVYVSVIGFRATQRYDDCFSTNILLTLINGFDL
 PEGNVTQENFVDMQQRNASDPAAYAQLVFQTCINAFLEAVEGTGLAFIVFTEAITKMPLSPLWSVLF
 FIMLFCLGLSSMFGNMEGVVPLQDLRVIPPKWPKEVLTGLICLGTFLIGFIFTLNSGQYWLSLLDSYAG
 SIPLLLIAFCEMFSVVVYVGVDRFNKIDIEFMIGHKPNIFWQVTRVVSPLMLLIIFLFFFVVEVSQELTY
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 DLKY

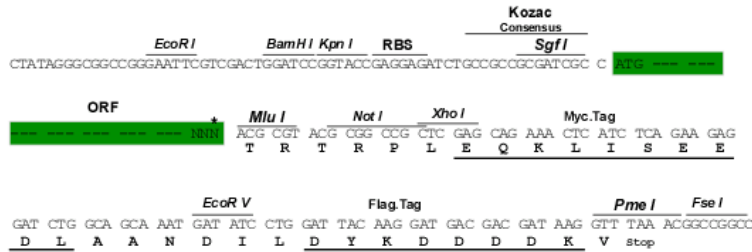
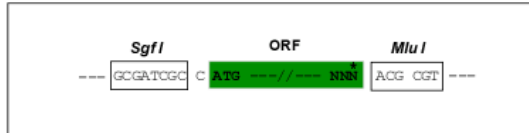
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8001_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001003841

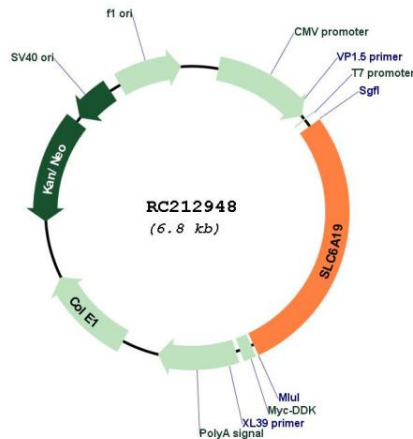
ORF Size: 1902 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none"> 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:	<p>Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.</p>
RefSeq:	<p>NM_001003841.1, NP_001003841.1</p>
RefSeq Size:	<p>1905 bp</p>
RefSeq ORF:	<p>1905 bp</p>
Locus ID:	<p>340024</p>
UniProt ID:	<p>Q695T7</p>
Cytogenetics:	<p>5p15.33</p>
Protein Families:	<p>Druggable Genome, Transmembrane</p>
MW:	<p>70.9 kDa</p>

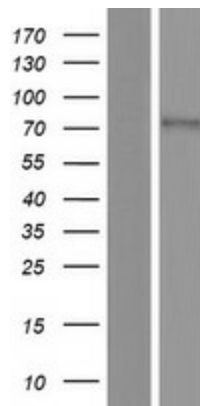
Gene Summary:

This gene encodes a system B(0) transmembrane protein that actively transports most neutral amino acids across the apical membrane of epithelial cells. Mutations in this gene may result in Hartnup disorder, an inherited disease with symptoms such as pellagra, cerebellar ataxia, and psychosis. The expression and function of B0AT1 (SLC6A19) in intestinal cells depends on the presence of the accessory protein angiotensin-converting enzyme 2 (ACE2) which, among other functions, acts as a chaperone for membrane trafficking of B0AT1. The ACE2 is also the cellular receptor for severe acute respiratory syndrome-coronavirus (SARS-CoV) and for SARS-CoV-2 that is causing the coronavirus 2019 (COVID-19) pandemic [provided by RefSeq, Jul 2020]

Product images:



Circular map for RC212948



Western blot validation of overexpression lysate (Cat# [LY424027]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212948 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).