

## Product datasheet for **RC221885**

### SLC38A9 (NM\_173514) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A9 (NM_173514) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC38A9
Synonyms:	URLC11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC221885 representing NM\_173514  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCAAATGAATAGTGATTCTAGGCATCTGGCACCTCTGAGGTAGATCATGAAAGAGATCCTGGAC  
 CTATGAATATCCAGTTTGAGCCATCGGATCTAAGATCCAAAAGGCCTTTCTGTATAGAGCCACAAACAT  
 CGTGAATGTGAATCATGTCATTAGAGGGTTAGTGACCATGCCTCTGCCATGAACAAGAGAATTCATTAC  
 TACAGCCGGCTCACCACTCCTGCAGACAAGGCACTGATTGCCAGACCATGTAGTTCAGCTCCAGAAG  
 AGTGCTATGTGTATAGTCCATTGGGCTCTGCTTATAAACTTCAAAGTTACTACTGAAGGATACGGTAAAA  
 CACCAGTTAGTAACCATTTTTATGATTTGGAATACCATGATGGGAACATCTATACTAAGCATTCTTTGG  
 GGCATAAAACAGGCTGGATTTACTACTGGAATGTGTGCATCATACTGATGGCCTTTTAACTTTATT  
 GCTGCTACAGAGTAGTAAATCACGGACTATGATGTTTTTCATTGGATACCACTACCTGGGAATATCCAGA  
 TGCTCTGCAGACATTATTCGGCTCCTTTGGCAGTGGTCGAGTCTCCTCTCTCCTTGGTGTCTCTCATT  
 GGAGCAATGATAGTTTATGGGTGCTTATGTCAAATTTCTTTTTAATACTGGAAGTTTATTTTTAATT  
 TTATTCATCACATTAATGACACAGACACTATACTGAGTACCAATAATAGCAACCCCTGTGATTTGTCCAAG  
 TGCCGGGAGTGGAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAACAG  
 TTTGAAAAGTGGTGGGATAAGTCCAGGACAGTCCCCTTTTATCTGTAGGGCTCCTCCTCCCACTGCTCA  
 ATTTCAAGTCTCCTTCATTTTTTTCAAATTTAATATCCTAGGCACAGTGTCTGTCTTTATTTGATTTT  
 CCTTGTACCTTTAAGGCTGTTTCGCTGGGATTTTCATTTGGAATTTTCATTGGTTTATACCAACAGAATTT  
 TTTGTACCAGAGATAAGATTTTCAGTTTCCACAGCTGACTGGAGTGTCTACCTTGTCTTTTTTATTCATA  
 ATTTGATCATCACACTCTTGAAGAACAACAAGAAACAAGAAACAATGTGAGGACTGTGCATTGCTTA  
 TATGCTGGTGACATTAACCTTATCTCTATATTGGAGTCTGGTTTTTGTCTCATTTCCTTACCACCATTA  
 TCCAAAGATTGTATTGAGCAGAATTTTTAGACAACCTCCCTAGCAGTGACACCCTGTCTTTCATTGCAA  
 GGATATTCCTGTGTTCCAGATGATGACTGTATACCCACTCTTAGGCTACCTGGCTCGTGTCCAGCTTTT  
 GGGCCATATCTTCGGTGACATTTATCCTAGCATTTCATGTGCTGATTCTTAATCTAATTATTGTGGGA  
 GCTGGAGTGATCATGGCCTGTTTCTACCCAAACATAGGAGGGATCATAAGATATTCAGGAGCAGCATGTG  
 GACTGGCCTTTGTATTATACCCATCTCTCATATAAATTTCCCTCCACCAAGAAGAGCGTCTGAC  
 ATGGCCTAAATTAATCTCCACGTTTTTCATCATCATTTTTGGGCGTGGCTAACCTGATTGTTCAGTTTTTT  
 ATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221885 representing NM\_173514  
 Red=Cloning site Green=Tags(s)

MANMNSDSRHLGTSEVDHERDPGPMNIQFEPSDLRSRPFCEIPTNIVNVNHIQVRSDHASAMNKRIHY  
 YSRLTTPADKALIAPDHVVPAPEECYVYSPLGSAYKLQSYTEGYGKNTSLVTIFMIWNTMMGTSILSIPW  
 GIKQAGFTTGMCVILMGLLTLYCCYRVKSRMMSLDTTTWEYDPVCRHYFGSFGQWSSLLFLSVSLI  
 GAMIVYVWLMNSFLFNTGKFIHNFIIHINDTDILSTNNSNPVICPSAGSGHPDNSSMIFYANDTGAQQ  
 FEKWWDKSRTVPFYLVLGLLPLLNFKSPSFFSKFNILGTVSVLYLIFLVTFKAVRLGFHLEFHWIPTEF  
 FVPEIRFQFPQLTGVLTAFFIHNCIITLLKNNKKQENNVRLDCIAYMLVTLTYLYIGLVFASFPSPLL  
 SKDCIEQNFLDNFPSSDTLSFIARIFLLFQMMTVYPLLGYLARVQLLGHIFGDIYPSIFHVLILNLIIVG  
 AGVIMACFYPNIGGIIRYSGAACGLAFVFIYPSLIYIISLHQEERLTPWKLIFHVFIILGVANLIVQFF  
 M

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1470\\_a08.zip](https://cdn.origene.com/chromatograms/ja1470_a08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_173514

**ORF Size:** 1683 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_173514.1](#), [NP\\_775785.1](#)

RefSeq Size: 2463 bp

RefSeq ORF: 1686 bp

Locus ID: 153129

UniProt ID: [Q8NBW4](#)

Cytogenetics: 5q11.2

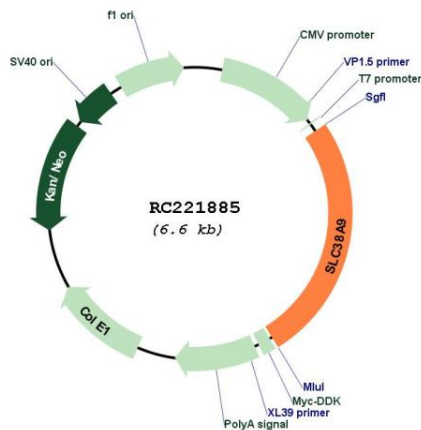
Domains: Aa\_trans

Protein Families: Transmembrane

MW: 63.6 kDa

**Gene Summary:** Lysosomal amino acid transporter involved in the activation of mTORC1 in response to amino acid levels. Probably acts as an amino acid sensor of the Rag GTPases and Ragulator complexes, 2 complexes involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids (PubMed:25561175, PubMed:25567906, PubMed:29053970). Following activation by amino acids, the Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated. SLC38A9 mediates transport of amino acids with low capacity and specificity with a slight preference for polar amino acids (PubMed:25561175, PubMed:25567906). Acts as an arginine sensor (PubMed:25567906, PubMed:29053970). Following activation by arginine binding, mediates transport of leucine, tyrosine and phenylalanine with high efficiency, and is required for the efficient utilization of these amino acids after lysosomal protein degradation (PubMed:29053970).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC221885