

Product datasheet for **RC234293**

SLC38A9 (NM_001258287) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A9 (NM_001258287) 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)



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ORF Nucleotide Sequence:

>RC234293 representing NM_001258287
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTATTTGCATTTTAACATGGAGAATCCGGCCTTTCTGTATAGAGCCCAAAACATCGTGAATGTGA
 ATCATGTCATTACAGAGGTTAGTGACCATGCCTCTGCCATGAACAAGAGAATTCATTACTACAGCCGGCT
 CACCACTCCTGCAGACAAGGCACTGATTGCCCCAGACCATGTAGTTCAGCTCCAGAAGAGTGCTATGTG
 TATAGTCCATTGGGCTCTGCTTATAAACTTCAAAGTTACACTGAAGGATACGGTAAAAACACCAGTTTGA
 TAACCATTTTTATGATTTGGAATACCATGATGGGAACATCTATACTAAGCATTCTTGGGCATAAAACA
 GGCTGGATTTACTACTGGAATGTGTGCATCACTGATGGGCCTTTAACACTTTATTGCTGCTACAGA
 GTAGTGAAATCACGACTATGATGTTTTCGTTGGATACCACTAGCTGGGAATATCCAGATGTCTGCAGAC
 ATTATTTGGCTCCTTTGGCAGTGGTCGAGTCTCCTTTTCTCCTTGGTGTCTCTATTGGAGCAATGAT
 AGTTTATTGGGTGCTTATGTCAAATTTCTTTTAATACTGGAAGTTTATTTTAAATTTTATTCATCAC
 ATTAATGACACAGACACTATACTGAGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCGGGAGTG
 GAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAACAGTTTGAAAAGTG
 GTGGGATAAGTCCAGGACAGTCCCTTTTATCTGTAGGGCTCCTCCTCCACTGCTCAATTTCAAGTCT
 CCTTCATTTTTTTCAAATTTAATATCCTAGAGATAAGATTTTCAGTTTCCACAGCTGACTGGAGTGCTTA
 CCCTTGCTTTTTTTATTCATAATTGTATCATCACACTCTGAAGAACAACAAGAAACAAGAAAACAATGT
 GAGGGACTTGTCATTGCTTATATGCTGGTGACATTACTTATCTCTATATTGGAGTCTGGTTTTTGCT
 TCATTTCTTCCACCATTATCCAAAGATTGTATTGAGCAGAATTTTTAGACAACCTCCCTAGCAGTG
 ACACCCGTCTTCATTGCAAGGATATCTGCTGTTCCAGATGATGACTGTATACCCACTCTTAGGCTA
 CCTGGCTCGTGTCAGCTTTTGGGCCATATCTTCGGTGACATTTATCCTAGCATTTTCCATGTGCTGATT
 CTTAATCTAATTATTGTGGGAGCTGGAGTGATCATGGCCTGTTTCTACCCAAACATAGGAGGGATCATAA
 GATATTCAGGAGCAGCATGTGGACTGGCCTTTGTATTATATACCCATCTCTCATCTATATAATTTCCCT
 CCACCAAGAAGAGCGTCTGACATGGCCTAAATTAATCTTCCACGTTTTTCATCATCATTTTGGGCGTGGCT
 AACCTGATTGTTCAAGTTTTTATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234293 representing NM_001258287
 Red=Cloning site Green=Tags(s)

MAICILTWIRPFCIEPTNIVNVNHIQRVSDHASAMNKRIHYYSRLTTPADKALIAPDHVVPAPEECYV
 YSPLGSAYKLQSYTEGYGKNTSLVTIFMIWNTMMGTSILSIPWGIKQAGFTTGMCVILMGLLTYCCYR
 VVKSRTMMFSLDTTSWEYDPVCRHYFGSFGQWSSLLFSLVSLIGAMIVYVWLMNSNLFNTGKFIFNFIHH
 INDTDITLSTNNSNPVICPSAGSGGHPDNSSMIFYANDTGAQQFEKWWDKSRTVPFYLVLGLLPLLNFKS
 PSFFSKFNILEIRFQFPQLTGVLTAFIHNCIITLLKNNKKQENNVRLCIAYMLVTLTYLYIGVLVFA
 SFPSPPLSKDCIEQNFLDNFPSSDTLSFIARIFLLFQMMTVYPLLGYLARVQLLGHIFGDIYPSIFHVL
 LNLIIVGAGVIMACFYPNIGGIIRYSGAACGLAFVFIYPSLIYIISLHQEERLTWPKLIFHVFIILGVA
 NLIVQFFM

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001258287

ORF Size: 1494 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_001258287.1](#), [NP_001245216.1](#)

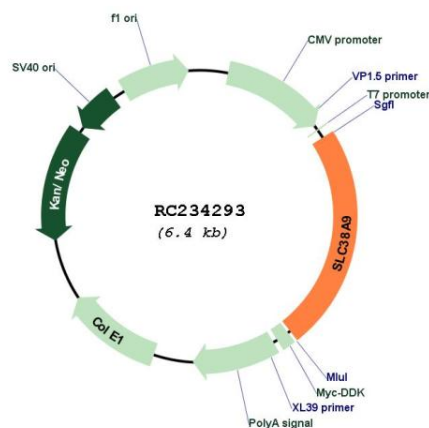
RefSeq Size: 2689 bp

RefSeq ORF: 1497 bp

Locus ID: 153129

UniProt ID:	Q8NBW4
Cytogenetics:	5q11.2
Protein Families:	Transmembrane
MW:	57 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 RC234293