

Product datasheet for **RG234293**

SLC38A9 (NM_001258287) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A9 (NM_001258287) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC38A9
Synonyms:	URLC11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG234293 representing NM_001258287
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGGCTATTTGCATTTTAAACATGGAGAATCCGGCCTTTCTGTATAGAGCCCACAAACATCGTGAATGTGA
 ATCATGTCATTACAGAGGTTAGTGACCATGCCTCTGCCATGAACAAGAGAATTCATTACTACAGCCGGCT
 CACCACTCCTGCAGACAAGGCACTGATTGCCCCAGACCATGTAGTTCAGCTCCAGAAGAGTGCTATGTG
 TATAGTCCATTGGGCTCTGCTTATAAACTTCAAAGTTACACTGAAGGATACGGTAAAAACACCAGTTTGA
 TAACCATTTTTATGATTGGAATACCATGATGGGAACATCTATACTAAGCATTCTTGGGCATAAAACA
 GGCTGGATTTACTACTGGAATGTGTGCATCACTGATGGGCCTTTAACACTTTATTGCTGCTACAGA
 GTAGTGAATCACGACTATGATGTTTTCGTTGGATACCACTAGCTGGGAATATCCAGATGTCTGCAGAC
 ATTATTCGGCTCCTTTGGCAGTGGTCGAGTCTCCTTTCTCCTTGGTGTCTCTCATTGGAGCAATGAT
 AGTTTATTGGGTGCTTATGTCAAATTTCTTTTAATACTGGAAGTTTATTTTAAATTTTATTCATCAC
 ATTAATGACACAGACACTATACTGAGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCGGGAGTG
 GAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAACAGTTTGAAAAGTG
 GTGGGATAAGTCCAGGACAGTCCCTTTTATCTGTAGGGCTCCTCCTCCACTGCTCAATTTCAAGTCT
 CCTTCATTTTTTTCAAAATTTAATATCCTAGAGATAAGATTTTCAGTTTCCACAGCTGACTGGAGTGCTTA
 CCCTTGCTTTTTTTATTCATAATTGTATCATCACACTCTTGAAGAACAACAAGAAACAAGAAAACAATGT
 GAGGGACTTGTCATTGCTTATATGCTGGTGACATTACTTATCTCTATATTGGAGTCTGGTTTTTGCT
 TCATTTCTCTTACCACCATTATCCAAAGATTGTATTGAGCAGAATTTTTAGACAACCTCCCTAGCAGTG
 ACACCCGTCTTCATTGCAAGGATATCTGCTGTTCCAGATGATGACTGTATACCACTCTTAGGCTA
 CTTGGCTCGTGTCAGCTTTTGGGCCATATCTTCGGTGACATTTATCCTAGCATTTTCCATGTGCTGATT
 CTTAATCTAATTATTGTGGGAGCTGGAGTGATCATGGCCTGTTTCTACCCAAACATAGGAGGGATCATAA
 GATATTCAGGAGCAGCATGTGGACTGGCCTTTGTATTATATACCATCTCTCATCTATATAATTTCCCT
 CCACCAAGAAGAGCGTCTGACATGGCCTAAATTAATCTCCACGTTTTTCATCATCATTTTGGGCGTGGCT
 AACCTGATTGTTCAAGTTTTTTATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG234293 representing NM_001258287
 Red=Cloning site Green=Tags(s)

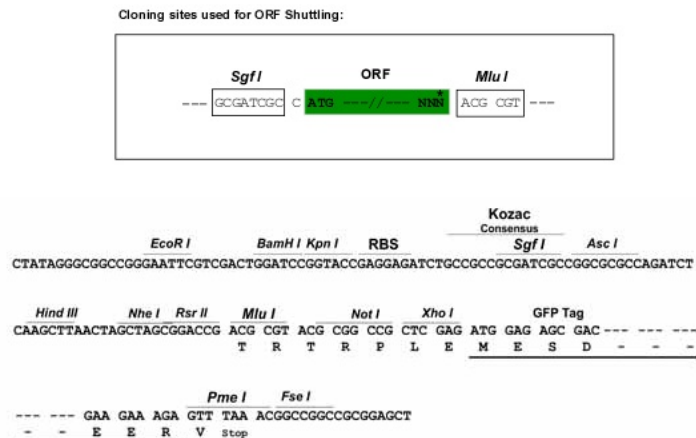
MAICILTWIRPFCIEPTNIVNVNHVIQVRSDHASAMNKRIHYYSRLTTPADKALIAPDHVVPAPEECYV
 YSPLGSAYKLQSYTEGYGKNTSLVTIFMIWNTMMGTSILSIPWGIKQAGFTTGMCVILMGLLTLCCYR
 VVKSRMTMFSLDTSWEYPDVCRHYFGSFGQWSSLLFSLVSLIGAMIVYVWLSNLFNTGKFIHFIH
 INDTDITLSTNNSNPVICPSAGSGGHPDNSSMIFYANDTGAQQFEKWWDKSRTVPFYLVLPLLNFKS
 PSFFSKFNILEIRFQFPQLTGVLTLAFFIHNCIITLLKNNKKQENNVRDLCIAYMLVTLTYLYIGVLVFA
 SFPSPPLSKDCIEQNFLDNFPSSDTLSFIARIFLLFQMMTVYPLLGYLARVQLLGHIFGDIYPSIFHVL
 LNLIIVGAGVIMACFYPNIGGIIRYSGAACGLAFVFIYPSLIYIISLHQEERLTWPKLIHFVFIILGVA
 NLIVQFFM

TRTRPLE – GFP Tag – V

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.

RefSeq: [NM_001258287.1](#), [NP_001245216.1](#)

RefSeq Size: 2689 bp

RefSeq ORF: 1497 bp

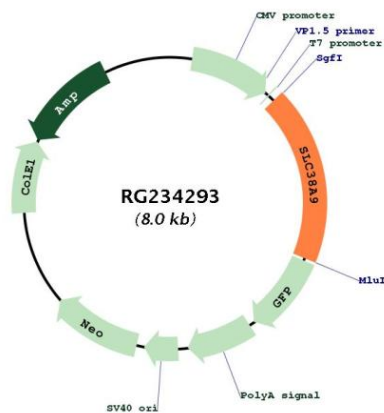
Locus ID: 153129

UniProt ID: [Q8NBW4](#)

Cytogenetics: 5q11.2

Protein Families:	Transmembrane
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 RG234293