

Product datasheet for **RG234292**

SLC38A9 (NM_001258286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC38A9 (NM_001258286) 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)



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ORF Nucleotide Sequence:

>RG234292 representing NM_001258286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGAACAAGAGAATTCATTACTACAGCCGGCTCACCCTCTGCAGACAAGGCACTGATTGCCCCAGACC
 ATGTAGTTCAGCTCCAGAAGAGTGCTATGTGTATAGTCCATTGGGCTCTGCTTATAAACTTCAAAGTTA
 CACTGAAGGATACGGTAAAAACACCACTTTAGTAACCATTTTTATGATTTGGAATACCATGATGGGAACA
 TCTATACTAAGCATTCTTGGGGCATAAAACAGGCTGGATTTACTACTGGAATGTGTGTCATCACTGTA
 TGGGCTTTTAACTTTATTGCTGCTACAGAGTAGTGAATCACGGACTATGATGTTTTCTGGATAC
 CACTAGCTGGGAATATCCAGATGTCTGCAGACATTATTCGGCTCCTTTGGGCAGTGGTCGAGTCTCCTT
 TTCTCCTTGGTGTCTCTCATTGGAGCAATGATAGTTTATTGGGTGCTTATGTCAAATTTCTTTTAATA
 CTGAAAGTTTATTTTAAATTTTATTCATCACATTAATGACACAGACACTATACTGAGTACCAATAATAG
 CAACCCTGTGATTGTCCAAGTGCCGGGAGTGGAGGCCATCCTGACAACAGCTCTATGATTTCTATGCC
 AATGACACAGGAGCCCAACAGTTTGAAGTGGTGGGATAAGTCCAGGACAGTCCCTTTTATCTGTAG
 GGCTCCTCCTCCCACTGCTCAATTTCAAGTCTCCTTCATTTTTTCAAAATTTAATATCCTAGGCACAGT
 GTCTGTCTTTATTTGATTTTCCTTGTACCTTTAAGGCTGTTTCGCTTGGGATTTCAATTTGGAATTCAT
 TGGTTTATACCAACAGAAATTTTGTACAGAGATAAGATTTTCAGTTTCCACAGCTGACTGGAGTGCTTA
 CCCTTGCTTTTTTATTCATAATTGTATCATCACACTCTGAAGAACAACAAGAAACAAGAAACAATGT
 GAGGGACTTGTCATTGCTTATATGCTGGTGACATTAACCTATCTCTATATTGGAGTCTGGTTTTGCT
 TCATTTCTTACCACCATTATCCAAAGATTGTATTGAGCAGAATTTTATAGACAACTTCCCTAGCAGTG
 ACACCTGTCTTCAATTGCAAGGATATCTGCTGTTCCAGATGATGACTGTATACCACTCTTAGGCTA
 CTGGCTCGTGTCCAGCTTTTGGGCCATATCTTCGGTGACATTTATCCTAGCATTTTCCATGTGCTGATT
 CTTAATCTAATTATTGTGGGAGCTGGAGTGATCATGGCCTGTTTCTACCCAAACATAGGAGGGATCATAA
 GATATTACAGGAGCAGCATGTGGACTGGCCTTTGTATTATATACCATCTCTCATCTATATAATTTCCCT
 CCACCAAGAAGAGCGTCTGACATGGCCTAAATTAATCTCCACGTTTTTCATCATCATTTTGGGCTGGCT
 AACCTGATTGTTCACTTTTTATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG234292 representing NM_001258286
 Red=Cloning site Green=Tags(s)

MNKRIHYYSRLTTPADKALIAPDHVVPAPEECYVYSPLGSAYKLQSYTEGYGKNTSLVTIFMIWNTMMGT
 SILSIPWGIKQAGFTTGMCVIILMGLLTLYCCYRVVKSRTMMFSLDTSWEYPDVCRHYFGSFGQWSSLL
 FSLVSLIGAMIVYWLMSNFLFNTGKFIHNFIIHINDTDITLSTNNSNPVICPSAGSGGHPDNSSMIFYA
 NDTGAQQFEKWDKSRTPFYLVGLLLPLLNFKSPSFFSKFNILGTVSVLYLIFLVTFKAVRLGFHLEFH
 WFIPTTEFFVPEIRFQFPQLTGVLTAAFFIHNCIITLLKNNKKQENNVRLCIAYMLVTLTYLYIGLVFA
 SFPSPPLSKDCIEQNFLDNFPSSDTLSFIARIFLLFQMMTVYPLLGYLARVQLLGHIFGDIYPSIFHVL
 LNLIIVGAGVIMACFYPNIGGIIRYSGAACGLAFVFIYPSLIYIISLHQEERLTWPKLIFHVFIIILGVA
 NLIVQFFM

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001258286

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_001258286.1](#), [NP_001245215.1](#)

RefSeq Size: 2693 bp

RefSeq ORF: 1497 bp

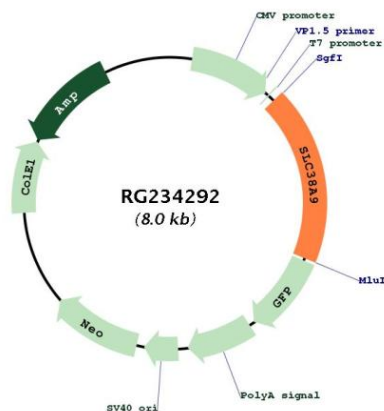
Locus ID: 153129

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 RG234292