10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

S38A9 Rabbit Polyclonal Antibody

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Catalog # AP93431

Product Information

Application	WB
Primary Accession	Q8NBW4
Reactivity	Rat, Human, Mouse
Host	Polyclonal, Rabbit,IgG
Clonality	Polyclonal
Calculated MW	63776

Additional Information

Gene ID	153129
Other Names	Neutral amino acid transporter 9, Solute carrier family 38 member 9 {ECO:0000312|HGNC:HGNC:26907}, Up-regulated in lung cancer 11 {ECO:0000303|Ref.2}, SLC38A9 (HGNC:26907)
Dilution	WB~~1:1000
Storage Conditions	-20℃

Protein Information

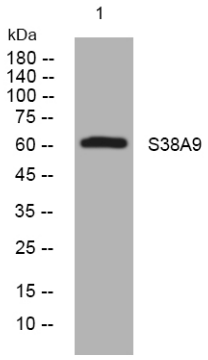
Name	SLC38A9 (HGNC:26907)
Function	Lysosomal amino acid transporter involved in the activation of mTORC1 in response to amino acid levels (PubMed:25561175, PubMed:25567906, PubMed:29053970). Probably acts as an amino acid sensor of the Rag GTPases and Ragulator complexes, 2 complexes involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids (PubMed: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 (PubMed:25561175, PubMed:25567906). 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, PubMed:31295473). Following activation by arginine binding, mediates transport of L- glutamine, leucine and tyrosine with high efficiency, and is required for the efficient utilization of these amino acids after lysosomal protein degradation (PubMed:29053970, PubMed:31295473). However, the transport mechanism is not well defined and the role of sodium is not clear (PubMed:25561175, PubMed:31295473). Can disassemble the lysosomal folliculin complex (LFC), and thereby triggers

GAP activity of FLCN:FNIP2 toward RRAGC (PubMed:32868926). Acts as an cholesterol sensor that conveys increases in lysosomal cholesterol, leading to lysosomal recruitment and activation of mTORC1 via the Rag GTPases (PubMed:28336668). Guanine exchange factor (GEF) that, upon arginine binding, stimulates GDP release from RRAGA and therefore activates the Rag GTPase heterodimer and the mTORC1 pathway in response to nutrient sufficiency (PubMed:30181260).

Cellular Location

Lysosome membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q08BA4}. Late endosome membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q08BA4}

Images



Western blot analysis of lysates from Hela cells, primary antibody was diluted at 1:1000, 4°over night