

SLC38A9 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP57677

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q8NBW4
Reactivity	Rat, Dog, Cat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63776
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC38A9
Epitope Specificity	30-130/561
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
SIMILARITY	Belongs to the amino acid/polyamine transporter 2 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	153129
Other Names	Sodium-coupled 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=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.