

SLC36A2 Antibody

Catalog # ASC11952

Product Information

Application	WB, E
Primary Accession	Q495M3
Other Accession	NP_861441 , 222418631
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	53216
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SLC36A2 antibody can be used for detection of SLC36A2 by Western blot at 1 - 2 µg/ml.

Additional Information

Gene ID	153201
Other Names	Proton-coupled amino acid transporter 2, Proton/amino acid transporter 2, Solute carrier family 36 member 2, Tramdorin-1, SLC36A2, PAT2, TRAMD1
Target/Specificity	SLC36A2; SLC36A2 antibody is human specific. SLC36A2 is predicted to not cross-react with other members of the SLC36 protein family.
Reconstitution & Storage	SLC36A2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	SLC36A2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC36A2 (HGNC:18762)
Function	Electrogenic proton/amino acid symporter with a high selectivity for the small side chains amino acids glycine, alanine and proline, where both L- and D-enantiomers are transported. Extension of the backbone length, as in beta-alanine and 4-aminobutanoate or methylation of the amino group, as in sarcosine and N,N- dimethylglycine, are also tolerated but decrease transport efficiency. A free carboxyl group is preferred.
Cellular Location	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane {ECO:0000250 UniProtKB:Q8BHK3}. Recycling endosome membrane {ECO:0000250 UniProtKB:Q8BHK3}

Tissue Location

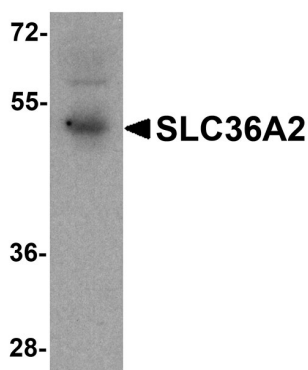
Abundantly expressed in kidney and muscle. Expressed in the S1 segment of the proximal tubule close to the glomerulus.

Background

SLC36A2 is a pH-dependent proton-coupled amino acid transporter that belongs to the amino acid auxin permease 1 protein family. The encoded protein primarily transports small amino acids such as glycine, alanine and proline (1,2). Both SLC36A2 and its paralog SLC36A1 are expressed in neurons, but SLC36A2 localizes to the endoplasmic reticulum and recycling endosome, while SLC36A1 is expressed in the lysosome (2). SLC36A2 is thought to contribute to neuronal transport and sequestration of amino acids such as glycine, alanine, and proline (2). Mutations in this gene are associated with iminoglycinuria and hyperglycinuria (3).

References

Boll M, Foltz M, Rubio-Aliaga I, et al. Functional characterization of two novel mammalian electrogenic proton-dependent amino acid cotransporters. *J. Biol. Chem.* 2002; 277:22966-73.
Rubio-Aliaga I, Boll M, Vogt Weisenhorn DM, et al. The proton/amino acid cotransporter PAT2 is expressed in neurons with a different subcellular localization than its paralog PAT1. *J. Biol. Chem.* 2004; 279:2754-60.
Broer S, Bailey CG, Kowalczyk S, et al. Iminoglycinuria and hyperglycinuria are discrete human phenotypes resulting from complex mutations in proline and glycine transporters. *J. Clin. Invest.* 2008; 118:3881-92.

Images

Western blot analysis of SLC36A2 in human stomach tissue lysate with SLC36A2 antibody at 1 µg/ml.

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