

SLC39A6 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16336a

Product Information

Application WB, E Primary Accession Q13433

Other Accession <u>NP_036451.3</u>, <u>NP_001092876.1</u>

Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB36339
Calculated MW 85047
Antigen Region 437-466

Additional Information

Gene ID 25800

Other Names Zinc transporter ZIP6, Estrogen-regulated protein LIV-1, Solute carrier family

39 member 6, Zrt- and Irt-like protein 6, ZIP-6, SLC39A6, LIV1, ZIP6

Target/SpecificityThis SLC39A6 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 437-466 amino acids from the Central

region of human SLC39A6.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

Storage Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions SLC39A6 Antibody (Center) is for research use only and not for use in

diagnostic or therapeutic procedures.

Protein Information

Name SLC39A6 (<u>HGNC:18607</u>)

Synonyms LIV1, ZIP6

Function Zinc-influx transporter which plays a role in zinc homeostasis and in the

induction of epithelial-to-mesenchymal transition (EMT) (PubMed: 12839489, PubMed: 18272141, PubMed: 21422171, PubMed: 23919497, PubMed:27274087, PubMed:34394081). When associated with SLC39A10, the heterodimer formed by SLC39A10 and SLC39A6 mediates cellular zinc uptake to trigger cells to undergo epithelial- to- mesenchymal transition (EMT) (PubMed:27274087). The SLC39A10-SLC39A6 heterodimer also controls NCAM1 phosphorylation and its integration into focal adhesion complexes during EMT (By similarity). Zinc influx inactivates GSK3B, enabling unphosphorylated SNAI1 in the nucleus to down-regulate adherence genes such as CDH1, causing loss of cell adherence (PubMed: 23919497). In addition, the SLC39A10-SLC39A6 heterodimer plays an essentiel role in initiating mitosis by importing zinc into cells to initiate a pathway resulting in the onset of mitosis (PubMed:32797246). Participates in the T-cell receptor signaling regulation by mediating cellular zinc uptake into activated lymphocytes (PubMed:<u>21422171</u>, PubMed:<u>30552163</u>, PubMed:<u>34394081</u>). Regulates the zinc influx necessary for proper meiotic progression to metaphase II (MII) that allows the oocyte-to-egg transition (PubMed:25143461).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell projection, lamellipodium membrane; Multi-pass membrane protein. Membrane raft; Multi-pass membrane protein. Apical cell membrane {ECO:0000250 | UniProtKB:Q4V887} Note=Localizes to lipid rafts in T cells and is recruited into the immunological synapse in response to TCR stimulation (PubMed:34394081) In the choroid plexus is limited to the apical membrane in epithelial cells (By similarity). {ECO:0000250 | UniProtKB:Q4V887, ECO:0000269 | PubMed:34394081}

Tissue Location

Highly expressed in the breast, prostate, placenta, kidney, pituitary and corpus callosum (PubMed:12839489). Weakly expressed in heart and intestine. Also highly expressed in cells derived from an adenocarcinoma of the cervix and lung carcinoma (PubMed:12839489).

Background

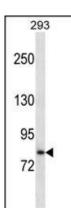
Zinc is an essential cofactor for hundreds of enzymes. It is involved in protein, nucleic acid, carbohydrate, and lipid metabolism, as well as in the control of gene transcription, growth, development, and differentiation. SLC39A6 belongs to a subfamily of proteins that show structural characteristics of zinc transporters (Taylor and Nicholson, 2003 [PubMed 12659941]).

References

Lopez, V., et al. Exp. Cell Res. 316(3):366-375(2010) Ma, X., et al. Mol. Cancer Ther. 8(11):3108-3116(2009) Unno, J., et al. Int. J. Oncol. 35(4):813-821(2009) French, D., et al. Blood 113(19):4512-4520(2009) Shen, H., et al. Mol. Biol. Rep. 36(4):653-659(2009)

Images

SLC39A6 Antibody (Cat. #AP16336a) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the SLC39A6 antibody detected the SLC39A6 protein (arrow).



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