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

SLC39A6 Rabbit pAb

Catalog # AP98714

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q13433
Other Accession	Q13433
Predicted	Rat, Human, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85047
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC39A6
Epitope Specificity	251-350/755
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ZIP transporter (TC 2.A.5) family.
Post-translational modifications	N-glycosylated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	LIV-1 is expressed as two isoforms. LIV-1 is a multi-pass cell membrane protein that is 749 amino acids in length and is expressed abundantly in breast, prostate, placenta, kidney, pituitary and corpus callosum, as well as in cells derived from various types of cancers affecting the glands, cervix and lungs. LIV-1 is a member of the ZIP transporter protein family which consists of 14 members that transport zinc. LIV-1 transports zinc from its position on the plasma membrane into the cytosol of the cell and contains a histidine-rich transmembrane domain which is thought to bind zinc and aid in its transportation. LIV-1 is thought to be important for zinc uptake in neuroblastoma cells and may also be crucial for maintaining zinc homeostasis, a process which aids in the prevention of cancer and disease. Activated estrogen receptors are thought to regulate LIV-1 expression at the level of transcription, via the mRNA precursor to LIV-1 which associates with estrogen receptors that are activated by growth factors and estradiol. LIV-1 is upregulated in hormone-rich tissue, including breast and cervical cancer, where it is thought to affect cell motility and may play an important role in tumor development and metastasis. Conversely, less aggressive tumors may contain high levels of LIV-1 that could lead to apoptosis, indicating a dual role for LIV-1 in tumor suppression.

Additional Information

Gene ID	25800
	LIV-1; LIV1; ZIP6; Ermelin; S39A6_HUMAN; SLC39A6; Estrogen-regulated

Other Names	protein LIV-1; Solute carrier family 39 member 6; Zrt- and Irt-like protein 6 (ZIP-6); S39A6_MOUSE; Endoplasmic reticulum membrane-linked protein (Ermelin); S39A6_RAT; solute carrier family 39 (metal ion transporter), member 6; solute carrier family 39 (zinc transporter), member 6; zinc transporter 6; ZRT/IRT-like protein 6
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	SLC39A6 (HGNC:18607)
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 essential 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:21422171, PubMed:30552163, PubMed:34394081). 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).

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