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

ZIP6 Antibody

Catalog # ASC11247

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q13433
Other Accession	NP_001092876, 153252214
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	85047
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZIP6 antibody can be used for detection of ZIP6 by Western blot at 1 μg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μg/mL. For immunofluorescence start at 20 μg/mL.

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/Specificity	SLC39A6;
Reconstitution & Storage	ZIP6 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ZIP6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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).

Background

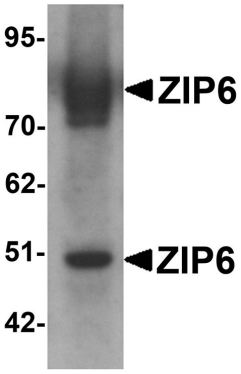
ZIP6 Antibody: The zinc transporter ZIP6, also known as SLC39A6, is a member of a family of divalent ion transporters. Zinc is an essential ion for cells and plays significant roles in the growth, development, and differentiation. ZIP6 was initially identified as LIV-1, an estrogen-regulated gene that has been implicated in metastatic breast cancer. Elevated ZIP6 expression has also been reported in human cervical cancer and the HeLa cell line; down-regulation of ZIP6 expression in HeLa by RNAi inhibited cell proliferation, colony formation, migration and invasiveness, as well as decreasing Snail and Slug levels, suggesting ZIP6 plays a regulatory role on the ERK1/2-Snail/Slug pathway.

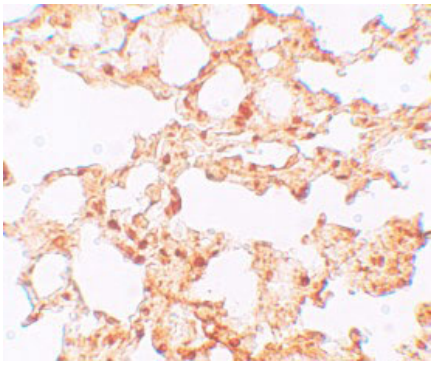
References

Dufner-Beattie J, Langmade SJ, Wang F, et al. Structure, function, and regulation of a subfamily of mouse zinc transporter genes. J. Biol. Chem.2003; 278:50142-50.
Eide DJ. The SLC39 family of metal ion transporters. Pflugers Arch.2004; 447:796-800.
Taylor KM and Nicohlson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. Biochim. Biophys. Acta.2003; 1611:16-30.
Taylor KM. LIV-1 breast cancer protein belongs to new family of histidine-rich membrane proteins with potential to control intracellular ZN2+ homeostasis. IUBMB Life2000; 49:249-53.

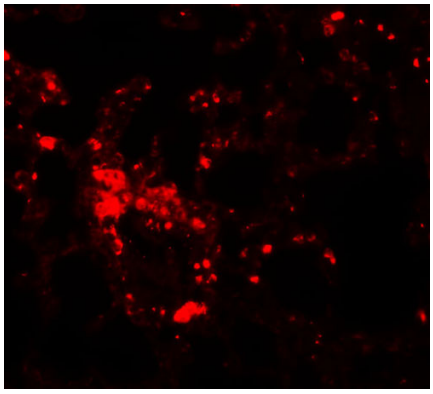
Images

Western blot analysis of ZIP6 in mouse lung tissue lysate with ZIP6 antibody at 1 µg/mL.





Immunohistochemistry of ZIP6 in mouse lung tissue with ZIP6 antibody at 5 µg/mL.



Immunofluorescence of ZIP6 in mouse lung tissue with ZIP6 antibody at 20 µg/mL.

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