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# ZIP6 Antibody

Catalog # ASC11247

## Product Information

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| **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

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| **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

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| **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 |

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| | 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: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

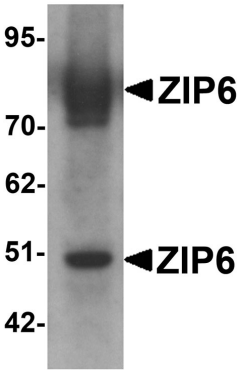
ZIP6 Antibody: The zinc transporter ZIP6, also known as SLC39A6, is a member of a family of divalent ion transporters. Zinc is an essential ion for cells and plays significant roles in the growth, development, and differentiation. ZIP6 was initially identified as LIV-1, an estrogen-regulated gene that 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.

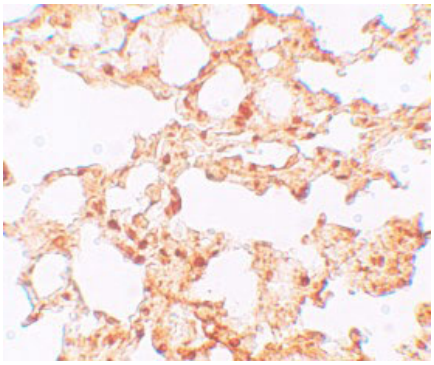
## References

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.

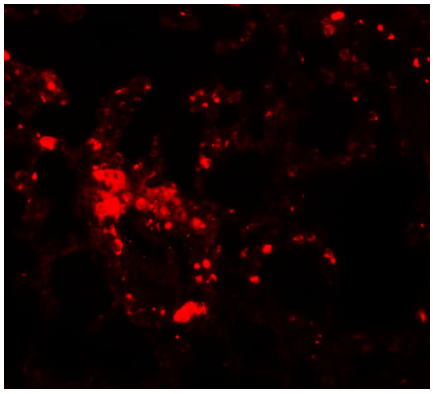
## Images

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.