

**ZIP6 Antibody**  
**Catalog # ASC11247****Specification**

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**ZIP6 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q13433</a>
Other Accession	<a href="#">NP_001092876</a> , <a href="#">153252214</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
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.

**ZIP6 Antibody - Additional Information**

Gene ID	25800
Target/Specificity	
SLC39A6;	

**Reconstitution & Storage**

ZIP6 antibody can be stored at 4°C for three months and -20°C, 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.

**ZIP6 Antibody - 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:<a href="http://www.uniprot.org/citations/27274087" target="\_blank">27274087</a>, PubMed:<a href="http://www.uniprot.org/citations/18272141" target="\_blank">18272141</a>, PubMed:<a href="http://www.uniprot.org/citations/21422171" target="\_blank">21422171</a>, PubMed:<a href="http://www.uniprot.org/citations/34394081" target="\_blank">34394081</a>, PubMed:<a href="http://www.uniprot.org/citations/23919497" target="\_blank">23919497</a>, PubMed:<a href="http://www.uniprot.org/citations/12839489" target="\_blank">12839489</a>). 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:<a href="http://www.uniprot.org/citations/27274087" target="\_blank">27274087</a>). 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:<a href="http://www.uniprot.org/citations/23919497" target="\_blank">23919497</a>). 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:<a href="http://www.uniprot.org/citations/32797246" target="\_blank">32797246</a>). Participates in the T-cell receptor signaling regulation by mediating cellular zinc uptake into activated lymphocytes (PubMed:<a href="http://www.uniprot.org/citations/30552163" target="\_blank">30552163</a>, PubMed:<a href="http://www.uniprot.org/citations/21422171" target="\_blank">21422171</a>, PubMed:<a href="http://www.uniprot.org/citations/34394081" target="\_blank">34394081</a>). Regulates the zinc influx necessary for proper meiotic progression to metaphase II (MII) that allows the oocyte-to-egg transition (PubMed:<a href="http://www.uniprot.org/citations/25143461" target="\_blank">25143461</a>).

### 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

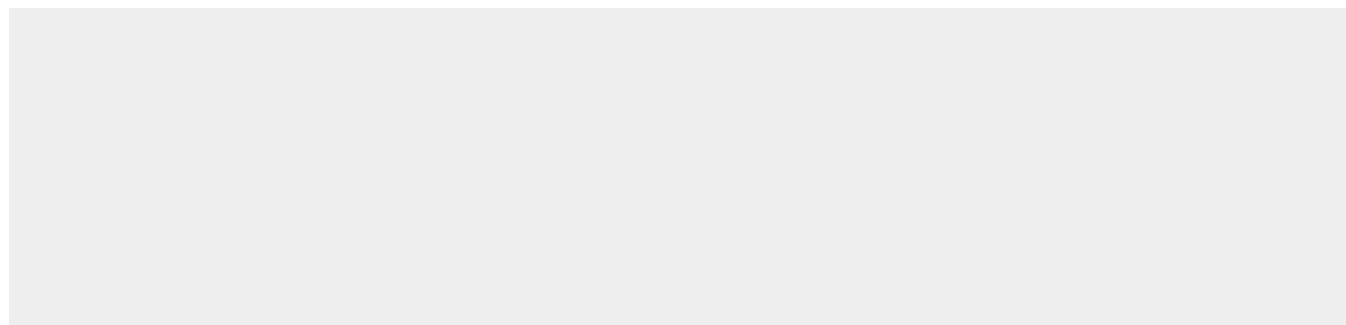
Highly expressed in the breast, prostate, placenta, kidney, pituitary and corpus callosum (PubMed:12839489). Weakly expressed in heart and intestine. Also highly expressed in cells derived from an adenocarcinoma of the cervix and lung carcinoma (PubMed:12839489).

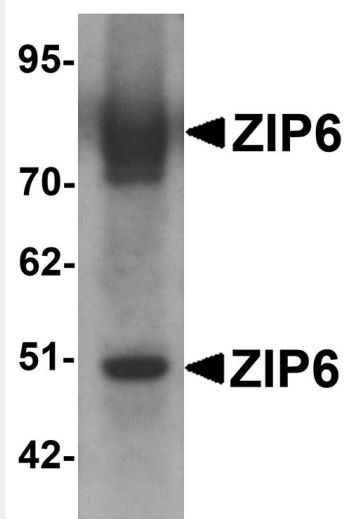
## ZIP6 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

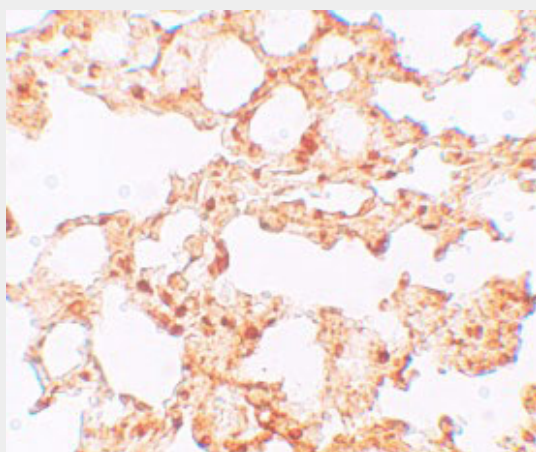
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## ZIP6 Antibody - Images

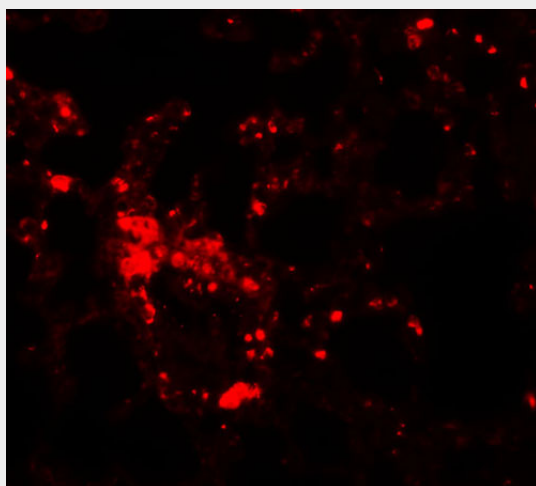




Western blot analysis of ZIP6 in mouse lung tissue lysate with ZIP6 antibody at 1  $\mu$ g/mL.



Immunohistochemistry of ZIP6 in mouse lung tissue with ZIP6 antibody at 5  $\mu$ g/mL.



Immunofluorescence of ZIP6 in mouse lung tissue with ZIP6 antibody at 20  $\mu$ g/mL.

#### **ZIP6 Antibody - 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.

#### **ZIP6 Antibody - 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 Nicolson 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  $Zn^{2+}$  homeostasis. IUBMB Life2000; 49:249-53.