

**ZIP3 Antibody**  
**Catalog # ASC11245****Specification****ZIP3 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q9BRY0</a>
Other Accession	<a href="#">NP_653165</a> , <a href="#">32490561</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	ZIP3 antibody can be used for detection of ZIP3 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.

**ZIP3 Antibody - Additional Information**

Gene ID	29985
Target/Specificity	
SLC39A3;	

**Reconstitution & Storage**

ZIP3 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**

ZIP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ZIP3 Antibody - Protein Information**

**Name** SLC39A3 ([HGNC:17128](#))

**Synonyms** ZIP3

**Function**

Transporter for the divalent cation Zn(2+). Mediates the influx of Zn(2+) into cells from extracellular space. Controls Zn(2+) accumulation into dentate gyrus granule cells in the hippocampus. Mediates Zn(2+) reuptake from the secreted milk within the alveolar lumen.

**Cellular Location**

Cell membrane {ECO:0000250|UniProtKB:Q99K24}; Multi-pass membrane protein. Apical cell membrane {ECO:0000250|UniProtKB:Q99K24}; Multi-pass membrane protein. Note=Localized primarily at the cell surface but also found in a perinuclear compartment in HC11 cells. In mammary epithelial cell, localized primary to the apical membrane

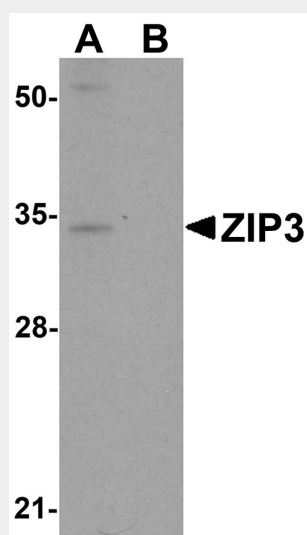
{ECO:0000250|UniProtKB:Q99K24}

### ZIP3 Antibody - Protocols

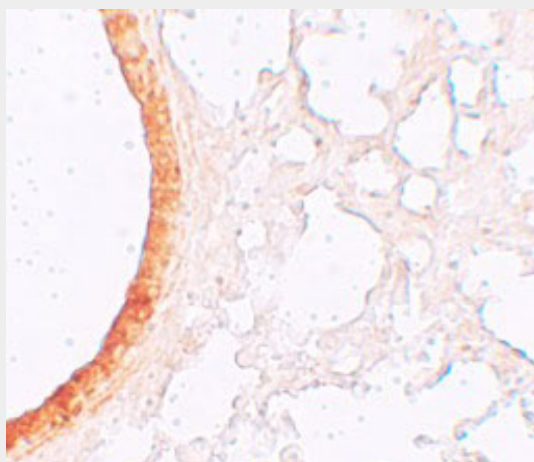
Provided below are standard protocols that you may find useful for product applications.

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

### ZIP3 Antibody - Images



Western blot analysis of ZIP3 in mouse lung tissue lysate with ZIP3 antibody at 1  $\mu$ g/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of ZIP3 in mouse lung tissue with ZIP3 antibody at 5  $\mu$ g/mL.

### ZIP3 Antibody - Background

**ZIP3 Antibody:** The zinc transporter ZIP3, also known as SLC39A3, 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. Similar to knock-outs of ZIP1 and ZIP2, ZIP3-null mice have no phenotypic differences compared to wild-type mice. Only when ZIP1, ZIP2, and ZIP3 genes are all eliminated and these mutant mice are fed a zinc-deficient diet do abnormalities such as reduced embryonic-membrane bound alkaline phosphatase activity and abnormal development occur, indicating that the ZIP1-3 proteins play an important, noncompensatory role when zinc is deficient. More recent studies have shown that ZIP2 and ZIP3 are down regulated in human prostate adenocarcinomatous glands, and may be important in the retention of zinc in the cellular compartment.

### **ZIP3 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.  
Kambe T, Geiser J, Lahner B, et al. Slc39a1 to 3 (subfamily II) Zip genes in mice have unique cell-specific functions during adaptation to zinc deficiency. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 2008; 294:R1474-81.