

# ZIP10 Antibody

Catalog # ASC10835

## Specification

## ZIP10 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IHC-P, E <u>O9ULF5</u> <u>EAW70116</u>, <u>149046180</u> Human, Mouse, Rat Rabbit Polyclonal IgG ZIP10 antibody can be used for detection of ZIP10 by Western blot at 1 - 2 μg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μg/mL.

## ZIP10 Antibody - Additional Information

Gene ID 363229 Target/Specificity Slc39a10; This antibody will not cross-react with the zinc transporter ZIP11.

#### **Reconstitution & Storage**

ZIP10 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** ZIP10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## ZIP10 Antibody - Protein Information

Name SLC39A10 (HGNC:20861)

Synonyms KIAA1265, ZIP10

#### Function

Zinc-influx transporter (PubMed:<a href="http://www.uniprot.org/citations/17359283" target="\_blank">17359283</a>, PubMed:<a href="http://www.uniprot.org/citations/27274087" target="\_blank">27274087</a>, PubMed:<a href="http://www.uniprot.org/citations/30520657" target="\_blank">30520657</a>). When associated with SLC39A6, 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/23186163" target="\_blank">23186163</a>). SLC39A10-SLC39A6 heterodimers play also an essentiel 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>). Plays an important for both mature B-cell maintenance and humoral immune responses (By similarity). When associated with SLC39A10, the heterodimer controls NCAM1 phosphorylation and integration into focal adhesion complexes during EMT (By similarity).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Expressed at the apical membranes of proximal tubules in the kidney.

#### ZIP10 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### ZIP10 Antibody - Images



Western blot analysis of ZIP10 in human spleen tissue lysate with ZIP10 antibody at (A) 1 and (B) 2  $\mu$ g/mL.





Immunohistochemistry of ZIP10 in human spleen tissue with ZIP10 antibody at 2.5  $\mu$ g/mL.

## ZIP10 Antibody - Background

ZIP10 Antibody: ZIP10, also known as SIc39A10, is a widely expressed zinc transporter with nine transmembrane domains. Zinc is an essential ion for cells and plays significant roles in the growth, development, and differentiation. ZIP10 mRNA was found to be significantly decreased in the intestines and kidneys of hypothyroid rats and increased in those of hyperthyroid rats, indicating that ZIP10 is positively regulated by thyroid hormones. ZIP10 mRNA was also found to be upregulated in invasive and metastatic breast cancer and cell lines, suggesting that ZIP10 could serve as a possible marker for the metastatic phenotype and possibly a target for novel treatment strategies. At least three isoforms of ZIP10 are known to exist.

### **ZIP10 Antibody - References**

Kaler P and Prasad R. Molecular cloning and functional characterization of novel transporter rZip10 (Slc39a10) involved in zinc uptake across renal brush-border membrane. Am. J. Renal Physiol.2007; 292:F217-29.

Taylor KM and Nicohlson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. Biochim. Biophys. Acta.2003; 1611:16-30.

Pawan K, Neeraj S, Sandeep K, et al. Upregulation of Slc39a10 gene expression in response to thyroid hormones in intestine and kidney. Biochim. Biophys. Acta.2007; 1769:117-23.

Kagara N, Tanaka N, Noguchi S, et al. Zinc and its transporter ZIP10 are involved in invasive behavior of breast cancer cells. Cancer Sci.2007; 98:692-7.