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ZIP5 Antibody
Catalog # ASC11246

Specification

ZIP5 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q6ZMH5
Other Accession	NP_001128667, 206597541
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ZIP5 antibody can be used for detection of ZIP5 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

ZIP5 Antibody - Additional Information

Gene ID	**283375**

Target/Specificity
SLC39A5;

Reconstitution & Storage
ZIP5 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
ZIP5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ZIP5 Antibody - Protein Information

Name SLC39A5 (HGNC:20502)

Function
Uniporter that transports zinc(2+) into polarized cells of enterocytes, pancreatic acinar and endoderm cells across the basolateral membrane and participates, notably, in zinc excretion from the intestine by the uptake of zinc from the blood into the intestine (By similarity). The transport mechanism is temperature- and concentration-dependent and saturable (By similarity). In addition, is also a high affinity copper transporter in vitro (PubMed:36454509). Also may regulate glucose-stimulated insulin secretion (GSIS) in islets primarily through the zinc-activated SIRT1-PPARGC1A axis (By similarity). Could regulate the BMP/TGF-beta (bone morphogenetic protein/transforming growth factor-beta) signaling pathway and modulates extracellular matrix (ECM) proteins of the sclera (PubMed:<a href="http://www.uniprot.org/citations/24891338"

target="_blank">24891338). Plays a role in eye development (PubMed:24891338).

Cellular Location
Basolateral cell membrane {ECO:0000250|UniProtKB:Q9D856}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9D856}. Note=Localized to the basolateral surfaces of enterocytes, pancreatic acinar and endoderm cells. During zinc deficiency diet, the basolateral cell membrane localization is lost in the intestine, the visceral yolk sac and acinar cell. During zinc repletion, is relocalized to the basolateral membrane of enterocytes, visceral endoderm cells and pancreatic acinar cells. Zinc can regulate the turnover of protein at the membrane. During zinc deficiency, is internalized and degraded in enterocytes, acinar cells and endoderm cells. Endocytosed through the endolysosomal degradation pathway RAB5A pathway. {ECO:0000250|UniProtKB:Q9D856}

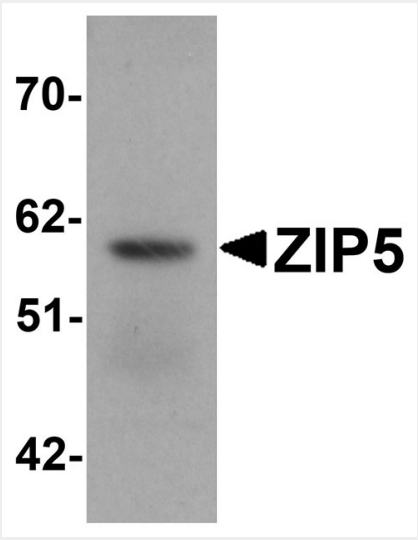
Tissue Location
Expressed in liver, kidney, pancreas, small intestine, colon, spleen, fetal liver and fetal kidney

ZIP5 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 Cytomety
- Cell Culture

ZIP5 Antibody - Images



Western blot analysis of ZIP5 in human spleen tissue lysate with ZIP5 antibody at 1 µg/mL.

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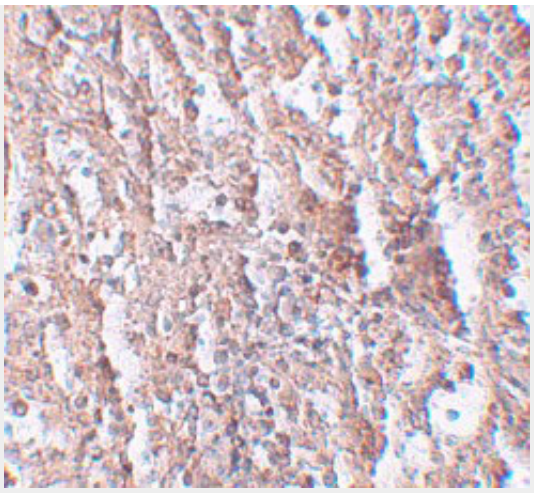
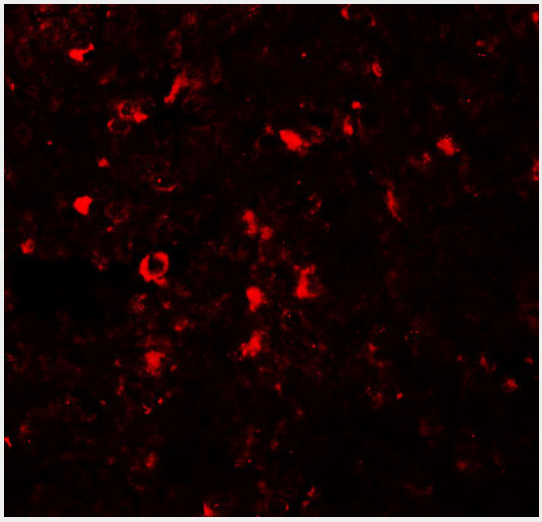


Immunohistochemistry of ZIP5 in human spleen tissue with ZIP5 antibody at 2.5 µg/mL.



Immunofluorescence of ZIP5 in human spleen tissue with ZIP5 antibody at 20 µg/mL.

ZIP5 Antibody - Background

ZIP5 Antibody: The zinc transporter ZIP5, also known as SLC39A5, 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. ZIP5 is closely related to ZIP4, and is found in many of the same tissues, including intestine, pancreas, liver, and kidney, but unlike ZIP4, ZIP5 localizes to the basolateral membrane in kidney cells and its activity is not downregulated by zinc repletion. Recent evidence suggests that ZIP4 and ZIP5 are reciprocally regulated, with translation of ZIP5 mRNA decreasing and ZIP5 protein being rapidly internalized and degraded in response to zinc deficiency.

ZIP5 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 Nicohlson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. Biochim. Biophys. Acta.2003; 1611:16-30.
Wang F, Kim BE, Petris MJ, et al. The mammalian Zip5 protein is a zinc transporter that localizes to the basolateral surface of polarized cells. J. Biol. Chem.2004; 279:51433-41.