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ZIP7 Antibody

Catalog # ASC11248

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q92504
Other Accession	NP_001070984, 117553619
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	50118
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZIP7 antibody can be used for detection of ZIP7 by Western blot at 0.5 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	7922
Other Names	Zinc transporter SLC39A7, Histidine-rich membrane protein Ke4, Really interesting new gene 5 protein, Solute carrier family 39 member 7, Zrt-, Irt-like protein 7, ZIP7, SLC39A7, HKE4, RING5
Target/Specificity	SLC39A7;
Reconstitution & Storage	ZIP7 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	ZIP7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC39A7
Synonyms	HKE4 {ECO:0000303|PubMed:14525538}, RING
Function	Transports Zn(2+) from the endoplasmic reticulum (ER)/Golgi apparatus to the cytosol, playing an essential role in the regulation of cytosolic zinc levels (PubMed:14525538, PubMed:15705588, PubMed:28205653, PubMed:29980658). Acts as a gatekeeper of zinc release from intracellular stores, requiring post-translational activation by phosphorylation, resulting in activation of multiple downstream pathways leading to cell growth and

	proliferation (PubMed:22317921, PubMed:28205653, PubMed:29980658). Has an essential role in B cell development and is required for proper B cell receptor signaling (PubMed:30718914). Plays an important role in maintaining intestinal epithelial homeostasis and skin dermis development by regulating ER function (By similarity). Controls cell signaling pathways involved in glucose metabolism in skeletal muscle (By similarity). Has a protective role against ER stress in different biological contexts (PubMed:29980658, PubMed:30237509). Mediates Zn(2+)-induced ferroptosis (PubMed:33608508).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus, cis-Golgi network membrane; Multi-pass membrane protein
Tissue Location	Widely expressed.

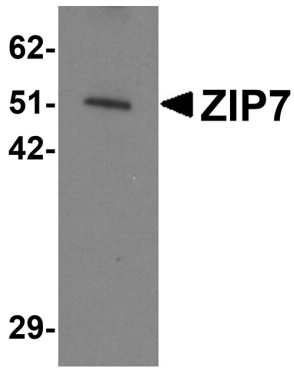
Background

ZIP7 Antibody: The zinc transporter ZIP7, also known as SLC39A7, 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. ZIP7 was initially identified while characterizing genes in the major histocompatibility complex on chromosome 17. ZIP7 mRNA is abundantly and widely expressed and the protein localizes to the Golgi apparatus. It functions to transport intracellular zinc from the Golgi apparatus to the cytoplasm of the cell. ZIP7 expression is expressed by zinc. ZIP7 has been suggested to act a hub for tyrosine kinase activation and may thus be a potential therapeutic target for diseases such as cancer where prevention of tyrosine kinase activation would be advantageous.

References

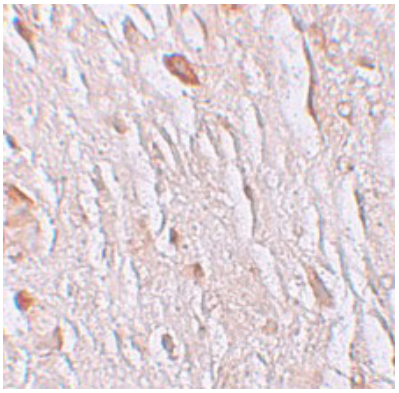
Dufner-Beattie J, Langmade SJ, Wang F, et al. Structure, function, and regulation of a subfamily of mouse zinc transporter genes. J. Biol. Chem.2003; 278:50142-50.
Eide DJ. The SLC39 family of metal ion transporters. Pflugers Arch.2004; 447:796-800.
Taylor KM and Nicohlson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. Biochim. Biophys. Acta.2003; 1611:16-30.
Lai F, Stubbs L, Lehrach H, et al. Genomic organization and expressed sequences of the mouse extended H-2K region. Genomics1994; 23:338-42.

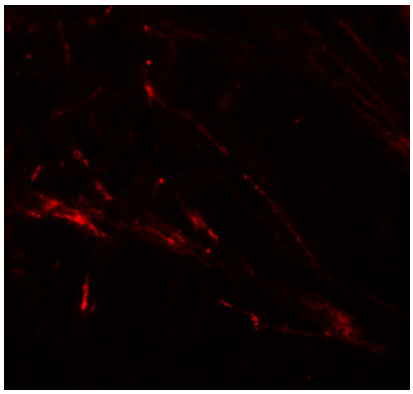
Images



Western blot analysis of ZIP7 in mouse brain tissue lysate with ZIP7 antibody at 0.5 µg/mL.

Immunohistochemistry of ZIP7 in human brain tissue with ZIP7 antibody at 2.5 µg/mL.





Immunofluorescence of ZIP7 in human brain tissue with ZIP7 antibody at 20 µg/mL.

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