

ZIP12 Antibody

Catalog # ASC11252

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q504Y0
Other Accession	NP_001138667 , 223633939
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	76666
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZIP12 antibody can be used for detection of ZIP12 by Western blot at 0.5 - 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	221074
Other Names	Zinc transporter ZIP12, LIV-1 subfamily of ZIP zinc transporter 8, LZT-Hs8, Solute carrier family 39 member 12, Zrt- and Irt-like protein 12, ZIP-12, SLC39A12, ZIP12
Target/Specificity	Slc39a12; At least four isoforms of ZIP12 are known to exist. ZIP12 antibody is predicted to not cross-react with other ZIP family members.
Reconstitution & Storage	ZIP12 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	ZIP12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC39A12 (HGNC:20860)
Function	Uniporter that promotes Zn(2+) import from the extracellular space to the cytoplasm across the cell membrane. The transport activity is temperature dependent. May play a role in neurulation and neurite extension. May play a key role in maintaining intracellular zinc content at levels that reduce the inhibitory effects of rises in oxidative stress on spermatogonia and spermatozoa viability during spermatogenesis.

Cellular Location	Membrane {ECO:0000250 UniProtKB:Q5FWH7}; Multi- pass membrane protein. Note=At low Zn(2+) extracellular concentration, is redistributed from the perinuclear space to the cytoplasm and plasma membrane. {ECO:0000250 UniProtKB:Q5FWH7}
Tissue Location	Expressed in brain and eye.

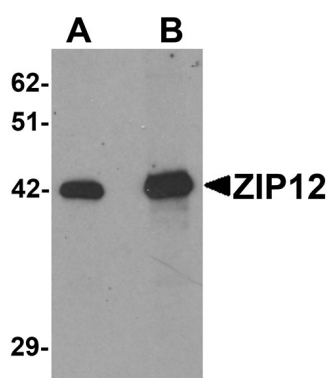
Background

ZIP12 Antibody: The zinc transporter ZIP12, also known as SLC39A12, 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. The zinc transporter family is divided into four subfamilies (I, II, LIV-1 and gufA). ZIP12 is a multipass membrane protein that belongs to the ZIP transporter subfamily LIV-1. Increased levels of ZIP12 have been observed during acute inflammation in the airway and asthma, suggesting that it may be promote increased zinc uptake, as this can reduce inflammation. The zinc content in brains in individuals with schizophrenia is lower than in individuals with other cerebral diseases, and mutations in ZIP12 have been observed in a small group of schizophrenic patients, suggesting that ZIP12 may play a role in this disease.

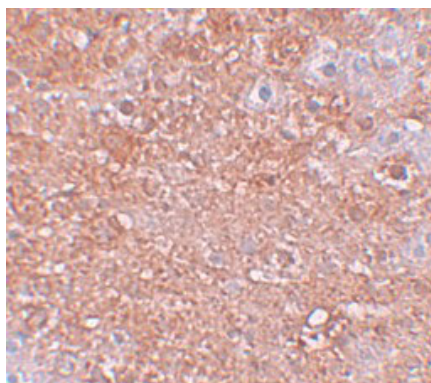
References

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 Nicholson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. *Biochim. Biophys. Acta.*2003; 1611:16-30.
Lang C, Murgia C, Leong M, et al. Anti-inflammatory effects of zinc and alterations in zinc transporter mRNA in mouse models of allergic inflammation. *Am. J. Physiol. Lung Cell. Mol. Physiol.*2007; 292:L577-84.

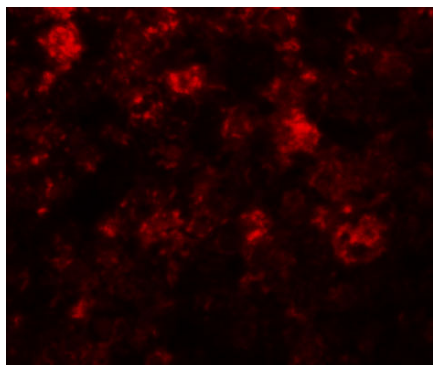
Images



Western blot analysis of ZIP12 in HepG2 cell lysate with ZIP12 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of ZIP12 in mouse liver tissue with ZIP12 antibody at 2.5 µg/mL.



Immunofluorescence of ZIP12 in mouse liver tissue with ZIP12 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.