10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ZIP2 Antibody

Catalog # ASC11244

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9NP94
Other Accession	NP_055394, 156415986
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	32742
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZIP2 antibody can be used for detection of ZIP2 by Western blot at 1 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	29986
Other Names	Zinc transporter ZIP2, 6A1, Eti-1, Solute carrier family 39 member 2, Zrt- and Irt-like protein 2, ZIP-2, hZIP2, SLC39A2, ZIP2
Target/Specificity	SLC39A2;
Reconstitution & Storage	ZIP2 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	ZIP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC39A2 (HGNC:17127)
Synonyms	ZIP2
Function	Transporter for the divalent cation Zn(2+) (PubMed: 10681536, PubMed:29791142, PubMed:30914478). Mediates the influx of Zn(2+) into cells from extracellular space. The Zn(2+) uniporter activity is independent of H(+)-driving force, but is modulated by extracellular pH and membrane potential. Also transports other divalent cations Zn(2+), Cd2(+), Cu2(+), Co2(+) in the order of decreasing affinity, respectively (PubMed:29791142, PubMed:30914478). In the skin, aids in the differentiation of keratinocytes in

	the epidermis (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed only in prostate and uterine epithelial cells.

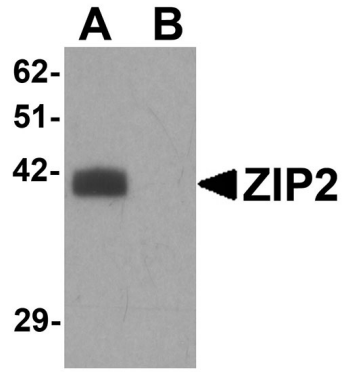
Background

ZIP2 Antibody: The zinc transporter ZIP2, also known as SLC39A2, 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 ZIP3, ZIP2-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.

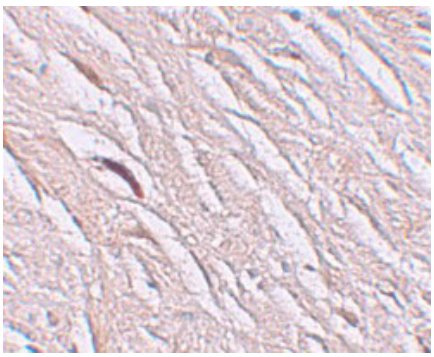
References

Gaither LA and Eide DJ. Functional expression of the human hZIP2 zinc transporter. J. Biol. Chem.2000; 275:5560-4.
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.
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.

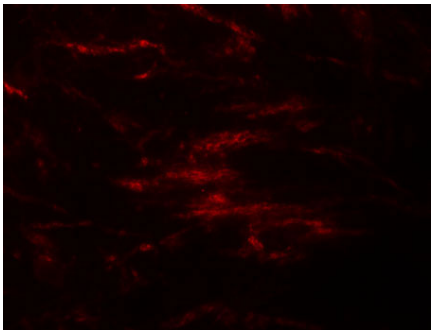
Images



Western blot analysis of ZIP2 in rat brain tissue lysate with ZIP2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of ZIP2 in human brain tissue with ZIP2 antibody at 2.5 µg/mL.



Immunofluorescence of ZIP2 in human brain tissue with ZIP2 antibody at 20 µg/mL.

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