

ZIP1 Antibody

Catalog # ASC11243

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9NY26
Other Accession	NP_055252 , 21361423
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	34250
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZIP1 antibody can be used for detection of ZIP1 by Western blot at 1 - 2 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	27173
Other Names	Zinc transporter ZIP1, Solute carrier family 39 member 1, Zinc-iron-regulated transporter-like, Zrt- and Irt-like protein 1, ZIP-1, hZIP1, SLC39A1, IRT1, ZIP1, ZIRTL
Target/Specificity	SLC39A1; At least two isoforms of ZIP1 are known to exist; this antibody will detect both isoforms. ZIP1 antibody is predicted not to cross-react with other ZIP family proteins.
Reconstitution & Storage	ZIP1 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	ZIP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC39A1 (HGNC:12876)
Function	Transporter for the divalent cation Zn(2+). Mediates the influx of Zn(2+) into cells from extracellular space (PubMed: 11301334 , PubMed: 12888280 , PubMed: 16844077). Functions as the major importer of zinc from circulating blood plasma into prostate cells (PubMed: 12888280).
Cellular Location	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum

membrane; Multi-pass membrane protein. Note=Shows a vesicular localization corresponding partially to the endoplasmic reticulum in several epithelial cell lines.

Tissue Location

Ubiquitous (PubMed:10610721, PubMed:11301334). Expressed in most adult and fetal tissues including the epidermis

Background

ZIP1 Antibody: ZIP1, also known as ZIRT (zinc-iron regulated transporter-like), is the first mammalian 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. ZIP1 expression is markedly downregulated in a number of cancerous tissues and is thought to function as a tumor suppressor gene in prostate cancer. More recent studies have shown that overexpression of ZIP1 and concomitant increased levels of intracellular zinc in PC-3 cells cause a significant inhibition of NF- κ B, leading to down-regulation of the antiapoptotic protein Bcl-2, Bcl-XL, and the apoptosis inhibitor XIAP, reducing the malignant potential of prostate cancer cells in vitro and in vivo.

References

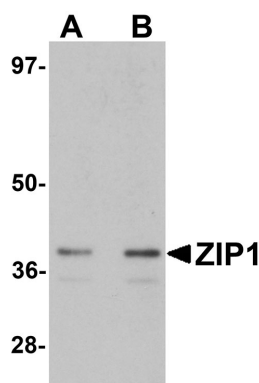
Lioumi M, Ferguson CA, Sharpe PT, et al. Isolation and characterization of human and mouse ZIRT, a member of the IRT1 family of transporters, mapping within the epidermal differentiation complex. *Genomics* 1999; 62:272-80.

Eide DJ. The SLC39 family of metal ion transporters. *Pflugers Arch.* 2004; 447:796-800.

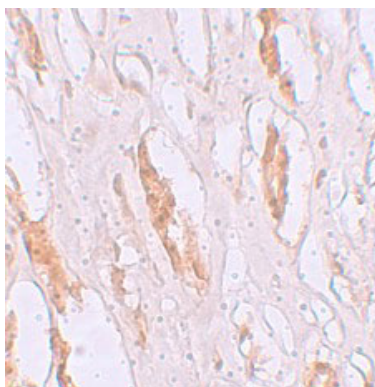
Taylor KM and Nicholson RI. The LZT proteins; the LIV-1 subfamily of zinc transporters. *Biochim. Biophys. Acta.* 2003; 1611:16-30.

Costello LC and Franklin RB. The clinical relevance of the metabolism of prostate cancer; zinc and tumor suppression: connecting the dots. *Mol. Cancer.* 2006; 5:17.

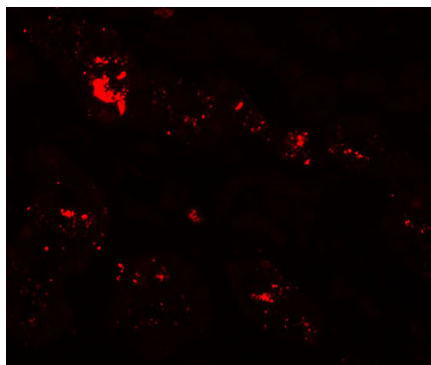
Images



Western blot analysis of ZIP1 in mouse kidney tissue lysate with ZIP1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of ZIP1 in human kidney tissue with ZIP1 antibody at 2.5 µg/mL.



Immunofluorescence of ZIP1 in human kidney tissue with ZIP1 antibody at 20 µg/mL.

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