

ZIP2 (D-13): sc-109874

BACKGROUND

Zinc is an essential cofactor that is involved in cell growth and development, as well as in protein, nucleic acid and lipid metabolism. The transport of zinc across the cell membrane is crucial for correct enzyme and overall cell function. ZIP2 (Zrt- and Irt-like protein 2), also known as SLC39A2 (solute carrier family 39, member 2), Eti-1 or 6A1, is a 309 amino acid member of the ZIP transporter protein family. Localized to the cell membrane, ZIP2 mediates zinc uptake and may be involved in the uptake of other divalent cations. ZIP2 may also be involved in contact inhibition of normal epithelial cells and loss of ZIP2 may be involved in tumorigenesis. ZIP2 is expressed only in uterine and prostate epithelial cells.

REFERENCES

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2. Dufner-Beattie, J., et al. 2003. Structure, function, and regulation of a sub-family of mouse zinc transporter genes. *J. Biol. Chem.* 278: 50142-50150.
3. Desouki, M.M., et al. 2007. hZIP2 and hZIP3 zinc transporters are down regulated in human prostate adenocarcinomatous glands. *Mol. Cancer* 6: 37.
4. Hosgood, H.D., et al. 2008. Pathway-based evaluation of 380 candidate genes and lung cancer susceptibility suggests the importance of the cell cycle pathway. *Carcinogenesis* 29: 1938-1943.
5. Zhang, L.Y., et al. 2008. Regulation of zinc transporters by dietary flaxseed lignan in human breast cancer xenografts. *Mol. Biol. Rep.* 35: 595-600.
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7. Guey, L.T., et al. 2009. Genetic susceptibility to distinct bladder cancer sub-phenotypes. *Eur. Urol.* 57: 283-292.
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CHROMOSOMAL LOCATION

Genetic locus: Slc39a2 (mouse) mapping to 14 C2.

SOURCE

ZIP2 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZIP2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ZIP2 (D-13) is recommended for detection of ZIP2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZIP2 siRNA (m): sc-41133, ZIP2 shRNA Plasmid (m): sc-41133-SH and ZIP2 shRNA (m) Lentiviral Particles: sc-41133-V.

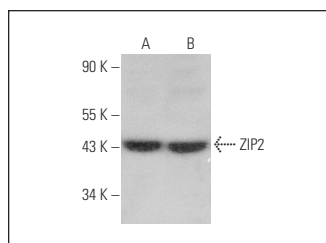
Molecular Weight of ZIP2: 33 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ZIP2 (D-13): sc-109874. Western blot analysis of ZIP2 expression in NIH/3T3 (A) and KNRK (B) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.