

## ZIP10 (L-15): sc-109159

### BACKGROUND

ZIP10 (zinc transporter ZIP10, solute carrier family 39 member 10) is a multi-pass (7 transmembrane regions) membrane protein that belongs to the ZIP transporter (TC 2.A.5) family. Zinc transporters all have transmembrane domains, and are encoded by two SLC (solute-linked carrier) gene families: ZnT (SLC30) and ZIP (SLC39). There are at least 9 ZnT and 15 ZIP transporters in human cells. ZIP transporters are believed to increase intracellular zinc by promoting zinc uptake. This may be facilitated by vesicles within the cell that release release into the cytoplasm. ZIP and ZnT transporter families exhibit tissue-specific expression and respond differently to zinc deficiency and excess. High expression levels of ZIP10 can be correlated with invasiveness of several metastatic breast cancers.

### REFERENCES

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- Pawan, K., et al. 2007. Upregulation of Slc39a10 gene expression in response to thyroid hormones in intestine and kidney. *Biochim. Biophys. Acta* 1769: 117-123.
- Kagara, N., et al. 2007. Zinc and its transporter ZIP10 are involved in invasive behavior of breast cancer cells. *Cancer Sci.* 98: 692-697.
- Valentine, R.A., et al. 2007. ZnT5 variant B is a bidirectional zinc transporter and mediates zinc uptake in human intestinal Caco-2 cells. *J. Biol. Chem.* 282: 14389-14393.
- Ryu, M.S., et al. 2008. Zinc transporters ZnT1 (Slc30a1), ZIP8 (Slc39a8), and ZIP10 (Slc39a10) in mouse red blood cells are differentially regulated during erythroid development and by dietary zinc deficiency. *J. Nutr.* 138: 2076-2083.

### CHROMOSOMAL LOCATION

Genetic locus: SLC39A10 (human) mapping to 2q32.3; Slc39a10 (mouse) mapping to 1 C1.1.

### SOURCE

ZIP10 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZIP10 of human 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-109159 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### RESEARCH USE

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

### APPLICATIONS

ZIP10 (L-15) is recommended for detection of ZIP10 of mouse, rat and human 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).

ZIP10 (L-15) is also recommended for detection of ZIP10 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for ZIP10 siRNA (h): sc-94302, ZIP10 siRNA (m): sc-155617, ZIP10 shRNA Plasmid (h): sc-94302-SH, ZIP10 shRNA Plasmid (m): sc-155617-SH, ZIP10 shRNA (h) Lentiviral Particles: sc-94302-V and ZIP10 shRNA (m) Lentiviral Particles: sc-155617-V.

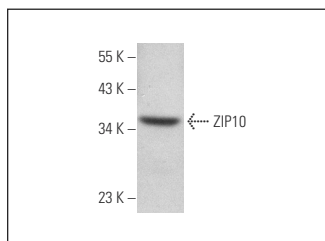
Molecular Weight of ZIP10: 40 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232.

### 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



ZIP10 (L-15): sc-109159. Western blot analysis of ZIP10 expression in MDA-MB-231 whole cell lysate.

### STORAGE

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

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Try **ZIP10 (1F6): sc-517167**, our highly recommended monoclonal alternative to ZIP10 (L-15).