

# ZIP7 (P-20): sc-83861

## 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. ZIP7, also known as SLC39A7 (solute carrier family 39 (zinc transporter), member 7), KE4, HKE4, RING5 or H2-KE4, is a 469 amino acid multi-pass membrane protein that belongs to the ZIP transporter family. Expressed at high levels in kidney, placenta, pancreas and lung, ZIP7 functions as a zinc transporter that facilitates the movement of zinc, both from the extracellular environment and from intracellular storage compartments, to the cytosol. The gene encoding ZIP7 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

## REFERENCES

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6. Huang, L., Kirschke, C.P., Zhang, Y. and Yu, Y.Y. 2005. The ZIP7 gene (Slc39a7) encodes a zinc transporter involved in zinc homeostasis of the Golgi apparatus. *J. Biol. Chem.* 280: 15456-15463.
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## CHROMOSOMAL LOCATION

Genetic locus: SLC39A7 (human) mapping to 6p21.32.

## SOURCE

ZIP7 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZIP7 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83861 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZIP7 (P-20) is recommended for detection of ZIP7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other ZIP family members.

ZIP7 (P-20) is also recommended for detection of ZIP7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZIP7 siRNA (h): sc-76962, ZIP7 shRNA Plasmid (h): sc-76962-SH and ZIP7 shRNA (h) Lentiviral Particles: sc-76962-V.

Molecular Weight of ZIP7: 50 kDa.

## 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) 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.