SANTA CRUZ BIOTECHNOLOGY, INC.

ZnT-6 (N-13): sc-161276

BACKGROUND

Zinc, an essential element required for cell proliferation and differentiation, plays a role in a diverse array of cellular functions (such as neuroregulation) and acts as a cofactor for numerous enzymes and transcription factors. The zinc transporter (ZnT) family regulates the supply of zinc within cells, and its members commonly contain six membrane-spanning domains, a large histidine-rich intracellular loop and a C-terminal tail. ZnT-6 (zinc transporter 6), also known as SLC30A6 (solute carrier family 30 member 6), is a 461 amino acid gene product that localizes to the membrane of the *trans*-Golgi network. Expressed throughout the body with highest expression in brain, eye and lung, ZnT-6 functions as zinc transporter that regulates zinc homeostasis within vesicular compartments and the Golgi apparatus and may help to form Insulin crystals within pancreatic β cells. ZnT-6 is expressed as three isoforms due to alternative splicing events and its expression is upregulated in response to zinc depletion.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC30A6 (human) mapping to 2p22.3; Slc30a6 (mouse) mapping to 17 E2.

SOURCE

ZnT-6 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of ZnT-6 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-161276 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZnT-6 (N-13) is recommended for detection of ZnT-6 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); non cross-reactive with other ZnT family members.

ZnT-6 (N-13) is also recommended for detection of ZnT-6 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for ZnT-6 siRNA (h): sc-94723, ZnT-6 siRNA (m): sc-155821, ZnT-6 shRNA Plasmid (h): sc-94723-SH, ZnT-6 shRNA Plasmid (m): sc-155821-SH, ZnT-6 shRNA (h) Lentiviral Particles: sc-94723-V and ZnT-6 shRNA (m) Lentiviral Particles: sc-155821-V.

Molecular Weight of ZnT-6: 51 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) 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.

STORAGE

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

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.