

## ZnT-8 (E-12): sc-98243

### 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-8 (zinc transporter 8), also known as SLC30A8 (solute carrier family 30 member 8), is a 369 amino acid multi-pass membrane protein that belongs to the ZnT family and is a major autoantigen in type I diabetes. Expressed specifically in pancreas islet cells, ZnT-8 functions as a zinc-efflux transporter that facilitates the accumulation of zinc in intracellular vesicles and is essential for the zinc-dependent maturation of Insulin within pancreatic cells. Multiple isoforms of ZnT-8 exist due to alternative splicing events.

### CHROMOSOMAL LOCATION

Genetic locus: SLC30A8 (human) mapping to 8q24.11; Slc30a8 (mouse) mapping to 15 C.

### SOURCE

ZnT-8 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ZnT-8 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-98243 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

ZnT-8 (E-12) is recommended for detection of ZnT-8 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), immunohistochemistry (including paraffin-embedded sections) (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-8 (E-12) is also recommended for detection of ZnT-8 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ZnT-8 siRNA (h): sc-77630, ZnT-8 siRNA (m): sc-155823, ZnT-8 shRNA Plasmid (h): sc-77630-SH, ZnT-8 shRNA Plasmid (m): sc-155823-SH, ZnT-8 shRNA (h) Lentiviral Particles: sc-77630-V and ZnT-8 shRNA (m) Lentiviral Particles: sc-155823-V.

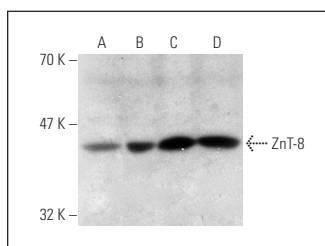
Molecular Weight of ZnT-8: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or 3T3-L1 cell lysate: sc-2243.

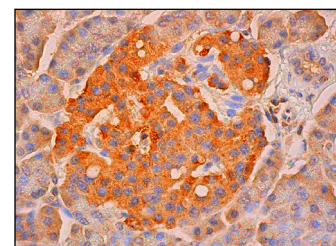
### RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

### DATA



ZnT-8 (E-12): sc-98243. Western blot analysis of ZnT-8 expression in MIA PaCa-2 (A), HeLa (B), 3T3-L1 (C) and NIH/3T3 (D) whole cell lysates.



ZnT-8 (E-12): sc-98243. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **ZnT-8 (B-9): sc-514715**, our highly recommended monoclonal alternative to ZnT-8 (E-12).