

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                  |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Znt-8 in direct ELISAs.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                   |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                              |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human ZnT-8<br>Lys268-Pro359<br>Accession # Q8IWU4 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm        |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                           |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                        |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

ZnT-8 (Zinc Transporter 8; also SLC30A8) is a 35-40 kDa member of the SLC (solute carrier)-30A subfamily, CDF family of proteins. It is expressed by pancreatic β-cells and α-cells, B cells, and adipocytes, and is known to play a role in Zn transport. In particular, ZnT-8 appears to transport zinc from the cytosol into secretory vesicles which, in the case of β-cells, provides a necessary component for proper insulin processing and granule storage. Further, it appears to facilitate glucose-mediated insulin release. Human ZnT-8 is a multipass transmembrane (TM) protein that is 369 amino acids (aa) in length. It contains an N-terminal cytoplasmic region (aa 1-79) followed by six TM segments (aa 80-266) and a 103 aa C-terminal cytoplasmic tail. There is a key His-rich motif in the second cytoplasmic loop (aa 197-205). ZnT-8 forms homodimers, and possibly oligomers. There is one alternative start site at Met50. Over aa 268-359, human ZnT-8 shares 79% aa sequence identity with mouse ZnT-8.

## PRODUCT SPECIFIC NOTICES

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