

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ZnT-8 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ZnT-8 Lys268-Pro359 Accession # Q8IWU4
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

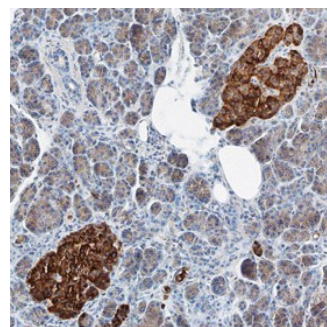
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



ZnT-8 in Human Pancreas. ZnT-8 was detected in immersion fixed paraffin-embedded sections of human pancreas using Sheep Anti-Human ZnT-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7318) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to islet cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.