

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ZnT-8 in ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 815039
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human ZnT-8 Lys268-Pro359 Accession # Q8IWU4
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	PANC-1 human cell line fixed and permeabilized with FlowX FoxP3/Transcription Factor Fixation & Perm Buffer Kit (Catalog # FC012)

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 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. Furthermore, 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

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.