Human ZnT-8 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 815039

Catalog Number: IC7936G

100 µg

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	*E. coli*-derived recombinant human ZnT-8 Lys268-Pro359 Accession # Q8IWU4
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.** • 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

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