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SLC30A8 Antibody

Catalog # ASC12029

Product Information

Application	WB, E
Primary Accession	Q8IWU4
Other Accession	64762489, NP_776250, 169026
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	40755
Application Notes	SLC30A8 antibody can be used for Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	169026
Other Names	SLC30A8 Antibody: Solute carrier family 30 member 8, zinc transporter 8, ZNT8, Zn-T8
Precautions	SLC30A8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC30A8 (HGNC:20303)
Function	Proton-coupled zinc ion antiporter mediating the entry of zinc into the lumen of pancreatic beta cell secretory granules, thereby regulating insulin secretion.
Cellular Location	Cytoplasmic vesicle, secretory vesicle membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Associated with insulin and glucagon secretory granules.
Tissue Location	In the endocrine pancreas, expressed in insulin- producing beta cells. Expressed at relatively high levels in subcutaneous fat tissue from lean persons; much lower levels in visceral fat, whether from lean or obese individuals, and in subcutaneous fat tissue from obese individuals. Expressed in peripheral blood mononuclear cells, including T-cells and B-cells, with great variation among individuals ranging from negative to strongly positive

Background

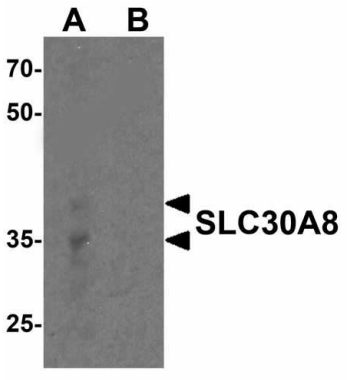
SLC30A8 Antibody: SLC30A8 is a zinc efflux transporter involved in the accumulation of zinc in intracellular

vesicles and is expressed at a high level in the pancreas, particularly in islets of Langerhans, and co-localizes with insulin in the secretory pathway granules of the insulin-secreting INS-1 cells (1). Allelic variants of SLC30A8 have been identified as major genetic risk factors for the development of Type 2 diabetes (2), but no genetic association has been found with Type 1 diabetes (3). SLC30A8 expression in β-cells was found to be influenced by cytokine expression, particularly IFN-gamma and IL-1beta (4).

References

Chimienti F, Devergnas S, Favier A, et al. Identification and cloning of a beta-cell-specific zinc transporter, ZnT-8, localized into insulin secretory granules. Diabetes 2004; 53:2330-7.;Sladek R, Rocheleau G, Rung J, et al. A genome-wide association study indentifies novel risk loci for type 2 diabetes. Science 2007; 445:881-5.;Qu HQ, Grant SF, Bradfield JP, et al. Association analysis of type 2 diabetes Loci in type 1 diabetes. Diabetes 2008; 57:1983-6.;Egefjord L, Jensen JL, Bang-Berthelsen CH, et al. Zinc transporter gene expression is regulated by pro-inflammatory cytokines: a potential role for zinc transporters in beta-cell apoptosis? BMC Endocrine Disorders 2009; 9:7.

Images



Western blot analysis of SLC30A8 in human pancreas tissue lysate with SLC30A8 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.