

S39A8 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9359c**Specification**

S39A8 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O9C0K1](#)**S39A8 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 64116**Other Names**

Zinc transporter ZIP8, BCG-induced integral membrane protein in monocyte clone 103 protein, LIV-1 subfamily of ZIP zinc transporter 6, LZT-Hs6, Solute carrier family 39 member 8, Zrt- and Irt-like protein 8, ZIP-8, SLC39A8, BIGM103, ZIP8

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

S39A8 Antibody (Center) Blocking Peptide - Protein Information**Name** SLC39A8 ([HGNC:20862](#))**Function**

Electroneutral divalent metal cation:bicarbonate symporter of the plasma membrane mediating the cellular uptake of zinc and manganese, two divalent metal cations important for development, tissue homeostasis and immunity (PubMed: [12504855](http://www.uniprot.org/citations/12504855), PubMed: [22898811](http://www.uniprot.org/citations/22898811), PubMed: [23403290](http://www.uniprot.org/citations/23403290), PubMed: [29337306](http://www.uniprot.org/citations/29337306), PubMed: [26637978](http://www.uniprot.org/citations/26637978), PubMed: [29453449](http://www.uniprot.org/citations/29453449)). Transports an electroneutral complex composed of a divalent metal cation and two bicarbonate anions or alternatively a bicarbonate and a selenite anion (PubMed: [27166256](http://www.uniprot.org/citations/27166256), PubMed: [31699897](http://www.uniprot.org/citations/31699897)). Thereby, it also contributes to the cellular uptake of selenium, an essential trace metal and micronutrient (PubMed: [27166256](http://www.uniprot.org/citations/27166256)). Also imports cadmium a non- essential metal which is cytotoxic and carcinogenic (PubMed: [27466201](http://www.uniprot.org/citations/27466201))

target="_blank">27466201). May also transport iron and cobalt through membranes (PubMed:22898811). Through zinc import, indirectly regulates the metal-dependent transcription factor MTF1 and the expression of some metalloproteases involved in cartilage catabolism and also probably heart development (PubMed:29337306). Also indirectly regulates the expression of proteins involved in cell morphology and cytoskeleton organization (PubMed:29927450). Indirectly controls innate immune function and inflammatory response by regulating zinc cellular uptake which in turn modulates the expression of genes specific of these processes (PubMed:23403290, PubMed:28056086). Protects, for instance, cells from injury and death at the onset of inflammation (PubMed:18390834). By regulating zinc influx into monocytes also directly modulates their adhesion to endothelial cells and arteries (By similarity). Reclaims manganese from the bile at the apical membrane of hepatocytes, thereby regulating the activity of the manganese-dependent enzymes through the systemic levels of the nutrient (PubMed:28481222). Also participates in manganese reabsorption in the proximal tubule of the kidney (PubMed:26637978). By mediating the extracellular uptake of manganese by cells of the blood-brain barrier, may also play a role in the transport of the micronutrient to the brain (PubMed:26637978, PubMed:31699897). With manganese cellular uptake also participates in mitochondrial proper function (PubMed:29453449). Finally, also probably functions intracellularly, translocating zinc from lysosome to cytosol to indirectly enhance the expression of specific genes during TCR- mediated T cell activation (PubMed:19401385).

Cellular Location

Cell membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Note=Localizes to the lysosome of activated T-cells (PubMed:19401385). A large fraction of the protein is found intracellularly in microvascular capillary endothelial cells that constitute the blood-brain barrier (PubMed:31699897). Localized and functional at both apical and basolateral membranes of microvascular capillary endothelial cells that constitute the blood-brain barrier (PubMed:31699897)

Tissue Location

Ubiquitously expressed (PubMed:12504855, PubMed:22898811, PubMed:28056086, PubMed:31699897). Expressed in thymus, placenta, lung, liver, pancreas, salivary gland and, to a lower extent, in spleen, testis, ovary, small intestine, colon, leukocyte, heart. Highest expression is observed in pancreas (PubMed:12504855) Expressed by macrophages (at protein level) (PubMed:28056086) Expressed by microvascular capillary endothelial cells that constitute the blood-brain barrier (at protein level) (PubMed:31699897)

S39A8 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

S39A8 Antibody (Center) Blocking Peptide - Images

S39A8 Antibody (Center) Blocking Peptide - Background

S39A8 encodes a member of the SLC39 family of solute-carrier genes, which show structural characteristics of zinc transporters. The encoded protein is glycosylated and found in the plasma membrane and mitochondria, and functions in the cellular import of zinc at the onset of inflammation. It is also thought to be the primary transporter of the toxic cation cadmium, which is found in cigarette smoke.

S39A8 Antibody (Center) Blocking Peptide - References

Wang,L. Cancer Epidemiol. Biomarkers Prev. 17 (12), 3558-3566 (2008)Aiba,I. Mol. Pharmacol. 74 (3), 823-833 (2008)Besecker,B. Am. J. Physiol. Lung Cell Mol. Physiol. 294 (6), L1127-L1136 (2008)