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SLC22A4 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP5986b

Specification

SLC22A4 Antibody (C-term) Blocking peptide - Product Information

Primary Accession	Q9H015
Other Accession	NP_003050.2

SLC22A4 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 6583

Other Names
Solute carrier family 22 member 4, Ergothioneine transporter, ET transporter, Organic cation/carnitine transporter 1, SLC22A4, ETT, OCTN1, UT2H

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.

SLC22A4 Antibody (C-term) Blocking peptide - Protein Information

Name SLC22A4 (HGNC:10968)

Function
Transporter that mediates the transport of endogenous and microbial zwitterions and organic cations (PubMed:15795384, PubMed:10215651, PubMed:16729965, PubMed:20601551, PubMed:22569296, PubMed:29530864, PubMed:15107849, PubMed:22206629). Functions as a Na(+)-dependent and pH-dependent high affinity microbial symporter of potent food-derived antioxidant ergothioeine (PubMed:15795384, PubMed:29530864, PubMed:33124720). Transports one sodium ion with one ergothioeine molecule (By similarity). Involved in the absorption of ergothioneine from the luminal/apical side of the small intestine and renal tubular cells, and into

non-parenchymal liver cells, thereby contributing to maintain steady-state ergothioneine level in the body (PubMed:20601551). Also mediates the bidirectional transport of acetycholine, although the exact transport mechanism has not been fully identified yet (PubMed:22206629). Most likely exports anti-inflammatory acetylcholine in non-neuronal tissues, thereby contributing to the non-neuronal cholinergic system (PubMed:22569296, PubMed:22206629). Displays a general physiological role linked to better survival by controlling inflammation and oxidative stress, which may be related to ergothioneine and acetycholine transports (PubMed:15795384, PubMed:22206629). May also function as a low-affinity Na(+)-dependent transporter of L-carnitine through the mitochondrial membrane, thereby maintaining intracellular carnitine homeostasis (PubMed:10215651, PubMed:16729965, PubMed:15107849). May contribute to regulate the transport of cationic compounds in testis across the blood-testis- barrier (PubMed:35307651).

Cellular Location
Apical cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Note=Localized to the apical membrane of small intestines (PubMed:20601551). Localized to the basal membrane of Sertoli cells (PubMed:35307651).

Tissue Location
Widely expressed (PubMed:9426230). Highly expressed in kidney, trachea, ileum, bone marrow and whole blood (PubMed:9426230, PubMed:15795384). Expressed in small intestines (PubMed:20601551) Weakly expressed in skeletal muscle, prostate, lung, pancreas, placenta, heart, uterus, spleen and spinal cord (PubMed:9426230, PubMed:15795384, PubMed:16729965). Expressed in testis, primarily to the basal membrane of Sertoli cells (PubMed:35307651, PubMed:16729965) Expressed in brain (PubMed:16729965). Expressed in liver (PubMed:16729965). Highly expressed in intestinal cell types affected by Crohn disease, including epithelial cells. Expressed in CD68 macrophage and CD43 T-cells but not in CD20 B-cells (PubMed:15107849) Predominantly expressed in CD14 cells in peripheral blood mononuclear cells (PubMed:14608356). Expressed in fetal liver, kidney and lung (PubMed:9426230, PubMed:15795384).

SLC22A4 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

SLC22A4 Antibody (C-term) Blocking peptide - Images