

SLC22A5 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP12694b**Specification**

SLC22A5 Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [O76082](#)**SLC22A5 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 6584**Other Names**

Solute carrier family 22 member 5, High-affinity sodium-dependent carnitine cotransporter, Organic cation/carnitine transporter 2, SLC22A5, OCTN2

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.

SLC22A5 Antibody (C-term) Blocking peptide - Protein Information**Name** SLC22A5 ([HGNC:10969](#))**Function**

Sodium-ion dependent, high affinity carnitine transporter. Involved in the active cellular uptake of carnitine. Transports one sodium ion with one molecule of carnitine (PubMed:10454528, PubMed:10525100, PubMed:10966938, PubMed:17509700, PubMed:20722056, PubMed:33124720). Also transports organic cations such as tetraethylammonium (TEA) without the involvement of sodium. Relative uptake activity ratio of carnitine to TEA is 11.3 (PubMed:10454528, PubMed:10525100, PubMed:10966938). In intestinal epithelia, transports the quorum-sensing pentapeptide CSF (competence and sporulation factor) from Bacillus Subtilis which induces cytoprotective heat shock proteins contributing to intestinal homeostasis (PubMed:18005709). May also contribute to regulate the transport of organic

compounds in testis across the blood-testis-barrier (Probable).

Cellular Location

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=In intestinal cells, apical expression is induced by TNF. Localized to the basal membrane of Sertoli cells (PubMed:35307651).

Tissue Location

Strongly expressed in kidney, skeletal muscle, heart and placenta (PubMed:10454528). Primarily expressed by surface epithelial cells of the colon (at protein level) (PubMed:18005709) Expressed in CD68 macrophage and CD43 T-cells but not in CD20 B-cells (PubMed:10454528). In testis, localized to Sertoli cell basal membranes, peritubular myoid cells and Leydig cells (PubMed:35307651)

SLC22A5 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

SLC22A5 Antibody (C-term) Blocking peptide - Images

SLC22A5 Antibody (C-term) Blocking peptide - Background

Polyspecific organic cation transporters in the liver, kidney, intestine, and other organs are critical for elimination of many endogenous small organic cations as well as a wide array of drugs and environmental toxins. The encoded protein is a plasma integral membrane protein which functions both as an organic cation transporter and as a sodium-dependent high affinity carnitine transporter. The encoded protein is involved in the active cellular uptake of carnitine. Mutations in this gene are the cause of systemic primary carnitine deficiency (CDSP), an autosomal recessive disorder manifested early in life by hypoketotic hypoglycemia and acute metabolic decompensation, and later in life by skeletal myopathy or cardiomyopathy.

SLC22A5 Antibody (C-term) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Fransen, K., et al. Hum. Mol. Genet. 19(17):3482-3488(2010) D'Argenio, G., et al. J. Biol. Chem. 285(35):27078-27087(2010) Li, F.Y., et al. Hum. Mutat. 31 (8), E1632-E1651 (2010) : Ridruechai, C., et al. Genes Immun. 11(5):416-422(2010)