

**SLC22A5 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8854c****Specification**

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**SLC22A5 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [O76082](#)**SLC22A5 Antibody (Center) 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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8854c](/products/AP8854c) was selected from the Center region of human SLC22A5. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**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 (Center) 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](http://www.uniprot.org/citations/10454528), PubMed:[10525100](http://www.uniprot.org/citations/10525100), PubMed:[10966938](http://www.uniprot.org/citations/10966938), PubMed:[17509700](http://www.uniprot.org/citations/17509700), PubMed:[20722056](http://www.uniprot.org/citations/20722056), PubMed:[33124720](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/10454528), PubMed:[10454528](#)).

href="http://www.uniprot.org/citations/10525100" target="\_blank">10525100</a>, PubMed:<a href="http://www.uniprot.org/citations/10966938" target="\_blank">10966938</a>). 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:<a href="http://www.uniprot.org/citations/18005709" target="\_blank">18005709</a>). 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 (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **SLC22A5 Antibody (Center) Blocking Peptide - Images**

### **SLC22A5 Antibody (Center) Blocking Peptide - Background**

SLC22A5 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.

### **SLC22A5 Antibody (Center) Blocking Peptide - References**

Bacher,P., et.al., Biochim. Biophys. Acta 1788 (12), 2594-2602 (2009)