

SLC5A1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14529b**Specification**

SLC5A1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P13866](#)**SLC5A1 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 6523

Other Names

Sodium/glucose cotransporter 1, Na(+)/glucose cotransporter 1, High affinity sodium-glucose cotransporter, Solute carrier family 5 member 1, SLC5A1, NAGT, SGLT1

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.

SLC5A1 Antibody (C-term) Blocking Peptide - Protein Information**Name** SLC5A1 {ECO:0000303|PubMed:28974690, ECO:0000312|HGNC:HGNC:11036}**Function**

Electrogenic Na(+)-coupled sugar symporter that actively transports D-glucose or D-galactose at the plasma membrane, with a Na(+) to sugar coupling ratio of 2:1. Transporter activity is driven by a transmembrane Na(+) electrochemical gradient set by the Na(+)/K(+) pump (PubMed:20980548, PubMed:35077764, PubMed:8563765, PubMed:34880492). Has a primary role in the transport of dietary monosaccharides from enterocytes to blood. Responsible for the absorption of D-glucose or D-galactose across the apical brush-border membrane of enterocytes, whereas basolateral exit is provided by GLUT2. Additionally, functions as a D-glucose sensor in enteroendocrine cells, triggering the secretion of the incretins GCG and GIP that control food intake and energy homeostasis (PubMed:8563765) (By similarity). Together with SGLT2, functions in reabsorption of D-glucose from glomerular filtrate, playing a nonredundant role in the S3 segment of the proximal tubules (By similarity). Transports D-glucose into endometrial epithelial cells, controlling glycogen synthesis and nutritional support for the embryo as well as the decidual transformation of endometrium prior to conception (PubMed:28974690).

target="_blank">28974690). Acts as a water channel enabling passive water transport across the plasma membrane in response to the osmotic gradient created upon sugar and Na(+) uptake. Has high water conductivity, comparable to aquaporins, and therefore is expected to play an important role in transepithelial water permeability, especially in the small intestine.

Cellular Location

Apical cell membrane; Multi-pass membrane protein

Tissue Location

Expressed in intestine (PubMed:2490366). Expressed in endometrial cells (PubMed:28974690).

SLC5A1 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

SLC5A1 Antibody (C-term) Blocking Peptide - Images**SLC5A1 Antibody (C-term) Blocking Peptide - Background**

This gene encodes a member of the sodium-dependent glucosetransporter (SGLT) family. The encoded integral membrane protein is the primary mediator of dietary glucose and galactose uptake from the intestinal lumen. Mutations in this gene have been associated with glucose-galactose malabsorption.

SLC5A1 Antibody (C-term) Blocking Peptide - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Sopjani, M., et al. Mol. Membr. Biol. 27 (2-3), 137-144 (2010) :Longpre, J.P., et al. Biophys. J. 98(2):231-239(2010)Yokoyama, K., et al. Nephron Clin Pract 115 (4), C237-C243 (2010) :Banerjee, S.K., et al. Cardiovasc. Res. 84(1):111-118(2009)