

SLC5A1 / SGLT1 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS11047**Specification**

SLC5A1 / SGLT1 Antibody (N-Terminus) - Product Information

Application	IHC
Primary Accession	P13866
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73kDa KDa

SLC5A1 / SGLT1 Antibody (N-Terminus) - 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

Target/Specificity

Human SLC5A1 / SGLT1. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

SLC5A1 / SGLT1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC5A1 / SGLT1 Antibody (N-Terminus) - 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). 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).

Volume

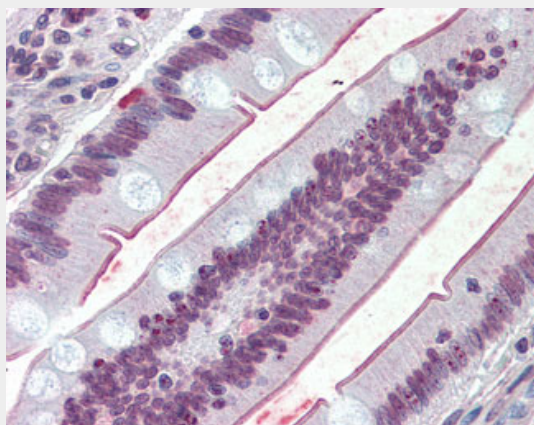
50 µl

SLC5A1 / SGLT1 Antibody (N-Terminus) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SLC5A1 / SGLT1 Antibody (N-Terminus) - Images



Anti-SLC5A1 / SGLT1 antibody ALS11047 IHC of human small intestine.

SLC5A1 / SGLT1 Antibody (N-Terminus) - Background

Actively transports glucose into cells by Na(+) cotransport with a Na(+) to glucose coupling ratio of 2:1. Efficient substrate transport in mammalian kidney is provided by the concerted action of a

low affinity high capacity and a high affinity low capacity Na(+)/glucose cotransporter arranged in series along kidney proximal tubules.

SLC5A1 / SGLT1 Antibody (N-Terminus) - References

Hediger M.A., et al. Proc. Natl. Acad. Sci. U.S.A. 86:5748-5752(1989).

Turk E., et al. J. Biol. Chem. 269:15204-15209(1994).

Collins J.E., et al. Genome Biol. 5:R84.1-R84.11(2004).

Ota T., et al. Nat. Genet. 36:40-45(2004).

Dunham I., et al. Nature 402:489-495(1999).