

SLC5A1 / SGLT1 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS13220**Specification**

SLC5A1 / SGLT1 Antibody (Internal) - Product Information

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

SLC5A1 / SGLT1 Antibody (Internal) - 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.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

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

SLC5A1 / SGLT1 Antibody (Internal) - 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:<a href="http://www.uniprot.org/citations/8563765"

target="_blank">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

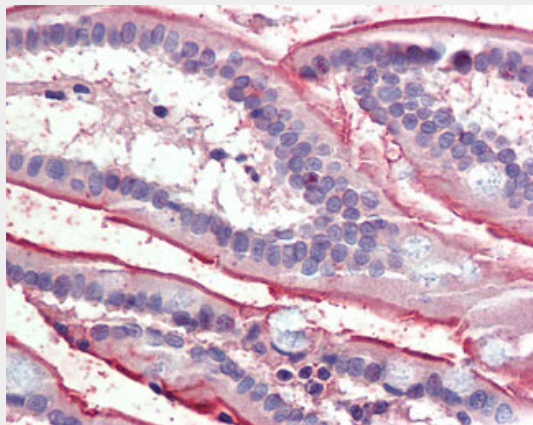
Tissue Location

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

SLC5A1 / SGLT1 Antibody (Internal) - 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 (Internal) - Images

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

SLC5A1 / SGLT1 Antibody (Internal) - 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 (Internal) - 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).