

**SLC5A1 / SGLT1 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS12642****Specification**

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**SLC5A1 / SGLT1 Antibody - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">P13866</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73kDa KDa

**SLC5A1 / SGLT1 Antibody - 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**

The antibody detects 73 kD SGLT-1 from human samples and in a lesser extent from mouse and rat samples. A ~50 kD cleavage fragment can also be detected in Jurkat cell lysate.

**Reconstitution & Storage**

+4°C or -20°C, Avoid repeated freezing and thawing.

**Precautions**

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

**SLC5A1 / SGLT1 Antibody - 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:<a href="http://www.uniprot.org/citations/20980548" target="\_blank">20980548</a>, PubMed:<a href="http://www.uniprot.org/citations/35077764" target="\_blank">35077764</a>, PubMed:<a href="http://www.uniprot.org/citations/8563765" target="\_blank">8563765</a>, PubMed:<a href="http://www.uniprot.org/citations/34880492" target="\_blank">34880492</a>). 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</a>) (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:<a href="http://www.uniprot.org/citations/28974690" target="\_blank">28974690</a>). 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).

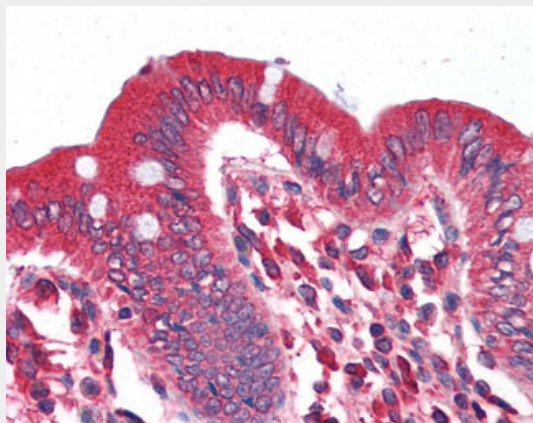
**Volume**

250 µl

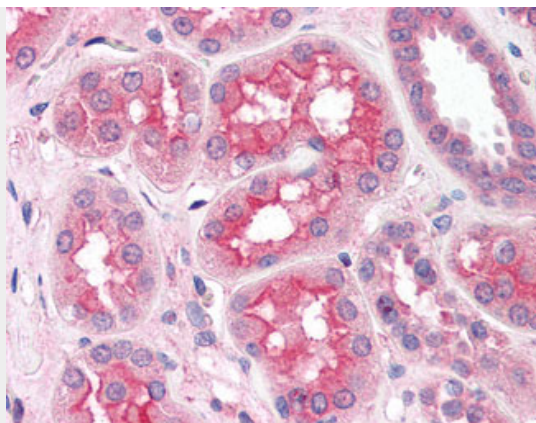
**SLC5A1 / SGLT1 Antibody - Protocols**

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

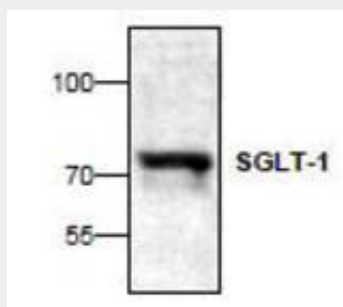
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**SLC5A1 / SGLT1 Antibody - Images**

Anti-SLC5A1 / SGLT1 antibody IHC of human colon.



Anti-SLC5A1 / SGLT1 antibody IHC of human kidney.



Western blot of SGLT-1 expression in Jurkat cell lysate

#### **SLC5A1 / SGLT1 Antibody - 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 - 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).