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SLC5A1 Rabbit pAb

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Catalog # AP52294

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	P13866
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73498
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SGLT1
Epitope Specificity	501-600/665
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein.
DISEASE	Congenital glucose/galactose malabsorption (GGM) [MIM:606824]: Intestinal monosaccharide transporter deficiency. It is an autosomal recessive disorder manifesting itself within the first weeks of life. It is characterized by severe diarrhea and dehydration which are usually fatal unless glucose and galactose are eliminated from the diet. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the sodium-dependent glucose transporter (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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

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 {ECO:0000303|PubMed:28974690, ECO:0000312|HGNC:HGNC:11036}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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:34880492, PubMed:35077764, PubMed:8563765, PubMed:37217492). 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 (By similarity) (PubMed:8563765). 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).

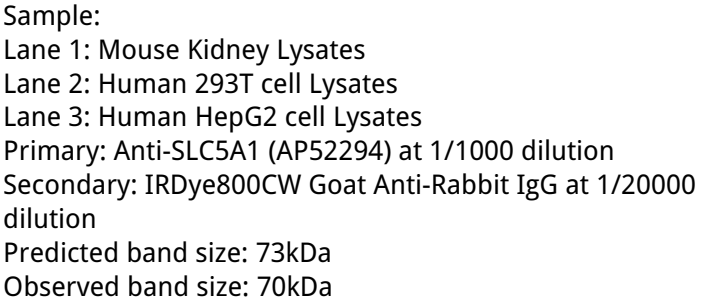
Background

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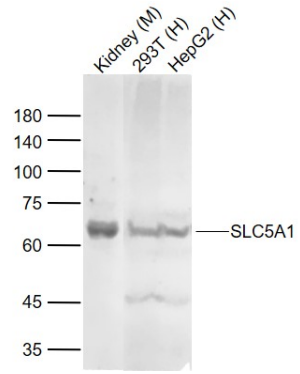
References

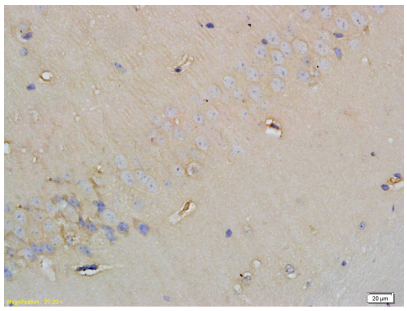
Carninci P.,et al.Science 309:1559-1563(2005).

Images



Sample:
Lane 1: Mouse Kidney Lysates
Lane 2: Human 293T cell Lysates
Lane 3: Human HepG2 cell Lysates
Primary: Anti-SLC5A1 (AP52294) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 73kDa
Observed band size: 70kDa





bs-1128R Anti-SGLT1/GLT 1 Polyclonal Antibody
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min
Block endogenous peroxidase by 3% Hydrogen peroxide for 30min
Blocking buffer (normal goat serum) at 37℃ for 20 min
Incubation: Anti-SGLT1 Polyclonal Antibody, Unconjugated(bs-1128R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.