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Anti-SLC2A5 Antibody

Catalog # ABO11370

Product Information

Application	WB
Primary Accession	P22732
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 2, facilitated glucose transporter member 5(SLC2A5) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6518
Other Names	Solute carrier family 2, facilitated glucose transporter member 5, Fructose transporter, Glucose transporter type 5, small intestine, GLUT-5, SLC2A5, GLUT5
Calculated MW	54974
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Apical cell membrane ; Multi- pass membrane protein . Membrane; Multi-pass membrane protein. Localized on the apical membrane of the small intestine and the proximal tubule of the kidney. .
Tissue Specificity	Expressed in small intestine, and at much lower levels in kidney, skeletal muscle, and adipose tissue.
Source	Eukaryota
Protein Name	Solute carrier family 2, facilitated glucose transporter member 5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SLC2A5 (481-501aa VSEVYPEKEELKELPPVTSEQ).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.

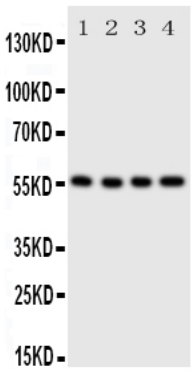
Protein Information

Name	SLC2A5 (HGNC:11010)
Function	Functions as a fructose transporter that has only low activity with other monosaccharides (PubMed:16186102, PubMed:17710649, PubMed:28083649, PubMed:29548810, PubMed:8333543). Can mediate the uptake of 2-deoxyglucose, but with low efficiency (PubMed:1695905). Essential for fructose uptake in the small intestine (By similarity). Plays a role in the regulation of salt uptake and blood pressure in response to dietary fructose (By similarity). Required for the development of high blood pressure in response to high dietary fructose intake (By similarity).
Cellular Location	Apical cell membrane {ECO:0000250|UniProtKB:Q9WV38}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9WV38}. Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9WV38}. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P43427}. Note=Localized on the apical membrane of jejunum villi, but also on lateral plasma membranes of the villi. Transport to the cell membrane is dependent on RAB11A {ECO:0000250|UniProtKB:Q9WV38}
Tissue Location	Detected in skeletal muscle, and in jejunum brush border membrane and basolateral membrane (at protein level) (PubMed:7619085). Expressed in small intestine, and at much lower levels in kidney, skeletal muscle, and adipose tissue

Background

SLC2A5, also known as GLUT5(Glucose transporter 5), is a fructose transporter expressed on the apical border of enterocytes in the small intestine. The GLUT5 gene is located on chromosome 1. GLUT5 allows for fructose to be transported from the intestinal lumen into the enterocyte by facilitated diffusion due to fructose's high concentration in the intestinal lumen. GLUT5 is also expressed in skeletal muscle, testis, kidney, fat tissue, and brain. Fructose malabsorption or Dietary Fructose Intolerance is a dietary disability of the small intestine, where the amount of fructose carrier in enterocytes is deficient. In humans the GLUT5 protein is encoded by the SLC2A5 gene.

Images



Anti-SLC2A5 antibody, ABO11370, Western blottingLane 1: U87 Cell LysateLane 2: 293T Cell LysateLane 3: HT1080 Cell LysateLane 4: SW620 Cell Lysate

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