

Anti-SLC2A5 Antibody

Catalog # ABO11370

Specification

Anti-SLC2A5 Antibody - Product Information

Application WB
Primary Accession P22732
Host 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.

Anti-SLC2A5 Antibody - 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 MW KDa

Application Details

Western blot, 0.1-0.5 μg/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.

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.

Anti-SLC2A5 Antibody - 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, 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

Anti-SLC2A5 Antibody - Protocols

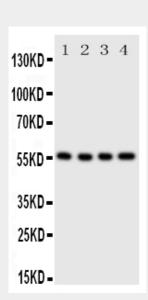
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry



- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-SLC2A5 Antibody - Images



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

Anti-SLC2A5 Antibody - 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.