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Anti-SLC2A5 Antibody

Catalog # ABO11045

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	Q9WV38
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 2, facilitated glucose transporter member 5(SLC2A5) detection. Tested with WB, IHC-P, IHC-F in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	56485
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	55409
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, Rat, By Heat Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Rat, Mouse Western blot, 0.1-0.5 □g/ml, Mouse, Rat
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.
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 in the middle region of mouse SLC2A5 (232-251aa ALQTLRGWKDVHLEMEEIRK), different from the related rat sequence by two amino acids.
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.

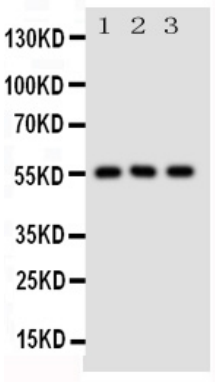
Protein Information

Name	Slc2a5 {ECO:0000312|MGI:MGI:1928369}
Function	Functions as a fructose transporter that has only low activity with other monosaccharides (PubMed:12031501, PubMed:19091748). Can mediate the uptake of deoxyglucose, but with low efficiency (By similarity). Essential for fructose uptake in the small intestine (PubMed:19091748, PubMed:26071406). Plays a role in the regulation of salt uptake and blood pressure in response to dietary fructose (PubMed:19091748). Required for the development of high blood pressure in response to high dietary fructose intake (PubMed:19091748).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. 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 (PubMed:18496516, PubMed:26071406). Transport to the cell membrane is dependent on RAB11A (PubMed:26071406).
Tissue Location	Detected at the apical membrane of villi in the jejunum (PubMed:18496516, PubMed:19091748, PubMed:26071406). Detected in jejunum mucosa (PubMed:26071406). Detected in epididymis and whole testis (at protein level) (PubMed:18417103). Detected in small intestine, kidney and testis (PubMed:12031501, PubMed:18417103, PubMed:19091748). Detected in cochlea, but not in inner or outer cochlear hair cells (PubMed:18417103).

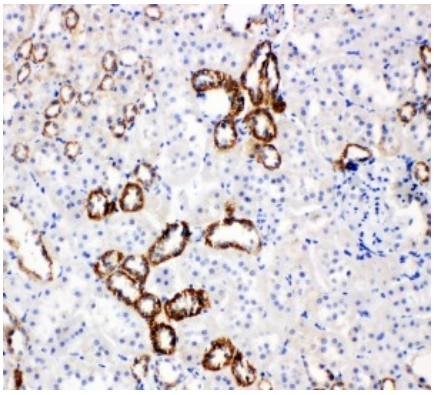
Background

GLUT5(Glucose transporter 5), also known as SLC2A5, 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.

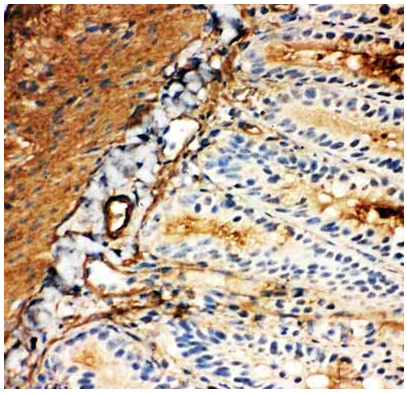
Images



Anti-SLC2A5 antibody, ABO11045, Western blottingAll lanes: Anti SLC2A5 (ABO11045) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: Mouse Kidney Tissue Lysate at 50ugPredicted bind size: 55KDObserved bind size: 55KD



Anti-SLC2A5 antibody, ABO11045, IHC(P)IHC(P): Rat Kidney Tissue



Anti-SLC2A5 antibody, ABO11045, IHC(F)IHC(F): Rat Intestine Tissue