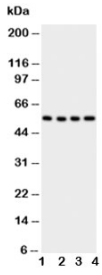
GLUT5 Antibody / Glucose Transporter 5 (R31175)

Catalog No.	Formulation	Size
R31175	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Citations (1)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P22732
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.5-1ug/ml
Limitations	This GLUT5 antibody is available for research use only.



GLUT5 Antibody Human Cell Lines WB. Western blot analysis of GLUT5 expression using a GLUT5 antibody. Lane 1: human U87 cell lysate. Lane 2: human 293T cell lysate. Lane 3: human HT1080 cell lysate. Lane 4: human SW620 cell lysate. GLUT5, also known as SLC2A5 and Fructose Transporter Protein, is a facilitative transporter that mediates fructose uptake and contributes to carbohydrate metabolism and cellular energy homeostasis. A prominent band is detected at approximately 55 kDa in all cell lines, consistent with the expected molecular weight of GLUT5. These results demonstrate endogenous expression of this fructose transporter in diverse human cell types and support the utility of GLUT5 Antibody for studies of nutrient transport, metabolic regulation, and cancer metabolism.

Description

GLUT5 antibody recognizes Glucose transporter 5, a facilitative hexose transporter encoded by the SLC2A5 gene and commonly referred to as GLUT5. Glucose transporter 5 belongs to the solute carrier 2 (SLC2) family of membrane transport proteins and functions primarily as a fructose transporter rather than a glucose transporter. GLUT5 antibody,

also referred to as SLC2A5 antibody and fructose transporter antibody in the literature, detects a multi-pass transmembrane protein predominantly localized to the plasma membrane of epithelial cells in tissues specialized for fructose absorption and metabolism.

Glucose transporter 5 is highly expressed in the small intestine, particularly in enterocytes of the jejunum, where it mediates dietary fructose uptake across the apical membrane. Expression is also observed in kidney, spermatozoa, skeletal muscle, adipose tissue, and certain regions of the brain. In intestinal epithelium, GLUT5 plays a critical role in fructose handling, contributing to systemic carbohydrate metabolism and energy balance.

Structurally, GLUT5 contains twelve predicted transmembrane helices characteristic of the facilitative glucose transporter family. Unlike GLUT1 and other glucose-preferring transporters, GLUT5 exhibits strong substrate specificity for fructose. Regulation of SLC2A5 expression is influenced by dietary fructose intake, metabolic state, and hormonal signaling pathways that coordinate nutrient absorption and utilization.

Altered GLUT5 expression has been reported in metabolic disorders and in several malignancies, including colorectal, breast, and pancreatic cancers, where enhanced fructose uptake may support tumor growth and metabolic reprogramming. Because fructose metabolism can contribute to anabolic pathways and redox balance, SLC2A5 has attracted interest in cancer metabolism research.

GLUT5 antibody is suitable for research applications focused on analysis of fructose transport, intestinal physiology, metabolic regulation, and disease-associated changes in SLC2A5 expression.

Visit our GLUT5 Antibody page to discover additional antibodies against this Fructose Transporter Protein, including published reagents for investigations of nutrient absorption, metabolic regulation, and cancer metabolism.

Application Notes

The stated application concentrations are suggested starting points. Titration of the GLUT5 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 481-501 (VSEVYPEKEELKELPPVTSEQ-human) were used as the immunogen for this GLUT5 antibody.

Storage

After reconstitution, the GLUT5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

SLC2A5 Antibody, Solute Carrier Family 2 Member 5 Antibody, Fructose Transporter GLUT5 Antibody, Facilitative Glucose Transporter 5 Antibody, Hexose Transporter Protein Antibody, Intestinal Fructose Transporter Antibody, Sugar Transport Protein Antibody

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