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GLUT5 Rabbit pAb

Catalog # AP97868

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P22732
Other Accession	P22732
Reactivity	Rat
Predicted	Human, Mouse, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54974
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GLUT5
Epitope Specificity	131-180/501
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Ten types of glucose/fructose transport carrier proteins designated as Glut 1-10 facilitate glucose/fructose transport across the cell membrane. Molecular cloning of glucose transporters have identified a family of closely related genes that encodes at least 7 proteins exhibiting high degree of amino acid homology (45%-65%) all in the molecular weight range of 40-60 kDa. Individual members of the Glut family have predicted secondary structure characteristic of 12 membrane spanning domains of other transport carriers. Majority of the differences in sequence homology in Glut proteins occur at 4 hydrophilic domains that may play a role in distinct tissue-specific pattern of expression and targeting. All Glut proteins are glycosylated at or near the C-terminus and are present on either cell surface or in intracellular sites. Some transporters exhibit dynamic trafficking between intracellular storage sites and plasma membranes in response to various stimuli. In some tissues Glut proteins are asymmetrically distributed between apical and basolateral membranes as in blood brain barrier and blood testis barriers. Glut 5 seems to function primarily as a fructose transporter; it is expressed in small intestine, and at much lower levels in kidney, skeletal muscle, and adipose

Additional Information

Gene ID	6518
Other Names	GLUT-5; GLUT5; Slc5a; GTR5_HUMAN; SLC2A5; Fructose transporter; Glucose transporter type 5, small intestine (GLUT-5); GTR5_MOUSE; GTR5_RAT; solute carrier family 2 member 5; solute carrier family 2 (facilitated glucose/fructose

	transporter), member 5
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=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	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

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