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Rabbit Anti-GLUT2/Cy5 Conjugated antibody

SL0351R-Cy5

Product Name	Anti-GLUT2/Cy5
Chinese Name	Cy5 标记的葡萄糖 Transporter2 抗体
Alias	liver; Glucose Transporter 2; Glucose Transporter GLUT2; Glucose transporter type 2; Glucose transporter type 2 liver; GLUT-2; GLUT2; GLUT 2; GTR2_HUMAN; SLC2A2; Solute carrier family 2 (facilitated glucose transporter) member 2; Solute carrier family 2 facilitated glucose transporter member 2; Solute carrier family 2, facilitated glucose transporter member 2.
Research Area	Cell biology immunology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Chicken,Dog,Pig,Cow,Sheep,Goat)
Applications	Flow-Cyt=1μg /test,IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	54kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human GLUT2 (465-513aa)
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** Glucose transporter 2 isoform is an integral plasma membrane glycoprotein of the liver, islet beta cells, intestine, and kidney epithelium. It mediates facilitated bidirectional glucose transport. Because of its low affinity for glucose, it has been suggested as a glucose sensor. [provided by RefSeq, Jul

2008].

Function:
Facilitative glucose transporter. This isoform likely mediates the bidirectional transfer of glucose across the plasma membrane of hepatocytes and is responsible for uptake of glucose by the beta cells; may comprise part of the glucose-sensing mechanism of the beta cell. May also participate with the Na(+)/glucose cotransporter in the transcellular transport of glucose in the small intestine and kidney.

Subcellular Location:
Membrane; Multi-pass membrane protein.

Tissue Specificity:
Liver, insulin-producing beta cell, small intestine and kidney.

Post-translational modifications:
N-glycosylated; required for stability and retention at the cell surface of pancreatic beta cells.

DISEASE:
Defects in SLC2A2 are the cause of Fanconi-Bickel syndrome (FBS) [MIM:227810]. FBS is a rare, well-defined clinical entity, inherited in an autosomal recessive mode and characterized by hepatorenal glycogen accumulation, proximal renal tubular dysfunction, and impaired utilization of glucose and galactose.

Similarity:
Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.

Database links:

Entrez Gene: 6514 Human

Entrez Gene: 20526 Mouse

Entrez Gene: 25351 Rat

Omim: 138160 Human

SwissProt: P11168 Human

SwissProt: P14246 Mouse

SwissProt: P12336 Rat

Unigene: 167584 Human

Unigene: 18443 Mouse

Unigene: 89295 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

交换和转运（Trafficking and Transport）
葡萄糖载运蛋白 2 GLUT-2 是胰岛 BThe cell membrane 上的 Transporter，在血糖浓度升高时，促进 GLUT2 对葡萄糖的转运功能，继而刺激胰岛素释放。GLUT2 分子对葡萄糖亲合力极低，似乎仅在血浆葡萄糖水平相对较高时才作为转运体发挥载体功能,GLUT2 在胰岛 B 细胞的葡萄糖转运中起着重要作用
GLUT-2 和 GLUT-4 蛋白这两个葡萄糖运载体的研究对于 Diabetes 的胰岛素释放障碍和胰岛素抵抗有重要意义