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Rabbit Anti-GLUT4 antibody

SL0384R

Product Name:	GLUT4
Chinese Name:	葡萄糖Transporter4抗体
Alias:	insulin-responsive; Glucose transporter GLUT 4; Glucose Transporter GLUT4; Glucose transporter type 4; Glucose transporter type 4 insulin responsive; GLUT 4; GLUT-4; GTR4_HUMAN; kug; SLC 2A4; SLC2A4; solute carrier family 2 (facilitated glucose transporter) member 4; Solute carrier family 2, facilitated glucose transporter member 4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	54kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GLUT4:401-509/509<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% 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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	GLUT4 is the facilitated glucose transporter expressed exclusively in adipocytes and muscle cells, and is also known as the "insulin-responsive" glucose transporter. GLUT4 translocates from an ill-defined intracellular compartment to the plasma membrane in

response to insulin. The total cellular content of GLUT4 is significantly decreased in adipose cells from many patients with Type II diabetes mellitus, and animals with some types of experimental diabetes.

Function:
Insulin-regulated facilitative glucose transporter.

Subcellular Location:
Endomembrane system. Cytoplasm > perinuclear region. Localizes primarily to the perinuclear region, undergoing continued recycling to the plasma membrane where it is rapidly reinternalized. The dileucine internalization motif is critical for intracellular sequestration.

Tissue Specificity:
Skeletal and cardiac muscles; brown and white fat.

Post-translational modifications:
Sumoylated.

DISEASE:
Defects in SLC2A4 may be a cause of noninsulin-dependent diabetes mellitus (NIDDM) [MIM:125853]. Defects in SLC2A4 may be a cause of certain post-receptor defects in NIDDM. The variant in position Ile-383 is found in a small number of NIDDM patients, but seems not to be found in nondiabetic subjects.

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

SWISS:
P14672

Gene ID:
6517

Database links:

Entrez Gene: 282359Cow

Entrez Gene: 6517Human

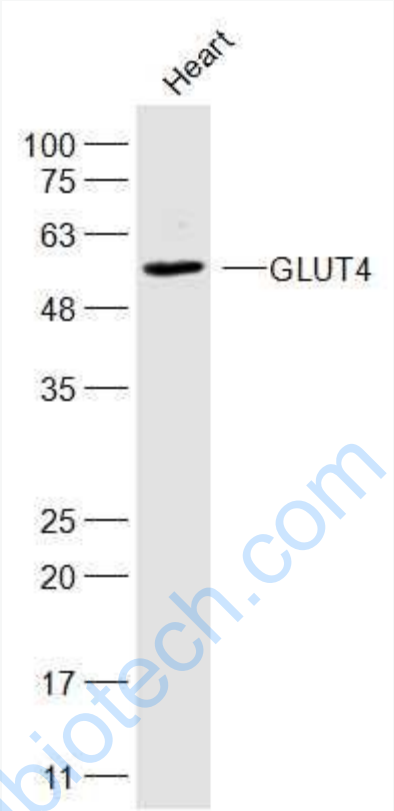
Entrez Gene: 20528Mouse

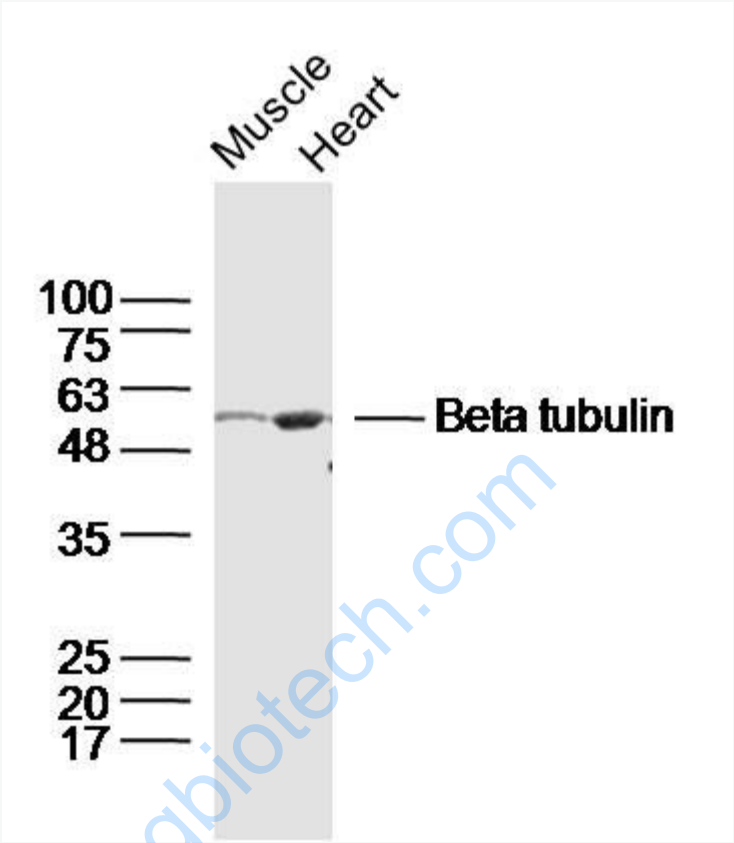
Entrez Gene: 25139Rat

Omim: 138190Human

SwissProt: Q27994Cow

	SwissProt: Q29RP5Cow SwissProt: P14672Human SwissProt: P14142Mouse SwissProt: P19357Rat Unigene: 380691Human Unigene: 10661Mouse Unigene: 1314Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 葡萄糖Transporter-4是一种十分重要的葡萄糖转运体,与胰岛素抵抗和2型Diabetes密切相关.葡萄糖Transporter4在细胞内部和The cell membrane之间循环流动.实现对葡萄糖的转运需要葡萄糖Transporter4自身的转位和活化.葡萄糖Transporter4与肥胖、Tumour相关联. 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.

Picture:	 Sample: Heart(Rat) Cell Lysate at 40 ug Primary: Anti-GLUT4 (SL0384R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kD Observed band size: 54 kD



Sample:

muscle (mouse) Lysate at 40 ug

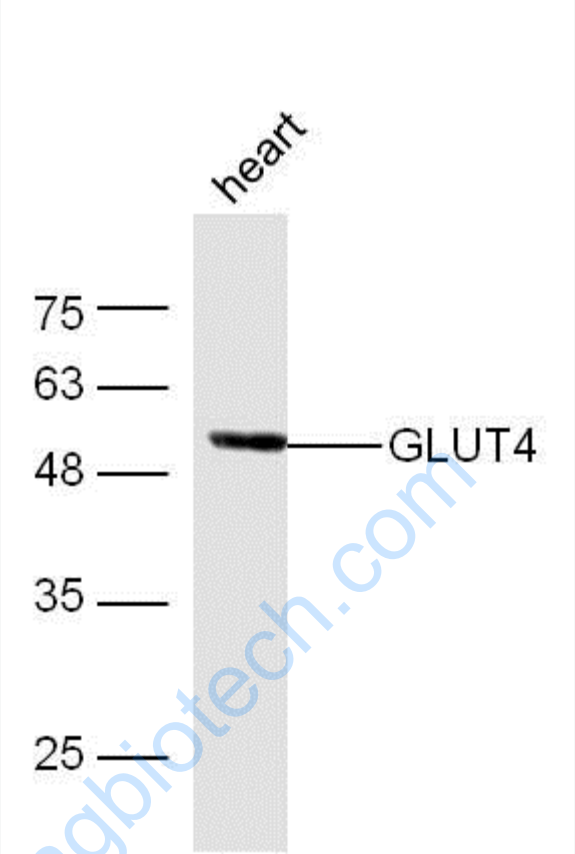
heart (mouse) Lysate at 40 ug

Primary: Anti- beta tubulin(SL0384R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54kD

Observed band size: 54 kD



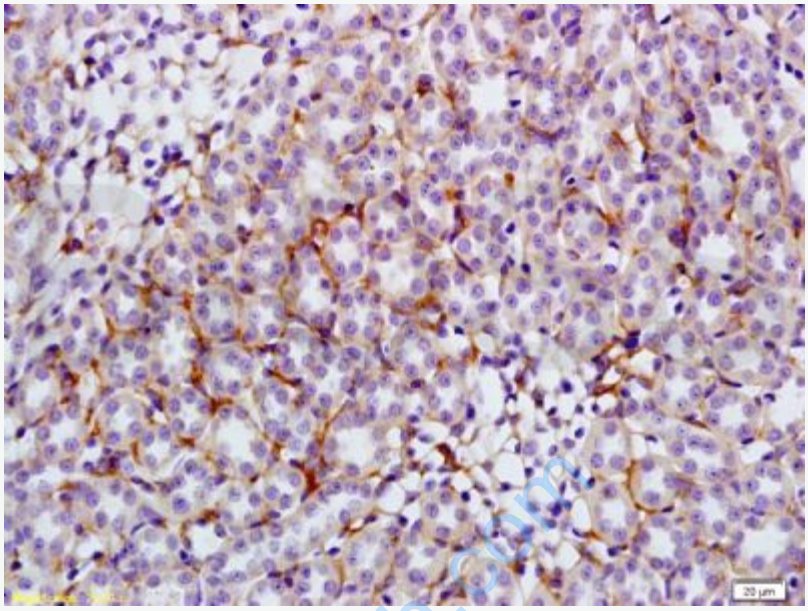
Sample: Heart (Mouse) Lysate at 40 ug

Primary: Anti- GLUT4 (SL0384R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

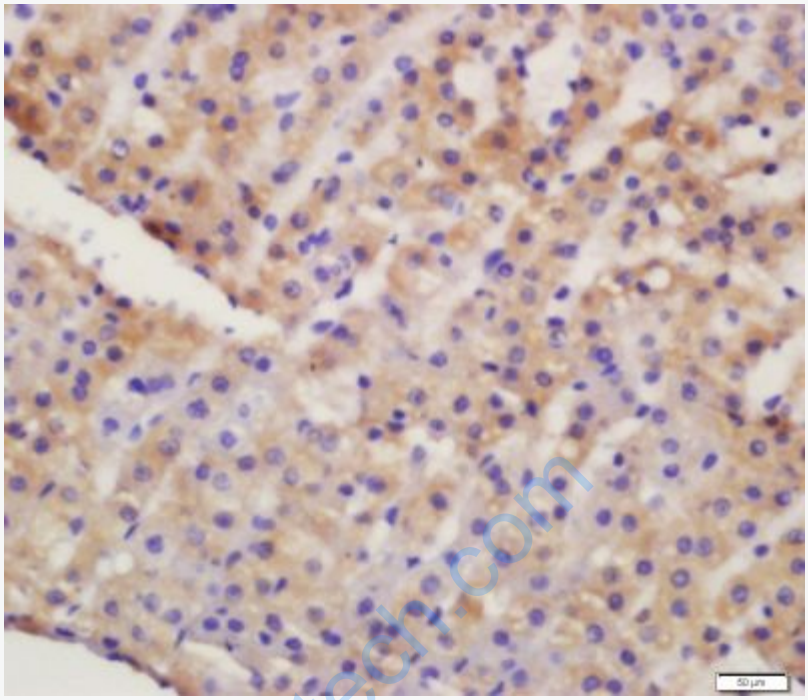
Predicted band size: 54 kD

Observed band size: 54 kD



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-GLUT4 Polyclonal Antibody, Unconjugated(SL0384R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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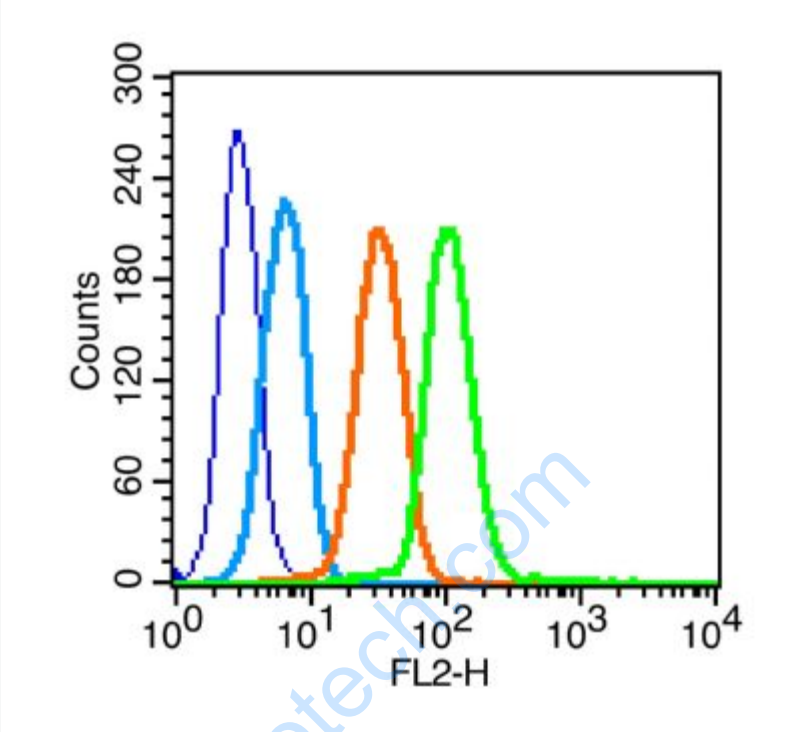

Blank control (blue line): K562 (blue).

Primary Antibody (green line): Rabbit Anti-GLUT4 antibody (SL0384R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1μg /test.

Protocol

The cells were fixed with 70% ethanol (overnight at 4℃) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody

	used for 40 min at room temperature. Acquisition of 20,000 events was performed.